

MEASURE WINDING RESISTANCE PHASE A-B:	12.1 MΩ	UFNK@chevron.com 6/4/2025 6:55:29 AM
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Comments/Recommendations:
WINDING RESISTANCE PHASE A-B = 12.1 Ohm

PERFORM INSULATION RESISTANCE TEST-EXCITER ARMATURE (ROTOR)

Item	Response	Completion
MEASURE WINDING RESISTANCE [PHASE TO PHASE]	0.8 MΩ	UFNK@chevron.com 6/4/2025 6:55:41 AM

Comments/Recommendations:
PHASE TO PHASE = 0.8 Ohm

MEASURE INSULATION RESISTANCE:	Phase To Ground: 55 MΩ	UFNK@chevron.com 6/4/2025 6:55:43 AM
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Comments/Recommendations:
PHASE TO GROUND = 55MΩ

CHECK DIODE CAPACITY AND POLARITY:	Yes	UFNK@chevron.com 6/4/2025 6:55:53 AM
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PERFORM INSULATION RESISTANCE TEST-PMG ARMATURE (STATOR)

Item	Response	Completion
MEASURE INSULATION RESISTANCE [PHASE TO GROUND]	55 MΩ	UFNK@chevron.com 6/4/2025 6:56:00 AM
MEASURE WINDING RESISTANCE [PHASE TO PHASE]	1.4 MΩ	UFNK@chevron.com 6/4/2025 6:56:01 AM

Comments/Recommendations:
PHASE TO PHASE = 1.4 Ohm

PERFORM INSULATION RESISTANCE TEST-SPACE HEATER

Item	Response	Completion
MEASURE INSULATION RESISTANCE	110 MΩ	UFNK@chevron.com 6/4/2025 6:56:07 AM
MEASURE SPACE HEATER RESISTANCE	22.1 Ω	UFNK@chevron.com 6/4/2025 6:56:09 AM

JOB COMPLETION

Item	Response	Completion
- RECHECK ALL ACCESSIBLE INSTRUMENT AND ELECTRICAL SYSTEM FOR DAMAGE, FAULTS, LEAKS, LOOSE OR BROKEN CONNECTION - STOP ENGINE AND RETURN UNIT TO STANDBY MODE - ENSURE THE EQUIPMENT IS LEFT IN A SAFE CONDITION AND THE AREA LEFT TIDY - SIGN OFF THE WORK PERMIT AND RETURN IT TO THE AREA AUTHORITY	Yes	UFNK@chevron.com 6/4/2025 6:56:27 AM

PERFORM FUNCTION TEST FOR ALARM AND/OR TRIP CONDITION-SHUTDOWN /SOLENOID VALVES

Item	Response	Completion
PERFORM EXERCISE S/D VALVE TO FULLY CLOSE AND CHECK VALVE POSITION IS INDICATED AT LOCAL AND HMI : LOCAL	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:56:31 AM
CHECK TIME TO FULLY CLOSE POSITION : DESIGN TIME TO FULLY CLOSE POSITION IS LESS THAN 5 SECONDS, (REFER: ICM-DC-6025-A, TABLE 6)	Time To Close :: 1 SEC	UFNK@chevron.com 6/4/2025 6:56:35 AM
SIMULATE FAIL SAFE CONDITION AND CHECK THE STATUS OF VALVE POSITION (FAIL CLOSE).	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:56:39 AM
PERFORM EXERCISE S/D VALVE TO FULLY CLOSE AND CHECK VALVE POSITION IS INDICATED AT LOCAL AND HMI : HMI	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:56:41 AM

FUNCTION TEST (START/STOP)

Item	Response	Completion
CARRY OUT TEST RUN AND RECORD PARAMETER	Record loading currents Phase I (A): 0 Record loading currents Phase II (A): 0 Record loading currents Phase III (A): 0 Record bus voltages Phase I(V): 481	UFNK@chevron.com 6/4/2025 6:57:04 AM

Record bus voltages Phase II (V): 482
Record bus voltages Phase III (V): 481
Record loading power (W): 0
Record power factor: 1

PERFORM FUNCTION TEST ON CO2

Item	Response	Completion
CONFIRMED CO2 RELEASE SWITCH	Pass/Fail: Fail Failure Code: Default Option (No options configured in template)	UFNK@chevron.com 6/4/2025 6:57:16 AM
CO2 SOLENOIDS	Pass/Fail: Fail Failure Code: Default Option (No options configured in template)	UFNK@chevron.com 6/4/2025 6:57:18 AM
MANUAL RELEASE SWITCH	Pass/Fail: Fail Failure Code: Default Option (No options configured in template)	UFNK@chevron.com 6/4/2025 6:57:28 AM
MEASURE CO2 CYLINDER WEIGHT MAIN #1 (LBS)	0 LBS	UFNK@chevron.com 6/4/2025 6:57:34 AM
MEASURE CO2 CYLINDER WEIGHT MAIN #2 (LBS)	0 LBS	UFNK@chevron.com 6/4/2025 6:57:36 AM
MEASURE CO2 CYLINDER WEIGHT RESERVE #1 (LBS)	0 LBS	UFNK@chevron.com 6/4/2025 6:57:37 AM
MEASURE CO2 CYLINDER WEIGHT RESERVE #2 (LBS)	0 LBS	UFNK@chevron.com 6/4/2025 6:57:38 AM
MEASURE CO2 CYLINDER WEIGHT MAIN (LBS)	0 LBS	UFNK@chevron.com 6/4/2025 6:57:39 AM
MEASURE CO2 CYLINDER WEIGHT RESERVE (LBS)	0 LBS	UFNK@chevron.com 6/4/2025 6:57:43 AM

PERFORM MEASUREMENT ON JACKET WATER HEATER

Item	Response	Completion
PERFORM HEATER ELEMENT RESISTANCE TEST (Ω)	0 Ω	UFNK@chevron.com 6/4/2025 6:57:58 AM
MEASURE SPACE HEATER CURRENT (A)	0 A	UFNK@chevron.com 6/4/2025 6:58:00 AM
CHECK GROUNDING SYSTEM	No	UFNK@chevron.com 6/4/2025 6:58:02 AM
Comments/Recommendations: No Device Jacket water heater		
CHECK AND TIGHTEN WIRING AND CONNECTION	No	UFNK@chevron.com 6/4/2025 6:58:03 AM
Comments/Recommendations: No Device Jacket water heater		

PERFORM CALIBRATION CHECK ON ALARM SWITCHES

Item	Response	Completion
LUBE OIL PRESSURE LOW @14 PSI	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:13 AM
JACKET WATER TEMP HIGH @ 210 DEGREE F	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:14 AM
LUBE OIL TEMP HIGH @ 210 DEGREE F	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:15 AM
ENGINE OVERSPEED 18%	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:16 AM
PRE-LUBE OIL PRESSURE LOW @10 PSI	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:18 AM
LUBE OIL PRESSURE LOW @ 4 PSI	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:26 AM
LUBE OIL TEMP HIGH @280 DEGREE F	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:27 AM
HYDROMECHANICAL PRESSURE LOW 10 PSI	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:33 AM
FUEL PRESSURE LOW @ 40 PSI	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:34 AM
JACKET WATER TEMP @ 215 DEGREE F	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:36 AM
JACKET WATER LEVEL LOW	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:37 AM
ENGINE VIBRATION SWITCH 0.2 IPS	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:40 AM
GENERATOR VIBRATION SWITCH 0.2 IPS	Pass/Fail: Pass	UFNK@chevron.com

		6/4/2025 6:58:42 AM
CRANK TERMINATED SPEED 400 RPM	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:44 AM
ENGINE OVERSPEED 118% SET@ 2124 RPM (6470 HZ)	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:49 AM
LUBE OIL PRESSURE LOW	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:52 AM
LUBE OIL TEMP LOW	Pass/Fail: Fail Failure Code: Default Option (No options configured in template)	UFNK@chevron.com 6/4/2025 6:58:53 AM
Comments/Recommendations: NO Device		
FUEL PRESSURE LOW	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:58:56 AM
JACKET WATER LEVEL LOW	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:59:02 AM
FUEL PRESSURE LOW	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:59:04 AM
GENERATOR TEMP WINDING HIGH	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:59:05 AM
GENERATOR PRESSURE DIFF HIGH	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:59:11 AM
ENGINE TEMP EXHAUST HIGH	Pass/Fail: Pass	UFNK@chevron.com 6/4/2025 6:59:18 AM

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Inspection Report

Work Order Details

Inspection Type
NP-EM-GEN-ME

Work Order #
1255717-NPMECHROV

Description
2Y EMERGENCY GENERATOR-ITPM

Scheduled Date
06/11/2025

Status
61 - Complete Awaiting Data Entry

Local Code 11
450

Local Code 13
ITP

Service Type
MF02Y

Work Center
NPMECHROV

Branch Plant
3800NPALAA

Fields
NPAILIN

Platform Tag
NPAILIN

ECA Ranking
2

PM Status
99

PM Description
2Y EMERGENCY GENERATOR-ITPM

SD Category
UO

Plan Date
5/30/2025 12:00:00 AM

Equipment Details

Equipment #
NP-SKG4950-NPCPP

Description
2Y EMERGENCY GENERATOR-ITPM

Parent #
NP-GP-NPCPP

Area
NPAILIN

Sub Area
NP-GP-NPCPP

Equipment Class
Electric Generator

Assignment and Status

Status
Completed

Group
NPMECHROV

Inspected By
[REDACTED]

License/Certification

Inspected On
6/5/2025 9:14:23 AM

Approved by
[REDACTED]

Approved on
6/6/2025 1:26:53 AM

Completed by
[REDACTED]

Completed on
6/5/2025 9:14:23 AM

Inspection Summary

Done By: [REDACTED]

Reviewer Summary

Equipment Details

Field Name	Original Value	New Value
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Inspection Items

General

Item	Response	Completion
SELECT MAINTENANCE INTERVAL	2Y	

AIR SYSTEM TASK

Item	Response	Completion
CLEAN AND INSPECT AIR FILTER	Yes	
CLEAN THE INSIDE OF THE FILTER HOUSING COVER AND BODY	Yes	

CONTROL SYSTEM TASK

Item	Response	Completion
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CHECK AND INSPECT GOVERNOR FOR LEAKS	Yes
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CHECK INSPECT LINKAGE BEARING AND LUBRICATE.	Yes
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COOLING SYSTEM TASK

Item	Response	Completion
CHECK AND INSPECT COOLING FAN BEARINGS CONDITION AND LUBRICATE	Yes	
CHECK AND INSPECT COOLING FAN BELTS CODITION	Yes	
CHECK PH OF COOLING WATER SYSTEM	Yes	
CHECK PULLEYS CONDITION FOR WARE OR DAMAGED	Yes	
CHECK THE COOLANT LEVEL AND MAINTAIN THE COOLANT TO THE PROPER LEVEL ON THE SIGHT GLASS	Yes	
CLEAN RADIATOR	Yes	
CLEAN THE RADIATOR FILLER CAP AND INSPECT THE GASKET FOR DAMAGED	Yes	
INSPECT COOLING FAN BLADE CONDITION FOR CRACKS, LOOSE OR DAMAGED	Yes	

ENGINE TASK

Item	Response	Completion
DE-ISOLATE POWER, STARTING SYSTEM & REMOVE TAG OUT	Yes	

EXHAUST SYSTEM TASK

Item	Response	Completion
CHECK AND INSPECT TURBOCHARGER FOR GENERAL CONDITION AND TURBINE WHEEL FREELY OF MOVEMANT (AXIAL AND REDIAL)	Yes	
INSPECT EXHAUST BELLOW AND ACCESSORY FOR LEAKS, LOOSE, CRACKS AND DAMAGED	Yes	

FINAL CHECK

Item	Response	Completion
COORDINATE WITH CCR AND OTHER CRAFTS TO TEST RUN THE ENGINE	Yes	
CHECK ALL ACCESSIBLE PARTS FOR FUEL AND OIL LEAKS, EXCESSIVE VIBRATION AND NOISE, LOOSE CONNECTIONS AND FITTINGS DURING START UP (NO LOAD)	Yes	
BRING THE UNIT ON LOAD FOR 30 MINS AND CHECK ALL ACCESSIBLE PARTS FOR FUEL AND OIL LEAKS, EXCESSIVE VIBRATION, NOISE, LOOSE CONNECTIONS OF FITTING AND NON STANDARD CONDITIONS	Yes	
ENGINE LUBE OIL PRESSURE (PSI)	80 PSIG	
ENGINE OIL TEMPERATURE	160 °F	
JACKET WATER TEMPERATUER (°F)	170 °F	
FUEL PRESSURE (PSI)	0 PSIG	
Comments/Recommendations: n/a		
STARTING AIR PRESSURE (PSI)	140 PSIG	
EXSHUST TEMPERATURE (°F)	505 °F	

RECORD CYLINDER TEMPERATURE (°F)	CYL #1: 464 °F CYL #2: 469 °F CYL #3: 460 °F CYL #4: 475 °F CYL #5: 468 °F CYL #6: 470 °F CYL #7: 540 °F CYL #8: 550 °F CYL #9: 545 °F CYL #10: 560 °F CYL #11: 570 °F CYL #12: 572 °F
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ENGINE RUNNING HOURS (HRS)	6257 HRS
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FUEL SYSTEM TASK

Item	Response	Completion
CHECK FUEL PIPING AND HOSE CONDITION FOR DEFECTIVE OR DAMAGED	Yes	
CHECK FUEL LEVEL AND TOP UP, DRAIN WATER CONTAMINATE	Yes	

LUBE OIL SYSTEM TASK

Item	Response	Completion
CHECK LUBE OIL LEVEL	Yes	
REPLACE MAIN LUBE OIL FILTERS	Yes	
REPLACE AUXILIARY LUBE OIL FILTERS	Yes	
CLEAN CRANKCASE BREATHER	Yes	

PRE-SHUTDOWN TASK

Item	Response	Completion
BYPASS FIRE DETECTION AND SUPPRESSION SYSTEM PRIOR TO OPEN THE ENCLOSURE	Yes	

SAFETY DEVICE SYSTEM TASK

Item	Response	Completion
INSPECTION AND FUNCTION TEST THE EMERGENCY AIR SHUT-OFF VALVE	Yes	

SHUTDOWN TASK

Item	Response	Completion
SHUTDOWN THE ENGINE AND LOG OUT/TAG OUT TO MAKE EQUIPMENT AVAILABLE FOR SERVICE	Yes	

STARTING SYSTEM TASK

Item	Response	Completion
DRAIN WATER ACCUMULATE IN STARTING AIR VESSEL	Yes	
CHECK OIL LEVEL IN THE OILER JAR AND KEEP AT LEAST 50%	Yes	
LUBE AND INSPECT STARTER PINION GEAR, FOR WARE OR DAMAGED.	Yes	
INSPECT PILOT VALVE (2 WAY) AND LUBRICATE	Yes	

PRE-REQUISITE TASKS

Item	Response	Completion
- TOOL BOX MEETING AND HA/JSA DISCUSSION - COORDINATE WITH PRODUCTION TO MAKE EQUIPMENT AVAILABLE FOR INSPECTION - VISUALLY	Yes	

INSPECT ALL ACCESSIBLE PARTS FOR
LEAKS, LOOSE CONNECTIONS AND
FITTINGS AND NON STANDARD
CONDITIONS

JOB COMPLETION

Item	Response	Completion
- RECHECK ALL ACCESSIBLE SYSTEM FOR DAMAGE, FAULTS, LEAKS, LOOSE OR BROKEN CONNECTION - RETURN UNIT TO NORMAL OPERATION - ENSURE THE EQUIPMENT IS LEFT IN A SAFE CONDITION AND THE AREA LEFT TIDY - SIGN OFF THE WORK PERMIT AND RETURN IT TO THE AREA AUTHORITY	Yes	

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Inspection Report

Work Order Details

Inspection Type
NP-GEN-SOL-SATURN-IE

Work Order #
1260305-NPIEROV

Description
8K SOLAR SATURN GEN NO.1-PM

Scheduled Date
10/31/2025

Status
50 - Ready to Schedule

Local Code 11
447

Local Code 13

Service Type
MH8000

Work Center
NPIEROV

Branch Plant
3800NPALAA

Fields
NPAILIN

Platform Tag
NPAILIN

ECA Ranking
3

PM Status
50

PM Description
8K SOLAR SATURN GEN NO.1-PM

SD Category

Plan Date
11/15/2025 12:00:00 AM

Equipment Details

Equipment #
NP-SKG4910-NPCPP

Description
4K SOLAR SATURN-20 GEN NO.1

Parent #
NP-GP-NPCPP

Area
NPAILIN

Sub Area
NP-GP-NPCPP

Equipment Class
Electric Generator

Assignment and Status

Status
Completed

Inspected By
[REDACTED]

License/Certification

Inspected On
6/25/2025 1:30:37 AM

Approved by
[REDACTED]

Approved on
6/27/2025 3:20:00 PM

Completed by
[REDACTED]

Completed on
6/25/2025 1:30:37 AM

Inspection Summary

Complete by [REDACTED] // 23-24 Jun 25

1. UV/IR 2821 A Reset alarm activate by disconnect power.
2. Test Mode Gas to Diesel complete.
3. Clean Cooler fan due to Lube oil high temp.

Reviewer Summary

The equipment is accurate and in normal condition.

Equipment Details

Field Name	Original Value	New Value
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Inspection Items

General

Item	Response	Completion
INSPECTION INTERVAL	8K	
EQUIPMENT NUMBER	G-4910	

INSTRUMENT TASKS PRE-REQUISITE TASKS

Item	Response	Completion
OBTAIN WORK PERMIT, REVIEW HA/JSA AND CARRY OUT TOOLBOX MEETING	Yes	

COORDINATE WITH PRODUCTION/MECH TO PERFORM 8K PM ON SOLAR GAS GENERATOR	Yes
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BYPASS FIRE PROTECTION SYSTEM AND REMOVE CO2 DISCHARGE SOLENOIDS.	Yes
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VISUAL INSPECTION

Item	Response	Completion
PERFORM VISUAL INSPECTION CHECKING FOR ABNORMAL NOISE, VIBRATIONS, LOOSE BOLTS, OR LOOSE CONNECTIONS	Yes	
CHECK CONDITION AND ACCURACY OF ALL INDICATORS AND GAUGES.	Yes	
VISUALLY INSPECT ALL ELECTRICAL SYSTEMS FOR LOOSE OR BROKEN CONNECTION, DEFECTIVE CIRCUITRY, EXCESSIVE MOTOR VIBRATION AND NON STANDARD CONDITIONS	Yes	

START AND TEST RUN UNIT

Item	Response	Completion
MEASURE RUNNING CURRENT OF ELECTRIC MOTOR	Yes	
DC BACK UP LUBE OIL PUMP	23.6 A	
AC PRE/POST LUBE OIL PUMP	A1: 1 A A2: 1 A A3: 1 A	
ENCLOSURE VENT FAN MOTOR	A1: 6.9 A A2: 6.9 A A3: 6.9 A	
LUBE OIL COOLER FAN MOTOR	A1: 5 A A2: 5 A A3: 5 A	

CONDITION MONITORING

Item	Response	Completion
REVIEW AND EVALUATE ALARMS, SHUTDOWN AND MALFUNCTION RECORDS FROM HMI, BASE ON THE REVIEW RESULTS PERFORM FUNCTION TEST, CALIBRATE OR REPAIR	Yes	

CHECK THE OPERATION AND SETPOINT OF THE FOLLOWING SWITCHES-INSPECT AND VERIFY TRANSMITTER

Item	Response	Completion
PDT-6180 AIR – DIFF ENCLOSURE RANGE 0 - 3 "H2O (IN H2O)	ZERO: 0 SPAN: 3	
PDT- 6310 AIR INLET RANGE 0 - 15 "H2O (SET POINT H 5, HH 7) (IN H2O)	ZERO: 0 SPAN: 15	
PT-6400 AIR – INLET SUPPLY RANGE 0 - 700 PSI	ZERO: 0 PSI SPAN: 7000 PSI	
PDT-1110 AIR INLET - INLETDP RANGE 0 - 15 "H2O (IN H2O)	ZERO: 0 SPAN: 15	
PT-1120 AIR INLET - PCD1 RANGE 0 - 700 PSI	ZERO: 0 PSI SPAN: 700 PSI	
PT-1121 AIR INLET - PCD2 RANGE 0 - 700 PSI	ZERO: 0 PSI SPAN: 700 PSI	
PDT-2131 GAS FUEL - CONTROL DP RANGE 0 - 100 PSI	ZERO: 0 PSI SPAN: 100 PSI	
PT-2120 GAS FUEL - IN RANGE 0 - 700 PSI (SET POINT L 65, H 180, HH 185)	ZERO: 0 PSI SPAN: 700 PSI	
PT-2121 GAS FUEL RANGE 0 - 700 PSI (SET POINT H 180, HH 185)	ZERO: 0 PSI SPAN: 700 PSI	
PT-2122 GAS FUEL - VENT RANGE 0 - 700 PSI	ZERO: 0 PSI SPAN: 700 PSI	

PT-2150 GAS FUEL - TORCH SET 5 PSI RANGE 0 - 25 PSI	ZERO: 0 PSI SPAN: 25 PSI
PT-2220 LIQ FUEL - SUCTION RANGE 0 - 150 PSI (SET POINT L 6, H 100, HH 110)	ZERO: 0 PSI SPAN: 150 PSI
PT-2225 LIQ FUEL - DISCHARGE RANGE 0 - 1500 PSI	ZERO: 0 PSI SPAN: 1500 PSI
PDT-3100 LUBE OIL - TANK DELTA P RANGE 0 - 15 "H2O (SET POINT H 8.5, HH 10) (IN H2O)	ZERO: 0 SPAN: 15
PT-3150 LUBE OIL - AC RANGE 0 - 700 PSI	ZERO: 0 PSI SPAN: 700 PSI
PT-3170 LUBE OIL - DC BACKUP RANGE 0 - 700 PSI	ZERO: 0 PSI SPAN: 700 PSI
PT-3200 LUBE OIL - HEADER RANGE 0 - 150 PSI (SET POINT LL 25, L 27, H 65)	ZERO: 0 PSI SPAN: 150 PSI
PDT-3240 LUBE OIL - FILTER DIF RANGE 0 - 100 PSI (SET POINT H 30)	ZERO: 0 PSI SPAN: 100 PSI

CHECK THE OPERATION AND VERIFY PRESSRUE SWITCH

Item	Response	Completion
PDS-1500 FLAMEOUT PROTECTION 2 PSID INCR.	Pass/Fail: Pass	
PDS-6211 ENCLOSURE VENT FAN FAIL	Pass/Fail: Pass	
PS-2121 GAS FUEL VENT EXHAUST 8 PSIG INCR. / 6 PSIG DECR.	Pass/Fail: Pass	
PS-2220 LIQUID FUEL PRESSURE 960 PSIG INCR.	Pass/Fail: Pass	
PS-3150 AC PRE/POST LUBE OIL PUMP 6 PSIG INCR. / 4 PSIG DECR. ±0.5 PSIG	Pass/Fail: Pass	
PS-3170 DC BACKUP LUBE OIL PUMP 8 PSIG INCR. / 6 PSIG DECR. ±0.5 PSIG	Pass/Fail: Pass	
PS-3200 LUBE OIL - HEADER	Pass/Fail: Pass	

CHECK THE OPERATION AND SETPOINT - TEMPARATOR-CHECK TERMINAL CONNECTION AND MONITOR COMPARE AMBIENT TEMP

Item	Response	Completion
TE3100 LUBE OIL – TANK	Pass/Fail: Pass	
TE3200 LUBE OIL – HEADER	Pass/Fail: Pass	
TE3220 LUBE OIL – COOLER INLET TEMP	Pass/Fail: Pass	
TE3321 LUBE OIL – COOLER OUTLET TEMP	Pass/Fail: Pass	
TE1110 T1 AIR INLET TEMP	Pass/Fail: Pass	
TE6110 ENCLOUSER	Pass/Fail: Pass	
TE4210 GEN – WINDING TEMP A	112 °F	
TE4213 GEN – WINDING TEMP B	106 °F	
TE4216 GEN – WINDING TEMP C	106 °F	

CHECK ENGINE SPEED SETTING AND ASSOCIATED METER READING-INSPECT MAGNETIC PICK-UP FOR DAMAGE, CHECK LOOP RESISTANCE AND FREQUENCY AS THE FOLLOWING:

Item	Response	Completion
SE1260 (NGP SPEED)	10% @ 938 Hz: 10 % 100% @ 9380 Hz: 100 % 105% @9850 Hz: 105 %	
SE1261 (NGP BACKUP OVER SPEED) (102% @11752 HZ) HMI ALARM	Pass/Fail: Pass	

ACTIVATED ** NOTE : REQUIRE "BACK UP
KEY" RESET AT UCP

CHECK THE OPERATION OF TEMPERATURE MONITORS-ENGINE TEMPERATURE - T5 TE1150-TE1155 (Alarm@ 1210 °F)

Item	Response	Completion
FUEL TOPPING REALLY (BELOW 60% SPEED) 1300 °F	Pass/Fail: Pass	
HIGH ENGINE TEMP S/D (ABOVE 60% SPEED) 1320 °F	Pass/Fail: Pass	
HIGH ENGINE TEMP S/D (BELOW 60% SPEED) 1425 °F	Pass/Fail: Pass	

CHECK THERMOCOUPLE HARNESS ASSEMBLIES

Item	Response	Completion
CHECK T5 AND INSPECT AMBIENT READING	95 °F	
TCV3200 INSPECT/ MONITOR LUBE OIL TEMP CONTROL VALVE WHILE UNIT OPERATE AND VALVE OPERATION TEMP 100 °F START TO CLOSE, 140 °F CLOSED	Pass/Fail: Pass	

CHECK THE OPERATION AND INTEGRITY OF FUEL GAS VALVE AND ACCESSORIES

Item	Response	Completion
FCE2130 (ELECTRONIC GAS FUEL VALVE) STROKE TEST	Pass/Fail: Pass	
FCE2225 (ELECTRONIC LIQUID FUEL VALVE) STROKE TEST	Pass/Fail: Pass	

CHECK THE OPERATION - VIBRATION TRANSMITTERS

Item	Response	Completion
VE1264 (ENGINE VELOCITY) IN/SEC	A/L SET 0.5: 0.5/0.5 IN/SEC S/D SET 0.65: 0.65/0.65 IN/SEC	
VE4765 (GEARBOX ACCELEROMETER TRANSDUCER) G	A/L SET 20: 20/20 G S/D SET 30: 30/30 G	

INSPECT AND FUNCTION CHECK (FORCE) OF THE FOLLOWING SOLENOID VALVES

Item	Response	Completion
SV1420 (BLEED VALVE DIRECTIONAL CONTROL)	Pass/Fail: Pass	
SV1720 (ON-CRANK CLEANING SHUTOFF)	Pass/Fail: Pass	
SV2120 (GAS FUEL - PRIMARY SHUTOFF VALVE)	Pass/Fail: Pass	
SV2121 (GAS FUEL - VENT)	Pass/Fail: Pass	
SV2124 (GAS FUEL - SECONDARY SHUTOFF VALVE)	Pass/Fail: Pass	
SV2220 (LIQ FUEL - PRIMARY SHUTOFF VALVE)	Pass/Fail: Pass	
SV2250 (LIQ FUEL - TORCH SHUTOFF)	Pass/Fail: Pass	
SV2260 (LIQ FUEL - PURGE VALVE)	Pass/Fail: Pass	
SV2150 (GAS FUEL - TORCH SHUTOFF)	Pass/Fail: Pass	
SV2224 (LIQ FUEL - RETURN SHUTOFF VALVE)	Pass/Fail: Pass	
SV6420 (AIR - TO TORCH)	Pass/Fail: Pass	
SV6430 (AIR - TO ATOMIZING AND TORCH)	Pass/Fail: Pass	
SV6611 (CO2 - PRIMARY CYLINDER)	Pass/Fail: Pass	

ELECTRICAL TASKS PRE-REQUISITE TASKS

Item	Response	Completion
OBTAIN WORK PERMIT, REVIEW HAZ/SA AND CARRY OUT TOOLBOX MEETING	Yes	
COORDINATE WITH PRODUCTION/MECH TO PERFORM 8K PM ON SOLAR GAS GENERATOR	Yes	
DEACTIVATE UNIT FIRE PROTECTION SYSTEM, REMOVE DISCHARGE SOLENOID FROM CO2 CYLINDER HEADS AND KEY SWITCH AT FIRE SYSTEM CONTROLLER TO ISOLATE MODE	Yes	
LOCK OUT/TAG OUT ELECTRICAL POWER TO ALL ELECTRICAL MOTORS	Yes	

VISUAL INSPECTION-CHECK & INSPECT UNIT CONTROL PANEL OF THE FOLLOWING

Item	Response	Completion
CHECK INTERIOR CONTROL PANEL FOR LOOSE OR BROKEN CONNECTIONS AND RE-TIGHTEN	Yes	
CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS	Yes	
CHECK ALL CONTROL RELAYS AND PLC TERMINALS	Yes	

MCC/SWITCHGEAR

Item	Response	Completion
INSPECT MOTOR STARTERS, CHECK AND CLEAN ALL CONTACTS	Yes	
CHECK INDICATION LAMPS	Yes	

MOTORS AND HEATERS

Item	Response	Completion
INSPECT AND LUBRICATE MOTOR BEARINGS	Yes	
REVIEW BEARING CONDITION MONITORING RECORD	Yes	
VERIFY GROUNDED CABLE	Yes	

MOTORS AND HEATERS-AC PRE/POST LUBE OIL PUMP MOTOR

Item	Response	Completion
PERFORM INSULATION RESISTANCE TEST (RESISTANCE SHALL BE > 1.5 MΩ) (MΩ)	T1: 550 MΩ T2: 550 MΩ T3: 550 MΩ	
MEASURE SPACE HEATER RESISTANCE (Ω)	435.4 Ω	
MEASURE SPACE HEATER CURRENT (A)	0.4 A	
MEASURE CURRENT (A)	T1: 1 A T2: 1 A T3: 1 A	
CHECK GROUNDING SYSTEM.	Yes	
CHECK AND TIGHTEN WIRING AND CONNECTION.	Yes	
PERFORM WINDING RESISTANCE TEST	T1: 17.2 Ω T2: 17.2 Ω T3: 17.2 Ω	

MOTORS AND HEATERS-ENCLOSURE VENT FAN

Item	Response	Completion
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PERFORM WINDING RESISTANCE TEST	T1: 3.3 Ω T2: 3.3 Ω T3: 3.3 Ω
PERFORM INSULATION RESISTANCE TEST (RESISTANCE SHALL BE > 1.5 M Ω)	T1: 550 M Ω T2: 550 M Ω T3: 550 M Ω
MEASURE SPACE HEATER RESISTANCE	0 Ω
Comments/Recommendations: N/A	
CHECK GROUNDING SYSTEM.	Yes
CHECK AND TIGHTEN WIRING AND CONNECTION.	Yes
MEASURE CURRENT	T1: 6.9 A T2: 6.9 A T3: 6.9 A
MEASURE SPACE HEATER CURRENT	0 A

MOTORS AND HEATERS-LUBE OIL COOLER FAN MOTOR

Item	Response	Completion
PERFORM WINDING RESISTANCE TEST	T1: 3.3 Ω T2: 3.3 Ω T3: 3.3 Ω	
PERFORM INSULATION RESISTANCE TEST (RESISTANCE SHALL BE > 1.5 M Ω)	T1: 320 M Ω T2: 320 M Ω T3: 320 M Ω	
MEASURE SPACE HEATER RESISTANCE	231.9 Ω	
MEASURE SPACE HEATER CURRENT	0.5 A	
CHECK GROUNDING SYSTEM.	Yes	
CHECK AND TIGHTEN WIRING AND CONNECTION.	Yes	
MEASURE CURRENT	T1: 5 A T2: 5 A T3: 5 A	

MOTORS AND HEATERS-DC PRE/POST LUBE OIL PUMP MOTOR BACK UP

Item	Response	Completion
PERFORM WINDING RESISTANCE TEST	3.7 Ω	
CHECK GROUNDING SYSTEM	Yes	
CHECK AND TIGHTEN WIRING AND CONNECTION.	Yes	
MEASURE CURRENT	23.4 A	
PERFORM INSULATION RESISTANCE TEST (RESISTANCE SHALL BE > 1.5 M Ω)	26.1 M Ω	

MOTORS AND HEATERS MAIN LIQUID FUEL PUMP MOTOR

Item	Response	Completion
PERFORM WINDING RESISTANCE TEST	T1: 4.5 Ω T2: 4.5 Ω T3: 4.5 Ω	NZDE@chevron.com 6/25/2025 7:12:48 AM
PERFORM INSULATION RESISTANCE TEST (RESISTANCE SHALL BE > 1.5 M Ω)	T1: 550 M Ω T2: 550 M Ω T3: 550 M Ω	NZDE@chevron.com 6/25/2025 7:12:48 AM
MEASURE SPACE HEATER CURRENT (A)	0.5 A	
CHECK GROUNDING SYSTEM.	Yes	
CHECK AND TIGHTEN WIRING AND CONNECTION.	Yes	NZDE@chevron.com 6/25/2025 7:12:48 AM
MEASURE CURRENT (A)	T1: 2.3 A T2: 2.3 A T3: 2.3 A	NZDE@chevron.com 6/25/2025 7:12:48 AM

MOTORS AND HEATERS-LIQUID FUEL BOOSTER PUMP MOTOR

Item	Response	Completion
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MEASURE SPACE HEATER RESISTANCE
(Ω) 0 Ω

NZDE@chevron.com
6/25/2025 7:12:48 AM

Comments/Recommendations:
Not used

MOTORS AND HEATERS-STARTER MOTOR (VFD)

Item	Response	Completion
MOTOR WINDING	T1: 0.8 Ω T2: 0.8 Ω T3: 0.8 Ω	NZDE@chevron.com 6/25/2025 7:12:48 AM
PERFORM INSULATION RESISTANCE TEST (RESISTANCE SHALL BE > 1.5 M Ω)	T1: 550 M Ω T2: 550 M Ω T3: 550 M Ω	NZDE@chevron.com 6/25/2025 7:12:48 AM
MEASURE CURRENT (A)	T1: 19.5 A T2: 19.5 A T3: 19.5 A	
MEASURE SPACE HEATER RESISTANCE (Ω)	0 Ω	NZDE@chevron.com 6/25/2025 7:12:48 AM
MEASURE SPACE HEATER CURRENT (A)	0 A	

MOTORS AND HEATERS-GROUNDING SYSTEM

Item	Response	Completion
INSPECT ALL MOTOR ON SKID GROUNDING SYSTEM FOR DAMAGE OR CORROSION	Yes	

IGNITION SYSTEM

Item	Response	Completion
CHECK IGNITION CABLE AND VERIFY GROUNDED	Pass/Fail: Pass	
CHECK EXCITER BOARD FROA DAMAGE AND PROPER OPERATION	Pass/Fail: Pass	
REMOVE AND CLEAN SPARK PLUG, CHECK GAP	Pass/Fail: Pass	

FIRE & GAS SYSTEMS-CO2 FIRE SUPPRESSION

Item	Response	Completion
REMOVE, INSPECT AND WEIGHT ALL CO2 CYLINDERS, RECHARGE (WEIGHT LESS THAN 10% STAMPED WEIGHT)	Yes	
INSPECT CO2 FIRE SUPPRESSION SYSTEM AND FUNCTION TEST (LBS)	CO2 CYLINDER 75 LBS (MAIN): 215 LBS CO2 CYLINDER 75 LBS (RESERVE): 215 LBS CO2 CYLINDER 50 LBS (SPARE): 150 LBS	
FUNCTION TEST CO2 MANUAL RELEASE PB	Pass/Fail: Pass	
CHECK CO2 RELEASE MECHANISM, DISCHARGE SW AND STROBE LIGHT	Pass/Fail: Pass	
CHECK LAST HYDROSTATIC TEST NOTE : NFPA12 : 4.6.5.2.1, 4.6.5.2.2. CYLINDERS CONTINUOUSLY IN SERVICE WITHOUT DISCHARGING SHALL BE PERMITTED TO BE RETAINED IN SERVICE FOR MAXIMUM OF 12 YEARS FROM DATE OF THE LAST HYDROSTATIC TEST AND SHALL BE DISCHARGED AND RETESTED BEFORE BEING RETURNED TO SERVICE	10/01/2016	

FIRE & GAS SYSTEMS-FIRE DAMPER

Item	Response	Completion
INSPECT AND TEST TRIP PNEUMATIC AND AEXERCISE DAMPER LOUVER FOR DAMAGE OR CORROSION AND LUBRICATE.	Pass/Fail: Pass	

FIRE & GAS SYSTEMS-F&G DEVICES

Item	Response	Completion
GAS DETECTORS ENGINE	Pass/Fail: Pass	

GAS DETECTORS GENERATOR	Pass/Fail: Pass
OPTICAL FLAME ENGINE	Pass/Fail: Pass
OPTICAL FLAME GENERATOR	Pass/Fail: Pass
HEAT DETECTORS ENGINE_325 °F /INC	Pass/Fail: Pass
HEAT DETECTORS GENERATOR_325 °F/INC	Pass/Fail: Pass

GENERATOR-MEGGER AND RECORD INSULATION RESISTANCE OF THE FOLLOWING:

Item	Response	Completion
MEGGER AND RECORD INSULATION RESISTANCE OF THE FOLLOWING (MUST : DISCONNECT CABLE TO PROTECT PCGM MODULE DAMAGE)	Yes	
MEASURE STATOR WINDING PHASE TO NEUTRAL	T1-N: 0.1 UΩ T2-N: 0.1 UΩ T3-N: 0.1 UΩ	
MAIN STATOR GEN BUS BAR (MΩ, > 1.5 MΩ)	4.8 MΩ	
SPACE HEATER (MΩ, > 1.5 MΩ)	7.8 MΩ	
EXCITOR COIL (MΩ, > 1.5 MΩ)	220 MΩ	
PERMANANCE MEGNET COIL (MΩ, > 1.5 MΩ)	220 MΩ	

GENERATOR-CHECK AND INSPECT EXCITER/RETIFIER MODULE

Item	Response	Completion
EXCITER RESISTANCE	21.1 Ω	
PGM RESISTANCE	352.8 Ω	

GENERATOR-CHECK SPACE HEATER RESISTANCE AND CURRENT

Item	Response	Completion
RESISTANCE	7.8 Ω	
CURRENT	8.1 A	

GENERATOR-MEASURE GENERATOR WINDING TEMP RESISTANCE

Item	Response	Completion
MEASURE GENERATOR WINDING TEMP RESISTANCE	A: 120 B: 119 C: 119	

GENERATOR-INSPECT CONDITION OF GENERATOR HIGH RESISTANCE

Item	Response	Completion
INSPECT PGM 5 UF CAPACITOR.	Yes	
Comments/Recommendations: Visual inspection		
CHECK AC GROUND DETECTION SYSTEM (LOW RESISTANCE)	Yes	
PERFORM FUNCTION TEST AND CONFIRM WITH CCR FOR GROUND FAULT ALARM ANNUCIATION ON DCS.	Yes	

FINAL INSPECTION

Item	Response	Completion
START AND TEST RUN BY LIQUID FUEL	Yes	
RECHECK ALL ACCESSIBLE ELECTRICAL & INSTRUMENT SYSTEMS FOR DAMAGE, FAULTS, LEAKS, LOOSE OR BROKEN CONNECTION	Yes	
RE-INSTALL DISCHARGE SOLENOIDS	Yes	

ONTO CO2 CYLINDER HEADS, REMOVE
FORCE AND SIGN OFF ISOLATION LOG
AND RETURN TO NORMAL OPERATION

SIGN OFF WORK PERMIT AND CLOSE ITPM WORK ORDER	Yes
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Inspection Report

Work Order Details

Inspection Type
NP-GEN-SOL-NO1-ME

Work Order #
1260305-NPMECHROV

Description
8K SOLAR SATURN GEN NO.1-PM

Scheduled Date
10/31/2025

Status
61 - Complete Awaiting Data Entry

Local Code 11
447

Local Code 13

Service Type
MH8000

Work Center
NPMECHROV

Branch Plant
3800NPALAA

Fields
NPAILIN

Platform Tag
NPAILIN

ECA Ranking
2

PM Status
99

PM Description
8K SOLAR SATURN GEN NO.1-PM

SD Category

Plan Date
11/13/2025 12:00:00 AM

Equipment Details

Equipment #
NP-SKG4910-NPCPP

Description
4K SOLAR SATURN-20 GEN NO.1

Parent #
NP-GP-NPCPP

Area
NPAILIN

Sub Area
NP-GP-NPCPP

Equipment Class
Electric Generator

Assignment and Status

Status
Completed

Inspected By
[REDACTED]

License/Certification

Inspected On
6/29/2025 11:18:59 AM

Approved by
[REDACTED]

Approved on
6/30/2025 10:28:51 AM

Completed by
[REDACTED]

Completed on
6/29/2025 11:18:59 AM

Inspection Summary

Complete by [REDACTED] on 24 jun 25

Reviewer Summary

The equipment is accurate and in normal condition.

Equipment Details

Field Name	Original Value	New Value
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Inspection Items

General

Item	Response	Completion
SELECT MAINTENANCE INTERVAL	8K	

PRE-REQUISITE TASKS

Item	Response	Completion
-TOOL BOX MEETING AND HAJSA DISCUSSION (ADDITION OR REVISE IF REQUIRE) -COORDINATE WITH PRODUCTION TO MAKE EQUIPMENT AVAILABLE FOR INSPECTION -VISUALLY INSPECT ALL ACCESSIBLE PARTS FOR LEAKS, LOOSE CONNECTIONS AND FITTINGS AND NON STANDARD CONDITIONS	Yes	

PRE-SHUTDOWN TASK

Item	Response	Completion
REVIEW EFFICIENCY AND PERFORMANCE DATA	Yes	
REVIEW VIBRATION SURVEY AND RECORD TRADING FOR ENGINE AND BEARING CONDITION	Yes	
REVIEW ENGINE LUBE OIL ANALYSIS FOR PHYSICAL PROPERTIES, WEAR METAL AND OTHER, OIL FILTER DIFF.AND RESULT FROM LUBE OIL PROGRAM	Yes	
REVIEW BORE SCOPE RECORDS FOR ANY DISTRESS, BURNT AND CRACKS FROM PREVIOUS RECORDS	Yes	
BEFORE SHUTDOWN THE UNIT, A WALKAROUND INSPECTION IS RECOMMENDED TO ENSURE EQUIPMENT IS FUNCTIONING PROPERLY AND DETECT LEAKS OR OBVIOUS FAULTS	Yes	
TAKE READING AND RECORD ENGINE SPEED, PCD AND TEMPERATURE TO EVALUATE RESULTS AGAINST BASELINE DATA	Yes	
ASSIST MECH/IE TECH.TO SHUTDOWN ENGINE ON ONE OF SAFETY DEVICES	Yes	

SHUTDOWN TASK

Item	Response	Completion
LOG OUT/TAG OUT AND DEPRESSURIZE SHUT OFF GAS FUEL SUPPLY AND STARTING GAS VALVES	Yes	
LOCK OUT PRE/POST AND BACKUP LUBE OIL PUMPS	Yes	
LOCK OUT LUBE OIL COOLER AND ENCLOSURE VENT FANS	Yes	
LOCK OUT FIRE PROTECTION/CO2 SYSTEM	Yes	
VISUALLY INSPECT ALL ACCESSIBLE PARTS FOR FUEL AND OIL LEAKS, CRACK, LOOSE CONNECTIONS OF FITTINGS, EXCESSIVE VIBRATION, NOISE, AND NON STANDARD CONDITIONS	Yes	

FUEL SYSTEM TASK

Item	Response	Completion
REPLACE PILOT GAS SUPPLY FILTER AND O-RING	Yes	
CLEAN UP FUEL GAS INLET STRAINER	Yes	
REPLACE PRIMARY FUEL FILTER OF LIQUID BOOST PUMP	Yes	
REPLACE SECONDARY FUEL FILTER OF LIQUID BOOST PUMP	Yes	

LUBE OIL SYSTEMS TASK

Item	Response	Completion
CHECK PRE-POST LUBE OIL PUMP/BACKUP PRE-POST LUBE OIL PUMP FOR ANY DEFECTS LEAKS, DAMAGE PIPE WORKS, LOOSE CONNECTIONS AND FITTINGS	Yes	
CHANGE MAIN LUBE OIL FILTER	Yes	
CHANGE LUBE OIL FILTER HOUSING COVER O-RING	Yes	

INSPECT LUBE OIL COOLER FAN BLADE FOR ANY DEFECTS AND CORRECT	Yes
INSPECT OIL COOLER CORE, PIPE AND HOSE FOR LEAK, DAMAGE OR CORROSION	Yes
CHECK LUBE OIL COOLER HOLD DOWN BOLT TIGHTNESS	Yes
CHECK LUBE OIL RESERVOIR LEVEL AND TOP UP LUBE OIL SHELL TURBO T-32	Yes
CHECK BACK PRESSURE OF LUBE OIL RESERVOIR TO EVALUATE BLOCKAGE OF FLAME ARRESTOR/LUBE OIL MIST ELEMATOR FROM LOG SHEET/LOCAL CONTROL PANEL	Yes

ENCLOSURE TASK

Item	Response	Completion
REPLACE ENCLOSURE FILTERS	Yes	
INSPECT ENCLOSURE FILTER HOUSING FOR DAMAGE, LEAK, LOOSE OBJECT, CORROSION CLEAN UP FILTER HOUSING	Yes	
INSPECT WATER LEVEL OF AIR FILTER HOUSING WATER TRAP	Yes	
CHECK FLAME ARRESTOR BACK PRESSURE OF LUBE OIL RESERVOIR TO EVALUATE BLOCKAGE OF FLAME ARRESTOR/LUBE OIL MIST ELEMATOR FROM LOG SHEET/LOCAL CONTROL PANEL	Yes	
VISALLY INSPECT AIR TRANSITION DUCT FOR CRACKS OR DISTORTION	Yes	

AIR SYSTEM

Item	Response	Completion
INSPECT ENGINE COMP. VARIABLE VANE MECHANISM FOR WEAR BUSHING, BENT ARM, LOOSE LINKAGE, ENSURE STOP SETTING IS CORRECTED	Yes	
INSPECT PRIMARY AIR INLET FILTERS	Yes	
INSPECT SECONDARY AIR INLET FILTERS	Yes	
RECORD BLEED VALVE TRAVELLING TIME OPEN/CLOSE	OPEN: 35 Sec CLOSE: 60 Sec	
INSPECT BLEED VALVE AND RECORD FUNCTION TEST OPEN/CLOSE	OPEN: 35 PSIG CLOSE: 60 PSIG	
INSPECT BLEED VALVE FOR SRING CONDITION, GASKET	Yes	

TURBINE ENGINE TASK

Item	Response	Completion
DISASSEMBLE, CLEAN AND INSPECT BLEED AIR VALVE,CHECK SPRING CONDITION AND TENSION (REPLACE IF WORN OR TENSION NOT WITHIN SPECIFIED LIMITS)	Yes	
TEST THE BLEED VALVE IS FULLY CLOSE AT THE DESIGH PRESSURE 55 PSI, OVERHAUL BLEED AIR VALVE AND RECORD	Yes	
REPLACE BLEED AIR VALVE SEAL RING	Yes	
REPLACE BLEED AIR VALVE O-RING	Yes	
INSPECT FLEXIBLE FOR CRACKS OR DISTORTION	Yes	
CLEAN AND INSPECT DRAIN VALVE,	Yes	

CHECK CONDITION AND FUNCTION TEST

VISALLY INSPECT EXHAUST COLLECTOR/EXHAUST EXPANSION JOINT FOR CRACKS OR DISTORTION

Yes

VISALLY INSPECT TORCH IGNITOR COLLECTOR FOR CRACKS OR DISTORTION, CLEAN AND REPLACE GASKET

Yes

REPLACE SPARK PLUG AND ADJUSTING GAP SPARK PLUG AS SPECIFICATION

Yes

PERFORM BORESCOPE INSPECTIONS FOR INTERNAL PART OF HOT SECTIONS AND TURBINE COMPRESSOR

Yes

GAS FUEL MANIFOLD TASK

Item	Response	Completion
REMOVE FUEL INJECTORS AND TORCH IGNITER. INSPECT FOR CARBON BUILDUP, DISTORTION, BURNING, CRACK AND WEAR, CLEAN AND REPLACE WITH NEW O-RINGS AND GASKETS. NOTE: MARK THE LOCATION OF EACH FUEL INJECTOR BEFORE REMOVAL. INSTALL FUEL INJECTOR DAMMY TO SUPPORT COMBUSTORS PERFORM BORE SCOPE BEFORE RE-INSTALL FUEL INJECTORS.	Yes	EXBO@chevron.com 6/29/2025 6:18:41 PM

GEAR UNIT TASK

Item	Response	Completion
CHECK GEARBOX HOUSING FOR ANY OIL LEAKAGE.	Yes	
CHECK HOLD DOWN BOLTS FOR LOOSEN AND TIGHTNESS	Yes	
OPEN GEARBOX COVER AND VISUAL INSPECT GEAR TEETH CONDITON	Yes	

DRIVEN EQUIPMENT TASK

Item	Response	Completion
CHECK AND INSPECT DRIVEN COUPLING TO GENERATOR	Yes	
CHECK HOLD DOWN BOLTS OF GENERATOR	Yes	

ENGINE CRANK SOAK WASH TASK

Item	Response	Completion
AFTER ENGINE SHUTDOWN FOR AT LEAST 30 MINUTES TO ALLOW ENGINE TO COOLDOWN, PERFORM ENGINE WASH USING APPROVE FLUID	Yes	
REMOVE DRAIN LINES OF ENGINE PRIOR ENGINE WASH	Yes	
ALLOW SOAKING SETTLE FOR 15 MINUTES AND THEN CRANK ENGINE ENSURE THAT FLUID WASTE FROM ENGINE DRAINS IS CLEAN, IF NOT REPEAT ENGINE WASH AGAIN UNIT FLUID IS CLEAN	Yes	
APPROXIMATELY 15 TO 30 MINUTES AFTER COMPLETION OF CRANK WASH A WATER RINSE IS RECOMMENDED	Yes	
SPIN DRY FOR ONE TIME AFTER WASHING	Yes	
RE-INSTALL DRAIN LINE OF ENGINE AFTER WASHED. NOTE: TO ACCURATELY MEASURE THE PERFORMANCE OF THE COMPRESSOR CLEANING SYSTEM AND DETERMINE NECESSARY CHANGES TO CLEANING FREQUENCY AND DOSAGE, THE ENGINE OPERATING PARAMETERS SHOULD BE RECORDED PRIOR TO AND	Yes	

FOLLOWING EACH CLEANING.

FINAL CHECK

Item	Response	Completion
CONDUCT LIQUID FUEL TRANSFER MODE DURING OPERATION. OBSERVE SPEED, TEMPERATURE, AND LOAD READINGS FOR EXCESSIVE TRANSIENTS	Yes	
COORDINATE WITH OPERATIONS/OTHER CRAFTS TO START ENGINE	Yes	
VISUALLY INSPECT ALL ACCESSIBLE PARTS FOR GAS FUEL AND LUBE OIL LEAKS, EXCESSIVE VIBRATION AND NOISE, LOOSE CONNECTIONS AND FITTINGS	Yes	
TAKE READINGS AND RECORD ENGINE PARAMETER: ENGINE HOURS	57169 HRS	
TAKE READINGS AND RECORD ENGINE PARAMETER: PCD	62 PSIG	
TAKE READINGS AND RECORD ENGINE PARAMETER: NGP (%)	100 %	
TAKE READINGS AND RECORD ENGINE PARAMETER: T1 AIR INLET TEMPERATURE	88 °F	
TAKE READINGS AND RECORD ENGINE PARAMETER: T5 AVG TEMPERATURE	847 °F	
TAKE READINGS AND RECORD ENGINE PARAMETER: AIR INLET DP	3.5 PSIG	
Comments/Recommendations: 3.5"H2O		
TAKE READINGS AND RECORD LUBE OIL SYSTEM PARAMETER: LUBE OIL PRESSURE	60 PSIG	
TAKE READINGS AND RECORD LUBE OIL SYSTEM PARAMETER: LUBE OIL HEADER TEMPERATURE	152 °F	
TAKE READINGS AND RECORD LUBE OIL SYSTEM PARAMETER: LUBE OIL TANK TEMPERATURE	165 °F	
TAKE READINGS AND RECORD VIBRATION DATA: GP (IN/S)	0.17 Inch/Sec	
TAKE READINGS AND RECORD VIBRATION DATA: GEARBOX FWD (M/S2)	0.7 m/Sec2	

JOB COMPLETION

Item	Response	Completion
-RECHECK ALL ACCESSIBLE SYSTEM FOR DAMAGE, FAULTS, LEAKS, LOOSE OR BROKEN CONNECTION -RETURN UNIT TO NORMAL OPERATION -ENSURE THE EQUIPMENT IS LEFT IN A SAFE CONDITION AND THE AREA LEFT TIDY - SIGN OFF THE WORK PERMIT AND RETURN IT TO THE AREA AUTHORITY	Yes	

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CRANE MAKE: American Aero
MODEL: QM-455
SERIAL NUMBER: 85775

LOCATION
PACPP SOUTH SIDE 1Y ITPM

DATA BASE - PM JOB TASK CARD

Crew Size:
Estimate and Hours

SYSTEM	TASK	Specification	Record/Reading
JOB PREPARATION			
Safety	Perform Job Safety Analysis (JSA)	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Obtain "COMPANY" PERMIT TO WORK	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Perform Tool Box Talk	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	BEFORE/AFTER JOB EXECUTION: Ensure to comply with isolation procedure (LOCK OUT/TAG OUT, WARNING SIGNS and	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
Required Tools	Ensure proper tools are available at the job site	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Tool bag	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Tool box	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Tool Container	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	MPI equipment and operator	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Scaffolding and Crew	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
Lubricants	Ensure proper lubricants and consumables are available at the job site.	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Hydraulic System - Hydraulic Oil	Rando HD-68	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Pump drive gear oil	Caltex Meropa 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Slew Gearbox - Gear Oil	Omala 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Auxiliary Hoist - Gear Oil	Omala 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Main Hoist - Gear Oil	Omala 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Boom Hoist - Gear Oil	Omala 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Grease Points - Lithium Based **IT MUST NOT INCLUDE MOLYBDENUM DISULPHIDE**	MULTIFAX EPK2	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Open Gear Teeth - Open Gear Lubricant should be highly water resistant and of an adhesive nature.	OMEGA 73	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Pneumatic Lubricator	SAE Grade 10	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Wire rope Lubricant - Company preferred grade	Briuba 70	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Engine Oil - SAE Grade 15W-40 (Delo Gold)	15W-40	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Safe Load Indicator fluid	W-15	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Engine Radiator - Should have radiator preservatives additives	Delo Extended Life	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Spray Cold Grease		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
Consumables	Conso Tape		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
	WD-40		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
History Review	Before starting work, tasks preparation at least 1 day prior to starting work: 1. Review history PM/ CM from Rowing Team, 2. Review last PM/ CM/ PMI from Crane Mech, 3. List out all punch list and prepare parts. 4. Review last Certificate task performed	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Require to update part history from Rowing Team and Crane Mech on following main components to ensure the right parts are prepared: - Aux/ Main/ Boom Cylinder, Engine, Slew Gearbox, etc. Reference: Crane OEM information of each part need to be recorded - Manufacturer & Contact Info - Model & serial number - Installation date	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Review history data from Certificates and incorporate into current PM: - Pull Test Certificates (ongoing update, 4 yr. history). - Load Test Certificates (ongoing update, 4 yr. history). - Wire Rope Certifications (ripping rope and standing rope) (life of rope). - Hoist Certifications for hoist classified as "personal handling" hoist.	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Review Last Preventative Maintenance Records (Inspection Reports) - Pre-use (Pre-Post Inspection) - 1 Monthly - 3 Monthly (API RP 2D Defined Quarterly Inspection) - 6 Monthly (API RP 2D Not Defined, Company Standard) - 1 Yearly (API RP 2D Defined Annual Inspection)	API RP 2D	<input checked="" type="checkbox"/> YES () NO
Lifting Gear Preparation	Visually inspect (Sling, sling hooks and shackles) include Webbing / Chain	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Check color code / Tag & date inspection	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
PM JOB STARTING			
General	Determine if access route to/from crane is clear, safe, unobstructed and adequately protected against falls, tripping and slipping	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Inspect all ladders and cages	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Inspect drain lines and drip pans for deterioration	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Remove any sediment collected in the bottom of drip pans	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Inspect for general crane and components for loss of protective coating and corrosion	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Visually inspect for missing or loose pins, pin keepers, bolts, nuts, fasteners	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Apply grease to exposed grease parts (control valve spools, ball-ring gear, parking brake valve, etc.)	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Grease all grease fittings e.g. boom foot pin, lower/ upper tank of boom cylinder	OEM Manual	<input checked="" type="checkbox"/> YES () NO
Take oil sample	Prepare oil sample bottles, labeling and required		<input checked="" type="checkbox"/> YES () NO
	Review previous oil analysis report		<input checked="" type="checkbox"/> YES () NO
	Prepare the hoist and hydraulic oil sample point by cleaning the drain area		<input checked="" type="checkbox"/> YES () NO
	Start the crane engine and run until the water temperature reaches 60°C (140°F) And check leaked		<input checked="" type="checkbox"/> YES () NO
	Operate the hoist in both directions for one to two minutes.		<input checked="" type="checkbox"/> YES () NO
	Do not take the sample from the first oil out the drain port		<input checked="" type="checkbox"/> YES () NO
	Take a sample from the mid stream flow of the oil to obtain accurate representation of the oil condition (APPENDIX 250 CC)		<input checked="" type="checkbox"/> YES () NO
	Close the sampling valve and install the valve protective cap		<input checked="" type="checkbox"/> YES () NO
	After an oil sample then check the oil level and add new oil as required.		<input checked="" type="checkbox"/> YES () NO
	Hydraulic Oil	Rando HD-68	Current reading 1950 HRS <input checked="" type="checkbox"/> YES () NO

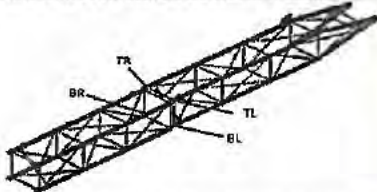
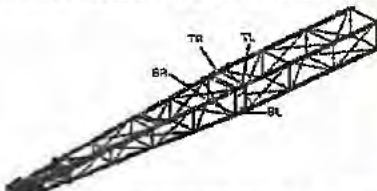
12-Apr-2014

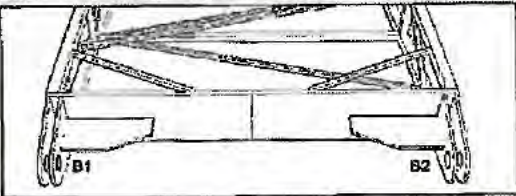
12-Apr-2025

SYSTEM	TASK	Specification	Record/Reading
	Check and inspect condition wear and crack of Coupling Drive Plate	Company Spec/Standard	70 % Remaining
	Torque bolts of Coupling Drive Plate (Lead size 5/16 inch=18k4.5/ Lead size 3/8 inch=35k7 FT-lb)	OEM Spec/Standard	YES () NO
	Evaluate engine performance, tune up if required	Company Spec/Standard	YES () NO
Air Start System	Check pressure Air Start System at the pressure gauge which should reach 120 PSI as a standard. Record Value.	OEM Manual	120 PSI
	Check Function of 3-way valves and pilot valves	OEM Manual	YES Function () False
	Drain water and sediment from Water Separator	OEM Manual	YES () NO
Pneumatic System	Check all hose connections are sound and all mounting and pivoting connections are secure.	Industry Standard	YES () NO
	Check proper air pressure is available for the system. Record Value.	OEM Manual	
	AIR SYSTEM PARAMETERS: MAX 120 PSI	OEM Manual	120 PSI
	Inspect air swivel freedom of operation	Industry Standard	YES () NO
	Check the hose, piping and tubing for mechanical damage, corrosion, splits, blisters, cracking or excessive abrasion on the outer surface	Industry Standard	YES () NO
Hoist / Brakes	Any time a hoist exhibits erratic operation and/or unusual noise, the hoist must be taken out of service until it is inspected and serviced by a qualified technician. Continued operation of a hoist with a defect is a critical component may lead to loss of load control, property damage, serious injury or death.	OEM Manual	YES () NO
	Inspect exterior of hoist, frames, drums and flanges for damage, leaks, cracks and wear and repair/replace as required to maintain the structural integrity of the hoist.	OEM Manual	YES () NO
	Check all hoist mounting pins, bolts or other fasteners and replace or tighten as necessary.	OEM Manual	YES () NO
	Lubricant level must be maintained between the minimum and maximum levels; midway up sight glass or at bottom of level plug port as equipped and check/drain plug vent. Use only the recommended type of lubricant.	OEM Manual	YES () NO
	Inspect Brake Valve Opening Pressure test V/V 1-1/4" PD Series: no lower than 550 PSI V/V 1-1/2" CH Series: no lower than 575 PSI	Braden Bulletin 527-0 ac, 1996	600 PSI 550 PSI 600 PSI
	Inspect Brake cylinder opening pressure test. CH/PD Series: 400-450 PSI.	Industry Standard	450 PSI 400 PSI 550 PSI
	Measure differential of static and dynamic brake. CH/PD Series: 150-250 PSI.	Industry Standard	150 PSI 150 PSI 150 PSI
	Check for external oil leaks and repair as necessary. This is extremely important due to the accelerated wear that will result from insufficient lubricating oil in the hoist.	OEM Manual	YES () NO
	RECORD BOOM HOIST INFORMATION:	Manufacturer: OEM Manual	Braden
		Model: OEM Manual	CH175A-23120-01P-1
		Serial Number: Inspector's Assessment	4802476
	Check BOOM HOIST for proper operation and good condition	API RP 2D	YES () NO
	Check BOOM HOIST RATCHET AND PAWL SYSTEM for proper operation and good condition	API RP 2D	YES () NO
	Brake test & record pressure of BOOM HOIST	OEM Manual	YES () NO
	Check BOOM HOIST gearbox oil level/condition, top up if required.	OEM Manual	() SEND SKL LAB
	Obtain BOOM HOIST gearbox oil sample and visually check	OEM Manual	YES () NO
	Change BOOM HOIST gearbox oil	OEM Manual	YES () NO
	RECORD MAIN HOIST INFORMATION:	Manufacturer: OEM Manual	Braden
		Model: OEM Manual	CH240A-53120-02-1
		Serial Number: Inspector's Assessment	6501826
	Check MAIN HOIST for proper operation and good condition	API RP 2D	YES () NO
	Brake test & record pressure of MAIN HOIST	OEM Manual	YES () NO
	Check MAIN HOIST gearbox oil level/condition, top up if required.	OEM Manual	() SEND SKL LAB
	Obtain MAIN HOIST gearbox oil sample and visually check	OEM Manual	YES () NO
	Change main hoist gearbox oil	OEM Manual	YES () NO
	RECORD AUXILIARY HOIST INFORMATION:	Manufacturer: OEM Manual	Braden
		Model: OEM Manual	PD12C-29064-04-1
		Serial Number: Inspector's Assessment	0408919
	Check AUXILIARY HOIST for proper operation and good condition	API RP 2D	YES () NO
	Brake test & record pressure of AUXILIARY HOIST	API RP 2D	YES () NO
	Check AUXILIARY HOIST gearbox oil level/condition, top up if required.	OEM Manual	() SEND SKL LAB
	** Refer to Onsite Gear Oil Sample Procedure **		
	** Replace and send oil sample to SKL if abnormal **		
	** Take photo of Oil Sampling for Reference **		

SYSTEM	TASK	Specification	Record/Reading
Hydraulic System	Obtain AUXILIARY HOIST gearbox oil sample and visually check	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Change auxiliary hoist gearbox oil	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check Relief Valve:	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	BOOM RELIEF VALVE TEST:	Relief Specific: 2700 PSI	OEM Manual 2700 PSI
	MAIN HOIST RELIEF VALVE TEST	Relief Specific: 2950 PSI	OEM Manual 2950 PSI
	AUX HOIST RELIEF VALVE TEST	Relief Specific: 2950 PSI	OEM Manual 2950 PSI
	SWING RELIEF VALVE TEST	Relief Specific: 2200 PSI	OEM Manual 2000 PSI
	BOOM HOIST CASE DRAIN for Gear Motor (Down Mode).	PRESSURE < 100 psi	OEM Manual 12 PSI
	MAIN HOIST CASE DRAIN for Gear Motor (Down Mode).	PRESSURE < 100 psi	OEM Manual 12 PSI
	AUX. HOIST CASE DRAIN for Gear Motor (Down Mode).	PRESSURE < 100 psi	OEM Manual 17 PSI
	Reference BRADEN Inspection, Testing, Preventive Maintenance and Special Operating Instructions For Planetary Hoists PB-508 latest edition for further details.	OEM Manual	
	Check hydraulic tank oil level. Oil should be visible in the sight glass. Top up as required (3/4 Tank Minimum)	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check hydraulic oil condition. (Check if running hours are more than 100 hours from last oil change or during Annual Inspection) ** Refer to Onsite Hydraulic Oil Sample Procedure ** ** Replace and send oil sample to SKL if abnormal ** ** Take photo of Oil Sampling for Reference **	Rando HD-68 Company Spec/Standard	<input checked="" type="checkbox"/> SEND SKL LAB <input checked="" type="checkbox"/> NOT SEND SKL LAB
	Drain off 1 liter of oil to remove condensed water. If water is present, drain until water is removed and top up with clean oil	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check for any hydraulic leaks	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Check the hydraulic hose, piping and tubing for mechanical damage, corrosion, splits, blisters, cracking or excessive abrasion on the outer surface	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Check that all hydraulic hose connections are sound and that all mounting and pivoting connections are secure.	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Ensure the filter breather on tank is not covered or clogged	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Visually inspect for missing or loose pins, pin keepers, bolts, nuts, fasteners on all pumps, motors and valves	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Check the filter bypass indicator, while engine is running	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
With engine running (after all other items pass inspection), check the system for leaks around fittings, hoses, valves and reservoirs	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
With engine running, check the source of any unusual noise or vibration that may cause or indicate equipment damage or wear	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Ensure all hoses are properly rated for the system, see "Parameters" for each system for details.	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Check sign for leak, clamp support and condition of hydraulic oil cooler	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Record hydraulic oil operating temperature. Note: Hydraulic fluid overheating temperature is over 130 F degrees or 82 C, degrees (reservoir temperature)	Industry Standard	120 Degree F	
Determine if hydraulic return pressure gauge is working and giving accurate measurements. Record readings			
RECORD HYDRAULIC RETURN PRESSURE:	25 psi "maximum"	OEM Manual	15 PSI
Change hydraulic return filters and seals		OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Test all hydraulic relief valves and record pressures with engine at:	2100 RPM	API RP 2D	
BOOM FUNCTION Boom Angle: 60 Degree (Recommend or as applicable)	UP (working) RECORD DOWN (working) RECORD	OEM Manual	800 PSI 1,300 PSI
MAIN FUNCTION Boom Angle: 60 Degree (Recommend or as applicable)	UP (working) RECORD DOWN (working) RECORD	OEM Manual	600 PSI 1,500 PSI
AUX. FUNCTION Boom Angle: 60 Degree (Recommend or as applicable)	UP (working) RECORD DOWN (working) RECORD	OEM Manual	900 PSI 1,350 PSI
SWING FUNCTION Boom Angle: 60 Degree (Recommend or as applicable)	Right (working) RECORD Left (working) RECORD	OEM Manual	500 PSI 500 PSI
PILOT CONTROL SYSTEM PARAMETERS:	Operate pressure 500 PSI	OEM Manual	500 PSI
Measure flow rate of Hydraulic pump if required and record results:	GPM	Company Spec/Standard	
BOOM PUMP FLOW RATE	0 PSI = RECORD 25% RECORD 50% RECORD 75% RECORD 100% 87 GPM	OEM Manual	86 GPM 86 GPM 85 GPM 85 GPM 85 GPM
MAIN PUMP FLOW RATE	0 PSI = RECORD 25% RECORD 50% RECORD 75% RECORD 100% 129.5 GPM	OEM Manual	51 GPM 51 GPM 50 GPM 50 GPM 50 GPM

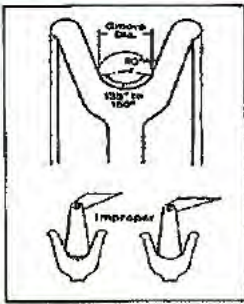
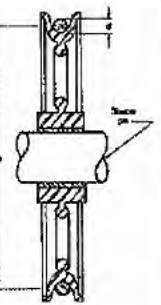
SYSTEM	TASK	Specification	Record/Reading
	AUX PUMP FLOW RATE	0 PSI = RECORD	OEM Manual 78 GPM
	25%	RECORD	OEM Manual 78 GPM
	50%	RECORD	OEM Manual 79 GPM
	75%	RECORD	OEM Manual 79 GPM
	100%	78 GPM	OEM Manual 79 GPM
	SWING PUMP FLOW RATE	0 PSI = RECORD	OEM Manual 21 GPM
	25%	RECORD	OEM Manual 21 GPM
	50%	RECORD	OEM Manual 20 GPM
	75%	RECORD	OEM Manual 20 GPM
	100%	21.5 GPM	OEM Manual 20 GPM
Electrical system and Crane Boom Lighting	Check condition of pump drive spina and record		Company Spec/Standard 95 % Remaining
	Check the electrical function boxes, wires and connections for deterioration, des/cant bags, (replace as required)		Industry Standard YES () NO
	Check the condition of the grounding and lighting protection system.		Company Spec/Standard YES () NO
	Visually inspect boom floodlight and light guards for loose, missing, corroded		Company Spec/Standard YES () NO
	Check condition pipe support, u-bolt, nuts of boom floodlight and Electric slinging for loose, missing, corroded		Company Spec/Standard YES () NO
	Check Electric slinging/swivel for 360° continuous rotation		OEM Manual YES () NO
	Check Water ingress, condensation in electric slinging and boom floodlight		OEM Manual YES () NO
	Check freely movement and lubricate of boom floodlight		OEM Manual YES () NO
	Check condition of crane boom lighting and safety net is secured with strong point. ***Safety net should be replace 24 months after installation (2 year)***	Last installation data No record.	Company Spec/Standard YES () NO
	Check function of crane sound signal		Company Spec/Standard () YES YES () NO
	Check function of crane boom lighting at boom upper section		Company Spec/Standard YES () N/A () NO
	Check function of crane boom lighting at boom lower section		Company Spec/Standard YES () N/A () NO
	Check function of crane boom lighting at which skid		Company Spec/Standard YES () N/A () NO
	Check function of crane boom lighting at crane cabin		Company Spec/Standard YES () N/A () NO
	Check function of beacon light at boom tip		Company Spec/Standard YES () N/A () NO
	Check function of beacon light at top gantry		Company Spec/Standard YES () N/A () NO
	Check condition wooden support on boom crane and relighten		Company Spec/Standard YES () NO
Operator Control Station	Check general condition of control panel, bolts, paint security, etc.		API RP 2D YES () NO
	Determine if there is a serviceable fire extinguisher in the vicinity of the crane		Company Spec/Standard YES () NO
	Determine if correct load chart is in use and easily visible for operator		API RP 2D YES () NO
	Determine if charts, indicators and hand signal chart are in the cabling and firmly attached		API RP 2D YES () NO
	Determine if angle/radius indicator plate is easily visible to operator and is moving freely.		API RP 2D YES () NO
	Check condition of control levers and determine if they "dead-man" back to the neutral position.		API RP 2D YES () NO
	Check condition of pressure gauges.		API RP 2D YES () NO
	Check proper control labels are firmly installed, completely legible and properly labeled		API RP 2D YES () NO
	Check controls for freedom-of-movement		API RP 2D YES () NO
	Function Test Horn		Industry Standard YES () NO
	Check condition and function Main/ Aux selector valve		Industry Standard YES () NO
	Check condition and function of boom/ main/ aux/ swing joy stick		Industry Standard YES () NO
Load Indicator System	Visual check on fittings and connections for leaks. Fix leak if any.		OEM Manual YES () NO
	Should any leaks exist, stop leak and recharge system, refer to maintenance manual		OEM Manual YES () NO
	Check general condition of tubing, hoses, pins bolts, paint, etc.		Industry Standard YES () NO
	Insure load cell is free of obstructions		OEM Manual YES () NO
	Check condition of gauge(s) face and clean glass as required.		OEM Manual YES () NO
	Check weight indicator function (Main)		Company Spec/Standard YES () NO
	Check weight indicator fluid, top up if required		Industry Standard YES () NO
	Insure Safe Working Load, matches ratings on the Crane Load Chart		OEM Manual YES () NO
	Insure Boom Length, matches the Crane Load Chart		OEM Manual YES () NO
	Insure Boom Angle measurements and readings match the boom angle indicator.		OEM Manual YES () NO
	Insure Boom Radius measurements indicate the distance from center line of the crane to the hook		OEM Manual YES () NO
	Check weight Indicator accuracy "maximum variance +/- 25" (Other Types)		Industry Standard YES () NO
Pedestal & Structure	Visually check Pedestal for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks weld, etc.		API RP 2D YES () NO

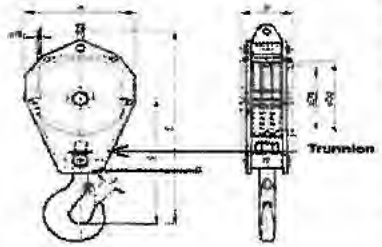
SYSTEM	TASK	Specification	Record/Reading								
	Check water rain drain at pedestal must be not obstruct	Industry Standard	✓YES () NO								
	Check pin and cotter pin of pedestal missing, corrosion, wear, damage and exercise pin.	Industry Standard	✓YES () NO								
	Visually check Base - Plate connection and Base hoist Structure for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks weld, etc.	API RP 2D	✓YES () NO								
	Check A fixed such as Handrail, Walkway, Grating, stationary structure without significant movement in response to waves and currents in normal operating conditions.	API RP 2C	✓YES () NO								
	Visually check condition of A-Frame for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks weld, etc.	API RP 2D	✓YES () NO								
	Check water rain drain at top gantry must be not obstruct	Industry Standard	✓YES () NO								
	Visually check Condition of top gantry for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks weld, etc.	API RP 2D	✓YES () NO								
Boom Structure	Check entire boom structure for loss of protective coating and corrosion	API RP 2D	✓YES () NO								
	Check entire boom structure for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks, etc.	API RP 2D	✓YES () NO								
	Check boom end connections, for bends, dents, corroded areas, cracked welds, and signs of mechanical damage, wear, etc. **any deviation should be reported**	API RP 2D	✓YES () NO								
	Check Boom Wooden Brush Bar condition, broken, crack, deteriorate	Industry Standard	✓YES () NO								
	Re-tighten connecting bolts at boom jib	Industry Standard	✓YES () NO								
	Inspect and measurement wear limits on boom connecting pins, tang & clevis for excessive clearance - Boom connecting wear limits recommended replacement tolerance = 0.075 inch - Boom connecting wear limits sparow required replacement tolerance = 0.105 inch	OEM Manual	✓YES () NO								
	BOOM BASE CONNECTING WITH BOOM SECTION WEAR LIMIT TOLERANCE: 	Industry Standard	Point TR = 0.064 inch								
		Industry Standard	Point TL = 0.059 inch								
		Industry Standard	Point BR = 0.063 inch								
		Industry Standard	Point BL = 0.063 inch								
	BOOM SECTION CONNECTING WITH BOOM POINT WEAR LIMIT TOLERANCE: 	Industry Standard	Point TR = 0.060 inch								
		Industry Standard	Point TL = 0.059 inch								
		Industry Standard	Point BR = 0.062 inch								
		Industry Standard	Point BL = 0.065 inch								
	Visually inspect and measurement boom chord members, for bends, dents, corroded areas, cracked welds, and signs of mechanical damage, etc. **any deviation should be reported** ** Note: If "lick" found "or occur bent, dent at boom chord must be inspection and measurement and record in below table	OEM Manual	✓FOUND () NOT FOUND								
	OVERALL BOOM CHORD STRAIGHTNESS										
<table><tr><th>CHORD LENGTH</th><th>Maximum deviation over length of chord.</th></tr><tr><td>20 ft. or less (6,096 mm. or less)</td><td>0.12 inches (3.0 mm.)</td></tr><tr><td>Over 20 ft. to and including 30 ft. (Over 6,096 mm. to and including 9,144 mm.)</td><td>0.19 inches (4.8 mm.)</td></tr><tr><td>Over 30 ft. to and including 50 ft. (Over 9,144 mm. to and including 15,240 mm.)</td><td>0.25 inches (6.4 mm.)</td></tr></table>		CHORD LENGTH	Maximum deviation over length of chord.	20 ft. or less (6,096 mm. or less)	0.12 inches (3.0 mm.)	Over 20 ft. to and including 30 ft. (Over 6,096 mm. to and including 9,144 mm.)	0.19 inches (4.8 mm.)	Over 30 ft. to and including 50 ft. (Over 9,144 mm. to and including 15,240 mm.)	0.25 inches (6.4 mm.)	Industry Standard	
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BOOM BASE MAXIMUM TOLERANCE: <											

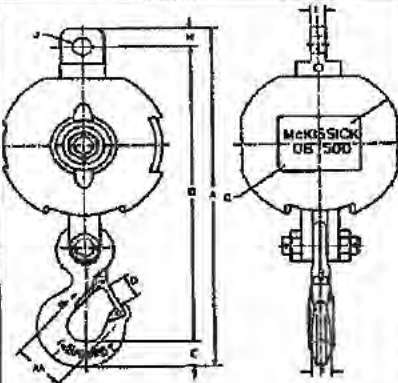
SYSTEM	TASK	Specification	Record/Passing
	BOOM POINT MAXIMUM TOLERANCE:	Industry Standard	Point TL = <u>0.009</u> Inch
		Industry Standard	Point BR = <u>0.008</u> Inch
		Industry Standard	Point BL = <u>0.008</u> Inch
	Visually check boom lacing, bends, dents, corroded areas, cracks, etc. **Any deviation should be reported** ** Note: If tick "found" or occur bent, dent at boom lacing must be measurement and record in below table	Industry Standard	<input type="checkbox"/> FOUND <input checked="" type="checkbox"/> NOT FOUND
	BOOM LACING MAXIMUM TOLERANCE:	0.062 inch with no more than 3 bent lacing per boom section or 2 consecutive bent lacing	Industry Standard
	Check and measurement boom foot pin for worn, wear deformation and record clearance - Boom foot pin wear limits recommended replacement tolerance = 0.150 inch - Boom foot pin wear limits sparrow required replacement tolerance = 0.210 inch 	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	BOOM FOOT PINS TOLERANCE:	Industry Standard	B1 = <u>0.030</u> Inch B2 = <u>0.032</u> Inch
	Re-tighten bolt lock shafts should be checked for missing or loose for all	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Lubricate boom foot pins and bushings	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Visually check condition boom stoppers	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Wire Rope	Lubricate boom stoppers and exercise boom stop spring using hammer to ensure spring is functioning. Caution: Spring lock stud bolt may become loosen and potential be drop object	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Boom function test angle / radius to correction **Note: Angle indicator mechanism shall be capable of elevating the boom from a minimum of zero degrees to the maximum recommended boom angle.	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Determine if parts-of-line match parts of line on the load chart in the crane cabin.	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Determine if visible portion of wire rope adequately lubricated. Lubricate wire rope if require	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	For each layer of wire rope on drum, check that all rope is parallel and each crossover point at hoist flanges is correct	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	The top layer of rope must not be lower to the flange tips 2.5 in for smooth drum, 2 in for groove drum or 2.5 times of wire rope diameter	API RP 2C	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Inspect wire rope for, kinking, crushing, broken wires, necking down of rope diameter, worn outside wires, corroded or broken wires at end connection, cutting or unstranding.	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	** Note** Running Ropes use in the boom hoist - Six (6) Randomly distributed broken wires within one (1) lay length - Three (3) broken wires in one strand within one (1) lay length	API RP2D Edition 7	None
	** Note** Running Ropes of rotation-resistant construction used in the main or auxiliary Hoist: - Four (4) Randomly distributed broken wires within 30 rope diameter - Two (2) broken wires in one stand within 6 rope diameter	API RP2D Edition 7	None
	** Note** Standing rope such as boom pendants - Three (3) broken wire within one (1) lay length - Two (2) broken wires at the end connection	API RP2D Edition 7	None
	One valley break can indicate internal rope damage requiring close inspection of this section of the rope. When one or more valley breaks are found in one lay length the rope should be retied.	API RP2D Edition 7	None
	Reductions for the rope diameter, from initial wire rope dimensional measurements, in a nonworking area (an area away from the sheaves) compared to the lowest diameter of rope measured in three working areas (areas where the rope regularly goes over a sheave) of more than the following is observed: - 3/64 in. (0.047 in.) (1.2 mm) for diameters up to and including 3/4 in. (19.3 mm); - 1/16 in. (0.062 in.) (1.6 mm) for diameters of 7/8 in. to 1-1/8 in. (22.2 mm to 28.6 mm); - 3/32 in. (0.093 in.) (0.8 mm) for diameter of 1-1/4 in. to 1-1/2 in. (31.8 mm to 38.1 mm); - For rope diameters greater than 1-1/2 in., a 5% diameter loss from baseline measurement. - Wear of one-third the original diameter of the outside individual wires	API RP2D Edition 7	None
	Increase in the length of an individual rope lay is observed. This increase in lay length and accompanying reduction in diameter can be caused by failure of the core. This can occur more readily in ropes or rotation-resistant construction.	API RP2D Edition 7	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

12-Apr-2025

SYSTEM	TASK	Specification	Record/Reading																																																		
	<p>- Inspect and Verify running and standing rope from heat effect</p> <p>**Note: Not more than 250°C</p> <p>- There is evidence of heat damage from any source (i.e. engine exhaust, flare towers, stress corrosion cracking, etc.). Heat can be generated by passing a rope over a frozen or non-turning sheave, contact with structural members of the crane, improperly grounded welding leads or lightning strikes</p>	Industry Standard	✓YES () NO																																																		
	With the boom at the highest possible angle and the main lead block or overhaul bell at the water level, ensure there is a minimum of 5 wraps of wire-rope remaining on the drums.	API SPEC 2C	✓YES () NO																																																		
	<p>Refer note:</p> <p>- Running rope safety factor not less than 5 for wire rope that are running wire, (Thai law: Wire rope nominal breaking strength x number parts of line / Maximum crane capacity)</p> <p>- Standing rope safety factor not less than 3.5 for wire rope that are stay cables, (Thai law)</p>	Thai Law	✓YES () NO																																																		
	Check corrosion, erosion, broken, loosen of pin, cotter pin, socket, and exercise pin of pendant line	Industry Standard	✓YES () NO																																																		
	Measure and record nominal diameter of "running ropes" main and auxiliary (particularly on drum, equalizer sheave and at sockets, clips and dead end points) *****Nominal = several measurements added together divided by Number of measurements*****	API RP 2D	✓YES () NO																																																		
	Inspect wire rope and record size below:	API RP 2D																																																			
	<table border="1"> <tr> <td rowspan="3">BOOM WIRE ROPE OD:</td><td>75 Deg</td><td>OEM Manual</td><td>0.546 inch</td></tr> <tr> <td>45 Deg</td><td>OEM Manual</td><td>0.549 inch</td></tr> <tr> <td>0 Deg</td><td>OEM Manual</td><td>0.543 inch</td></tr> <tr> <td rowspan="3">LEFT SIDE PENDANT WIRE OD:</td><td>NEAR BOOM POINT</td><td>OEM Manual</td><td>1.540 inch</td></tr> <tr> <td>HALFWAY POINT</td><td>OEM Manual</td><td>1.547 inch</td></tr> <tr> <td>NEAR BRIDLE</td><td>OEM Manual</td><td>1.540 inch</td></tr> <tr> <td rowspan="3">RIGHT SIDE PENDANT WIRE OD:</td><td>NEAR BOOM POINT</td><td>OEM Manual</td><td>1.543 inch</td></tr> <tr> <td>HALFWAY POINT</td><td>OEM Manual</td><td>1.546 inch</td></tr> <tr> <td>NEAR BRIDLE</td><td>OEM Manual</td><td>1.544 inch</td></tr> <tr> <td rowspan="3">MAIN WIRE ROPE OD:</td><td>FULL DRUM</td><td>OEM Manual</td><td>0.870 inch</td></tr> <tr> <td>HALF DRUM</td><td>OEM Manual</td><td>0.872 inch</td></tr> <tr> <td>WATER LEVEL</td><td>OEM Manual</td><td>0.875 inch</td></tr> <tr> <td rowspan="3">AUX WIRE ROPE OD:</td><td>FULL DRUM</td><td>OEM Manual</td><td>0.665 inch</td></tr> <tr> <td>HALF DRUM</td><td>OEM Manual</td><td>0.664 inch</td></tr> <tr> <td>WATER LEVEL</td><td>OEM Manual</td><td>0.662 inch</td></tr> </table>	BOOM WIRE ROPE OD:	75 Deg	OEM Manual	0.546 inch	45 Deg	OEM Manual	0.549 inch	0 Deg	OEM Manual	0.543 inch	LEFT SIDE PENDANT WIRE OD:	NEAR BOOM POINT	OEM Manual	1.540 inch	HALFWAY POINT	OEM Manual	1.547 inch	NEAR BRIDLE	OEM Manual	1.540 inch	RIGHT SIDE PENDANT WIRE OD:	NEAR BOOM POINT	OEM Manual	1.543 inch	HALFWAY POINT	OEM Manual	1.546 inch	NEAR BRIDLE	OEM Manual	1.544 inch	MAIN WIRE ROPE OD:	FULL DRUM	OEM Manual	0.870 inch	HALF DRUM	OEM Manual	0.872 inch	WATER LEVEL	OEM Manual	0.875 inch	AUX WIRE ROPE OD:	FULL DRUM	OEM Manual	0.665 inch	HALF DRUM	OEM Manual	0.664 inch	WATER LEVEL	OEM Manual	0.662 inch		
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	<p>Slip-Cut 1 meter of all ropes at the wedge socket and re-wedge to prevent rust inside of wedge socket (at outward end of rope, not on hoist drum)</p> <p>Dead end tail length is never less than 6 inches, or:</p> <ul style="list-style-type: none"> - Standard 6 to 8 Strand wire rope is not less than 7 times the rope diameter - Rotation Resistant Wire Rope is not less than 20 times the rope diameter 	Company Spec/Standard	✓YES () NO																																																		
	<p>U-bolt and Fist Grip Clips:</p> <p>Extreme care should be exercised to assure proper orientation of U-bolt clips. The U-bolt segment shall be in contact with the wire rope dead-end. The orientation, spacing, torquing, and number of all clips shall be in accordance with the crane manufacturer's specifications.</p>	API SPEC 2C	✓YES () NO																																																		
	<p>Allowable methods for ensuring dead ends of wedge socket attachments</p>	API SPEC 2C	Follow																																																		
	Verify that the wedge socket and wedge are the correct size for the rope in use.	API SPEC 2C	✓YES () NO																																																		
Sheaves & Bearings	Lubricate all sheave bearings	API RP 2D	✓YES () NO																																																		
	Visually inspect all sheaves and bushings for cracks, wear and deterioration	API RP 2D	✓YES () NO																																																		
	Visually inspect wire rope track of sheave for rope imprints, wear and deterioration. If damage exist sheave should be resurfaced or replaced.	API RP 2D	✓YES () NO																																																		
	Check wire rope guards and keepers for proper location and condition.	API RP 2D	✓YES () NO																																																		
	Determine if wire rope is jumping the sheaves, by looking for signs of damage on the sheave brim	Industry Standard	✓YES () NO																																																		
	Sheave Rope Profile for optimum Rope life the sheave groove profile should be correctly matched to the rope diameter	Industry Standard	✓YES () NO																																																		
	Check rope sheave should be machine grooved to depths of not less than 1.5 times the nominal diameter of the rope	Industry Standard	✓YES () NO																																																		
	Inspect all grooves of sheaves by sheave gauge. Use sheave gauge as show in figure. Grooves should have an arc of contact with the wire rope between 135 and 150 degrees. They should be tapered to permit the rope to enter and leave the grooves smoothly.	Industry Standard																																																			

SYSTEM	TASK	Specification	Record/Reading	
	MAIN POINT SHEAVES:	Industry Standard	Sheave No. 1 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Sheave No. 2 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	AUX SHEAVES:	Industry Standard	Sheave No. 3 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	IDLER SHEAVES:	Industry Standard	Sheave No. 4 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	BRIDLE SHEAVES:	Industry Standard	Sheave No. 1 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Sheave No. 2 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Sheave No. 3 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Sheave No. 4 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Sheave No. 5 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Sheave No. 6 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	GANTRY SHEAVES:	Industry Standard	Sheave No. 1 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Sheave No. 2 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Sheave No. 3 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Sheave No. 4 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Sheave No. 5 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Sheave No. 6 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	Pins for bronze bushing and straight roller bearing should have a running clearance of .031 inch/ sheave of end play and should be adjusted accordingly (count from left)		Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	MAIN POINT SHEAVES:	Industry Standard	Sheave No. 1 <u>20</u> inch Sheave No. 2 <u>20</u> inch	
	AUX SHEAVES:	Industry Standard	<u>18</u> inch	
	IDLER SHEAVES:	Industry Standard	Sheave No. 1 <u>18</u> inch Sheave No. 2 <u>18</u> inch	
	BRIDLE SHEAVES:	Industry Standard	Sheave No. 1 <u>18</u> inch Sheave No. 2 <u>18</u> inch Sheave No. 3 <u>18</u> inch Sheave No. 4 <u>18</u> inch Sheave No. 5 <u>18</u> inch Sheave No. 6 <u>18</u> inch	
GANTRY SHEAVES:	Industry Standard	Sheave No. 1 <u>18</u> inch Sheave No. 2 <u>18</u> inch Sheave No. 3 <u>18</u> inch Sheave No. 4 <u>18</u> inch Sheave No. 5 <u>18</u> inch Sheave No. 6 <u>18</u> inch		
Ensure the sheaves are aligned and the float angle is correct **Remark: Wire rope User's Manual allows 2 degree on grooved winch drum, Smooth Drum should be not more than 1-1/2 degree		API RP 20	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Determine if wire rope size and sheave sizes/grooves are compatible and record size. Sheave pitch diameter (D) to nominal wire rope diameter (d) ratio (D/d) shall not be less than 18:1		API SPEC 2C	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	MAIN POINT SHEAVES:	SHEAVE D / WIRE ROPE d = > 18	API SPEC 2C <u>18</u> inch (D) <u>0.875</u> inch (d) <u>18</u> (Ratio D/d)	
	AUX SHEAVES:	SHEAVE D / WIRE ROPE d = > 18	API SPEC 2C <u>18</u> inch (D) <u>0.875</u> inch (d) <u>20</u> (Ratio D/d)	
	IDLER SHEAVES:	SHEAVE D / WIRE ROPE d = > 18 (if applicable)	API SPEC 2C <u>18</u> inch (D) <u>0.875</u> inch (d) <u>20</u> (Ratio D/d)	
	MAIN BLOCK SHEAVES:	SHEAVE D / WIRE ROPE d = > 16	API SPEC 2C <u>18</u> inch (D) <u>0.875</u> inch (d) <u>20</u> (Ratio D/d)	
	BRIDLE SHEAVES:	SHEAVE D / WIRE ROPE d = > 15	API SPEC 2C <u>18</u> inch (D) <u>0.875</u> inch (d) <u>20</u> (Ratio D/d)	
	GANTRY SHEAVES:	SHEAVE D / WIRE ROPE d = > 15	API SPEC 2C <u>18</u> inch (D) <u>0.875</u> inch (d) <u>20</u> (Ratio D/d)	
	Load Block:		Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check the load block for cleanliness, binding sheaves, damaged or worn sheaves, worn or distorted sheave pins, broken bolts, and worn cheek weights.		Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

SYSTEM	TASK	Specification	Record/Reading	
Hook:	Check the hook damage, excessive wear to the hook safety latch, hook swivel trunnions, thrust collar, securing, damage or missing lubrication fittings, proper lubrication, cracks and gouges, and if visibly bent or twisted or has been exposed to welding or arcing.	Industry Standard	<input checked="" type="checkbox"/> YES () NO	
	Check Pins retained by snap rings, bolt lock shafts, plates lack for missing or loose	API RP 2D	<input checked="" type="checkbox"/> YES () NO	
	Hook: Tip has been bent more than 0 degree out of plane from the hook body	ASME B30.10/Thai Law	<input checked="" type="checkbox"/> YES () NO	
	Pins for bronze bushing and straight roller bearing should have a running clearance of .031 inch/sheave of end and play and should be adjusted accordingly	Industry Standard	<input checked="" type="checkbox"/> YES () NO	
	Hook or shackle to swivel case clearance is set at .031 to .062 inch, Clearance exceeding .12 to .18 (ONLY CROSBY BRAND)	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO	
	- Elongated center pin and hook trunion holes exceeding 5% of Original diameter	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO	
	- Material loss due to wear exceeding 10% of original section	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO	
	- Sheave wire rope groove diameter smaller than 2.5%	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO	
	Loosened tie bolts nuts, center pin round nuts, check weight cap screws and hook nut cap screws. Tie bolt nuts to be torqued to 35-40 ft.lbs and retaked, all other fasteners wrench tight	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO	
	Throat opening - any distortion causing an increase in throat opening of 5% not to exceed 1/4 in. (6 mm.) (or as recommended by the manufacturer)	ASME B30.10	<input checked="" type="checkbox"/> YES () NO	
	Inspect rope track worn in sheave groove, sheave must be resurface or replace	API RP 2D	<input checked="" type="checkbox"/> YES () NO	
	Ensure the load block is not using "Cast Iron" shock weights they can not be used as per API	API SPEC 2C	<input checked="" type="checkbox"/> YES () NO	
	Determine if all hooks are equipped with properly operating safety latches and check for proper functioning	API RP 2D	<input checked="" type="checkbox"/> YES () NO	
	Lubricate sheave bearings and swivels	OEM Manual	<input checked="" type="checkbox"/> YES () NO	
	Re-tighten nut firmly to point at which trunion will just rotate, the Re-tighten set-screw in nut and thread condition as in the picture below,	Industry Standard	<input checked="" type="checkbox"/> YES () NO	
	Last NDE Inspection record	Industry Standard	Last inspect date <u>21 Jan 22</u>	
	RECORD LOAD BLOCK INFORMATION :		Manufacturer: OEM Manual Model: OEM Manual Serial Number: OEM Manual	<u>Weatherford</u> <u>50914</u> <u>97-3594</u>
	Record Load block measurements and details for future comparison with historical data @		Industry Standard	<input checked="" type="checkbox"/> YES () NO
		A - Block OD	Industry Standard	<u>23</u> mm/ inch
		B - Block length	Industry Standard	<u>13</u> mm/ inch
C - Center of Pin to hook Saddle		Industry Standard	<u>19</u> mm/ inch	
D - Sheave Diameter		Industry Standard	<u>18</u> mm/ inch	
E - Block Width		Industry Standard	<u>35.250</u> mm/ inch	
F - Throat Opening		Industry Standard	<u>4</u> mm/ inch	
G - Trunion		Industry Standard	<u>0.036</u> mm/ inch	
Aux. Ball	Inspect Auxiliary ball for cleanliness, binding, swivel, work pad-aya hole. Inspect the hook damage, excessive wear to the hook safety latch, Bent connector plates, Severe corrosion pitting, hook swivel trunnions, thrust collar, securing, damage or missing lubrication fittings, Loose, missing or damaged retaining nuts, cotter pins or swivel set screws, Missing or illegible rating and warning tags, proper lubrication, cracks and gouges, and if visibly bent or twisted or has been exposed to welding or arcing.	Industry Standard	<input checked="" type="checkbox"/> YES () NO	
	Hook: Tip has been bent more than 0 degree out of plane from the hook body	ASME B30.10/Thai Law	<input checked="" type="checkbox"/> YES () NO	
	Gunnar Johnson recommend that Crane overhaul ball removal from service until replaced and repair following below	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO	
	- Elongated ball pin holes, hook latch pin holes and swivel eye exceeding 5% of original diameter,	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO	
	- Swivel end play gap exceeding .08". Excessive end play indicates damaged internal set screw	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO	
	- Material loss due to wear exceeding 10% of original section	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO	
	Throat opening - any distortion causing an increase in throat opening of 5% not to exceed 1/4 in. (6 mm.) (or as recommended by the manufacturer)	ASME B30.10	<input checked="" type="checkbox"/> YES () NO	
	All hooks that lift personnel are to have a positive locking safety latch be used while lifting personnel**	API RP 2D	<input checked="" type="checkbox"/> YES () NO	
	*** Temperature Effect : When hooks are to be used at temperature above 400° F. (204°C) or below -40°F (-40°C), the hook manufacturer or a qualified person should be consulted *** Chemically Active Environment : The strength of hooks can be affected by chemically active environments, such as caustic or acid substances or fumes. The hook manufacturer or qualified person should be consulted before hooks are used in chemically active environment	ASME B30.10		

SYSTEM	TASK	Specification	Record/Reading
	Verify to ensure nut firmly at which trunion rotate. Identify to set-screw in nut/ swivel/ counter pin and thread condition.	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Last NDE inspection record	Industry Standard	Last inspect date <u>21 JUN 22</u>
	RECORD AUX BALL INFORMATION :	Manufacturer: <u>McKISSICK</u> Model: <u>MB 2T3005</u> Serial Number: <u>0031203</u>	
	Record Auxiliary Ball measurements and details for future comparison with historical data: For Model MB12T350E ONLY.	Industry Standard	
		AA Dimensions 3.0 Inch	Industry Standard <u>3.0</u> mm/Inch
		A Dimensions 33.31 Inch	Industry Standard <u>33.31</u> mm/Inch
		B Dimensions 29.06 Inch	Industry Standard <u>29.06</u> mm/Inch
		C Dimensions 15.00 Inch	Industry Standard <u>15.00</u> mm/Inch
		D Dimensions 2.08 Inch	Industry Standard <u>2.08</u> mm/Inch
		E Dimensions 2.25 Inch	Industry Standard <u>2.25</u> mm/Inch
		F Dimensions 1.62 Inch	Industry Standard <u>1.62</u> mm/Inch
		H Dimensions 2.00 Inch	Industry Standard <u>2.00</u> mm/Inch
		I Dimensions 1.25 Inch	Industry Standard <u>1.25</u> mm/Inch
		J Dimensions 1.78 Inch	Industry Standard <u>1.78</u> mm/Inch
Safety system	Check Condition anti - two block , hanging chain, eye bolts , fit bolts , shackle for missing , corrosion , erosion , deformation	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check anti - two block kick out plate for freely movement	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check anti-2-block device proper function and hanging chain distance 30 ft. normal designed of Main Hoist ** Note: When the block strikes the hanging weight or hanging valve the hoist should stop completely within 12 in. to 18 in. (30.5 cm to 45.7 cm) or at least creep up slowly.	API RP 2D	<input checked="" type="checkbox"/> Function <input type="checkbox"/> False
	Check anti-2-block device proper function and hanging chain distance 10 ft. normal designed of Auxiliary Hoist ** Note: When the block strikes the hanging weight or hanging valve the hoist should stop completely within 12 in. to 18 in. (30.5 cm to 45.7 cm) or at least creep up slowly.	API RP 2D	<input checked="" type="checkbox"/> Function <input type="checkbox"/> False
	Take off and Clean up boom high angle limit stopper and Activate to free movement	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check function of boom high angle limit stop to ensure the boom stops at the proper angle and record value:	API RP 2D	<u>80</u> Degree
	Check function of boom Low angle limit stop to ensure the boom stops at the proper angle and record value:	API RP 2D	<u>0</u> Degree
	Check function to ensure that boom cannot lower down when anti-2-block of Main and Aux activate	API RP 2D	<input checked="" type="checkbox"/> Function <input type="checkbox"/> False
	Check relation of boom radius and boom angle (lowest, middle, highest) with reference to load chart.	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Visually check condition of emergency lowering tool and procedure on site		
	Functional test of emergency lowering system (See procedure in Emergency Load Lowering Box). <u>Notes:</u> Keep for 1 Yr PM to sustain crane mechanic competency. <u>Caution:</u> Function test must be performed on top deck with max 2-foot height.	Company Spec/Standard	<input checked="" type="checkbox"/> Function <input type="checkbox"/> False
Slew/Swing	Visually check for damage and excessive wear on gear teeth	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Visually check swing gear box in the area of oil seal for any leaks	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	RECORD SLEW GEAR BOX INFORMATION :	Manufacturer: <u>ESKRIDGE</u> Model: <u>250AD1C451</u> Serial Number: <u>04515-2014</u>	
	CHECK and RE-TORQUE swing drive gearbox mounting bolts at following brands: -ESKRIDGE, Model: 150 = 150 FT-LBS	API RP 2D	<u>150</u> FT-LBS
	Check swing gearbox oil level/condition, top up if required	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Monitor swing gearbox oil condition by visually examine for burnt smell, metal particles, and/or other contaminants, record and change if found.	Maropa 220	<input checked="" type="checkbox"/> CHANGE OIL <input type="checkbox"/> NOT CHANGE OIL
	Change swing gear box oil	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Grease all pivot points of slew ring (bearing)	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Grease open gears (pinion)	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

SYSTEM	TASK	Specification	Record/Passing								
	Check condition of slew ring bolts e.g. Bolt grade and washers. Caution: Use only hardened flat washers under head of bolt. Do not use lock washers, or regular flat washers.	Industry Standard	<input checked="" type="checkbox"/> YES () NO								
	Monitor ball-ring grease sample. If found wear and tear particles, take sample and send to lab. **Wear assessment by grease sample analysis—wear may be monitored by periodic grease sample analysis as describe in this section. Grease samples should be collected every twelve months as a minimum and the results of the analysis recorded; this period should be shortened if obvious metal or contaminants are present.	API PR 20	() SEND TO LAB <input checked="" type="checkbox"/> NOT SEND TO LAB								
	Check ball ring bolts torque (For American Aero ONLY): After 3-4 hours, or Initial "Run-in", and after every 500 operating hours, re-torque all of the bolts. Annually, or AFTER 2,000 Hours of Operation, re-torque the bolts. Criteria: If one or more bolts are found to be tightened to less than 80% of the prescribed pre-stress, that loosen bolt (s) should be replaced, in addition to the two adjacent bolts. (If 20% of the total number of bolts are found to be tightened to less than 80% of the prescribed pre-stress, replace all bolts. (Pre-Load))	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO								
	Rotate crane 360 degree and check smoothness of operation	OEM Manual	<input checked="" type="checkbox"/> YES () NO								
	Check swing drive static parking brake for proper operation Caution: DO NOT stop the swing of the crane with this static brake (parking brake)	OEM Manual	<input checked="" type="checkbox"/> YES () NO								
	Check swing lock mechanism condition, corrosion, dent, loose part, worn and wear	OEM Manual	<input checked="" type="checkbox"/> YES () NO								
	Check swing lock mechanism freely lock and unlock for function	OEM Manual	<input checked="" type="checkbox"/> YES () NO								
	Verify crane condition/roll load test as separate procedure.										
	<p>Table 1—Static/Onboard Test Load and Radius</p> <table border="1"> <thead> <tr> <th>Static/Onboard Rated Load at a Specific Radius lb (kg)</th> <th>Test Loads in Excess of Static/Onboard Rated Load at a Specific Radius</th> </tr> </thead> <tbody> <tr> <td>≤ 40,000 (18,144)</td> <td>25 %</td> </tr> <tr> <td>> 40,000 ≤ 100,000 (> 18,144 ≤ 45,358)</td> <td>10,000 lb (4536 kg)</td> </tr> <tr> <td>> 100,000 (45,368)</td> <td>10 %</td> </tr> </tbody> </table>	Static/Onboard Rated Load at a Specific Radius lb (kg)	Test Loads in Excess of Static/Onboard Rated Load at a Specific Radius	≤ 40,000 (18,144)	25 %	> 40,000 ≤ 100,000 (> 18,144 ≤ 45,358)	10,000 lb (4536 kg)	> 100,000 (45,368)	10 %	API 2C	<input checked="" type="checkbox"/> YES () NO
Static/Onboard Rated Load at a Specific Radius lb (kg)	Test Loads in Excess of Static/Onboard Rated Load at a Specific Radius										
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> 40,000 ≤ 100,000 (> 18,144 ≤ 45,358)	10,000 lb (4536 kg)										
> 100,000 (45,368)	10 %										
	Verify crane condition and load test as separate procedure.	1/9.1	<input checked="" type="checkbox"/> YES () NO								
Risk Level Definitions: The following 3 levels indicate the respect the noted deficiency poses to the operation or structural integrity of the equipment:											
Level #2 = Restricted Operation											
Minor deficiency that is recommended to be promptly addressed, but poses no safety and/or environmental risk. The crane can still be operated at full duty.	Deficiency identified that has the potential to limit, de-rate or damage the crane, its surroundings and/or the environment. The duty and locked/ tagged out until the crane's duty and operation should be de-rated or service restricted.	The crane should be removed from duty and locked/ tagged out until the deficiency is rectified.									
System: Structure	Risk Level: 1	Component: Boom Structure	In Accordance with:								
Description:	Location: Boom Point	Date Originated:									
Recommended: Boom board are corroded 3 point											
Recommended: need to repair											
Recommended urgency timeframe for corrective action:	Completed Date:	Completed By:									
System: Structure	Risk Level: 1	Component: Boom Structure	In Accordance with:								
Description:	Location: Boom Point	Date Originated:									
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Recommended: need to repair											
Recommended urgency timeframe for corrective action:	Completed Date:	Completed By:									

12 Apr 2025

P/F PALQ

Maintenance activities Daily Report

Work Order Number: 1244241 Equipment Number: PA-CR 5090-PALQ
 Work Center: COT Crane
 Actual Crew: 3 Actual Hour from PM Job card: 80 Actual Hour from CM:
 Actual Start Date/Time: 7 Jan 2025 / 8:00 Actual Finish Date/Time: 9 Jan 2025 / 18:00

Parts

☒ JDE inventory ☐ Surplus ☐ No part issued

Category Code											
PM (Preventive Maintenance)						CM (Corrective Maintenance)					
Work order classification	PMC	PMS				FND	FSD	PRC	PRO	RAO	REP
Primary Discipline	I	E	M	O	Q	I	E	M	O	Q	
						W	T				
Secondary discipline (Local Code 3)	IIT	EEL	MME	OOP	AIM	IIT	EEL	MTT	MME	PRS	
						CSS	OOP	AGM	AIM		
Local Code 4						BIW	NBI				
Work Identification						ORD	PMI	HAZ	RCA	RTF	

Related Links: ** CM Only **

Component Code: ☐ Solenoid ☐ Hose/Tubing ☐ Regulator ☐ Transmitter ☐ Transducer
☐ Bearing ☐ Gasket/Seal ☐ Lamp ☐ Ballast ☐ Ground system
☐ Gauge ☐ Battery ☐ Actuator ☐ Breaker ☐ Card
☐ Pump ☐ Switch ☐ Valve ☐ Detector ☐ Vibration Probe/Switch
☐ Fuse ☐ Filter/Strainer ☐ Other _____

Failure Action: ☐ Charged ☐ Cleaned ☐ Flushed ☐ Installed ☐ Lubricated
☐ Adjusted ☐ Replaced ☐ Calibrated ☐ Repaired ☐ Overhauled
☐ Configured ☐ Removed ☐ Reset ☐ Restart ☐ Refurbished
☐ Tightened ☐ PM/PDM Corrective Action ☐ PM/PDM No Corrective Action
☐ No Action Require ☐ Other _____

Daily Report (i-plan) Code

Task Code	AS PLAN	CANCEL	DELAY/EARLY	BIW	NBI
Task Code Reason/Remark for Cancel Job	[Delay] Plan too short	[Delay] Issue during execution		[Delay] Interrupt by other jobs (BIW/Early/Delay)	
	[Early] Previous Jobs finish early	Man-Hr not enough due to BIW	Man-Hr not enough due to delay job	Man-Hr not enough due to not plan for resource	
Task Code Reason/Remark for BIW	P1/P2 WORK ORDER	Repair/Restart Machine S/D	Urgent request from unplanned jobs		Other

Attachment

Problem Descriptions: Perform 1 Year crane PM (ITPM)
 As Found: Crane PM Schedule
 Action Taken: Follow Crane PM job task

Action by: _____
 Possible root cause: Recommendation: Maintain Crane PM generate
 As left: Crane operate back to normal
 Job Completed Date: 9 Jan 2025
 Entry by Date: 9 Jan 2025
 Specialist/Supervisor review and sign <For accurate data>: 74-Jan-2025

THE PEDESTAL CRANE CONDITION VERIFICATION

Date: <u>5 Jan 2015</u>			
Crane Owner: <u>COSP/CON</u>		Platform/Vessel: <u>PAJ130</u>	
Crane Owner's representative: (Mach Supv./In/Dept) <u>[Redacted]</u>			
Qualified Inspector: (Qualified Crane Mechanic) <u>[Redacted]</u>			
Inspector's company / agency: (Third Party or Outsource to witness / applicable) <u>[Redacted]</u>			
Manufacturer: <u>Hyundai Infracore</u>		Year of Fabrication: <u>1997</u>	Country: <u>USA</u>
Model / Serial: <u>GAC 199833</u>		Standard API Edition: <u>5</u>	Remark
Safe Working Load (SWL) → OEM	<u>18.31</u>	Metric Tonnes	
Safe Working Load (SWL) → Existing via MOC, if applicable	<u>-</u>	Metric Tonnes	
Boom length, Main	<u>80</u>	ft	
Boom length, Auxiliary if applicable	<u>83</u>	ft	
Part of line main hoist	<u>4</u>	Part line	
Part of line auxiliary hoist	<u>1</u>	Part line	
Safe Working Load at longest boom radius	<u>84</u>	ft	<u>15.590</u> Metric Tonnes/Line
Safe Working Load at shortest boom radius	<u>16</u>	ft	<u>14.370</u> Metric Tonnes/Line
The document of crane specification for Testing, Maintenance and Inspection are provided by:	OEM	MOC / Crane Engineer	
Has the crane ever been modified by MOC?	YES	NO	(Employers are not allowed to modify or adjust any part of cranes or devices or consent to other persons to do these things, that might reduce the safety of the employees who work with the cranes or derricks).
(To verify if this crane is modified with MOC → Allow to test the crane. If this crane is modified without MOC → Not allow to test the crane)			
Does the rotating part have proper guard in place?	YES	NO	(Need mitigation plan)
Is the ladder and hand rail in place?	YES	NO	(Need mitigation plan)
Is the maintenance platform in place?	YES	NO	(Need mitigation plan)
Is the SWL tag labelled on crane pedestal, main block or aux. hoist?	YES	NO	(Need mitigation plan)
Verify if the crane major component damaged or not	YES (Need to repair or mitigate unsafe condition with MOC before testing)	NO	(Employers shall not allow employees work with damaged/ unsafe cranes or derricks)
Inspect boom end connections, for bends, dents, corroded areas, cracked welds, and signs of mechanical damage, wear, etc. **any deviation should be reported**			
Level 1 = Incidental: Minor deficiency that is recommended to be promptly addressed, but poses no safety and/or environmental risk. The crane can still be operated at full duty. → Allow to test			
Level 2 = Restricted Operation: Deficiency identified that has the potential to limit, de-rate or damage the crane, its surroundings and/or the environment. The duty and locked/ tagged out until the crane's duty and operation should be de-rated or service restricted. → To be de-rated	YES (To be verified)	NO	
Level 3 = Out of Service: The crane should be removed from duty and locked/ tagged out until the deficiency is rectified. → No Use			
Function Load Testing			
1. Verify Crane SWL (Existing)	<u>18.31</u>	Metric Tonnes	
2. Verify routine maximum actual load	<u>2.5</u>	Metric Tonnes	
3. Select the specimen load to be more than actual routine load 1.25 times but not more than SWL.	<u>3.145</u>	Metric Tonnes	
Example #1: Crane's SWL is 18 Metric Tonnes. The routine maximum actual load is 2.4 Metric Tonnes. Therefore, the load testing shall be 2.4 x 1.25 = 3 Metric Tonnes.			
Example #2: Crane's SWL is 18 Metric Tonnes. The routine maximum actual load is 16 Metric Tonnes. By calculation, the load testing is 16 x 1.25 = 20 Metric Tonnes more than SWL (18 MTon). Therefore, the load testing shall be 18 Metric Tonnes equal to SWL.			
4. Use Auxiliary Winch if specimen load less than or equal 3 Metric Tonnes	YES	NO	
5. Use Main Winch if specimen load more than 3 Metric Tonnes	YES	NO	
6. The record of load testing: Fill in "Function Test Record" sheet attached.			

14-Jan-2015

Sheet: Function Test Record

RECORDED FUNCTION TEST PROCEDURE			
1. CHECK AND RECORD READING RADIUS AND BOOM INDICATOR AT FOUR (4) VALUES INCLUDING MAXIMUM AND MINIMUM.			
(ALL RADIUS MEASUREMENT ARE TO BE TAKEN FROM THE CENTERLINE OF CRANE ROTATION)			
ACTUAL	INDICATED RADIUS (FT)		
A) 18" (MINIMUM) 16 E	16.5 Ft		
B) 20'	28 v		
C) 25'	26 v		
D) 30' (INTERMEDIATE)	30 v		
E) 40'	40 v		
F) 50' (INTERMEDIATE)	50 v		
G) 60'	60 v		
H) 75' (MAXIMUM) 84	84 v		
2. CHECK AND RECORD READING ON BOOM ANGLE / DEGREES.			
SPECIFICATION	INDICATED BOOM ANGLE (DEGREES)		
1) MAXIMUM. 75 DEGREES	75 Degrees		
2) INTERMEDIATE. 50 DEGREES	50 v		
3) INTERMEDIATE. 30 DEGREES	30 v		
4) MINIMUM. 0 DEGREES	0 v		
3. READING ON LOAD INDICATOR WITHOUT SLINGS OR LOAD / LBS. (LOAD BLOCK + WIRE ROPE)			
ACTUAL	INDICATOR READ FREE LOAD, (LBS)		
1) MAXIMUM RADIUS 650 LBS.	650 lbs		
2) MINIMUM RADIUS 650 LBS.	150 lbs		
4. CHECK AND RECORD ENGINE HIGH IDLE SPEED / RPM.			
SPECIFICATION	INDICATED OF FUNCTIONAL (RPM)		
1) IDLE SPEED 950 RPM	950		
2) LOW SPEED - RPM	-		
3) HIGH SPEED 2,200 RPM	2,200		
5. FUNCTIONALLY TEST THE FOLLOWING.			
ACTUAL	INDICATED OF FUNCTIONAL (TESTED)		
A) MAIN HOIST ANTI -TWO BLOCK	Function		
B) AUXILIARY HOIST ANTI -TWO BLOCK	Function		
C) HIGH BOOM ANGLE KICK OUT.	Function		
D) LOW BOOM ANGLE KICK OUT.	NA		
E) PRIME MOVER SHUTDOWN.	Function		
F) EMERGENCY SHUTDOWN.	Function		
G) ROTATE CRANE 360 LEFT. (270) Degrees	Smooth		
H) ROTATE CRANE 360 RIGHT. (270) Degrees	Smooth		
6. RECORD HYDRAULIC RELIEF VALVE PRESSURE SETTING ON FOLLOWING HYDRAULIC FUNCTION:			
SPECIFICATION	INDICATED PRESSURE (PSI)		
A) MAIN HOIST 2,100 PSL	2,100 PSI		
B) AUXILIARY HOIST 2,450 PSL	2,450 PSI		
C) BOOM HOIST 2,700 PSL	2,700 PSI		
TEST CONDUCTED BY: [REDACTED]	POSITION: Cr - Mech		
CRANE OPERATOR: [REDACTED]	POSITION: Cr - Mech		
COMMENTS:	DATE: 14 Jan 2025		

14 Jan 2025

CRANE MAKE: American Aero
MODEL: G-30F
SERIAL NUMBER: 97891

LOCATION
PALQ

DATA BASE - PM JOB TASK CARD

Crew Size: 3

SYSTEM	TASK	Specification	Record/Reading
JOB PREPARATION			
Safety	Perform Job Safety Analysis (JSA)	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Obtain "COMPANY" PERMIT TO WORK	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Perform Tool Box Talk	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	BEFORE/AFTER JOB EXECUTION: Ensure to comply with Isolation procedure (LOCK OUT/TAG OUT, WARNING SIGNS and	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
Required Tools	Ensure proper tools are available at the job site	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Tool bag	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Tool box	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
Lubricants	Ensure proper lubricants and consumables are available at the job site.	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Hydraulic System - Hydraulic Oil	Reado HD-68	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Pump drive gear oil	Caltex Meropa 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Slow Gearbox - Gear Oil	Omala 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Auxiliary Hoist - Gear Oil	Omala 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Main Hoist - Gear Oil	Omala 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Boom Hoist - Gear Oil	Omala 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Grease Points - Lithium Based **IT MUST NOT INCLUDE MOLYBDENUM DISULPHIDE**	AMUL/TIFAX EPB2	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Open Gear Teeth - Open Gear Lube Highly water resistant and of an adhesive nature.	OMEGA 73	OEM Manual () YES () NO
	Pneumatic Lubricator	SAE Grade 10	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Wire rope lubricant Company preferred grade	Briteube 70	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Engine Oil - SAE Grade 15W-40 (Delo Gold)	15W-40	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Safe Load Indicator Fluid	W-15	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Engine Radiator - Should have radiator preservatives additives	Delo Extended Life	OEM Manual <input checked="" type="checkbox"/> YES () NO
Consumables	Spray Cold Galvanize		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
	Omco Tape		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
	WD-40		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
History Review	Before starting work, tasks preparation at least 8 day prior to starting work: 1. Review history PM/CM from Roving Team, 2. Review last PM/CM/PMI from Crane Mech, 3. List out all punch list and prepare parts. 4. Review last Certificate task performed	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Require to update part history from Roving Team and Crane Mech on following main components to ensure the right parts are prepared: - Aux/ Main/ Boom Cylinder, Engine, Swing Gearbox, etc. Reference: Crane OEM information of such part need to be recorded - Manufacturer & Contact Info - Model & serial number - Installation date	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Review history data from Certificates and incorporate into current PM: - Pull Test Certificates (ongoing update, 4 yr. history). - Load Test Certificates (ongoing update, 4 yr. history). - Wire Rope Certifications (running rope and standing rope) (life of rope). - Hoist Certifications for hoist classified as "personnel handling" hoist.	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Review Last Preventative Maintenance Records (Inspection Reports) - Pre-use (Pre-Post Inspection) - 1 Monthly - 3 Monthly (API RP 2D Defined Quarterly Inspection) - 6 Monthly (API RP 2D Not Defined, Company Standard) - 1 Yearly (API RP 2D Defined Annual Inspection)	API RP 2D	<input checked="" type="checkbox"/> YES () NO
Lifting Gear Preparation	Visually inspect (Sling, sling hooks and shackles) include Whistling / Chain	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Check color code / Tag & date inspection	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
PM JOB STARTING			
General	Determine if access route to/from crane is clean, safe, unobstructed and adequately protected against falls, tripping and slipping	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Inspect all ladders and cages	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Inspect drain lines and drip pans for deterioration	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Remove any sediment collected in the bottom of drip pans	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Inspect for general crane and components for loss of protective coating and corrosion	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Visually inspect for missing or loose pins, pin keepers, bolts, nuts, fasteners	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Apply grease to exposed grease parts (control valve spools, ball-ring gear, parking brake valve, etc.)	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Grease all grease fittings e.g., boom foot pin, lower/ upper tank of boom cylinder	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Prepare oil sample bottles, labeling and required		<input checked="" type="checkbox"/> YES () NO
	Review previous oil analysis report		<input checked="" type="checkbox"/> YES () NO
Take oil sample	Propose the hoist and hydraulic oil sample point by cleaning the drain area		<input checked="" type="checkbox"/> YES () NO
	Start the crane engine and run until the water temperature reaches 60°C (140°F) And check leaked		<input checked="" type="checkbox"/> YES () NO
	Operate the hoist in both directions for one to two minutes.		<input checked="" type="checkbox"/> YES () NO
	Do not take the sample from the first oil out the drain port		<input checked="" type="checkbox"/> YES () NO
	Take a sample from the mid stream flow of the oil to obtain accurate representation of the oil condition (APPROX. 250 CC)		<input checked="" type="checkbox"/> YES () NO
	Close the sampling valve and install the valve protective cap		<input checked="" type="checkbox"/> YES () NO
	After an oil sample then check the oil level and add new oil as required.		<input checked="" type="checkbox"/> YES () NO
	Hydraulic Oil	Reado HD-68	Current reading 9270 HRS <input checked="" type="checkbox"/> YES () NO
	Main Hoist - Gear Oil	Meropa 220 Model CH165A-3610-02-1 S/N 8400908	Current reading 9270 HRS <input checked="" type="checkbox"/> YES () NO
	Aux. Hoist - Gear Oil	Meropa 220 Model CH165A-2610-02-1 S/N 8400842	Current reading 9270 HRS <input checked="" type="checkbox"/> YES () NO
	Boom Hoist - Gear Oil	Meropa 220 Model CH165A-2610-02-1 S/N 8400842	Current reading 9270 HRS <input checked="" type="checkbox"/> YES () NO
	Engine Lube oil	Delo Gold 15W-40	Current reading 9270 HRS <input checked="" type="checkbox"/> YES () NO

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SYSTEM	TASK	Specification	Record/Insulating	
Pneumatic System	Check all hose connections are sound and all mounting and pivoting connections are secure.	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	Check proper air pressure is available for the system. Record Value.	OEM Manual		
	AIR SYSTEM PARAMETERS:	MAX 120 PSI	OEM Manual	
	Inspect air receiver freedom of operation	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	Check the hose, piping and tubing for mechanical damage, corrosion, splits, blisters, cracking or excessive abrasion on the outer surface	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Hoist / Brakes	Any time a hoist exhibits erratic operation and/or unusual noise, the hoist must be taken out of service until it is inspected and serviced by a qualified technician. Continued operation of a hoist with a defect in a critical component may lead to loss of load control, property damage, serious injury or death.	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	Inspect exterior of hoist, frames, drums and flanges for damage, leaks, cracks and wear and repair/replace as required to maintain the structural integrity of the hoist.	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	Check all hoist mounting pins, bolts or other fasteners and replace or tighten as necessary.	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	Lubricant level must be maintained between the minimum and maximum levels; midway up sight glass or at bottom of level plug port is equipped and check/clean plug vent. Use only the recommended type of lubricant.	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	Inspect Brake Valve Opening Pressure test V/V 1-1/4" PD Series: no lower than 530 PSI V/V 1-1/2" CH Series: no lower than 575 PSI	Main	Braden Bulletin 527-Dec,1996	500 PSI
		Aux		550 PSI
		Boom		550 PSI
	Inspect Brake cylinder opening pressure test. CH/PD Series: 400-450 PSI.	Main	Industry Standard	400 PSI
		Aux		400 PSI
		Boom		400 PSI
	Measure differential of static and dynamic brake. CH/PD Series: 150-250 PSI.	Main	Industry Standard	150 PSI
		Aux		150 PSI
		Boom		150 PSI
	Check for external oil leaks and repair as necessary. This is extremely important due to the accelerated wear that will result from insufficient lubricating oil in the hoist.	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	RECORD BOOM HOIST INFORMATION:	Manufacturer:	OEM Manual	Braden
		Model:	OEM Manual	CH 145A-93120-010-1
		Serial Number:	Inspector's Assessment	2700995
	Check BOOM HOIST for proper operation and good condition	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	Check BOOM HOIST RATCHET AND PAWL SYSTEM for proper operation and good condition	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	Brake test & record pressure of BOOM HOIST	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	Check BOOM HOIST gearbox oil level/condition, top up if required. ** Refer to Onsite Gear Oil Sample Procedure ** ** Replace and send oil sample to SKL if abnormal ** ** Take photo of Oil Sampling for Reference **	OEM Manual	<input type="checkbox"/> SEND SKL LAB <input checked="" type="checkbox"/> NOT SEND SKL LAB	
	Obtain BOOM HOIST gearbox oil sample and visually check	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	Change BOOM HOIST gearbox oil	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
	RECORD MAIN HOIST INFORMATION:	Manufacturer:	OEM Manual	Braden
Model:		OEM Manual	CH 145A-36110-010-1	
Serial Number:		Inspector's Assessment	2700909	
Check MAIN HOIST for proper operation and good condition	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
Brake test & record pressure of MAIN HOIST	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
Check MAIN HOIST gearbox oil level/condition, top up if required. ** Refer to Onsite Gear Oil Sample Procedure ** ** Replace and send oil sample to SKL if abnormal ** ** Take photo of Oil Sampling for Reference **	OEM Manual	<input type="checkbox"/> SEND SKL LAB <input checked="" type="checkbox"/> NOT SEND SKL LAB		
Obtain MAIN HOIST gearbox oil sample and visually check	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
Change main hoist gearbox oil	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
RECORD AUXILIARY HOIST INFORMATION:	Manufacturer:	OEM Manual	Braden	
	Model:	OEM Manual	CH 145A-26110-010-1	
	Serial Number:	Inspector's Assessment	2700842	
Check AUXILIARY HOIST for proper operation and good condition	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
Brake test & record pressure of AUXILIARY HOIST	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
Check AUXILIARY HOIST gearbox oil level/condition, top up if required. ** Refer to Onsite Gear Oil Sample Procedure ** ** Replace and send oil sample to SKL if abnormal ** ** Take photo of Oil Sampling for Reference **	OEM Manual	<input type="checkbox"/> SEND SKL LAB <input checked="" type="checkbox"/> NOT SEND SKL LAB		
Obtain AUXILIARY HOIST gearbox oil sample and visually check	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
Change auxiliary hoist gearbox oil	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
Check Relief Valve:	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
BOOM RELIEF VALVE TEST	Relief Specific:	2700 PSI	OEM Manual	
MAIN HOIST RELIEF VALVE TEST	Relief Specific:	2400 PSI	OEM Manual	
AUX HOIST RELIEF VALVE TEST	Relief Specific:	2640 PSI	OEM Manual	

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1/10 10 OFF from 11 am to 12:00 pm

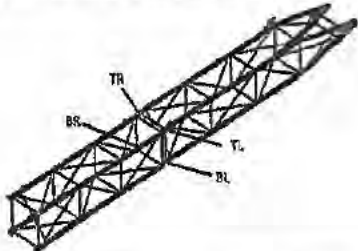
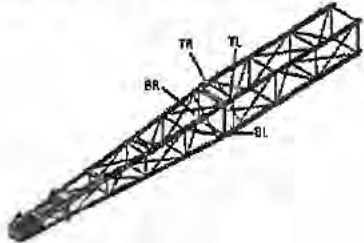
SYSTEM	TASK			Specification	Record/Reading
	SWING RELIEF VALVE TEST	Relief Spec:	2000 PSI	OEM Manual	<u>2000</u> PSI
	BOOM HOIST CASE DRAIN for Gear Motor (Down Mode).	PRESSURE	< 100 psi	OEM Manual	<u>0</u> PSI
	MAIN HOIST CASE DRAIN for Gear Motor (Down Mode).	PRESSURE	< 100 psi	OEM Manual	<u>0</u> PSI
	AUX. HOIST CASE DRAIN for Gear Motor (Down Mode).	PRESSURE	< 100 psi	OEM Manual	<u>0</u> PSI
	Reference: BRADEN Inspection, Testing, Preventive Maintenance and Special Operating Instructions For Planetary Hoists PB-308 latest edition for further details.			OEM Manual	
Hydraulic System	Check hydraulic tank oil level. Oil should be visible in the sight glass. Top up as required (3/4 Tank Minimum)			OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Check hydraulic oil condition. (Check if running hours are more than 300 hours from last oil change or during Annual Inspection) ** Refer to Onsite Hydraulic Oil Sample Procedure ** ** Replace and send oil sample to SKL if abnormal ** ** Take photo of Oil Sampling for Reference **	Random HD-68	Company Spec/Standard	<input checked="" type="checkbox"/> SEND SKL LAB <input checked="" type="checkbox"/> NOT SEND SKL LAB	
	Drain off 1 liter of oil to remove condensed water, if water is present, drain until water is removed and top up with clean oil			Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Check for any hydraulic leaks			Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Check the hydraulic hose, piping and tubing for mechanical damage, corrosion, splits, blisters, cracking or excessive abrasion on the outer surface			API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Check that all hydraulic hose connections are sound and that all mounting and pivoting connections are secure.			Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Ensure the filler breather on tank is not covered or clogged			Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Visually inspect for missing or loose pins, pin keepers, bolts, nuts, fasteners on all pumps, motors and valves			API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Check the filter bypass indicator, while engine is running			OEM Manual	<input checked="" type="checkbox"/> YES () NO
	With engine running (after all other items pass inspection), check the system for leaks around fittings, hoses, valves and reservoirs			Industry Standard	<input checked="" type="checkbox"/> YES () NO
	With engine running, check the source of any unusual noise or vibration that may cause or indicate equipment damage or wear			Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Ensure all hoses are properly rated for the system, see "Parameters" for each system for details.			Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Check sign for leak, damp support and condition of hydraulic oil cooler			Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Record hydraulic oil operating temperature. Note: Hydraulic fluid overheating temperature is over 180 F degrees or 82 C, degrees (reservoir temperature)			Industry Standard	<u>130</u> Degree F
	Determine if hydraulic return pressure gauge is working and giving accurate measurements. Record readings				
	RECORD HYDRAULIC RETURN PRESSURE:		25 psi "maximum"	OEM Manual	<u>5</u> PSI
	Change hydraulic return filters and seals			OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Test all hydraulic relief valves and record pressures with engine at:		2200 RPM	API RP 2D	
	BOOM FUNCTION Boom Angle: 60 Degree (Recommend or as applicable)	UP (working)	RECORD	OEM Manual	<u>650</u> PSI
		DOWN (working)	RECORD	OEM Manual	<u>1100</u> PSI
	MAIN FUNCTION Boom Angle: 60 Degree (Recommend or as applicable)	UP (working)	RECORD	OEM Manual	<u>650</u> PSI
		DOWN (working)	RECORD	OEM Manual	<u>1400</u> PSI
	AUX. FUNCTION Boom Angle: 60 Degree (Recommend or as applicable)	UP (working)	RECORD	OEM Manual	<u>650</u> PSI
		DOWN (working)	RECORD	OEM Manual	<u>1100</u> PSI
	SWING FUNCTION Boom Angle: 60 Degree (Recommend or as applicable)	Right (working)	RECORD	OEM Manual	<u>500</u> PSI
		Left (working)	RECORD	OEM Manual	<u>500</u> PSI
	PILOT-CONTROL SYSTEM PARAMETERS:		Operator pressure	OEM Manual	<u>500</u> PSI
	Measure flow rate of Hydraulic pump if required and record results:			Company Spec/Standard	
	BOOM PUMP FLOW RATE	0 PSI =	RECORD	OEM Manual	<u>52</u> GPM
		25%	RECORD	OEM Manual	<u>91</u> GPM
		50%	RECORD	OEM Manual	<u>70</u> GPM
		75%	RECORD	OEM Manual	<u>49</u> GPM
		100%	51.5 GPM	OEM Manual	<u>49</u> GPM
	MAIN PUMP FLOW RATE	0 PSI =	RECORD	OEM Manual	<u>78</u> GPM
		25%	RECORD	OEM Manual	<u>69</u> GPM
		50%	RECORD	OEM Manual	<u>66</u> GPM
		75%	RECORD	OEM Manual	<u>66</u> GPM

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File: LG OPP case 11086148.pdf

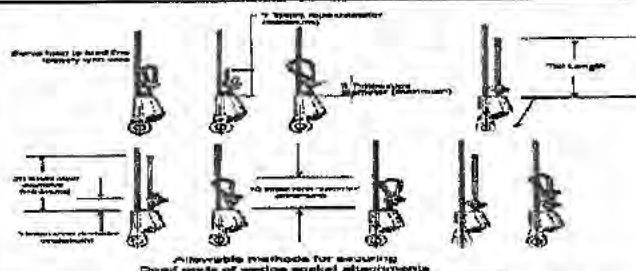
SYSTEM	TASK	Specification	Record/Reading
	AUX PUMP FLOW RATE	100% 78 GPM	OEM Manual 16 GPM
		0 PSI = RECORD	OEM Manual 49 GPM
		25% RECORD	OEM Manual 49 GPM
		50% RECORD	OEM Manual 48 GPM
		75% RECORD	OEM Manual 47 GPM
		100% 42.9 GPM	OEM Manual 47 GPM
	SWING PUMP FLOW RATE	0 PSI = RECORD	OEM Manual 21 GPM
		25% RECORD	OEM Manual 20 GPM
		50% RECORD	OEM Manual 19 GPM
		75% RECORD	OEM Manual 18 GPM
		100% 21.0 GPM	OEM Manual 14 GPM
	Check condition of pump drive spline and record		Company Spec/Standard 95 % Remaining
Electrical system and Crane Boom Lighting	Check the electrical junction boxes, wires and connections for deterioration, discolored bags, (replace as required)		Industry Standard <input checked="" type="checkbox"/> YES () NO
	Check the condition of the grounding and lighting protection system.		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
	Visually inspect boom floodlight and light guards for loose, missing, corroded		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
	Check condition pipe support, u-bolt, nuts of boom floodlight and electric slipring for loose, missing, corroded		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
	Check Electric slipring/sawval for 360° continuous rotation		OEM Manual <input checked="" type="checkbox"/> YES () NO
	Check Water Ingress, condensation in electric slipring and boom floodlight		OEM Manual <input checked="" type="checkbox"/> YES () NO
	Check freely movement and lubricate of boom floodlight		OEM Manual <input checked="" type="checkbox"/> YES () NO
	Check condition of crane boom lighting and safety net is secured with strong point. Last installation date		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
	Safety net should be replace 24 months after installation (2 year)		
	Check function of crane sound signal		Company Spec/Standard <input checked="" type="checkbox"/> YES () N/A () NO
	Check function of crane boom lighting at boom upper section		Company Spec/Standard <input checked="" type="checkbox"/> YES () N/A () NO
	Check function of crane boom lighting at boom lower section		Company Spec/Standard <input checked="" type="checkbox"/> YES () N/A () NO
	Check function of crane boom lighting at winch side		Company Spec/Standard <input checked="" type="checkbox"/> YES () N/A () NO
	Check function of crane boom lighting at crane cabin		Company Spec/Standard <input checked="" type="checkbox"/> YES () N/A () NO
	Check function of boom light at boom tip		Company Spec/Standard <input checked="" type="checkbox"/> YES () N/A () NO
	Check function of beacon light at top gantry		Company Spec/Standard <input checked="" type="checkbox"/> YES () N/A () NO
	Check condition wooden support on boom crane and re-tighten		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
Operator Control Station	Check general condition of control panel, bolts, paint security, etc.		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Determine if there is a serviceable fire extinguisher in the vicinity of the crane		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
	Determine if correct load chart is in use and easily visible for operator		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Determine if charts, indicators and hand signal chart are in the cabling and firmly attached		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Determine if angle/radius indicator plate is easily visible to operator and is moving freely.		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Check condition of control levers and determine if they "dead-man" back to the neutral position.		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Check controls for freedom-of-movement.		
	Check condition of pressure gauges.		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Check proper control labels are firmly installed, completely legible and properly labeled		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Check controls for freedom-of-movement		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Function Test Horn		Industry Standard <input checked="" type="checkbox"/> YES () NO
	Check condition and function Main/ Aux selector valve		Industry Standard <input checked="" type="checkbox"/> YES () NO
Load Indicator System	Check condition and function of boom/ main/ aux/ swing joy stick		Industry Standard <input checked="" type="checkbox"/> YES () NO
	Visual check on fittings and connections for leaks. Fix leak if any.		OEM Manual <input checked="" type="checkbox"/> YES () NO
	Should any leaks exist, stop leak and re-charging system, refer to maintenance manual		OEM Manual <input checked="" type="checkbox"/> YES () NO
	Check general condition of tubing, hoses, pins, bolts, paint, etc.		Industry Standard <input checked="" type="checkbox"/> YES () NO
	Ensure load cell is free of obstructions		OEM Manual <input checked="" type="checkbox"/> YES () NO
	Check condition of gauge(s) face and clean glass as required.		OEM Manual <input checked="" type="checkbox"/> YES () NO
	Check weight indicator function (Main)		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
	Check weight indicator fluid, top up if required		Industry Standard <input checked="" type="checkbox"/> YES () NO
	Ensure Safe Working Load, matches ratings on the Crane Load Chart		OEM Manual <input checked="" type="checkbox"/> YES () NO
	Ensure Boom Length, matches the Crane Load Chart		OEM Manual <input checked="" type="checkbox"/> YES () NO
	Ensure Boom Angle measurements and readings match the boom angle indicator.		OEM Manual <input checked="" type="checkbox"/> YES () NO
	Ensure Boom Radius measurements indicate the distance from center line of the crane to the hook		OEM Manual <input checked="" type="checkbox"/> YES () NO
Pedestal & Structure	Check weight indicator accuracy *maximum variance +/- 2% (Other Types)		Industry Standard <input checked="" type="checkbox"/> YES () NO
	Visually check Pedestal for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks weld, etc.		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Check water rain drain at pedestal must be not obstruct		Industry Standard <input checked="" type="checkbox"/> YES () NO
	Check pin and collar pin of pedestal missing, corrosion, wear, damage and exercise pin.		Industry Standard <input checked="" type="checkbox"/> YES () NO
	Visually check Base - Plate connection and Base Bolt Structure for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks weld, etc.		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Check A fixed such as Handrail, Walkway, Grating, stationary structure without significant movement in response to waves and currents in normal operating conditions.		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Visually check condition of A- Frame for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks weld, etc.		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Check water rain drain at top gantry must be not obstruct		Industry Standard <input checked="" type="checkbox"/> YES () NO
	Visually check Condition of top gantry for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks weld, etc.		API RP 2D <input checked="" type="checkbox"/> YES () NO
	Check entire boom structure for loss of protective coating and corrosion		API RP 2D <input checked="" type="checkbox"/> YES () NO

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SYSTEM	TASK	Specification	Record/Reading								
Boom Structure	Check entire boom structure for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks, etc.	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
	Check boom end connections, for bands, dents, corroded areas, cracked welds, and signs of mechanical damage, wear, etc. **any deviation should be reported**	API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
	Check Boom Wooden Brush Bar condition, broken, crack, deteriorate	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
	Re-tighten connecting bolts at boom jts	Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
	Inspect and measurement wear limits on boom connecting pins, ring & clevis for excessive clearance - Boom connecting wear limits recommended replacement tolerance = 0.075 inch - Boom connecting wear limits sparrows required replacement tolerance = 0.105 inch	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
	BOOM BASE CONNECTING WITH BOOM SECTION WEAR LIMIT TOLERANCE : 	Industry Standard	Point TR = <u>0</u> inch								
		Industry Standard	Point TL = <u>0</u> inch								
		Industry Standard	Point BR = <u>0</u> inch								
		Industry Standard	Point BL = <u>0</u> inch								
	BOOM SECTION CONNECTING WITH BOOM POINT WEAR LIMIT TOLERANCE : 	Industry Standard	Point TR = <u>0</u> inch								
		Industry Standard	Point TL = <u>0</u> inch								
		Industry Standard	Point BR = <u>0</u> inch								
		Industry Standard	Point BL = <u>0</u> inch								
	Visually inspect and measurement boom chord members, for bands, dents, corroded areas, cracked welds, and signs of mechanical damage, etc. **any deviation should be reported** ** Note: If tick "found" or occur bent, dent at boom chord must be inspection and measurement and record in below table	OEM Manual	<input checked="" type="checkbox"/> FOUND <input type="checkbox"/> NOT FOUND								
	OVERALL BOOM CHORD STRAIGHTNESS										
	<table><thead><tr><th>CHORD LENGTH</th><th>Maximum deviation over length of chord</th></tr></thead><tbody><tr><td>30 ft. or less (9.14 m. or less)</td><td>0.12 inches (3.0 mm.)</td></tr><tr><td>Over 30 ft. to and including 50 ft. (Over 9.14 m. to and including 15.24 m.)</td><td>0.19 inches (4.8 mm.)</td></tr><tr><td>Over 50 ft. to and including 70 ft. (Over 15.24 m. to and including 21.30 m.)</td><td>0.25 inches (6.4 mm.)</td></tr></tbody></table>		CHORD LENGTH	Maximum deviation over length of chord	30 ft. or less (9.14 m. or less)	0.12 inches (3.0 mm.)	Over 30 ft. to and including 50 ft. (Over 9.14 m. to and including 15.24 m.)	0.19 inches (4.8 mm.)	Over 50 ft. to and including 70 ft. (Over 15.24 m. to and including 21.30 m.)	0.25 inches (6.4 mm.)	Industry Standard
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BOOM BASE MAXIMUM TOLERANCE: < 0.029 inch	Industry Standard	Point TR = <u>0</u> inch									
	Industry Standard	Point TL = <u>0</u> inch									
	Industry Standard	Point BR = <u>0</u> inch									
	Industry Standard	Point BL = <u>0</u> inch									
BOOM SECTION MAXIMUM TOLERANCE: < 0.019 inch	Industry Standard	Point TR = <u>0</u> inch									
	Industry Standard	Point TL = <u>0</u> inch									
BOOM POINT MAXIMUM TOLERANCE: < 0.019 inch	Industry Standard	Point BR = <u>0</u> inch									
	Industry Standard	Point BL = <u>0</u> inch									
	Industry Standard	Point TR = <u>0</u> inch									
	Industry Standard	Point TL = <u>0</u> inch									
Point BR = <u>0</u> inch											
Point BL = <u>0</u> inch											
Visually check boom ledges, bands, dents, corroded areas, cracks, etc. **any deviation should be reported** ** Note: If tick "found" or occur bent, dent at boom ledges must be measurement and record in below table	Industry Standard	<input checked="" type="checkbox"/> FOUND <input type="checkbox"/> NOT FOUND									

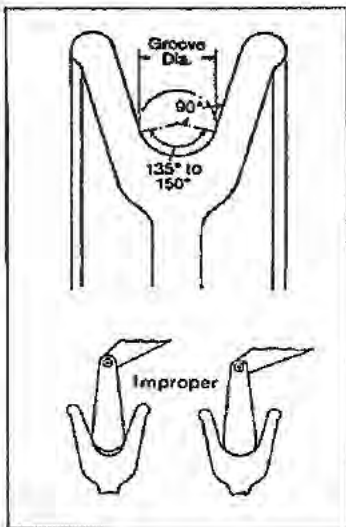
14-JUN-2025

SYSTEM	TASK	SPECIFICATION	Record/Inspection
	BOOM LACING MAXIMUM TOLERANCE:	0.062 inch, with no more than 3 bent lacing per boom section or 2 consecutive bent lacing	Industry Standard
	 <p>Check and maintain: - Boom foot pins - Boom foot pins</p>	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	BOOM FOOT PINS TOLERANCE:	Industry Standard	B1 = <input type="text"/> inch B2 = <input type="text"/> inch
	Re-tighten bolt lock shafts should be checked for missing or loose for all	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Lubricate boom foot pins and bushings	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Visually check condition boom stoppers	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Lubricate boom stoppers and inspect boom stop spring using hammer to ensure spring is functioning. Caution: Spring lock stud bolt may become loose and potential to drop object	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Boom function test angle / radius to correction ***Note: Angle indicator mechanism shall be capable of steering the boom from a minimum of zero degrees to the maximum recommended boom angle.	OEM Manual	<input checked="" type="checkbox"/> YES () NO
Wire Rope	Determine if parts-of-line match parts of line on the load chart in the crane cabin.	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Determine if visible portion of wire rope adequately lubricated. Lubricate wire rope if require	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	For each layer of wire rope on drums, check that all rope is parallel and each crossover point at hoist flanges is correct	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	The top layer of rope must not be lower to the flange tips 2.5 in for smooth drum, 2 in for grooved drum or 2.5 times of wire rope diameter	API RP 2C	<input checked="" type="checkbox"/> YES () NO
	Inspect wire rope for, kinking, crushing, broken wires, necking down of rope diameter, worn outside wires, corroded or broken wires at end connection, cutting or unstranding.	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	** Note**Running Ropes use in the boom hoist - Six (6) Randomly distributed broken wires within one (1) lay length - Three (3) broken wires in one strand within one (1) lay length	API RP2D Edition 7	None
	** Note**Running Ropes of rotation-resistant construction used in the main or auxiliary hoist: - Four (4) Randomly distributed broken wires within 3D rope diameter - Two (2) broken wires in one strand within 5 rope diameter	API RP2D Edition 7	None
	** Note**Standing rope Such as boom pendants - Three (3) broken wire within one (1) lay length - Two (2) broken wires at the end connection	API RP2D Edition 7	None
	One valley break can indicate internal rope damage requiring close inspection of this section of the rope. When one or more valley breaks are found in one lay length the rope should be retired.	API RP2D Edition 7	None
	Reductions for the rope diameter, from initial wire rope dimensional measurements, in a nonworking area (an area away from the sheaves) compared to the lowest diameter of rope measured in three working areas (areas where the rope regularly goes over a sheave) of more than the following is observed: - 3/64 in. (0.047 in.) (1.2 mm) for diameters up to and including 3/4 in. (19.1 mm); - 1/16 in. (0.062 in.) (1.6 mm) for diameters of 7/8 in. (22.2 mm to 28.6 mm); - 3/32 in. (0.093 in.) (6.3 mm) for diameters of 1-1/4 in. to 1-1/2 in. (31.8 mm to 38.1 mm); - For rope diameters greater than 1-1/2 in., a 5 % diameter loss from baseline measurement. - Wear of one-third the original diameter of the outside individual wires	API RP2D Edition 7	None
	Increase in the length of an individual rope lay is observed. This increase in lay length and accompanying reduction in diameter can be caused by failure of the core. This can occur more readily in ropes of rotation-resistant construction.	API RP2D Edition 7	<input checked="" type="checkbox"/> YES () NO
	- Inspection and Verify running and standing rope from heat effect **Note: Not more than 250°C - There is evidence of heat damage from any source (i.e. engine exhaust, flame towers, stray corrosion cracking, etc.). Heat can be generated by passing a rope over a frozen or non-turning sheave, contact with structural members of the crane, improperly grounded welding leads or lightning strikes	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	With the boom at the highest possible angle and the main load block or overhaul ball at the water level, ensure there is a minimum of 5 wraps of wire-rope remaining on the drums.	API SPEC 2C	<input checked="" type="checkbox"/> YES () NO
	Reference: - Running rope safety factor not less than 5 for wire rope that are running wire, (That law: Wire rope nominal breaking strength x number parts of line /Maximum crane capacity) - Standing rope safety factor not less than 3.5 for wire rope that are stay cables, (That law)	That Law	<input checked="" type="checkbox"/> YES () NO
	Check corrosion, erosion, broken, loosen of pin, cotter pin, socket, and exercise pin of pendant line	Industry Standard	<input checked="" type="checkbox"/> YES () NO

SYSTEM	TASK	Specification	Record/Reading
	Measure and record nominal diameter of "running ropes" main and auxiliary (particularly on drum, equalizer sheave and at sockets, clips and dead end points) *****Nominal = several measurements added together divided by Number of measurements*****	API RP 2D	() YES () NO
	Inspect wire rope and record size below:	API RP 2D	
	BOOM WIRE ROPE OD:	75 Deg OEM Manual	0.655 inch
		45 Deg OEM Manual	0.650 inch
		0 Deg OEM Manual	0.650 inch
	LEFT SIDE PENDANT WIRE OD:	NEAR BOOM POINT OEM Manual	1.280 inch
		HALFWAY POINT OEM Manual	1.430 inch
		NEAR BRIDLE OEM Manual	1.290 inch
	RIGHT SIDE PENDANT WIRE OD:	NEAR BOOM POINT OEM Manual	1.279 inch
		HALFWAY POINT OEM Manual	1.274 inch
		NEAR BRIDLE OEM Manual	1.278 inch
	MAIN WIRE ROPE OD:	FULL DRUM OEM Manual	0.980 inch
		HALF DRUM OEM Manual	0.982 inch
		WATER LEVEL OEM Manual	0.982 inch
	AUX WIRE ROPE OD:	FULL DRUM OEM Manual	0.995 inch
		HALF DRUM OEM Manual	0.995 inch
		WATER LEVEL OEM Manual	0.998 inch
	Slip-Cut 1 meter of all ropes at the wedge socket and re-wedge to prevent rust inside of wedge socket (at outward end of rope, not on hoist drum) Dead end tail length is never less than 6 inches, or: - Standard 6 to 8 Strand wire rope is not less than 7 times the rope diameter - Rotation Resistant Wire Rope is not less than 20 times the rope diameter	Company Spec/Standard	(X) YES () NO
	U-bolt and Fist Grip Clips: Extreme care should be exercised to assure proper orientation of U-bolt clips. The U-bolt segment shall be in contact with the wire rope dead-end. The orientation, spacing, torquing, and number of all clips shall be in accordance with the crane manufacture's specifications.	API SPEC 2C	(X) YES () NO
		API SPEC 2C	Done.
	Verify that the wedge socket and wedge are the correct size for the rope in use.	API SPEC 2C	(X) YES () NO

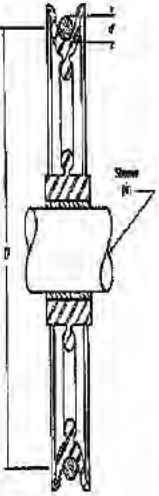
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The LO GPP crew. If any job task, etc.

SYSTEM	TASK	Specification	Record/Reading	
Sheaves & Bearings	Lubricate all sheave bearings	API RP 20	<input checked="" type="checkbox"/> YES () NO	
	Visually inspect all sheaves and bushings for cracks, wear and deterioration	API RP 20	<input checked="" type="checkbox"/> YES () NO	
	Visually inspect wire rope track of sheave for rope imprints, wear and deterioration. If damage exist sheave should be resurfaced or replaced.	API RP 20	<input checked="" type="checkbox"/> YES () NO	
	Check wire rope guards and keepers for proper location and condition.	API RP 20	<input checked="" type="checkbox"/> YES () NO	
	Determine if wire rope is jumping the sheaves, by looking for signs of damage on the sheave brim	Industry Standard	<input checked="" type="checkbox"/> YES () NO	
	Sheave Rops Profile for optimum Rope life the sheave groove profile should be correctly matched to the rope diameter	Industry Standard	<input checked="" type="checkbox"/> YES () NO	
	Check rope sheave should be machine grooved to depth of not less than 1.5 times the nominal diameter of the rope	Industry Standard	<input checked="" type="checkbox"/> YES () NO	
	Inspect all groove of sheaves by sheave gauge. Use sheave gauge as show in figure. Grooves should have an arc of contact with the wire rope between 135 and 150 degrees. They should be tapered to permit the rope to enter and leave the groove smoothly.	Industry Standard		
		MAIN POINT SHEAVES:	Industry Standard	Sheave No.1 <input checked="" type="checkbox"/> YES () NO Sheave No.2 <input checked="" type="checkbox"/> YES () NO
		AUX SHEAVES:	Industry Standard	Sheave No.1 <input checked="" type="checkbox"/> YES () NO
		IDLER SHEAVES:	Industry Standard	Sheave No.1 <input checked="" type="checkbox"/> YES () NO
		BRIDLE SHEAVES:	Industry Standard	Sheave No.1 <input checked="" type="checkbox"/> YES () NO Sheave No.2 <input checked="" type="checkbox"/> YES () NO Sheave No.3 <input checked="" type="checkbox"/> YES () NO Sheave No.4 <input checked="" type="checkbox"/> YES () NO Sheave No.5 <input checked="" type="checkbox"/> YES () NO Sheave No.6 <input checked="" type="checkbox"/> YES () NO Sheave No.8 <input checked="" type="checkbox"/> YES () NO
		GANTRY SHEAVES:	Industry Standard	Sheave No.1 <input checked="" type="checkbox"/> YES () NO Sheave No.2 <input checked="" type="checkbox"/> YES () NO Sheave No.3 <input checked="" type="checkbox"/> YES () NO Sheave No.4 <input checked="" type="checkbox"/> YES () NO Sheave No.5 <input checked="" type="checkbox"/> YES () NO Sheave No.6 <input checked="" type="checkbox"/> YES () NO Sheave No.8 <input checked="" type="checkbox"/> YES () NO
	Pins for bronze bushing and straight roller bearing should have a running clearance of .031 inch/ sheave of end play and should be adjusted accordingly.(count from left)	Industry Standard	<input checked="" type="checkbox"/> YES () NO	
	MAIN POINT SHEAVES:	Industry Standard	Sheave No.1 <u>15</u> Inch Sheave No.2 <u>14</u> Inch	
AUX SHEAVES:	Industry Standard	<u>14</u> Inch		
IDLER SHEAVES:	Industry Standard	Sheave No.1 <input checked="" type="checkbox"/> YES () NO Sheave No.2 <input checked="" type="checkbox"/> YES () NO		
BRIDLE SHEAVES:	Industry Standard	Sheave No.1 <input checked="" type="checkbox"/> YES () NO Sheave No.2 <input checked="" type="checkbox"/> YES () NO Sheave No.3 <input checked="" type="checkbox"/> YES () NO Sheave No.4 <input checked="" type="checkbox"/> YES () NO Sheave No.5 <input checked="" type="checkbox"/> YES () NO Sheave No.6 <input checked="" type="checkbox"/> YES () NO Sheave No.8 <input checked="" type="checkbox"/> YES () NO		

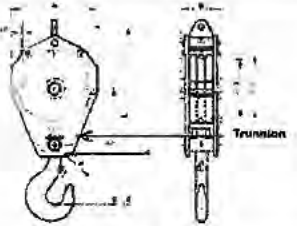
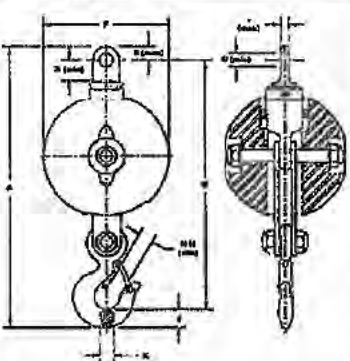
14 July 2025

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SYSTEM	TASK	Specification	Record/Reading
	<p>GANTRY SHEAVES:</p> <p>Ensure the sheaves are aligned and the float angle is correct **Remark: Wire rope User's Manual allows 2 degree on grooved winch drum, Smooth Drums should be not more than 1-1/2 degree</p> <p>Determine if wire rope size and sheave sizes/grooves are compatible and record size. Sheave pitch diameter (D) to nominal wire rope diameter (d) ratio (D/d) shall not be less than 18:1.</p>	Industry Standard	<p>Sheave No.1 <input checked="" type="checkbox"/> YES () NO</p> <p>Sheave No.2 <input checked="" type="checkbox"/> YES () NO</p> <p>Sheave No.3 <input checked="" type="checkbox"/> YES () NO</p> <p>Sheave No.4 <input checked="" type="checkbox"/> YES () NO</p> <p>Sheave No.5 <input checked="" type="checkbox"/> YES () NO</p> <p>Sheave No.6 <input checked="" type="checkbox"/> YES () NO</p>
			
	<p>MAIN POINT SHEAVES:</p> <p>SHEAVE D / WIRE ROPE d = > 18</p>	API SPEC 2C	<p><u>18</u> inch (D) <u>3/4</u> inch (d) <u>24</u> (Ratio D/d)</p>
	<p>AUX SHEAVES:</p> <p>SHEAVE D / WIRE ROPE d = > 18</p>	API SPEC 2C	<p><u>18</u> inch (D) <u>3/4</u> inch (d) <u>24</u> (Ratio D/d)</p>
	<p>ISLER SHEAVES:</p> <p>SHEAVE D / WIRE ROPE d = > 18 (If applicable)</p>	API SPEC 2C	<p><u>18</u> inch (D) <u>3/4</u> inch (d) <u>24</u> (Ratio D/d)</p>
	<p>MAIN BLOCK SHEAVES:</p> <p>SHEAVE D / WIRE ROPE d = > 18</p>	API SPEC 2C	<p><u>18</u> inch (D) <u>3/4</u> inch (d) <u>24</u> (Ratio D/d)</p>
	<p>BRIDLE SHEAVES:</p> <p>SHEAVE D / WIRE ROPE d = > 15</p>	API SPEC 2C	<p><u>18</u> inch (D) <u>5/8</u> inch (d) <u>28</u> (Ratio D/d)</p>
	<p>GANTRY SHEAVES:</p> <p>SHEAVE D / WIRE ROPE d = > 15</p>	API SPEC 2C	<p><u>18</u> inch (D) <u>5/8</u> inch (d) <u>28</u> (Ratio D/d)</p>
Load Block	<p>Load Block: Check the load block for cleanliness, binding sheaves, damaged or worn shoes, worn or distorted sheave pins, broken bolts, and worn check weights.</p>	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	<p>Hook: Check the hook damage, excessive wear to the hook safety latch, hook swivel trunnions, thrust collar, securing, damage or missing lubrication fittings, proper lubrication, cracks and gouges, and if visibly bent or twisted or has been exposed to welding or arching.</p>	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	<p>Check Pins retained by snap rings, bolt lock shafts, plates lock for missing or loose</p>	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	<p>Hook Tip has been bent more than 0 degree out of plane from the hook body</p>	ASME B30.10/THM LNW	<input checked="" type="checkbox"/> YES () NO
	<p>Pins for bronze bushing and straight roller bearing should have a running clearance of .031 inch/ shoe of end play and should be adjusted accordingly</p>	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	<p>Hook or shackle to swivel case clearance is set at .031 to .062 inch. Clearance exceeding .12 to .18 (ONLY CROSBY BRAND)</p>	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO
	<p>-Elongated center pin and hook trunnion holes exceeding 5% of Original diameter</p>	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO
	<p>-Material loss due to wear exceeding 10% of original section</p>	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO
	<p>-Sheave wire rope groove diameter smaller than 2.5%</p>	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO
	<p>Loosened tie bolts nuts, center pin round nuts, check weight cap screws and hook nut cap screws. Tie bolt nuts to be torqued to 35-40 ft.lbs and retaked, all other fasteners wrench tight</p>	OEM MANUAL	<input checked="" type="checkbox"/> YES () NO
	<p>Throat opening - any distortion causing an increase in throat opening of 5% not at exceed 1/4 in. (5 mm)(or as recommended by the manufacturer)</p>	ASME B30.10	<input checked="" type="checkbox"/> YES () NO

14 - Jan - 2025

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SYSTEM	TASK	Specification	Pass/Fail/Warning	
Main	Inspect rope track worn in sheave groove, the sheave must be returfed or replace	API RP 2D	✓ YES () NO	
	Ensure the load block is not using "Cast iron" cheek weights they can not be used as per API	API SPEC 2C	✓ YES () NO	
	Determine if all hooks are equipped with properly operating safety latches and check for proper functioning	API RP 2D	✓ YES () NO	
	Lubricate sheave bearings and swivels	OEM Manual	✓ YES () NO	
	Re-tighten nut firmly to point at which trunion will just rotate, the Re-tighten set-screw is nut and thread condition as in the picture below.	Industry Standard	✓ YES () NO	
	Last NDE Inspection record	Industry Standard	Last inspect date <u>March 24</u>	
	RECORD LOAD BLOCK INFORMATION :		Manufacturer: OEM Manual	John San
		Model: OEM Manual	333110 B1B	
		Serial Number: OEM Manual	09-8524	
	Record Load Block measurements and details for future comparison with historical data. II	Industry Standard	✓ YES () NO	
		A - Block OD	Industry Standard	18.50 mm/Inch
		B - Block length	Industry Standard	18.50 mm/Inch
		C - Center of Pin to hook Saddle	Industry Standard	18.50 mm/Inch
		DI - Sheave Diameter	Industry Standard	16 mm/Inch
		E - Block Width	Industry Standard	39 mm/Inch
F - Throat Opening		Industry Standard	4.50 mm/Inch	
G - Trunion		Industry Standard	0.090 mm/Inch	
Aux. Ball	Inspect Auxiliary ball for cleanliness, binding, swivel, work pad-eye hole. Inspect the hook damage, excessive wear to the hook safety latch, Bent connector plates, Severe corrosion pitting, hook swivel trunnions, thrust collar, securing, damage or missing lubrication fittings, loose, missing or damaged reticling nuts, cotter pins or swivel set screws, Missing or illegible rating and warning tags, proper lubrication, cracks and gouges, and if visibly bent or twisted or has been exposed to welding or arcing.	Industry Standard	✓ YES () NO	
	Hook: Tip has been bent more than 0 degree out of plane from the hook body	ASME B30.10/Thiel Law	✓ YES () NO	
	Gunnabo Johnson recommend that Crane overhaul ball removal from service until replaced and repair following below	OEM MANUAL	✓ YES () NO	
	- Elongated ball pin holes, hook latch pin holes and swivel eye exceeding 5% of original diameter,	OEM MANUAL	✓ YES () NO	
	- Swivel and play gap exceeding .08". Excessive end play indicates damaged internal set screw	OEM MANUAL	✓ YES () NO	
	- Material loss due to wear exceeding 10% of original section	OEM MANUAL	✓ YES () NO	
	Throat opening - any distortion causing an increase in throat opening of 5% not to exceed 1/4 in. (6 mm.) (or as recommended by the manufacturer)	ASME B30.10	✓ YES () NO	
	All hooks that lift personnel are to have a positive locking safety latch. ***locking Pin to be used while lifting personnel***	API RP 2D	✓ YES () NO	
	*** Temperature Effect: When hooks are to be used at temperature above 400° F. (204°C) or below -40° F. (-40°C), the hook manufacturer or a qualified person should be consulted	ASME B30.10		
	*** Chemically Active Environment: The strength of hooks can be affected by chemically active environments, such as caustic or acid substances or fumes. The hook manufacturer or qualified person should be consulted before hooks are used in chemically active environment			
	Verify to ensure nut firmly at which trunion rotates. Identify to set-screw is nut/ swivel/ coupler pin and thread condition.	Industry Standard	✓ YES () NO	
	Last NDE Inspection record	Industry Standard	Last inspect date <u>March 24</u>	
	RECORD AUX BALL INFORMATION :		Manufacturer: OEM Manual	John San
		Model: OEM Manual	QB 18 EE 350-4	
		Serial Number: OEM Manual	07-1997	
Record Auxiliary Ball measurements and details for future comparison with historical data: For Model QB 7EE 200-4	Industry Standard			
	A Dimensions 27.25 inch	Industry Standard	27.25 mm/Inch	
	B Dimensions 24.10 inch	Industry Standard	24.10 mm/Inch	
	F Dimensions 12.00 inch	Industry Standard	12.00 mm/Inch	
	H-H Dimensions 1.38 inch	Industry Standard	1.38 mm/Inch	
	J Dimensions 1.81 inch	Industry Standard	1.81 mm/Inch	
	K Dimensions 1.46 inch	Industry Standard	1.46 mm/Inch	
	R Dimensions 1.55 inch	Industry Standard	1.55 mm/Inch	
	S Dimensions 1.34 inch	Industry Standard	1.34 mm/Inch	
	T Dimensions 1.03 inch	Industry Standard	1.03 mm/Inch	
	U Dimensions 1.31 inch	Industry Standard	1.31 mm/Inch	
Safety system	Check Condition anti - two block , hanging chain, eye bolts, the bolts, shackles for missing , corrosion , erosion , deformation	API RP 2D	✓ YES () NO	
	Check anti - two block kick out plate for freely movement	Industry Standard	✓ YES () NO	

14-Juni-2025

The IQ CV owner IV crane job sheet.doc

SYSTEM	TASK	Specification	Record/Resulting								
	Check anti-2-block device proper function and hanging chain distance 10 ft. normal designed of Main Hoist ** Note: When the block strikes the hanging weight or hanging valve the hoist should stop completely within 12 in. to 18 in. (30.5 cm to 45.7 cm) or at worst creep up slowly.	API RP 2D	✓ Function () False								
	Check anti-2-block device proper function and hanging chain distance 10 ft. normal designed of Auxiliary Hoist ** Note: When the block strikes the hanging weight or hanging valve the hoist should stop completely within 12 in. to 18 in. (30.5 cm to 45.7 cm) or at worst creep up slowly.	API RP 2D	✓ Function () False								
	Take off and Clean up boom high angle limit stopper and Activate to free movement	API RP 2D	✓ YES () NO								
	Check function of boom high angle limit stop to ensure the boom stops at the proper angle and record value:	API RP 2D	75 Degree								
	Check function of boom Low angle limit stop to ensure the boom stops at the proper angle and record value:	API RP 2D	0 Degree								
	Check function to ensure that boom cannot lower down when anti-2-block of Main and Aux activate	API RP 2D	✓ Function () False								
	Check relation of boom radius and boom angle (lowest, middle, highest) with reference to load chart.	API RP 2D	✓ YES () NO								
	Visually check condition of emergency lowering tool and procedure on site		Done								
	Functional test of emergency lowering system (See procedure in Emergency Load Lowering Box). Note: Keep for 1 Yr PM to sustain crane mechanic competency. <u>Caution:</u> Function test must be performed on top deck with max 2-foot height.	Company Spec/Standard	✓ Function () False								
Slow/Swing	Visually check for damage and excessive wear on gear teeth	OEM Manual	✓ YES () NO								
	Visually check swing gearbox in the area of oil seal for any leaks	API RP 2D	✓ YES () NO								
	RECORD SLEW GEAR BOX INFORMATION:	Manufacturer:	OEM Manual								
		Model:	OEM Manual								
		Serial Number:	OEM Manual								
	CHECK and RE-TORQUE swing drive gearbox mounting bolts at following brands: - Gear Product 210/220 - 420+/60 FT-LBS - ESKRIDGE, Model: 150 = 150 FT-LBS - FLINK 27C = 280 FT-LBS	API RP 2D	150 FT-LBS								
	Check swing gearbox oil level/condition, top up if required	OEM Manual	✓ YES () NO								
	Monitor swing gearbox oil condition by visually examine for burnt smell, metal particles, and/or other contaminants, record and change if found.	Meropa 220	✓ CHANGE OIL () NOT CHANGE OIL								
	Change swing gear box oil	OEM Manual	✓ YES () NO								
	Grease all pivot points of slew ring (bearing)	OEM Manual	✓ YES () NO								
	Grease open gears (pinion)	OEM Manual	✓ YES () NO								
	Check condition of slew ring bolts e.g. Bolt grade and washers. <u>Caution:</u> Use only hardened flat washers under head of bolt. Do not use lock washers, or regular flat washers.	Industry Standard	✓ YES () NO								
	Monitor ball-ring grease sample, if found wear and tear particles, take sample and send to lab. ***Wear assessment by grease sample analysis—wear may be monitored by periodic grease sample analysis as describe in this section. Grease samples should be collected every twelve months as a minimum and the results of the analysis recorded; this period should be shortened if obvious metal or contaminants are present.	API RP 2D	() SEND TO LAB ✓ NOT SEND TO LAB								
	Check ball ring bolts torque (For American Base ONLY): After 3-4 hours, or initial "Run-in", and after every 500 operating hours, re-torque all of the bolts. Annually, or AFTER 2,000 Hours of Operation, re-torque the bolts. <u>Caution:</u> If one or more bolts are found to be tightened to less than 80% of the prescribed pre-stress, that loosen bolt (s) should be replaced, in addition to the two adjacent bolts. If 20% of the total number of bolts are found to be tightened to less than 80% of the prescribed pre-stress, replace all bolts (Pre-Load)	Company Spec/Standard	✓ YES () NO								
	Rotate crane 360 degree and check smoothness of operation	OEM Manual	✓ YES () NO								
	Check swing drive static parking brake for proper operation <u>Caution:</u> DO NOT step the swing of the crane with this static brake (parking brake)	OEM Manual	✓ YES () NO								
	Check swing lock mechanism condition, corrosion, don't, loose all part, worn and wear	OEM Manual	✓ YES () NO								
	Check swing lock mechanism freely lock and unlock for function	OEM Manual	✓ YES () NO								
	Verify crane condition and load test as separate procedure.										
Table 1—Static/Onboard Test Load and Radius <table border="1"> <thead> <tr> <th>Static/Onboard Rated Load at a Specific Radius lb (kg)</th> <th>Test Loads in Excess of Static/Onboard Rated Load at a Specific Radius</th> </tr> </thead> <tbody> <tr> <td>≤ 40,000 (18,144)</td> <td>25 %</td> </tr> <tr> <td>> 40,000 ≤ 100,000 (>18,144 ≤ 45,356)</td> <td>10,000 lb (4536 kg)</td> </tr> <tr> <td>> 100,000 (45,356)</td> <td>10 %</td> </tr> </tbody> </table>		Static/Onboard Rated Load at a Specific Radius lb (kg)	Test Loads in Excess of Static/Onboard Rated Load at a Specific Radius	≤ 40,000 (18,144)	25 %	> 40,000 ≤ 100,000 (>18,144 ≤ 45,356)	10,000 lb (4536 kg)	> 100,000 (45,356)	10 %	API 2C	✓ YES () NO
Static/Onboard Rated Load at a Specific Radius lb (kg)	Test Loads in Excess of Static/Onboard Rated Load at a Specific Radius										
≤ 40,000 (18,144)	25 %										
> 40,000 ≤ 100,000 (>18,144 ≤ 45,356)	10,000 lb (4536 kg)										
> 100,000 (45,356)	10 %										
Verify crane condition and load test as separate procedure.		UR.1	✓ YES () NO								

Maintenance activities Daily Report

Work Order Number: 1262775 Equipment Number: PA-CR8000-PAWRWork Center: GOTCRANEActual Crew: 3 Actual Hour from PM Job card: 54 Actual Hour from CM: -Actual Start Date/Time: 29 Oct 2015 9.00 Actual Finish Date/Time: 29 Oct 2015 15.00

Parts

☐ JDE inventory ☐ Surplus ☐ No part issued

Category Code

	PM (Preventive Maintenance)					CM (Corrective Maintenance)					
Work order classification	PMC	PMS				FND	FSD	PRC	PRO	RAO	REP
Primary Discipline	I	E	<u>M</u>	O	Q	I	E	M	O	Q	
Secondary discipline (Local Code 3)						W	T				
Local Code 4											
Work Identification											
	IIT	EEL	<u>MME</u>	OOP	AIM	IIT	EEL	MTT	MME	PRS	
						CSS	OOP	AGM	AIM		
						BIW	NBI				
						ORD	PMI	HAZ	RCA	RTF	

Related Links: ** CM Only **

Component Code: ☐ Solenoid ☐ Hose/Tubing ☐ Regulator ☐ Transmitter ☐ Transducer
☐ Bearing ☐ Gasket/Seal ☐ Lamp ☐ Ballast ☐ Ground system
☐ Gauge ☐ Battery ☐ Actuator ☐ Breaker ☐ Card
☐ Pump ☐ Switch ☐ Valve ☐ Detector ☐ Vibration Probe/Switch
☐ Fuse ☐ Filter/Strainer ☐ Other _____

Failure Action: ☐ Charged ☐ Cleaned ☐ Flushed ☐ Installed ☐ Lubricated
☐ Adjusted ☐ Replaced ☐ Calibrated ☐ Repaired ☐ Overhauled
☐ Configured ☐ Removed ☐ Reset ☐ Restart ☐ Refurbished
☐ Tightened ☐ PM/PDM Corrective Action ☒ PM/PDM No Corrective Action
☐ No Action Require ☐ Other _____

Daily Report (i-plan) Code

Task Code	AS PLAN	CANCEL	DELAY/EARLY	BIW	NBI	
Task Code Reason/Remark for Cancel Job	[Delay] Plan too short	[Delay] Issue during execution		[Delay] Interrupt by other jobs (BIW/Early/Delay)		
	[Early] Previous Jobs finish early	Man-Hr not enough due to BIW	Man-Hr not enough due to delay job	Man-Hr not enough due to not plan for resource		
Task Code Reason/Remark for BIW	P1/P2 WORK ORDER	Repair/Restart Machine S/D	Urgent request from unplanned jobs		Other	

Attachment

Problem Descriptions: Perform 1 Years on PMAs Found: PM GeneratedAction Taken: Follow 1 Y PM Crane Job taskAction by: [Redacted]Possible root cause: Recommendation: See data as attach fileAs left: Back to normalJob Completed Date: 29 Oct 2015Entry by: Date: [Redacted]Specialist/Supervisor review and sign <For accurate data>: [Signature]

THE PEDESTAL CRANE CONDITION VERIFICATION

Date: <u>29 Oct 2025</u>			
Crane Owner: CTEP/COIL		Field: <u>South Palih</u>	
Crane Owner's representative: (Mech Supv/ M/Bent)		Platform/ Vessel:	
Qualified inspector: (Qualified Crane Mechanic)			
Inspector's company / agency: (Third Party or Outsource to witness if applicable)			
Manufacture: <u>Oil States</u>		Fabrication by: <u>Oil States</u>	
Year of Fabrication:		Country:	
Model / Serial:		Standard API Edition:	
Safe Working Load (SWL) → OEM		Metric Tonnes	
Safe Working Load (SWL) → Existing via MOC, if applicable		Metric Tonnes	
Boom length, Main		80 Ft	
Boom length, Auxiliary if applicable		83 Ft	
Part of line main hoist		4 Part line	
Part of line auxiliary hoist		1 Part line	
Safe Working Load at longest boom radius		80 ft	9,273 Metric Tonnes/ Lbs
Safe Working Load at shortest boom radius		13 ft	34,036 Metric Tonnes/ Lbs
The document of crane specification for Testing, Maintenance and Inspection are provided by:		OEM	MOC / Crane Engineer
Has the crane ever been modified by MOC?		YES	NO
(To verify if this crane is modified with MOC → Allow to test the crane. If this crane is modified without MOC → Not allow to test the crane)			
Does the rotating part have proper guard in place?		YES	NO
Is the ladder and hand rail in place?		YES	NO
Is the maintenance platform in place?		YES	NO
Is the SWL tag labelled on crane pedestal, main block or aux ball?		YES	NO
Verify if the crane major component damaged or not		YES (Need to repair or mitigate unsafe condition with MOC before testing)	NO
Inspect boom end connections, for bends, dents, corroded areas, cracked welds, and signs of mechanical damage, wear, etc. **any deviation should be reported**			
Level 1 = Incidental: Minor deficiency that is recommended to be promptly addressed, but poses no safety and/or environmental risk. The crane can still be operated at full duty. → Allow to test			
Level 2 = Restricted Operation: Deficiency identified that has the potential to limit, de-rate or damage the crane, its surroundings and/or the environment. The duty and locked/ tagged out until the crane's duty and operation should be de-rated or service restricted. → To be de-rated		YES (To be verified)	NO
Level 3 = Out of Service: The crane should be removed from duty and locked/ tagged out until the deficiency is rectified. → Not Use			
Function Load Testing			
1. Verify Crane SWL (Existing)		15.96 Metric Tonnes	
2. Verify routine maximum actual load		2.4 Metric Tonnes	
3. Select the specimen load to be more than actual routine load 1.25 times but not more than SWL			
Example # 1 : Crane's SWL is 18 Metric Tonnes. The routine maximum actual load is 2.4 Metric Tonnes. Therefore, the load testing shall be $2.4 \times 1.25 = 3$ Metric Tonnes.		3 Metric Tonnes	
Example # 2 : Crane's SWL is 18 Metric Tonnes. The routine maximum actual load is 16 Metric Tonnes. By calculation, the load testing is $16 \times 1.25 = 20$ Metric Tonnes more than SWL (18 Mton). Therefore, the load testing shall be 18 Metric Tonnes equal to SWL.			
4. Use Auxiliary Winch if specimen load less than or equal 3 Metric Tonne		YES	NO
5. Use Main Winch if specimen load more than 3 Metric Tonne		YES	NO
6. The record of load testing: Fill in "Function Test Record" sheet attached.			

RECORDED FUNCTION TEST PROCEDURE

1. CHECK AND RECORD READING RADIUS AND BOOM INDICATOR AT FOUR (4) VALUES INCLUDING MAXIMUM AND MINIMUM.

(ALL REDUIS MEASUREMENT ARE TO BE TEKEN FROM THE CENTERLINE OF CRANE ROTATION)

ACTUAL	INDICATED RADIUS (FT)
A) 15' (MINIMUM)	13 ft.
B) 20'	15 ft.
C) 25'	25 ft.
D) 30' (INTERMEDIATE)	30 ft.
E) 40'	40 ft.
F) 50' (INTERMEDIATE)	50 ft.
G) 60'	60 ft.
H) 75' (MAXIMUM)	80 ft.

2. CHECK AND RECORD READING ON BOOM ANGLE / DEGREES.

SPECIFICATION	INDICATED BOOM ANGLE (DEGREES)
1). MAXIMUM. DEGREES	
2). INTERMEDIATE. DEGREES	
3). INTERMEDIATE. DEGREES	
4). MINIMUM. DEGREES	

3. READING ON LOAD INDICATOR WITHOUT SLINGS OR LOAD / LBS. (LOAD BLOCK + WIRE ROPE)

ACTUAL	INDICATOR READ FREE LOAD, (LBS)
1). MAXIMUM RADIUS LBS.	
2). MINIMUM RADIUS LBS.	

4. CHECK AND RECORD ENGINE HIGH IDLE SPEED / RPM.

SPECIFICATION	INDICATED OF FUNCTIONAL (RPM)
1). IDLE SPEED 700 RPM	900 rpm
2). LOW SPEED - RPM	-
3). HIGH SPEED 2,200 RPM	2,200 rpm

5. FUNTIONALLY TEST THE FOLLOWING.

ACTUAL	INDICATED OF FUNCTIONAL (TESTED)
A) MAIN HOIST ANTI -TWO BLOCK.	Function
B) AUXILIARY HOIST ANTI -TWO BLOCK.	Function
C) HIGH BOOM ANGLE KICK OUT.	-
D) LOW BOOM ANGLE KICK OUT.	-
E) PRIME MOVER SHUTDOWN.	Function
F) EMERGENCY SHUTDOWN.	Function
G) ROTATE CRANE 360 LEFT.	Smooth
H) ROTATE CRANE 360 RIGHT.	Smooth

6. RECORD HYDRAULIC RELIEF VALVE PRESSURE SETTING ON FOLLOWING HYDRAULIC FUNCTION:

SPECIFICATION	INDICATED PRESSURE (PSI)
A) MAIN HOIST 3000 PSI	3000 PSI
B) AUXILIARY HOIST 2950 PSI	2950 ft
C) BOOM HOIST 3000 PSI	3000 ft

TEST CONDUCTED BY:

CRANE OPERATOR :

COMMENTS :

POSITION : Cy-Mech

POSITION :

DATE :

CRANE MAKE : Nautilus

LOCATION

DATA BASE - PM JOB TASK CARD

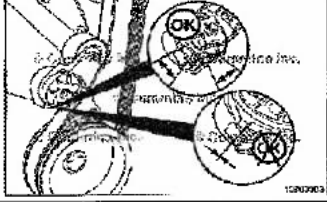
MODEL: 180B1HD-80 (MS)

C2, Remote Platform PAWR

Crew Size:
Estimated Hours:

SERIAL NUMBER: Crane Specific

SYSTEM	TASK	Specification	Record/Reading
Safety	Perform Job Safety Analysis (JSA)	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Obtain "COMPANY" PERMIT TO WORK	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Perform Tool Box Talk	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	BEFORE/AFTER JOB EXECUTION: Ensure to comply with isolation procedure (LOCK OUT/TAG OUT, WARNING SIGNS and BARRIERS).	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
Required Tools	Ensure proper tools are available at the job site	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Tool bag	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Tool box	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Tool Container	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	MPI equipment and operator	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Check safety harness Software and Hardware should be good condition before use	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Check Rescue Equipment ready to use onsite	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Portable Scaffolding and Crew if require	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
Lubricants	Ensure proper lubricants and consumables are available at the job site.	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Hydraulic System - Hydraulic Oil	Rando HD-68	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Slew Gearbox - Gear Oil	Meropa 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Auxiliary Hoist - Gear Oil	Meropa 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Main Hoist - Gear Oil	Meropa 220	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Grease Points - Lithium Based **IT MUST NOT INCLUDE MOLYBDENUM DISULPHIDE**	MULTIFAK EP#2	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Open Gear Teeth - Open Gear Lube highly water resistant and of an adhesive nature.	OMEGA 73	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Pneumatic Lubricator	SAE Grade 10	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Wire rope Lubricant - Company preferred grade	Birlube 70	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Engine Oil - SAE Grade 15W-40 (Delo Gold)	15W-40	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Safe Load Indicator fluid	W-15	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Engine Radiator - Should have radiator preservatives additives	Cat® SCA	OEM Manual <input checked="" type="checkbox"/> YES () NO
	Spray Cold Galvanize		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
Consumables	Denso Tape		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
	WD-40		Company Spec/Standard <input checked="" type="checkbox"/> YES () NO
History Review	Before starting work, tasks preparation at least 1 day prior to starting work: 1. Review history PM/ CM from Roving Team, 2. Review last PM/ CM/ PMI from Crane Mech, 3. List out all punch list and prepare parts. 4. Review last Certificate task performed	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Require to update part history from Crane Mech on following main components to ensure the right parts are prepared: - Aux/ Main/ Boom Cylinder, Engine, Swing Gearbox, etc. Reference: Crane OEM information of each part need to be recorded - Manufacturer & Contact Info - Model & serial number - Installation date	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Review history data from Certificates and incorporate into current PM: - Pull Test Certificates (ongoing update, 4 yr. history). - Load Test Certificates (ongoing update, 4 yr. history). - Wire Rope Certifications (running rope and standing rope) (life of rope). - Hoist Certifications for hoist classified as "personnel handling" hoist.	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Review Last Preventative Maintenance Records (Inspection Reports) - Pre-use (Pre-Post Inspection) - 6 Monthly (API RP 2D Not Defined, Company Standard) - 1 Yearly (API RP 2D Defined Annual Inspection)	API RP 2D	<input checked="" type="checkbox"/> YES () NO
Lifting Gear Preparation	Visually Inspect (Sling, sling hooks and shackles) include Websling / Chain	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Check color code / Tag & date inspection	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
General	Determine if access route to/from crane is clean, safe, unobstructed and adequately protected against falls, tripping and slipping	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Check drain lines and drip pans for deterioration	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Remove any sediment collected in the bottom of drip pans	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Check for general crane and components for loss of protective coating and corrosion	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Check for missing or loose corrosion, deformation pins, pin keepers, bolts, nuts, fasteners of all ladders, cages and working platform	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Apply grease to exposed grease parts (control valve spools, ball-ring gear, parking brake valve, etc.)	OEM Manual	<input checked="" type="checkbox"/> YES () NO
		OEM Manual	<input checked="" type="checkbox"/> YES () NO
Prime Mover	Engine CUMMINS	S/N.:	OEM Manual
	CUMMINS C8.3	ARR.No.:	OEM Manual
			73305411
	Check/Clean crankcase breather cap	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Check/Clean air cleaner	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Check radiator & Cap and record condition	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Check for any signs of leaks on or around the engine i.e; Crankshaft seal (front/rear), Fuel Injection Pump	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Check for engine exhaust system for leaks, corrosion, insulation and general condition	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Check all engine hoses for wear and deterioration	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Drain water and sediment for diesel tank	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Clean Diesel tank level sightglass	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Lubricate fan bearing/shaft	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Change radiator Coolant	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Change corrosion resistor(water filter)	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Test radiator Coolant PH, Top up if required and Record Value	OEM Manual	<input checked="" type="checkbox"/> YES () NO

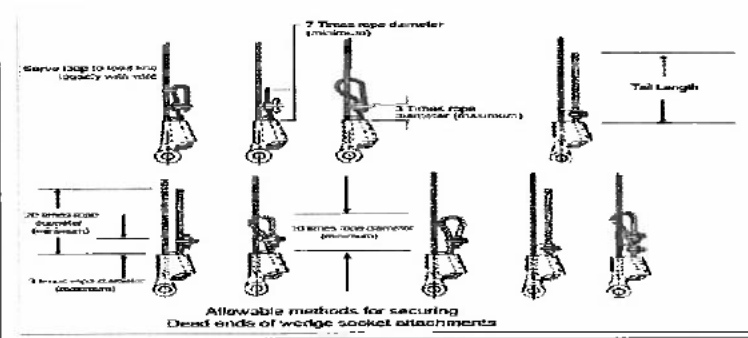
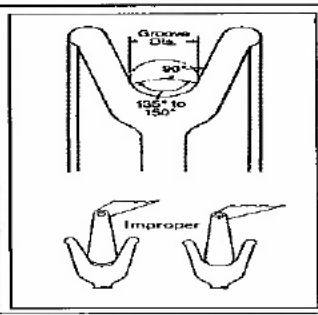
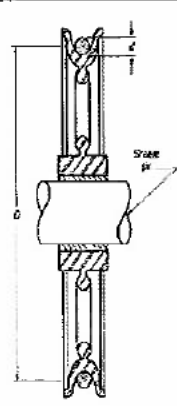
SYSTEM	TASK	Specification	Record/Reading
	COOLANT PARAMETERS (PH):	6 or higher	OEM Manual PH = 10
	Determine if engine hour meter is working and giving accurate measurements and record:	OEM Manual	
	HOUR METER PARAMETERS:	LAST READING 155 HRS	OEM Manual 155 HRS
	Check condition of engine hold down bolts	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Change cooling fan drive belts	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check condition fan blade	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check that neither the top nor bottom tensioner arm stop is touching the cast boss on the tensioner body for CUMMINS engine as picture.		OEM Manual <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check engine HYD starter drive gear bendix and fly wheel gear teeth condition and record. **Replace if required"	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Bendix Gear: 90 % Fly wheel Gear teeth: 90 %
	Check leak and worn at Pulley Water Pump as found. If replace	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check condition Ratchet Bendix HYD Starter	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Lubricate and check engine throttle system.	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Determine if the tachometer operates properly: Record Value of Idle & Max Speed (RPMs) Note: Too low Idle (RPMs) will cause excessive worn at winch brake	OEM Manual	
	ENGINE RPM SPECIFIC CUMMINS	IDLE SPEED 900-1000 RPM	OEM Manual 700 RPM
		MAX SPEED 2200-2300 RPM	OEM Manual 2200 RPM
	Confirm engine oil pressure as per Parameters below and Record Value:	OEM Manual	
	ENGINE OIL PRESSURE CUMMINS	Minimum >10 PSI	OEM Manual 40 PSI
		Maximum 75 PSI	OEM Manual 65 PSI
	Confirm engine fuel pressure Parameters are correct and Record Value:	OEM Manual	
	ENGINE FUEL PRESSURE SPECIFIC**	Cummins C8.3 High Idle >18 PSI.	OEM Manual 25 PSI
	Clean Up Strainer Transfer Pump	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Confirm engine temperature Parameters and Record Value:	OEM Manual	
	ENGINE WATER TEMP SPECIFIC	Cummins C8.3 NORMAL 158 - 195 degree F	OEM Manual 165 F
	Test engine SAFETY DEVICE- ensure engine kill cable shuts off FUEL supply	API RP 2D	<input checked="" type="checkbox"/> Function <input type="checkbox"/> False
	Test engine SAFETY DEVICE- ensure EMERGENCY KILL CABLE - shuts off AIR supply	API RP 2D	<input checked="" type="checkbox"/> Function <input type="checkbox"/> False
	Test engine SAFETY DEVICE- ensure ENGINE low lube oil - releases OIL PRESSURE to activate Alarm Air System ***Note*** Engine oil pressure low alarm at 20 PSI	Company Spec/Standard	<input checked="" type="checkbox"/> Function <input type="checkbox"/> False
	Test engine SAFETY DEVICE- ensure HIGH TEMP - releases OIL PRESSURE to activate Alarm Air System	Company Spec/Standard	<input checked="" type="checkbox"/> Function <input type="checkbox"/> False
	Check / Clean primary fuel/water separator *Replace if required*	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check condition of turbocharger, and for any oil or hot air leaks	OEM Manual	<input type="checkbox"/> Leak <input checked="" type="checkbox"/> Not Leak
	Change engine lube oil and oil filter	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Change fuel filter	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Change air filter, if required	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check governor for any leak and noise	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check/Adjust engine lash valve, inspect valve rotators valve clearance	Cummins C8.3 IN 0.012 Inch. EX 0.022 Inch.	OEM Manual <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO OEM Manual <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check timing point: (timing mark & Injection pump - CUMMINS Engine C8.3) Re-torque hold down bolts (122 FT-LBS)	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Change gasket valve cover	Company Spec/Standard	<input type="checkbox"/> YES <input type="checkbox"/> NO
	Check and inspect condition wear of pump drive spline and record **Note, Remaining 70% of Original Spline Surface must be replace.	Company Spec/Standard	90 % Remaining
	Check and inspect condition wear of adaptor Coupling spline shaft and record **Note, Remaining 70% of Original adaptor Coupling spline shaft Surface must be replace.	Company Spec/Standard	90 % Remaining
	Check and inspect condition wear and crack of Coupling Drive Plate	Company Spec/Standard	90 % Remaining
	Rotorque bolts of Coupling Drive Plate	OEM Spec/Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Evaluate engine performance, tune up if required	Company Spec/Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Hydraulic Start System (Apply for C2-Remote P/F Only)	Check pressure system at the pressure gauge which should reach 3,000 PSI as standard when the system is FULLY charged. Record Value. (As the system cools down, the pressure should drop slightly and finally stabilised.)	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

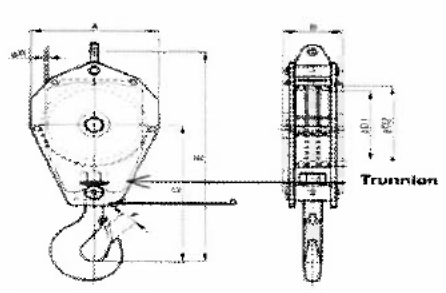
SYSTEM	TASK	Specification	Record/Reading
	Visually inspect all hydraulic connections and hoses for leaks and retighten if necessary. (Caution: This should NOT be done if the system is under pressure.) 1. Slowly release system pressure by loosening the bleed screw on top of the hand pump. 2. Ensure no pressure remains, retighten the suspected leak fitting or replace the damaged hose or component. 3. Retighten the bleed screw on the hand pump. 4. Pump the system up to 2200 - 2600 PSI 5. Inspect that the leak was eliminated.	OEM Manual	(/) YES () NO
	Function check Accumulator Pre-charge. (Caution: This should NOT be done if the system is under pressure.) 1. Shut the engine off, release system pressure via the bleed screw on top of the hand pump 2. Retighten bleed screw and actuate the hand pump. The pressure will rapidly increase and then stabilised. This pressure is related to accumulator gas pre-charge pressure. 4. If the pressure rapidly increase to 3000 PSI, it indicates that the accumulator has lost its gas charge. 5. Troubleshoot as necessary	OEM Manual	(/) YES () NO
	Check the unloading valve integrity with the engine running. 1. Slowly release system pressure by loosening the bleed screw on top of the hand pump. 2. Tighten bleed screw on top of hand pump and notice pressure in system will increase. 3. This pressure should read between 2200 - 2600 PSI depending on the recharge ratio 80% std. (90% optional). Record Pressure Value.	OEM Manual	2400 PSI
	Check Nitrogen pressure in Accumulator ***Note***spec @ 1,500 psi as follow schematic and if found pressure loss below 1400 PSI then prepare recharge nitrogen in system.	OEM Manual	1500 PSI
Pneumatic System	check for noisy compressor operation, which could indicate a worn drive gear coupling, a loose pulley or excessive internal wear	Company Spec/Standard	(/) YES () NO
	check Air Compressor external oil supply and return lines, if applicable, for kinks, bends, or restrictions to flow	Company Spec/Standard	(/) YES () NO
	inspect the compressor discharge port, inlet cavity and discharge line for evidence of restrictions and carboning. (If excessive buildup is noted)	Company Spec/Standard	(/) YES () NO
	Check all hose connections are sound and all mounting and pivoting connections are secure.	Industry Standard	(/) YES () NO
	Check condition / Clean and lubricate unloading valve	Industry Standard	(/) YES () NO
	Check proper air pressure is available for the system. Record Value.	OEM Manual	
	AIR SYSTEM PARAMETERS:	MAX 60 PSI	60 PSI
	Visually inspect condition of air receiver for signs of corrosion or loose of structural integrity.	Industry Standard	(/) YES () NO
	Check the hose, piping and tubing for mechanical damage, corrosion, splits, blisters, cracking or excessive abrasion on the outer surface	Industry Standard	(/) YES () NO
	Drain off air filter and receiver to remove condensed water. If water is present, drain until water is removed.	Industry Standard	(/) YES () NO
Hoist / Brakes	Check proper operation of pop off valve, by manually functioning valve.	Industry Standard	(/) YES () NO
	Check proper operation of manual latch valve, by manually functioning latch.	Industry Standard	(/) YES () NO
	Check proper operation of small engine alarm horn.	Industry Standard	(/) YES () NO
	Visually check a hoist exhibits erratic operation and/or unusual noise, the hoist must be taken out of service until it is inspected and serviced by a qualified technician. Continued operation of a hoist with a defect in a critical component may lead to loss of load control, property damage, serious injury or death.	OEM Manual	(/) YES () NO
	Visual exteriors of hoist, frames, drums and flanges for damage, leaks, cracks and wear and repair/replace as required to maintain the structural integrity of the hoist.	OEM Manual	(/) YES () NO
	Check all hoist mounting pins, bolts or other fasteners and replace or tighten as necessary.	OEM Manual	(/) YES () NO
	Lubricant level must be maintained between the minimum and maximum levels; midway up sight glass or at bottom of level plug port as equipped and check/clean plug vent. Use only the recommended type of lubricant.	OEM Manual	(/) YES () NO
	Inspect Brake Valve Opening Pressure test V/V 1-1/4" PD Series : no lower than 550 PSI V/V 1-1/2" CH Series : no lower than 575 PSI	Braden Bulletin 527-Dec,1996	600 PSI 550 PSI
	Inspect Brake cylinder opening pressure test. CH/PD Series : 400-450 PSI.	Industry Standard	450 PSI 400 PSI
	Measure difference of static and dynamic brake, CH/PD Series : 150-250 PSI.	Industry Standard	150 PSI 150 PSI
	Check for external oil leaks and repair as necessary. This is extremely important due to the accelerated wear that will result from insufficient lubricating oil in the hoist.	OEM Manual	(/) YES () NO
	RECORD BOOM CYLINDER INFORMATION :	Boom cylinder Diameter:	OEM Manual
		CY Number:	OEM Manual
		Serial Number:	OEM Manual
	RECORD MAIN HOIST INFORMATION :	Manufacturer:	OEM Manual
		Model:	OEM Manual
		Serial Number:	OEM Manual
	Check MAIN HOIST for proper operation and good condition	API RP 2D	(/) YES () NO
	Brake test & record pressure of MAIN HOIST	OEM Manual	(/) YES () NO
	Check MAIN HOIST gear oil level/condition, top up if required. ** Refer to Onsite Gear Oil Sample Procedure ** ** Replace and send oil sample to SKL if abnormal ** ** Take photo of Oil Sampling for Reference**	OEM Manual	(/) YES () NO
	Change main hoist gear oil	OEM Manual	(/) YES () NO
	Manufacturer:	OEM Manual	Braden

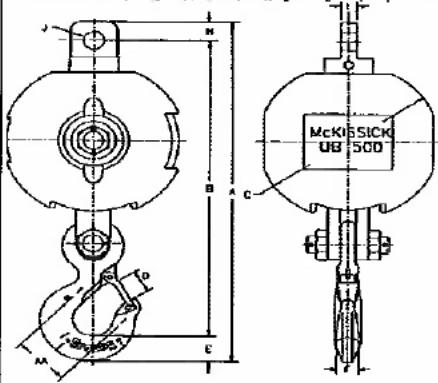
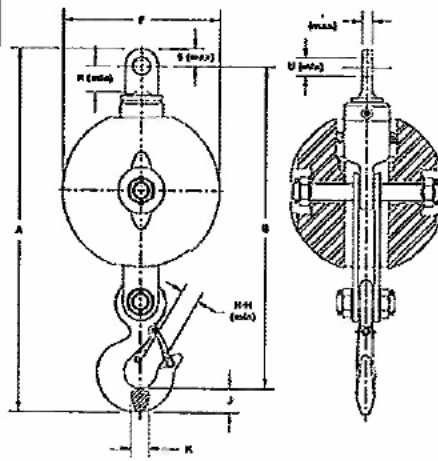
SYSTEM	TASK	Model:	Specification	Record/Reading
	RECORD AUXILIARY HOIST INFORMATION :			
		Model:	OEM Manual	PD120 - 23064-04-1
		Serial Number:	OEM Manual	1464116
	Check AUXILIARY HOIST for proper operation and good condition		API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Brake test & record pressure of AUXILIARY HOIST		API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check AUXILIARY HOIST gear oil level/condition, top up if required.			
	** Refer to Onsite Gear Oil Sample Procedure **		OEM Manual	<input checked="" type="checkbox"/> SEND SKL LAB
	** Replace and send oil sample to SKL if abnormal **			<input checked="" type="checkbox"/> NOT SEND SKL LAB
	** Take photo of Oil Sampling for Reference **			
	Change auxiliary hoist gear oil		OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check Relief Valve: Determine hoistes' relief valve pressure gauge is working and giving accurate measurement by notice whether pressure gauge is vibrating or not. If not, set relief valve pressure in accordance with the schematic and parameters below. Record all readings.		OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	BOOM RELIEF VALVE TEST	Relief Specific:	3,000 PSI	OEM Manual
				3000 PSI
	MAIN HOIST RELIEF VALVE TEST	Relief Specific:	3,000 PSI	OEM Manual
				3000 PSI
	AUX HOIST RELIEF VALVE TEST	Relief Specific:	2,950 PSI	OEM Manual
				2950 PSI
	SWING RELIEF VALVE TEST	Relief Specific:	1,500 PSI	OEM Manual
				1500 PSI
	Measure Pressure of hoist motor case drains and Record Value Reference Bulletin: BRADEN Inspection, Testing, Preventive Maintenance and Special Operating Instructions For Planetary Hoists PB-308 latest edition for further details.		OEM Manual	
	MAIN HOIST CASE DRAIN for Gear Motor (Down Mode).	PRESSURE	< 100 psi	Company Spec/Standard
				5 PSI
	AUX. HOIST CASE DRAIN for Gear Motor (Down Mode).	PRESSURE	< 100 psi	Company Spec/Standard
				0 PSI
Hydraulic System	Check hydraulic tank oil level. Oil should be visible in the sight glass. Top up as required (3/4 Tank Minimum)		OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check hydraulic oil condition. (Check if running hours are more than 100 hours from last oil change or during Annual inspection) ** Refer to Onsite Hydraulic Oil Sample Procedure ** ** Replace and send oil sample to SKL if abnormal ** ** Take photo of Oil Sampling for Reference **	Itando HD-68	Company Spec/Standard	<input checked="" type="checkbox"/> SEND SKL LAB <input checked="" type="checkbox"/> NOT SEND SKL LAB
Hydraulic System	Drain off 1 liter of oil to remove condensed water. If water is present, drain until water is removed and top up with clean oil		Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check for any hydraulic leaks		Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check the hydraulic hose, piping and tubing for mechanical damage, corrosion, splits, blisters, cracking or excessive abrasion on the outer surface		API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check that all hydraulic hose connections are sound and that all mounting and pivoting connections are secure.		Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Lubricate hydraulic swivel in pedestal and insure tie down restrains are in place and preventing the swivel from rotating with the crane structure.		OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Ensure the filler breather on tank is not covered or clogged		Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Visually inspect for missing or loose pins, pin keepers, bolts, nuts, fasteners on all pumps, motors and valves		API RP 2D	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Check the filter bypass indicator, while engine is running		OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	With engine running (after all other items pass inspection), check the system for leaks around fittings, hoses, valves and reservoirs		Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	With engine running, check the source of any unusual noise or vibration that may cause or indicate equipment damage or wear		Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Ensure all hoses are properly rated for the system, see "Parameters" for each system for details.		Industry Standard	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
	Record hydraulic oil operating temperature. Note: Hydraulic fluid overheating temperature is over 180 F degrees or 82 C, degrees (reservoir temperature)		Industry Standard	130 Degree F
	Determine if hydraulic return pressure gauge is working and giving accurate measurements. Record readings			
	RECORD HYDRAULIC RETURN PRESSURE PARAMETERS:	75 psi "maximum"	OEM Manual	15 PSI
	Change hydraulic return filters and seals		OEM Manual	<input type="checkbox"/> YES <input type="checkbox"/> NO
	Test all hydraulic relief valves and record pressures with engine at :	#REF!	API RP 2D	
	BOOM FUNCTION TEST (Need Crane Mech to verify each platform)		OEM Manual	
	Boom Angle : 60 Degree (Recommend or as applicable)	UP	Cracking pressure	RECORD
			Full Speed Pressure	RECORD
		DOWN	Cracking pressure	RECORD
			Full Speed Pressure	RECORD
				600 PSI
				950 PSI
				820 PSI
				1200 PSI
	MAIN HOIST FUNCTION TEST (Need Crane Mech to verify each platform)		OEM Manual	
	Boom Angle : 60 Degree (Recommend or as applicable)	UP	Cracking pressure	RECORD
			Full Speed Pressure	RECORD
		DOWN	Cracking pressure	RECORD
			Full Speed Pressure	RECORD
				150 PSI
				650 PSI
				600 PSI
				1300 PSI
	AUX HOIST FUNCTION TEST (Need Crane Mech to verify each platform)		OEM Manual	
	Boom Angle : 60 Degree (Recommend or as applicable)	UP	Cracking pressure	RECORD
			Full Speed Pressure	RECORD
				100 PSI
				550 PSI

SYSTEM	TASK	Specification	Record/Reading
	Inspect pin and pin holes of Upper tank and Lower tank for excessive clearance	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	BOOM CYLINDER PIN MAXIMUM TOLERANCE	1/8" (3mm)	Industry Standard
	Check BOOM CYLINDERS for proper operation and good condition	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Check Boom cylinder barrels and rods for leaks, mechanical damage and corrosion	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Check and measurement boom foot pin and connection pins for clearance	Industry Standard	
	BOOM FOOT PINS & BOOM BOX CONNECTER PIN TOLERANCE	1/8" (3mm)	Industry Standard
	Boom Foot Pin Tolerance	Industry Standard	0.06 inch
	Boom Box Connector Pin Tolerance	Industry Standard	0.06 inch
	Check connecting bolts of box boom loose, corrosion, wear, damage	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Lubricate boom foot pins and bushings	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Lubricate boom cylinder pins, bearings and bushings	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Boom function test angle/radius to correction **Note: The cylinder(s) mechanism shall be capable of elevating the boom from a minimum of zero degrees to the maximum recommended boom angle.	API RP 2C	<input checked="" type="checkbox"/> YES () NO
	Operation functional test and verify Boom Creeping down **Note : Test at angle 60°	Industry Standard	0.3 MM
Wire Rope	Determine if parts of line match parts of line on the load chart in the crane cabin.	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Determine if visible portion of wire rope adequately lubricated. If not lubricate wire rope	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	For each layer of wire rope on drum, check that all rope is parallel and each crossover point at hoist flanges is correct	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	The top layer of rope must not be lower to the flange tips 2.5 in for Smooth drum, 2 in for groove drum or 2.5 times of wire rope diameter	API RP 2C	<input checked="" type="checkbox"/> YES () NO
	Inspect wire rope for, kinking, crushing, broken wires, necking down of rope diameter, worn outside wires, corroded or broken wires at end connection, cutting or unstringing.	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	NoteRunning Ropes of rotation-resistant construction used in the main or auxiliary Hoist: - Four (4) Randomly distributed broken wires within 30 rope diameter - Two (2) broken wires in one stand within 6 rope diameter	API RP2D Edition 7	None
	One valley break can indicate internal rope damage requiring close inspection of this section of the rope. When one or more valley breaks are found in one lay length the rope should be retired.	API RP2D Edition 7	None
	Reductions for the rope diameter, from initial wire rope dimensional measurements, in a nonworking area (an area away from the sheaves) compared to the lowest diameter of rope measured in three working areas (areas where the rope regularly goes over a sheave) of more than the following is observed: - 3/64 in. (0.047 in.) (1.2 mm) for diameters up to and including 3/4 in. (19.1 mm); - 1/16 in. (0.062 in.) (1.6 mm) for diameters of 7/8 in. to 1-1/8 in. (22.2 mm to 28.6 mm); - 3/32 in. (0.093 in.) (0.8 mm) for diameter of 1-1/4 in. to 1-1/2 in. (31.8 mm to 38.1 mm); - For rope diameters greater than 1-1/2 in., a 5% diameter loss from baseline measurement. - Wear of one-third the original diameter of the outside individual wires	API RP2D Edition 7	None
	Increase in the length of an individual rope lay is observed. This increase in lay length and accompanying reduction in diameter can be caused by failure of the core. This can occur more readily in ropes or rotation-resistant construction.	API RP2D Edition 7	<input checked="" type="checkbox"/> YES () NO
	-Inspection and Verify running and standing rope from heat effect **Note: Not more than 250°C -There is evidence of heat damage from any source (i.e. engine exhaust, flare towers, stress corrosion cracking, etc.). Heat can be generated by passing a rope over a frozen or non-turning sheave, contact with structural members of the crane, improperly grounded welding leads or lightning strikes	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	With the boom at the highest possible angle and the main load block or overhaul ball at the water level, ensure there is a minimum of 5 wraps of wire-rope remaining on the drums. Note: (Thai law, requires minimum of 2 wraps)	API SPEC 2C / Thai Law	<input checked="" type="checkbox"/> YES () NO
	Reference: - Running rope safety factor not less than 5 for wire rope that are running wire, (Thai law; Wire rope nominal breaking strength x number parts of line / Design factor 6) - Standing rope safety factor not less than 3.5 for wire rope that are stay cables, (Thai law)	Thai law	<input checked="" type="checkbox"/> YES () NO
	Measure and record nominal diameter of "running ropes" main and auxiliary (particularly on drum, equalizer sheave and at sockets, clips and dead end points) *****Nominal = several measurements added together divided by Number of measurements*****	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Inspect wire rope and record size below:	API RP 2D	
MAIN WIRE ROPE OD:	FULL DRUM	OEM Manual	0.655 inch
	HALF DRUM	OEM Manual	0.655 inch
	WATER LEVEL	OEM Manual	0.656 inch
AUX WIRE ROPE OD:	FULL DRUM	OEM Manual	0.654 inch
	HALF DRUM	OEM Manual	0.657 inch
	WATER LEVEL	OEM Manual	0.656 inch
	Slip-Cut 1 meter of all ropes at the wedge socket and re-wedge to prevent rust inside of wedge socket (at outward end of rope, not on hoist drum) Dead end tail length is never less than 6 inches, or: - Standard 6 to 8 Strand wire rope is not less than 7 times the rope diameter - Rotation Resistant Wire Rope is not less than 20 times the rope diameter	Company Spec/Standard	() YES () NO

SYSTEM	TASK	Specification	Record/Reading
	applicable)		
	DOWN	Cracking pressure	RECORD
		Full Speed Pressure	RECORD
	SWING FUNCTION TEST (Need Crane Mech to verify each platform)		OEM Manual
	LEFT	Cracking pressure	RECORD
		Full Speed Pressure	RECORD
	RIGHT	Cracking pressure	RECORD
		Full Speed Pressure	RECORD
	PILOT CONTROL SYSTEM PARAMETERS:		Relief Specific
	Remove for inspection by exercise cut-off PILOT OPERATED VALVE (A2B)		OEM Manual
Electrical system and Crane Boom Lighting	Function check for properly cut-off PILOT OPERATED VALVE (Joy Stick Only) e.g. - Anti-two block (Main/ Aux)		OEM Manual
	Check the electrical junction boxes, wires and connections for deterioration, desiccant bags, (replace as required)		Industry Standard
	Check the condition of the grounding and lighting protection system.		Company Spec/Standard
	Visually inspect boom floodlight and lightguards for loose, missing, corroded		Company Spec/Standard
	Check condition pipe support, u-bolt, nuts of boom floodlight and Electric sliping, for loose, missing, corroded		Company Spec/Standard
	Check Electric sliping/swivel for 360° continuous rotation		OEM Manual
	Check Water ingress, condensation in electric sliping and boom floodlight		OEM Manual
	Check freely movement and lubricate of boom floodlight		OEM Manual
	With generator in operation, intergrize all lights to ensure proper function.		API RP 2D
	Check condition of crane boom lighting and safety net is secured with strong point. ***Safety net should be replace 24 months after installation (2 year)***		Company Spec/Standard
Operator Control Station	Check function of crane sound signal		Company Spec/Standard
	Check function of crane boom lighting at boom upper section		Company Spec/Standard
	Check function of crane boom lighting at boom lower section		Company Spec/Standard
	Check function of crane boom lighting at winch skid		Company Spec/Standard
	Check function of crane boom lighting at crane cabin		Company Spec/Standard
	Check function beacon light at boom tip		Company Spec/Standard
	Inspection wire rope guide & Roller assembly		Company Spec/Standard
	Check general condition of control panel, bolts, paint security, etc.		API RP 2D
	Determine if there is a serviceable fire extinguisher in the vicinity of the crane		Company Spec/Standard
	Determine if correct load chart is in use and easily visible for operator		API RP 2D
Load Indicator System	Determine if charts, indicators and hand signal chart are in the cabling and firmly attached		API RP 2D
	Determine if angle/radius indicator plate is easily visible to operator and is moving freely.		API RP 2D
	Check condition of pressure gauges.		API RP 2D
	Check proper control labels are firmly installed, completely legible and properly labeled		API RP 2D
	Check controls for freedom-of-movement		API RP 2D
	Check condition, Leak, freely movement of Swing Lock control valve		OEM Manual
	Check condition, Leak, freely movement of Dynamic swing break system ** Note: if HYD Oil loose in CYD reservoir must be refill		OEM Manual
	Check condition, Leak, freely movement of Accelerate System ** Note: if HYD Oil loose in CYD reservoir must be refill		OEM Manual
	Check all safety glass and rubber seal for proper condition		API RP 2D
	Function Test Horn		Industry Standard
Pedestal & Structure	Check condition and function Main/ Aux selector valve		Industry Standard
	Check condition and function of boom/ main/ aux/ swing joy stick		Industry Standard
	Visual check on fittings and connections for leaks. Fix leak if any.		OEM Manual
	Should any leaks exist, stop leak and recharge system, refer to maintenance manual		OEM Manual
	Change Load cell fluid		OEM Manual
	Check general condition of tubing, hoses, pins bolts, paint, etc.		Industry Standard
	Insure load cell is free of obstructions		OEM Manual
	Check condition of gauge(s) face and clean glass as required.		OEM Manual
	Check weight indicator function (Main)		Company Spec/Standard
	Check weight indicator function (Aux)		Company Spec/Standard
Box Boom & Luffing CYD	Check weight indicator fluid, top up if required		Industry Standard
	Insure Safe Working Load, matches ratings on the Crane Load Chart		OEM Manual
	Insure Boom Length, matches the Crane Load Chart		OEM Manual
	Insure Boom Angle measurements and readings match the boom angle indicator.		OEM Manual
	Insure Boom Radius measurements indicate the distance from center line of the crane to the hook		OEM Manual
	Check Main load cell gap 1/4 (0.250) inch		OEM Manual
	Check Aux load cell gap 3/8(0.380) inch (Compression Load Cell Type)		OEM Manual
	Check weight indicator accuracy "maximum variance +/- 2%		Industry Standard
	Visually check Pedestal for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks weld, etc.		API RP 2D
	Check water rain drain at pedestal must be not obstruct		Industry Standard
Box Boom & Luffing CYD	Check pin and cotter pin of pedestal missing, corrosion, wear, damage and exercise pin.		Industry Standard
	Visually check Base - Plate connection and Base hoist Structure for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks weld, etc.		API RP 2D
	Check A fixed such as Handrail, Walkway, Grating, stationary structure without significant movement in response to waves		API RP 2C
	Check and Verify entire box boom and Boom CYD for loss of protective coating and corrosion		API RP 2D
	Check and Verify entire box boom and Boom CYD for chipped/cracked paint, deformation, worn parts, dents, corroded areas, cracks, etc.		API RP 2D
	Check and Verify boom end connections, for bends, dents, corroded areas, cracked welds, and signs of mechanical damage, wear, etc. **any deviation should be reported**		API RP 2D
	Check and Verify boom rest and wooden support to ensure it's in good condition		API RP 2D

SYSTEM	TASK	Specification	Record/Reading	
	U-bolt and Flat Grip Clips: Extreme care should be exercised to assure proper orientation of U-bolt clips. The U-bolt segment shall be in contact with the wire rope dead-end. The orientation, spacing, torquing, and number of all clips shall be in accordance with the crane manufacturer's specifications.	API SPEC 2C	✓YES () NO	
	 <p>Allowable methods for securing Dead ends of wedge socket attachments</p>	API SPEC 2C	Follow	
Sheaves & Bearings	Verify that the wedge socket and wedge are the correct size for the rope in use and record the size	API SPEC 2C	✓YES () NO	
	Lubricate all sheave bearings	API RP 2D	✓YES () NO	
	Visually inspect all sheaves and bushings for cracks, wear and deterioration	API RP 2D	✓YES () NO	
	Visually inspect wire rope track of sheave for rope imprints, wear and deterioration. If damage exist sheave should be resurfaced or replaced.	API RP 2D	✓YES () NO	
	Pins retained by snap rings, bolt lock shafts, plates lock should be checked for missing or loose for all	API RP 2D	✓YES () NO	
	Check wire rope guards and keepers for proper location and condition.	API RP 2D	✓YES () NO	
	Determine if wire rope is jumping the sheaves, by looking for signs of damage on the sheave brim	Industry Standard	✓YES () NO	
	Sheave Rope Profile for optimum Rope life the sheave groove profile should be correctly matched to the rope diameter	Industry Standard	✓YES () NO	
	Check rope sheave should be machine grooved to a depth of not less than 1.5 times the nominal diameter of the rope	Industry Standard	✓YES () NO	
		MAIN POINT SHEAVES:	Industry Standard	Sheave No.1 ✓YES () NO
		AUX SHEAVES:	Industry Standard	Sheave No.2 ✓YES () NO
		IDLER SHEAVES:	Industry Standard	Sheave No.1 ✓YES () NO
				Sheave No.2 ✓YES () NO
				Sheave Aux ✓YES () NO
				Sheave Main ✓YES () NO
	Pins for bronze bushing and straight roller bearing should have a running clearance of .031 inch/ sheave of end play and should be adjusted accordingly (count from left)	Industry Standard	✓YES () NO	
	MAIN POINT SHEAVES:	Industry Standard	Sheave No.1 <u>20</u> inch Sheave No.2 <u>20</u> inch	
	AUX SHEAVES:	Industry Standard	<u>16</u> inch	
	IDLER SHEAVES:	Industry Standard	Sheave AUX. <u>20</u> inch Sheave Main <u>25</u> inch.	
	Ensure the sheaves are aligned and the fleet angle is correct **Remark ; Wire rope User's Manual allows 2 degree on grooved winch drum, Smooth Drum should be not more than 1-1/2 degree	API RP 2D	✓YES () NO	
	Determine if wire rope size and sheave stress/grooves are compatible and record size. Sheave pitch diameter (D) to nominal wire rope diameter (d) ratio (D/d) shall not be less than 18:1	API SPEC 2C	✓YES () NO	
	MAIN POINT SHEAVES:	SHEAVE D / WIRE ROPE d = >18	<u>18</u> inch (D) <u>0.625</u> inch (d) <u>28</u> (Ratio D/d)	
	AUX SHEAVES:	SHEAVE D / WIRE ROPE d = >18	<u>16</u> inch (D) <u>0.625</u> inch (d) <u>25.6</u> (Ratio D/d)	
	IDLER SHEAVES:	SHEAVE D / WIRE ROPE d = > 18 (If applicable)	<u>16</u> inch (D) <u>0.625</u> inch (d) <u>28</u> (Ratio D/d)	
	MAIN BLOCK SHEAVES:	SHEAVE D / WIRE ROPE d = > 16	<u>12</u> inch (D) <u>0.625</u> inch (d)	

SYSTEM	TASK	Specification	Record/Reading
			<u>19</u> (Ratio D/d)
Load Block	Load Block: Check the load block for cleanliness, binding sheaves, damaged or worn sheaves, worn or distorted sheave pins, broken bolts, and worn cheek weights.	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Hook: Check the hook damage, excessive wear to the hook safety latch, hook swivel trunnions, thrust collar, securing, damage or missing lubrication fittings, proper lubrication, cracks and gouges, and if visibly bent or twisted or has been exposed to welding or arching.	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Hook: Tip has been bent more than 10 degree out of plane from the hook body	Industry Standard/API RP2D7	<input checked="" type="checkbox"/> YES () NO
	Pins for bronze bushing and straight roller bearing should have a running clearance of .031 inch/ sheave of end play and should be adjusted accordingly	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Hook or shackle to swivel case clearance is set at .031 to .062 inch, Clearance exceeding .12 to .18 (ONLY CROSBY BRAND)	OEM Crosby	<input checked="" type="checkbox"/> YES () NO
	OEM STANDARD RECOMMEND that Crane block removal from service until replaced and repair following below	OEM STANDARD	
	- Elongated center pin and hook trunion holes exceeding 5% of Original diameter	OEM STANDARD	<input checked="" type="checkbox"/> YES () NO
	- Material loss due to wear exceeding 10% of original section	OEM STANDARD	<input checked="" type="checkbox"/> YES () NO
	- Sheave wire rope groove diameter smaller than 2.5%	OEM STANDARD	<input checked="" type="checkbox"/> YES () NO
	Loosened tie bolts nuts, center pin round nuts, check weight cap screws and hook nut cap screws. Tie bolt nuts to be torqued to 35-40 ft.Lbs and restaked, all other fasteners wrench tight	OEM STANDARD	<input checked="" type="checkbox"/> YES () NO
	Throat opening - any distortion causing an increase in throat opening of 5% not to exceed 1/4 in. (6 mm.) (or as recommended by the manufacturer)	ASME B30.10	<input checked="" type="checkbox"/> YES () NO
	Inspect rope track worn in sheave groove, sheave must be resurface or replace	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Check wire rope guards or cable keepers at all sheave location for properly condition.	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Ensure the load block is not using "Cast Iron" cheek weights they can not be used as per API	API SPEC 2C	<input checked="" type="checkbox"/> YES () NO
	Determine if all hooks are equipped with properly operating safety latches and check for proper functioning	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Lubricate sheave bearings and swivels	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Re-tighten nut firmly to point at which trunion will just rotate, the Re-tighten set-screw in nut and thread condition as in the picture below,	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Last NDE Inspection record	Industry Standard	Last inspect date _____
	RECORD LOAD BLOCK INFORMATION :		Manufacturer: OEM Manual <u>McKISSICK</u> Model: OEM Manual <u>M30D14H</u> Serial Number: OEM Manual <u>41553307</u>
	Record Load block measurements and details for future comparison with historical data @	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	A - Block OD	Industry Standard	<u>19.5</u> mm/ inch
	B - Block length	Industry Standard	<u>12.5</u> mm/ inch
	C - Center of Pin to hook Saddle	Industry Standard	<u>27</u> mm/ inch
	D - Sheave Diameter	Industry Standard	<u>14</u> mm/ inch
	E - Block Width	Industry Standard	<u>33</u> mm/ inch
	F - Throat Opening	Industry Standard	<u>4</u> mm/ inch
	G - Trunion	Industry Standard	<u>0.055</u> mm/ inch
Aux. Ball	Inspect Auxiliary ball for cleanliness, binding swivel, work pad-eye hole. Inspect the hook damage, excessive wear to the hook safety latch, Bent connector plates, Severe corrosion pitting, hook swivel trunnions, thrust collar, securing, damage or missing lubrication fittings, Loose, missing or damaged retaining nuts, cotter pins or swivel set screws, Missing or illegible rating and warning tags, proper lubrication, cracks and gouges, and if visibly bent or twisted or has been exposed to welding or arching.	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Hook: Tip has been bent more than 10 degree out of plane from the hook body	Industry Standard/API RP2D7	<input checked="" type="checkbox"/> YES () NO
	OEM STANDARD recommend that Crane overhaul ball removal from service until replaced and repair following below	OEM STANDARD	
	- Elongated ball pin holes, hook latch pin holes and swivel eye exceeding 5% of original diameter,	OEM STANDARD	<input checked="" type="checkbox"/> YES () NO
	- Swivel end play gap exceeding .08". Excessive end play indicates damaged internal set screw	OEM STANDARD	<input checked="" type="checkbox"/> YES () NO
	- Material loss due to wear exceeding 10% of original section	OEM STANDARD	<input checked="" type="checkbox"/> YES () NO
	Throat opening - any distortion causing an increase in throat opening of 5% not to exceed 1/4 in. (6 mm.) (or as recommended by the manufacturer)	ASME B30.10	<input checked="" type="checkbox"/> YES () NO
	All hooks that lift personnel are to have a positive locking safety latch.		
	locking Pin to be used while lifting personnel	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	*** Temperature Effectd : When hooks are to be used at temperature above 400° F. (204°C) or below -40°F (-40°C), the hook manufacturer or a qualified person should be consulted		
	*** Chemically Active Environment : The strength of hooks can be affected by chemically active environments, such as caustic or acid substances or fumes. The hook manufacturer or qualified person should be consulted before hooks are used in chemically active environment	ASME B30.10	
	Verify to ensure nut firmly at which trunion rotate. (Identify to set-screw in nut/ swivel/ counter pin and thread condition.	Industry Standard	<input checked="" type="checkbox"/> YES () NO
	Last NDE Inspection record	Industry Standard	Last inspect date _____
	RECORD AUX BALL INFORMATION :		Manufacturer: OEM Manual <u>McKISSICK</u>

SYSTEM	TASK	Specification	Record/Reading
	Model:	OEM Manual	
	Serial Number:	OEM Manual	
	Record Auxiliary Ball measurements and details for future comparison with historical data: For Model MB07T200E ONLY	Industry Standard	
		AA Dimensions 3.0 Inch A Dimensions 24.89 Inch B Dimensions 21.71 Inch C Dimensions 12.50 Inch D Dimensions 1.61 Inch E Dimensions 1.81 Inch F Dimensions 1.38 Inch H Dimensions 1.38 Inch I Dimensions 0.88 Inch J Dimensions 1.31 Inch	Industry Standard 35 mm/ inch 25 mm/ inch 21.70 mm/ inch 12.50 mm/ inch 1.60 mm/ inch 1.80 mm/ inch 1.4 mm/ inch 1.4 mm/ inch 0.85 mm/ inch 1.30 mm/ inch
	Record Auxiliary Ball measurements and details for future comparison with historical data: For Model OB 7EE 200-4	Industry Standard	
		A Dimensions 27.25 Inch B Dimensions 24.10 Inch F Dimensions 12.00 Inch H-H Dimensions 1.38 Inch J Dimensions 1.81 Inch K Dimensions 1.46 Inch R Dimensions 1.55 Inch S Dimensions 1.34 Inch T Dimensions 1.03 Inch U Dimensions 1.31 Inch	Industry Standard mm/ inch mm/ inch mm/ inch mm/ inch mm/ inch mm/ inch mm/ inch mm/ inch mm/ inch mm/ inch
Safety system	Check Condition anti - two block , hanging chain , eye bolts , fix bolts , shackle for missing , corrosion , erosion , deformation	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	Check anti - two block kick out plate for freely movement	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
	Check anti-2-block device proper function of Main winch	Company Spec/Standard	<input checked="" type="checkbox"/> Function () False
	Check anti-2-block device proper function of Aux. winch	Company Spec/Standard	<input checked="" type="checkbox"/> Function () False
	Functional test of emergency lowering system (See procedure in Emergency Load Lowering Box). Note: Keep for 1 Yr PM to sustain crane mechanic competency. Caution: Function test must be performed on top deck with max 2-foot height.	Company Spec/Standard	<input checked="" type="checkbox"/> Function () False
	Visually check emergency load lowering kit. Ensure EMERGENCY LOWERING PROCEDURE and MATERIAL LIST are in the box. - Ensure ALL items shown on the list are in the box and in good condition - SECURE THE BOX WITH A TIE WRAP.	Company Spec/Standard	<input checked="" type="checkbox"/> YES () NO
Slew Mechanism	Visually check for damage and excessive wear on gear teeth	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Visually check slew gear box in the area of oil seal for any leaks	API RP 2D	<input checked="" type="checkbox"/> YES () NO
	RECORD SLEW GEAR BOX INFORMATION :	Manufacturer:	OEM Manual
		Model:	OEM Manual
		Serial Number:	OEM Manual
	CHECK and RE-TORQUE swing drive gearbox mounting bolts at following brands: - ESKRIDGE, Model: 250 = 150 FT-LBS	API RP 2D	150 FT-LBS
	Check swing gearbox oil level/condition, top up if required	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Monitor slew gearbox oil condition by visually examine for burnt smell, metal particles, and/or other contaminants, record and change if found.	Meropa 220	<input type="checkbox"/> CHANGE OIL <input checked="" type="checkbox"/> NOT CHANGE OIL
	Change slew gear box oil	OEM Manual	<input type="checkbox"/> CHANGE OIL <input checked="" type="checkbox"/> NOT CHANGE OIL
	Grease all pivot points of slew ring (bearing)	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Grease open gears (pinion)	OEM Manual	<input checked="" type="checkbox"/> YES () NO
	Check condition of slew ring bolts e.g. Bolt grade and washers.	Industry Standard	<input checked="" type="checkbox"/> YES () NO

SYSTEM	TASK	Specification	Record/Reading								
	Monitor ball-ring grease sample. If found wear and tear particles, take sample and send to lab. **Wear assessment by grease sample analysis—wear may be monitored by periodic grease sample analysis as describe in this section. Grease samples should be collected every twelve months as a minimum and the results of the analysis recorded; this period should be shortened if obvious metal or contaminants are present.	API PR 2D	<input type="checkbox"/> SEND TO LAB <input checked="" type="checkbox"/> NOT SEND TO LAB								
	Rotate crane 360 degree and check smoothness of operation	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
	Check swing drive static parking brake for proper operation Caution: DO NOT stop the swing of the crane with this static brake (parking brake)	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
	Check swing lock mechanism and Cylinder condition; leak, corrosion, dent, loose all part, worn and wear	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
	Check swing lock mechanism freely lock and unlock for function	OEM Manual	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
	Verify crane condition and load test as separate procedure. Table 1—Static/Onboard Test Load and Radius <table><tr><th>Static/Onboard Rated Load at a Specific Radius lb (kg)</th><th>Test Loads in Excess of Static/Onboard Rated Load at a Specific Radius</th></tr><tr><td>≤ 40,000 (18,144)</td><td>25 %</td></tr><tr><td>> 40,000 ≤ 100,000 (>18,144 ≤ 45,356)</td><td>10,000 lb (4536 kg)</td></tr><tr><td>> 100,000 (45,356)</td><td>10 %</td></tr></table>	Static/Onboard Rated Load at a Specific Radius lb (kg)	Test Loads in Excess of Static/Onboard Rated Load at a Specific Radius	≤ 40,000 (18,144)	25 %	> 40,000 ≤ 100,000 (>18,144 ≤ 45,356)	10,000 lb (4536 kg)	> 100,000 (45,356)	10 %	API 2C	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Static/Onboard Rated Load at a Specific Radius lb (kg)	Test Loads in Excess of Static/Onboard Rated Load at a Specific Radius										
≤ 40,000 (18,144)	25 %										
> 40,000 ≤ 100,000 (>18,144 ≤ 45,356)	10,000 lb (4536 kg)										
> 100,000 (45,356)	10 %										
	Verify crane condition and load test as separate procedure.	1/3.1	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								

Risk Level Definitions: The following 3 levels indicate the impact the noted deficiency poses to the operation or structural integrity of the equipment:

Level #1 = Minimal	Level #2 = Restricted Operation	Level #3 = Out of Service
Minor deficiency that is recommended to be promptly addressed, but poses no safety and/or environmental risk. The crane can still be operated at full duty.	Deficiency identified that has the potential to limit, de-rate or damage the crane, its surroundings and/or the environment. The duty and locked/ tagged out until the crane's duty and operation should be de-rated or service restricted.	The crane should be removed from duty and locked/ tagged out until the deficiency is rectified.

System:	Risk Level:	Component:	In Accordance with:
		Location:	Date Originated:
Description:			
Recommended Action:			
Recommended urgency timeframe for corrective action:		Completed Date:	Completed By:

System:	Risk Level:	Component:	In Accordance with:
		Location:	Date Originated:
Description:			
Recommended Action:			
Recommended urgency timeframe for corrective action:		Completed Date:	Completed By:

System:	Risk Level:	Component:	In Accordance with:
		Location:	Date Originated:
Description:			
Recommended Action:			
Recommended urgency timeframe for corrective action:		Completed Date:	Completed By:

System:	Risk Level:	Component:	In Accordance with:
		Location:	Date Originated:
Description:			
Recommended Action:			
Recommended urgency timeframe for corrective action:		Completed Date:	Completed By:

System:	Risk Level:	Component:	In Accordance with:
		Location:	Date Originated:
Description:			

SYSTEM		TASK		Specification	Record/Reading
Recommended Action:					
Recommended urgency timeframe for corrective action:			Completed Date:	Completed By:	
System:	Risk Level:	Component:	In Accordance with:		
		Location:	Date Originated:		
Description:					
Recommended Action:					
Recommended urgency timeframe for corrective action:			Completed Date:	Completed By:	



Inspection Report

Work Order Details

Inspection Type
Ultrasonic Flare Meter (THA)

Work Order #
1250349

Description
1Y FLARE GAS METER PM -PACPP

Scheduled Date
03/29/2025

Status
61 - Complete Awaiting Data Entry

Local Code 11
UFM

Local Code 13

Service Type
ID365

Work Center
PAIEROV

Branch Plant
3800PALQAA

Fields
PAILIN

Platform Tag
PAILIN

ECA Ranking
3

PM Status
99

PM Description
1Y FLARE GAS METER PM -PACPP

SD Category

Plan Date
1/30/2025 12:00:00 AM

Equipment Details

Equipment #
PA-FLARE-GAS-METER-PACPP

Description
1Y FLARE GAS METER PM -PACPP

Parent #
PA-VX-PACPP

Area
PAILIN

Sub Area
PA-VX-PACPP

Equipment Class
System

Assignment and Status

Status
Completed

Inspected By
[REDACTED]

Inspected On
4/2/2025 2:26:25 PM

Approved by
[REDACTED]

Approved on
4/5/2025 3:57:58 AM

Completed by
[REDACTED]

Completed on
4/2/2025 2:26:25 PM

Inspection Summary

Complete by [REDACTED] // 2 Apr 25

Reviewer Summary

The equipment is accurate and in normal condition.

Equipment Details

Field Name	Original Value	New Value
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Inspection Items

General

Item	Response	Completion
INSPECTION INTERVAL	6M	NZDE@chevron.com 4/2/2025 9:01:05 PM
PLATFORM	Pailin	NZDE@chevron.com 4/2/2025 9:01:08 PM

MFGR, INDUSTRY REFERENCES AND ENGINEERING RECOMMENDATION

Item	Response	Completion
- FLOW MEASUREMENT MANUAL Rev.2 - P&ID NO. D-COT-BEN-10-064	Yes	NZDE@chevron.com 4/2/2025 9:01:17 PM

PREPARATION TO PERFORM PM TASK

Item	Response	Completion
Coordinate with fe construction to prepare scaffolding as required.	Yes	NZDE@chevron.com 4/2/2025 9:01:20 PM
Coordinate with operator to make equipment available for PM.	Yes	NZDE@chevron.com 4/2/2025 9:01:21 PM
Certified pressure calibrators or other certified calibration equipment.	Yes	NZDE@chevron.com 4/2/2025 9:01:22 PM
Certified resistance decade box or rtd or calibrator and thermometer.	Yes	NZDE@chevron.com 4/2/2025 9:01:23 PM

VISUAL INSPECTION

Item	Response	Completion
Inspect all accessible instrument systems for damages, leaks, loose or broken connections.	Yes	NZDE@chevron.com 4/2/2025 9:01:29 PM

PERFORM CALIBRATION CHECK ON TRANSMITTERS - Verify the "AS FOUND"pressure FT-3657 and record the readings. (CRITERIA : ACCURACY WITH IN 0.1% OF SPAN)

Item	Response	Completion
Flush out FT-3657 impulse lines.	Yes	NZDE@chevron.com 4/2/2025 9:01:32 PM
Desired Input 0 INH2O and Desired output 0% AS FOUND (INH2O)	INC As Found: 0 INH2O As Left: 0 INH2O DEC As Found: 0 INH2O As Left: 0 INH2O	NZDE@chevron.com 4/2/2025 9:01:49 PM
Desired Input 20 INH2O and Desired output 25% AS FOUND (INH2O)	INC As Found: 20 INH2O As Left: 20 INH2O DEC As Found: 20 INH2O As Left: 20 INH2O	NZDE@chevron.com 4/2/2025 9:02:05 PM
Desired Input 50 INH2O and Desired output 50% AS FOUND (INH2O)	INC As Found: 50 INH2O As Left: 50 INH2O DEC As Found: 50 INH2O As Left: 50 INH2O	NZDE@chevron.com 4/2/2025 9:02:21 PM
Desired Input 75 INH2O and Desired output 75% AS FOUND (INH2O)	INC As Found: 75 INH2O As Left: 75 INH2O DEC As Found: 75 INH2O As Left: 75 INH2O	NZDE@chevron.com 4/2/2025 9:02:37 PM
Desired Input 100 INH2O and Desired output 100% AS FOUND (INH2O)	INC As Found: 100 INH2O As Left: 100 INH2O DEC As Found: 100 INH2O As Left: 100 INH2O	NZDE@chevron.com 4/2/2025 9:02:52 PM

PERFORM CALIBRATION CHECK ON TRANSMITTERS - Verify the "AS FOUND"pressure FT-3671 (ABSOLUTE PRESSURE) and record the readings. (CRITERIA : ACCURACY WITH IN 0.1% OF SPAN)

Item	Response	Completion
Flush out FT-3671 (ABSOLUTE PRESSURE) impulse lines.	Yes	NZDE@chevron.com 4/2/2025 9:02:59 PM
Desired Input 0 PSIA and Desired output 0% AS FOUND (PSIA)	INC As Found: 0 PSIA As Left: 0 PSIA DEC As Found: 0 PSIA As Left: 0 PSIA	NZDE@chevron.com 4/2/2025 9:06:20 PM
Desired Input 20 PSIA and Desired output 25% AS FOUND (PSIA)	INC As Found: 20 PSIA As Left: 20.01 PSIA DEC As Found: 20 PSIA As Left: 19.99 PSIA	NZDE@chevron.com 4/2/2025 9:03:31 PM
Desired Input 50 PSIA and Desired output 50% AS FOUND (PSIA)	INC As Found: 50 PSIA As Left: 50 PSIA DEC As Found: 50 PSIA As Left: 49.99 PSIA	NZDE@chevron.com 4/2/2025 9:05:45 PM
Desired Input 75 PSIA and Desired output 75% AS FOUND (PSIA)	INC As Found: 75 PSIA As Left: 75.01 PSIA DEC As Found: 75 PSIA As Left: 75.02 PSIA	NZDE@chevron.com 4/2/2025 9:05:24 PM
Desired Input 100 PSIA and Desired output 100% AS FOUND (PSIA)	INC As Found: 100 PSIA As Left: 99.98 PSIA DEC As Found: 100.02 PSIA As Left: 100.02 PSIA	NZDE@chevron.com 4/2/2025 9:04:59 PM

PERFORM CALIBRATION CHECK ON TRANSMITTERS - Verify the "AS FOUND" pressure FT-3671 (DIFF PRESSURE) and record the readings. (CRITERIA : ACCURACY WITH IN 0.1% OF SPAN)

Item	Response	Completion
Flush out FT-3671 (DIFF PRESSURE) impulse lines.	Yes	NZDE@chevron.com 4/2/2025 9:21:21 PM
Desired output 0% -40.0 DEG F AS FOUND	Simulation (Ohms): -40.0 As Found (DEG F): -39.90 As Left (DEG F): -39.90	NZDE@chevron.com 4/2/2025 9:21:41 PM
Desired output 25% 7.50 DEG F AS FOUND	Simulation (Ohms): 7.50 As Found (DEG F): 7.60 As Left (DEG F): 7.60	
Desired output 50% 55.0 DEG F AS FOUND	Simulation (Ohms): 55.0 As Found (DEG F): 55.10 As Left (DEG F): 55.10	
Desired output 75% 102.0 DEG F AS FOUND	Simulation (Ohms): 102.0 As Found (DEG F): 102.10 As Left (DEG F): 102.10	
Desired output 100% 150.0 DEG F AS FOUND	Simulation (Ohms): 150.0 As Found (DEG F): 150.0 As Left (DEG F): 150.10	

PERFORM CALIBRATION CHECK ON TRANSMITTERS - If Pressure transmitter fail to meet the criteria

Item	Response	Completion
If the "AS FOUND" readings of any pressure transmitter fail to meet the criteria, make the adjustment/calibration and reperform verify until the results of that pressure transmitter meet the criteria. then the latest readings shall be recorded as "AS LEFT"	Yes	

PERFORM CALIBRATION CHECK ON TRANSMITTERS - Verify the "AS FOUND" temperature FT-3671 and record the readings. (CRITERIA : ACCURACY WITH IN 0.64 OF SPAN)

Item	Response	Completion
SIMMULATE RESISTANCE FT-3671 (RTD TEMP SENSOR)	Yes	
Desired output 0% -40.0 DEG F AS FOUND	Simulation (Ohms): -40.0 As Found (DEG F): -39.90 As Left (DEG F): -39.90	
Desired output 25% 7.50 DEG F AS FOUND	Simulation (Ohms): 7.50 As Found (DEG F): 7.60 As Left (DEG F): 7.60	
Desired output 50% 55.0 DEG F AS FOUND	Simulation (Ohms): 55.0 As Found (DEG F): 55.10 As Left (DEG F): 55.10	
Desired output 75% 102.0 DEG F AS FOUND	Simulation (Ohms): 102.0 As Found (DEG F): 102.10 As Left (DEG F): 102.10	
Desired output 100% 150.0 DEG F AS FOUND	Simulation (Ohms): 150.0 As Found (DEG F): 150.10 As Left (DEG F): 150.10	

PERFORM CALIBRATION CHECK ON TRANSMITTERS - If Temperature transmitter fail to meet the criteria

Item	Response	Completion
If the "AS FOUND" readings fail to meet the criteria, make the adjustment/calibration and reperform verify until the results meet the criteria. then the latest readings shall be recorded as "AS LEFT"	Yes	

PERFORM CALIBRATION CHECK ON TRANSMITTERS - Verify temperature spot reading against a certified thermometer.

Item	Response	Completion
FT-3671	Spot reading: 91.16 DEG F Certified thermometer: 90.85 DEG F	

FINAL INSPECTION

Item	Response	Completion
Return the system to service.	Yes	
Retrieve diagnostic data and compare to standard value to ensure that all data within the range. record value in the table.	Yes	
If any value is out of range, both sensors are required to be cleaned (see transducer	Yes	

removal procedure) NOTE : mark sensors exact position before removing and installing back to ensure its proper position after cleaning. if any sensor is not exactly installed to its position, the system may not measure correctly

Check system for leaks.	Yes
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PM TASK REPORT

Item	Response	Completion
Scan this job card and attach to work order.	Yes	
Close PM work order and record any corrective actions in CMMS.	Yes	

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Inspection Report

Work Order Details

Inspection Type

Flow Transmitter

Work Order

1227361

Description

3Y-INST-FIT-ONL-PM

Scheduled Date

04/25/2024

Status

61 - Complete Awaiting Data Entry

Local Code 11

FIT

Local Code 13

GDF

Service Type

IF3Y

Work Center

PAIEROV

Branch Plant

3800PALQAA

Fields

PAILIN

Platform Tag

PAILIN

ECA Ranking

2

PM Status

99

PM Description

3Y-INST-FIT-ONL-PM

SD Category

Plan Date

4/15/2024 12:00:00 AM

Equipment Details

Equipment

PA-FT3671-PACPP

Description

3Y-INST-FIT-ONL-PM

Parent

PA-SK3650-PACPP

Area

PAILIN

Sub Area

PA-VX-PACPP

Equipment Class

FIT - Flow Transmitter

Assignment and Status

Completed by

[REDACTED]

Completed on

11/2/2024 2:56:30 AM

Status

Completed

Approved by

[REDACTED]

Approved on

Inspection Summary

Completed by [REDACTED] Date: 31 Oct, 2024

Reviewer Summary

Equipment Details

Field Name	Original Value	New Value
PID	PACPP-10-340	
SIL Target		
C Set Point		
H Set Point		
HH Set Point		
L Set Point		
LL Set Point		
Max Span	348.6	
Min Span	0	
Span Unit	MMSCFD	

Inspection Items

General

Item	Response	Completion
Select condition of Flow Meter	Orifice	WPHH@chevron.com

		11/2/2024 8:29:37 AM
Obtain work permit, review ha/jsa and carry out toolbox meeting	Yes	WPHH@chevron.com 11/2/2024 8:29:39 AM
Coordinate with production to perform alarm and shutdown inspection	Yes	WPHH@chevron.com 11/2/2024 8:29:41 AM
Bypass shutdown system for instrument calibration check and function listed in (BCP)	No	WPHH@chevron.com 11/2/2024 8:29:43 AM
Review/ Sign up start work check prior performing tasks	Yes	WPHH@chevron.com 11/2/2024 8:29:44 AM

Visual Inspection

Item	Response	Completion
Check instrument and electrical systems for sign of burnt or loose connection	Pass/Fail: Pass	WPHH@chevron.com 11/2/2024 8:32:02 AM
Instruments are correctly tagged and calibration badge is up-to-date	Pass/Fail: Pass	WPHH@chevron.com 11/2/2024 8:32:02 AM
Process piping connection, manifolds, fitting mounting system are in good condition	Pass/Fail: Pass	WPHH@chevron.com 11/2/2024 8:32:03 AM
Impulse lines are properly supported, sloped correctly, no blocking or leak.	Pass/Fail: Pass	WPHH@chevron.com 11/2/2024 8:32:04 AM

Calibration (ICT) - Calibration Check

Item	Response	Completion
Perform calibration check and record result from as found/as left	Not Applicable	WPHH@chevron.com 11/2/2024 8:33:53 AM
Comments/Recommendations: Refer :6M FLARE GAS METER PM -PACPP(WO#1238304)		

Function Test (ICT)

Item	Response	Completion
Simulated flow at each pre-alarm and trip points, confirm with related P&ID, record flow at each pre-alarm and trip point	Not Applicable	WPHH@chevron.com 11/2/2024 8:34:10 AM

Flow Meter Condition - Orifice

Item	Response	Completion
Check plate condition	Pass/Fail: Pass	WPHH@chevron.com 11/2/2024 8:34:24 AM

Final Check

Item	Response	Completion
Recheck all accessible instrument systems for sign of burnt or loose connection.	Yes	WPHH@chevron.com 11/2/2024 8:34:27 AM
Inform ccr that testing work has been completed	Yes	WPHH@chevron.com 11/2/2024 8:34:27 AM
Remove the bypass/force and sign off isolation log from listed in BCP, return the system to normal operation	No	WPHH@chevron.com 11/2/2024 8:34:28 AM
Sign off work permit and close work order	Yes	WPHH@chevron.com 11/2/2024 8:34:29 AM

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Inspection Report

Work Order Details

Inspection Type
Ultrasonic Flare Meter (THA)

Work Order #
1264100

Description
6M FLARE GAS METER PM -PACPP

Scheduled Date
11/10/2025

Status
10 - Job Planning

Local Code 11
UFM

Local Code 13

Service Type
ID180

Work Center
PAIEROV

Branch Plant
3800PALQAA

Fields
PAILIN

Platform Tag
PAILIN

ECA Ranking
2

PM Status
50

PM Description
6M FLARE GAS METER PM -PACPP

SD Category

Plan Date
11/10/2025 12:00:00 AM

Equipment Details

Equipment #
PA-FLARE-GAS-METER-PACPP

Description
6M FLARE GAS METER PM -PACPP

Parent #
PA-VX-PACPP

Area
PAILIN

Sub Area
PA-VX-PACPP

Equipment Class
System

Assignment and Status

Status
Completed

Inspected By
[REDACTED]

License/Certification

Inspected On
11/10/2025 9:30:59 AM

Approved by
[REDACTED]

Approved on
11/11/2025 9:55:43 AM

Completed by
[REDACTED]

Completed on
11/10/2025 9:30:59 AM

Inspection Summary

Completed by: [REDACTED]
Date: 11 Nov 2025

Reviewer Summary

Equipment Details

Field Name	Original Value	New Value
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Inspection Items

General

Item	Response	Completion
INSPECTION INTERVAL	6M	
PLATFORM	Pailin	

MFGR, INDUSTRY REFERENCES AND ENGINEERING RECOMMENDATION

Item	Response	Completion
- FLOW MEASUREMENT MANUAL Rev.2 - P&ID NO. D-COT-BEN-10-064	Yes	

PREPARATION TO PERFORM PM TASK

Item	Response	Completion
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Coordinate with fe construction to prepare scaffolding as required.	Yes
Coordinate with operator to make equipment available for PM.	Yes
Certified pressure calibrators or other certified calibration equipment.	Yes
Certified resistance decade box or rtd or calibrator and thermometer.	Yes

VISUAL INSPECTION

Item	Response	Completion
Inspect all accessible instrument systems for damages, leaks, loose or broken connections.	Yes	

PERFORM CALIBRATION CHECK ON TRANSMITTERS - Verify the "AS FOUND"pressure FT-3657 and record the readings. (CRITERIA : ACCURACY WITH IN 0.1% OF SPAN)

Item	Response	Completion
Flush out FT-3657 impulse lines.	Yes	
Desired Input 0 INH2O and Desired output 0% AS FOUND (INH2O)	INC As Found: 0 INH2O As Left: 0 INH2O DEC As Found: 0 INH2O As Left: 0 INH2O	
Desired Input 20 INH2O and Desired output 25% AS FOUND (INH2O)	INC As Found: 20 INH2O As Left: 20 INH2O DEC As Found: 20 INH2O As Left: 20 INH2O	
Desired Input 50 INH2O and Desired output 50% AS FOUND (INH2O)	INC As Found: 50 INH2O As Left: 50 INH2O DEC As Found: 50 INH2O As Left: 50 INH2O	
Desired Input 75 INH2O and Desired output 75% AS FOUND (INH2O)	INC As Found: 75 INH2O As Left: 75 INH2O DEC As Found: 75 INH2O As Left: 75 INH2O	
Desired Input 100 INH2O and Desired output 100% AS FOUND (INH2O)	INC As Found: 100 INH2O As Left: 100 INH2O DEC As Found: 100 INH2O As Left: 100 INH2O	

PERFORM CALIBRATION CHECK ON TRANSMITTERS - Verify the "AS FOUND"pressure FT-3671 (ABSOLUTE PRESSURE) and record the readings. (CRITERIA : ACCURACY WITH IN 0.1% OF SPAN)

Item	Response	Completion
Flush out FT-3671 (ABSOLUTE PRESSURE) impulse lines.	Yes	
Desired Input 0 PSIA and Desired output 0% AS FOUND (PSIA)	INC As Found: 0 PSIA As Left: 0 PSIA DEC As Found: 0 PSIA As Left: 0 PSIA	
Desired Input 20 PSIA and Desired output 25% AS FOUND (PSIA)	INC As Found: 20 PSIA As Left: 20 PSIA DEC As Found: 20 PSIA As Left: 20 PSIA	
Desired Input 50 PSIA and Desired output 50% AS FOUND (PSIA)	INC As Found: 50 PSIA As Left: 50 PSIA DEC As Found: 50 PSIA As Left: 50 PSIA	
Desired Input 75 PSIA and Desired output 75% AS FOUND (PSIA)	INC As Found: 75 PSIA As Left: 75 PSIA DEC As Found: 75 PSIA As Left: 75 PSIA	
Desired Input 100 PSIA and Desired output 100% AS FOUND (PSIA)	INC As Found: 100 PSIA As Left: 100 PSIA DEC As Found: 100 PSIA As Left: 100 PSIA	

PERFORM CALIBRATION CHECK ON TRANSMITTERS - Verify the "AS FOUND"pressure FT-3671 (DIFF PRESSURE) and record the readings.

(CRITERIA : ACCURACY WITH IN 0.1% OF SPAN)

Item	Response	Completion
Flush out FT-3671 (DIFF PRESSURE) impulse lines.	Yes	
Desired output 0% -40.0 DEG F AS FOUND	Simulation (Ohms): -40 As Found (DEG F): -39.95 As Left (DEG F): -39.95	
Desired output 25% 7.50 DEG F AS FOUND	Simulation (Ohms): 7.5 As Found (DEG F): 7.5 As Left (DEG F): 7.5	
Desired output 50% 55.0 DEG F AS FOUND	Simulation (Ohms): 55 As Found (DEG F): 55.1 As Left (DEG F): 55.1	
Desired output 75% 102.0 DEG F AS FOUND	Simulation (Ohms): 102.0 As Found (DEG F): 102.1 As Left (DEG F): 102.1	
Desired output 100% 150.0 DEG F AS FOUND	Simulation (Ohms): 150 As Found (DEG F): 150.1 As Left (DEG F): 150.1	

PERFORM CALIBRATION CHECK ON TRANSMITTERS - If Pressure transmitter fail to meet the criteria

Item	Response	Completion
If the "AS FOUND" readings of any pressure transmitter fail to meet the criteria, make the adjustment/calibration and reperform verify until the results of that pressure transmitter meet the criteria. then the latest readings shall be recorded as "AS LEFT"	Yes	

PERFORM CALIBRATION CHECK ON TRANSMITTERS - Verify the "AS FOUND" temperature FT-3671 and record the readings. (CRITERIA : ACCURACY WITH IN 0.64 OF SPAN)

Item	Response	Completion
SIMMULATE RESISTANCE FT-3671 (RTD TEMP SENSOR)	Yes	
Desired output 0% -40.0 DEG F AS FOUND	Simulation (Ohms): -40 As Found (DEG F): -40 As Left (DEG F): -40	
Desired output 25% 7.50 DEG F AS FOUND	Simulation (Ohms): 7.50 As Found (DEG F): 7.50 As Left (DEG F): 7.50	
Desired output 50% 55.0 DEG F AS FOUND	Simulation (Ohms): 55.0 As Found (DEG F): 55.0 As Left (DEG F): 55.0	
Desired output 75% 102.0 DEG F AS FOUND	Simulation (Ohms): 102.0 As Found (DEG F): 102.1 As Left (DEG F): 102.1	
Desired output 100% 150.0 DEG F AS FOUND	Simulation (Ohms): 150.0 As Found (DEG F): 150.0 As Left (DEG F): 150.0	

PERFORM CALIBRATION CHECK ON TRANSMITTERS - If Temperature transmitter fail to meet the criteria

Item	Response	Completion
If the "AS FOUND" readings fail to meet the criteria, make the adjustment/calibration and reperform verify until the results meet the criteria. then the latest readings shall be recorded as "AS LEFT"	Yes	

PERFORM CALIBRATION CHECK ON TRANSMITTERS - Verify temperature spot reading against a certified thermometer.

Item	Response	Completion
FT-3671	Spot reading: 91.15 DEG F Certified thermometer: 90.8 DEG F	

FINAL INSPECTION

Item	Response	Completion
Return the system to service.	Yes	
Retrieve diagnostic data and compare to standard value to ensure that all data within the range. record value in the table.	Yes	
If any value is out of range, both sensors are required to be cleaned (see transducer removal procedure) NOTE : mark sensors exact position before removing and installing	Yes	

back to ensure its proper position after cleaning. if any sensor is not exactly installed to its position, the system may not measure correctly

Check system for leaks.	Yes
-------------------------	-----

PM TASK REPORT

Item	Response	Completion
Scan this job card and attach to work order.	Yes	
Close PM work order and record any corrective actions in CMMS.	Yes	

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S-PAILIN PM

Revision	Date	Reason for Issue/Change	CMOR #	Enter by
1	09-Sep-16	Upload Job Card into Sharepoint	NA	LVSJ
2	08-July-20	Revise Job Card	0579/20	
3	01-Dec-22	Gen Control retrofit reviewed		

JOB CARD NUMBER: 4K SOLAR CENTUAR-50 GENERATOR NO.1 PM
SKID/EQUIPMENT: PA-SKG4910-PACPP; SKID; GAS TURBINE GENERATOR#1
OPT. SEQUENCE: 10 4K SOLAR CENTUAR-50 GENERATOR NO.1 PM – I/E
WORK CENTER: PAIE

CREW SIZE	DURATION	EST. MAN-HRS	RESOURCE DESCRIPTIONS
2	10	20	INSTUMENT & ELECTICAL TECH; S-PAILIN

EQUIPMENT CRITICALITY: **REQUIRED OPERATIONAL STATUS:**
ECA: 2 **IC:** N/A **PLANT:** N/A **EQUIPMENT:** SHUTDOWN

EQUIPMENT UNDER THIS TASK:

PA-SKG4910-PACPP SKID; GAS TURBINE GENERATOR#1
 1) SKG-4910, SOLAR TURBINE ENGINE & GENERATOR SKID
 2) UCP-4910, GENERATOR PACKAGE CONTROL PANEL
 3) G-4910, GENERATOR
 4) EM-4910, LUBE OIL COOLER FAN MOTOR NO. 1
 5) EM-4911, LUBE OIL COOLER FAN MOTOR NO. 1
 6) PM-4912, PRE/POST LUBE OIL PUMP MOTOR
 7) EM-4913, ENCLOSURE VENT FAN MOTOR
 8) PM-4915, DC BACK UP LUBE OIL PUMP MOTOR
 9) SK-4911A/B, CO2 FIRE EXTINGUISHER SKIDS

MFGR, INDUSTRY REFERENCES AND ENGINEERING RECOMMENDATION:

- ORIGINAL EQUIPMENT MANUFACTURER, OEM
- ICM-DC-11.03-B, ICM-SC-11.05-A
- API-RP-14C
- P&ID: PACPP-10-383

JOB INSTRUCTIONS

INSTRUMENT & ELECTRICAL TASKS:

COMPLETED
(YES) (NO)

PAIE 20.00 4K SOLAR CENTAUR GENERATOR#1 48.00 4.0
 Standard Job Number: GNSDPA4000 HR SOLAR CENTAUR GENERATOR #1 PM
 TASK: 0024000 HR SOLAR CENTAUR GENERATOR #1 - I/E

1) COORDINATE WITH OPERATION TO MAKE EQUIPMENT AVAILABLE FOR SERVICE.

X () REMARK: _____

2) VISUALLY INSPECT ALL ACCESSIBLE INSTRUMENT SYSTEMS



FOR ANY DAMAGE, FAULT, LEAK, LOOSE OR BROKEN CONNECTION.

✓ () REMARK: _____

3) ISOLATE THE FOLLOWING ITEMS PRIOR TO WORK:

- 3.1) MV SWITCHGEAR BREAKER FROM G-4910
- 3.2) FUEL GAS SUPPLY ISOLATION VALVE (UPSTREAM PCV-3332B)
- 3.3) CO2 SOLENOID VALVES TO BE DISCONNECTED
- 3.4) BYPASS FIRE ALARM TO PAGING SYSTEM ENSURE THAT ALL THE ABOVE ITEMS ARE ISOLATED AND LOCKOUT COMPLETELY, THEN RECORD THE KEYS USED AND SIGN IN THE ISOLATION CERTIFICATE.

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

4) CHECK OPERATION AND SETTING OF THE FOLLOWING

PRESSURE REGULATORS:

- A) PCV2152 TORCH GAS SUPPLY (15 PSIG)
- B) PCV2120 SHUTOFF VLV PILOT SUPPLY (80PSIG)
- C) PCV3420 GENERATOR LUBE OIL SUPPLY (20PSIG)
- D) PCV3332B FUEL GAS SUPPLY (250PSIG)

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

5) STROKE ELECTRONIC METER GAS FUEL VALVE AND CONFIRM THE VALVE POSITION IN MMI.

✓ () REMARK: *Function test 0-100%*

6) INSPECT ALL PRESSURE GAGES AND REPLACE IF DEFECTIVE.

✓ () REMARK: _____

7) INSPECT ALL TEMPERATURE GAGES AND REPLACE IF DEFECTIVE.

✓ () REMARK: _____

8) OBSERVE ALL GENERAL INSTRUMENT DEVICES WHICH MAY NOT BE FUNCTIONING PROPERLY.

✓ () REMARK: _____

ELECTICAL TASKS:

COMPLETED
(YES) (NO)

1) VISUALLY INSPECT ALL ACCESSIBLE ELECTRICAL SYSTEMS FOR LOOSE OR BROKEN CONNECTIONS, DEFECTIVE CIRCUITRY, EXCESSIVE VIBRATION AND NON STANDARD CONDITIONS.

✓ () REMARK: _____

2) INSPECT IGNITER PLUG ASSEMBLY AND CARRY OUT THE FOLLOWING TASKS:

- A) CHECK FOR INSULATION DAMAGE, ELECTRODE WEAR, AND GAPS.
- B) CLEAN ELECTRODE.
- C) CHECK IGNITER CABLE.
- D) VERIFY GROUND.

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

3) ISOLATE AND CARRY OUT THE FOLLOWING TASKS ON THESE MOTORS:

3.1) EM-4910, LUB OIL COOLER FAN MOTOR #1

- 1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
- 2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
- 3. CHECK ALL CONTROL RELAYS AND TERMINALS.
- 4. RECORD RUNNING CURRENT
PHASE A = 6.2 AMPS

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____



PHASE B = 6.2 AMPS
PHASE C = 6.2 AMPS

✓() REMARK: _____

3.2) **EM-4911, LUBE OIL COOLER FAN MOTOR #2**

1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
3. CHECK ALL CONTROL RELAYS AND TERMINALS.

✓() REMARK: _____
✓() REMARK: _____
✓() REMARK: _____

4. RECORD RUNNING CURRENT

PHASE A = 6.8 AMPS
PHASE B = 6.8 AMPS
PHASE C = 6.8 AMPS

✓() REMARK: _____

3.3) **PM-4912, PRE/POSTLUBE OIL PUMP MOTOR**

1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
3. CHECK ALL CONTROL RELAYS AND TERMINALS.

✓() REMARK: _____
✓() REMARK: _____
✓() REMARK: _____

4. RECORD RUNNING CURRENT

PHASE A = 2.5 AMPS
PHASE B = 2.5 AMPS
PHASE C = 2.5 AMPS

✓() REMARK: _____

3.4) **EM-4913, ENCLOSURE VENT FAN MOTOR**

1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
3. CHECK ALL CONTROL RELAYS AND TERMINALS.

✓() REMARK: _____
✓() REMARK: _____
✓() REMARK: _____

4. RECORD RUNNING CURRENT

PHASE A = 15.8 AMPS
PHASE B = 15.4 AMPS
PHASE C = 15.4 AMPS

✓() REMARK: _____

3.5) **PM-4915 DC BACK UP L.O. PUMP**

1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
3. CHECK ALL CONTROL RELAYS AND TERMINALS.

✓() REMARK: _____
✓() REMARK: _____
✓() REMARK: _____

4. RECORD RUNNING CURRENT

PHASE A = 0.1 AMPS
PHASE B = - AMPS
PHASE C = - AMPS

✓() REMARK: _____

3.6) **EM-1300 STARTING MOTOR**

1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
3. CHECK ALL CONTROL RELAYS AND TERMINALS.

✓() REMARK: _____
✓() REMARK: _____
✓() REMARK: _____

4. RECORD RUNNING CURRENT

PHASE A = 15.5 AMPS
PHASE B = 15.5 AMPS
PHASE C = 15.5 AMPS

✓() REMARK: _____

4) **ISOLATE AND CARRY OUT THE FOLLOWING TASKS ON
GENERATOR AND PERMANENT MAGNET EXCITER,
FOLLOWING THE CRITICAL TASK PROCEDURE AND
MANUAL FOR GENERATOR AND MV SWITCHGEAR
MAINTENANCE:**

- A) INSPECT AND CLEAN COOLING PASSAGES FAN AND LOUVERS.
- B) INSPECT/CLEAN AND TEST RECTIFIERS.

✓() REMARK: _____
✓() REMARK: _____



- C) INSPECT AND CLEAN SURGE PROTECTORS.
D) CHECK CABLE AND TERMINATIONS, VERIFY GROUND.
E) INSPECT GROUND CABLE FOR DAMAGE AND LOOSEN DEFECTS.
F) GREASE BEARINGS WITH SHELL DARINA 2

✓() REMARK: _____
✓() REMARK: _____
✓() REMARK: _____
✓() REMARK: *Bearing lube oil type.*

5) ISOLATE AND CARRY OUT THE FOLLOWING TASKS ON UNIT

CONTROL PANEL:

- A) INSPECT AND CLEAN GENERATOR ANCILIARY EQUIPMENT.
B) CHECK OPERATION OF PANEL INDICATOR LAMPS.
C) CHECK SWITCHES FOR DEFECTS AND DAMAGE.

✓() REMARK: _____
✓() REMARK: _____
✓() REMARK: _____

6) INSPECT FIRE SUPPENSION SYSTEM AND CARRY OUT THE FOLLOWING TASKS:

- A) INSPECT PIPING FOR CORROSION AND DAMAGE.
B) CHECK NOZZLES ARE NOT PLUGGED AND ARE AIMING AT PROTECTED EQUIPMENT.
C) OPERATION AND FUNCTION CHECK CO2 SOLENOIDS.
D) SELECT MAIN/RESERVE SWITCH, CHECK OPERATION FOR EACH POSITION.

✓() REMARK: _____
✓() REMARK: _____
✓() REMARK: _____
✓() REMARK: _____

7) CARRY OUT PRE-START INSPECTION.

✓() REMARK: _____

8) COORDINATE WITH MECH. / OPERATOR TO START ENGINE.

✓() REMARK: _____

9) VISUALLY INSPECT ALL ACCESSIBLE ELECTRICAL SYSTEMS FOR LOOSE OR BROKEN CONNECTIONS, DEFECTIVE CIRCUITRY, EXCESSIVE VIBRATION AND NON STANDARD CONDITIONS.

✓() REMARK: _____

10) RETURN UNIT FIRE PROTECTION SYSTEM TO NORMAL POSITION.

✓() REMARK: _____

COMPLETED BY:



, DATE:

14-NOV-2015

COMMENT:



SUPERVISOR:



, DATE:

15 Nov 2015



WO# 126658

Revision	Date	Reason for Issue/Change	CMOR #	Enter by
1	09-Sep-16	Upload Job Card into Sharepoint	NA	LVSJ
2	13-Mar-18	Review and update job card	0307/18	
3	1-Dec-22	Gen. Control retrofit reviewed		

JOB CARD NUMBER: 4K SOLAR CENTUAR-50 GENERATOR NO.1 PM
SKID/EQUIPMENT: PA-SKG4910-PACPP; SKID; GAS TURBINE GENERATOR#1
OPT. SEQUENCE: 10 4K SOLAR CENTUAR-50 GENERATOR NO.1 PM – MECH
WORK CENTER: PAMECH

CREW SIZE	DURATION	EST. MAN-HRS	RESOURCE DESCRIPTIONS
4	10	40	MECHANICAL TECH; S-PAILIN

EQUIPMENT CRITICALITY: **REQUIRED OPERATIONAL STATUS:**
ECA: 2 IC: N/A PLANT: N/A EQUIPMENT: SHUTDOWN

EQUIPMENT UNDER THIS TASK:

PA-SKG4920-PACPP SKID; GAS TURBINE GENERATOR#2
- AI-4910
- E-4910/ 4911
- F-4910
- FA-4910

MFGR, INDUSTRY REFERENCES AND ENGINEERING RECOMMENDATION:

- ORIGINAL EQUIPMENT MANUFACTURER, OEM
- API-RP-14C
- P&ID: PACPP-10-383

SPARE PART LIST:

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
52017	FILTER: TYPE AIR	HV2/000032F	9 EA
53888	FILTER: AIR, TYPE ENGINE	PB1/000093F	9 EA
54679	FILTER: VENT FAN INLET ENCL. FILTER	1106630-50	8 EA
54143	CLEANER: TYPE SURFACTANT	RMC-G21 C/4	1 PA
54064	GREASE COUPLING	1013623	2 EA
NEW	O-RING 2 IN – FUEL FLEX HOSE	91264241	2 EA

**JOB INSTRUCTIONS****MECHANICAL TASKS:****COMPLETED
(YES) (NO)**

- 1) COORDINATE WITH OPERATIONS TO MAKE EQUIPMENT AVAILABLE FOR SERVICE.

☒ () REMARK: _____

- 2) VISUALLY INSPECT ALL ACCESSIBLE PARTS FOR LEAKS, EXCESSIVE VIBRATION AND NOISE, LOOSE CONNECTIONS OF FITTINGS AND NON STANDARD CONDITIONS.

☒ () REMARK: _____

- 3) TAKE READING AND RECORD ALL PARAMETERS, RUNNING HOURS, TEMPERATURES, PRESSURE, ETC.

☒ () REMARK: _____

- 4) COOPERATE WITH I/E TECH TO SHUTDOWN THE ENGINE ON ONE OF SAFETY DEVICES.

☒ () REMARK: _____

- 5) ISOLATE THE FOLLOWING ITEMS PRIOR TO WORK:

5.1) 52-4 MV SWITCHGEAR BREAKER FROM G-4930

5.2) VFD DRIVE BREAKER MCC9, CUBICLE 6-1

5.3) FUEL GAS SUPPLY ISOLATION VALVE (UPSTREAM PCV-3332B)

ENSURE THAT ALL THE ABOVE ITEMS ARE ISOLATED AND LOCKOUT, COMPLETELY THEN RECORD THE KEYS USED AND SIGN UP THE ISOLATION CERTIFICATE.

☒ () REMARK: _____

- 6) CHECK AND INSPECT OF THE FOLLOWING:

6.1 AIR SYSTEM:

6.1.1) CLEAN/INSPECT AIR FILTERS, CHANGE FILTER ELEMENT, AND ENCLOSURE FILTER IF DIFFERENTIAL PRESSURE IS EXCESSIVE.

☒ () REMARK: _____

6.1.2) CLEAN AIR FILTER HOUSING, CHECK AIR INLET SYSTEM FOR OBSTRUCTION AND CONTAMINATE.

☒ () REMARK: _____

6.1.3) CHECK INLET GUIDE VANE FOR PROPER POSITION, CHECK TORQUE PAINT ON FULLY OPEN & CLOSE.

☒ () REMARK: _____

6.1.4) CHECK ACTUATOR CYLINDER LINKAGE.

☒ () REMARK: _____

6.1.5) INSPECT ENGINE COMP. VARIABLE VANE MECHANISM FOR WEAR BUSHING, BENT ARM, LOOSE LINKAGE, ENSURE STOP SETTING IS CORRECTED.

☒ () REMARK: _____

6.1.6) CHECK FOR LOOSE OR DAMAGE SIGNAL WIRE TO ACTUATOR IF APPLICABLE.

☒ () REMARK: _____

6.1.7) INSPECT BLEED AIR VALVE ACTUATOR MECHANISM FOR PROPER OPERATION.

☒ () REMARK: _____**6.2 GENERAL:**

6.5.1) INSPECT GENERATOR COUPLING FOR DEFLECTS, LOOSE RENEW COUPLING GREASE AS PER MANUFACTURER RECOMMENDATION.

☒ () REMARK: _____

6.5.2) -INSPECT AND TORQUE THE COUPLING SHEAR BOLT CONDITION.

☒ () REMARK: _____

6.5.3) WATER AND DETERGENT WASH, CLEAN UP SKID.

- 7) COORDINATE WITH OPERATIONS/OTHER CRAFTS TO START UNIT.

☒ () REMARK: _____



8) VISUALLY INSPECT ALL ACCESSIBLE PARTS FOR LEAKS,
EXCESSIVE VIBRATION AND NOISE, LOOSE CONDITIONS.
OF FITTINGS, NON STANDARD CONNECTIONS.

✓ () REMARK: _____

9) RETURN UNIT TO NORMAL OPERATION.

✓ () REMARK: _____

COMPLETED BY: _____, DATE: 15 Nov 2025

COMMENT: _____

SUPERVISOR: _____, DATE: 15 Nov 2025

NOP: 100 %

PCD: 88.2 PSI

TA: 91.8°F

TS: 651.8°F

Lube oil tank: 169°F

Lube oil Header temp: 149°F

Lube oil pressure: 74.1 PSI

BRD #1 : X = 0.9 MILS Y = 0.7 MILS

BRD #2 : X = 0.8 MILS Y = 0.7 MILS

BRD #3 : X = 0.2 MILS Y = 0.2 MILS

VEN BRD : X = 0.5 MILS Y = 0.4 MILS

VEN & END : X = 0.2 MILS Y = 0.3 MILS.

RT: 12872 HR.



<u>Revision</u>	<u>Date</u>	<u>Reason for Issue/Change</u>	<u>CMOR #</u>	<u>Enter by</u>
1	13-Mar-18	REVIEW AND UPDATE JOB CARD	0307/18	
2	1-May-19	Critical to quality	0329/19	
3	1-Dec-22	Gen control retrofit reviewed		
4	18-Dec-24	Update BOM spare part 8K PM		

JOB CARD NUMBER: 8K SOLAR CENTUAR-50 GENERATOR NO.3 PM

SKID/EQUIPMENT: PA-SKG4930-PACPP; SKID; GAS TURBINE GENERATOR#3

OPT. SEQUENCE: 10 8K SOLAR CENTUAR-50 GENERATOR NO.3 PM – MECH

WORK CENTER: PAMECH

<u>CREW SIZE</u>	<u>DURATION</u>	<u>EST. MAN-HRS</u>	<u>RESOURCE DESCRIPTIONS</u>
4	12	48	MECHANICAL TECH; S-PAILIN

EQUIPMENT CRITICALITY: **REQUIRED OPERATIONAL STATUS:**

ECA: 2 **IC:** N/A **PLANT:** N/A **EQUIPMENT:** SHUTDOWN

MFGR, INDUSTRY REFERENCES AND ENGINEERING RECOMMENDATION:

- ORIGINAL EQUIPMENT MANUFACTURER, OEM
- API-RP-14C
- P&ID: PACPP-10-382

EQUIPMENT UNDER THIS TASK:

PA-SKG4930-PACPP **SKID; GAS TURBINE GENERATOR#3**

- AI-4930
- E-4930/ 4921
- F-4930
- FA-4930

SPARE PART LIST:

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>SOLAR PART</u>	<u>QUALLITY</u>	<u>UNIT</u>
54143	CLEANER:TYPE SURFACTANT	RMC-G21 C/4	1	PA
54898	FILTER:OIL, TYPE LUBE OIL	1091032-1	1	EA
42441	FILTER:HYDRAULIC F1440	186212-100	1	EA
54700	GASKET TORCH	173942-1	1	EA
42170	GASKET: TYPE INJECTOR	136856-1	12	EA
59761	PILOT GAS FILTER F2120	1087491-3	1	EA
363414	O-RING : PILOT GAS FILTER F2120	1094051	1	EA
54064	GREASE: TYPE SPECIAL PURPOSE	1013623	1	EA
54679	FILTER:ENCLOSURE VENT FAN	1106630-50	8	EA



53888	FILTER:AIR, TYPE ENGINE PRE-FILTER	PB1/000093F	9	EA
52017	FILTER: TYPE AIR SECONDARY FILTER	HV2/000032F	9	EA
52677	O-RING: TYPE TURBINE	903269C1	1	EA
11223	SPARK PLUG	903316C1	1	EA
52728	O-RING : FUEL GAS FLEX HOSE	912642C1	2	EA

=====

JOB INSTRUCTIONS**MECHANICAL TASKS:****COMPLETED
(YES) (NO)****1) COORDINATE WITH OPERATIONS TO MAKE EQUIPMENT
AVAILABLE FOR SERVICE.**

() () REMARK: _____

**2) VISUALLY INSPECT ALL ACCESSIBLE PARTS FOR LEAKS,
EXCESSIVE VIBRATION AND NOISE, LOOSE CONNECTIONS
OF FITTINGS AND NON STANDARD CONDITIONS.**

() () REMARK: _____

**3) TAKE READING AND RECORD ALL PARAMETERS, RUNNING
HOURS, TEMPERATURE, PRESSURE, ETC.**

() () REMARK: _____

**4) COOPERATE WITH I/E TECH TO SHUTDOWN THE ENGINE ON ONE
OF SAFETY DEVICES.**

() () REMARK: _____

5) ISOLATE THE FOLLOWING ITEMS PRIOR TO WORK:

- 5.1) [EM-4930](#) L.O.COOLER FAN # 1 ON MCC3, CUBICLE 6-1
- 5.2) [EM-4931](#) L.O.COOLER FAN # 2 ON MCC3, CUBICLE 6-2
- 5.3) [EM-4932](#) PRE/POST L.O.PUMP ON MCC4, CUBLCLE 5-1
- 5.4) [EM-4933](#) ENCLOSURE VENT FAN ON MCC4, CUBICLE 5-2
- 5.5) [PM-4935](#) DC BACK UP L.O. PUMP, PANEL IN SWGR ROOM DCP 03-17
- 5.6) [52-6](#) MV SWITCHGEAR BREAKER FROM [G-4930](#)
- 5.7) STARTER MOTOR VSD BREAKER ON MCC4, CUBLCLE 6-5
- 5.8) FUEL GAS SUPPLY ISOLATION VALVE (UPSTREAM PCV-3332A)
ENSURE THAT ALL THE ABOVE ITEMS ARE ISOLATED AND LOCKOUT,
COMPLETELY THEN RECORD THE KEYS USED AND SIGN UP THE
ISOLATION CERTIFICATE.

() () REMARK: _____

6) CHECK AND INSPECT OF THE FOLLOWING:**6.1 AIR SYSTEM:**

- 6.1.1) CLEAN/INSPECT AIR FILTERS, CHANGE FILTER ELEMENT, AND
ENCLOSURE FILTER IF DIFFERENTIAL PRESSURE IS EXCESSIVE.
- 6.1.2) CLEAN AIR FILTER HOUSING, CHECK AIR INLET SYSTEM FOR
OBSTRUCTION AND CONTAMINATION.
- 6.1.3) CHECK INLET GUIDE VANE FOR PROPER POSITION, CHECK
TORQUE PAINT ON FULLY OPEN & CLOSE.
- 6.1.4) CHECK ACTUATOR CYLINDER LINKAGE.
- 6.1.5) INSPECT ENGINE COMP. VARIABLE VANE MECHANISM FOR WEAR
BUSHING, BENT ARM, LOOSE LINKAGE, ENSURE STOP SETTING IS
CORRECTED.
- 6.1.6) CHECK FOR LOOSE OR DAMAGE OF SIGNAL WIRES TO ACTUATOR
IF APPLICABLE.

() () REMARK: _____

() () REMARK: _____

() () REMARK: _____

() () REMARK: _____

() () REMARK: _____

() () REMARK: _____



6.1.7) INSPECT BLEED AIR VALVE ACTUATOR MECHANISM FOR PROPER OPERATION.

() () REMARK: _____

6.2 OIL SYSTEM:

6.2.1) CHECK OIL LEVEL, TOP UP IF REQUIRED.

() () REMARK: _____

6.2.2) CLEAN UP OIL COOLER WITH DRY AIR.

() () REMARK: _____

6.2.3) CHECK LUBE OIL COOLER FAN BEARINGS.

() () REMARK: _____

6.2.4) FUNCTION CHECK AC/DC PRE-POST LUBE OIL PUMP

CHECK FREEDOM OF ROTATION & BACKLASH OR WEAR.

() () REMARK: _____

6.2.5) CHANGE LUBE OIL FILTER.

() () REMARK: _____

6.2.6) CLEAN UP FLAME ARRESTOR . (FA-4930)

() () REMARK: _____

6.2.7) CHANGE HYDRAULIC OIL FILTER F1440. (P/N : 186212-100)

() () REMARK: _____

6.3 FUEL GAS SYSTEM:

6.3.1) INSPECT & CLEAN FUEL GAS FILTER AND HOUSING O-RING.

() () REMARK: _____

6.3.2) CHANGE PILOT GAS FILTER AND O-RING. F2120 (P/N 1087491-3)

() () REMARK: _____

6.3.4) REMOVE & CLEAN FUEL GAS INJECTORS, REPLACE GASKET
(P/N 136856-1)

() () REMARK: _____

TORQUE AT BOLT OF FUEL INJECTOR 32 FT-LB.

6.3.5) REMOVE & INSPECT IGNITION TORCH HOUSING FOR CRACKS, EXCESSIVE
EROSION ETC, REPLACE GASKET (P/N 173942-1)

() () REMARK: _____

TORQUE AT BOLT OF IGNITION TORCH 32 FT-LB.

6.3.6) INSPECT FUEL CONTROL SYSTEM FOR SECURITY, LEAKS AND PROPER
OPERATION, THROTTLE VALVE, ALL LINKAGES CONDITIONS.

() () REMARK: _____

6.3.7) REPLACE SPARK PLUG AND SET GAP AT 0.095"
(SPARK PLUG P/N : 903316C1)

() () REMARK: _____

6.4 STARTING SYSTEM: ELECTRIC STARTER MOTOR

6.4.1) MANUL CRACNK TEST AND VISUAL OPERATION

() () REMARK: _____

6.4.2) APPLY GREASE TO STARTER MOTOR

() () REMARK: _____

6.5 EXHAUST SYSTEM:

6.5.1) REMOVE AND INSPECT THE EXHAUST COLLECTOR AUTO DRAIN VALVE () () REMARK: _____

6.6 GENERAL:

6.6.1) CONDUCT BOROSCOPE INTERNAL TURBINE ENGINE.
SPECIALIST SIGNOFF _____

() () REMARK: _____

6.6.2) INSPECT GENERATOR COUPLING FOR DEFLECTS, LOOSE RENEW
COUPLING GREASE AS PER MANUFACTURER RECOMMENDATION.

() () REMARK: _____

6.6.3) CHECK AND RE-TIGHTEN ALL BOLT OF COUPLING.

() () REMARK: _____

TORQUE AT NORMAL BOLT 220 FT-LB.

TORQUE AT SHEAR BOLT 200 FT-LB.

SPECIALIST SIGNOFF _____

6.6.4) WATER AND DETERGENT WASH, CLEAN UP SKID.

() () REMARK: _____

7) CARRY OUT PRE-START INSPECTION.

() () REMARK: _____

8) COORDINATE WITH OPERATIONS/OTHER CRAFTS TO START UNIT.

() () REMARK: _____



9) TAKE READING AND RECORD PCD, TEMPERATURE,
LUBE OIL PRESSURE ETC.

() () REMARK: _____

10) VISUALLY INSPECT ALL ACCESSIBLE PARTS FOR LEAKS,
EXCESSIVE VIBRATION AND NOISE, LOOSE CONDITIONS.
OF FITTINGS, NON STANDARD CONNECTIONS.

() () REMARK: _____

11) TAKE READING AND RECORD ALL DATA.

() () REMARK: _____

12) RETURN UNIT TO NORMAL OPERATION.

() () REMARK: _____

=====

COMPLETED BY: _____/_____, DATE: _____

COMMENT: _____

SUPERVISOR: _____, DATE: _____



PM

<u>Revision</u>	<u>Date</u>	<u>Reason for Issue/Change</u>	<u>CMOR #</u>	<u>Enter by</u>
1	13-Mar-18	REVIEW AND UPDATE JOB CARD	0307/18	
2	8-July-20	REVISE JOB CARD	0579/20	
3	12-Feb-21	CO2 CYL Hydro test from 5Yrs to 12 Yrs	0099/21	
4	1-Dec-22	Gen Control retrofit reviewed		

JOB CARD NUMBER: 8K SOLAR CENTUAR-50 GENERATOR NO.3 PM
SKID/EQUIPMENT: PA-SKG4930-PACPP; SKID; GAS TURBINE GENERATOR#3
OPT. SEQUENCE: 10 8K SOLAR CENTUAR-50 GENERATOR NO.3 PM – I/E
WORK CENTER: PAIE

<u>CREW SIZE</u>	<u>DURATION</u>	<u>EST. MAN-HRS</u>	<u>RESOURCE DESCRIPTIONS</u>
4	16	64	INSTRUMENT & ELECTRICAL TECH; S-PAILIN

EQUIPMENT CRITICALITY: **REQUIRED OPERATIONAL STATUS:**
ECA: 2 **IC:** N/A **PLANT:** ONLINE **EQUIPMENT:** SHUTDOWN

EQUIPMENT UNDER THIS TASK:

PA-SKG4910-PACPP SKID; GAS TURBINE GENERATOR#3

- 1) SKG-4930, SOLAR TURBINE ENGINE & GENERATOR SKID
- 2) UCP-4930, GENERATOR PACKAGE CONTROL PANEL
- 3) G-4930, GENERATOR
- 4) EM-4930, LUBE OIL COOLER FAN MOTOR NO. 1
- 5) EM-4931, LUBE OIL COOLER FAN MOTOR NO. 2
- 6) PM-4932, PRE/POST LUBE OIL PUMP MOTOR
- 7) EM-4933, ENCLOSURE VENT FAN MOTOR
- 8) PM-4935, DC BACK UP LUBE OIL PUMP MOTOR
- 9) SK-4911A/B, CO2 FIRE EXTINGUISHER SKIDS
- 10) EM-1330 STARTING MOTOR

MFGR, INDUSTRY REFERENCES AND ENGINEERING RECOMMENDATION:

- ORIGINAL EQUIPMENT MANUFACTURER, OEM
- ICM-DC-11.03-B, ICM-SC-11.05-A
- API-RP-14C
- P&ID: PACPP-10-382

SPARE PART LIST:

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>SOLAR PART</u>	<u>QUANTITY</u>	<u>UNIT</u>
NEW	CALIBRATION KIT, METHANE	1059643	1	EA



PM

PAILIN

JOB INSTRUCTIONS**INSTRUMENT & ELECTRICAL TASKS:**

PAIS 20.00 4K SOLAR CENTAUR GENERATOR #3 48.00 4.0

Standard Job Number: GNSDPA4000 HR SOLAR CENTAUR GENERATOR #3 PM

TASK: 0024000 HR SOLAR CENTAUR GENERATOR #3 - 1/E

COMPLETED**(YES) (NO)****1) COORDINATE WITH OPERATION TO MAKE EQUIPMENT AVAILABLE FOR SERVICE.**

✓ () REMARK: _____

2) VISUALLY INSPECT ALL ACCESSIBLE INSTRUMENT SYSTEMS FOR ANY DAMAGE, FAULT, LEAK, LOOSE OR BROKEN CONNECTION.

✓ () REMARK: _____

3) SHUTDOWN ENGINE ON ONE OF THE FOLLOWING SAFETY DEVICES (BY SIMULATION):

- A) UV/IR FIRE DETECTION SYSTEM BY OPENING THE ENCLOSURE DOORS TO INHIBIT CO2 SYSTEM.
- B) HIGH TEMP S/D
- C) OVERSPEED S/D
- D) LOW LUBE OIL PRESSURE
- E) ENGINE HIGH VIBRATION
- F) GEARBOX HIGH VIBRATION
- G) EMERGENCY STOP RECORD SAFETY DEVICES USED IN THE EQUIPMENT HISTORY FILE.

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

4) ISOLATE THE FOLLOWING ITEMS PRIOR TO WORK:

- 4.1) EM-4930 L.O.COOLER FAN # 1 ON MCC3, CUBICLE 6-1
- 4.2) EM-4931 L.O.COOLER FAN # 2 ON MCC3, CUBICLE 6-2
- 4.3) PM-4932 PRE/POST L.O.PUMP ON MCC4, CUBICLE 5-1
- 4.4) EM-4933 ENCLOSURE VENT FAN ON MCC4, CUBICLE 5-2
- 4.5) PM-4935 DC BACK UP L.O. PUMP, PANEL IN SWGR ROOM
- 4.6) MV SWITCHGEAR BREAKER FROM G-4930
- 4.7) STARTING MOTOR MAIN CIRCUIT BREAKER
- 4.8) FUEL GAS SUPPLY ISOLATION VALVE (UPSTREAM PCV-3332A)
- 4.9) CO2 SOLENOID VALVES TO BE DISCONNECTED
- 4.10) BYPASS FIRE ALARM TO PAGING SYSTEM ENSURE THAT ALL THE ABOVE ITEMS ARE ISOLATED AND LOCKOUT COMPLETELY, THEN RECORD THE KEYS USED AND SIGN IN THE ISOLATION CERTIFICATE.

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

5) CHECK OPERATION AND SETTING OF THE FOLLOWING PRESSURE SWITCHES:

- | | | | |
|------------|--|---|---------------------|
| A) PS3200 | BACKUP LUBE OIL PUMP ACTIVATE. | SET 6 PSIG INCR, FOUND 6 PSIG LEFT - PSIG | ✓ () REMARK: _____ |
| B) PS6610 | CO2 RELEASED CONFIRM | SET 15 PSIG INCR, FOUND 15 PSIG LEFT - PSIG | ✓ () REMARK: _____ |
| C) PS2121 | GAS FUEL VENT BACK PRESSURE HIGH ALARM. | SET 8 PSIG INCR, FOUND 8 PSIG LEFT - PSIG | ✓ () REMARK: _____ |
| D) PS3150 | PRE-POST LUBE OIL PUMP PERMISSIVE /TEST: | SET 6 PSIG INCR, FOUND 6 PSIG LEFT - PSIG | ✓ () REMARK: _____ |
| E) PS3170 | BACKUP LUBE OIL PUMP LOW PRESSURE TEST: | SET 6 PSIG DEC, FOUND 6 PSIG LEFT - PSIG | ✓ () REMARK: _____ |
| F) PDS1500 | FLAME OUT PROTECTION SET 2 PSID. | | ✓ () REMARK: _____ |

6) CHECK OPERATION AND SETTING OF THE FOLLOWING



PM

LEVEL TRANSMITTER:

- A) LT3100 L.O. TANK LOW LEVEL ALARM
SET 11.3 INCH, FOUND 11.3 INCH LEFT - INCH () () REMARK: _____
- B) LT3100 L.O. TANK LOW LEVEL SHUT DOWN
SET 8.3 INCH, FOUND 8.3 INCH LEFT - INCH () () REMARK: _____
- C) LT3100 L.O. TANK HIGH LEVEL ALARM
SET 14.3 INCH, FOUND 14.3 INCH LEFT - INCH () () REMARK: _____

7) CHECK OPERATION AND SETTING OF THE FOLLOWING**THERMAL DETECTORS/SWITCHES:**

- A) TS540 TURBINE (FIRE SYSTEM) (325 DEG.F) () () REMARK: _____
- B) TS541 COUPLING (FIRE SYSTEM) (325 DEG.F) () () REMARK: _____
- C) TS542 GENERATOR (FIRE SYSTEM) (325 DEG.F) () () REMARK: _____

8) CHECK OPERATION AND CALIBRATION OF THE FOLLOWING**PRESSURE TRANSMITTERS:**

TAG	SERVICE	LRV	URV	UNIT	SETPOINT				TEST RESULT
					LL	L	H	HH	
PT1120	Gas Producer Compressor Discharge Pressure #1	0	700	psig					Pass
PT1121	Gas Producer Compressor Discharge Pressure #2	0	700	psig					Pass
PT2120	Gas Fuel Supply Pressure Transmitter	0	700	psig		65	300	305	Pass
PT2121	Gas Fuel Valve Check Pressure Transmitter	0	700	psig			300	305	Pass
PT2126	Gas Fuel Control Pressure Transmitter	0	700	psig			300	305	Pass
PT2127	Gas Fuel Control Pressure Transmitter #2	0	700	psig					Pass
PT2130	Gas Fuel Main Valve Discharge Pressure Transmitter	0	700	psig					Pass
PT2131	Gas Fuel Main Valve Discharge Pressure Transmitter #2	0	700	psig					Pass
PT3150	Pre/Post Lube Oil Pump Pressure Transmitter	0	150	psig					Pass
PT3170	Backup Lube Oil Pump Pressure Transmitter	0	150	psig					Pass
PT3200	Lube Oil Header Pressure Transmitter	0	100	psig			15		Pass
PT3420	Generator Lube Oil Header Pressure Transmitter	0	150	psig	4				Pass
PDT2106	Gas Fuel Filter DP Transmitter	0	100	psid			15	25	Pass
PDT3100	Lube Oil Tank DP Transmitter	0	15	inH2O			8.5	10	Pass
PDT3240	Lube Oil Filter DP Transmitter	0	100	psid			30		Pass
PDT6180	Turbine Enclosure Pressure Transmitter	0	3	inH2O					Pass
PDT6210	Enclosure Main Filter DP Transmitter	0	3	inH2O			2		Pass
PDT6310	Turbine Air Inlet Filter DP Transmitter	0	15	inH2O			5	7	Pass
PDT2106	Gas Fuel Filter DP Transmitter	0	100	psid					No Device.
PDT3100	Lube Oil Tank DP Transmitter	0	15	inH2O					
PDT3240	Lube Oil Filter DP Transmitter	0	100	psid					
PDT6180	Turbine Enclosure Pressure Transmitter	0	3	inH2O					
PDT6210	Enclosure Main Filter DP Transmitter	0	3	inH2O					

9) CHECK THE OPERATION AND SETTING OF THE



PM

FOLLOWING RTDS:

TAG	SERVICE	LRV	URV	UNIT	SETPOINT				TEST RESULT
					LL	L	H	HH	
TE1260	Engine GP Thrust Bearing Temperature RTD	0	400	deg F			250	275	Pass
TE2120	[SAFETY CRITICAL] Gas Fuel Control Temperature RTD	-20	400	deg F	-20	-18	200	215	Pass
TE3100	Lube Oil Tank Temperature RTD	0	500	deg F	62				Pass
TE3200	Lube Oil Header Temperature RTD	0	500	deg F	62	110	175	180	Pass
TE3520	Engine Bearing 2&3 Drain Temperature RTD	0	400	deg F					Pass
TE4210	Generator Phase A Winding Temperature RTD	0	400	deg F			248	266	Pass
TE4213	Generator Phase B Winding Temperature RTD	0	400	deg F			248	266	Pass
TE4216	Generator Phase C Winding Temperature RTD	0	400	deg F			248	266	Pass
TE4230	Generator DE Bearing Temperature RTD	0	400	deg F			180	190	Pass
TE4240	Generator EE Bearing Temperature RTD	0	400	deg F			180	190	Pass
TE6110	Turbine Enclosure Temperature RTD	0	400	deg F			167	185	Pass
TE1110	Turbine Air Inlet Temperature RTD	0	400	deg F			-	-	Pass

150.

10) CHECK THERMOCOUPLE HARNESS ASSEMBLIES, REPLACE THE THERMOCOUPLE IF FOUND DEFECTIVE.

TAG	SERVICE	LRV	URV	UNIT	SETPOINT				TEST RESULT
					LL	L	H	HH	
TE1150	T5 Thermocouple #1	0	2000	deg F		99	438		Pass
TE1151	T5 Thermocouple #2	0	2000	deg F		99	413		Pass
TE1152	T5 Thermocouple #3	0	2000	deg F		98	410		Pass
TE1153	T5 Thermocouple #4	0	2000	deg F		98	414		Pass
TE1154	T5 Thermocouple #5	0	2000	deg F		99	424		Pass
TE1155	T5 Thermocouple #6	0	2000	deg F		100	439		Pass

11) CO-OPERATE WITH MECHANIC TO REMOVE THE FOLLOWING SPEED SENSORSTO INSPECT THE CONDITION.

A) SE1261 BACKUP NPT OVERSPEED SENSOR

(SEE PART ILLUSTRATED DRAWING PAGE 14 OF 50, SECTION F ITEM 9) (X) REMARK: _____

B) SE1260 SPEED SENSOR

(SEE PART ILLUSTRATED DRAWING PAGE 32 OF 50, SECTION D ITEM 8) (X) REMARK: _____

12) CHECK OPERATION AND CALIBRATION OF THE FOLLOWING VIBRATION LOOPS ON THE BENTLY NEVADA VIBRATION MONITOR SYSTEM.

TAG	SERVICE	LRV	URV	UNIT	SETPOINT				TEST RESULT
					LL	L	H	HH	
VE1210_DX_Overall	Engine Bearing 1 X-Axis Radial Vibration Overall	0	10	mil pp			4	5	Pass
VE1211_DX_Overall	Engine Bearing 1 Y-Axis Radial Vibration Overall	0	10	mil pp			4	5	Pass
VE1220_DX_Overall	Engine Bearing 2 X-Axis Radial Vibration Overall	0	10	mil pp			4	5	Pass
VE1221_DX_Overall	Engine Bearing 2 Y-Axis Radial Vibration Overall	0	10	mil pp			4	5	Pass
VE1230_DX_Overall	Engine Bearing 3 X-Axis Radial Vibration Overall	0	10	mil pp			3	4	Pass
VE1231_DX_Overall	Engine Bearing 3 Y-Axis Radial Vibration Overall	0	10	mil pp			3	4	Pass
VE1262_DX_Position	Engine GP Axial Displacement	0	40	g rms	-25	-24	5.0	7.5	Pass
VE1263_DX_Overall	Engine Key Phaser Displacement	0	10	mil pp					Pass
VE4230_DX_Overall	Generator DE X-Axis Radial Vibration Overall	0	10	mil pp			3.9	4.5	Pass



PM

VE4231_DX_Overall	Generator DE Y-Axis Radial Vibration Overall	0	10	mil pp		3.5	4.5	pass
VE4240_DX_Overall	Generator EE X-Axis Radial Vibration Overall Value	0	10	mil pp		3.5	4.5	pass
VE4241_DX_Overall	Generator EE Y-Axis Radial Vibration Overall Value	0	10	mil pp		3.5	4.5	pass
VE4765_DX_Overall	Gearbox Acceleration Vibration Overall Value	0	40	g rms		2	3	pass

13) CHECK OPERATION AND SETTING OF THE FOLLOWING**PRESSURE REGULATORS:**

- A) PCV2152 TORCH GAS SUPPLY (15PSIG)
 B) PCV2120 SHUTOFF VLV PILOT SUPPLY (80PSIG)
 C) PCV3420 GENERATOR LUBE OIL SUPPLY (20PSIG)
 D) PCV3332B FUEL GAS SUPPLY (250PSIG)

✓() REMARK: 15 PSI
 ✓() REMARK: 80 PSI
 ✓() REMARK: 20 PSI
 ✓() REMARK: 250 PSI

14) STROKE ELECTRONIC METER GAS FUEL VALVE AND CONFIRM THE VALVE POSITION IN MMI.

✓() REMARK: Pass 0, 25, 50, 75, 100%

15) INSPECT ALL PRESSURE GAGES AND REPLACE IF DEFECTIVE.

✓() REMARK: _____

16) INSPECT ALL TEMPERATURE GAGES AND REPLACE IF DEFECTIVE.

✓() REMARK: _____

17) OBSERVE ALL GENERAL INSTRUMENT DEVICES WHICH MAY NOT BE FUNCTIONING PROPERLY.

✓() REMARK: _____

=====

ELECTICAL TASKS:

COMPLETED
(YES) (NO)

1) VISUALLY INSPECT ALL ACCESSIBLE ELECTRICAL SYSTEMS FOR LOOSE OR BROKEN CONNECTIONS, DEFECTIVE CIRCUITRY, EXCESSIVE VIBRATION AND NON STANDARD CONDITIONS.

✓() REMARK: _____

2) INSPECT IGNITER PLUG ASSEMBLY AND CARRY OUT THE FOLLOWING TASKS:

- A) CHECK FOR INSULATION DAMAGE, ELECTRODE WEAR, AND GAPS.
 B) CLEAN ELECTRODE.
 C) CHECK IGNITER CABLE.
 D) VERIFY GROUND.

✓() REMARK: _____
 ✓() REMARK: _____
 ✓() REMARK: _____
 ✓() REMARK: _____

3) ISOLATE AND CARRY OUT THE FOLLOWING TASKS ON THESE MOTORS:



PM

PAILIN

3.1) EM-4930, LUB EOIL COOLER FAN MOTOR #1

1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
3. CHECK ALL CONTROL RELAYS AND TERMINALS.
4. CHECK & RECORD MOTOR WINDING AND CONDITION:

4.1 MOTOR INSULATION RESISTANCE 550 MΩ

4.2 MOTOR WINDING RESISTANCE

A-B = 2.2 ΩB-C = 2.2 ΩA-C = 2.2 Ω4.3 SPACE HEATER RESISTANCE/CURRENT 270 Ω / 0.4 A

5. RECORD RUNNING CURRENT

PHASE A = 6.7 AMPSPHASE B = 6.8 AMPSPHASE C = 6.8 AMPS

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

3.2) EM-4931, LUBE OIL COOLER FAN MOTOR #2

1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
3. CHECK ALL CONTROL RELAYS AND TERMINALS.
4. CHECK & RECORD MOTOR WINDING AND CONDITION:

4.1 MOTOR INSULATION RESISTANCE 590 MΩ

4.2 MOTOR WINDING RESISTANCE

A-B = 2.2 ΩB-C = 2.2 ΩA-C = 2.2 Ω4.3 SPACE HEATER RESISTANCE/CURRENT 269 Ω / 0.4 A

5. RECORD RUNNING CURRENT

PHASE A = 6.6 AMPSPHASE B = 6.5 AMPSPHASE C = 6.6 AMPS

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

3.3) PM-4932, PRE/POSTLUBE OIL PUMP MOTOR

1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
3. CHECK ALL CONTROL RELAYS AND TERMINALS.
4. CHECK & RECORD MOTOR WINDING AND CONDITION:

4.1 MOTOR INSULATION RESISTANCE 550 MΩ

4.2 MOTOR WINDING RESISTANCE

A-B = 10.3 ΩB-C = 10.3 ΩA-C = 10.3 Ω4.3 SPACE HEATER RESISTANCE/CURRENT 449 Ω / 0.2 A

5. RECORD RUNNING CURRENT

PHASE A = 2.7 AMPSPHASE B = 2.7 AMPSPHASE C = 2.7 AMPS

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

3.4) EM-4933, ENCLOSURE VENT FAN MOTOR

1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
3. CHECK ALL CONTROL RELAYS AND TERMINALS.
4. CHECK & RECORD MOTOR WINDING AND CONDITION:

4.1 MOTOR INSULATION RESISTANCE 650 MΩ

4.2 MOTOR WINDING RESISTANCE

A-B = 1.1 ΩB-C = 1.1 ΩA-C = 1.1 Ω4.3 SPACE HEATER RESISTANCE/CURRENT 229.9 Ω / 0.4 A

5. RECORD RUNNING CURRENT

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____

✓ () REMARK: _____



PM

PHASE A = 14.7 AMPS
 PHASE B = 14.8 AMPS
 PHASE C = 14.9 AMPS

(/)() REMARK: _____

3.5) PM-4935 DC BACK UP L.O. PUMP

1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
3. CHECK ALL CONTROL RELAYS AND TERMINALS.
4. CHECK & RECORD MOTOR WINDING AND CONDITION:

4.1 MOTOR INSULATION RESISTANCE 750 MΩ

()(/) REMARK: _____

4.2 MOTOR WINDING RESISTANCE

A-B = 2.46 Ω

(/)() REMARK: _____

B-C = _____ Ω

A-C = _____ Ω

() () REMARK: _____

4.3 SPACE HEATER RESISTANCE/CURRENT _____ Ω / _____ A

() () REMARK: _____

S. RECORD RUNNING CURRENT

PHASE A = 46 AMPS

PHASE B = _____ AMPS

PHASE C = _____ AMPS

(-)(-) REMARK: _____

3.6) EM-1330 STARTING MOTOR

1. CHECK MCC MOTOR STARTER, CHECK CONTACT FOR DEFECTS.
2. CHECK PANEL INDICATOR LAMPS & SWITCHES FOR DEFECTS.
3. CHECK ALL CONTROL RELAYS AND TERMINALS.
4. CHECK & RECORD MOTOR WINDING AND CONDITION:

4.1 MOTOR INSULATION RESISTANCE 550 MΩ

(/)() REMARK: _____

4.2 MOTOR WINDING RESISTANCE

A-B = 0.2 Ω

B-C = 0.2 Ω

A-C = 0.2 Ω

(/)() REMARK: _____

4.3 SPACE HEATER RESISTANCE/CURRENT 68.5 Ω / 1.6 A

(/)() REMARK: _____

S. RECORD RUNNING CURRENT

PHASE A = 120 AMPS

PHASE B = 120 AMPS

PHASE C = 120 AMPS

(/)() REMARK: _____

**4) ISOLATE AND CARRY OUT THE FOLLOWING TASKS ON
 GENERATOR AND PERMANENT MAGNET EXCITER,
 FOLLOWING THE CRITICAL TASK PROCEDURE AND
 MANUAL FOR GENERATOR AND MV SWITCHGEAR
 GENERATOR:**

- A) TORQUE CHECK ELECTRICAL CONNECTORS.
- B) CHECK SPACE HEATER FOR PROPER OPERATION.
- C) CLEAN TERMINAL BOX.
- D) INSPECT LOOSENED WIRES/CONNECTORS.
- E) CHECK INSULATION RESISTANCE POLE-POLE AND POLE-GROUND
 OF MAIN STATOR AND ROTOR:

(/)() REMARKS _____

(/)() REMARKS _____

(/)() REMARKS _____

(/)() REMARKS _____

OF MAIN STATOR AND ROTOR:

1 MAIN ROTOR ASSEMBLY = 9.7 MΩ. (> 5MΩ.)

(/)() REMARKS _____

2 MAIN STATOR ASSEMBLY = 0.7 MΩ. (> 5MΩ.)

(/)() REMARKS _____



PM

PAILIN

3 EXCITER AND PMG STATIONARY FIELDS = 790 MΩ. (> 5MΩ.) ☒ () REMARKS _____
4 EXCITER ARMATURE ASSEMBLY = 790 MΩ. (> 5MΩ.) ☒ () REMARKS _____

F) CHECK POLARIZATION INDEX POLE-POLE AND POLE-GROUND
OF MAIN STATOR AND ROTOR.:

1 MAIN ROTOR ASSEMBLY = — (> 2MΩ) ☒ () REMARKS N/A
2 MAIN STATOR ASSEMBLY = 1.5 (> 2MΩ) ☒ () REMARKS _____
3 EXCITER ROTOR = — (> 2MΩ) ☒ () REMARKS N/A
4 EXCITER STATOR = — (> 2MΩ) ☒ () REMARKS N/A

G) CHECK FOR OIL LEAKAGE AT BEARINGS.

☒ () REMARKS _____

H) EXCITER ARMATURE FOR PROPER ROTATING RECTIFIER

☒ () REMARKS _____

CONNECTION TIGHTNESS / INSPECT ,CLEAN AND RE- TORQUE, IF REQUIRED

5) **ISOLATE AND CARRY OUT THE FOLLOWING TASKS ON UNIT**

CONTROL PANEL:

A) INSPECT AND CLEAN GENERATOR ANCILIARY EQUIPMENT. ☒ () REMARK: _____
B) CHECK CABLE AND TERMINATIONS, VERIFY GROUND. INSPECT UNIT
CONTROL PANEL GROUND CABLE FOR DAMAGE AND LOOSEN ☒ () REMARK: _____
C) CHECK OPERATION OF PANEL INDICATOR LAMPS. ☒ () REMARK: _____
D) CHECK SWITCHES FOR DEFECTS AND DAMAGE. ☒ () REMARK: _____
E) INSPECT CIRCUIT BREAKERS AND CHECK OPERATION. ☒ () REMARK: _____
F) CHECK ACCURACY OF METERS. ☒ () REMARK: _____
G) CHECK RELAYS AND PLC RACKS FOR DEFECT, DAMAGE AND
OVERHEATING. ☒ () REMARK: _____

6) **INSPECT AND CLEAN FIRE SYSTEM MANUAL RELEASE:**

A) CHECK ENCLOSURE FOR MOISTURE ACCUMULATION. ☒ () REMARK: _____
B) CHECK TERMINATIONS AND INSPECT WIRING FOR CORROSION. ☒ () REMARK: _____
C) REASSEMBLE ENSURING WEATHER SEAL IS SECURED IN PLACE.
(DISREGARD IF N/A). ☒ () REMARK: _____

7) **INSPECT UV/IR FIRE DETECTION MODULE AND CARRY
OUT THE FOLLOWING TASKS:**

A) CHECK INDICATOR LAMPS. ☒ () REMARK: _____
B) CLEAN FIRE SENSOR LENS. ☒ () REMARK: _____
C) ACTIVATE TEST SWITCH, CHECK SENSOR SENSITIVITY AND VERIFY
OPERATION LOGIC USING UV/IR TEST LIGHT TORCH. ☒ () REMARK: _____

TAG	SERVICE	LRV	URV	UNIT	SETPOINT				TEST RESULT
					LL	L	H	HH	
DTF6510	Flame detector - Fuel Injector ring Right hand side	Normal	Detected						Pass
DTF6511	Flame detector - RGB Coupling Right hand side	Normal	Detected						Pass
DTF6512	Flame detector - Generator Right hand side	Normal	Detected						Pass
DTF6513	Flame detector - Generator Left hand side	Normal	Detected						Pass
DTF6514	Flame detector - RGB Coupling Left hand side	Normal	Detected						Pass
DTF6515	Flame detector - Fuel Injector ring Left hand side	Normal	Detected						Pass.



PM

8) INSPECT GAS DETECTION MODULE AND CARRY OUT**THE FOLLOWING TASKS:**

- A) CHECK INDICATOR LAMP.
 B) CHECK SENSOR FLAME ARRESTOR.
 C) CHECK CALIBRATION OF GAS DETECTION SYSTEM.

✓() REMARK: _____
 ✓() REMARK: _____
 ✓() REMARK: _____

TAG	SERVICE	LRV	URV	UNIT	SETPOINT				TEST RESULT
					LL	L	H	HH	
DTG6561	Gas detector - Air inlet	0	100	%			10	25	Reset 0-90/LB
DTG6571	Gas detector - Fuel Gas supply inlet	0	100	%			10	25	Reset 0-90/LB
DTG6572	Gas detector - Fuel Gas area (close to PECC valve)	0	100	%			10	25	Reset 0-90/LB
DTG6581	Gas detector - Ventilation exhaust	0	100	%			10	25	Reset 0-90/LB

9) INSPECT HEAT DETECTORS AND CARRY OUT THE FOLLOWING**TASKS:**

- A) CLEAN ASSEMBLY.
 B) CHECK TERMINATIONS AND VERIFY GROUND. INSPECT GROUND CABLE FOR DAMAGE AND LOOSEN
 C) FUNCTIONING TEST BY USING HEAT GUN.

✓() REMARK: _____
 ✓() REMARK: _____
 ✓() REMARK: _____

TAG	SERVICE	LRV	URV	UNIT	SETPOINT				TEST RESULT
					LL	L	H	HH	
TS-6540	Thermal switch - Fuel Injector ring Area	Normal	Detected						Normal
TS-6541	Thermal switch - RGB Coupling Area	Normal	Detected						Normal
TS-6542	Thermal switch - Generator Area	Normal	Detected						Normal

10) INSPECT FIRE SUPPRESSION SYSTEM AND CARRY OUT THE**FOLLOWING TASKS:**

- A) INSPECT PIPING FOR CORROSION AND DAMAGE.
 B) CHECK NOZZLES ARE NOT PLUGGED AND ARE AIMING AT PROTECTED EQUIPMENT.
 C) OPERATION AND FUNCTION CHECK CO2 SOLENOIDS.
 D) SELECT MAIN/RESERVE SWITCH, CHECK OPERATION FOR EACH POSITION.
 E) REMOVE, INSPECT AND WEIGHT ALL CO2 CYLINDERS, RECORD CO2 WEIGHT

✓() REMARK: _____
 ✓() REMARK: _____
 ✓() REMARK: _____
 ✓() REMARK: _____
 ✓() REMARK: _____

	SERIAL NO.	EXPIRE DATE	WEIGHT(LBS)
1	KF-133188	2021	29.5
2	KF-133181	2021	29.5
3	KF-133091	2021	21.5
4	KF-133094	2021	21.5
5	KF-145310	Feb, 2022	29.5 (Cylinder Expired)
6	KF-497524	Feb, 2022	29.5 (Cylinder Expired)
7	KF-43953	Aug, 2020	21.5
8	KF-480011	Oct, 2034	21.5

- F) RECHARGE IF WEIGHT LESS THAN 10% STAMPED WEIGHT ON CYL. IF OVER 12 YRS., REMOVE CYL FOR HYDRO TEST.

✓() REMARK: _____

SPECIALIST SIGN- OFF



PM

14) CARRY OUT PRE-START INSPECTION.

(✓) REMARK: _____

15) COORDINATE WITH MECH./ OPERATOR TO START ENGINE.

(✓) REMARK: _____

16) VISUALLY INSPECT ALL ACCESSIBLE ELECTRICAL SYSTEMS FOR
LOOSE OR BROKEN CONNECTIONS, DEFECTIVE CIRCUITRY,
EXCESSIVE VIBRATION AND NON STANDARD CONDITIONS.

(✓) REMARK: _____

17) RETURN UNIT FIRE PROTECTION SYSTEM TO NORMAL
POSITION.

(✓) REMARK: _____

COMPLETED BY: [REDACTED] / [REDACTED], DATE: 24. Apr 25COMMENT: Roving Team Group A.* Replaced 1 Ea fire damper actuator at Engine side due to air leak at stem.* CO₂ Cylinder Expire need to Replaced.SUPERVISOR: [REDACTED], DATE: 24 Apr 25



NO: 1251682

S-PAILIN ITPM

Revision	Date	Reason for Issue/Change	CMOR #	Enter by
1	02-Dec-13	Initial Issue for ITPM	0518/13	
2	30-Jan-15	Modify Jobcard	0216/15	
3	07-Aug-15	Revised Job card for Non-Fixed ITPM	0432/15	
4	14-Aug-19	Revised Job card: Project upgrade	0969/19	

JOB CARD NUMBER: 1Y FIRE & GAS SYSTEM PALQ - ITPM
SKID/EQUIPMENT: PA-MFAP-PALQ SYSTEM, FIRE & GAS DETECTION
OPT. SEQUENCE: 10 1Y FIRE & GAS SYSTEM PALQ ITPM - I/E
WORK CENTER: PAIE
CREW SIZE 4 **EST. MAN-HRS** 80 **MAN POWER CRAFT AND COMPETENCIES**
INST & ELECTRICAL TECH. (Min Lead -T1), S-PAILIN

EQUIPMENT CRITICALITY: **REQUIRED OPERATIONAL STATUS:**
ECA: 2 **IC:** 2 **PLANT:** ONLINE **EQUIPMENT:** ONLINE

MFGR, INDUSTRY REFERENCES AND ENGINEERING RECOMMENDATION:

- ORIGINAL EQUIPMENT MANUFACTURER, OEM
- NATIONAL FIRE PROTECTION ASSOCIATION, NFPA-72
- FPM-SU-15.01, FPM-SU-15.05
- FIRE & GAS SAFE CHART : PACPP-10-70-133A to 133C, REV 1

EQUIPMENT UNDER THIS ITPM TASK:

PA-MFAP-PALQ SYSTEM, FIRE & GAS DETECTION-PALQ

- GD : GAS DETECTOR
- SD : SMOKE DETECTOR
- MAS : MANUAL FIRE ALARM STATION
- HGD : H2S GAS DETECTOR
- TGD : GAS DETECTOR

JOB INSTRUCTIONS**INST & ELECTRICAL TASKS:**COMPLETED
(YES) (NO)**1) PRE-REQUISITE TASKS:**

- 1.1 OBTAIN WORK PERMIT, REVIEW HA/JSA AND CARRY OUT TOOLBOX MEETING.
- 1.2 COORDINATE WITH PRODUCTION TO PERFORM FIRE & GAS CALIBRATION.
- 1.3 BYPASS SHUTDOWN SYSTEM FOR INSTRUMENT ALIBRATION CHECK FUNCTION LISTED IN (BCP).

(✓) () REMARKS _____
(✓) () REMARKS _____
(✓) () REMARKS _____

2) CARRY CHECK ON FIRE CONTROL PANEL:

- 2.1 VISUALLY INSPECT ALL ACCESSIBLE ELECTRICAL SYSTEMS FOR LOOSE OR BROKEN CONNECTIONS, DEFECTIVE CIRCUITRY AND NON STANDARD CONDITION.
- 2.2 CLEAN MODULES, REMOVE DUST & DIRT.
- 2.3 CHECK TERMINALS, VERIFY GROUND.
- 2.4 CHECK POWER SUPPLY FOR SECURITY.
- 2.5 CHECK THE OPERATION OF PANEL INDICATOR LAMPS.
- 2.6 CHECK THE OPERATION OF ALARM HORNS & PA SYSTEM.

(✓) () REMARKS _____
(✓) () REMARKS _____
(✓) () REMARKS _____
(✓) () REMARKS _____
(✓) () REMARKS _____
(✓) () REMARKS _____

3) PERFORM CALIBRATION CHECK ON GAS DETECTORS:

- 3.1 BYPASS GAS DETECTOR FOR TESTING ZONE BY ZONE.
- 3.2 CHECK PANEL INDICATOR LAMPS.

(✓) () REMARKS _____
(✓) () REMARKS _____



- 3.3 CLEAN SENSOR FILTERS, REPLACE IF DEFECTED. (✓) () REMARKS _____
- 3.4 EXPOSE EACH SENSOR TO CALIBRATE MIXTURE FOR 30 SEC. (✓) () REMARKS _____
- 3.5 CONFIRM THE HIGH ALARM AT 20 %LEL, HI-HI S/D ALARM 40 %LEL AND METER READING MAX 50% LEL. (✓) () REMARKS _____
- 3.6 IF READING ERROR TO CALIBRATE ZERO-SPAN, ADJUST SPAN TO OBTAIN 50 %LEL. (✓) () REMARKS _____
- 3.7 ENSURE METER RETURN TO ZERO, RESET GAS MODULE ANNUNCIATION. (✓) () REMARKS _____
- 3.8 RESET ON PANEL AND REMOVE BYPASS. (✓) () REMARKS _____

4) PERFORM CALIBRATION CHECK ON SMOKE DETECTORS:

- 4.1 BYPASS SMOKE DETECTORS ON FIRE CONTROL PANEL. (✓) () REMARKS _____
- 4.2 CHECK PANEL INDICATOR LAMPS. (✓) () REMARKS _____
- 4.3 ENSURE THAT A SUPPLY OF FREON TEST MIXTURE FOR SMOKE DETECTORS IS AVAILABLE. (✓) () REMARKS _____
- 4.4 PLACE THE FREON TEST MIXTURE AND ASSY. OVER THE SMOKE DETECTORS, ACTIVATE A FLOW OF FREON FOR MORE THAN 1 SEC. (✓) () REMARKS _____
- 4.5 THE DETECTOR SHOULD ACTIVATE AND CAUSE AN ALARM IN LESS THAN 60 SEC. (✓) () REMARKS _____
- 4.6 CONFIRM ALARM AND ANNUNCIATION FOR EACH ALARM CLEARED. (✓) () REMARKS _____
- 4.7 RESET ON PANEL AND REMOVE BYPASS. (✓) () REMARKS _____

5) PERFORM FUNCTION CHECK ON MANUAL FIRE ALARM STATIONS:

- 5.1 BYPASS MANUAL FIRE ALARM STATION ON FIRE CONTROL PANEL. (✓) () REMARKS _____
- 5.2 CHECK PANEL INDICATOR LAMPS. (✓) () REMARKS _____
- 5.3 IDENTIFY THE LOCATION OF MANUAL FIRE SWITCH, CHECK CONDITION OF ALL SWITCHES AND CLEAN. (✓) () REMARKS _____
- 5.4 PERFORM TESTING MANUAL FIRE SWITCH BY USING TESTING KEY PUSH TO THE TEST KEY HOLE AND WAITING THE ALARM AT PANEL INDICATES. (✓) () REMARKS _____
- 5.5 CONFIRM ALARM AND ANNUNCIATION FOR EACH ALARM CLEARED. (✓) () REMARKS _____
- 5.6 RESET ON PANEL AND REMOVE BYPASS. (✓) () REMARKS _____

SUB CELLAR DECK**MANUAL CALL POINT STATION (SD : SUB CELLAR DECK)**

- 1) MAS-SD-001 (✓) () REMARKS _____

CELLAR DECK**GAS DETECTOR (CD : CELLAR DECK)**

- 1) TGD-CD-103-1 : FLAMMABLE GAS DETECTOR MECH AHU AIR INTAKE (✓) () REMARKS _____
- 0 % LEL ZERO READING, AS FOUND 0 %LEL, AS LEFT _____ %LEL
- 50 %LEL, MAX READING, AS FOUND 50 %LEL, AS LEFT _____ %LEL
- 10 %LEL, HIGH ALARM, AS FOUND 10 %LEL, AS LEFT _____ %LEL
- 20 %LEL, HI-HI ALARM, AS FOUND 20 %LEL, AS LEFT _____ %LEL
- 2) TGD-CD-103-2 : HYDROCARBON GAS DETECTOR MECH SWGR DOOR (✓) () REMARKS _____
- 0 % LEL ZERO READING, AS FOUND 0 %LEL, AS LEFT _____ %LEL
- 50 %LEL, MAX READING, AS FOUND 50 %LEL, AS LEFT _____ %LEL
- 10 %LEL, HIGH ALARM, AS FOUND 10 %LEL, AS LEFT _____ %LEL
- 20 %LEL, HI-HI ALARM, AS FOUND 20 %LEL, AS LEFT _____ %LEL
- 3) SGD-CD-103 : H2S GAS DETECTOR MECH SHOP AHU AIR INTAKE (✓) () REMARKS _____
- 0 ppm, ZERO READING, AS FOUND 0 ppm, AS LEFT _____ ppm
- 20 ppm, MAX READING, AS FOUND 20 ppm, AS LEFT _____ ppm
- 5 ppm, HIGH ALARM, AS FOUND 5 ppm, AS LEFT _____ ppm
- 10 ppm, HI-HI ALARM, AS FOUND 10 ppm, AS LEFT _____ ppm
- 4) HGD-CD-102 : H2 GAS DETECTOR LOP BATTERY ROOM (✓) () REMARKS _____
- 0 % LEL ZERO READING, AS FOUND 0 %LEL, AS LEFT _____ %LEL
- 50 %LEL, MAX READING, AS FOUND 50 %LEL, AS LEFT _____ %LEL



20 %LEL, HIGH ALARM, AS FOUND 20 %LEL, AS LEFT _____ %LEL
40 %LEL, HI-HI ALARM, AS FOUND 40 %LEL, AS LEFT _____ %LEL

PHOTOELECTRIC SMOKE DETECTOR (CD : CELLAR DECK)

- 1) PSD-CD-100-1
- 2) PSD-CD-100-2
- 3) PSD-CD-101
- 4) PSD-CD-103-1
- 5) PSD-CD-103-2
- 6) PSD-CD-103-3
- 7) PSD-CD-103-4
- 8) PSD-CD-104
- 9) PSD-CD-105
- 10) PSD-CD-106
- 11) PSD-CD-107
- 12) PSD-CD-108
- 13) PSD-CD-109

(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____

HEAT DETECTOR (CD : CELLAR DECK)

- 1) TDR-CD-001 : WELDING AREA
- 2) TDR-CD-102 : LQP BATTERY ROOM
- 3) TDR-CD-110 : PAINTING ROOM

(✓)() REMARKS 61W Graphite
(✓)() REMARKS _____
(✓)() REMARKS _____

MANUAL CALL POINT STATION (CD : CELLAR DECK)

- 1) MAS-CD-001
- 2) MAS-CD-002
- 3) MAS-CD-003
- 4) MAS-CD-004
- 5) MAS-CD-005
- 6) MAS-CD-006
- 7) MAS-CD-100
- 8) MAS-CD-103

(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____
(✓)() REMARKS _____

MEZZANINE DECK**GAS DETECTOR (MD : MEZZANINE DECK)****1) TGD-MD-202-1 : HYDROCARBON GAS DETECTOR LOCKER ROOM**

0 % LEL ZERO READING, AS FOUND 0 %LEL, AS LEFT _____ %LEL
50 %LEL, MAX READING, AS FOUND 50 %LEL, AS LEFT _____ %LEL
10 %LEL, HIGH ALARM, AS FOUND 10 %LEL, AS LEFT _____ %LEL
20 %LEL, HI-HI ALARM, AS FOUND 20 %LEL, AS LEFT _____ %LEL

(✓)() REMARKS _____

2) TGD-MD-202-2 : HYDROCARBON GAS DETECTOR IE SHOP AHU AIR INTAKE

0 % LEL ZERO READING, AS FOUND 0 %LEL, AS LEFT _____ %LEL
50 %LEL, MAX READING, AS FOUND 50 %LEL, AS LEFT _____ %LEL
10 %LEL, HIGH ALARM, AS FOUND 10 %LEL, AS LEFT _____ %LEL
20 %LEL, HI-HI ALARM, AS FOUND 20 %LEL, AS LEFT _____ %LEL

(✓)() REMARKS _____

3) SGD- MD-202 : H2S GAS DETECTOR IE SHOP AHU AIR INTAKE

0 ppm, ZERO READING, AS FOUND 0 ppm, AS LEFT _____ ppm
20 ppm, MAX READING, AS FOUND 20 ppm, AS LEFT _____ ppm
5 ppm, HIGH ALARM, AS FOUND 5 ppm, AS LEFT _____ ppm
10 ppm, HI-HI ALARM, AS FOUND 10 ppm, AS LEFT _____ ppm

(✓)() REMARKS _____

4) TGD-MD-208-1 : HYDROCARBON GAS DETECTOR STORE SHOP AHU AIR INTAKE

0 % LEL ZERO READING, AS FOUND 0 %LEL, AS LEFT _____ %LEL
50 %LEL, MAX READING, AS FOUND 50 %LEL, AS LEFT _____ %LEL
10 %LEL, HIGH ALARM, AS FOUND 10 %LEL, AS LEFT _____ %LEL
20 %LEL, HI-HI ALARM, AS FOUND 20 %LEL, AS LEFT _____ %LEL

(✓)() REMARKS _____

5) TGD-MD-208-2 : HYDROCARBON GAS DETECTOR IN STORE SHOP

0 % LEL ZERO READING, AS FOUND 0 %LEL, AS LEFT _____ %LEL

(✓)() REMARKS _____



50 %LEL, MAX READING, AS FOUND 50 %LEL, AS LEFT _____ %LEL
10 %LEL, HIGH ALARM, AS FOUND 10 %LEL, AS LEFT _____ %LEL
20 %LEL, HI-HI ALARM, AS FOUND 00 %LEL, AS LEFT _____ %LEL

6) **SGD- MD-208 : H2S GAS DETECTOR STORE SHOP AHU AIR INTAKE** ✓() REMARKS _____
0 ppm ZERO READING, AS FOUND 0 ppm, AS LEFT _____ ppm
20 ppm, MAX READING, AS FOUND 20 ppm, AS LEFT _____ ppm
5 ppm, HIGH ALARM, AS FOUND 5 ppm, AS LEFT _____ ppm
10 ppm, HI-HI ALARM, AS FOUND 10 ppm, AS LEFT _____ ppm

PHOTOELECTRIC SMOKE DETECTOR (MD : MEZZANINE DECK)

1) PSD-MD-200-1 ✓() REMARKS _____
2) PSD-MD-200-2 ✓() REMARKS _____
3) PSD-MD-201 ✓() REMARKS _____
4) PSD-MD-202-1 ✓() REMARKS _____
5) PSD-MD-202-2 ✓() REMARKS _____
6) PSD-MD-204 ✓() REMARKS _____
7) PSD-MD-205 ✓() REMARKS _____
8) PSD-MD-209 ✓() REMARKS _____

HEAT DETECTOR (MD : MEZZANINE DECK)

1) TDR-MD-202-1 ✓() REMARKS _____
2) TDR-MD-202-2 ✓() REMARKS _____
3) TDR-MD-206-1 ✓() REMARKS _____
4) TDR-MD-206-2 ✓() REMARKS _____
5) TDR-MD-208-1 ✓() REMARKS _____
6) TDR-MD-208-2 ✓() REMARKS _____
7) TDR-MD-208-3 ✓() REMARKS _____
8) TDR-MD-208-4 ✓() REMARKS _____
9) TDF-MD-210 ✓() REMARKS _____
10) TDR-MD-211 ✓() REMARKS _____

MANUAL CALL POINT STATION (MD : MEZZANINE DECK)

1) MAS-MD-001 ✓() REMARKS _____
2) MAS-MD-002 ✓() REMARKS _____
3) MAS-MD-003 ✓() REMARKS _____
4) MAS-MD-004 ✓() REMARKS _____
5) MAS-MD-005 ✓() REMARKS _____
6) MAS-MD-211 ✓() REMARKS _____

UPPER DECK**MANUAL CALL POINT STATION (UD : UPPER DECK)**

1) MAS-UD-001 ✓() REMARKS _____
2) MAS-UD-002 ✓() REMARKS _____
3) MAS-UD-003 ✓() REMARKS _____
4) MAS-UD-004 ✓() REMARKS _____
5) MAS-UD-005 ✓() REMARKS _____
6) MAS-UD-006 ✓() REMARKS _____

HEAT DETECTOR (UD : UPPER DECK)

1) TDR-UD-001 () REMARKS NO Dotted, (Smoking Area)

1ST FIRST FLOOR**PHOTOELECTRIC SMOKE DETECTOR (FIRST FLOOR)**

1) PSD-101 ✓() REMARKS _____
2) PSD-102 ✓() REMARKS _____
3) PSD-103 ✓() REMARKS _____
4) PSD-104 ✓() REMARKS _____
5) PSD-109-1 ✓() REMARKS _____
6) PSD-109-2 ✓() REMARKS _____
7) PSD-109-3 ✓() REMARKS _____



- [illegible]

[illegible]

() REMARKS _____
 () REMARKS _____
 () REMARKS _____
 () REMARKS _____

1)	REMARKS
2)	REMARKS
3)	REMARKS
4)	REMARKS
5)	REMARKS
6)	REMARKS
7)	REMARKS
8)	REMARKS
9)	REMARKS
10)	REMARKS
11)	REMARKS
12)	REMARKS
13)	REMARKS
14)	REMARKS
15)	REMARKS
16)	REMARKS
17)	REMARKS
18)	REMARKS
19)	REMARKS
20)	REMARKS
21)	REMARKS
22)	REMARKS
23)	REMARKS
24)	REMARKS
25)	REMARKS
26)	REMARKS
27)	REMARKS
28)	REMARKS
29)	REMARKS
30)	REMARKS



33) PSD-233

(✓)() REMARKS _____

MANUAL CALL POINT STATION (SECOND FLOOR)

1) MAS-230-1

(✓)() REMARKS _____

1) MAS-230-2

(✓)() REMARKS _____

1) MAS-232-1

(✓)() REMARKS _____

1) MAS-232-2

(✓)() REMARKS _____

3RD THIRD FLOORPHOTOELECTRIC SMOKE DETECTOR (THIRD FLOOR)

1) PSD-301

(✓)() REMARKS _____

2) PSD-302

(✓)() REMARKS _____

3) PSD-303

(✓)() REMARKS _____

4) PSD-304

(✓)() REMARKS _____

5) PSD-305

(✓)() REMARKS _____

6) PSD-306

(✓)() REMARKS _____

7) PSD-307

(✓)() REMARKS _____

8) PSD-308

(✓)() REMARKS _____

9) PSD-309

(✓)() REMARKS _____

10) PSD-310

(✓)() REMARKS _____

11) PSD-311

(✓)() REMARKS _____

12) PSD-312

(✓)() REMARKS _____

13) PSD-313

(✓)() REMARKS _____

14) PSD-314

(✓)() REMARKS _____

15) PSD-315

(✓)() REMARKS _____

16) PSD-316

(✓)() REMARKS _____

17) PSD-317

(✓)() REMARKS _____

18) PSD-318

(✓)() REMARKS _____

19) PSD-319

(✓)() REMARKS _____

20) PSD-320-1

(✓)() REMARKS _____

21) PSD-320-2

(✓)() REMARKS _____

22) PSD-321

(✓)() REMARKS _____

23) PSD-322

(✓)() REMARKS _____

24) PSD-323

(✓)() REMARKS _____

25) PSD-324

(✓)() REMARKS _____

26) PSD-325-1

(✓)() REMARKS _____

27) PSD-325-2

(✓)() REMARKS _____

28) PSD-326

(✓)() REMARKS _____

29) PSD-327-1

(✓)() REMARKS _____

30) PSD-327-2

(✓)() REMARKS _____

31) PSD-328

(✓)() REMARKS _____

MANUAL CALL POINT STATION (THIRD FLOOR)

1) MAS-325-1

(✓)() REMARKS _____

2) MAS-325-2

(✓)() REMARKS _____

3) MAS-327-1

(✓)() REMARKS _____

4) MAS-327-2

(✓)() REMARKS _____

4TH FOURTH FLOORGAS DETECTOR (4TH FLOOR)1) TGD-405-1 : FLAMMABLE GAS DETECTOR 4TH FLOOR AHU AIR INTAKE (✓)() REMARKS _____0 % LEL ZERO READING, AS FOUND 0 %LEL, AS LEFT _____ %LEL50 %LEL, MAX READING, AS FOUND 19 %LEL, AS LEFT _____ %LEL10 %LEL, HIGH ALARM, AS FOUND 10 %LEL, AS LEFT _____ %LEL20 %LEL, HI-HI ALARM, AS FOUND 20 %LEL, AS LEFT _____ %LEL2) TGD-405-2 : FLAMMABLE GAS DETECTOR 4TH FLOOR AHU AIR INTAKE (✓)() REMARKS _____0 % LEL ZERO READING, AS FOUND 0 %LEL, AS LEFT _____ %LEL50 %LEL, MAX READING, AS FOUND 19 %LEL, AS LEFT _____ %LEL10 %LEL, HIGH ALARM, AS FOUND 10 %LEL, AS LEFT _____ %LEL20 %LEL, HI-HI ALARM, AS FOUND 20 %LEL, AS LEFT _____ %LEL3) TGD-405-3 : FLAMMABLE GAS DETECTOR 4TH FLOOR AHU AIR INTAKE (✓)() REMARKS _____0 % LEL ZERO READING, AS FOUND 0 %LEL, AS LEFT _____ %LEL50 %LEL, MAX READING, AS FOUND 19 %LEL, AS LEFT _____ %LEL



10 %LEL, HIGH ALARM, AS FOUND 10 %LEL, AS LEFT _____ %LEL
20 %LEL, HI-HI ALARM, AS FOUND 10 %LEL, AS LEFT _____ %LEL

- 4) **SGD- MD-405 : H2S GAS DETECTOR 4TH FLOOR AHU AIR INTAKE** (✓) () REMARKS _____
0 ppm ZERO READING, AS FOUND 0 ppm, AS LEFT _____ ppm
20 ppm, MAX READING, AS FOUND 00 ppm, AS LEFT _____ ppm
5 ppm, HIGH ALARM, AS FOUND 5 ppm, AS LEFT _____ ppm
10 ppm, HI-HI ALARM, AS FOUND 10 ppm, AS LEFT _____ ppm
- 5) **HGD-CD-411 : H2 GAS DETECTOR LQB BATTERY ROOM** (✓) () REMARKS _____
0 %LEL ZERO READING, AS FOUND 0 %LEL, AS LEFT _____ %LEL
50 %LEL, MAX READING, AS FOUND 50 %LEL, AS LEFT _____ %LEL
20 %LEL, HIGH ALARM, AS FOUND 20 %LEL, AS LEFT _____ %LEL
40 %LEL, HI-HI ALARM, AS FOUND 40 %LEL, AS LEFT _____ %LEL

PHOTOELECTRIC SMOKE DETECTOR (FOURTH FLOOR)

- | | |
|---------------|-----------------------|
| 1) PSD-401-1 | (✓) () REMARKS _____ |
| 2) PSD-401-2 | (✓) () REMARKS _____ |
| 3) PSD-401-3 | (✓) () REMARKS _____ |
| 4) PSD-402-1 | (✓) () REMARKS _____ |
| 5) PSD-402-2 | (✓) () REMARKS _____ |
| 6) PSD-402-3 | (✓) () REMARKS _____ |
| 7) PSD-402-4 | (✓) () REMARKS _____ |
| 8) PSD-403 | (✓) () REMARKS _____ |
| 9) PSD-403-1 | (✓) () REMARKS _____ |
| 10) PSD-405-1 | (✓) () REMARKS _____ |
| 11) PSD-405-2 | (✓) () REMARKS _____ |
| 12) PSD-405-3 | (✓) () REMARKS _____ |
| 13) PSD-405-4 | (✓) () REMARKS _____ |
| 14) PSD-407-2 | (✓) () REMARKS _____ |
| 15) PSD-407-3 | (✓) () REMARKS _____ |
| 16) PSD-407-4 | (✓) () REMARKS _____ |
| 17) PSD-407-5 | (✓) () REMARKS _____ |
| 18) PSD-407-6 | (✓) () REMARKS _____ |
| 19) PSD-408 | (✓) () REMARKS _____ |
| 20) PSD-409 | (✓) () REMARKS _____ |
| 21) PSD-410 | (✓) () REMARKS _____ |

HEAT DETECTOR (FOURTH FLOOR)

- 1) TDR-411 (✓) () REMARKS Battery room

MANUAL CALL POINT STATION (FOURTH FLOOR)

- | | |
|------------|-----------------------|
| 1) MAS-402 | (✓) () REMARKS _____ |
| 2) MAS-404 | (✓) () REMARKS _____ |
| 3) MAS-407 | (✓) () REMARKS _____ |
| 4) MAS-405 | (✓) () REMARKS _____ |
| 5) MAS-408 | (✓) () REMARKS _____ |

ROOF AND HELIDECK**GAS DETECTOR (ROOF AND HELIDECK)**

- | | |
|------------|-----------------------|
| 1) PSD-501 | (✓) () REMARKS _____ |
| 2) PSD-502 | (✓) () REMARKS _____ |
| 3) PSD-503 | (✓) () REMARKS _____ |
| 4) PSD-504 | (✓) () REMARKS _____ |

MANUAL CALL POINT STATION (THIRD FLOOR)

- | | |
|-------------|-----------------------|
| 1) MAS-502 | (✓) () REMARKS _____ |
| 2) MAS-503 | (✓) () REMARKS _____ |
| 3) MAS-RH-1 | (✓) () REMARKS _____ |
| 4) MAS-RH-2 | (✓) () REMARKS _____ |
| 5) MAS-RH-3 | (✓) () REMARKS _____ |
| 6) MAS-RH-4 | (✓) () REMARKS _____ |

6) PERFORM FUNCTION CHECK ON FESD MANUAL SWITCHES:

- 6.1 BYPASS FESD MANUAL SWITCH FOR TESTING ZONE BY ZONE. (✓) () REMARKS _____



S-PAILIN ITPM

- 6.2 CHECK CONDITION OF SWITCH AND CLEAN. (✓) () REMARKS _____
6.3 ACTIVATE TEST SWITCH. (✓) () REMARKS _____
6.4 CONFIRM ALARM AND ANNUNCIATION FOR EACH ALARM CLEARED. (✓) () REMARKS _____
6.5 RESET PANEL AND REMOVE BYPASS. (✓) () REMARKS _____

FIRE EMERGENCY SHUT DOWN

- 1) FESD-RH-1 (✓) () REMARKS _____
1) LQESD-UD-001 (✓) () REMARKS _____
1) LQESD-UD-002 (✓) () REMARKS _____

7) FINAL CHECK:

- 7.1 RECHECK ALL ACCESSIBLE INSTRUMENT SYSTEMS FOR
SIGN OF BURNT OR LOOSE CONNECTION. (✓) () REMARKS _____
7.2 REMOVE THE BYPASS/FORCE AND SIGN OFF ISOLATION
LOG FROM LISTED IN BCP, RETURN THE SYSTEM TO NORMAL
OPERATION. (✓) () REMARKS _____
7.3 SIGN OFF WORK PERMIT AND CLOSE ITPM WORK ORDER. (✓) () REMARKS _____

=====

COMPLETED BY: [REDACTED] / [REDACTED] DATE: 9-12 Apr 25.

COMMENT: _____

SUPERVISOR : [REDACTED] DATE : 12 Apr 2025

ภาคผนวก 15

ผลการวิเคราะห์คุณภาพสิ่งแวดล้อม
(Environmental Monitoring)

Report of Samples Analysis

APPENDIX A

SEDIMENT ANALYTICAL LABORATORY REPORTS

Issued Date	:	22 July 2025
Customer	:	Tetra Tech Inc. 77 Soi Udomsuk 39/1, Sukhumvit 103 Road, Bangchak, Phrakhanong, Bangkok 10260 Tel : 0 2361 3767 Fax : 0 2361 3768
Served by	:	Physical Analysis Section, Technical Support for Material Analysis Division, MTEC
Date received	:	13 May 2025
Date analyzed	:	27 May – 22 July 2025
Samples	:	Seabed Sediment Project No. T43779.27 (6 samples)
Identification no.	:	See sample detail.
Objective	:	Particle size and size distribution analysis.
Instrument	:	LA-960V2, HORIBA Instruments Incorporated.
Test method	:	Laser diffraction technique.
Conditions	:	Red light source : Laser Diode (LD), λ : 650 nm. Blue light source : Light Emitting Diode (LED), λ : 405 nm. Particle size range analysis : 0.01 – 5,000 μm . Dispersion unit : LA-960S2 Dispersing medium : De-ionized water. Sample refractive index : 1.5300 (as default standard wet)
Sample preparation	:	1. Prepare the instrument for wet analysis. Circulation speed should be set at 12 and agitation speed set at 10. 2. 0.05 – 0.1 g. of sample was dispersed in 40 ml of de-ionized water and ultrasound 10 minutes with ultrasonic bath before measurement. 3. Add the dispersed sample into LA-960S2 unit and measure the dispersed sample with LA-960V2.

Samples detail :

Sample No.	Sample Name	Sample No.	Sample Name
1	NPREF-A	4	PAREF-A
2	NPREF-B	5	PAREF-B
3	NPREF-C	6	PAREF-C

Technical Terms :

- Transmittance (R)** : value at particle come transmittance to red light source (percent), ranging from 99-70%.
- Transmittance (B)** : value at particle come transmittance to blue light source (percent), ranging from 99-70%.
- Mean size** : mean diameter value by volume.
- D [v, 0.1]** : 10 volume percent less than or equal to a given diameter.
- D [v, 0.5]** : 50 volume percent less than or equal to a given diameter, median diameter.
- D [v, 0.9]** : 90 volume percent less than or equal to a given diameter.
- Span** : the width of the distribution, which is independent of median size (D [v, 0.5]).

Results :

MTEC received samples from Tetra Tech Inc. Laser diffraction technique is used in order to analyze the particle size and size distribution by wet analysis.

The results of the particle size and size distribution of samples are shown in the attachments No.1 – 18.

- Note :** 1. The specific surface area is inapplicable unless the density of a sample is known.
2. The results of particle size distribution are dispersion particle only.
3. Some particle of sample are vary size and size over range of instrument.

Interpretation/Opinion : None

Attached pages :

The attachment number	Detail
1 – 3	HORIBA LA960V2 results of NPREF-A
4 – 6	HORIBA LA960V2 results of NPREF-B
7 – 9	HORIBA LA960V2 results of NPREF-C
10 – 12	HORIBA LA960V2 results of PAREF-A
13 – 15	HORIBA LA960V2 results of PAREF-B
16 – 18	HORIBA LA960V2 results of PAREF-C

Work performed by :

(Mr.Kriangkai Supanpong)

Approved by :

Suphalem K.
(Ms.Suphakan Kijamnajsuk)

Remarks

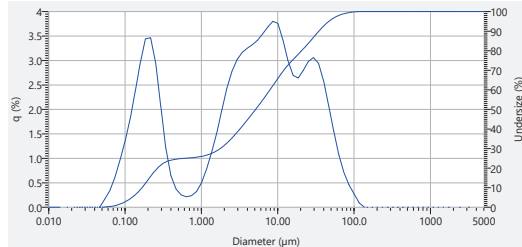
1. MTEC does not allow any alteration or modification of this report, or any part of this report, without prior formal written permission from MTEC.
2. MTEC will not accept liability for any damage whatsoever, resulting directly or indirectly, from using the data, results, conclusions or recommendations in this report for the purposes of designing, manufacturing or for other purposes.
3. Experimental results are only valid for the specimens tested.

Particle Size Distribution

Attached page 1

Sample name : NPREF-A
Data name : NPREF-A_03
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1667 (µm) : (6)70.00 (%) - 11.9942 (µm)
: (2)20.00 (%) - 0.2663 (µm) : (7)80.00 (%) - 20.6100 (µm)
: (3)30.00 (%) - 1.7713 (µm) : (8)90.00 (%) - 34.6793 (µm)
: (4)40.00 (%) - 3.2024 (µm) : (9)95.00 (%) - 47.0842 (µm)
: (5)60.00 (%) - 7.9105 (µm) : (10)100.00 (%) - 125.9662 (µm)



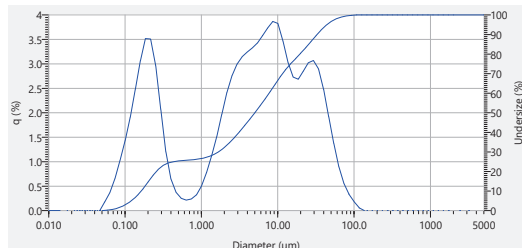
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.961	29	1.471	1.118	43	12.619	3.416	57	108.234	0.266
2	0.023	0.000	16	0.200	3.440	30	1.715	1.511	44	14.713	2.989	58	126.191	0.086
3	0.027	0.000	17	0.233	3.463	31	2.000	1.979	45	17.154	2.695	59	147.128	0.000
4	0.032	0.000	18	0.272	2.951	32	2.332	2.429	46	20.000	2.640	60	171.539	0.000
5	0.037	0.000	19	0.317	2.969	33	2.719	2.777	47	23.318	2.793	61	200.000	0.000
6	0.043	0.000	20	0.370	1.199	34	3.170	3.018	48	27.187	2.976	62	233.183	0.000
7	0.050	0.000	21	0.431	0.642	35	3.696	3.163	49	31.696	3.057	63	271.871	0.000
8	0.059	0.164	22	0.502	0.369	36	4.309	3.260	50	36.967	2.939	64	316.979	0.000
9	0.068	0.337	23	0.586	0.249	37	5.024	3.322	51	43.089	2.584	65	369.570	0.000
10	0.080	0.695	24	0.683	0.212	38	5.857	3.410	52	50.238	2.074	66	430.887	0.000
11	0.093	0.961	25	0.796	0.234	39	6.829	3.541	53	58.573	1.590	67	502.377	0.000
12	0.108	1.346	26	0.928	0.319	40	7.962	3.681	54	68.291	1.067	68	585.729	0.000
13	0.126	1.805	27	1.062	0.494	41	9.283	3.800	55	79.621	0.704	69	682.910	0.000
14	0.147	2.369	28	1.262	0.772	42	10.823	3.759	56	92.832	0.450	70	796.214	0.000

Particle Size Distribution

Attached page 3

Sample name : NPREF-A
Data name : NPREF-A_09
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1627 (µm) : (6)70.00 (%) - 11.5726 (µm)
: (2)20.00 (%) - 0.2576 (µm) : (7)80.00 (%) - 19.5541 (µm)
: (3)30.00 (%) - 1.6745 (µm) : (8)90.00 (%) - 32.8492 (µm)
: (4)40.00 (%) - 3.1121 (µm) : (9)95.00 (%) - 44.1345 (µm)
: (5)60.00 (%) - 7.7055 (µm) : (10)100.00 (%) - 125.8341 (µm)



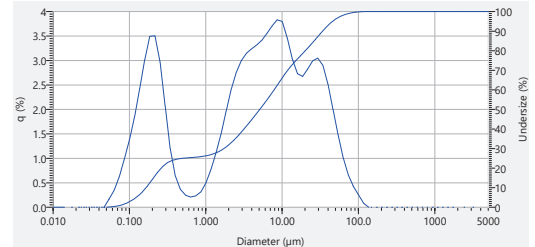
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	3.089	29	1.471	1.116	43	12.619	3.486	57	108.234	0.179
2	0.023	0.000	16	0.200	3.515	30	1.715	1.503	44	14.713	3.028	58	126.191	0.054
3	0.027	0.000	17	0.233	3.506	31	2.000	1.965	45	17.154	2.729	59	147.128	0.000
4	0.032	0.000	18	0.272	2.968	32	2.332	2.409	46	20.000	2.684	60	171.539	0.000
5	0.037	0.000	19	0.317	2.972	33	2.719	2.754	47	23.318	2.847	61	200.000	0.000
6	0.043	0.000	20	0.370	1.201	34	3.170	2.995	48	27.187	3.020	62	233.183	0.000
7	0.050	0.000	21	0.431	0.644	35	3.696	3.144	49	31.696	3.067	63	271.871	0.000
8	0.059	0.176	22	0.502	0.371	36	4.309	3.239	50	36.967	2.896	64	316.979	0.000
9	0.068	0.362	23	0.586	0.251	37	5.024	3.323	51	43.089	2.478	65	369.570	0.000
10	0.080	0.646	24	0.683	0.214	38	5.857	3.426	52	50.238	1.920	66	430.887	0.000
11	0.093	1.020	25	0.796	0.236	39	6.829	3.575	53	58.573	1.377	67	502.377	0.000
12	0.108	1.422	26	0.928	0.320	40	7.962	3.731	54	68.291	0.882	68	585.729	0.000
13	0.126	1.896	27	1.062	0.496	41	9.283	3.867	55	79.621	0.502	69	682.910	0.000
14	0.147	2.471	28	1.262	0.772	42	10.823	3.826	56	92.832	0.330	70	796.214	0.000

Particle Size Distribution

Attached page 2

Sample name : NPREF-A
Data name : NPREF-A_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1651 (µm) : (6)70.00 (%) - 11.8482 (µm)
: (2)20.00 (%) - 0.2619 (µm) : (7)80.00 (%) - 20.1731 (µm)
: (3)30.00 (%) - 1.7366 (µm) : (8)90.00 (%) - 33.9553 (µm)
: (4)40.00 (%) - 3.1748 (µm) : (9)95.00 (%) - 46.1188 (µm)
: (5)60.00 (%) - 7.8522 (µm) : (10)100.00 (%) - 125.9521 (µm)



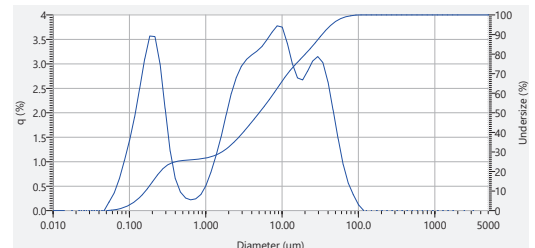
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	3.013	29	1.471	1.105	43	12.619	3.454	57	108.234	0.248
2	0.023	0.000	16	0.200	3.492	30	1.715	1.495	44	14.713	3.024	58	126.191	0.081
3	0.027	0.000	17	0.233	3.504	31	2.000	1.960	45	17.154	2.727	59	147.128	0.000
4	0.032	0.000	18	0.272	2.975	32	2.332	2.409	46	20.000	2.677	60	171.539	0.000
5	0.037	0.000	19	0.317	2.976	33	2.719	2.757	47	23.318	2.821	61	200.000	0.000
6	0.043	0.000	20	0.370	1.199	34	3.170	2.999	48	27.187	2.991	62	233.183	0.000
7	0.050	0.000	21	0.431	0.637	35	3.696	3.147	49	31.696	3.048	63	271.871	0.000
8	0.059	0.167	22	0.502	0.364	36	4.309	3.238	50	36.967	2.899	64	316.979	0.000
9	0.068	0.345	23	0.586	0.245	37	5.024	3.316	51	43.089	2.517	65	369.570	0.000
10	0.080	0.618	24	0.683	0.208	38	5.857	3.412	52	50.238	1.995	66	430.887	0.000
11	0.093	0.981	25	0.796	0.230	39	6.829	3.553	53	58.573	1.474	67	502.377	0.000
12	0.108	1.374	26	0.928	0.312	40	7.962	3.703	54	68.291	1.005	68	585.729	0.000
13	0.126	1.841	27	1.062	0.487	41	9.283	3.832	55	79.621	0.659	69	682.910	0.000
14	0.147	2.415	28	1.262	0.761	42	10.823	3.797	56	92.832	0.420	70	796.214	0.000

Particle Size Distribution

Attached page 4

Sample name : NPREF-B
Data name : NPREF-B_03
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1624 (µm) : (6)70.00 (%) - 11.8198 (µm)
: (2)20.00 (%) - 0.2553 (µm) : (7)80.00 (%) - 20.1773 (µm)
: (3)30.00 (%) - 1.6308 (µm) : (8)90.00 (%) - 33.5413 (µm)
: (4)40.00 (%) - 3.0880 (µm) : (9)95.00 (%) - 44.5900 (µm)
: (5)60.00 (%) - 7.7925 (µm) : (10)100.00 (%) - 108.0940 (µm)



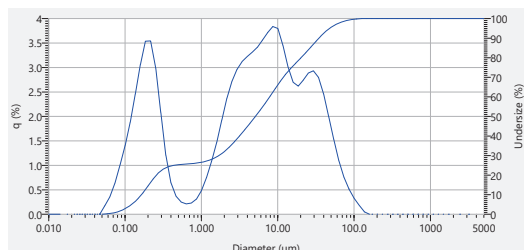
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	3.089	29	1.471	1.117	43	12.619	3.420	57	108.234	0.119
2	0.023	0.000	16	0.200	3.589	30	1.715	1.500	44	14.713	2.998	58	126.191	0.000
3	0.027	0.000	17	0.233	3.557	31	2.000	1.953	45	17.154	2.710	59	147.128	0.000
4	0.032	0.000	18	0.272	3.002	32	2.332	2.386	46	20.000	2.670	60	171.539	0.000
5	0.037	0.000	19	0.317	2.989	33	2.719	2.719	47	23.318	2.848	61	200.000	0.000
6	0.043	0.000	20	0.370	1.212	34	3.170	2.993	48	27.187	3.056	62	233.183	0.000
7	0.050	0.000	21	0.431	0.653	35	3.696	3.090	49	31.696	3.148	63	271.871	0.000
8	0.059	0.174	22	0.502	0.377	36	4.309	3.178	50	36.967	3.022	64	316.979	0.000
9	0.068	0.358	23	0.586	0.256	37	5.024	3.254	51	43.089	2.631	65	369.570	0.000
10	0.080	0.641	24	0.683	0.218	38	5.857	3.350	52	50.238	2.059	66	430.887	0.000
11	0.093	1.015	25	0.796	0.240	39	6.829	3.482	53	58.573	1.469	67	502.377	0.000
12	0.108	1.422	26	0.928	0.325	40	7.962	3.644	54	68.291	0.937	68	585.729	0.000
13	0.126	1.904	27	1.062	0.502	41	9.283	3.777	55	79.621	0.559	69	682.910	0.000
14	0.147	2.491	28	1.262	0.776	42	10.823	3.759	56	92.832	0.317	70	796.214	0.000

Particle Size Distribution

Attached page 5

Sample name : NPREF-B
Data name : NPREF-B_06
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1638 (µm) : (6)70.00 (%) - 11.8351 (µm)
: (2)20.00 (%) - 0.2584 (µm) : (7)80.00 (%) - 20.2660 (µm)
: (3)30.00 (%) - 1.7081 (µm) : (8)90.00 (%) - 34.7656 (µm)
: (4)40.00 (%) - 3.1671 (µm) : (9)95.00 (%) - 48.0869 (µm)
: (5)60.00 (%) - 7.8445 (µm) : (10)100.0 (%) - 146.6440 (µm)



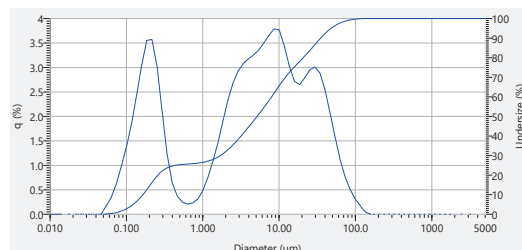
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	3.055	29	1.471	1.082	43	12.619	3.440	57	108.234	0.322
2	0.023	0.000	16	0.200	3.535	30	1.715	1.464	44	14.713	3.018	58	126.191	0.192
3	0.027	0.000	17	0.233	3.540	31	2.000	1.921	45	17.154	2.687	59	147.128	0.047
4	0.032	0.000	18	0.272	2.987	32	2.332	2.365	46	20.000	2.619	60	171.539	0.000
5	0.037	0.000	19	0.317	2.986	33	2.719	2.715	47	23.318	2.740	61	200.000	0.000
6	0.043	0.000	20	0.370	1.203	34	3.170	2.964	48	27.187	2.884	62	233.183	0.000
7	0.050	0.000	21	0.431	0.641	35	3.696	3.121	49	31.696	2.829	63	271.871	0.000
8	0.059	0.168	22	0.502	0.369	36	4.309	3.224	50	36.967	2.796	64	316.979	0.000
9	0.068	0.351	23	0.586	0.246	37	5.024	3.311	51	43.089	2.459	65	369.570	0.000
10	0.080	0.630	24	0.683	0.209	38	5.857	3.415	52	50.238	1.997	66	430.887	0.000
11	0.093	1.000	25	0.796	0.220	39	6.829	3.581	53	58.573	1.536	67	502.377	0.000
12	0.108	1.397	26	0.928	0.339	40	7.962	3.711	54	68.291	1.091	68	585.729	0.000
13	0.126	1.870	27	1.062	0.478	41	9.283	3.837	55	79.621	0.754	69	682.910	0.000
14	0.147	2.450	28	1.262	0.746	42	10.823	3.797	56	92.832	0.509	70	796.214	0.000

Particle Size Distribution

Attached page 6

Sample name : NPREF-B
Data name : NPREF-B_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1648 (µm) : (6)70.00 (%) - 12.0874 (µm)
: (2)20.00 (%) - 0.2591 (µm) : (7)80.00 (%) - 20.7305 (µm)
: (3)30.00 (%) - 1.7128 (µm) : (8)90.00 (%) - 35.1009 (µm)
: (4)40.00 (%) - 3.1813 (µm) : (9)95.00 (%) - 48.1101 (µm)
: (5)60.00 (%) - 7.9728 (µm) : (10)100.0 (%) - 146.5679 (µm)



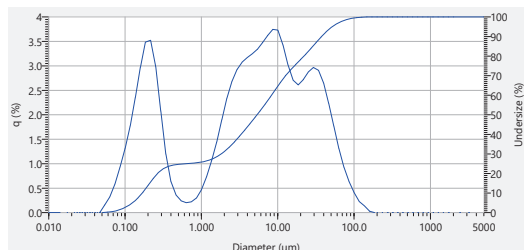
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	3.053	29	1.471	1.083	43	12.619	3.441	57	108.234	0.301
2	0.023	0.000	16	0.200	3.553	30	1.715	1.465	44	14.713	3.018	58	126.191	0.162
3	0.027	0.000	17	0.233	3.570	31	2.000	1.919	45	17.154	2.718	59	147.128	0.040
4	0.032	0.000	18	0.272	3.025	32	2.332	2.358	46	20.000	2.649	60	171.539	0.000
5	0.037	0.000	19	0.317	2.101	33	2.719	2.699	47	23.318	2.782	61	200.000	0.000
6	0.043	0.000	20	0.370	1.206	34	3.170	2.937	48	27.187	2.944	62	233.183	0.000
7	0.050	0.000	21	0.431	0.639	35	3.696	3.085	49	31.696	3.007	63	271.871	0.000
8	0.059	0.164	22	0.502	0.363	36	4.309	3.178	50	36.967	2.886	64	316.979	0.000
9	0.068	0.340	23	0.586	0.243	37	5.024	3.259	51	43.089	2.547	65	369.570	0.000
10	0.080	0.612	24	0.683	0.206	38	5.857	3.358	52	50.238	2.067	66	430.887	0.000
11	0.093	0.976	25	0.796	0.226	39	6.829	3.503	53	58.573	1.570	67	502.377	0.000
12	0.108	1.373	26	0.928	0.339	40	7.962	3.857	54	68.291	1.105	68	585.729	0.000
13	0.126	1.847	27	1.062	0.479	41	9.283	3.790	55	79.621	0.748	69	682.910	0.000
14	0.147	2.434	28	1.262	0.747	42	10.823	3.767	56	92.832	0.492	70	796.214	0.000

Particle Size Distribution

Attached page 7

Sample name : NPREF-C
Data name : NPREF-C_03
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1684 (µm) : (6)70.00 (%) - 12.6788 (µm)
: (2)20.00 (%) - 0.2670 (µm) : (7)80.00 (%) - 22.0990 (µm)
: (3)30.00 (%) - 1.8219 (µm) : (8)90.00 (%) - 37.6137 (µm)
: (4)40.00 (%) - 3.3176 (µm) : (9)95.00 (%) - 52.1278 (µm)
: (5)60.00 (%) - 8.2924 (µm) : (10)100.0 (%) - 170.6152 (µm)



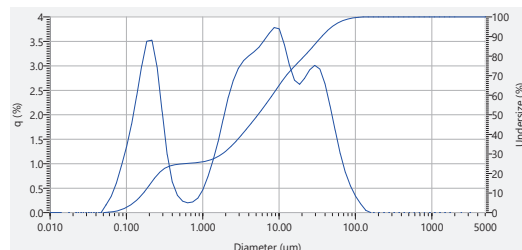
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.965	29	1.471	1.088	43	12.619	3.426	57	108.234	0.403
2	0.023	0.000	16	0.200	3.483	30	1.715	1.438	44	14.713	3.014	58	126.191	0.225
3	0.027	0.000	17	0.233	3.521	31	2.000	1.892	45	17.154	2.705	59	147.128	0.137
4	0.032	0.000	18	0.272	2.992	32	2.332	2.334	46	20.000	2.608	60	171.539	0.028
5	0.037	0.000	19	0.317	2.981	33	2.719	2.680	47	23.318	2.715	61	200.000	0.000
6	0.043	0.000	20	0.370	1.196	34	3.170	2.924	48	27.187	2.874	62	233.183	0.000
7	0.050	0.000	21	0.431	0.632	35	3.696	3.074	49	31.696	2.966	63	271.871	0.000
8	0.059	0.154	22	0.502	0.359	36	4.309	3.168	50	36.967	2.906	64	316.979	0.000
9	0.068	0.319	23	0.586	0.239	37	5.024	3.245	51	43.089	2.646	65	369.570	0.000
10	0.080	0.578	24	0.683	0.201	38	5.857	3.339	52	50.238	2.252	66	430.887	0.000
11	0.093	0.926	25	0.796	0.220	39	6.829	3.476	53	58.573	1.770	67	502.377	0.000
12	0.108	1.307	26	0.928	0.297	40	7.962	3.620	54	68.291	1.306	68	585.729	0.000
13	0.126	1.765	27	1.062	0.464	41	9.283	3.744	55	79.621	0.923	69	682.910	0.000
14	0.147	2.342	28	1.262	0.726	42	10.823	3.728	56	92.832	0.633	70	796.214	0.000

Particle Size Distribution

Attached page 8

Sample name : NPREF-C
Data name : NPREF-C_06
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1669 (µm) : (6)70.00 (%) - 12.3831 (µm)
: (2)20.00 (%) - 0.2644 (µm) : (7)80.00 (%) - 21.4321 (µm)
: (3)30.00 (%) - 1.7989 (µm) : (8)90.00 (%) - 36.2552 (µm)
: (4)40.00 (%) - 3.2788 (µm) : (9)95.00 (%) - 49.5965 (µm)
: (5)60.00 (%) - 8.1421 (µm) : (10)100.0 (%) - 146.6175 (µm)



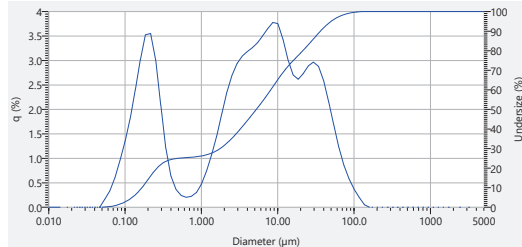
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.986	29	1.471	1.081	43	12.619	3.426	57	108.234	0.338
2	0.023	0.000	16	0.200	3.502	30	1.715	1.444	44	14.713	3.013	58	126.191	0.179
3	0.027	0.000	17	0.233	3.525	31	2.000	1.904	45	17.154	2.705	59	147.128	0.044
4	0.032	0.000	18	0.272	2.986	32	2.332	2.351	46	20.000	2.622	60	171.539	0.000
5	0.037	0.000	19	0.317	2.970	33	2.719	2.702	47	23.318	2.746	61	200.000	0.000
6	0.043	0.000	20	0.370	1.184	34	3.170	2.959	48	27.187	2.916	62	233.183	0.000
7	0.050	0.000	21	0.431	0.624	35	3.696	3.104	49	31.696	3.009	63	271.871	0.000
8	0.059	0.158	22	0.502	0.352	36	4.309	3.200	50	36.967	2.932	64	316.979	0.000
9	0.068	0.328	23	0.586	0.234	37	5.024	3.280	51	43.089	2.636	65	369.570	0.000
10	0.080	0.592	24	0.683	0.197	38	5.857	3.376	52	50.238	2.180	66	430.887	0.000
11	0.093	0.947	25	0.796	0.217	39	6.829	3.514	53	58.573	1.686	67	502.377	0.000
12	0.108	1.334	26	0.928	0.296	40	7.962	3.659	54	68.291	1.206	68	585.729	0.000
13	0.126	1.798	27	1.062	0.462	41	9.283	3.782	55	79.621	0.824	69	682.910	0.000
14	0.147	2.378	28	1.262	0.727	42	10.823	3.759	56	92.832	0.546	70	796.214	0.000

Particle Size Distribution

Attached page 9

Sample name : NPREF-C
Data name : NPREF-C_09
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1664 (µm) : (6)70.00 (%) - 12.3236 (µm)
: (2)20.00 (%) - 0.2626 (µm) : (7)80.00 (%) - 21.3304 (µm)
: (3)30.00 (%) - 1.7536 (µm) : (8)90.00 (%) - 36.3387 (µm)
: (4)40.00 (%) - 3.2435 (µm) : (9)95.00 (%) - 50.0321 (µm)
: (5)60.00 (%) - 8.1021 (µm) : (10)100.0 (%) - 146.6762 (µm)



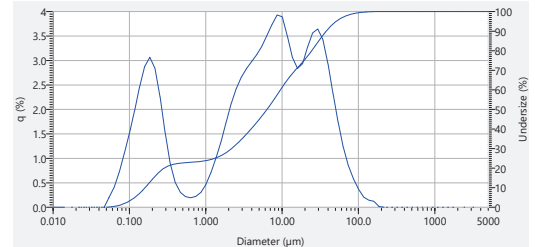
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	3.014	29	1.471	1.069	43	12.619	3.433	57	108.234	0.363
2	0.023	0.000	16	0.200	3.523	30	1.715	1.451	44	14.713	3.010	58	126.191	0.200
3	0.027	0.000	17	0.233	3.549	31	2.000	1.906	45	17.154	2.701	59	147.128	0.050
4	0.032	0.000	18	0.272	3.011	32	2.332	2.348	46	20.000	2.614	60	171.539	0.000
5	0.037	0.000	19	0.317	2.991	33	2.719	2.693	47	23.318	2.730	61	200.000	0.000
6	0.043	0.000	20	0.370	1.200	34	3.170	2.938	48	27.187	2.887	62	233.183	0.000
7	0.050	0.000	21	0.431	0.635	35	3.696	3.086	49	31.696	2.965	63	271.871	0.000
8	0.059	0.199	22	0.502	0.360	36	4.309	3.181	50	36.967	2.880	64	316.979	0.000
9	0.068	0.330	23	0.586	0.240	37	5.024	3.261	51	43.089	2.590	65	369.570	0.000
10	0.080	0.596	24	0.683	0.202	38	5.857	3.359	52	50.238	2.152	66	430.887	0.000
11	0.093	0.953	25	0.796	0.222	39	6.829	3.500	53	58.573	1.681	67	502.377	0.000
12	0.108	1.343	26	0.928	0.301	40	7.962	3.648	54	68.291	1.221	68	585.729	0.000
13	0.126	1.810	27	1.062	0.470	41	9.283	3.774	55	79.621	0.851	69	682.910	0.000
14	0.147	2.393	28	1.262	0.735	42	10.823	3.751	56	92.832	0.577	70	796.214	0.000

Particle Size Distribution

Attached page 10

Sample name : PAREF-A
Data name : PAREF-A_03
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1606 (µm) : (6)70.00 (%) - 14.8500 (µm)
: (2)20.00 (%) - 0.2887 (µm) : (7)80.00 (%) - 24.4842 (µm)
: (3)30.00 (%) - 2.1845 (µm) : (8)90.00 (%) - 37.9404 (µm)
: (4)40.00 (%) - 3.9264 (µm) : (9)95.00 (%) - 51.3549 (µm)
: (5)60.00 (%) - 9.5138 (µm) : (10)100.0 (%) - 197.7393 (µm)



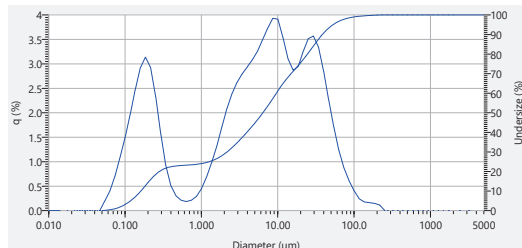
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.880	29	1.471	1.000	43	12.619	3.500	57	108.234	0.367
2	0.023	0.000	16	0.200	3.064	30	1.715	1.338	44	14.713	3.060	58	126.191	0.208
3	0.027	0.000	17	0.233	2.839	31	2.000	1.735	45	17.154	2.834	59	147.128	0.144
4	0.032	0.000	18	0.272	2.282	32	2.332	2.119	46	20.000	2.935	60	171.539	0.121
5	0.037	0.000	19	0.317	1.527	33	2.719	2.427	47	23.318	3.271	61	200.000	0.014
6	0.043	0.000	20	0.370	0.880	34	3.170	2.663	48	27.187	3.960	62	233.183	0.000
7	0.050	0.000	21	0.431	0.499	35	3.696	2.835	49	31.696	3.643	63	271.871	0.000
8	0.059	0.199	22	0.502	0.302	36	4.309	2.976	50	36.967	3.427	64	316.979	0.000
9	0.068	0.407	23	0.586	0.215	37	5.024	3.118	51	43.089	2.534	65	369.570	0.000
10	0.080	0.714	24	0.683	0.192	38	5.857	3.285	52	50.238	2.319	66	430.887	0.000
11	0.093	1.101	25	0.796	0.219	39	6.829	3.509	53	58.573	1.738	67	502.377	0.000
12	0.108	1.508	26	0.928	0.300	40	7.962	3.736	54	68.291	1.228	68	585.729	0.000
13	0.126	1.968	27	1.062	0.459	41	9.283	3.929	55	79.621	0.850	69	682.910	0.000
14	0.147	2.462	28	1.262	0.702	42	10.823	3.890	56	92.832	0.580	70	796.214	0.000

Particle Size Distribution

Attached page 11

Sample name : PAREF-A
Data name : PAREF-A_06
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1609 (µm) : (6)70.00 (%) - 14.9196 (µm)
: (2)20.00 (%) - 0.2826 (µm) : (7)80.00 (%) - 24.5691 (µm)
: (3)30.00 (%) - 2.1708 (µm) : (8)90.00 (%) - 38.5322 (µm)
: (4)40.00 (%) - 3.9413 (µm) : (9)95.00 (%) - 53.2984 (µm)
: (5)60.00 (%) - 9.5845 (µm) : (10)100.0 (%) - 232.8629 (µm)



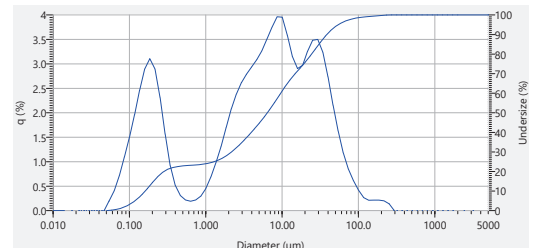
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.919	29	1.471	0.975	43	12.619	3.540	57	108.234	0.401
2	0.023	0.000	16	0.200	3.135	30	1.715	1.308	44	14.713	3.103	58	126.191	0.240
3	0.027	0.000	17	0.233	2.922	31	2.000	1.700	45	17.154	2.895	59	147.128	0.176
4	0.032	0.000	18	0.272	2.333	32	2.332	2.080	46	20.000	2.946	60	171.539	0.161
5	0.037	0.000	19	0.317	1.571	33	2.719	2.386	47	23.318	3.253	61	200.000	0.147
6	0.043	0.000	20	0.370	0.912	34	3.170	2.620	48	27.187	3.519	62	233.183	0.112
7	0.050	0.000	21	0.431	0.503	35	3.696	2.794	49	31.696	3.568	63	271.871	0.000
8	0.059	0.193	22	0.502	0.299	36	4.309	2.937	50	36.967	3.339	64	316.979	0.000
9	0.068	0.396	23	0.586	0.210	37	5.024	3.083	51	43.089	2.854	65	369.570	0.000
10	0.080	0.697	24	0.683	0.185	38	5.857	3.256	52	50.238	2.263	66	430.887	0.000
11	0.093	1.082	25	0.796	0.209	39	6.829	3.488	53	58.573	1.712	67	502.377	0.000
12	0.108	1.493	26	0.928	0.280	40	7.962	3.725	54	68.291	1.230	68	585.729	0.000
13	0.126	1.960	27	1.062	0.444	41	9.283	3.929	55	79.621	0.871	69	682.910	0.000
14	0.147	2.473	28	1.262	0.681	42	10.823	3.911	56	92.832	0.610	70	796.214	0.000

Particle Size Distribution

Attached page 12

Sample name : PAREF-A
Data name : PAREF-A_09
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1610 (µm) : (6)70.00 (%) - 14.8236 (µm)
: (2)20.00 (%) - 0.2854 (µm) : (7)80.00 (%) - 24.3872 (µm)
: (3)30.00 (%) - 2.1814 (µm) : (8)90.00 (%) - 38.6637 (µm)
: (4)40.00 (%) - 3.9594 (µm) : (9)95.00 (%) - 54.7630 (µm)
: (5)60.00 (%) - 9.5853 (µm) : (10)100.0 (%) - 271.5649 (µm)



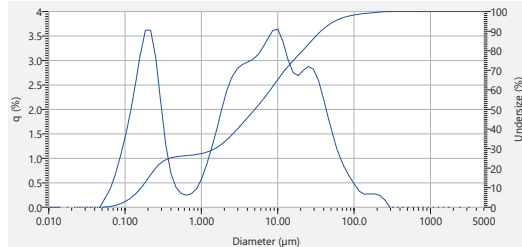
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.894	29	1.471	0.978	43	12.619	3.986	57	108.234	0.416
2	0.023	0.000	16	0.200	3.105	30	1.715	1.306	44	14.713	3.147	58	126.191	0.254
3	0.027	0.000	17	0.233	2.895	31	2.000	1.696	45	17.154	2.903	59	147.128	0.211
4	0.032	0.000	18	0.272	2.316	32	2.332	2.073	46	20.000	2.969	60	171.539	0.211
5	0.037	0.000	19	0.317	1.566	33	2.719	2.379	47	23.318	3.254	61	200.000	0.122
6	0.043	0.000	20	0.370	0.915	34	3.170	2.614	48	27.187	3.481	62	233.183	0.198
7	0.050	0.000	21	0.431	0.510	35	3.696	2.789	49	31.696	3.497	63	271.871	0.136
8	0.059	0.195	22	0.502	0.307	36	4.309	2.936	50	36.967	3.234	64	316.979	0.000
9	0.068	0.400	23	0.586	0.216	37	5.024	3.085	51	43.089	2.735	65	369.570	0.000
10	0.080	0.705	24	0.683	0.191	38	5.857	3.263	52	50.238	2.154	66	430.887	0.000
11	0.093	1.090	25	0.796	0.215	39	6.829	3.503	53	58.573	1.628	67	502.377	0.000
12	0.108	1.495	26	0.928	0.293	40	7.962	3.748	54	68.291	1.180	68	585.729	0.000
13	0.126	1.964	27	1.062	0.448	41	9.283	3.960	55	79.621	0.849	69	682.910	0.000
14	0.147	2.457	28	1.262	0.684	42	10.823	3.951	56	92.832	0.610	70	796.214	0.000

Particle Size Distribution

Attached page 13

Sample name : PAREF-B
Data name : PAREF-B_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1624 (µm) : (6)70.00 (%) - 12.3350 (µm)
: (2)20.00 (%) - 0.2532 (µm) : (7)80.00 (%) - 21.1824 (µm)
: (3)30.00 (%) - 1.5119 (µm) : (8)90.00 (%) - 36.8610 (µm)
: (4)40.00 (%) - 2.9732 (µm) : (9)95.00 (%) - 55.7613 (µm)
: (5)60.00 (%) - 8.0063 (µm) : (10)100.0 (%) - 271.5968 (µm)



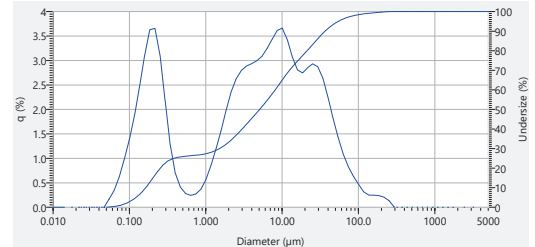
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	3.023	29	1.471	1.205	43	12.619	3.382	57	108.234	0.476
2	0.023	0.000	16	0.200	3.616	30	1.715	1.581	44	14.713	3.013	58	126.191	0.324
3	0.027	0.000	17	0.233	3.621	31	2.000	2.006	45	17.154	2.748	59	147.128	0.265
4	0.032	0.000	18	0.272	3.068	32	2.332	2.388	46	20.000	2.691	60	171.539	0.272
5	0.037	0.000	19	0.317	2.146	33	2.719	2.658	47	23.318	2.796	61	200.000	0.272
6	0.043	0.000	20	0.370	1.288	34	3.170	2.828	48	27.187	2.877	62	233.183	0.249
7	0.050	0.000	21	0.431	0.889	35	3.696	2.912	49	31.696	2.821	63	271.871	0.152
8	0.059	0.172	22	0.502	0.405	36	4.309	2.961	50	36.967	2.588	64	316.979	0.000
9	0.068	0.355	23	0.586	0.281	37	5.024	3.016	51	43.089	2.214	65	369.570	0.000
10	0.080	0.636	24	0.683	0.244	38	5.857	3.105	52	50.238	1.762	66	430.887	0.000
11	0.093	1.010	25	0.796	0.273	39	6.829	3.259	53	58.573	1.412	67	502.377	0.000
12	0.108	1.419	26	0.928	0.371	40	7.962	3.438	54	68.291	1.081	68	585.729	0.000
13	0.126	1.905	27	1.062	0.567	41	9.283	3.609	55	79.621	0.828	69	682.910	0.000
14	0.147	2.500	28	1.262	0.858	42	10.823	3.640	56	92.832	0.638	70	796.214	0.000

Particle Size Distribution

Attached page 14

Sample name : PAREF-B
Data name : PAREF-B_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1636 (µm) : (6)70.00 (%) - 12.4941 (µm)
: (2)20.00 (%) - 0.2544 (µm) : (7)80.00 (%) - 21.2942 (µm)
: (3)30.00 (%) - 1.5251 (µm) : (8)90.00 (%) - 36.6903 (µm)
: (4)40.00 (%) - 3.0056 (µm) : (9)95.00 (%) - 54.8178 (µm)
: (5)60.00 (%) - 8.1227 (µm) : (10)100.0 (%) - 271.5515 (µm)



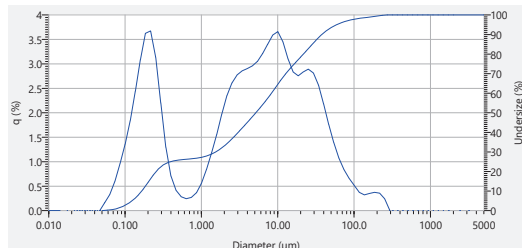
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	3.189	29	1.471	1.188	43	12.619	3.422	57	108.234	0.467
2	0.023	0.000	16	0.200	3.627	30	1.715	1.561	44	14.713	3.065	58	126.191	0.314
3	0.027	0.000	17	0.233	3.653	31	2.000	1.982	45	17.154	2.804	59	147.128	0.248
4	0.032	0.000	18	0.272	3.187	32	2.332	2.262	46	20.000	2.745	60	171.539	0.245
5	0.037	0.000	19	0.317	2.177	33	2.719	2.632	47	23.318	2.850	61	200.000	0.237
6	0.043	0.000	20	0.370	1.274	34	3.170	2.798	48	27.187	2.931	62	233.183	0.209
7	0.050	0.000	21	0.431	0.894	35	3.696	2.885	49	31.696	2.873	63	271.871	0.131
8	0.059	0.167	22	0.502	0.406	36	4.309	2.934	50	36.967	2.635	64	316.979	0.000
9	0.068	0.344	23	0.586	0.279	37	5.024	2.990	51	43.089	2.250	65	369.570	0.000
10	0.080	0.617	24	0.683	0.241	38	5.857	3.082	52	50.238	1.816	66	430.887	0.000
11	0.093	0.984	25	0.796	0.269	39	6.829	3.241	53	58.573	1.425	67	502.377	0.000
12	0.108	1.389	26	0.928	0.364	40	7.962	3.428	54	68.291	1.084	68	585.729	0.000
13	0.126	1.873	27	1.062	0.557	41	9.283	3.610	55	79.621	0.825	69	682.910	0.000
14	0.147	2.472	28	1.262	0.844	42	10.823	3.659	56	92.832	0.630	70	796.214	0.000

Particle Size Distribution

Attached page 15

Sample name : PAREF-B
Data name : PAREF-B_09
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1655 (µm) : (6)70.00 (%) - 12.7412 (µm)
: (2)20.00 (%) - 0.2569 (µm) : (7)80.00 (%) - 21.7063 (µm)
: (3)30.00 (%) - 1.5463 (µm) : (8)90.00 (%) - 38.0387 (µm)
: (4)40.00 (%) - 3.0416 (µm) : (9)95.00 (%) - 59.2484 (µm)
: (5)60.00 (%) - 8.2692 (µm) : (10)100.0 (%) - 271.6948 (µm)



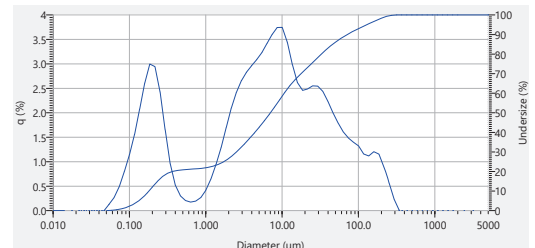
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	3.079	29	1.471	1.181	43	12.619	3.446	57	108.234	0.513
2	0.023	0.000	16	0.200	3.622	30	1.715	1.551	44	14.713	3.098	58	126.191	0.371
3	0.027	0.000	17	0.233	3.672	31	2.000	1.969	45	17.154	2.831	59	147.128	0.321
4	0.032	0.000	18	0.272	3.138	32	2.332	2.245	46	20.000	2.754	60	171.539	0.349
5	0.037	0.000	19	0.317	2.204	33	2.719	2.610	47	23.318	2.833	61	200.000	0.372
6	0.043	0.000	20	0.370	1.290	34	3.170	2.773	48	27.187	2.881	62	233.183	0.363
7	0.050	0.000	21	0.431	0.795	35	3.696	2.858	49	31.696	2.813	63	271.871	0.237
8	0.059	0.160	22	0.502	0.412	36	4.309	2.902	50	36.967	2.564	64	316.979	0.000
9	0.068	0.330	23	0.586	0.282	37	5.024	2.958	51	43.089	2.181	65	369.570	0.000
10	0.080	0.595	24	0.683	0.243	38	5.857	3.048	52	50.238	1.760	66	430.887	0.000
11	0.093	0.953	25	0.796	0.268	39	6.829	3.208	53	58.573	1.386	67	502.377	0.000
12	0.108	1.351	26	0.928	0.363	40	7.962	3.400	54	68.291	1.071	68	585.729	0.000
13	0.126	1.828	27	1.062	0.554	41	9.283	3.589	55	79.621	0.835	69	682.910	0.000
14	0.147	2.429	28	1.262	0.839	42	10.823	3.657	56	92.832	0.608	70	796.214	0.000

Particle Size Distribution

Attached page 16

Sample name : PAREF-C
Data name : PAREF-C_03
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1802 (µm) : (6)70.00 (%) - 17.7894 (µm)
: (2)20.00 (%) - 0.3685 (µm) : (7)80.00 (%) - 32.8211 (µm)
: (3)30.00 (%) - 2.5305 (µm) : (8)90.00 (%) - 71.9278 (µm)
: (4)40.00 (%) - 4.4004 (µm) : (9)95.00 (%) - 128.6763 (µm)
: (5)60.00 (%) - 10.6522 (µm) : (10)100.0 (%) - 316.7641 (µm)

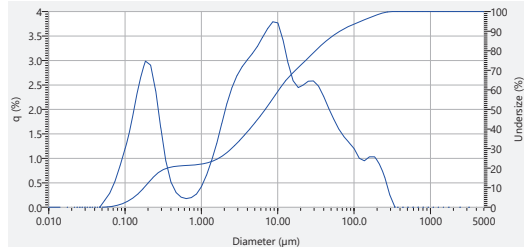


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.882	29	1.471	0.937	43	12.619	3.439	57	108.234	1.322
2	0.023	0.000	16	0.200	2.995	30	1.715	1.281	44	14.713	2.979	58	126.191	1.156
3	0.027	0.000	17	0.233	2.942	31	2.000	1.889	45	17.154	2.612	59	147.128	1.116
4	0.032	0.000	18	0.272	2.429	32	2.332	2.089	46	20.000	2.456	60	171.539	1.202
5	0.037	0.000	19	0.317	1.656	33	2.719	2.412	47	23.318	2.485	61	200.000	1.154
6	0.043	0.000	20	0.370	0.967	34	3.170	2.657	48	27.187	2.547	62	233.183	0.886
7	0.050	0.000	21	0.431	0.519	35	3.696	2.830	49	31.696	2.543	63	271.871	0.580
8	0.059	0.129	22	0.502	0.300	36	4.309	2.963	50	36.967	2.433	64	316.979	0.226
9	0.068	0.267	23	0.586	0.203	37	5.024	3.087	51	43.089	2.230	65	369.570	0.000
10	0.080	0.488	24	0.683	0.173	38	5.857	3.230	52	50.238	1.954	66	430.887	0.000
11	0.093	0.754	25	0.796	0.191	39	6.829	3.415	53	58.573	1.786	67	502.377	0.000
12	0.108	1.140	26	0.928	0.284	40	7.962	3.595	54	68.291	1.607	68	585.729	0.000
13	0.126	1.553	27	1.062	0.411	41	9.283	3.741	55	79.621	1.484	69	682.910	0.000
14	0.147	2.067	28	1.262	0.641	42	10.823	3.744	56	92.832	1.398	70	796.214	0.000

Particle Size Distribution

Attached page 17

Sample name : PAREF-C
Data name : PAREF-C_06
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.1774 (µm) : (6)70.00 (%) - 17.0789 (µm)
: (2)20.00 (%) - 0.3508 (µm) : (7)80.00 (%) - 31.3844 (µm)
: (3)30.00 (%) - 2.4856 (µm) : (8)90.00 (%) - 65.2325 (µm)
: (4)40.00 (%) - 4.3072 (µm) : (9)95.00 (%) - 121.0530 (µm)
: (5)60.00 (%) - 10.3395 (µm) : (10)100.0 (%) - 316.7817 (µm)

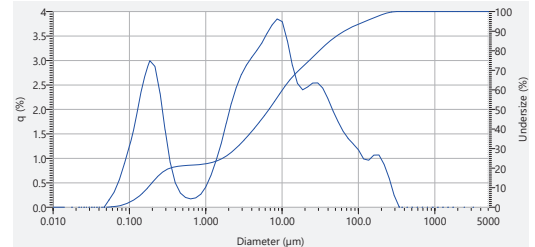


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.631	29	1.471	0.961	43	12.619	3.424	57	108.234	1.196	71	928.316	0.000
2	0.023	0.000	16	0.200	2.985	30	1.715	1.288	44	14.713	2.946	58	126.191	0.999	72	1082.340	0.000
3	0.027	0.000	17	0.233	2.903	31	2.000	1.710	45	17.154	2.502	59	147.128	0.947	73	1261.920	0.000
4	0.032	0.000	18	0.272	2.383	32	2.332	2.115	46	20.000	2.445	60	171.539	1.028	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.624	33	2.719	2.444	47	23.318	2.486	61	200.000	1.029	75	1715.390	0.000
6	0.043	0.000	20	0.370	0.941	34	3.170	2.694	48	27.187	2.574	62	233.183	0.899	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.514	35	3.696	2.874	49	31.696	2.580	63	271.871	0.610	77	5000.000	0.000
8	0.059	0.140	22	0.502	0.289	36	4.309	3.013	50	36.957	2.474	64	316.979	0.247			
9	0.068	0.289	23	0.586	0.204	37	5.024	3.143	51	43.089	2.267	65	369.570	0.000			
10	0.080	0.523	24	0.683	0.175	38	5.857	3.289	52	50.238	2.021	66	430.887	0.000			
11	0.093	0.840	25	0.795	0.195	39	6.829	3.475	53	58.573	1.795	67	502.377	0.000			
12	0.108	1.194	26	0.928	0.289	40	7.962	3.653	54	68.291	1.594	68	585.729	0.000			
13	0.126	1.612	27	1.062	0.419	41	9.283	3.790	55	79.621	1.440	69	682.910	0.000			
14	0.147	2.119	28	1.262	0.652	42	10.823	3.769	56	92.832	1.319	70	796.214	0.000			

Particle Size Distribution

Attached page 18

Sample name : PAREF-C
Data name : PAREF-C_09
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.1743 (µm) : (6)70.00 (%) - 16.6152 (µm)
: (2)20.00 (%) - 0.3462 (µm) : (7)80.00 (%) - 30.8318 (µm)
: (3)30.00 (%) - 2.4681 (µm) : (8)90.00 (%) - 65.8829 (µm)
: (4)40.00 (%) - 4.2610 (µm) : (9)95.00 (%) - 122.3539 (µm)
: (5)60.00 (%) - 10.1059 (µm) : (10)100.0 (%) - 316.7765 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.679	29	1.471	0.941	43	12.619	3.404	57	108.234	1.187	71	928.316	0.000
2	0.023	0.000	16	0.200	2.995	30	1.715	1.288	44	14.713	2.898	58	126.191	0.994	72	1082.340	0.000
3	0.027	0.000	17	0.233	2.875	31	2.000	1.702	45	17.154	2.528	59	147.128	0.961	73	1261.920	0.000
4	0.032	0.000	18	0.272	2.336	32	2.332	2.112	46	20.000	2.398	60	171.539	1.063	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.580	33	2.719	2.451	47	23.318	2.457	61	200.000	1.066	75	1715.390	0.000
6	0.043	0.000	20	0.370	0.913	34	3.170	2.713	48	27.187	2.537	62	233.183	0.879	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.487	35	3.696	2.907	49	31.696	2.540	63	271.871	0.594	77	5000.000	0.000
8	0.059	0.150	22	0.502	0.289	36	4.309	3.059	50	36.957	2.429	64	316.979	0.240			
9	0.068	0.308	23	0.586	0.197	37	5.024	3.202	51	43.089	2.216	65	369.570	0.000			
10	0.080	0.555	24	0.683	0.170	38	5.857	3.357	52	50.238	1.968	66	430.887	0.000			
11	0.093	0.885	25	0.795	0.190	39	6.829	3.540	53	58.573	1.744	67	502.377	0.000			
12	0.108	1.250	26	0.928	0.294	40	7.962	3.723	54	68.291	1.547	68	585.729	0.000			
13	0.126	1.678	27	1.062	0.412	41	9.283	3.849	55	79.621	1.399	69	682.910	0.000			
14	0.147	2.185	28	1.262	0.643	42	10.823	3.792	56	92.832	1.265	70	796.214	0.000			

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Report of Samples Analysis

Issued Date : 22 July 2025
Customer : Tetra Tech Inc.
77 Soi Udumsuk 39/1, Sukhumvit 103 Road, Bangchak,
Phrakhanong, Bangkok 10260
Tel : 0 2361 3767 Fax : 0 2361 3768
Serviced by : Physical Analysis Section,
Technical Support for Material Analysis Division, MTEC
Date received : 13 May 2025
Date analyzed : 27 May – 22 July 2025
Samples : Seabed Sediment Project No. T43779.27 (13 samples)
Identification no. : See sample detail.
Objective : Particle size and size distribution analysis.
Instrument : LA-960V2, HORIBA Instruments Incorporated.
Test method : Laser diffraction technique.
Conditions : Red light source : Laser Diode (LD), λ : 650 nm.
Blue light source : Light Emitting Diode (LED), λ : 405 nm.
Particle size range analysis : 0.01 – 5,000 µm.
Dispersion unit : LA-960S2
Dispersion medium : De-ionized water.
Sample refractive index : 1.5300 (as default standard wet)
Sample preparation : 1. Prepare the instrument for wet analysis. Circulation speed
should be set at 12 and agitation speed set at 10.
2. 0.05 – 0.1 g. of sample was dispersed in 40 ml of
de-ionized water and ultrasound 10 minutes with ultrasonic
bath before measurement.
3. Add the dispersed sample into LA-960S2 unit and
measure the dispersed sample with LA-960V2.

Samples detail :

Sample No.	Sample Name	Sample No.	Sample Name
1	NPCPP-1C1	8	NPCPP-1F2
2	NPCPP-1C2X	9	NPCPP-1G2
3	NPCPP-1CP1	10	NPCPP-2C1X
4	NPCPP-1CP2	11	NPCPP-2C2
5	NPCPP-1CP3X	12	NPCPP-2CP2
6	NPCPP-1D2	13	NPCPP-2D2
7	NPCPP-1E2		

Technical Terms : Transmittance (R) : value at particle come transmittance to red light source (percent), ranging from 99-70%.
Transmittance (B) : value at particle come transmittance to blue light source (percent), ranging from 99-70%.
Mean size : mean diameter value by volume.
D [v, 0.1] : 10 volume percent less than or equal to a given diameter.
D [v, 0.5] : 50 volume percent less than or equal to a given diameter, median diameter.
D [v, 0.9] : 90 volume percent less than or equal to a given diameter.
Span : the width of the distribution, which is independent of median size (D [v, 0.5]).

Results :

MTEC received samples from Tetra Tech Inc. Laser diffraction technique is used in order to analyze the particle size and size distribution by wet analysis.
The results of the particle size and size distribution of samples are shown in the attachments No.1 – 39.

- Note : 1. The specific surface area is inapplicable unless the density of a sample is known.
2. The results of particle size distribution are dispersion particle only.
3. Some particle of sample are vary size and size over range of instrument.

Interpretation/Opinion : None

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Attached pages :

The attachment number	Detail
1 – 3	HORIBA LA960V2 results of NPCPP-1C1
4 – 6	HORIBA LA960V2 results of NPCPP-1C2X
7 – 9	HORIBA LA960V2 results of NPCPP-1CP1
10 – 12	HORIBA LA960V2 results of NPCPP-1CP2
13 – 15	HORIBA LA960V2 results of NPCPP-1CP3X
16 – 18	HORIBA LA960V2 results of NPCPP-1D2
19 – 21	HORIBA LA960V2 results of NPCPP-1E2
22 – 24	HORIBA LA960V2 results of NPCPP-1F2
25 – 27	HORIBA LA960V2 results of NPCPP-1G2
28 – 30	HORIBA LA960V2 results of NPCPP-2C1X
31 – 33	HORIBA LA960V2 results of NPCPP-2C2
34 – 36	HORIBA LA960V2 results of NPCPP-2CP2
37 – 39	HORIBA LA960V2 results of NPCPP-2D2

Work performed by :

(Mr.Kriangkai Supanpong)

Approved by :

(Ms.Suphakan Kijamajjajuk)

Remarks

1. MTEC does not allow any alteration or modification of this report, or any part of this report, without prior formal written permission from MTEC.
2. MTEC will not accept liability for any damage whatsoever, resulting directly or indirectly, from using the data, results, conclusions or recommendations in this report for the purposes of designing, manufacturing or for other purposes.
3. Experimental results are only valid for the specimens tested.

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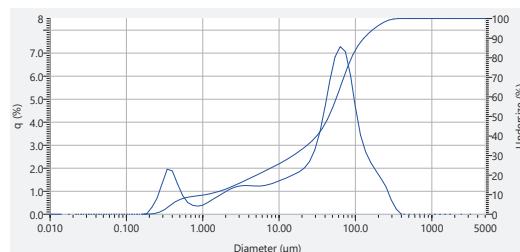
3/3



Particle Size Distribution

Attached page 1

Sample name : NPCPP-1C1
 Data name : NPCPP-1C1_03
 Lot number : T43779.27
 Transmittance (R) : 86.1 (%)
 Distribution base : Volume
 Refractive index (R) : Standard Wet
 [Standard wet(1.530 - 0.100),water(1.333)]
 Dispersion : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
 Circulate speed : 12
 Agitation : 10
 Mean size : 56.38194 (µm)
 Dv(0.1) : 1.09796 (µm)
 Dv(0.5) : 44.80246 (µm)
 Dv(0.9) : 128.92638 (µm)
 Span : 2.8532
 Mode size : 63.3911 (µm)



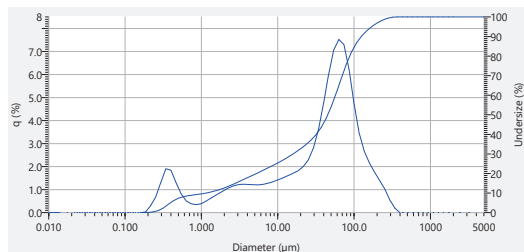
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.651	43	12.619	1.532	57	108.234	4.614	71	928.316	0.000
2	0.023	0.000	16	0.200	0.023	30	1.715	0.779	44	14.713	1.634	58	126.191	3.415	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.304	31	2.000	0.913	45	17.154	1.735	59	147.128	2.703	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.691	32	2.332	1.044	46	20.000	1.846	60	171.539	2.235	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.320	33	2.719	1.147	47	23.318	2.016	61	200.000	1.888	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.983	34	3.170	1.213	48	27.187	2.299	62	233.183	1.549	76	2000.000	0.000
7	0.050	0.000	21	0.431	1.879	35	3.696	1.241	49	31.696	2.785	63	271.871	1.175	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.323	36	4.309	1.240	50	36.967	3.559	64	316.979	0.616			
9	0.068	0.000	23	0.586	0.620	37	5.024	1.228	51	43.089	4.641	65	369.570	0.217			
10	0.080	0.000	24	0.683	0.510	38	5.857	1.221	52	50.238	5.946	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.384	39	6.829	1.239	53	58.573	6.843	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.346	40	7.962	1.267	54	68.291	7.261	68	585.729	0.000			
13	0.126	0.000	27	1.082	0.380	41	9.283	1.361	55	79.621	7.661	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.509	42	10.823	1.444	56	92.832	6.049	70	796.214	0.000			

Particle Size Distribution

Attached page 2

Sample name : NPCPP-1C1
 Data name : NPCPP-1C1_06
 Lot number : T43779.27
 Transmittance (R) : 86.2 (%)
 Distribution base : Volume
 Refractive index (R) : Standard Wet
 [Standard wet(1.530 - 0.100),water(1.333)]
 Dispersion : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
 Circulate speed : 12
 Agitation : 10
 Mean size : 55.64753 (µm)
 Dv(0.1) : 1.16721 (µm)
 Dv(0.5) : 45.23988 (µm)
 Dv(0.9) : 124.43616 (µm)
 Span : 2.7249
 Mode size : 63.3865 (µm)

Diameter on cumulative % : (1)10.00 (%) - 1.1672 (µm) : (6)70.00 (%) - 70.1966 (µm)
 : (2)20.00 (%) - 5.2908 (µm) : (7)80.00 (%) - 87.9429 (µm)
 : (3)30.00 (%) - 15.8932 (µm) : (8)90.00 (%) - 124.4362 (µm)
 : (4)40.00 (%) - 32.0509 (µm) : (9)95.00 (%) - 170.1915 (µm)
 : (5)60.00 (%) - 57.1004 (µm) : (10)100.00 (%) - 369.2709 (µm)



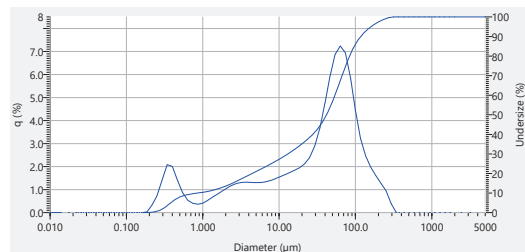
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.645	43	12.619	1.534	57	108.234	4.696	71	928.316	0.000
2	0.023	0.000	16	0.200	0.023	30	1.715	0.772	44	14.713	1.634	58	126.191	3.428	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.299	31	2.000	0.903	45	17.154	1.704	59	147.128	2.656	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.676	32	2.332	1.032	46	20.000	1.817	60	171.539	2.141	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.297	33	2.719	1.133	47	23.318	1.993	61	200.000	1.752	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.995	34	3.170	1.197	48	27.187	2.289	62	233.183	1.366	76	2000.000	0.000
7	0.050	0.000	21	0.431	1.835	35	3.696	1.224	49	31.696	2.785	63	271.871	1.025	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.297	36	4.309	1.222	50	36.967	3.607	64	316.979	0.537			
9	0.068	0.000	23	0.586	0.607	37	5.024	1.210	51	43.089	4.745	65	369.570	0.189			
10	0.080	0.000	24	0.683	0.504	38	5.857	1.203	52	50.238	5.915	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.380	39	6.829	1.219	53	58.573	7.086	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.343	40	7.962	1.265	54	68.291	7.322	68	585.729	0.000			
13	0.126	0.000	27	1.082	0.387	41	9.283	1.338	55	79.621	7.294	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.505	42	10.823	1.418	56	92.832	6.211	70	796.214	0.000			

Particle Size Distribution

Attached page 3

Sample name : NPCPP-1C1
 Data name : NPCPP-1C1_09
 Lot number : T43779.27
 Transmittance (R) : 86.4 (%)
 Distribution base : Volume
 Refractive index (R) : Standard Wet
 [Standard wet(1.530 - 0.100),water(1.333)]
 Dispersion : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
 Circulate speed : 12
 Agitation : 10
 Mean size : 52.02667 (µm)
 Dv(0.1) : 0.87682 (µm)
 Dv(0.5) : 41.79787 (µm)
 Dv(0.9) : 117.94566 (µm)
 Span : 2.8908
 Mode size : 63.2912 (µm)

Diameter on cumulative % : (1)10.00 (%) - 0.8768 (µm) : (6)70.00 (%) - 66.8876 (µm)
 : (2)20.00 (%) - 4.4498 (µm) : (7)80.00 (%) - 84.0619 (µm)
 : (3)30.00 (%) - 13.0501 (µm) : (8)90.00 (%) - 117.9456 (µm)
 : (4)40.00 (%) - 27.7058 (µm) : (9)95.00 (%) - 160.8983 (µm)
 : (5)60.00 (%) - 53.8795 (µm) : (10)100.00 (%) - 316.8507 (µm)



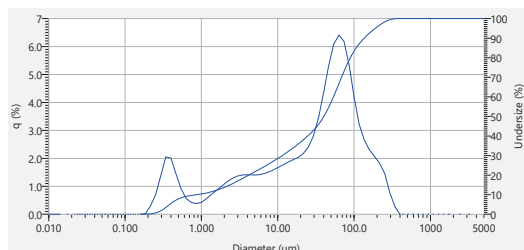
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.679	43	12.619	1.626	57	108.234	4.413	71	928.316	0.000
2	0.023	0.000	16	0.200	0.024	30	1.715	0.814	44	14.713	1.732	58	126.191	3.194	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.320	31	2.000	0.956	45	17.154	1.834	59	147.128	2.451	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.730	32	2.332	1.096	46	20.000	1.945	60	171.539	1.961	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.410	33	2.719	1.207	47	23.318	2.115	61	200.000	1.588	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.079	34	3.170	1.280	48	27.187	2.386	62	233.183	1.366	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.000	35	3.696	1.312	49	31.696	2.887	63	271.871	0.939	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.405	36	4.309	1.314	50	36.967	3.665	64	316.979	0.379			
9	0.068	0.000	23	0.586	0.669	37	5.024	1.303	51	43.089	4.743	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.537	38	5.857	1.298	52	50.238	5.926	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.401	39	6.829	1.318	53	58.573	6.875	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.380	40	7.962	1.368	54	68.291	7.236	68	585.729	0.000			
13	0.126	0.000	27	1.082	0.406	41	9.283	1.447	55	79.621	6.943	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.529	42	10.823	1.534	56	92.832	5.876	70	796.214	0.000			

Particle Size Distribution

Attached page 4

Sample name : NPCPP-1C2X Mean size : 55.59040 (µm)
Data name : NPCPP-1C2X_03 Di(v,0.1) : 0.87946 (µm)
Lot number : T43779.27 Di(v,0.5) : 40.15703 (µm)
Transmittance (R) : 86.4 (%) Di(v,0.9) : 136.05663 (µm)
Distribution base : Volume Span : 3.3662
Refractive index (R) : Standard Wet Mode size : 63.3177 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.8795 (µm) : (6)70.00 (%) - 68.6434 (µm)
: (2)20.00 (%) - 4.1806 (µm) : (7)80.00 (%) - 89.3757 (µm)
: (3)30.00 (%) - 11.5458 (µm) : (8)90.00 (%) - 136.0566 (µm)
: (4)40.00 (%) - 24.8220 (µm) : (9)95.00 (%) - 189.7752 (µm)
: (5)60.00 (%) - 53.7776 (µm) : (10)100.0 (%) - 369.3587 (µm)



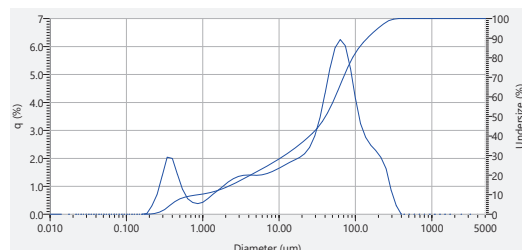
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.710	43	12.619	1.759	57	108.234	4.178
2	0.023	0.000	16	0.200	0.023	30	1.715	0.853	44	14.713	1.860	58	126.191	3.205
3	0.027	0.000	17	0.233	0.303	31	2.000	1.003	45	17.154	1.949	59	147.128	2.643
4	0.032	0.000	18	0.272	0.699	32	2.332	1.154	46	20.000	2.038	60	171.539	2.299
5	0.037	0.000	19	0.317	1.369	33	2.719	1.276	47	23.318	2.164	61	200.000	2.058
6	0.043	0.000	20	0.370	2.090	34	3.170	1.360	48	27.187	2.390	62	233.183	1.816
7	0.050	0.000	21	0.431	2.905	35	3.696	1.402	49	31.696	2.795	63	271.871	1.453
8	0.059	0.000	22	0.502	1.433	36	4.309	1.411	50	36.957	3.441	64	316.979	0.761
9	0.068	0.000	23	0.586	0.897	37	5.024	1.407	51	43.089	4.336	65	369.570	0.268
10	0.080	0.000	24	0.683	0.560	38	5.857	1.408	52	50.238	5.359	66	430.887	0.000
11	0.093	0.000	25	0.796	0.420	39	6.829	1.434	53	58.573	6.086	67	502.377	0.000
12	0.108	0.000	26	0.928	0.377	40	7.962	1.491	54	68.291	6.405	68	585.729	0.000
13	0.126	0.000	27	1.062	0.423	41	9.283	1.576	55	79.621	6.183	69	682.910	0.000
14	0.147	0.000	28	1.262	0.552	42	10.823	1.666	56	92.832	5.345	70	796.214	0.000

Particle Size Distribution

Attached page 5

Sample name : NPCPP-1C2X Mean size : 57.11815 (µm)
Data name : NPCPP-1C2X_06 Di(v,0.1) : 0.89843 (µm)
Lot number : T43779.27 Di(v,0.5) : 40.53999 (µm)
Transmittance (R) : 86.2 (%) Di(v,0.9) : 143.25351 (µm)
Distribution base : Volume Span : 3.5114
Refractive index (R) : Standard Wet Mode size : 63.2916 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.8994 (µm) : (6)70.00 (%) - 69.7970 (µm)
: (2)20.00 (%) - 4.2235 (µm) : (7)80.00 (%) - 91.7940 (µm)
: (3)30.00 (%) - 11.7415 (µm) : (8)90.00 (%) - 143.2534 (µm)
: (4)40.00 (%) - 25.2019 (µm) : (9)95.00 (%) - 197.2056 (µm)
: (5)60.00 (%) - 54.3620 (µm) : (10)100.0 (%) - 369.3808 (µm)



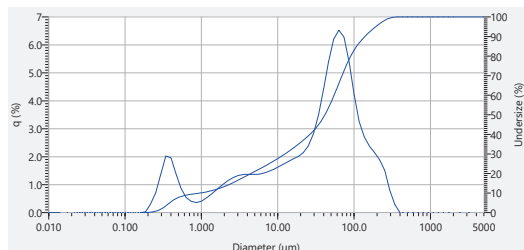
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.711	43	12.619	1.742	57	108.234	4.122
2	0.023	0.000	16	0.200	0.023	30	1.715	0.853	44	14.713	1.844	58	126.191	3.229
3	0.027	0.000	17	0.233	0.301	31	2.000	1.002	45	17.154	1.937	59	147.128	2.744
4	0.032	0.000	18	0.272	0.695	32	2.332	1.150	46	20.000	2.028	60	171.539	2.466
5	0.037	0.000	19	0.317	1.361	33	2.719	1.270	47	23.318	2.162	61	200.000	2.264
6	0.043	0.000	20	0.370	2.089	34	3.170	1.362	48	27.187	2.389	62	233.183	2.023
7	0.050	0.000	21	0.431	1.993	35	3.696	1.392	49	31.696	2.795	63	271.871	1.621
8	0.059	0.000	22	0.502	1.424	36	4.309	1.400	50	36.957	3.431	64	316.979	0.849
9	0.068	0.000	23	0.586	0.891	37	5.024	1.394	51	43.089	4.269	65	369.570	0.300
10	0.080	0.000	24	0.683	0.567	38	5.857	1.394	52	50.238	5.229	66	430.887	0.000
11	0.093	0.000	25	0.796	0.419	39	6.829	1.420	53	58.573	5.961	67	502.377	0.000
12	0.108	0.000	26	0.928	0.376	40	7.962	1.476	54	68.291	5.248	68	585.729	0.000
13	0.126	0.000	27	1.062	0.423	41	9.283	1.560	55	79.621	6.020	69	682.910	0.000
14	0.147	0.000	28	1.262	0.553	42	10.823	1.659	56	92.832	5.218	70	796.214	0.000

Particle Size Distribution

Attached page 6

Sample name : NPCPP-1C2X Mean size : 56.67263 (µm)
Data name : NPCPP-1C2X_09 Di(v,0.1) : 0.96825 (µm)
Lot number : T43779.27 Di(v,0.5) : 41.50802 (µm)
Transmittance (R) : 86.7 (%) Di(v,0.9) : 138.65776 (µm)
Distribution base : Volume Span : 3.3172
Refractive index (R) : Standard Wet Mode size : 63.2899 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.9683 (µm) : (6)70.00 (%) - 69.6052 (µm)
: (2)20.00 (%) - 4.4789 (µm) : (7)80.00 (%) - 90.5598 (µm)
: (3)30.00 (%) - 12.4806 (µm) : (8)90.00 (%) - 138.6578 (µm)
: (4)40.00 (%) - 26.5408 (µm) : (9)95.00 (%) - 192.2332 (µm)
: (5)60.00 (%) - 54.7895 (µm) : (10)100.0 (%) - 369.3656 (µm)



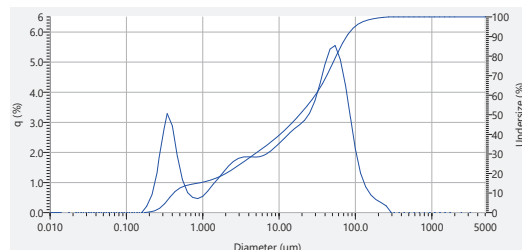
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.679	43	12.619	1.719	57	108.234	4.213
2	0.023	0.000	16	0.200	0.023	30	1.715	0.817	44	14.713	1.819	58	126.191	3.241
3	0.027	0.000	17	0.233	0.306	31	2.000	0.964	45	17.154	1.911	59	147.128	2.897
4	0.032	0.000	18	0.272	0.702	32	2.332	1.111	46	20.000	2.003	60	171.539	2.373
5	0.037	0.000	19	0.317	1.363	33	2.719	1.231	47	23.318	2.142	61	200.000	2.138
6	0.043	0.000	20	0.370	2.023	34	3.170	1.314	48	27.187	2.389	62	233.183	1.883
7	0.050	0.000	21	0.431	1.957	35	3.696	1.356	49	31.696	2.807	63	271.871	1.501
8	0.059	0.000	22	0.502	1.381	36	4.309	1.367	50	36.957	3.482	64	316.979	0.786
9	0.068	0.000	23	0.586	0.855	37	5.024	1.365	51	43.089	4.412	65	369.570	0.277
10	0.080	0.000	24	0.683	0.529	38	5.857	1.367	52	50.238	5.417	66	430.887	0.000
11	0.093	0.000	25	0.796	0.396	39	6.829	1.395	53	58.573	6.211	67	502.377	0.000
12	0.108	0.000	26	0.928	0.356	40	7.962	1.452	54	68.291	6.520	68	585.729	0.000
13	0.126	0.000	27	1.062	0.401	41	9.283	1.536	55	79.621	6.271	69	682.910	0.000
14	0.147	0.000	28	1.262	0.526	42	10.823	1.626	56	92.832	5.398	70	796.214	0.000

Particle Size Distribution

Attached page 7

Sample name : NPCPP-1CP1 Mean size : 31.27176 (µm)
Data name : NPCPP-1CP1_03 Di(v,0.1) : 0.41520 (µm)
Lot number : T43779.27 Di(v,0.5) : 18.50535 (µm)
Transmittance (R) : 86.7 (%) Di(v,0.9) : 76.70328 (µm)
Distribution base : Volume Span : 4.1225
Refractive index (R) : Standard Wet Mode size : 53.9884 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4152 (µm) : (6)70.00 (%) - 42.1469 (µm)
: (2)20.00 (%) - 2.0175 (µm) : (7)80.00 (%) - 55.8985 (µm)
: (3)30.00 (%) - 4.8247 (µm) : (8)90.00 (%) - 76.7032 (µm)
: (4)40.00 (%) - 10.3459 (µm) : (9)95.00 (%) - 98.4735 (µm)
: (5)60.00 (%) - 29.7403 (µm) : (10)100.0 (%) - 271.6841 (µm)



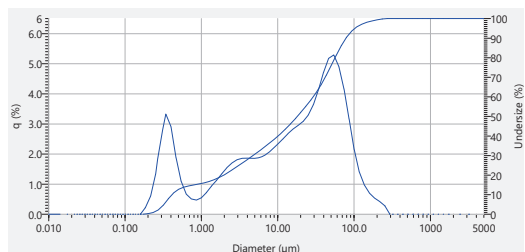
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.932	43	12.619	2.461	57	108.234	2.081
2	0.023	0.000	16	0.200	0.219	30	1.715	1.128	44	14.713	2.637	58	126.191	1.299
3	0.027	0.000	17	0.233	0.585	31	2.000	1.335	45	17.154	2.788	59	147.128	0.849
4	0.032	0.000	18	0.272	1.312	32	2.332	1.537	46	20.000	2.913	60	171.539	0.586
5	0.037	0.000	19	0.317	2.414	33	2.719	1.696	47	23.318	3.065	61	200.000	0.429
6	0.043	0.000	20	0.370	3.286	34	3.170	1.799	48	27.187	3.352	62	233.183	0.331
7	0.050	0.000	21	0.431	2.862	35	3.696	1.845	49	31.696	3.693	63	271.871	0.223
8	0.059	0.000	22	0.502	1.889	36	4.309	1.852	50	36.957	4.258	64	316.979	0.000
9	0.068	0.000	23	0.586	1.084	37	5.024	1.845	51	43.089	4.917	65	369.570	0.000
10	0.080	0.000	24	0.683	0.659	38	5.857	1.851	52	50.238	5.432	66	430.887	0.000
11	0.093	0.000	25	0.796	0.500	39	6.829	1.901	53	58.573	5.569	67	502.377	0.000
12	0.108	0.000	26	0.928	0.463	40	7.962	1.999	54	68.291	5.089	68	585.729	0.000
13	0.126	0.000	27	1.062	0.539	41	9.283	2.141	55	79.621	4.257	69	682.910	0.000
14	0.147	0.000	28	1.262	0.719	42	10.823	2.296	56	92.832	3.165	70	796.214	0.000

Particle Size Distribution

Attached page 8

Sample name : NPCPP-1CP1
Data name : NPCPP-1CP1_06
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4126 (µm) : (6)70.00 (%) - 41.9136 (µm)
: (2)20.00 (%) - 1.9782 (µm) : (7)80.00 (%) - 56.3789 (µm)
: (3)30.00 (%) - 4.7334 (µm) : (8)90.00 (%) - 78.5201 (µm)
: (4)40.00 (%) - 10.1159 (µm) : (9)95.00 (%) - 102.9838 (µm)
: (5)60.00 (%) - 29.1301 (µm) : (10)100.00 (%) - 271.7228 (µm)



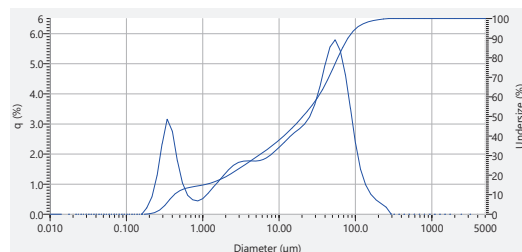
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.936	43	12.619	2.500	57	108.234	2.153
2	0.023	0.000	16	0.200	0.235	30	1.715	1.134	44	14.713	2.680	58	126.191	1.404
3	0.027	0.000	17	0.233	0.584	31	2.000	1.341	45	17.154	2.831	59	147.128	0.965
4	0.032	0.000	18	0.272	1.329	32	2.332	1.544	46	20.000	2.951	60	171.539	0.699
5	0.037	0.000	19	0.317	2.442	33	2.719	1.702	47	23.318	3.086	61	200.000	0.533
6	0.043	0.000	20	0.370	3.321	34	3.170	1.808	48	27.187	3.399	62	233.183	0.420
7	0.050	0.000	21	0.431	2.911	35	3.696	1.854	49	31.696	3.636	63	271.871	0.281
8	0.059	0.000	22	0.502	1.875	36	4.309	1.862	50	36.967	4.133	64	316.979	0.000
9	0.068	0.000	23	0.586	1.093	37	5.024	1.857	51	43.089	4.715	65	369.570	0.000
10	0.080	0.000	24	0.683	0.664	38	5.857	1.869	52	50.238	5.175	66	430.887	0.000
11	0.093	0.000	25	0.796	0.593	39	6.829	1.520	53	58.573	5.591	67	502.377	0.000
12	0.108	0.000	26	0.928	0.466	40	7.962	2.022	54	68.291	4.900	68	585.729	0.000
13	0.126	0.000	27	1.062	0.542	41	9.283	2.169	55	79.621	4.161	69	682.910	0.000
14	0.147	0.000	28	1.262	0.722	42	10.823	2.329	56	92.832	3.167	70	796.214	0.000

Particle Size Distribution

Attached page 9

Sample name : NPCPP-1CP1
Data name : NPCPP-1CP1_09
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4238 (µm) : (6)70.00 (%) - 44.8670 (µm)
: (2)20.00 (%) - 2.2013 (µm) : (7)80.00 (%) - 58.7682 (µm)
: (3)30.00 (%) - 5.3868 (µm) : (8)90.00 (%) - 78.7765 (µm)
: (4)40.00 (%) - 11.5345 (µm) : (9)95.00 (%) - 102.5295 (µm)
: (5)60.00 (%) - 32.4371 (µm) : (10)100.00 (%) - 271.6902 (µm)



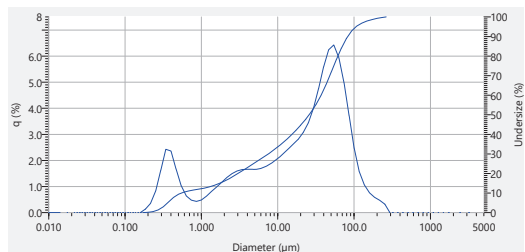
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.889	43	12.619	2.366	57	108.234	2.352
2	0.023	0.000	16	0.200	0.215	30	1.715	1.076	44	14.713	2.560	58	126.191	1.480
3	0.027	0.000	17	0.233	0.571	31	2.000	1.273	45	17.154	2.710	59	147.128	0.967
4	0.032	0.000	18	0.272	1.274	32	2.332	1.467	46	20.000	2.837	60	171.539	0.682
5	0.037	0.000	19	0.317	2.330	33	2.719	1.618	47	23.318	2.991	61	200.000	0.476
6	0.043	0.000	20	0.370	3.183	34	3.170	1.717	48	27.187	3.234	62	233.183	0.368
7	0.050	0.000	21	0.431	2.759	35	3.696	1.763	49	31.696	3.636	63	271.871	0.231
8	0.059	0.000	22	0.502	1.771	36	4.309	1.772	50	36.967	4.227	64	316.979	0.000
9	0.068	0.000	23	0.586	1.032	37	5.024	1.768	51	43.089	4.944	65	369.570	0.000
10	0.080	0.000	24	0.683	0.627	38	5.857	1.777	52	50.238	5.556	66	430.887	0.000
11	0.093	0.000	25	0.796	0.477	39	6.829	1.828	53	58.573	5.790	67	502.377	0.000
12	0.108	0.000	26	0.928	0.442	40	7.962	1.927	54	68.291	5.428	68	585.729	0.000
13	0.126	0.000	27	1.062	0.514	41	9.283	2.068	55	79.621	4.645	69	682.910	0.000
14	0.147	0.000	28	1.262	0.685	42	10.823	2.222	56	92.832	3.522	70	796.214	0.000

Particle Size Distribution

Attached page 10

Sample name : NPCPP-1CP2
Data name : NPCPP-1CP2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5514 (µm) : (6)70.00 (%) - 48.1550 (µm)
: (2)20.00 (%) - 3.0385 (µm) : (7)80.00 (%) - 61.4590 (µm)
: (3)30.00 (%) - 7.5783 (µm) : (8)90.00 (%) - 82.7870 (µm)
: (4)40.00 (%) - 15.3679 (µm) : (9)95.00 (%) - 106.5880 (µm)
: (5)60.00 (%) - 37.0518 (µm) : (10)100.00 (%) - 271.7415 (µm)



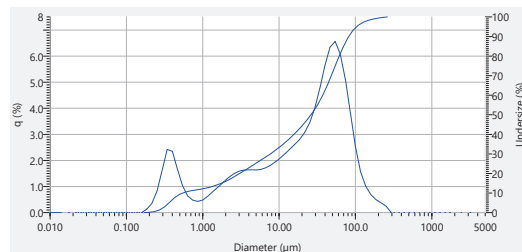
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.812	43	12.619	2.241	57	108.234	2.468
2	0.023	0.000	16	0.200	0.131	30	1.715	0.981	44	14.713	2.429	58	126.191	1.567
3	0.027	0.000	17	0.233	0.353	31	2.000	1.161	45	17.154	2.616	59	147.128	1.053
4	0.032	0.000	18	0.272	0.822	32	2.332	1.343	46	20.000	2.811	60	171.539	0.758
5	0.037	0.000	19	0.317	1.616	33	2.719	1.492	47	23.318	3.089	61	200.000	0.583
6	0.043	0.000	20	0.370	2.422	34	3.170	1.594	48	27.187	3.436	62	233.183	0.471
7	0.050	0.000	21	0.431	2.358	35	3.696	1.646	49	31.696	3.866	63	271.871	0.322
8	0.059	0.000	22	0.502	1.670	36	4.309	1.660	50	36.967	4.734	64	316.979	0.000
9	0.068	0.000	23	0.586	1.034	37	5.024	1.658	51	43.089	5.577	65	369.570	0.000
10	0.080	0.000	24	0.683	0.639	38	5.857	1.666	52	50.238	6.237	66	430.887	0.000
11	0.093	0.000	25	0.796	0.476	39	6.829	1.711	53	58.573	6.423	67	502.377	0.000
12	0.108	0.000	26	0.928	0.426	40	7.962	1.789	54	68.291	5.937	68	585.729	0.000
13	0.126	0.000	27	1.062	0.480	41	9.283	1.931	55	79.621	4.966	69	682.910	0.000
14	0.147	0.000	28	1.262	0.629	42	10.823	2.078	56	92.832	3.723	70	796.214	0.000

Particle Size Distribution

Attached page 11

Sample name : NPCPP-1CP2
Data name : NPCPP-1CP2_06
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5534 (µm) : (6)70.00 (%) - 48.3548 (µm)
: (2)20.00 (%) - 3.0683 (µm) : (7)80.00 (%) - 61.3949 (µm)
: (3)30.00 (%) - 7.7354 (µm) : (8)90.00 (%) - 81.8038 (µm)
: (4)40.00 (%) - 15.6657 (µm) : (9)95.00 (%) - 104.0328 (µm)
: (5)60.00 (%) - 37.3605 (µm) : (10)100.00 (%) - 271.6982 (µm)



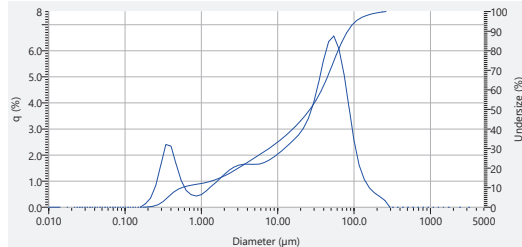
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.807	43	12.619	2.222	57	108.234	2.504
2	0.023	0.000	16	0.200	0.132	30	1.715	0.974	44	14.713	2.413	58	126.191	1.554
3	0.027	0.000	17	0.233	0.354	31	2.000	1.151	45	17.154	2.606	59	147.128	1.008
4	0.032	0.000	18	0.272	0.823	32	2.332	1.330	46	20.000	2.803	60	171.539	0.686
5	0.037	0.000	19	0.317	1.615	33	2.719	1.475	47	23.318	3.065	61	200.000	0.466
6	0.043	0.000	20	0.370	2.416	34	3.170	1.575	48	27.187	3.436	62	233.183	0.372
7	0.050	0.000	21	0.431	2.349	35	3.696	1.625	49	31.696	3.866	63	271.871	0.241
8	0.059	0.000	22	0.502	1.683	36	4.309	1.637	50	36.967	4.762	64	316.979	0.000
9	0.068	0.000	23	0.586	1.029	37	5.024	1.634	51	43.089	5.637	65	369.570	0.000
10	0.080	0.000	24	0.683	0.636	38	5.857	1.642	52	50.238	6.339	66	430.887	0.000
11	0.093	0.000	25	0.796	0.474	39	6.829	1.687	53	58.573	5.961	67	502.377	0.000
12	0.108	0.000	26	0.928	0.425	40	7.962	1.776	54	68.291	6.072	68	585.729	0.000
13	0.126	0.000	27	1.062	0.478	41	9.283	1.908	55	79.621	5.117	69	682.910	0.000
14	0.147	0.000	28	1.262	0.626	42	10.823	2.057	56	92.832	3.814	70	796.214	0.000

Particle Size Distribution

Attached page 12

Sample name : NPCPP-1CP2
Data name : NPCPP-1CP2_09
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5572 (µm) : (6)70.00 (%) - 48.6670 (µm)
: (2)20.00 (%) - 3.0642 (µm) : (7)80.00 (%) - 61.7974 (µm)
: (3)30.00 (%) - 7.7028 (µm) : (8)90.00 (%) - 82.6771 (µm)
: (4)40.00 (%) - 15.7294 (µm) : (9)95.00 (%) - 105.6287 (µm)
: (5)60.00 (%) - 37.6441 (µm) : (10)100.00 (%) - 271.7136 (µm)



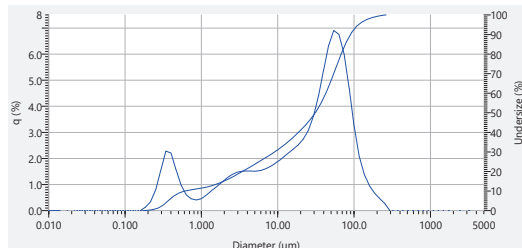
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.812	43	12.619	2.194	57	108.234	2.522
2	0.023	0.000	16	0.200	0.131	30	1.715	0.980	44	14.713	2.376	58	126.191	1.591
3	0.027	0.000	17	0.233	0.352	31	2.000	1.160	45	17.154	2.559	59	147.128	1.054
4	0.032	0.000	18	0.272	0.817	32	2.332	1.341	46	20.000	2.753	60	171.539	0.737
5	0.037	0.000	19	0.317	1.696	33	2.719	1.487	47	23.318	3.015	61	200.000	0.543
6	0.043	0.000	20	0.370	2.494	34	3.170	1.588	48	27.187	3.389	62	233.183	0.410
7	0.050	0.000	21	0.431	2.340	35	3.696	1.637	49	31.696	3.663	63	271.871	0.268
8	0.059	0.000	22	0.502	1.659	36	4.309	1.648	50	36.967	4.752	64	316.979	0.000
9	0.068	0.000	23	0.586	1.028	37	5.024	1.643	51	43.089	5.642	65	369.570	0.000
10	0.080	0.000	24	0.683	0.636	38	5.857	1.647	52	50.238	6.349	66	430.887	0.000
11	0.093	0.000	25	0.796	0.475	39	6.829	1.687	53	58.573	6.886	67	502.377	0.000
12	0.108	0.000	26	0.928	0.426	40	7.962	1.771	54	68.291	6.072	68	585.729	0.000
13	0.126	0.000	27	1.062	0.481	41	9.283	1.896	55	79.621	5.112	69	682.910	0.000
14	0.147	0.000	28	1.262	0.630	42	10.823	2.038	56	92.832	3.814	70	796.214	0.000

Particle Size Distribution

Attached page 14

Sample name : NPCPP-1CP3X
Data name : NPCPP-1CP3X_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.6183 (µm) : (6)70.00 (%) - 54.1804 (µm)
: (2)20.00 (%) - 3.4595 (µm) : (7)80.00 (%) - 67.8901 (µm)
: (3)30.00 (%) - 9.1752 (µm) : (8)90.00 (%) - 89.8676 (µm)
: (4)40.00 (%) - 18.7082 (µm) : (9)95.00 (%) - 114.6552 (µm)
: (5)60.00 (%) - 42.7552 (µm) : (10)100.00 (%) - 271.7148 (µm)



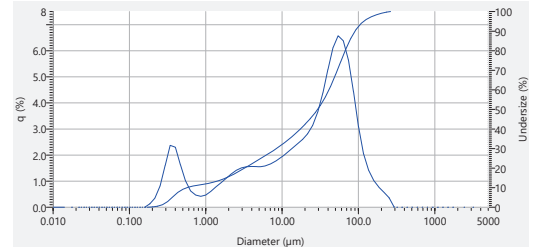
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.761	43	12.619	2.026	57	108.234	3.226
2	0.023	0.000	16	0.200	0.128	30	1.715	0.916	44	14.713	2.190	58	126.191	2.070
3	0.027	0.000	17	0.233	0.342	31	2.000	1.080	45	17.154	2.350	59	147.128	1.375
4	0.032	0.000	18	0.272	0.787	32	2.332	1.245	46	20.000	2.515	60	171.539	0.945
5	0.037	0.000	19	0.317	1.534	33	2.719	1.377	47	23.318	2.737	61	200.000	0.664
6	0.043	0.000	20	0.370	2.279	34	3.170	1.468	48	27.187	3.071	62	233.183	0.467
7	0.050	0.000	21	0.431	2.207	35	3.696	1.508	49	31.696	3.603	63	271.871	0.267
8	0.059	0.000	22	0.502	1.589	36	4.309	1.517	50	36.967	4.387	64	316.979	0.000
9	0.068	0.000	23	0.586	0.966	37	5.024	1.512	51	43.089	5.380	65	369.570	0.000
10	0.080	0.000	24	0.683	0.599	38	5.857	1.516	52	50.238	6.333	66	430.887	0.000
11	0.093	0.000	25	0.796	0.446	39	6.829	1.555	53	58.573	6.886	67	502.377	0.000
12	0.108	0.000	26	0.928	0.402	40	7.962	1.633	54	68.291	6.796	68	585.729	0.000
13	0.126	0.000	27	1.062	0.453	41	9.283	1.750	55	79.621	6.021	69	682.910	0.000
14	0.147	0.000	28	1.262	0.592	42	10.823	1.881	56	92.832	4.717	70	796.214	0.000

Particle Size Distribution

Attached page 13

Sample name : NPCPP-1CP3X
Data name : NPCPP-1CP3X_03
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5703 (µm) : (6)70.00 (%) - 52.9710 (µm)
: (2)20.00 (%) - 3.2473 (µm) : (7)80.00 (%) - 67.1788 (µm)
: (3)30.00 (%) - 8.4768 (µm) : (8)90.00 (%) - 90.3635 (µm)
: (4)40.00 (%) - 17.3720 (µm) : (9)95.00 (%) - 117.9591 (µm)
: (5)60.00 (%) - 41.1038 (µm) : (10)100.00 (%) - 271.7533 (µm)



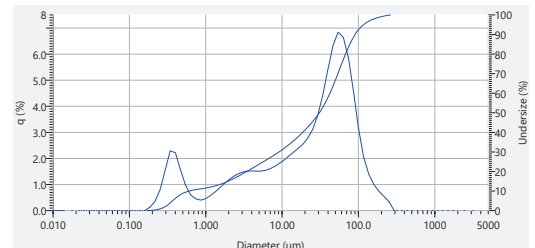
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.779	43	12.619	2.091	57	108.234	3.081
2	0.023	0.000	16	0.200	0.130	30	1.715	0.938	44	14.713	2.262	58	126.191	2.032
3	0.027	0.000	17	0.233	0.348	31	2.000	1.106	45	17.154	2.428	59	147.128	1.405
4	0.032	0.000	18	0.272	0.888	32	2.332	1.275	46	20.000	2.596	60	171.539	1.017
5	0.037	0.000	19	0.317	1.586	33	2.719	1.412	47	23.318	2.814	61	200.000	0.762
6	0.043	0.000	20	0.370	2.388	34	3.170	1.504	48	27.187	3.136	62	233.183	0.588
7	0.050	0.000	21	0.431	2.301	35	3.696	1.549	49	31.696	3.642	63	271.871	0.354
8	0.059	0.000	22	0.502	1.638	36	4.309	1.559	50	36.967	4.373	64	316.979	0.000
9	0.068	0.000	23	0.586	1.007	37	5.024	1.554	51	43.089	5.276	65	369.570	0.000
10	0.080	0.000	24	0.683	0.622	38	5.857	1.560	52	50.238	6.112	66	430.887	0.000
11	0.093	0.000	25	0.796	0.462	39	6.829	1.600	53	58.573	6.570	67	502.377	0.000
12	0.108	0.000	26	0.928	0.413	40	7.962	1.683	54	68.291	6.360	68	585.729	0.000
13	0.126	0.000	27	1.062	0.464	41	9.283	1.804	55	79.621	5.656	69	682.910	0.000
14	0.147	0.000	28	1.262	0.606	42	10.823	1.941	56	92.832	4.442	70	796.214	0.000

Particle Size Distribution

Attached page 15

Sample name : NPCPP-1CP3X
Data name : NPCPP-1CP3X_09
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.6106 (µm) : (6)70.00 (%) - 53.8882 (µm)
: (2)20.00 (%) - 3.4519 (µm) : (7)80.00 (%) - 67.7334 (µm)
: (3)30.00 (%) - 9.1549 (µm) : (8)90.00 (%) - 90.3450 (µm)
: (4)40.00 (%) - 18.6301 (µm) : (9)95.00 (%) - 117.0542 (µm)
: (5)60.00 (%) - 42.4267 (µm) : (10)100.00 (%) - 271.7446 (µm)



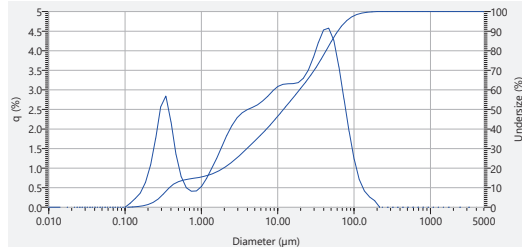
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.780	43	12.619	2.031	57	108.234	3.146
2	0.023	0.000	16	0.200	0.129	30	1.715	0.915	44	14.713	2.198	58	126.191	2.047
3	0.027	0.000	17	0.233	0.343	31	2.000	1.079	45	17.154	2.364	59	147.128	1.386
4	0.032	0.000	18	0.272	0.790	32	2.332	1.244	46	20.000	2.534	60	171.539	0.987
5	0.037	0.000	19	0.317	1.541	33	2.719	1.376	47	23.318	2.765	61	200.000	0.736
6	0.043	0.000	20	0.370	2.290	34	3.170	1.465	48	27.187	3.108	62	233.183	0.539
7	0.050	0.000	21	0.431	2.276	35	3.696	1.508	49	31.696	3.648	63	271.871	0.330
8	0.059	0.000	22	0.502	1.583	36	4.309	1.517	50	36.967	4.437	64	316.979	0.000
9	0.068	0.000	23	0.586	0.967	37	5.024	1.512	51	43.089	5.417	65	369.570	0.000
10	0.080	0.000	24	0.683	0.598	38	5.857	1.517	52	50.238	6.329	66	430.887	0.000
11	0.093	0.000	25	0.796	0.446	39	6.829	1.556	53	58.573	6.837	67	502.377	0.000
12	0.108	0.000	26	0.928	0.401	40	7.962	1.635	54	68.291	6.642	68	585.729	0.000
13	0.126	0.000	27	1.062	0.452	41	9.283	1.753	55	79.621	5.874	69	682.910	0.000
14	0.147	0.000	28	1.262	0.591	42	10.823	1.885	56	92.832	4.582	70	796.214	0.000

Particle Size Distribution

Attached page 16

Sample name : NPCPP-1D2
Data name : NPCPP-1D2_03
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3815 (µm) : (6)70.00 (%) - 30.0370 (µm)
: (2)20.00 (%) - 1.9576 (µm) : (7)80.00 (%) - 42.9667 (µm)
: (3)30.00 (%) - 3.9653 (µm) : (8)90.00 (%) - 61.3330 (µm)
: (4)40.00 (%) - 7.1295 (µm) : (9)95.00 (%) - 78.3978 (µm)
: (5)60.00 (%) - 19.3122 (µm) : (10)100.0 (%) - 199.8180 (µm)



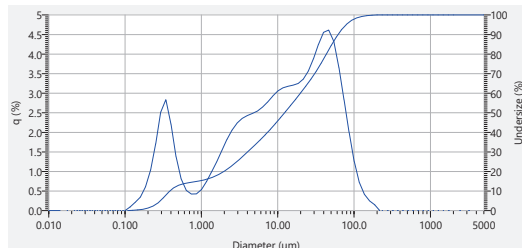
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.364	29	1.471	0.987	43	12.619	3.136	57	108.234	1.225
2	0.023	0.000	16	0.200	0.631	30	1.715	1.246	44	14.713	3.153	58	126.191	0.709
3	0.027	0.000	17	0.233	1.073	31	2.000	1.541	45	17.154	3.157	59	147.128	0.414
4	0.032	0.000	18	0.272	1.754	32	2.332	1.840	46	20.000	3.183	60	171.539	0.262
5	0.037	0.000	19	0.317	2.565	33	2.719	2.091	47	23.318	3.289	61	200.000	0.169
6	0.043	0.000	20	0.370	2.840	34	3.170	2.283	48	27.187	3.591	62	233.183	0.090
7	0.050	0.000	21	0.431	2.186	35	3.696	2.411	49	31.696	3.826	63	271.871	0.000
8	0.059	0.000	22	0.502	1.343	36	4.309	2.492	50	36.967	4.215	64	316.979	0.000
9	0.068	0.000	23	0.586	0.782	37	5.024	2.550	51	43.089	4.527	65	369.570	0.000
10	0.080	0.000	24	0.683	0.499	38	5.857	2.613	52	50.238	4.574	66	430.887	0.000
11	0.093	0.000	25	0.796	0.407	39	6.829	2.710	53	58.573	4.265	67	502.377	0.000
12	0.108	0.000	26	0.928	0.415	40	7.962	2.833	54	68.291	3.591	68	585.729	0.000
13	0.126	0.099	27	1.062	0.526	41	9.283	2.971	55	79.621	2.765	69	682.910	0.000
14	0.147	0.223	28	1.262	0.734	42	10.823	3.084	56	92.832	1.942	70	796.214	0.000

Particle Size Distribution

Attached page 18

Sample name : NPCPP-1D2
Data name : NPCPP-1D2_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3873 (µm) : (6)70.00 (%) - 30.5017 (µm)
: (2)20.00 (%) - 1.9769 (µm) : (7)80.00 (%) - 43.4185 (µm)
: (3)30.00 (%) - 4.0461 (µm) : (8)90.00 (%) - 61.8462 (µm)
: (4)40.00 (%) - 7.3539 (µm) : (9)95.00 (%) - 78.7593 (µm)
: (5)60.00 (%) - 19.8331 (µm) : (10)100.0 (%) - 199.7951 (µm)



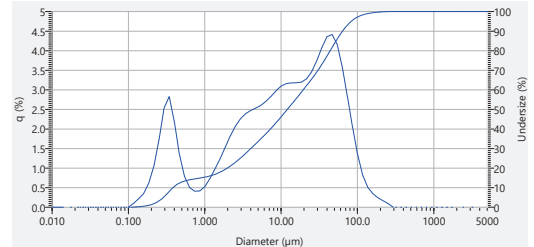
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.345	29	1.471	0.989	43	12.619	3.134	57	108.234	1.262
2	0.023	0.000	16	0.200	0.691	30	1.715	1.242	44	14.713	3.175	58	126.191	0.723
3	0.027	0.000	17	0.233	1.030	31	2.000	1.527	45	17.154	3.205	59	147.128	0.413
4	0.032	0.000	18	0.272	1.699	32	2.332	1.814	46	20.000	3.248	60	171.539	0.249
5	0.037	0.000	19	0.317	2.516	33	2.719	2.053	47	23.318	3.357	61	200.000	0.150
6	0.043	0.000	20	0.370	2.831	34	3.170	2.234	48	27.187	3.593	62	233.183	0.090
7	0.050	0.000	21	0.431	2.214	35	3.696	2.353	49	31.696	3.874	63	271.871	0.000
8	0.059	0.000	22	0.502	1.379	36	4.309	2.426	50	36.967	4.247	64	316.979	0.000
9	0.068	0.000	23	0.586	0.808	37	5.024	2.481	51	43.089	4.554	65	369.570	0.000
10	0.080	0.000	24	0.683	0.516	38	5.857	2.543	52	50.238	4.611	66	430.887	0.000
11	0.093	0.000	25	0.796	0.420	39	6.829	2.644	53	58.573	4.322	67	502.377	0.000
12	0.108	0.000	26	0.928	0.425	40	7.962	2.774	54	68.291	3.661	68	585.729	0.000
13	0.126	0.094	27	1.062	0.534	41	9.283	2.925	55	79.621	2.837	69	682.910	0.000
14	0.147	0.211	28	1.262	0.740	42	10.823	3.055	56	92.832	2.002	70	796.214	0.000

Particle Size Distribution

Attached page 17

Sample name : NPCPP-1D2
Data name : NPCPP-1D2_06
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3851 (µm) : (6)70.00 (%) - 30.4537 (µm)
: (2)20.00 (%) - 1.9899 (µm) : (7)80.00 (%) - 43.9848 (µm)
: (3)30.00 (%) - 4.0356 (µm) : (8)90.00 (%) - 63.8585 (µm)
: (4)40.00 (%) - 7.2529 (µm) : (9)95.00 (%) - 83.2167 (µm)
: (5)60.00 (%) - 19.5309 (µm) : (10)100.0 (%) - 271.4197 (µm)



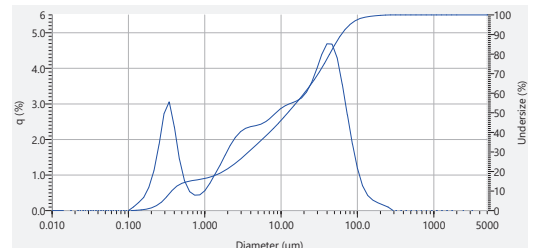
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.354	29	1.471	0.979	43	12.619	3.156	57	108.234	1.267
2	0.023	0.000	16	0.200	0.615	30	1.715	1.234	44	14.713	3.173	58	126.191	0.822
3	0.027	0.000	17	0.233	1.050	31	2.000	1.525	45	17.154	3.177	59	147.128	0.309
4	0.032	0.000	18	0.272	1.734	32	2.332	1.819	46	20.000	3.196	60	171.539	0.245
5	0.037	0.000	19	0.317	2.536	33	2.719	2.068	47	23.318	3.281	61	200.000	0.242
6	0.043	0.000	20	0.370	2.834	34	3.170	2.269	48	27.187	3.461	62	233.183	0.163
7	0.050	0.000	21	0.431	2.186	35	3.696	2.388	49	31.696	3.740	63	271.871	0.092
8	0.059	0.000	22	0.502	1.340	36	4.309	2.470	50	36.967	4.077	64	316.979	0.000
9	0.068	0.000	23	0.586	0.787	37	5.024	2.532	51	43.089	4.356	65	369.570	0.000
10	0.080	0.000	24	0.683	0.501	38	5.857	2.600	52	50.238	4.412	66	430.887	0.000
11	0.093	0.000	25	0.796	0.409	39	6.829	2.703	53	58.573	4.163	67	502.377	0.000
12	0.108	0.000	26	0.928	0.414	40	7.962	2.832	54	68.291	3.563	68	585.729	0.000
13	0.126	0.096	27	1.062	0.534	41	9.283	2.976	55	79.621	2.840	69	682.910	0.000
14	0.147	0.216	28	1.262	0.729	42	10.823	3.095	56	92.832	2.064	70	796.214	0.000

Particle Size Distribution

Attached page 19

Sample name : NPCPP-1E2
Data name : NPCPP-1E2_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3678 (µm) : (6)70.00 (%) - 30.7593 (µm)
: (2)20.00 (%) - 1.7573 (µm) : (7)80.00 (%) - 43.2905 (µm)
: (3)30.00 (%) - 3.7615 (µm) : (8)90.00 (%) - 61.6166 (µm)
: (4)40.00 (%) - 7.0729 (µm) : (9)95.00 (%) - 79.2808 (µm)
: (5)60.00 (%) - 20.1235 (µm) : (10)100.0 (%) - 271.4373 (µm)



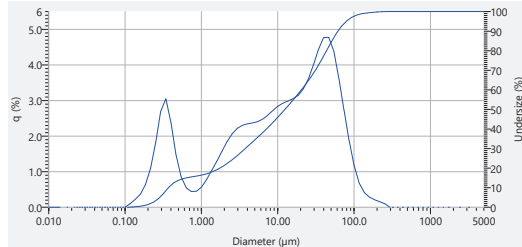
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.372	29	1.471	1.021	43	12.619	2.996	57	108.234	1.177
2	0.023	0.000	16	0.200	0.690	30	1.715	1.275	44	14.713	3.017	58	126.191	0.691
3	0.027	0.000	17	0.233	1.117	31	2.000	1.557	45	17.154	3.078	59	147.128	0.424
4	0.032	0.000	18	0.272	1.847	32	2.332	1.834	46	20.000	3.165	60	171.539	0.293
5	0.037	0.000	19	0.317	2.730	33	2.719	2.057	47	23.318	3.334	61	200.000	0.215
6	0.043	0.000	20	0.370	3.063	34	3.170	2.216	48	27.187	3.602	62	233.183	0.157
7	0.050	0.000	21	0.431	2.399	35	3.696	2.318	49	31.696	3.876	63	271.871	0.096
8	0.059	0.000	22	0.502	1.440	36	4.309	2.350	50	36.967	4.391	64	316.979	0.000
9	0.068	0.000	23	0.586	0.838	37	5.024	2.387	51	43.089	4.688	65	369.570	0.000
10	0.080	0.000	24	0.683	0.531	38	5.857	2.426	52	50.238	4.677	66	430.887	0.000
11	0.093	0.000	25	0.796	0.432	39	6.829	2.603	53	58.573	4.263	67	502.377	0.000
12	0.108	0.000	26	0.928	0.438	40	7.962	2.616	54	68.291	3.552	68	585.729	0.000
13	0.126	0.101	27	1.062	0.553	41	9.283	2.754	55	79.621	2.696	69	682.910	0.000
14	0.147	0.227	28	1.262	0.767	42	10.823	2.876	56	92.832	1.871	70	796.214	0.000

Particle Size Distribution

Attached page 20

Sample name : NPCPP-1E2
Data name : NPCPP-1E2_06
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3706 (µm) : (6)70.00 (%) - 31.1822 (µm)
: (2)20.00 (%) - 1.7805 (µm) : (7)80.00 (%) - 43.6078 (µm)
: (3)30.00 (%) - 3.7659 (µm) : (8)90.00 (%) - 61.6832 (µm)
: (4)40.00 (%) - 7.1277 (µm) : (9)95.00 (%) - 79.0018 (µm)
: (5)60.00 (%) - 20.4568 (µm) : (10)100.0 (%) - 271.4394 (µm)



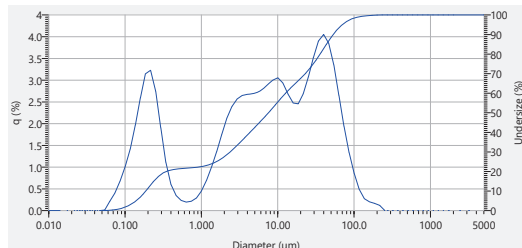
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.363	29	1.471	1.029	43	12.619	2.920	57	108.234	1.162
2	0.023	0.000	16	0.200	0.633	30	1.715	1.282	44	14.713	2.963	58	126.191	0.672
3	0.027	0.000	17	0.233	1.091	31	2.000	1.562	45	17.154	3.049	59	147.128	0.409
4	0.032	0.000	18	0.272	1.812	32	2.332	1.836	46	20.000	3.144	60	171.539	0.282
5	0.037	0.000	19	0.317	2.696	33	2.719	2.055	47	23.318	3.321	61	200.000	0.309
6	0.043	0.000	20	0.370	3.045	34	3.170	2.210	48	27.187	3.601	62	233.183	0.156
7	0.050	0.000	21	0.431	2.378	35	3.696	2.299	49	31.696	3.994	63	271.871	0.097
8	0.059	0.000	22	0.502	1.469	36	4.309	2.342	50	36.967	4.437	64	316.979	0.000
9	0.068	0.000	23	0.586	0.855	37	5.024	2.367	51	43.089	4.764	65	369.570	0.000
10	0.080	0.000	24	0.683	0.543	38	5.857	2.401	52	50.238	4.773	66	430.887	0.000
11	0.093	0.000	25	0.796	0.441	39	6.829	2.473	53	58.573	4.387	67	502.377	0.000
12	0.108	0.000	26	0.928	0.446	40	7.962	2.582	54	68.291	3.620	68	585.729	0.000
13	0.126	0.098	27	1.062	0.581	41	9.283	2.717	55	79.621	2.732	69	682.910	0.000
14	0.147	0.221	28	1.262	0.775	42	10.823	2.837	56	92.832	1.876	70	796.214	0.000

Particle Size Distribution

Attached page 22

Sample name : NPCPP-1F2
Data name : NPCPP-1F2_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1868 (µm) : (6)70.00 (%) - 22.9870 (µm)
: (2)20.00 (%) - 0.3506 (µm) : (7)80.00 (%) - 35.9556 (µm)
: (3)30.00 (%) - 2.3884 (µm) : (8)90.00 (%) - 53.4321 (µm)
: (4)40.00 (%) - 4.3331 (µm) : (9)95.00 (%) - 70.3017 (µm)
: (5)60.00 (%) - 12.6426 (µm) : (10)100.0 (%) - 232.8824 (µm)



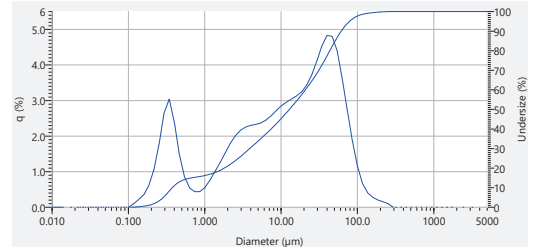
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.989	29	1.471	1.001	43	12.619	2.929	57	108.234	0.864
2	0.023	0.000	16	0.200	3.144	30	1.715	1.352	44	14.713	2.674	58	126.191	0.483
3	0.027	0.000	17	0.233	3.224	31	2.000	1.751	45	17.154	2.473	59	147.128	0.273
4	0.032	0.000	18	0.272	2.746	32	2.332	2.124	46	20.000	2.454	60	171.539	0.200
5	0.037	0.000	19	0.317	1.907	33	2.719	2.396	47	23.318	2.682	61	200.000	0.163
6	0.043	0.000	20	0.370	1.109	34	3.170	2.564	48	27.187	3.087	62	233.183	0.119
7	0.050	0.000	21	0.431	0.602	35	3.696	2.644	49	31.696	3.516	63	271.871	0.000
8	0.059	0.010	22	0.502	0.349	36	4.309	2.672	50	36.967	3.900	64	316.979	0.000
9	0.068	0.215	23	0.586	0.232	37	5.024	2.686	51	43.089	4.049	65	369.570	0.000
10	0.080	0.401	24	0.683	0.195	38	5.857	2.718	52	50.238	3.848	66	430.887	0.000
11	0.093	0.674	25	0.796	0.213	39	6.829	2.792	53	58.573	3.352	67	502.377	0.000
12	0.108	1.002	26	0.928	0.230	40	7.962	2.893	54	68.291	2.652	68	585.729	0.000
13	0.126	1.408	27	1.062	0.449	41	9.283	2.966	55	79.621	1.939	69	682.910	0.000
14	0.147	1.954	28	1.262	0.692	42	10.823	3.052	56	92.832	1.336	70	796.214	0.000

Particle Size Distribution

Attached page 20

Sample name : NPCPP-1E2
Data name : NPCPP-1E2_09
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3752 (µm) : (6)70.00 (%) - 31.2952 (µm)
: (2)20.00 (%) - 1.8132 (µm) : (7)80.00 (%) - 43.5094 (µm)
: (3)30.00 (%) - 3.9030 (µm) : (8)90.00 (%) - 61.3862 (µm)
: (4)40.00 (%) - 7.4174 (µm) : (9)95.00 (%) - 78.6349 (µm)
: (5)60.00 (%) - 20.8220 (µm) : (10)100.0 (%) - 271.4373 (µm)



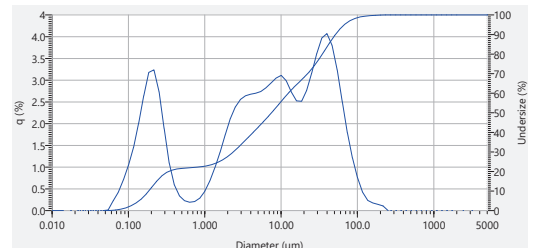
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.349	29	1.471	1.005	43	12.619	2.949	57	108.234	1.143
2	0.023	0.000	16	0.200	0.610	30	1.715	1.251	44	14.713	3.037	58	126.191	0.666
3	0.027	0.000	17	0.233	1.055	31	2.000	1.524	45	17.154	3.127	59	147.128	0.399
4	0.032	0.000	18	0.272	1.784	32	2.332	1.792	46	20.000	3.241	60	171.539	0.275
5	0.037	0.000	19	0.317	2.647	33	2.719	2.007	47	23.318	3.426	61	200.000	0.302
6	0.043	0.000	20	0.370	3.034	34	3.170	2.161	48	27.187	3.712	62	233.183	0.162
7	0.050	0.000	21	0.431	2.390	35	3.696	2.251	49	31.696	4.100	63	271.871	0.096
8	0.059	0.000	22	0.502	1.474	36	4.309	2.287	50	36.967	4.527	64	316.979	0.000
9	0.068	0.000	23	0.586	0.855	37	5.024	2.326	51	43.089	4.827	65	369.570	0.000
10	0.080	0.000	24	0.683	0.538	38	5.857	2.366	52	50.238	4.866	66	430.887	0.000
11	0.093	0.000	25	0.796	0.434	39	6.829	2.447	53	58.573	4.366	67	502.377	0.000
12	0.108	0.000	26	0.928	0.436	40	7.962	2.565	54	68.291	3.608	68	585.729	0.000
13	0.126	0.095	27	1.062	0.546	41	9.283	2.713	55	79.621	2.714	69	682.910	0.000
14	0.147	0.213	28	1.262	0.755	42	10.823	2.849	56	92.832	1.857	70	796.214	0.000

Particle Size Distribution

Attached page 23

Sample name : NPCPP-1F2
Data name : NPCPP-1F2_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1846 (µm) : (6)70.00 (%) - 22.2747 (µm)
: (2)20.00 (%) - 0.3389 (µm) : (7)80.00 (%) - 34.8012 (µm)
: (3)30.00 (%) - 2.3716 (µm) : (8)90.00 (%) - 51.6348 (µm)
: (4)40.00 (%) - 4.3120 (µm) : (9)95.00 (%) - 67.5795 (µm)
: (5)60.00 (%) - 12.4190 (µm) : (10)100.0 (%) - 232.8460 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.839	29	1.471	0.988	43	12.619	2.981	57	108.234	0.795
2	0.023	0.000	16	0.200	3.179	30	1.715	1.336	44	14.713	2.721	58	126.191	0.417
3	0.027	0.000	17	0.233	3.236	31	2.000	1.734	45	17.154	2.522	59	147.128	0.234
4	0.032	0.000	18	0.272	2.738	32	2.332	2.107	46	20.000	2.512	60	171.539	0.174
5	0.037	0.000	19	0.317	1.890	33	2.719	2.381	47	23.318	2.758	61	200.000	0.143
6	0.043	0.000	20	0.370	1.080	34	3.170	2.554	48	27.187	3.156	62	233.183	0.096
7	0.050	0.000	21	0.431	0.590	35	3.696	2.640	49	31.696	3.607	63	271.871	0.000
8	0.059	0.010	22	0.502	0.339	36	4.309	2.674	50	36.967	3.969	64	316.979	0.000
9	0.068	0.225	23	0.586	0.226	37	5.024	2.696	51	43.089	4.068	65	369.570	0.000
10	0.080	0.419	24	0.683	0.190	38	5.857	2.737	52	50.238	3.799	66	430.887	0.000
11	0.093	0.701	25	0.796	0.208	39	6.829	2.821	53	58.573	3.343	67	502.377	0.000
12	0.108	1.037	26	0.928	0.284	40	7.962	2.932	54	68.291	2.508	68	585.729	0.000
13	0.126	1.408	27	1.062	0.441	41	9.283	3.046	55	79.621	1.791	69	682.910	0.000
14	0.147	2.003	28	1.262	0.681	42	10.823	3.109	56	92.832	1.208	70	796.214	0.000

Particle Size Distribution

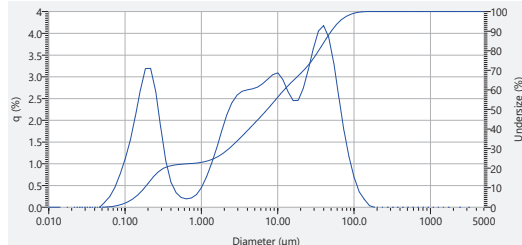
Attached page 20

Particle Size Distribution

Attached page 24

Sample name : NPCPP-1F2
Data name : NPCPP-1F2_09
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1803 (µm) : (6)70.00 (%) - 21.9682 (µm)
: (2)20.00 (%) - 0.3247 (µm) : (7)80.00 (%) - 34.3617 (µm)
: (3)30.00 (%) - 2.3145 (µm) : (8)90.00 (%) - 50.2285 (µm)
: (4)40.00 (%) - 4.2005 (µm) : (9)95.00 (%) - 64.8700 (µm)
: (5)60.00 (%) - 12.1196 (µm) : (10)100.0 (%) - 170.7559 (µm)



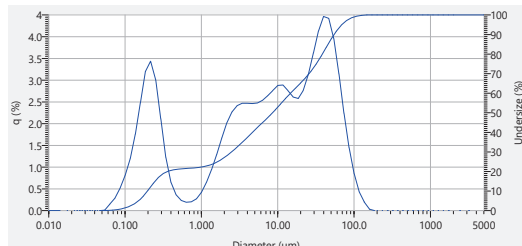
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.693	29	1.471	1.004	43	12.619	2.931	57	108.234	0.884
2	0.023	0.000	16	0.200	3.187	30	1.715	1.355	44	14.713	2.653	58	126.191	0.349
3	0.027	0.000	17	0.233	3.193	31	2.000	1.755	45	17.154	2.452	59	147.128	0.176
4	0.032	0.000	18	0.272	2.687	32	2.332	2.129	46	20.000	2.457	60	171.539	0.034
5	0.037	0.000	19	0.317	1.827	33	2.719	2.404	47	23.318	2.729	61	200.000	0.000
6	0.043	0.000	20	0.370	1.088	34	3.170	2.577	48	27.187	3.180	62	233.183	0.000
7	0.050	0.000	21	0.431	0.576	35	3.696	2.664	49	31.696	3.650	63	271.871	0.000
8	0.059	0.117	22	0.502	0.333	36	4.309	2.699	50	36.967	4.053	64	316.979	0.000
9	0.068	0.244	23	0.586	0.225	37	5.024	2.721	51	43.089	4.177	65	369.570	0.000
10	0.080	0.453	24	0.683	0.191	38	5.857	2.759	52	50.238	3.955	66	430.887	0.000
11	0.093	0.751	25	0.795	0.211	39	6.829	2.838	53	58.573	3.316	67	502.377	0.000
12	0.108	1.099	26	0.928	0.289	40	7.962	2.941	54	68.291	2.538	68	585.729	0.000
13	0.126	1.525	27	1.062	0.449	41	9.283	3.045	55	79.621	1.781	69	682.910	0.000
14	0.147	2.079	28	1.262	0.694	42	10.823	3.088	56	92.832	1.151	70	796.214	0.000

Particle Size Distribution

Attached page 26

Sample name : NPCPP-1G2
Data name : NPCPP-1G2_06
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1968 (µm) : (6)70.00 (%) - 25.7782 (µm)
: (2)20.00 (%) - 0.3633 (µm) : (7)80.00 (%) - 38.4756 (µm)
: (3)30.00 (%) - 2.4925 (µm) : (8)90.00 (%) - 54.9010 (µm)
: (4)40.00 (%) - 4.6935 (µm) : (9)95.00 (%) - 69.1497 (µm)
: (5)60.00 (%) - 14.7049 (µm) : (10)100.0 (%) - 170.7142 (µm)



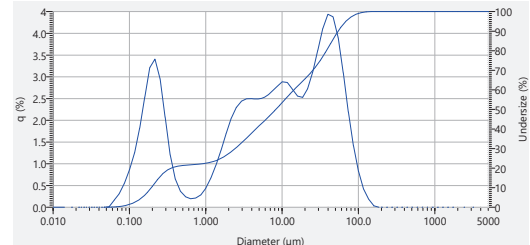
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.472	29	1.471	0.943	43	12.619	2.888	57	108.234	0.846
2	0.023	0.000	16	0.200	3.201	30	1.715	1.283	44	14.713	2.755	58	126.191	0.430
3	0.027	0.000	17	0.233	3.433	31	2.000	1.684	45	17.154	2.610	59	147.128	0.190
4	0.032	0.000	18	0.272	3.009	32	2.332	2.017	46	20.000	2.577	60	171.539	0.032
5	0.037	0.000	19	0.317	2.115	33	2.719	2.289	47	23.318	2.780	61	200.000	0.000
6	0.043	0.000	20	0.370	1.219	34	3.170	2.413	48	27.187	3.177	62	233.183	0.000
7	0.050	0.000	21	0.431	0.649	35	3.696	2.467	49	31.696	3.619	63	271.871	0.000
8	0.059	0.007	22	0.502	0.382	36	4.309	2.468	50	36.967	4.138	64	316.979	0.000
9	0.068	0.147	23	0.586	0.234	37	5.024	2.459	51	43.089	4.463	65	369.570	0.000
10	0.080	0.286	24	0.683	0.189	38	5.857	2.471	52	50.238	4.421	66	430.887	0.000
11	0.093	0.508	25	0.795	0.201	39	6.829	2.534	53	58.573	3.564	67	502.377	0.000
12	0.108	0.804	26	0.928	0.289	40	7.962	2.638	54	68.291	3.150	68	585.729	0.000
13	0.126	1.187	27	1.062	0.419	41	9.283	2.759	55	79.621	2.238	69	682.910	0.000
14	0.147	1.748	28	1.262	0.649	42	10.823	2.876	56	92.832	1.447	70	796.214	0.000

Particle Size Distribution

Attached page 25

Sample name : NPCPP-1G2
Data name : NPCPP-1G2_03
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1937 (µm) : (6)70.00 (%) - 25.3360 (µm)
: (2)20.00 (%) - 0.3555 (µm) : (7)80.00 (%) - 38.0774 (µm)
: (3)30.00 (%) - 2.4355 (µm) : (8)90.00 (%) - 54.4558 (µm)
: (4)40.00 (%) - 4.5636 (µm) : (9)95.00 (%) - 68.5350 (µm)
: (5)60.00 (%) - 14.2838 (µm) : (10)100.0 (%) - 170.6711 (µm)



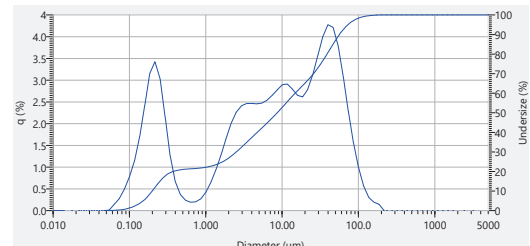
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.520	29	1.471	0.966	43	12.619	2.866	57	108.234	0.822
2	0.023	0.000	16	0.200	3.211	30	1.715	1.309	44	14.713	2.711	58	126.191	0.412
3	0.027	0.000	17	0.233	3.403	31	2.000	1.691	45	17.154	2.554	59	147.128	0.180
4	0.032	0.000	18	0.272	2.958	32	2.332	2.044	46	20.000	2.525	60	171.539	0.030
5	0.037	0.000	19	0.317	2.073	33	2.719	2.293	47	23.318	2.722	61	200.000	0.000
6	0.043	0.000	20	0.370	1.201	34	3.170	2.438	48	27.187	3.180	62	233.183	0.000
7	0.050	0.000	21	0.431	0.647	35	3.696	2.493	49	31.696	3.603	63	271.871	0.000
8	0.059	0.007	22	0.502	0.385	36	4.309	2.496	50	36.967	4.110	64	316.979	0.000
9	0.068	0.162	23	0.586	0.239	37	5.024	2.488	51	43.089	4.436	65	369.570	0.000
10	0.080	0.312	24	0.683	0.195	38	5.857	2.502	52	50.238	4.379	66	430.887	0.000
11	0.093	0.547	25	0.795	0.209	39	6.829	2.563	53	58.573	3.902	67	502.377	0.000
12	0.108	0.853	26	0.928	0.281	40	7.962	2.863	54	68.291	3.097	68	585.729	0.000
13	0.126	1.246	27	1.062	0.434	41	9.283	2.777	55	79.621	2.192	69	682.910	0.000
14	0.147	1.810	28	1.262	0.688	42	10.823	2.892	56	92.832	1.414	70	796.214	0.000

Particle Size Distribution

Attached page 27

Sample name : NPCPP-1G2
Data name : NPCPP-1G2_09
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1991 (µm) : (6)70.00 (%) - 25.8143 (µm)
: (2)20.00 (%) - 0.3732 (µm) : (7)80.00 (%) - 38.8524 (µm)
: (3)30.00 (%) - 2.5236 (µm) : (8)90.00 (%) - 55.5088 (µm)
: (4)40.00 (%) - 4.7535 (µm) : (9)95.00 (%) - 73.2080 (µm)
: (5)60.00 (%) - 14.8024 (µm) : (10)100.0 (%) - 199.7873 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.411	29	1.471	0.940	43	12.619	2.911	57	108.234	0.889
2	0.023	0.000	16	0.200	3.154	30	1.715	1.279	44	14.713	2.788	58	126.191	0.566
3	0.027	0.000	17	0.233	3.422	31	2.000	1.659	45	17.154	2.648	59	147.128	0.300
4	0.032	0.000	18	0.272	3.036	32	2.332	2.012	46	20.000	2.613	60	171.539	0.193
5	0.037	0.000	19	0.317	2.158	33	2.719	2.263	47	23.318	2.779	61	200.000	0.144
6	0.043	0.000	20	0.370	1.251	34	3.170	2.498	48	27.187	3.114	62	233.183	0.000
7	0.050	0.000	21	0.431	0.662	35	3.696	2.461	49	31.696	3.586	63	271.871	0.000
8	0.059	0.007	22	0.502	0.387	36	4.309	2.463	50	36.967	4.000	64	316.979	0.000
9	0.068	0.142	23	0.586	0.236	37	5.024	2.455	51	43.089	4.275	65	369.570	0.000
10	0.080	0.276	24	0.683	0.189	38	5.857	2.469	52	50.238	4.213	66	430.887	0.000
11	0.093	0.489	25	0.795	0.200	39	6.829	2.538	53	58.573	3.760	67	502.377	0.000
12	0.108	0.773	26	0.928	0.288	40	7.962	2.644	54	68.291	3.082	68	585.729	0.000
13	0.126	1.145	27	1.062	0.417	41	9.283	2.771	55	79.621	2.280	69	682.910	0.000
14	0.147	1.693	28	1.262	0.647	42	10.823	2.892	56	92.832	1.561	70	796.214	0.000

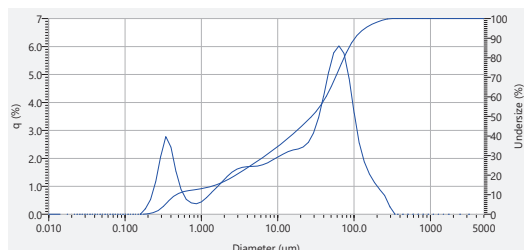
Particle Size Distribution

Attached page 28

Sample name : NPCPP-2C1X
Data name : NPCPP-2C1X_03
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 42.95862 (µm)
D(v,0.1) : 0.47113 (µm)
D(v,0.5) : 27.83524 (µm)
D(v,0.9) : 102.76599 (µm)
Span : 3.6750
Mode size : 63.2275 (µm)

Diameter on cumulative % : (1)10.00 (%) - 0.4711 (µm) : (6)70.00 (%) - 57.0903 (µm)
: (2)20.00 (%) - 2.8319 (µm) : (7)80.00 (%) - 74.0127 (µm)
: (3)30.00 (%) - 5.9714 (µm) : (8)90.00 (%) - 102.7660 (µm)
: (4)40.00 (%) - 14.7561 (µm) : (9)95.00 (%) - 139.7058 (µm)
: (5)60.00 (%) - 42.9234 (µm) : (10)100.0 (%) - 316.7972 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.780	43	12.619	2.144	57	108.234	3.617
2	0.023	0.000	16	0.200	0.200	30	1.715	0.957	44	14.713	2.236	58	126.191	2.542
3	0.027	0.000	17	0.233	0.524	31	2.000	1.148	45	17.154	2.297	59	147.128	1.866
4	0.032	0.000	18	0.272	1.153	32	2.332	1.342	46	20.000	2.334	60	171.539	1.429
5	0.037	0.000	19	0.317	2.077	33	2.719	1.501	47	23.318	2.403	61	200.000	1.129
6	0.043	0.000	20	0.370	2.773	34	3.170	1.614	48	27.187	2.587	62	233.183	0.886
7	0.050	0.000	21	0.431	2.391	35	3.696	1.676	49	31.696	2.893	63	271.871	0.662
8	0.059	0.000	22	0.502	1.519	36	4.309	1.701	50	36.967	3.438	64	316.979	0.267
9	0.068	0.000	23	0.586	0.876	37	5.024	1.709	51	43.089	4.218	65	369.570	0.000
10	0.080	0.000	24	0.683	0.529	38	5.857	1.721	52	50.238	5.983	66	430.887	0.000
11	0.093	0.000	25	0.796	0.411	39	6.829	1.763	53	58.573	5.776	67	502.377	0.000
12	0.108	0.000	26	0.928	0.373	40	7.962	1.838	54	68.291	6.020	68	585.729	0.000
13	0.126	0.000	27	1.062	0.438	41	9.283	1.941	55	79.621	5.793	69	682.910	0.000
14	0.147	0.000	28	1.262	0.592	42	10.823	2.045	56	92.832	4.867	70	796.214	0.000

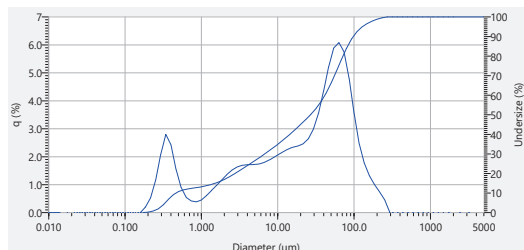
Particle Size Distribution

Attached page 30

Sample name : NPCPP-2C1X
Data name : NPCPP-2C1X_09
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 40.81740 (µm)
D(v,0.1) : 0.46791 (µm)
D(v,0.5) : 26.94288 (µm)
D(v,0.9) : 97.92073 (µm)
Span : 3.6170
Mode size : 63.1354 (µm)

Diameter on cumulative % : (1)10.00 (%) - 0.4679 (µm) : (6)70.00 (%) - 55.4098 (µm)
: (2)20.00 (%) - 2.7693 (µm) : (7)80.00 (%) - 71.6348 (µm)
: (3)30.00 (%) - 6.8007 (µm) : (8)90.00 (%) - 97.9206 (µm)
: (4)40.00 (%) - 14.3753 (µm) : (9)95.00 (%) - 128.9128 (µm)
: (5)60.00 (%) - 41.5565 (µm) : (10)100.0 (%) - 271.7774 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.794	43	12.619	2.167	57	108.234	3.636
2	0.023	0.000	16	0.200	0.200	30	1.715	0.973	44	14.713	2.296	58	126.191	2.449
3	0.027	0.000	17	0.233	0.524	31	2.000	1.166	45	17.154	2.335	59	147.128	1.762
4	0.032	0.000	18	0.272	1.155	32	2.332	1.360	46	20.000	2.382	60	171.539	1.310
5	0.037	0.000	19	0.317	2.085	33	2.719	1.518	47	23.318	2.460	61	200.000	0.984
6	0.043	0.000	20	0.370	2.791	34	3.170	1.629	48	27.187	2.636	62	233.183	0.734
7	0.050	0.000	21	0.431	2.416	35	3.696	1.689	49	31.696	2.879	63	271.871	0.446
8	0.059	0.000	22	0.502	1.541	36	4.309	1.711	50	36.967	3.548	64	316.979	0.298
9	0.068	0.000	23	0.586	0.893	37	5.024	1.716	51	43.089	4.346	65	369.570	0.000
10	0.080	0.000	24	0.683	0.541	38	5.857	1.728	52	50.238	5.216	66	430.887	0.000
11	0.093	0.000	25	0.796	0.411	39	6.829	1.771	53	58.573	5.886	67	502.377	0.000
12	0.108	0.000	26	0.928	0.382	40	7.962	1.847	54	68.291	6.080	68	585.729	0.000
13	0.126	0.000	27	1.062	0.449	41	9.283	1.953	55	79.621	5.790	69	682.910	0.000
14	0.147	0.000	28	1.262	0.605	42	10.823	2.062	56	92.832	4.812	70	796.214	0.000

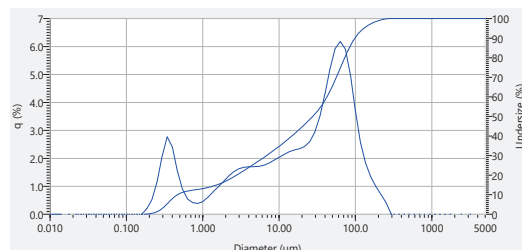
Particle Size Distribution

Attached page 29

Sample name : NPCPP-2C1X
Data name : NPCPP-2C1X_06
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 41.19697 (µm)
D(v,0.1) : 0.47128 (µm)
D(v,0.5) : 27.68469 (µm)
D(v,0.9) : 98.59968 (µm)
Span : 3.5445
Mode size : 63.2293 (µm)

Diameter on cumulative % : (1)10.00 (%) - 0.4713 (µm) : (6)70.00 (%) - 56.3382 (µm)
: (2)20.00 (%) - 2.7996 (µm) : (7)80.00 (%) - 72.5432 (µm)
: (3)30.00 (%) - 6.9203 (µm) : (8)90.00 (%) - 98.5998 (µm)
: (4)40.00 (%) - 14.7065 (µm) : (9)95.00 (%) - 128.7134 (µm)
: (5)60.00 (%) - 42.5127 (µm) : (10)100.0 (%) - 271.7692 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.791	43	12.619	2.136	57	108.234	3.671
2	0.023	0.000	16	0.200	0.199	30	1.715	0.968	44	14.713	2.234	58	126.191	2.537
3	0.027	0.000	17	0.233	0.520	31	2.000	1.159	45	17.154	2.300	59	147.128	1.812
4	0.032	0.000	18	0.272	1.145	32	2.332	1.351	46	20.000	2.343	60	171.539	1.329
5	0.037	0.000	19	0.317	2.069	33	2.719	1.507	47	23.318	2.417	61	200.000	0.984
6	0.043	0.000	20	0.370	2.770	34	3.170	1.616	48	27.187	2.589	62	233.183	0.886
7	0.050	0.000	21	0.431	2.402	35	3.696	1.675	49	31.696	2.828	63	271.871	0.610
8	0.059	0.000	22	0.502	1.536	36	4.309	1.696	50	36.967	3.493	64	316.979	0.267
9	0.068	0.000	23	0.586	0.891	37	5.024	1.700	51	43.089	4.302	65	369.570	0.000
10	0.080	0.000	24	0.683	0.541	38	5.857	1.711	52	50.238	5.201	66	430.887	0.000
11	0.093	0.000	25	0.796	0.411	39	6.829	1.752	53	58.573	5.623	67	502.377	0.000
12	0.108	0.000	26	0.928	0.382	40	7.962	1.827	54	68.291	6.177	68	585.729	0.000
13	0.126	0.000	27	1.062	0.448	41	9.283	1.930	55	79.621	5.902	69	682.910	0.000
14	0.147	0.000	28	1.262	0.603	42	10.823	2.036	56	92.832	4.979	70	796.214	0.000

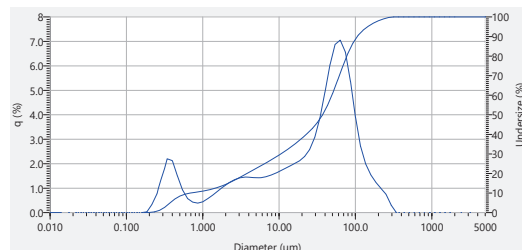
Particle Size Distribution

Attached page 31

Sample name : NPCPP-2C2
Data name : NPCPP-2C2_03
Lot number : T43779.27
Transmittance (R) : 85.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 47.23950 (µm)
D(v,0.1) : 0.70388 (µm)
D(v,0.5) : 37.16046 (µm)
D(v,0.9) : 105.97425 (µm)
Span : 2.8329
Mode size : 63.0309 (µm)

Diameter on cumulative % : (1)10.00 (%) - 0.7039 (µm) : (6)70.00 (%) - 61.6297 (µm)
: (2)20.00 (%) - 3.7983 (µm) : (7)80.00 (%) - 77.2826 (µm)
: (3)30.00 (%) - 10.5838 (µm) : (8)90.00 (%) - 105.9742 (µm)
: (4)40.00 (%) - 22.8240 (µm) : (9)95.00 (%) - 144.6941 (µm)
: (5)60.00 (%) - 49.2406 (µm) : (10)100.0 (%) - 316.8158 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.733	43	12.619	1.779	57	108.234	3.887
2	0.023	0.000	16	0.200	0.025	30	1.715	0.882	44	14.713	1.892	58	126.191	2.697
3	0.027	0.000	17	0.233	0.333	31	2.000	1.039	45	17.154	2.001	59	147.128	1.985
4	0.032	0.000	18	0.272	0.765	32	2.332	1.195	46	20.000	2.115	60	171.539	1.538
5	0.037	0.000	19	0.317	1.485	33	2.719	1.320	47	23.318	2.288	61	200.000	1.233
6	0.043	0.000	20	0.370	2.199	34	3.170	1.403	48	27.187	2.577	62	233.183	0.979
7	0.050	0.000	21	0.431	2.122	35	3.696	1.440	49	31.696	3.073	63	271.871	0.737
8	0.059	0.000	22	0.502	1.494	36	4.309	1.442	50	36.967	3.858	64	316.979	0.298
9	0.068	0.000	23	0.586	0.823	37	5.024	1.430	51	43.089	4.920	65	369.570	0.000
10	0.080	0.000	24	0.683	0.571	38	5.857	1.423	52	50.238	6.046	66	430.887	0.000
11	0.093	0.000	25	0.796	0.427	39	6.829	1.444	53	58.573	6.875	67	502.377	0.000
12	0.108	0.000	26	0.928	0.385	40	7.962	1.489	54	68.291	7.046	68	585.729	0.000
13	0.126	0.000	27	1.062	0.435	41	9.283	1.585	55	79.621	6.563	69	682.910	0.000
14	0.147	0.000	28	1.262	0.589	42	10.823	1.679	56	92.832	5.373	70	796.214	0.000

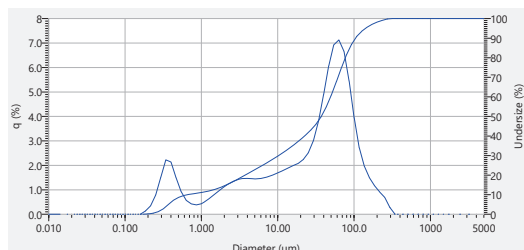
Particle Size Distribution

Attached page 32

Sample name : NPCPP-2C2
Data name : NPCPP-2C2_06
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 46.84258 (µm)
D(v,0.1) : 0.66965 (µm)
D(v,0.5) : 37.21570 (µm)
D(v,0.9) : 104.86305 (µm)
Span : 2.7597
Mode size : 63.0637 (µm)

Diameter on cumulative % : (1)10.00 (%) - 0.6697 (µm) : (6)70.00 (%) - 61.6353 (µm)
: (2)20.00 (%) - 3.7462 (µm) : (7)80.00 (%) - 77.0652 (µm)
: (3)30.00 (%) - 10.3240 (µm) : (8)90.00 (%) - 104.8630 (µm)
: (4)40.00 (%) - 22.5723 (µm) : (9)95.00 (%) - 141.6381 (µm)
: (5)60.00 (%) - 49.3382 (µm) : (10)100.0 (%) - 316.8027 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.724	43	12.619	1.780	57	108.234	3.941
2	0.023	0.000	16	0.200	0.127	30	1.715	0.874	44	14.713	1.884	58	126.191	2.712
3	0.027	0.000	17	0.233	0.338	31	2.000	1.034	45	17.154	1.978	59	147.128	1.961
4	0.032	0.000	18	0.272	0.776	32	2.332	1.194	46	20.000	2.075	60	171.539	1.484
5	0.037	0.000	19	0.317	1.595	33	2.719	1.324	47	23.318	2.233	61	200.000	1.163
6	0.043	0.000	20	0.370	2.322	34	3.170	1.412	48	27.187	2.511	62	233.183	0.909
7	0.050	0.000	21	0.431	2.133	35	3.696	1.455	49	31.696	3.022	63	271.871	0.683
8	0.059	0.000	22	0.502	1.492	36	4.309	1.462	50	36.967	3.782	64	316.979	0.276
9	0.068	0.000	23	0.586	0.915	37	5.024	1.453	51	43.089	4.884	65	369.570	0.000
10	0.080	0.000	24	0.683	0.563	38	5.857	1.448	52	50.238	6.951	66	430.887	0.000
11	0.093	0.000	25	0.796	0.420	39	6.829	1.469	53	58.573	6.922	67	502.377	0.000
12	0.108	0.000	26	0.928	0.377	40	7.962	1.522	54	68.291	7.125	68	585.729	0.000
13	0.126	0.000	27	1.062	0.436	41	9.283	1.604	55	79.621	6.655	69	682.910	0.000
14	0.147	0.000	28	1.262	0.560	42	10.823	1.692	56	92.832	5.456	70	796.214	0.000

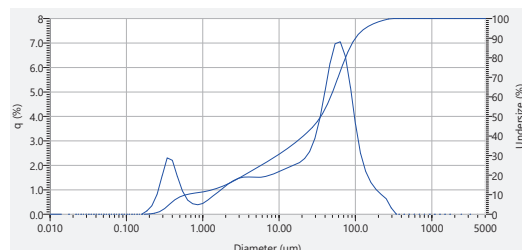
Particle Size Distribution

Attached page 33

Sample name : NPCPP-2C2
Data name : NPCPP-2C2_09
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 44.89038 (µm)
D(v,0.1) : 0.61502 (µm)
D(v,0.5) : 35.18393 (µm)
D(v,0.9) : 100.51235 (µm)
Span : 2.8393
Mode size : 62.8984 (µm)

Diameter on cumulative % : (1)10.00 (%) - 0.6150 (µm) : (6)70.00 (%) - 59.3451 (µm)
: (2)20.00 (%) - 3.5103 (µm) : (7)80.00 (%) - 74.3126 (µm)
: (3)30.00 (%) - 3.4440 (µm) : (8)90.00 (%) - 100.5124 (µm)
: (4)40.00 (%) - 20.7801 (µm) : (9)95.00 (%) - 134.9406 (µm)
: (5)60.00 (%) - 47.2844 (µm) : (10)100.0 (%) - 316.7899 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.744	43	12.619	1.830	57	108.234	3.672
2	0.023	0.000	16	0.200	0.131	30	1.715	0.901	44	14.713	1.927	58	126.191	2.488
3	0.027	0.000	17	0.233	0.349	31	2.000	1.067	45	17.154	2.016	59	147.128	1.744
4	0.032	0.000	18	0.272	0.802	32	2.332	1.235	46	20.000	2.111	60	171.539	1.299
5	0.037	0.000	19	0.317	1.559	33	2.719	1.372	47	23.318	2.273	61	200.000	1.014
6	0.043	0.000	20	0.370	2.300	34	3.170	1.466	48	27.187	2.563	62	233.183	0.812
7	0.050	0.000	21	0.431	2.204	35	3.696	1.512	49	31.696	3.078	63	271.871	0.638
8	0.059	0.000	22	0.502	1.530	36	4.309	1.520	50	36.967	3.903	64	316.979	0.257
9	0.068	0.000	23	0.586	0.938	37	5.024	1.511	51	43.089	5.017	65	369.570	0.000
10	0.080	0.000	24	0.683	0.575	38	5.857	1.506	52	50.238	6.166	66	430.887	0.000
11	0.093	0.000	25	0.796	0.427	39	6.829	1.528	53	58.573	6.965	67	502.377	0.000
12	0.108	0.000	26	0.928	0.384	40	7.962	1.577	54	68.291	7.045	68	585.729	0.000
13	0.126	0.000	27	1.062	0.435	41	9.283	1.658	55	79.621	6.460	69	682.910	0.000
14	0.147	0.000	28	1.262	0.574	42	10.823	1.743	56	92.832	5.195	70	796.214	0.000

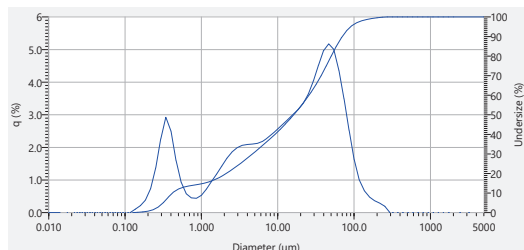
Particle Size Distribution

Attached page 34

Sample name : NPCPP-2CP2
Data name : NPCPP-2CP2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 28.40504 (µm)
D(v,0.1) : 0.41902 (µm)
D(v,0.5) : 16.15652 (µm)
D(v,0.9) : 70.23710 (µm)
Span : 4.3214
Mode size : 46.5486 (µm)

Diameter on cumulative % : (1)10.00 (%) - 0.4190 (µm) : (6)70.00 (%) - 37.1126 (µm)
: (2)20.00 (%) - 2.1410 (µm) : (7)80.00 (%) - 50.2342 (µm)
: (3)30.00 (%) - 4.6848 (µm) : (8)90.00 (%) - 70.2371 (µm)
: (4)40.00 (%) - 9.2650 (µm) : (9)95.00 (%) - 90.6912 (µm)
: (5)60.00 (%) - 25.7196 (µm) : (10)100.0 (%) - 271.6571 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.209	29	1.471	0.988	43	12.619	2.704	57	108.234	1.626
2	0.023	0.000	16	0.200	0.384	30	1.715	1.183	44	14.713	2.861	58	126.191	1.001
3	0.027	0.000	17	0.233	0.729	31	2.000	1.426	45	17.154	3.010	59	147.128	0.666
4	0.032	0.000	18	0.272	1.355	32	2.332	1.665	46	20.000	3.157	60	171.539	0.476
5	0.037	0.000	19	0.317	2.257	33	2.719	1.856	47	23.318	3.351	61	200.000	0.364
6	0.043	0.000	20	0.370	2.918	34	3.170	1.988	48	27.187	3.631	62	233.183	0.290
7	0.050	0.000	21	0.431	2.496	35	3.696	2.059	49	31.696	4.032	63	271.871	0.198
8	0.059	0.000	22	0.502	1.584	36	4.309	2.087	50	36.967	4.519	64	316.979	0.000
9	0.068	0.000	23	0.586	0.913	37	5.024	2.098	51	43.089	4.965	65	369.570	0.000
10	0.080	0.000	24	0.683	0.576	38	5.857	2.119	52	50.238	5.173	66	430.887	0.000
11	0.093	0.000	25	0.796	0.451	39	6.829	2.181	53	58.573	4.986	67	502.377	0.000
12	0.108	0.000	26	0.928	0.436	40	7.962	2.287	54	68.291	4.360	68	585.729	0.000
13	0.126	0.000	27	1.062	0.529	41	9.283	2.430	55	79.621	3.488	69	682.910	0.000
14	0.147	0.104	28	1.262	0.724	42	10.823	2.569	56	92.832	2.527	70	796.214	0.000

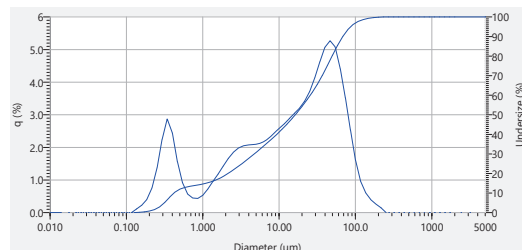
Particle Size Distribution

Attached page 35

Sample name : NPCPP-2CP2
Data name : NPCPP-2CP2_06
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 27.42732 (µm)
D(v,0.1) : 0.42016 (µm)
D(v,0.5) : 16.26252 (µm)
D(v,0.9) : 68.36536 (µm)
Span : 4.1780
Mode size : 46.5320 (µm)

Diameter on cumulative % : (1)10.00 (%) - 0.4202 (µm) : (6)70.00 (%) - 36.7819 (µm)
: (2)20.00 (%) - 2.1687 (µm) : (7)80.00 (%) - 49.5378 (µm)
: (3)30.00 (%) - 4.7306 (µm) : (8)90.00 (%) - 68.3654 (µm)
: (4)40.00 (%) - 9.3797 (µm) : (9)95.00 (%) - 87.1693 (µm)
: (5)60.00 (%) - 25.6639 (µm) : (10)100.0 (%) - 232.9368 (µm)



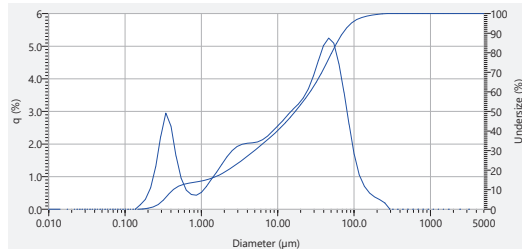
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.224	29	1.471	0.955	43	12.619	2.721	57	108.234	1.606
2	0.023	0.000	16	0.200	0.403	30	1.715	1.179	44	14.713	2.886	58	126.191	0.958
3	0.027	0.000	17	0.233	0.747	31	2.000	1.421	45	17.154	3.047	59	147.128	0.603
4	0.032	0.000	18	0.272	1.363	32	2.332	1.658	46	20.000	3.207	60	171.539	0.382
5	0.037	0.000	19	0.317	2.240	33	2.719	1.847	47	23.318	3.416	61	200.000	0.257
6	0.043	0.000	20	0.370	2.869	34	3.170	1.977	48	27.187	3.711	62	233.183	0.145
7	0.050	0.000	21	0.431	2.444	35	3.696	2.047	49	31.696	4.128	63	271.871	0.000
8	0.059	0.000	22	0.502	1.589	36	4.309	2.075	50	36.967	4.623	64	316.979	0.000
9	0.068	0.000	23	0.586	0.913	37	5.024	2.087	51	43.089	5.069	65	369.570	0.000
10	0.080	0.000	24	0.683	0.567	38	5.857	2.111	52	50.238	5.269	66	430.887	0.000
11	0.093	0.000	25	0.796	0.446	39	6.829	2.177	53	58.573	5.078	67	502.377	0.000
12	0.108	0.000	26	0.928	0.433	40	7.962	2.287	54	68.291	4.415	68	585.729	0.000
13	0.126	0.000	27	1.062	0.527	41	9.283	2.435	55	79.621	3.530	69	682.910	0.000
14	0.147	0.112	28	1.262	0.723	42	10.823	2.579	56	92.832	2.535	70	796.214	0.000

Particle Size Distribution

Attached page 36

Sample name : NPCPP-2CP2
Data name : NPCPP-2CP2_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4281 (µm) : (6)70.00 (%) - 37.8826 (µm)
: (2)20.00 (%) - 2.2436 (µm) : (7)80.00 (%) - 51.0620 (µm)
: (3)30.00 (%) - 4.3650 (µm) : (8)90.00 (%) - 71.2441 (µm)
: (4)40.00 (%) - 9.8676 (µm) : (9)95.00 (%) - 91.7177 (µm)
: (5)60.00 (%) - 26.5730 (µm) : (10)100.0 (%) - 271.6557 (µm)



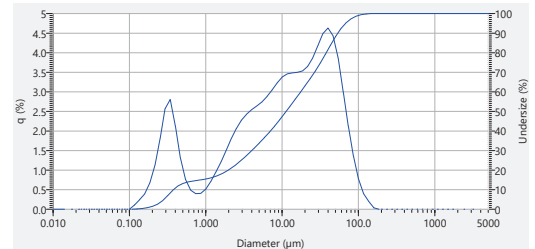
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.136	29	1.471	0.925	43	12.619	2.722	57	108.234	1.886
2	0.023	0.000	16	0.200	0.307	30	1.715	1.140	44	14.713	2.903	58	126.191	1.050
3	0.027	0.000	17	0.233	0.647	31	2.000	1.373	45	17.154	3.069	59	147.128	0.699
4	0.032	0.000	18	0.272	1.291	32	2.332	1.603	46	20.000	3.221	60	171.539	0.498
5	0.037	0.000	19	0.317	2.235	33	2.719	1.789	47	23.318	3.410	61	200.000	0.376
6	0.043	0.000	20	0.370	2.946	34	3.170	1.919	48	27.187	3.689	62	233.183	0.293
7	0.050	0.000	21	0.431	2.545	35	3.696	1.991	49	31.696	4.078	63	271.871	0.194
8	0.059	0.000	22	0.502	1.629	36	4.309	2.020	50	36.967	4.565	64	316.979	0.000
9	0.068	0.000	23	0.586	0.949	37	5.024	2.034	51	43.089	5.022	65	369.570	0.000
10	0.080	0.000	24	0.683	0.583	38	5.857	2.059	52	50.238	5.246	66	430.887	0.000
11	0.093	0.000	25	0.796	0.451	39	6.829	2.128	53	58.573	5.090	67	502.377	0.000
12	0.108	0.000	26	0.928	0.430	40	7.962	2.243	54	68.291	4.460	68	585.729	0.000
13	0.126	0.000	27	1.062	0.514	41	9.283	2.368	55	79.621	3.591	69	682.910	0.000
14	0.147	0.000	28	1.262	0.701	42	10.823	2.557	56	92.832	2.604	70	796.214	0.000

Particle Size Distribution

Attached page 37

Sample name : NPCPP-2D2
Data name : NPCPP-2D2_03
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3778 (µm) : (6)70.00 (%) - 26.5999 (µm)
: (2)20.00 (%) - 1.9861 (µm) : (7)80.00 (%) - 37.9447 (µm)
: (3)30.00 (%) - 4.0150 (µm) : (8)90.00 (%) - 53.8210 (µm)
: (4)40.00 (%) - 7.0310 (µm) : (9)95.00 (%) - 67.8424 (µm)
: (5)60.00 (%) - 17.5242 (µm) : (10)100.0 (%) - 170.8092 (µm)



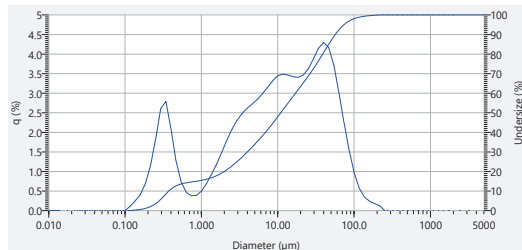
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.380	29	1.471	0.955	43	12.619	3.457	57	108.234	0.769
2	0.023	0.000	16	0.200	0.670	30	1.715	1.208	44	14.713	3.483	58	126.191	0.392
3	0.027	0.000	17	0.233	1.118	31	2.000	1.499	45	17.154	3.486	59	147.128	0.198
4	0.032	0.000	18	0.272	1.790	32	2.332	1.800	46	20.000	3.531	60	171.539	0.036
5	0.037	0.000	19	0.317	2.571	33	2.719	2.061	47	23.318	3.641	61	200.000	0.000
6	0.043	0.000	20	0.370	2.890	34	3.170	2.272	48	27.187	3.869	62	233.183	0.000
7	0.050	0.000	21	0.431	2.136	35	3.696	2.428	49	31.696	4.170	63	271.871	0.000
8	0.059	0.000	22	0.502	1.387	36	4.309	2.541	50	36.967	4.484	64	316.979	0.000
9	0.068	0.000	23	0.586	0.781	37	5.024	2.636	51	43.089	4.631	65	369.570	0.000
10	0.080	0.000	24	0.683	0.486	38	5.857	2.738	52	50.238	4.430	66	430.887	0.000
11	0.093	0.000	25	0.796	0.397	39	6.829	2.880	53	58.573	3.865	67	502.377	0.000
12	0.108	0.000	26	0.928	0.404	40	7.962	3.046	54	68.291	2.996	68	585.729	0.000
13	0.126	0.108	27	1.062	0.511	41	9.283	3.227	55	79.621	2.119	69	682.910	0.000
14	0.147	0.243	28	1.262	0.710	42	10.823	3.378	56	92.832	1.357	70	796.214	0.000

Particle Size Distribution

Attached page 38

Sample name : NPCPP-2D2
Data name : NPCPP-2D2_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3739 (µm) : (6)70.00 (%) - 26.5422 (µm)
: (2)20.00 (%) - 2.0090 (µm) : (7)80.00 (%) - 38.8692 (µm)
: (3)30.00 (%) - 4.0072 (µm) : (8)90.00 (%) - 56.7504 (µm)
: (4)40.00 (%) - 6.8973 (µm) : (9)95.00 (%) - 74.2089 (µm)
: (5)60.00 (%) - 17.0908 (µm) : (10)100.0 (%) - 232.8924 (µm)



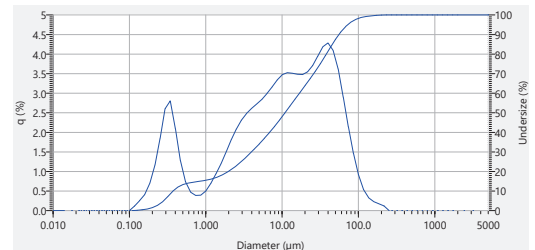
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.408	29	1.471	0.933	43	12.619	3.486	57	108.234	0.968
2	0.023	0.000	16	0.200	0.894	30	1.715	1.189	44	14.713	3.462	58	126.191	0.565
3	0.027	0.000	17	0.233	1.152	31	2.000	1.488	45	17.154	3.421	59	147.128	0.345
4	0.032	0.000	18	0.272	1.830	32	2.332	1.801	46	20.000	3.402	60	171.539	0.240
5	0.037	0.000	19	0.317	2.802	33	2.719	2.079	47	23.318	3.481	61	200.000	0.180
6	0.043	0.000	20	0.370	2.793	34	3.170	2.309	48	27.187	3.622	62	233.183	0.123
7	0.050	0.000	21	0.431	2.094	35	3.696	2.485	49	31.696	3.875	63	271.871	0.000
8	0.059	0.000	22	0.502	1.284	36	4.309	2.617	50	36.967	4.148	64	316.979	0.000
9	0.068	0.000	23	0.586	0.729	37	5.024	2.728	51	43.089	4.256	65	369.570	0.000
10	0.080	0.000	24	0.683	0.463	38	5.857	2.842	52	50.238	4.161	66	430.887	0.000
11	0.093	0.000	25	0.796	0.379	39	6.829	2.980	53	58.573	3.722	67	502.377	0.000
12	0.108	0.000	26	0.928	0.387	40	7.962	3.152	54	68.291	3.016	68	585.729	0.000
13	0.126	0.112	27	1.062	0.492	41	9.283	3.319	55	79.621	2.250	69	682.910	0.000
14	0.147	0.252	28	1.262	0.689	42	10.823	3.446	56	92.832	1.547	70	796.214	0.000

Particle Size Distribution

Attached page 39

Sample name : NPCPP-2D2
Data name : NPCPP-2D2_09
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3732 (µm) : (6)70.00 (%) - 25.9898 (µm)
: (2)20.00 (%) - 1.9885 (µm) : (7)80.00 (%) - 38.0062 (µm)
: (3)30.00 (%) - 3.9813 (µm) : (8)90.00 (%) - 55.6392 (µm)
: (4)40.00 (%) - 6.8651 (µm) : (9)95.00 (%) - 72.7888 (µm)
: (5)60.00 (%) - 16.8819 (µm) : (10)100.0 (%) - 232.8809 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.411	29	1.471	0.941	43	12.619	3.521	57	108.234	0.912
2	0.023	0.000	16	0.200	0.897	30	1.715	1.197	44	14.713	3.509	58	126.191	0.531
3	0.027	0.000	17	0.233	1.155	31	2.000	1.495	45	17.154	3.481	59	147.128	0.325
4	0.032	0.000	18	0.272	1.832	32	2.332	1.806	46	20.000	3.475	60	171.539	0.228
5	0.037	0.000	19	0.317	2.805	33	2.719	2.081	47	23.318	3.544	61	200.000	0.171
6	0.043	0.000	20	0.370	2.801	34	3.170	2.309	48	27.187	3.786	62	233.183	0.118
7	0.050	0.000	21	0.431	2.136	35	3.696	2.482	49	31.696	3.943	63	271.871	0.000
8	0.059	0.000	22	0.502	1.279	36	4.309	2.611	50	36.967	4.185	64	316.979	0.000
9	0.068	0.000	23	0.586	0.737	37	5.024	2.722	51	43.089	4.281	65	369.570	0.000
10	0.080	0.000	24	0.683	0.469	38	5.857	2.837	52	50.238	4.054	66	430.887	0.000
11	0.093	0.000	25	0.796	0.384	39	6.829	2.988	53	58.573	3.616	67	502.377	0.000
12	0.108	0.000	26	0.928	0.392	40	7.962	3.157	54	68.291	2.896	68	585.729	0.000
13	0.126	0.113	27	1.062	0.498	41	9.283	3.333	55	79.621	2.143	69	682.910	0.000
14	0.147	0.254	28	1.262	0.696	42	10.823	3.470	56	92.832	1.463	70	796.214	0.000

Report of Samples Analysis

Issued Date : 22 July 2025
Customer : Tetra Tech Inc.
77 Soi Udomsuk 39/1, Sukhumvit 103 Road, Bangchak,
Phrakhanong, Bangkok 10260
Tel : 0 2361 3767 Fax : 0 2361 3768
Serviced by : Physical Analysis Section,
Technical Support for Material Analysis Division, MTEC
Date received : 13 May 2025
Date analyzed : 27 May – 22 July 2025
Samples : Seabed Sediment Project No. T43779.27 (13 samples)
Identification no. : See sample detail.
Objective : Particle size and size distribution analysis.
Instrument : LA-960V2, HORIBA Instruments Incorporated.
Test method : Laser diffraction technique.
Conditions : Red light source : Laser Diode (LD), λ : 650 nm.
Blue light source : Light Emitting Diode (LED), λ : 405 nm.
Particle size range analysis : 0.01 – 5,000 μm .
Dispersion unit : LA-960S2
Dispersing medium : De-ionized water.
Sample refractive index : 1.5300 (as default standard wet)
Sample preparation : 1. Prepare the instrument for wet analysis. Circulation speed
should be set at 12 and agitation speed set at 10.
2. 0.05 – 0.1 g. of sample was dispersed in 40 ml of
de-ionized water and ultrasound 10 minutes with ultrasonic
bath before measurement.
3. Add the dispersed sample into LA-960S2 unit and
measure the dispersed sample with LA-960V2.

Samples detail :

Sample No.	Sample Name	Sample No.	Sample Name
1	NPCPP-3C1	8	NPCPP-3E2
2	NPCPP-3C2	9	NPCPP-3F2X
3	NPCPP-3C3X	10	NPCPP-3G2
4	NPCPP-3CP1	11	NPCPP-4C2
5	NPCPP-3CP2	12	NPCPP-4CP2
6	NPCPP-3CP3X	13	NPCPP-4D2
7	NPCPP-3D2		

Technical Terms : **Transmittance (R)** : value at particle come transmittance to red light source (percent), ranging from 99-70%.
Transmittance (B) : value at particle come transmittance to blue light source (percent), ranging from 99-70%.
Mean size : mean diameter value by volume.
D [v, 0.1] : 10 volume percent less than or equal to a given diameter.
D [v, 0.5] : 50 volume percent less than or equal to a given diameter, median diameter.
D [v, 0.9] : 90 volume percent less than or equal to a given diameter.
Span : the width of the distribution, which is independent of median size (D [v, 0.5]).

Results :

MTEC received samples from Tetra Tech Inc. Laser diffraction technique is used in order to analyze the particle size and size distribution by wet analysis.
The results of the particle size and size distribution of samples are shown in the attachments No.1 – 39.

- Note** : 1. The specific surface area is inapplicable unless the density of a sample is known.
2. The results of particle size distribution are dispersion particle only.
3. Some particle of sample are vary size and size over range of instrument.

Interpretation/Opinion : None

Attached pages :

The attachment number	Detail
1 – 3	HORIBA LA960V2 results of NPCPP-3C1
4 – 6	HORIBA LA960V2 results of NPCPP-3C2
7 – 9	HORIBA LA960V2 results of NPCPP-3C3X
10 – 12	HORIBA LA960V2 results of NPCPP-3CP1
13 – 15	HORIBA LA960V2 results of NPCPP-3CP2
16 – 18	HORIBA LA960V2 results of NPCPP-3CP3X
19 – 21	HORIBA LA960V2 results of NPCPP-3D2
22 – 24	HORIBA LA960V2 results of NPCPP-3E2
25 – 27	HORIBA LA960V2 results of NPCPP-3F2X
28 – 30	HORIBA LA960V2 results of NPCPP-3G2
31 – 33	HORIBA LA960V2 results of NPCPP-4C2
34 – 36	HORIBA LA960V2 results of NPCPP-4CP2
37 – 39	HORIBA LA960V2 results of NPCPP-4D2

Work performed by :

(Mr.Kriangkai Supanpong)

Approved by :

(Ms.Suphakan Kijamnajusuk)

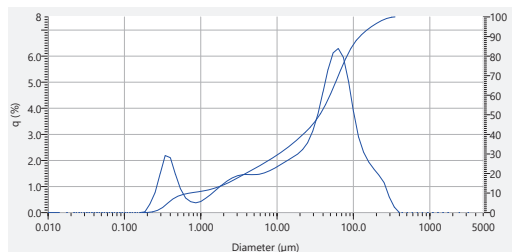
Remarks

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- MTEC will not accept liability for any damage whatsoever, resulting directly or indirectly, from using the data, results, conclusions or recommendations in this report for the purposes of designing, manufacturing or for other purposes.
- Experimental results are only valid for the specimens tested.

Particle Size Distribution

Attached page 1

Sample name : NPCPP-3C1
Data name : NPCPP-3C1_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet: 1.530 - 0.100], water (1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Mean size : 50.97546 (μm)
D[v,0.1] : 0.73418 (μm)
D[v,0.5] : 36.21490 (μm)
D[v,0.9] : 121.36103 (μm)
Span : 3.3309
Mode size : 63.1133 (μm)
Diameter on cumulative % : (1)10.00 (%) - 0.7342 (μm) : (6)70.00 (%) - 63.4812 (μm)
: (2)20.00 (%) - 3.9002 (μm) : (7)80.00 (%) - 82.2285 (μm)
: (3)30.00 (%) - 10.5331 (μm) : (8)90.00 (%) - 121.3610 (μm)
: (4)40.00 (%) - 21.9674 (μm) : (9)95.00 (%) - 172.1565 (μm)
: (5)60.00 (%) - 49.4230 (μm) : (10)100.00 (%) - 369.3014 (μm)



No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.715	43	12.619	1.988	57	108.234	3.861	71	928.318	0.000
2	0.023	0.000	16	0.200	0.025	30	1.715	0.864	44	14.713	1.994	58	125.191	2.883	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.330	31	2.000	1.021	45	17.154	2.115	59	147.128	2.301	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.759	32	2.332	1.179	46	20.000	2.239	60	171.539	1.927	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.476	33	2.719	1.308	47	23.318	2.412	61	200.000	1.661	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.186	34	3.170	1.598	48	27.187	2.681	62	233.183	1.427	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.102	35	3.696	1.444	49	31.698	3.116	63	271.871	1.142	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.471	36	4.309	1.456	50	36.967	3.763	64	316.979	0.998			
9	0.068	0.000	23	0.586	0.802	37	5.024	1.454	51	43.089	4.608	65	369.570	0.211			
10	0.080	0.000	24	0.683	0.554	38	5.857	1.458	52	50.238	5.478	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.413	39	6.829	1.480	53	58.573	6.126	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.371	40	7.962	1.555	54	68.291	6.286	68	585.729	0.000			
13	0.126	0.000	27	1.082	0.419	41	9.283	1.632	55	79.621	5.949	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.552	42	10.823	1.757	56	92.832	5.048	70	796.214	0.000			

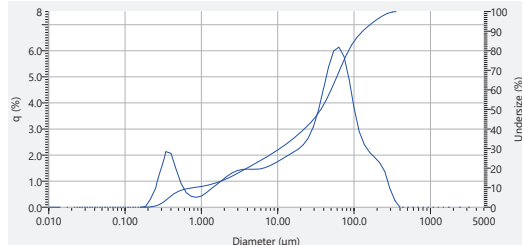
Particle Size Distribution

Attached page 2

Sample name : NPCPP-3C1
Data name : NPCPP-3C1_06
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 52.91529 (µm)
D(v,0.1) : 0.78826 (µm)
D(v,0.5) : 36.76247 (µm)
D(v,0.9) : 129.96068 (µm)
Span : 3.5137
Mode size : 63.0757 (µm)

Diameter on cumulative % : (1)10.00 (%) - 0.7883 (µm) : (6)70.00 (%) - 64.6497 (µm)
: (2)20.00 (%) - 3.9672 (µm) : (7)80.00 (%) - 84.8560 (µm)
: (3)30.00 (%) - 10.7065 (µm) : (8)90.00 (%) - 129.9608 (µm)
: (4)40.00 (%) - 22.3236 (µm) : (9)95.00 (%) - 185.1837 (µm)
: (5)60.00 (%) - 50.1454 (µm) : (10)100.0 (%) - 369.3460 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.719	43	12.619	1.880	57	108.234	3.783
2	0.023	0.000	16	0.200	0.024	30	1.715	0.868	44	14.713	1.984	58	126.191	2.899
3	0.027	0.000	17	0.233	0.317	31	2.000	1.024	45	17.154	2.102	59	147.128	2.396
4	0.032	0.000	18	0.272	0.732	32	2.332	1.182	46	20.000	2.221	60	171.539	2.110
5	0.037	0.000	19	0.317	1.428	33	2.719	1.310	47	23.318	2.388	61	200.000	1.912
6	0.043	0.000	20	0.370	2.138	34	3.170	1.399	48	27.187	2.681	62	233.183	1.702
7	0.050	0.000	21	0.431	2.963	35	3.696	1.444	49	31.696	3.079	63	271.871	1.369
8	0.059	0.000	22	0.502	1.457	36	4.309	1.455	50	36.957	3.720	64	316.979	0.717
9	0.068	0.000	23	0.586	0.903	37	5.024	1.452	51	43.089	4.548	65	369.570	0.233
10	0.080	0.000	24	0.683	0.559	38	5.857	1.455	52	50.238	5.389	66	430.887	0.000
11	0.093	0.000	25	0.796	0.419	39	6.829	1.486	53	58.573	5.892	67	502.377	0.000
12	0.108	0.000	26	0.928	0.375	40	7.962	1.551	54	68.291	6.132	68	585.729	0.000
13	0.126	0.000	27	1.062	0.424	41	9.283	1.647	55	79.621	5.778	69	682.910	0.000
14	0.147	0.000	28	1.262	0.556	42	10.823	1.759	56	92.832	4.903	70	796.214	0.000

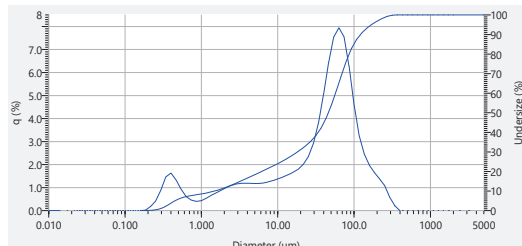
Particle Size Distribution

Attached page 4

Sample name : NPCPP-3C2
Data name : NPCPP-3C2_03
Lot number : T43779.27
Transmittance (R) : 85.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 55.84361 (µm)
D(v,0.1) : 1.50244 (µm)
D(v,0.5) : 46.04270 (µm)
D(v,0.9) : 121.72495 (µm)
Span : 2.6111
Mode size : 63.2494 (µm)

Diameter on cumulative % : (1)10.00 (%) - 1.5024 (µm) : (6)70.00 (%) - 69.4969 (µm)
: (2)20.00 (%) - 6.2103 (µm) : (7)80.00 (%) - 86.3489 (µm)
: (3)30.00 (%) - 18.1870 (µm) : (8)90.00 (%) - 121.7249 (µm)
: (4)40.00 (%) - 33.8689 (µm) : (9)95.00 (%) - 169.3804 (µm)
: (5)60.00 (%) - 57.1577 (µm) : (10)100.0 (%) - 369.2839 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.687	43	12.619	1.467	57	108.234	4.876
2	0.023	0.000	16	0.200	0.013	30	1.715	0.780	44	14.713	1.556	58	126.191	3.229
3	0.027	0.000	17	0.233	0.175	31	2.000	0.894	45	17.154	1.663	59	147.128	2.443
4	0.032	0.000	18	0.272	0.417	32	2.332	1.098	46	20.000	1.793	60	171.539	1.961
5	0.037	0.000	19	0.317	0.874	33	2.719	1.098	47	23.318	2.001	61	200.000	1.638
6	0.043	0.000	20	0.370	1.460	34	3.170	1.158	48	27.187	2.339	62	233.183	1.369
7	0.050	0.000	21	0.431	1.629	35	3.696	1.184	49	31.696	2.907	63	271.871	1.072
8	0.059	0.000	22	0.502	1.327	36	4.309	1.185	50	36.957	3.808	64	316.979	0.961
9	0.068	0.000	23	0.586	0.917	37	5.024	1.176	51	43.089	5.056	65	369.570	0.198
10	0.080	0.000	24	0.683	0.602	38	5.857	1.171	52	50.238	4.438	66	430.887	0.000
11	0.093	0.000	25	0.796	0.452	39	6.829	1.187	53	58.573	7.566	67	502.377	0.000
12	0.108	0.000	26	0.928	0.396	40	7.962	1.231	54	68.291	7.937	68	585.729	0.000
13	0.126	0.000	27	1.062	0.428	41	9.283	1.300	55	79.621	7.552	69	682.910	0.000
14	0.147	0.000	28	1.262	0.537	42	10.823	1.375	56	92.832	6.263	70	796.214	0.000

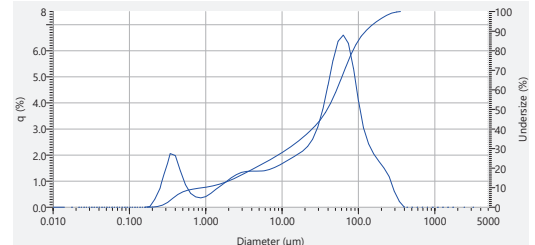
Particle Size Distribution

Attached page 3

Sample name : NPCPP-3C1
Data name : NPCPP-3C1_09
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 52.88593 (µm)
D(v,0.1) : 0.92888 (µm)
D(v,0.5) : 39.01852 (µm)
D(v,0.9) : 124.31551 (µm)
Span : 3.1623
Mode size : 63.1860 (µm)

Diameter on cumulative % : (1)10.00 (%) - 0.9288 (µm) : (6)70.00 (%) - 65.7984 (µm)
: (2)20.00 (%) - 4.3710 (µm) : (7)80.00 (%) - 84.6335 (µm)
: (3)30.00 (%) - 12.0388 (µm) : (8)90.00 (%) - 124.3155 (µm)
: (4)40.00 (%) - 24.8303 (µm) : (9)95.00 (%) - 175.5387 (µm)
: (5)60.00 (%) - 51.9151 (µm) : (10)100.0 (%) - 369.3091 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.685	43	12.619	1.776	57	108.234	4.862
2	0.023	0.000	16	0.200	0.024	30	1.715	0.826	44	14.713	1.900	58	126.191	3.020
3	0.027	0.000	17	0.233	0.314	31	2.000	0.975	45	17.154	2.019	59	147.128	2.411
4	0.032	0.000	18	0.272	0.718	32	2.332	1.124	46	20.000	2.148	60	171.539	2.030
5	0.037	0.000	19	0.317	1.389	33	2.719	1.246	47	23.318	2.325	61	200.000	1.793
6	0.043	0.000	20	0.370	2.082	34	3.170	1.330	48	27.187	2.689	62	233.183	1.498
7	0.050	0.000	21	0.431	1.978	35	3.696	1.372	49	31.696	3.062	63	271.871	1.176
8	0.059	0.000	22	0.502	1.389	36	4.309	1.383	50	36.957	3.750	64	316.979	0.816
9	0.068	0.000	23	0.586	0.857	37	5.024	1.381	51	43.089	4.663	65	369.570	0.217
10	0.080	0.000	24	0.683	0.530	38	5.857	1.384	52	50.238	5.625	66	430.887	0.000
11	0.093	0.000	25	0.796	0.396	39	6.829	1.414	53	58.573	5.962	67	502.377	0.000
12	0.108	0.000	26	0.928	0.356	40	7.962	1.477	54	68.291	6.597	68	585.729	0.000
13	0.126	0.000	27	1.062	0.403	41	9.283	1.570	55	79.621	6.281	69	682.910	0.000
14	0.147	0.000	28	1.262	0.530	42	10.823	1.670	56	92.832	5.334	70	796.214	0.000

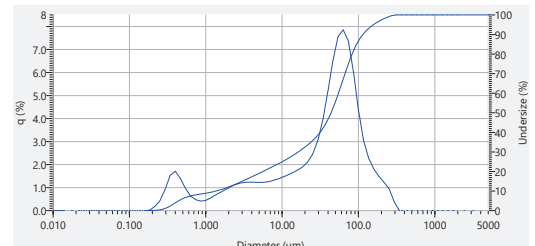
Particle Size Distribution

Attached page 5

Sample name : NPCPP-3C2
Data name : NPCPP-3C2_06
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Mean size : 52.68593 (µm)
D(v,0.1) : 1.37471 (µm)
D(v,0.5) : 43.91889 (µm)
D(v,0.9) : 114.58759 (µm)
Span : 2.5778
Mode size : 63.1225 (µm)

Diameter on cumulative % : (1)10.00 (%) - 1.3747 (µm) : (6)70.00 (%) - 66.7886 (µm)
: (2)20.00 (%) - 5.6279 (µm) : (7)80.00 (%) - 82.7132 (µm)
: (3)30.00 (%) - 16.3067 (µm) : (8)90.00 (%) - 114.5875 (µm)
: (4)40.00 (%) - 31.6020 (µm) : (9)95.00 (%) - 157.9895 (µm)
: (5)60.00 (%) - 54.7949 (µm) : (10)100.0 (%) - 316.8514 (µm)



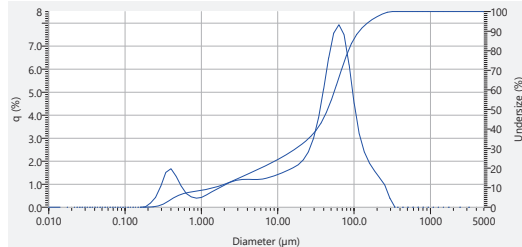
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.687	43	12.619	1.534	57	108.234	4.344
2	0.023	0.000	16	0.200	0.014	30	1.715	0.804	44	14.713	1.642	58	126.191	3.025
3	0.027	0.000	17	0.233	0.181	31	2.000	0.923	45	17.154	1.756	59	147.128	2.264
4	0.032	0.000	18	0.272	0.433	32	2.332	1.043	46	20.000	1.892	60	171.539	1.800
5	0.037	0.000	19	0.317	0.912	33	2.719	1.138	47	23.318	2.106	61	200.000	1.487
6	0.043	0.000	20	0.370	1.539	34	3.170	1.201	48	27.187	2.451	62	233.183	1.224
7	0.050	0.000	21	0.431	1.706	35	3.696	1.235	49	31.696	3.031	63	271.871	0.943
8	0.059	0.000	22	0.502	1.389	36	4.309	1.232	50	36.957	3.941	64	316.979	0.981
9	0.068	0.000	23	0.586	0.857	37	5.024	1.223	51	43.089	5.187	65	369.570	0.000
10	0.080	0.000	24	0.683	0.626	38	5.857	1.220	52	50.238	6.533	66	430.887	0.000
11	0.093	0.000	25	0.796	0.469	39	6.829	1.238	53	58.573	7.566	67	502.377	0.000
12	0.108	0.000	26	0.928	0.409	40	7.962	1.286	54	68.291	7.852	68	585.729	0.000
13	0.126	0.000	27	1.062	0.441	41	9.283	1.361	55	79.621	7.386	69	682.910	0.000
14	0.147	0.000	28	1.262	0.552	42	10.823	1.444	56	92.832	6.028	70	796.214	0.000

Particle Size Distribution

Attached page 6

Sample name : NPCPP-3C2
Data name : NPCPP-3C2_09
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 1.4622 (µm) : (6)70.00 (%) - 68.1337 (µm)
: (2)20.00 (%) - 5.9925 (µm) : (7)80.00 (%) - 84.4568 (µm)
: (3)30.00 (%) - 17.3068 (µm) : (8)90.00 (%) - 117.3484 (µm)
: (4)40.00 (%) - 32.7860 (µm) : (9)95.00 (%) - 160.7669 (µm)
: (5)60.00 (%) - 56.0231 (µm) : (10)100.0 (%) - 316.8540 (µm)



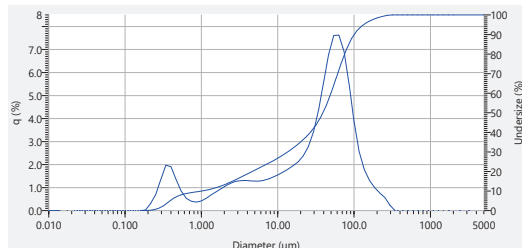
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.602	43	12.619	1.504	57	108.234	4.511
2	0.023	0.000	16	0.200	0.014	30	1.715	0.777	44	14.713	1.605	58	126.191	3.176
3	0.027	0.000	17	0.233	0.183	31	2.000	0.895	45	17.154	1.714	59	147.128	2.395
4	0.032	0.000	18	0.272	0.435	32	2.332	1.014	46	20.000	1.844	60	171.539	1.908
5	0.037	0.000	19	0.317	0.910	33	2.719	1.109	47	23.318	2.053	61	200.000	1.569
6	0.043	0.000	20	0.370	1.512	34	3.170	1.174	48	27.187	2.389	62	233.183	1.272
7	0.050	0.000	21	0.431	1.671	35	3.696	1.205	49	31.696	2.865	63	271.871	0.964
8	0.059	0.000	22	0.502	1.345	36	4.309	1.211	50	36.957	3.888	64	316.979	0.390
9	0.068	0.000	23	0.586	0.917	37	5.024	1.204	51	43.089	5.118	65	369.570	0.000
10	0.080	0.000	24	0.683	0.595	38	5.857	1.203	52	50.238	6.489	66	430.887	0.000
11	0.093	0.000	25	0.796	0.444	39	6.829	1.222	53	58.573	7.571	67	502.377	0.000
12	0.108	0.000	26	0.928	0.386	40	7.962	1.269	54	68.291	7.924	68	585.729	0.000
13	0.126	0.000	27	1.062	0.420	41	9.283	1.341	55	79.621	7.502	69	682.910	0.000
14	0.147	0.000	28	1.262	0.530	42	10.823	1.420	56	92.832	6.195	70	796.214	0.000

Particle Size Distribution

Attached page 8

Sample name : NPCPP-3C3X
Data name : NPCPP-3C3X_06
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 1.0275 (µm) : (6)70.00 (%) - 61.0568 (µm)
: (2)20.00 (%) - 4.8592 (µm) : (7)80.00 (%) - 75.3622 (µm)
: (3)30.00 (%) - 13.4852 (µm) : (8)90.00 (%) - 100.6668 (µm)
: (4)40.00 (%) - 26.8324 (µm) : (9)95.00 (%) - 133.5066 (µm)
: (5)60.00 (%) - 49.8604 (µm) : (10)100.0 (%) - 316.7681 (µm)



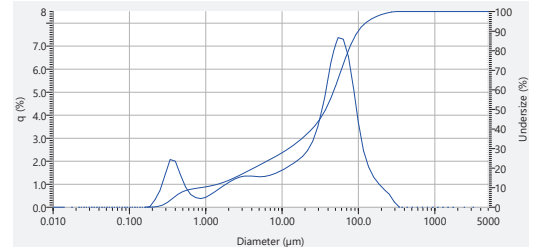
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.680	43	12.619	1.663	57	108.234	3.832
2	0.023	0.000	16	0.200	0.023	30	1.715	0.825	44	14.713	1.800	58	126.191	2.539
3	0.027	0.000	17	0.233	0.307	31	2.000	0.965	45	17.154	1.948	59	147.128	1.775
4	0.032	0.000	18	0.272	0.695	32	2.332	1.102	46	20.000	2.121	60	171.539	1.306
5	0.037	0.000	19	0.317	1.335	33	2.719	1.209	47	23.318	2.377	61	200.000	1.001
6	0.043	0.000	20	0.370	1.967	34	3.170	1.275	48	27.187	2.789	62	233.183	0.768
7	0.050	0.000	21	0.431	1.802	35	3.696	1.302	49	31.696	3.388	63	271.871	0.570
8	0.059	0.000	22	0.502	1.351	36	4.309	1.268	50	36.957	4.344	64	316.979	0.231
9	0.068	0.000	23	0.586	0.846	37	5.024	1.284	51	43.089	5.565	65	369.570	0.000
10	0.080	0.000	24	0.683	0.532	38	5.857	1.278	52	50.238	6.789	66	430.887	0.000
11	0.093	0.000	25	0.796	0.403	39	6.829	1.300	53	58.573	7.605	67	502.377	0.000
12	0.108	0.000	26	0.928	0.366	40	7.962	1.357	54	68.291	7.620	68	585.729	0.000
13	0.126	0.000	27	1.062	0.414	41	9.283	1.446	55	79.621	6.920	69	682.910	0.000
14	0.147	0.000	28	1.262	0.540	42	10.823	1.548	56	92.832	5.488	70	796.214	0.000

Particle Size Distribution

Attached page 7

Sample name : NPCPP-3C3X
Data name : NPCPP-3C3X_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.8634 (µm) : (6)70.00 (%) - 59.4599 (µm)
: (2)20.00 (%) - 4.2465 (µm) : (7)80.00 (%) - 73.9790 (µm)
: (3)30.00 (%) - 12.1537 (µm) : (8)90.00 (%) - 99.5881 (µm)
: (4)40.00 (%) - 24.6611 (µm) : (9)95.00 (%) - 133.0349 (µm)
: (5)60.00 (%) - 48.0660 (µm) : (10)100.0 (%) - 316.7674 (µm)



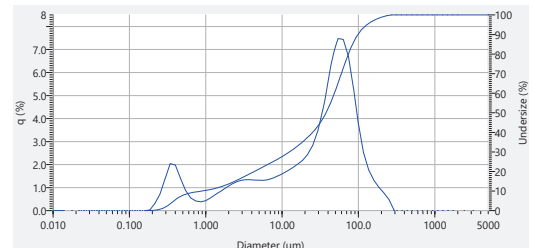
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.709	43	12.619	1.729	57	108.234	3.634
2	0.023	0.000	16	0.200	0.024	30	1.715	0.850	44	14.713	1.874	58	126.191	2.435
3	0.027	0.000	17	0.233	0.300	31	2.000	0.997	45	17.154	2.028	59	147.128	1.728
4	0.032	0.000	18	0.272	0.729	32	2.332	1.141	46	20.000	2.205	60	171.539	1.293
5	0.037	0.000	19	0.317	1.406	33	2.719	1.253	47	23.318	2.465	61	200.000	1.003
6	0.043	0.000	20	0.370	2.072	34	3.170	1.324	48	27.187	2.888	62	233.183	0.771
7	0.050	0.000	21	0.431	1.998	35	3.696	1.352	49	31.696	3.482	63	271.871	0.569
8	0.059	0.000	22	0.502	1.412	36	4.309	1.348	50	36.957	4.399	64	316.979	0.230
9	0.068	0.000	23	0.586	0.879	37	5.024	1.333	51	43.089	5.554	65	369.570	0.000
10	0.080	0.000	24	0.683	0.540	38	5.857	1.327	52	50.238	6.670	66	430.887	0.000
11	0.093	0.000	25	0.796	0.414	39	6.829	1.348	53	58.573	7.366	67	502.377	0.000
12	0.108	0.000	26	0.928	0.375	40	7.962	1.409	54	68.291	7.256	68	585.729	0.000
13	0.126	0.000	27	1.062	0.425	41	9.283	1.502	55	79.621	6.561	69	682.910	0.000
14	0.147	0.000	28	1.262	0.554	42	10.823	1.609	56	92.832	5.195	70	796.214	0.000

Particle Size Distribution

Attached page 9

Sample name : NPCPP-3C3X
Data name : NPCPP-3C3X_09
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.9017 (µm) : (6)70.00 (%) - 59.8042 (µm)
: (2)20.00 (%) - 4.3335 (µm) : (7)80.00 (%) - 74.1013 (µm)
: (3)30.00 (%) - 12.5068 (µm) : (8)90.00 (%) - 98.8453 (µm)
: (4)40.00 (%) - 25.1794 (µm) : (9)95.00 (%) - 129.5056 (µm)
: (5)60.00 (%) - 48.5200 (µm) : (10)100.0 (%) - 271.7813 (µm)



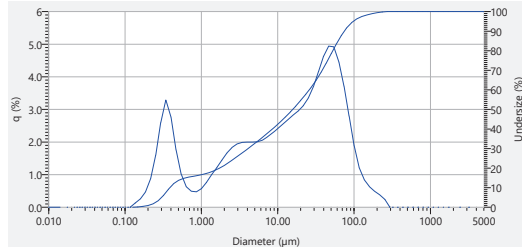
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.707	43	12.619	1.719	57	108.234	3.732
2	0.023	0.000	16	0.200	0.024	30	1.715	0.846	44	14.713	1.857	58	126.191	2.496
3	0.027	0.000	17	0.233	0.314	31	2.000	0.991	45	17.154	2.008	59	147.128	1.765
4	0.032	0.000	18	0.272	0.715	32	2.332	1.132	46	20.000	2.183	60	171.539	1.311
5	0.037	0.000	19	0.317	1.379	33	2.719	1.242	47	23.318	2.438	61	200.000	1.003
6	0.043	0.000	20	0.370	2.038	34	3.170	1.311	48	27.187	2.827	62	233.183	0.755
7	0.050	0.000	21	0.431	1.875	35	3.696	1.338	49	31.696	3.450	63	271.871	0.465
8	0.059	0.000	22	0.502	1.404	36	4.309	1.334	50	36.957	4.377	64	316.979	0.000
9	0.068	0.000	23	0.586	0.879	37	5.024	1.319	51	43.089	5.561	65	369.570	0.000
10	0.080	0.000	24	0.683	0.551	38	5.857	1.311	52	50.238	6.723	66	430.887	0.000
11	0.093	0.000	25	0.796	0.417	39	6.829	1.334	53	58.573	7.468	67	502.377	0.000
12	0.108	0.000	26	0.928	0.377	40	7.962	1.383	54	68.291	7.436	68	585.729	0.000
13	0.126	0.000	27	1.062	0.425	41	9.283	1.486	55	79.621	6.715	69	682.910	0.000
14	0.147	0.000	28	1.262	0.554	42	10.823	1.593	56	92.832	5.331	70	796.214	0.000

Particle Size Distribution

Attached page 10

Sample name : NPCPP-3CP1
Data name : NPCPP-3CP1_03
Lot number : T43779.27
Transmittance (R) : 86.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3868 (µm) : (6)70.00 (%) - 38.3443 (µm)
: (2)20.00 (%) - 1.7453 (µm) : (7)80.00 (%) - 52.7157 (µm)
: (3)30.00 (%) - 4.0876 (µm) : (8)90.00 (%) - 74.7116 (µm)
: (4)40.00 (%) - 8.5803 (µm) : (9)95.00 (%) - 97.9959 (µm)
: (5)60.00 (%) - 25.9143 (µm) : (10)100.0 (%) - 271.6994 (µm)



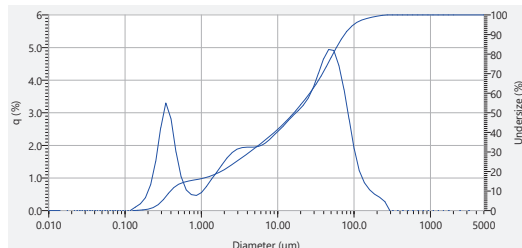
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.254	29	1.471	0.994	43	12.619	2.540	57	108.234	1.882
2	0.023	0.000	16	0.200	0.465	30	1.715	1.211	44	14.713	2.686	58	126.191	1.205
3	0.027	0.000	17	0.233	0.868	31	2.000	1.440	45	17.154	2.822	59	147.128	0.836
4	0.032	0.000	18	0.272	1.584	32	2.332	1.660	46	20.000	2.950	60	171.539	0.627
5	0.037	0.000	19	0.317	2.596	33	2.719	1.828	47	23.318	3.111	61	200.000	0.490
6	0.043	0.000	20	0.370	3.386	34	3.170	1.937	48	27.187	3.349	62	233.183	0.381
7	0.050	0.000	21	0.431	2.770	35	3.696	1.987	49	31.696	3.680	63	271.871	0.243
8	0.059	0.000	22	0.502	1.754	36	4.309	1.997	50	36.967	4.152	64	316.979	0.000
9	0.068	0.000	23	0.586	1.019	37	5.024	1.993	51	43.089	4.630	65	369.570	0.000
10	0.080	0.000	24	0.683	0.627	38	5.857	2.003	52	50.238	4.940	66	430.887	0.000
11	0.093	0.000	25	0.796	0.489	39	6.829	2.055	53	58.573	4.916	67	502.377	0.000
12	0.108	0.000	26	0.928	0.470	40	7.962	2.151	54	68.291	4.653	68	585.729	0.000
13	0.126	0.000	27	1.062	0.585	41	9.283	2.285	55	79.621	3.712	69	682.910	0.000
14	0.147	0.126	28	1.262	0.762	42	10.823	2.417	56	92.832	2.797	70	796.214	0.000

Particle Size Distribution

Attached page 12

Sample name : NPCPP-3CP1
Data name : NPCPP-3CP1_09
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3941 (µm) : (6)70.00 (%) - 38.5343 (µm)
: (2)20.00 (%) - 1.8151 (µm) : (7)80.00 (%) - 52.9388 (µm)
: (3)30.00 (%) - 4.3020 (µm) : (8)90.00 (%) - 75.1566 (µm)
: (4)40.00 (%) - 8.0753 (µm) : (9)95.00 (%) - 99.0010 (µm)
: (5)60.00 (%) - 26.3025 (µm) : (10)100.0 (%) - 271.7188 (µm)



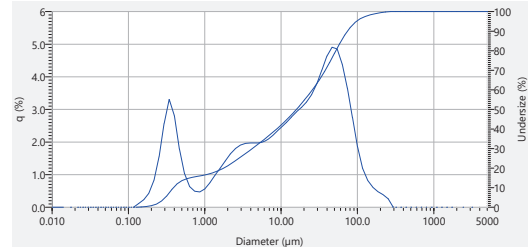
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.208	29	1.471	0.986	43	12.619	2.579	57	108.234	1.896
2	0.023	0.000	16	0.200	0.398	30	1.715	1.176	44	14.713	2.753	58	126.191	1.224
3	0.027	0.000	17	0.233	0.784	31	2.000	1.396	45	17.154	2.916	59	147.128	0.853
4	0.032	0.000	18	0.272	1.487	32	2.332	1.609	46	20.000	3.062	60	171.539	0.639
5	0.037	0.000	19	0.317	2.536	33	2.719	1.773	47	23.318	3.226	61	200.000	0.503
6	0.043	0.000	20	0.370	3.298	34	3.170	1.881	48	27.187	3.451	62	233.183	0.407
7	0.050	0.000	21	0.431	2.821	35	3.696	1.932	49	31.696	3.781	63	271.871	0.274
8	0.059	0.000	22	0.502	1.791	36	4.309	1.943	50	36.967	4.209	64	316.979	0.000
9	0.068	0.000	23	0.586	1.037	37	5.024	1.943	51	43.089	4.653	65	369.570	0.000
10	0.080	0.000	24	0.683	0.632	38	5.857	1.958	52	50.238	4.939	66	430.887	0.000
11	0.093	0.000	25	0.796	0.487	39	6.829	2.017	53	58.573	4.987	67	502.377	0.000
12	0.108	0.000	26	0.928	0.462	40	7.962	2.124	54	68.291	4.447	68	585.729	0.000
13	0.126	0.000	27	1.062	0.550	41	9.283	2.272	55	79.621	3.718	69	682.910	0.000
14	0.147	0.101	28	1.262	0.741	42	10.823	2.423	56	92.832	2.808	70	796.214	0.000

Particle Size Distribution

Attached page 11

Sample name : NPCPP-3CP1
Data name : NPCPP-3CP1_06
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3905 (µm) : (6)70.00 (%) - 37.9024 (µm)
: (2)20.00 (%) - 1.7775 (µm) : (7)80.00 (%) - 52.2261 (µm)
: (3)30.00 (%) - 4.1962 (µm) : (8)90.00 (%) - 74.2544 (µm)
: (4)40.00 (%) - 8.8101 (µm) : (9)95.00 (%) - 97.4442 (µm)
: (5)60.00 (%) - 25.7114 (µm) : (10)100.0 (%) - 271.7090 (µm)



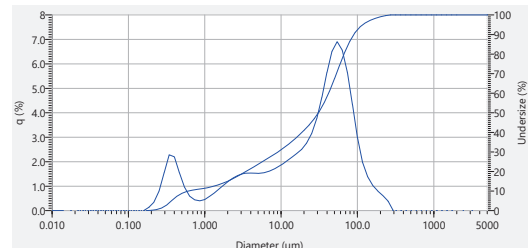
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.229	29	1.471	0.978	43	12.619	2.596	57	108.234	1.863
2	0.023	0.000	16	0.200	0.427	30	1.715	1.191	44	14.713	2.764	58	126.191	1.188
3	0.027	0.000	17	0.233	0.820	31	2.000	1.415	45	17.154	2.922	59	147.128	0.820
4	0.032	0.000	18	0.272	1.535	32	2.332	1.630	46	20.000	3.068	60	171.539	0.609
5	0.037	0.000	19	0.317	2.560	33	2.719	1.796	47	23.318	3.229	61	200.000	0.476
6	0.043	0.000	20	0.370	3.303	34	3.170	1.904	48	27.187	3.453	62	233.183	0.383
7	0.050	0.000	21	0.431	2.810	35	3.696	1.956	49	31.696	3.780	63	271.871	0.257
8	0.059	0.000	22	0.502	1.781	36	4.309	1.968	50	36.967	4.202	64	316.979	0.000
9	0.068	0.000	23	0.586	1.031	37	5.024	1.968	51	43.089	4.634	65	369.570	0.000
10	0.080	0.000	24	0.683	0.630	38	5.857	1.984	52	50.238	4.902	66	430.887	0.000
11	0.093	0.000	25	0.796	0.489	39	6.829	2.043	53	58.573	4.862	67	502.377	0.000
12	0.108	0.000	26	0.928	0.485	40	7.962	2.150	54	68.291	4.363	68	585.729	0.000
13	0.126	0.000	27	1.062	0.556	41	9.283	2.297	55	79.621	3.653	69	682.910	0.000
14	0.147	0.112	28	1.262	0.750	42	10.823	2.446	56	92.832	2.754	70	796.214	0.000

Particle Size Distribution

Attached page 13

Sample name : NPCPP-3CP2
Data name : NPCPP-3CP2_03
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.6207 (µm) : (6)70.00 (%) - 53.1772 (µm)
: (2)20.00 (%) - 3.4728 (µm) : (7)80.00 (%) - 66.8670 (µm)
: (3)30.00 (%) - 8.1624 (µm) : (8)90.00 (%) - 89.9287 (µm)
: (4)40.00 (%) - 18.8060 (µm) : (9)95.00 (%) - 118.2664 (µm)
: (5)60.00 (%) - 42.0163 (µm) : (10)100.0 (%) - 271.7612 (µm)



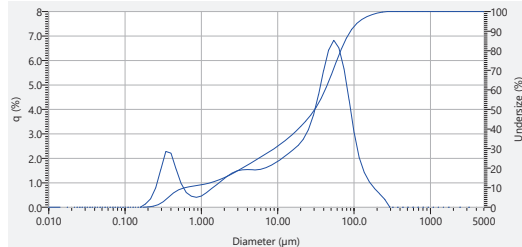
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.786	43	12.619	2.003	57	108.234	2.970
2	0.023	0.000	16	0.200	0.129	30	1.715	0.913	44	14.713	2.161	58	126.191	1.981
3	0.027	0.000	17	0.233	0.344	31	2.000	1.081	45	17.154	2.322	59	147.128	1.377
4	0.032	0.000	18	0.272	0.791	32	2.332	1.249	46	20.000	2.500	60	171.539	1.022
5	0.037	0.000	19	0.317	1.539	33	2.719	1.386	47	23.318	2.576	61	200.000	0.789
6	0.043	0.000	20	0.370	2.281	34	3.170	1.479	48	27.187	3.146	62	233.183	0.694
7	0.050	0.000	21	0.431	2.199	35	3.696	1.525	49	31.696	3.796	63	271.871	0.380
8	0.059	0.000	22	0.502	1.545	36	4.309	1.534	50	36.967	4.622	64	316.979	0.000
9	0.068	0.000	23	0.586	0.852	37	5.024	1.528	51	43.089	5.643	65	369.570	0.000
10	0.080	0.000	24	0.683	0.587	38	5.857	1.529	52	50.238	5.616	66	430.887	0.000
11	0.093	0.000	25	0.796	0.439	39	6.829	1.562	53	58.573	5.904	67	502.377	0.000
12	0.108	0.000	26	0.928	0.394	40	7.962	1.635	54	68.291	5.553	68	585.729	0.000
13	0.126	0.000	27	1.062	0.446	41	9.283	1.744	55	79.621	5.659	69	682.910	0.000
14	0.147	0.000	28	1.262	0.585	42	10.823	1.889	56	92.832	4.340	70	796.214	0.000

Particle Size Distribution

Attached page 14

Sample name : NPCPP-3CP2
Data name : NPCPP-3CP2_06
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.6165 (µm) : (6)70.00 (%) - 53.1419 (µm)
: (2)20.00 (%) - 3.4396 (µm) : (7)80.00 (%) - 66.9676 (µm)
: (3)30.00 (%) - 9.0544 (µm) : (8)90.00 (%) - 90.0173 (µm)
: (4)40.00 (%) - 18.5667 (µm) : (9)95.00 (%) - 117.5263 (µm)
: (5)60.00 (%) - 41.8320 (µm) : (10)100.00 (%) - 271.7395 (µm)



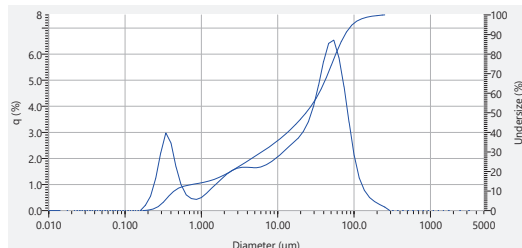
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.762	43	12.619	2.019	57	108.234	3.037
2	0.023	0.000	16	0.200	0.128	30	1.715	0.919	44	14.713	2.162	58	126.191	2.018
3	0.027	0.000	17	0.233	0.340	31	2.000	1.086	45	17.154	2.346	59	147.128	1.412
4	0.032	0.000	18	0.272	0.785	32	2.332	1.265	46	20.000	2.534	60	171.539	1.029
5	0.037	0.000	19	0.317	1.532	33	2.719	1.391	47	23.318	2.777	61	200.000	0.763
6	0.043	0.000	20	0.370	2.380	34	3.170	1.483	48	27.187	3.192	62	233.183	0.844
7	0.050	0.000	21	0.431	2.209	35	3.696	1.528	49	31.696	3.750	63	271.871	0.317
8	0.059	0.000	22	0.502	1.581	36	4.309	1.536	50	36.967	4.590	64	316.979	0.000
9	0.068	0.000	23	0.586	0.967	37	5.024	1.530	51	43.089	5.578	65	369.570	0.000
10	0.080	0.000	24	0.683	0.598	38	5.857	1.532	52	50.238	6.438	66	430.887	0.000
11	0.093	0.000	25	0.796	0.447	39	6.829	1.568	53	58.573	6.616	67	502.377	0.000
12	0.108	0.000	26	0.928	0.401	40	7.962	1.640	54	68.291	6.507	68	585.729	0.000
13	0.126	0.000	27	1.082	0.452	41	9.283	1.753	55	79.621	5.662	69	682.910	0.000
14	0.147	0.000	28	1.262	0.592	42	10.823	1.880	56	92.832	4.389	70	796.214	0.000

Particle Size Distribution

Attached page 16

Sample name : NPCPP-3CP3X
Data name : NPCPP-3CP3X_03
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4404 (µm) : (6)70.00 (%) - 45.5300 (µm)
: (2)20.00 (%) - 2.4365 (µm) : (7)80.00 (%) - 57.6962 (µm)
: (3)30.00 (%) - 6.2267 (µm) : (8)90.00 (%) - 76.4300 (µm)
: (4)40.00 (%) - 13.4356 (µm) : (9)95.00 (%) - 95.1777 (µm)
: (5)60.00 (%) - 34.6788 (µm) : (10)100.00 (%) - 271.5572 (µm)



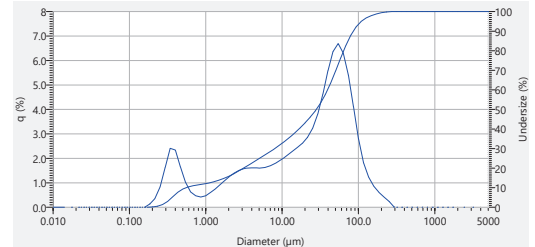
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.854	43	12.619	2.232	57	108.234	2.113
2	0.023	0.000	16	0.200	0.211	30	1.715	1.031	44	14.713	2.418	58	126.191	1.246
3	0.027	0.000	17	0.233	0.553	31	2.000	1.217	45	17.154	2.597	59	147.128	0.772
4	0.032	0.000	18	0.272	1.222	32	2.332	1.396	46	20.000	2.778	60	171.539	0.505
5	0.037	0.000	19	0.317	2.213	33	2.719	1.534	47	23.318	3.034	61	200.000	0.344
6	0.043	0.000	20	0.370	2.973	34	3.170	1.622	48	27.187	3.389	62	233.183	0.232
7	0.050	0.000	21	0.431	2.592	35	3.696	1.657	49	31.696	3.873	63	271.871	0.133
8	0.059	0.000	22	0.502	1.871	36	4.309	1.657	50	36.967	4.790	64	316.979	0.000
9	0.068	0.000	23	0.586	0.980	37	5.024	1.646	51	43.089	5.714	65	369.570	0.000
10	0.080	0.000	24	0.683	0.601	38	5.857	1.649	52	50.238	6.438	66	430.887	0.000
11	0.093	0.000	25	0.796	0.460	39	6.829	1.692	53	58.573	6.533	67	502.377	0.000
12	0.108	0.000	26	0.928	0.428	40	7.962	1.782	54	68.291	5.886	68	585.729	0.000
13	0.126	0.000	27	1.082	0.498	41	9.283	1.915	55	79.621	4.760	69	682.910	0.000
14	0.147	0.000	28	1.262	0.692	42	10.823	2.069	56	92.832	3.388	70	796.214	0.000

Particle Size Distribution

Attached page 15

Sample name : NPCPP-3CP2
Data name : NPCPP-3CP2_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5582 (µm) : (6)70.00 (%) - 50.7503 (µm)
: (2)20.00 (%) - 3.1516 (µm) : (7)80.00 (%) - 64.1758 (µm)
: (3)30.00 (%) - 8.0681 (µm) : (8)90.00 (%) - 85.9892 (µm)
: (4)40.00 (%) - 16.6293 (µm) : (9)95.00 (%) - 109.4490 (µm)
: (5)60.00 (%) - 39.4609 (µm) : (10)100.00 (%) - 271.6926 (µm)



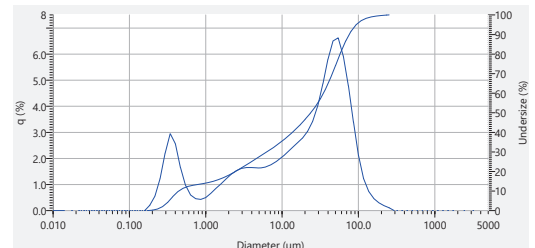
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.787	43	12.619	2.116	57	108.234	2.789
2	0.023	0.000	16	0.200	0.132	30	1.715	0.950	44	14.713	2.281	58	126.191	1.803
3	0.027	0.000	17	0.233	0.354	31	2.000	1.126	45	17.154	2.445	59	147.128	1.219
4	0.032	0.000	18	0.272	0.822	32	2.332	1.303	46	20.000	2.618	60	171.539	0.854
5	0.037	0.000	19	0.317	1.611	33	2.719	1.448	47	23.318	2.861	61	200.000	0.608
6	0.043	0.000	20	0.370	2.436	34	3.170	1.548	48	27.187	3.227	62	233.183	0.414
7	0.050	0.000	21	0.431	2.333	35	3.696	1.598	49	31.696	3.853	63	271.871	0.234
8	0.059	0.000	22	0.502	1.640	36	4.309	1.609	50	36.967	4.618	64	316.979	0.000
9	0.068	0.000	23	0.586	1.015	37	5.024	1.604	51	43.089	5.569	65	369.570	0.000
10	0.080	0.000	24	0.683	0.624	38	5.857	1.607	52	50.238	6.367	66	430.887	0.000
11	0.093	0.000	25	0.796	0.464	39	6.829	1.644	53	58.573	6.691	67	502.377	0.000
12	0.108	0.000	26	0.928	0.414	40	7.962	1.722	54	68.291	6.303	68	585.729	0.000
13	0.126	0.000	27	1.082	0.486	41	9.283	1.840	55	79.621	5.408	69	682.910	0.000
14	0.147	0.000	28	1.262	0.610	42	10.823	1.971	56	92.832	4.120	70	796.214	0.000

Particle Size Distribution

Attached page 17

Sample name : NPCPP-3CP3X
Data name : NPCPP-3CP3X_06
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4439 (µm) : (6)70.00 (%) - 45.5344 (µm)
: (2)20.00 (%) - 2.4749 (µm) : (7)80.00 (%) - 57.5283 (µm)
: (3)30.00 (%) - 6.3457 (µm) : (8)90.00 (%) - 75.6872 (µm)
: (4)40.00 (%) - 13.6500 (µm) : (9)95.00 (%) - 93.5021 (µm)
: (5)60.00 (%) - 34.8320 (µm) : (10)100.00 (%) - 271.4753 (µm)



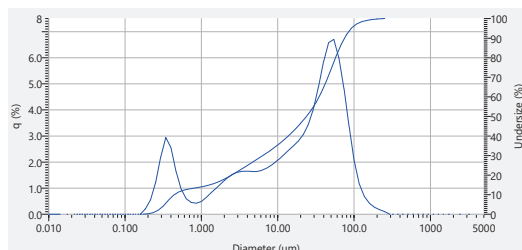
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.880	43	12.619	2.224	57	108.234	2.102
2	0.023	0.000	16	0.200	0.210	30	1.715	1.026	44	14.713	2.412	58	126.191	1.217
3	0.027	0.000	17	0.233	0.551	31	2.000	1.210	45	17.154	2.594	59	147.128	0.731
4	0.032	0.000	18	0.272	1.214	32	2.332	1.389	46	20.000	2.781	60	171.539	0.457
5	0.037	0.000	19	0.317	2.194	33	2.719	1.527	47	23.318	3.036	61	200.000	0.296
6	0.043	0.000	20	0.370	2.945	34	3.170	1.613	48	27.187	3.417	62	233.183	0.189
7	0.050	0.000	21	0.431	2.586	35	3.696	1.649	49	31.696	4.014	63	271.871	0.105
8	0.059	0.000	22	0.502	1.884	36	4.309	1.648	50	36.967	4.851	64	316.979	0.000
9	0.068	0.000	23	0.586	0.970	37	5.024	1.637	51	43.089	5.792	65	369.570	0.000
10	0.080	0.000	24	0.683	0.595	38	5.857	1.640	52	50.238	6.496	66	430.887	0.000
11	0.093	0.000	25	0.796	0.456	39	6.829	1.683	53	58.573	6.616	67	502.377	0.000
12	0.108	0.000	26	0.928	0.425	40	7.962	1.773	54	68.291	5.928	68	585.729	0.000
13	0.126	0.000	27	1.082	0.495	41	9.283	1.907	55	79.621	4.797	69	682.910	0.000
14	0.147	0.000	28	1.262	0.698	42	10.823	2.057	56	92.832	3.400	70	796.214	0.000

Particle Size Distribution

Attached page 18

Sample name : NPCPP-3CP3X
Data name : NPCPP-3CP3X_09
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4448 (µm) : (6)70.00 (%) - 45.4475 (µm)
: (2)20.00 (%) - 2.5099 (µm) : (7)80.00 (%) - 57.2572 (µm)
: (3)30.00 (%) - 6.4387 (µm) : (8)90.00 (%) - 75.1945 (µm)
: (4)40.00 (%) - 13.7434 (µm) : (9)95.00 (%) - 92.1204 (µm)
: (5)60.00 (%) - 34.8420 (µm) : (10)100.0 (%) - 271.4336 (µm)



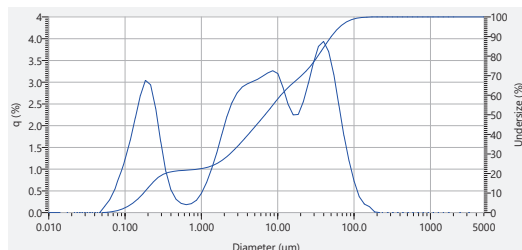
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.039	43	12.619	2.236	57	108.234	2.948
2	0.023	0.000	16	0.200	0.211	30	1.715	0.104	44	14.713	2.427	58	126.191	1.159
3	0.027	0.000	17	0.233	0.553	31	2.000	1.198	45	17.154	2.608	59	147.128	0.678
4	0.032	0.000	18	0.272	1.216	32	2.332	1.377	46	20.000	2.796	60	171.539	0.416
5	0.037	0.000	19	0.317	2.194	33	2.719	1.516	47	23.318	3.049	61	200.000	0.366
6	0.043	0.000	20	0.370	2.936	34	3.170	1.604	48	27.187	3.431	62	233.183	0.170
7	0.050	0.000	21	0.431	2.550	35	3.696	1.642	49	31.696	4.032	63	271.871	0.096
8	0.059	0.000	22	0.502	1.639	36	4.309	1.645	50	36.967	4.881	64	316.979	0.000
9	0.068	0.000	23	0.586	0.958	37	5.024	1.637	51	43.089	5.844	65	369.570	0.000
10	0.080	0.000	24	0.683	0.587	38	5.857	1.642	52	50.238	6.573	66	430.887	0.000
11	0.093	0.000	25	0.796	0.440	39	6.829	1.688	53	58.573	6.701	67	502.377	0.000
12	0.108	0.000	26	0.928	0.418	40	7.962	1.761	54	68.291	5.967	68	585.729	0.000
13	0.126	0.000	27	1.062	0.487	41	9.283	1.916	55	79.621	4.817	69	682.910	0.000
14	0.147	0.000	28	1.262	0.648	42	10.823	2.069	56	92.832	3.374	70	796.214	0.000

Particle Size Distribution

Attached page 20

Sample name : NPCPP-3D2
Data name : NPCPP-3D2_06
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1752 (µm) : (6)70.00 (%) - 20.5113 (µm)
: (2)20.00 (%) - 0.3393 (µm) : (7)80.00 (%) - 33.6345 (µm)
: (3)30.00 (%) - 2.3719 (µm) : (8)90.00 (%) - 50.2903 (µm)
: (4)40.00 (%) - 4.1248 (µm) : (9)95.00 (%) - 65.6738 (µm)
: (5)60.00 (%) - 10.9924 (µm) : (10)100.0 (%) - 197.8755 (µm)



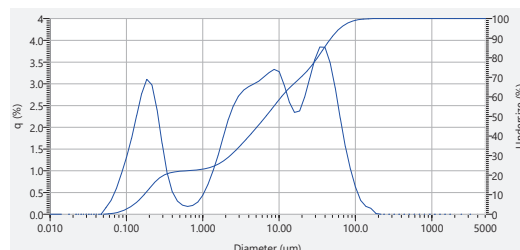
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.889	29	1.471	1.003	43	12.619	2.881	57	108.234	0.719
2	0.023	0.000	16	0.200	3.038	30	1.715	1.365	44	14.713	2.492	58	126.191	0.362
3	0.027	0.000	17	0.233	2.939	31	2.000	1.793	45	17.154	2.246	59	147.128	0.194
4	0.032	0.000	18	0.272	2.388	32	2.332	2.206	46	20.000	2.256	60	171.539	0.134
5	0.037	0.000	19	0.317	1.627	33	2.719	2.527	47	23.318	2.539	61	200.000	0.014
6	0.043	0.000	20	0.370	0.945	34	3.170	2.751	48	27.187	2.965	62	233.183	0.000
7	0.050	0.000	21	0.431	0.519	35	3.696	2.865	49	31.696	3.438	63	271.871	0.000
8	0.059	0.143	22	0.502	0.305	36	4.309	2.960	50	36.967	3.820	64	316.979	0.000
9	0.068	0.297	23	0.586	0.210	37	5.024	3.009	51	43.089	3.936	65	369.570	0.000
10	0.080	0.537	24	0.683	0.182	38	5.857	3.061	52	50.238	3.688	66	430.887	0.000
11	0.093	0.864	25	0.796	0.204	39	6.829	3.134	53	58.573	3.186	67	502.377	0.000
12	0.108	1.225	26	0.928	0.282	40	7.962	3.208	54	68.291	2.470	68	585.729	0.000
13	0.126	1.653	27	1.062	0.440	41	9.283	3.260	55	79.621	1.767	69	682.910	0.000
14	0.147	2.171	28	1.262	0.686	42	10.823	3.195	56	92.832	1.187	70	796.214	0.000

Particle Size Distribution

Attached page 19

Sample name : NPCPP-3D2
Data name : NPCPP-3D2_03
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1709 (µm) : (6)70.00 (%) - 19.3822 (µm)
: (2)20.00 (%) - 0.3118 (µm) : (7)80.00 (%) - 31.9002 (µm)
: (3)30.00 (%) - 2.3024 (µm) : (8)90.00 (%) - 48.0469 (µm)
: (4)40.00 (%) - 4.0535 (µm) : (9)95.00 (%) - 63.1035 (µm)
: (5)60.00 (%) - 10.7046 (µm) : (10)100.0 (%) - 197.9248 (µm)



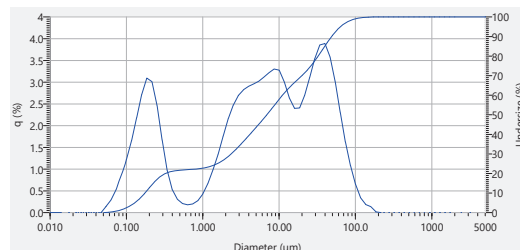
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.777	29	1.471	0.989	43	12.619	2.961	57	108.234	0.621
2	0.023	0.000	16	0.200	3.102	30	1.715	1.346	44	14.713	2.575	58	126.191	0.319
3	0.027	0.000	17	0.233	2.973	31	2.000	1.767	45	17.154	2.340	59	147.128	0.180
4	0.032	0.000	18	0.272	2.489	32	2.332	2.174	46	20.000	2.377	60	171.539	0.134
5	0.037	0.000	19	0.317	1.627	33	2.719	2.491	47	23.318	2.686	61	200.000	0.015
6	0.043	0.000	20	0.370	0.941	34	3.170	2.714	48	27.187	3.112	62	233.183	0.000
7	0.050	0.000	21	0.431	0.514	35	3.696	2.851	49	31.696	3.553	63	271.871	0.000
8	0.059	0.156	22	0.502	0.301	36	4.309	2.932	50	36.967	3.846	64	316.979	0.000
9	0.068	0.322	23	0.586	0.207	37	5.024	2.993	51	43.089	3.837	65	369.570	0.000
10	0.080	0.580	24	0.683	0.178	38	5.857	3.050	52	50.238	3.489	66	430.887	0.000
11	0.093	0.924	25	0.796	0.200	39	6.829	3.155	53	58.573	2.915	67	502.377	0.000
12	0.108	1.300	26	0.928	0.277	40	7.962	3.254	54	68.291	2.210	68	585.729	0.000
13	0.126	1.741	27	1.062	0.434	41	9.283	3.330	55	79.621	1.557	69	682.910	0.000
14	0.147	2.268	28	1.262	0.677	42	10.823	3.277	56	92.832	1.036	70	796.214	0.000

Particle Size Distribution

Attached page 21

Sample name : NPCPP-3D2
Data name : NPCPP-3D2_09
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1751 (µm) : (6)70.00 (%) - 20.0029 (µm)
: (2)20.00 (%) - 0.3260 (µm) : (7)80.00 (%) - 32.5610 (µm)
: (3)30.00 (%) - 2.3632 (µm) : (8)90.00 (%) - 48.8687 (µm)
: (4)40.00 (%) - 4.1567 (µm) : (9)95.00 (%) - 64.0374 (µm)
: (5)60.00 (%) - 11.0652 (µm) : (10)100.0 (%) - 197.9553 (µm)



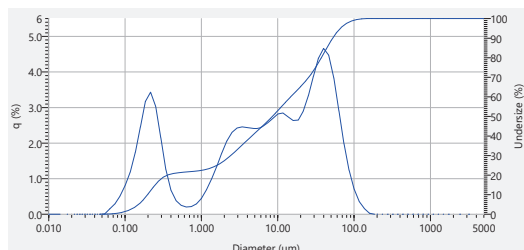
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.714	29	1.471	0.977	43	12.619	2.999	57	108.234	0.661
2	0.023	0.000	16	0.200	3.091	30	1.715	1.333	44	14.713	2.632	58	126.191	0.336
3	0.027	0.000	17	0.233	3.009	31	2.000	1.753	45	17.154	2.364	59	147.128	0.186
4	0.032	0.000	18	0.272	2.466	32	2.332	2.158	46	20.000	2.404	60	171.539	0.137
5	0.037	0.000	19	0.317	1.673	33	2.719	2.474	47	23.318	2.887	61	200.000	0.015
6	0.043	0.000	20	0.370	0.966	34	3.170	2.694	48	27.187	3.192	62	233.183	0.000
7	0.050	0.000	21	0.431	0.524	35	3.696	2.826	49	31.696	3.539	63	271.871	0.000
8	0.059	0.141	22	0.502	0.304	36	4.309	2.902	50	36.967	3.854	64	316.979	0.000
9	0.068	0.293	23	0.586	0.207	37	5.024	2.958	51	43.089	3.888	65	369.570	0.000
10	0.080	0.533	24	0.683	0.177	38	5.857	3.022	52	50.238	3.576	66	430.887	0.000
11	0.093	0.858	25	0.796	0.189	39	6.829	3.116	53	58.573	3.017	67	502.377	0.000
12	0.108	1.220	26	0.928	0.273	40	7.962	3.217	54	68.291	2.306	68	585.729	0.000
13	0.126	1.649	27	1.062	0.427	41	9.283	3.301	55	79.621	1.628	69	682.910	0.000
14	0.147	2.177	28	1.262	0.687	42	10.823	3.275	56	92.832	1.083	70	796.214	0.000

Particle Size Distribution

Attached page 22

Sample name : NPCPP-3E2
Data name : NPCPP-3E2_03
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1973 (µm) : (6)70.00 (%) - 25.4653 (µm)
: (2)20.00 (%) - 0.3630 (µm) : (7)80.00 (%) - 37.3538 (µm)
: (3)30.00 (%) - 2.4237 (µm) : (8)90.00 (%) - 52.7086 (µm)
: (4)40.00 (%) - 4.5939 (µm) : (9)95.00 (%) - 66.3571 (µm)
: (5)60.00 (%) - 14.7766 (µm) : (10)100.00 (%) - 170.5520 (µm)



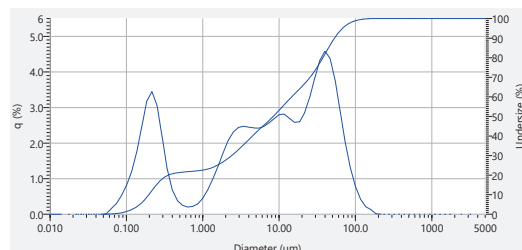
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.444	29	1.471	0.980	43	12.619	2.840	57	108.234	0.704
2	0.023	0.000	16	0.200	3.174	30	1.715	1.335	44	14.713	2.738	58	126.191	0.353
3	0.027	0.000	17	0.233	3.428	31	2.000	1.716	45	17.154	2.631	59	147.128	0.157
4	0.032	0.000	18	0.272	3.033	32	2.332	2.061	46	20.000	2.646	60	171.539	0.027
5	0.037	0.000	19	0.317	2.154	33	2.719	2.297	47	23.318	2.880	61	200.000	0.000
6	0.043	0.000	20	0.370	1.286	34	3.170	2.422	48	27.187	3.332	62	233.183	0.000
7	0.050	0.000	21	0.431	0.674	35	3.696	2.454	49	31.696	3.871	63	271.871	0.000
8	0.059	0.007	22	0.502	0.380	36	4.309	2.436	50	36.967	4.389	64	316.979	0.000
9	0.068	0.149	23	0.586	0.247	37	5.024	2.410	51	43.089	4.657	65	369.570	0.000
10	0.080	0.289	24	0.683	0.202	38	5.857	2.410	52	50.238	4.468	66	430.887	0.000
11	0.093	0.509	25	0.796	0.215	39	6.829	2.464	53	58.573	3.834	67	502.377	0.000
12	0.108	0.800	26	0.928	0.289	40	7.962	2.564	54	68.291	2.911	68	585.729	0.000
13	0.126	1.178	27	1.062	0.446	41	9.283	2.689	55	79.621	1.979	69	682.910	0.000
14	0.147	1.728	28	1.262	0.686	42	10.823	2.814	56	92.832	1.236	70	796.214	0.000

Particle Size Distribution

Attached page 23

Sample name : NPCPP-3E2
Data name : NPCPP-3E2_06
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1968 (µm) : (6)70.00 (%) - 25.4538 (µm)
: (2)20.00 (%) - 0.3576 (µm) : (7)80.00 (%) - 37.5056 (µm)
: (3)30.00 (%) - 2.4004 (µm) : (8)90.00 (%) - 53.3659 (µm)
: (4)40.00 (%) - 4.5239 (µm) : (9)95.00 (%) - 67.6883 (µm)
: (5)60.00 (%) - 14.6272 (µm) : (10)100.00 (%) - 197.7669 (µm)



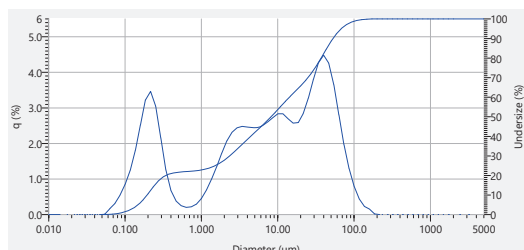
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.450	29	1.471	0.996	43	12.619	2.912	57	108.234	0.715
2	0.023	0.000	16	0.200	3.184	30	1.715	1.343	44	14.713	2.694	58	126.191	0.417
3	0.027	0.000	17	0.233	3.445	31	2.000	1.726	45	17.154	2.582	59	147.128	0.208
4	0.032	0.000	18	0.272	3.053	32	2.332	2.074	46	20.000	2.598	60	171.539	0.128
5	0.037	0.000	19	0.317	2.174	33	2.719	2.311	47	23.318	2.446	61	200.000	0.014
6	0.043	0.000	20	0.370	1.287	34	3.170	2.437	48	27.187	3.779	62	233.183	0.000
7	0.050	0.000	21	0.431	0.679	35	3.696	2.469	49	31.696	3.824	63	271.871	0.000
8	0.059	0.007	22	0.502	0.382	36	4.309	2.450	50	36.967	4.330	64	316.979	0.000
9	0.068	0.153	23	0.586	0.248	37	5.024	2.423	51	43.089	4.579	65	369.570	0.000
10	0.080	0.294	24	0.683	0.202	38	5.857	2.421	52	50.238	4.380	66	430.887	0.000
11	0.093	0.516	25	0.796	0.215	39	6.829	2.471	53	58.573	3.764	67	502.377	0.000
12	0.108	0.807	26	0.928	0.289	40	7.962	2.567	54	68.291	2.884	68	585.729	0.000
13	0.126	1.185	27	1.062	0.448	41	9.283	2.684	55	79.621	2.002	69	682.910	0.000
14	0.147	1.738	28	1.262	0.690	42	10.823	2.799	56	92.832	1.250	70	796.214	0.000

Particle Size Distribution

Attached page 24

Sample name : NPCPP-3E2
Data name : NPCPP-3E2_09
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1940 (µm) : (6)70.00 (%) - 24.9086 (µm)
: (2)20.00 (%) - 0.3453 (µm) : (7)80.00 (%) - 37.0468 (µm)
: (3)30.00 (%) - 2.3556 (µm) : (8)90.00 (%) - 53.1380 (µm)
: (4)40.00 (%) - 4.4371 (µm) : (9)95.00 (%) - 67.8428 (µm)
: (5)60.00 (%) - 14.2140 (µm) : (10)100.00 (%) - 198.1329 (µm)



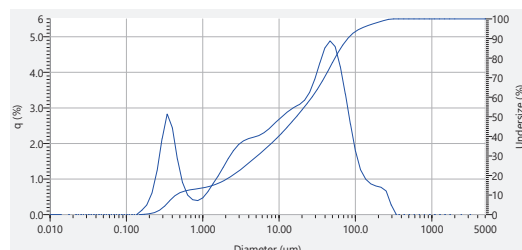
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.506	29	1.471	0.987	43	12.619	2.830	57	108.234	0.700
2	0.023	0.000	16	0.200	3.223	30	1.715	1.342	44	14.713	2.694	58	126.191	0.437
3	0.027	0.000	17	0.233	3.459	31	2.000	1.724	45	17.154	2.571	59	147.128	0.229
4	0.032	0.000	18	0.272	3.047	32	2.332	2.071	46	20.000	2.585	60	171.539	0.151
5	0.037	0.000	19	0.317	2.159	33	2.719	2.310	47	23.318	2.836	61	200.000	0.016
6	0.043	0.000	20	0.370	1.287	34	3.170	2.438	48	27.187	3.387	62	233.183	0.000
7	0.050	0.000	21	0.431	0.675	35	3.696	2.476	49	31.696	3.796	63	271.871	0.000
8	0.059	0.008	22	0.502	0.381	36	4.309	2.463	50	36.967	4.289	64	316.979	0.000
9	0.068	0.164	23	0.586	0.248	37	5.024	2.442	51	43.089	4.479	65	369.570	0.000
10	0.080	0.313	24	0.683	0.203	38	5.857	2.447	52	50.238	4.257	66	430.887	0.000
11	0.093	0.545	25	0.796	0.216	39	6.829	2.503	53	58.573	3.650	67	502.377	0.000
12	0.108	0.847	26	0.928	0.291	40	7.962	2.602	54	68.291	2.855	68	585.729	0.000
13	0.126	1.235	27	1.062	0.450	41	9.283	2.721	55	79.621	1.966	69	682.910	0.000
14	0.147	1.794	28	1.262	0.692	42	10.823	2.833	56	92.832	1.290	70	796.214	0.000

Particle Size Distribution

Attached page 25

Sample name : NPCPP-3F2X
Data name : NPCPP-3F2X_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4481 (µm) : (6)70.00 (%) - 39.1567 (µm)
: (2)20.00 (%) - 2.4603 (µm) : (7)80.00 (%) - 53.9617 (µm)
: (3)30.00 (%) - 5.1852 (µm) : (8)90.00 (%) - 78.3381 (µm)
: (4)40.00 (%) - 9.8346 (µm) : (9)95.00 (%) - 116.4774 (µm)
: (5)60.00 (%) - 26.9739 (µm) : (10)100.00 (%) - 316.7970 (µm)



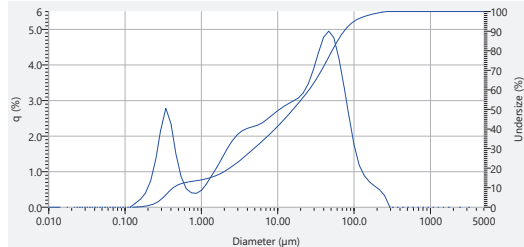
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.116	29	1.471	0.864	43	12.619	2.806	57	108.234	1.776
2	0.023	0.000	16	0.200	0.275	30	1.715	1.081	44	14.713	2.929	58	126.191	1.254
3	0.027	0.000	17	0.233	0.589	31	2.000	1.323	45	17.154	3.020	59	147.128	0.991
4	0.032	0.000	18	0.272	1.219	32	2.332	1.575	46	20.000	3.094	60	171.539	0.862
5	0.037	0.000	19	0.317	2.131	33	2.719	1.793	47	23.318	3.214	61	200.000	0.800
6	0.043	0.000	20	0.370	2.823	34	3.170	1.962	48	27.187	3.437	62	233.183	0.765
7	0.050	0.000	21	0.431	2.440	35	3.696	2.073	49	31.696	3.798	63	271.871	0.681
8	0.059	0.000	22	0.502	1.587	36	4.309	2.137	50	36.967	4.260	64	316.979	0.287
9	0.068	0.000	23	0.586	0.801	37	5.024	2.177	51	43.089	4.687	65	369.570	0.000
10	0.080	0.000	24	0.683	0.546	38	5.857	2.220	52	50.238	4.880	66	430.887	0.000
11	0.093	0.000	25	0.796	0.418	39	6.829	2.287	53	58.573	4.726	67	502.377	0.000
12	0.108	0.000	26	0.928	0.383	40	7.962	2.409	54	68.291	4.164	68	585.729	0.000
13	0.126	0.000	27	1.062	0.469	41	9.283	2.551	55	79.621	3.394	69	682.910	0.000
14	0.147	0.000	28	1.262	0.645	42	10.823	2.684	56	92.832	2.546	70	796.214	0.000

Particle Size Distribution

Attached page 26

Sample name : NPCPP-3F2X
Data name : NPCPP-3F2X_06
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4287 (µm) : (6)70.00 (%) - 37.5795 (µm)
: (2)20.00 (%) - 2.3626 (µm) : (7)80.00 (%) - 51.5419 (µm)
: (3)30.00 (%) - 4.3053 (µm) : (8)90.00 (%) - 74.2117 (µm)
: (4)40.00 (%) - 9.2214 (µm) : (9)95.00 (%) - 100.5655 (µm)
: (5)60.00 (%) - 25.7012 (µm) : (10)100.0 (%) - 271.7397 (µm)



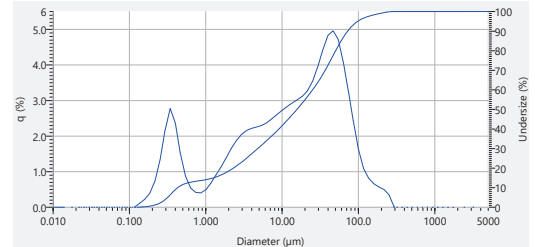
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.219	29	1.471	0.884	43	12.619	2.885	57	108.234	1.736
2	0.023	0.000	16	0.200	0.395	30	1.715	1.112	44	14.713	2.902	58	126.191	1.176
3	0.027	0.000	17	0.233	0.729	31	2.000	1.367	45	17.154	2.984	59	147.128	0.883
4	0.032	0.000	18	0.272	1.328	32	2.332	1.631	46	20.000	3.067	60	171.539	0.712
5	0.037	0.000	19	0.317	2.176	33	2.719	1.857	47	23.318	3.212	61	200.000	0.594
6	0.043	0.000	20	0.370	2.775	34	3.170	2.032	48	27.187	3.489	62	233.183	0.488
7	0.050	0.000	21	0.431	2.347	35	3.696	2.148	49	31.696	3.863	63	271.871	0.318
8	0.059	0.000	22	0.502	1.478	36	4.309	2.215	50	36.967	4.348	64	316.979	0.000
9	0.068	0.000	23	0.586	0.852	37	5.024	2.258	51	43.089	4.774	65	369.570	0.000
10	0.080	0.000	24	0.683	0.520	38	5.857	2.301	52	50.238	4.950	66	430.887	0.000
11	0.093	0.000	25	0.796	0.403	39	6.829	2.375	53	58.573	4.767	67	502.377	0.000
12	0.108	0.000	26	0.928	0.386	40	7.962	2.479	54	68.291	4.107	68	585.729	0.000
13	0.126	0.000	27	1.062	0.473	41	9.283	2.608	55	79.621	3.401	69	682.910	0.000
14	0.147	0.110	28	1.262	0.656	42	10.823	2.717	56	92.832	2.537	70	796.214	0.000

Particle Size Distribution

Attached page 27

Sample name : NPCPP-3F2X
Data name : NPCPP-3F2X_09
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4286 (µm) : (6)70.00 (%) - 36.7409 (µm)
: (2)20.00 (%) - 2.3227 (µm) : (7)80.00 (%) - 50.3151 (µm)
: (3)30.00 (%) - 4.8283 (µm) : (8)90.00 (%) - 72.3891 (µm)
: (4)40.00 (%) - 9.0959 (µm) : (9)95.00 (%) - 98.0176 (µm)
: (5)60.00 (%) - 25.1497 (µm) : (10)100.0 (%) - 271.7488 (µm)



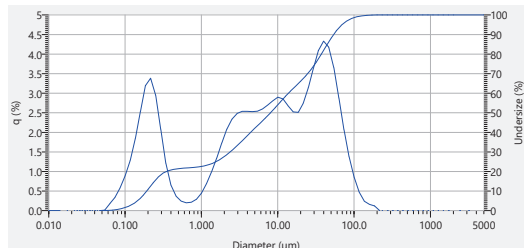
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.221	29	1.471	0.904	43	12.619	2.825	57	108.234	1.617
2	0.023	0.000	16	0.200	0.396	30	1.715	1.132	44	14.713	2.930	58	126.191	1.082
3	0.027	0.000	17	0.233	0.729	31	2.000	1.387	45	17.154	3.024	59	147.128	0.810
4	0.032	0.000	18	0.272	1.322	32	2.332	1.649	46	20.000	3.120	60	171.539	0.680
5	0.037	0.000	19	0.317	2.187	33	2.719	1.872	47	23.318	2.779	61	200.000	0.568
6	0.043	0.000	20	0.370	2.774	34	3.170	2.043	48	27.187	3.549	62	233.183	0.494
7	0.050	0.000	21	0.431	2.381	35	3.696	2.154	49	31.696	3.946	63	271.871	0.341
8	0.059	0.000	22	0.502	1.501	36	4.309	2.217	50	36.967	4.425	64	316.979	0.000
9	0.068	0.000	23	0.586	0.873	37	5.024	2.256	51	43.089	4.836	65	369.570	0.000
10	0.080	0.000	24	0.683	0.536	38	5.857	2.298	52	50.238	4.958	66	430.887	0.000
11	0.093	0.000	25	0.796	0.417	39	6.829	2.373	53	58.573	4.720	67	502.377	0.000
12	0.108	0.000	26	0.928	0.401	40	7.962	2.480	54	68.291	4.086	68	585.729	0.000
13	0.126	0.000	27	1.062	0.487	41	9.283	2.613	55	79.621	3.289	69	682.910	0.000
14	0.147	0.111	28	1.262	0.674	42	10.823	2.729	56	92.832	2.400	70	796.214	0.000

Particle Size Distribution

Attached page 28

Sample name : NPCPP-3G2
Data name : NPCPP-3G2_03
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1925 (µm) : (6)70.00 (%) - 24.6789 (µm)
: (2)20.00 (%) - 0.3514 (µm) : (7)80.00 (%) - 37.3518 (µm)
: (3)30.00 (%) - 2.3925 (µm) : (8)90.00 (%) - 54.1752 (µm)
: (4)40.00 (%) - 4.4436 (µm) : (9)95.00 (%) - 69.6435 (µm)
: (5)60.00 (%) - 13.8329 (µm) : (10)100.0 (%) - 199.7389 (µm)



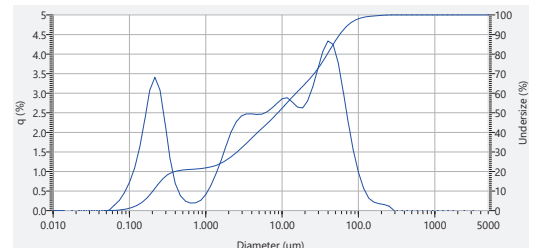
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.521	29	1.471	0.980	43	12.619	2.854	57	108.234	0.848
2	0.023	0.000	16	0.200	3.191	30	1.715	1.537	44	14.713	2.677	58	126.191	0.463
3	0.027	0.000	17	0.233	3.380	31	2.000	1.725	45	17.154	2.521	59	147.128	0.239
4	0.032	0.000	18	0.272	2.947	32	2.332	2.083	46	20.000	2.510	60	171.539	0.156
5	0.037	0.000	19	0.317	2.074	33	2.719	2.335	47	23.318	2.735	61	200.000	0.118
6	0.043	0.000	20	0.370	1.295	34	3.170	2.480	48	27.187	3.136	62	233.183	0.000
7	0.050	0.000	21	0.431	0.648	35	3.696	2.534	49	31.696	3.631	63	271.871	0.000
8	0.059	0.008	22	0.502	0.387	36	4.309	2.535	50	36.967	4.082	64	316.979	0.000
9	0.068	0.175	23	0.586	0.240	37	5.024	2.526	51	43.089	4.338	65	369.570	0.000
10	0.080	0.333	24	0.683	0.197	38	5.857	2.538	52	50.238	4.175	66	430.887	0.000
11	0.093	0.575	25	0.796	0.212	39	6.829	2.597	53	58.573	3.655	67	502.377	0.000
12	0.108	0.883	26	0.928	0.286	40	7.962	2.693	54	68.291	2.876	68	585.729	0.000
13	0.126	1.275	27	1.062	0.444	41	9.283	2.803	55	79.621	2.063	69	682.910	0.000
14	0.147	1.830	28	1.262	0.684	42	10.823	2.895	56	92.832	1.377	70	796.214	0.000

Particle Size Distribution

Attached page 29

Sample name : NPCPP-3G2
Data name : NPCPP-3G2_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2033 (µm) : (6)70.00 (%) - 26.3221 (µm)
: (2)20.00 (%) - 0.4011 (µm) : (7)80.00 (%) - 39.2017 (µm)
: (3)30.00 (%) - 2.5759 (µm) : (8)90.00 (%) - 55.9430 (µm)
: (4)40.00 (%) - 4.8382 (µm) : (9)95.00 (%) - 74.4841 (µm)
: (5)60.00 (%) - 15.1862 (µm) : (10)100.0 (%) - 271.4880 (µm)



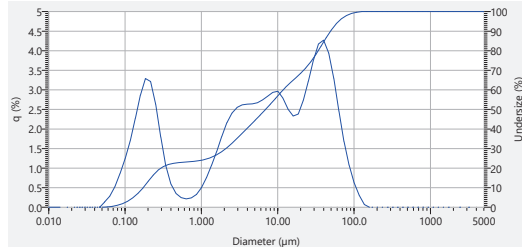
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.313	29	1.471	0.934	43	12.619	2.881	57	108.234	0.868
2	0.023	0.000	16	0.200	3.079	30	1.715	1.274	44	14.713	2.770	58	126.191	0.588
3	0.027	0.000	17	0.233	3.483	31	2.000	1.658	45	17.154	2.644	59	147.128	0.317
4	0.032	0.000	18	0.272	3.074	32	2.332	2.016	46	20.000	2.620	60	171.539	0.217
5	0.037	0.000	19	0.317	2.222	33	2.719	2.271	47	23.318	2.797	61	200.000	0.177
6	0.043	0.000	20	0.370	1.299	34	3.170	2.418	48	27.187	3.148	62	233.183	0.153
7	0.050	0.000	21	0.431	0.687	35	3.696	2.470	49	31.696	3.639	63	271.871	0.109
8	0.059	0.008	22	0.502	0.377	36	4.309	2.468	50	36.967	4.064	64	316.979	0.000
9	0.068	0.132	23	0.586	0.239	37	5.024	2.453	51	43.089	4.333	65	369.570	0.000
10	0.080	0.255	24	0.683	0.189	38	5.857	2.461	52	50.238	4.244	66	430.887	0.000
11	0.093	0.453	25	0.796	0.199	39	6.829	2.519	53	58.573	3.783	67	502.377	0.000
12	0.108	0.720	26	0.928	0.284	40	7.962	2.621	54	68.291	3.042	68	585.729	0.000
13	0.126	1.075	27	1.062	0.411	41	9.283	2.742	55	79.621	2.233	69	682.910	0.000
14	0.147	1.604	28	1.262	0.640	42	10.823	2.858	56	92.832	1.522	70	796.214	0.000

Particle Size Distribution

Attached page 30

Sample name : NPCPP-3G2
Data name : NPCPP-3G2_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1729 (µm) : (6)70.00 (%) - 21.8392 (µm)
: (2)20.00 (%) - 0.2970 (µm) : (7)80.00 (%) - 33.9646 (µm)
: (3)30.00 (%) - 2.0596 (µm) : (8)90.00 (%) - 49.2583 (µm)
: (4)40.00 (%) - 3.9083 (µm) : (9)95.00 (%) - 63.1427 (µm)
: (5)60.00 (%) - 11.7900 (µm) : (10)100.0 (%) - 146.7909 (µm)



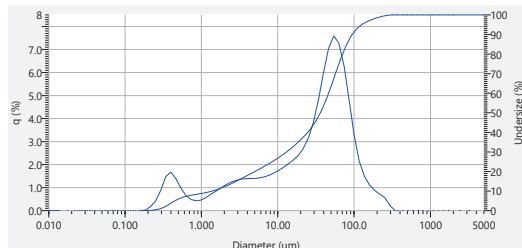
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.857	29	1.471	1.072	43	12.619	2.782	57	108.234	0.819
2	0.023	0.000	16	0.200	3.287	30	1.715	1.420	44	14.713	2.504	58	126.191	0.299
3	0.027	0.000	17	0.233	3.212	31	2.000	1.809	45	17.154	2.326	59	147.128	0.067
4	0.032	0.000	18	0.272	2.634	32	2.332	2.159	46	20.000	2.380	60	171.539	0.000
5	0.037	0.000	19	0.317	1.792	33	2.719	2.404	47	23.318	2.719	61	200.000	0.000
6	0.043	0.000	20	0.370	1.082	34	3.170	2.580	48	27.187	3.719	62	233.183	0.000
7	0.050	0.000	21	0.431	0.589	35	3.696	2.613	49	31.696	3.751	63	271.871	0.000
8	0.059	0.137	22	0.502	0.351	36	4.309	2.631	50	36.967	4.170	64	316.979	0.000
9	0.068	0.285	23	0.586	0.243	37	5.024	2.640	51	43.089	4.267	65	369.570	0.000
10	0.080	0.523	24	0.683	0.211	38	5.857	2.699	52	50.238	3.940	66	430.887	0.000
11	0.093	0.854	25	0.796	0.236	39	6.829	2.739	53	58.573	3.256	67	502.377	0.000
12	0.108	1.233	26	0.928	0.325	40	7.962	2.835	54	68.291	2.452	68	585.729	0.000
13	0.126	1.688	27	1.062	0.497	41	9.283	2.933	55	79.621	1.681	69	682.910	0.000
14	0.147	2.260	28	1.262	0.754	42	10.823	2.962	56	92.832	1.077	70	796.214	0.000

Particle Size Distribution

Attached page 32

Sample name : NPCPP-4C2
Data name : NPCPP-4C2_06
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 1.3973 (µm) : (6)70.00 (%) - 57.1321 (µm)
: (2)20.00 (%) - 5.0421 (µm) : (7)80.00 (%) - 70.8484 (µm)
: (3)30.00 (%) - 13.0903 (µm) : (8)90.00 (%) - 94.5353 (µm)
: (4)40.00 (%) - 24.7225 (µm) : (9)95.00 (%) - 125.9926 (µm)
: (5)60.00 (%) - 46.4044 (µm) : (10)100.0 (%) - 316.7646 (µm)



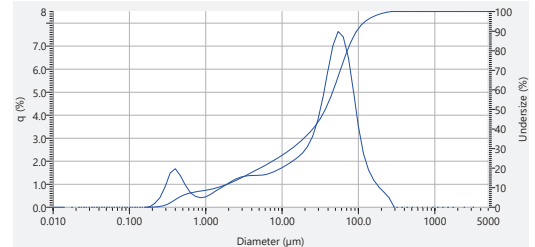
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.729	43	12.619	1.863	57	108.234	3.270
2	0.023	0.000	16	0.200	0.013	30	1.715	0.861	44	14.713	2.019	58	126.191	2.139
3	0.027	0.000	17	0.233	0.174	31	2.000	0.998	45	17.154	2.188	59	147.128	1.492
4	0.032	0.000	18	0.272	0.415	32	2.332	1.137	46	20.000	2.380	60	171.539	1.112
5	0.037	0.000	19	0.317	0.877	33	2.719	1.250	47	23.318	2.680	61	200.000	0.876
6	0.043	0.000	20	0.370	1.478	34	3.170	1.330	48	27.187	3.137	62	233.183	0.710
7	0.050	0.000	21	0.431	1.865	35	3.696	1.372	49	31.696	3.831	63	271.871	0.861
8	0.059	0.000	22	0.502	1.371	36	4.309	1.386	50	36.967	4.818	64	316.979	0.227
9	0.068	0.000	23	0.586	0.956	37	5.024	1.389	51	43.089	5.002	65	369.570	0.000
10	0.080	0.000	24	0.683	0.632	38	5.857	1.398	52	50.238	7.055	66	430.887	0.000
11	0.093	0.000	25	0.796	0.477	39	6.829	1.436	53	58.573	7.880	67	502.377	0.000
12	0.108	0.000	26	0.928	0.421	40	7.962	1.508	54	68.291	7.261	68	585.729	0.000
13	0.126	0.000	27	1.062	0.458	41	9.283	1.614	55	79.621	6.302	69	682.910	0.000
14	0.147	0.000	28	1.262	0.580	42	10.823	1.733	56	92.832	4.820	70	796.214	0.000

Particle Size Distribution

Attached page 31

Sample name : NPCPP-4C2
Data name : NPCPP-4C2_03
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 1.4175 (µm) : (6)70.00 (%) - 57.8635 (µm)
: (2)20.00 (%) - 5.1565 (µm) : (7)80.00 (%) - 71.5938 (µm)
: (3)30.00 (%) - 13.3581 (µm) : (8)90.00 (%) - 94.7053 (µm)
: (4)40.00 (%) - 25.2418 (µm) : (9)95.00 (%) - 123.5554 (µm)
: (5)60.00 (%) - 47.0764 (µm) : (10)100.0 (%) - 271.7676 (µm)



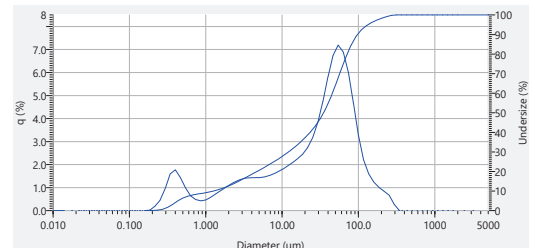
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.709	43	12.619	1.847	57	108.234	3.473
2	0.023	0.000	16	0.200	0.013	30	1.715	0.840	44	14.713	1.997	58	126.191	2.294
3	0.027	0.000	17	0.233	0.176	31	2.000	0.976	45	17.154	2.158	59	147.128	1.596
4	0.032	0.000	18	0.272	0.420	32	2.332	1.115	46	20.000	2.352	60	171.539	1.163
5	0.037	0.000	19	0.317	0.886	33	2.719	1.230	47	23.318	2.643	61	200.000	0.873
6	0.043	0.000	20	0.370	1.488	34	3.170	1.313	48	27.187	3.081	62	233.183	0.680
7	0.050	0.000	21	0.431	1.869	35	3.696	1.358	49	31.696	3.768	63	271.871	0.403
8	0.059	0.000	22	0.502	1.385	36	4.309	1.376	50	36.967	4.748	64	316.979	0.000
9	0.068	0.000	23	0.586	0.944	37	5.024	1.381	51	43.089	5.941	65	369.570	0.000
10	0.080	0.000	24	0.683	0.620	38	5.857	1.392	52	50.238	7.033	66	430.887	0.000
11	0.093	0.000	25	0.796	0.466	39	6.829	1.431	53	58.573	7.628	67	502.377	0.000
12	0.108	0.000	26	0.928	0.439	40	7.962	1.502	54	68.291	7.394	68	585.729	0.000
13	0.126	0.000	27	1.062	0.445	41	9.283	1.606	55	79.621	6.503	69	682.910	0.000
14	0.147	0.000	28	1.262	0.564	42	10.823	1.722	56	92.832	5.046	70	796.214	0.000

Particle Size Distribution

Attached page 33

Sample name : NPCPP-4C2
Data name : NPCPP-4C2_09
Lot number : T43779.27
Transmittance (R) : 87.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 1.2797 (µm) : (6)70.00 (%) - 56.8480 (µm)
: (2)20.00 (%) - 4.7024 (µm) : (7)80.00 (%) - 71.3455 (µm)
: (3)30.00 (%) - 12.1465 (µm) : (8)90.00 (%) - 97.4928 (µm)
: (4)40.00 (%) - 23.3392 (µm) : (9)95.00 (%) - 133.7492 (µm)
: (5)60.00 (%) - 45.6329 (µm) : (10)100.0 (%) - 316.7991 (µm)



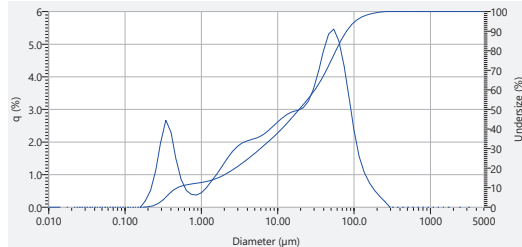
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.735	43	12.619	1.920	57	108.234	3.343
2	0.023	0.000	16	0.200	0.014	30	1.715	0.871	44	14.713	2.077	58	126.191	2.191
3	0.027	0.000	17	0.233	0.186	31	2.000	1.013	45	17.154	2.246	59	147.128	1.587
4	0.032	0.000	18	0.272	0.447	32	2.332	1.158	46	20.000	2.445	60	171.539	1.230
5	0.037	0.000	19	0.317	0.945	33	2.719	1.277	47	23.318	2.736	61	200.000	1.005
6	0.043	0.000	20	0.370	1.587	34	3.170	1.362	48	27.187	3.164	62	233.183	0.839
7	0.050	0.000	21	0.431	1.788	35	3.696	1.409	49	31.696	3.817	63	271.871	0.689
8	0.059	0.000	22	0.502	1.432	36	4.309	1.427	50	36.967	4.727	64	316.979	0.270
9	0.068	0.000	23	0.586	0.981	37	5.024	1.432	51	43.089	5.796	65	369.570	0.000
10	0.080	0.000	24	0.683	0.638	38	5.857	1.443	52	50.238	6.750	66	430.887	0.000
11	0.093	0.000	25	0.796	0.477	39	6.829	1.484	53	58.573	7.184	67	502.377	0.000
12	0.108	0.000	26	0.928	0.419	40	7.962	1.559	54	68.291	6.887	68	585.729	0.000
13	0.126	0.000	27	1.062	0.457	41	9.283	1.668	55	79.621	6.014	69	682.910	0.000
14	0.147	0.000	28	1.262	0.582	42	10.823	1.788	56	92.832	4.666	70	796.214	0.000

Particle Size Distribution

Attached page 34

Sample name : NPCPP-4CP2
Data name : NPCPP-4CP2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4891 (µm) : (6)70.00 (%) - 43.4062 (µm)
: (2)20.00 (%) - 2.7977 (µm) : (7)80.00 (%) - 57.7294 (µm)
: (3)30.00 (%) - 5.9705 (µm) : (8)90.00 (%) - 79.7679 (µm)
: (4)40.00 (%) - 11.2186 (µm) : (9)95.00 (%) - 103.7423 (µm)
: (5)60.00 (%) - 30.6639 (µm) : (10)100.0 (%) - 271.6354 (µm)



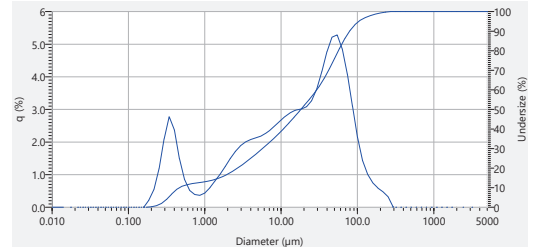
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.807	43	12.619	2.749	57	108.234	2.326
2	0.023	0.000	16	0.200	0.201	30	1.715	1.010	44	14.713	2.864	58	126.191	1.540
3	0.027	0.000	17	0.233	0.513	31	2.000	1.239	45	17.154	2.933	59	147.128	1.056
4	0.032	0.000	18	0.272	1.115	32	2.332	1.480	46	20.000	2.971	60	171.539	0.738
5	0.037	0.000	19	0.317	1.998	33	2.719	1.691	47	23.318	3.050	61	200.000	0.514
6	0.043	0.000	20	0.370	2.682	34	3.170	1.867	48	27.187	3.344	62	233.183	0.332
7	0.050	0.000	21	0.431	2.300	35	3.696	1.968	49	31.696	3.612	63	271.871	0.177
8	0.059	0.000	22	0.502	1.466	36	4.309	2.035	50	36.967	4.162	64	316.979	0.000
9	0.068	0.000	23	0.586	0.850	37	5.024	2.081	51	43.089	4.804	65	369.570	0.000
10	0.080	0.000	24	0.683	0.516	38	5.857	2.130	52	50.238	5.311	66	430.887	0.000
11	0.093	0.000	25	0.796	0.394	39	6.829	2.213	53	58.573	5.459	67	502.377	0.000
12	0.108	0.000	26	0.928	0.370	40	7.962	2.329	54	68.291	5.080	68	585.729	0.000
13	0.126	0.000	27	1.062	0.439	41	9.283	2.474	55	79.621	4.364	69	682.910	0.000
14	0.147	0.000	28	1.262	0.603	42	10.823	2.618	56	92.832	3.357	70	796.214	0.000

Particle Size Distribution

Attached page 35

Sample name : NPCPP-4CP2
Data name : NPCPP-4CP2_06
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4700 (µm) : (6)70.00 (%) - 42.0117 (µm)
: (2)20.00 (%) - 2.7062 (µm) : (7)80.00 (%) - 56.4359 (µm)
: (3)30.00 (%) - 5.7512 (µm) : (8)90.00 (%) - 78.9849 (µm)
: (4)40.00 (%) - 10.7138 (µm) : (9)95.00 (%) - 104.7077 (µm)
: (5)60.00 (%) - 29.2934 (µm) : (10)100.0 (%) - 271.7397 (µm)



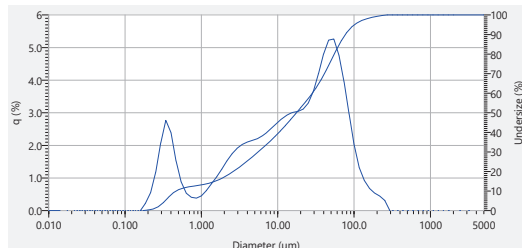
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.804	43	12.619	2.607	57	108.234	2.140
2	0.023	0.000	16	0.200	0.213	30	1.715	1.010	44	14.713	2.917	58	126.191	1.424
3	0.027	0.000	17	0.233	0.540	31	2.000	1.243	45	17.154	2.960	59	147.128	1.001
4	0.032	0.000	18	0.272	1.170	32	2.332	1.490	46	20.000	3.016	60	171.539	0.743
5	0.037	0.000	19	0.317	2.090	33	2.719	1.707	47	23.318	3.086	61	200.000	0.583
6	0.043	0.000	20	0.370	2.776	34	3.170	1.881	48	27.187	3.366	62	233.183	0.471
7	0.050	0.000	21	0.431	2.371	35	3.696	1.999	49	31.696	3.625	63	271.871	0.318
8	0.059	0.000	22	0.502	1.483	36	4.309	2.074	50	36.967	4.158	64	316.979	0.000
9	0.068	0.000	23	0.586	0.854	37	5.024	2.125	51	43.089	4.764	65	369.570	0.000
10	0.080	0.000	24	0.683	0.513	38	5.857	2.179	52	50.238	5.211	66	430.887	0.000
11	0.093	0.000	25	0.796	0.399	39	6.829	2.268	53	58.573	5.263	67	502.377	0.000
12	0.108	0.000	26	0.928	0.394	40	7.962	2.368	54	68.291	4.850	68	585.729	0.000
13	0.126	0.000	27	1.062	0.433	41	9.283	2.535	55	79.621	4.085	69	682.910	0.000
14	0.147	0.000	28	1.262	0.597	42	10.823	2.878	56	92.832	3.108	70	796.214	0.000

Particle Size Distribution

Attached page 36

Sample name : NPCPP-4CP2
Data name : NPCPP-4CP2_09
Lot number : T43779.27
Transmittance (R) : 87.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4686 (µm) : (6)70.00 (%) - 40.9310 (µm)
: (2)20.00 (%) - 2.6380 (µm) : (7)80.00 (%) - 55.1033 (µm)
: (3)30.00 (%) - 5.6665 (µm) : (8)90.00 (%) - 77.1199 (µm)
: (4)40.00 (%) - 10.3958 (µm) : (9)95.00 (%) - 101.8224 (µm)
: (5)60.00 (%) - 28.4073 (µm) : (10)100.0 (%) - 271.7360 (µm)



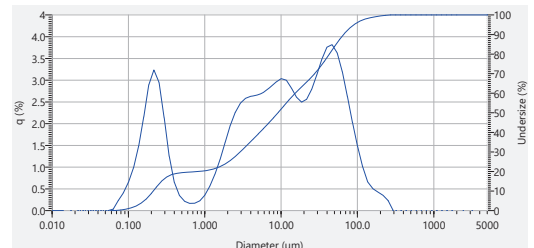
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.828	43	12.619	2.836	57	108.234	2.098
2	0.023	0.000	16	0.200	0.225	30	1.715	1.037	44	14.713	2.947	58	126.191	1.315
3	0.027	0.000	17	0.233	0.547	31	2.000	1.272	45	17.154	3.011	59	147.128	0.916
4	0.032	0.000	18	0.272	1.165	32	2.332	1.520	46	20.000	3.042	60	171.539	0.680
5	0.037	0.000	19	0.317	2.075	33	2.719	1.737	47	23.318	3.111	61	200.000	0.537
6	0.043	0.000	20	0.370	2.765	34	3.170	1.909	48	27.187	3.397	62	233.183	0.445
7	0.050	0.000	21	0.431	2.390	35	3.696	2.027	49	31.696	3.658	63	271.871	0.309
8	0.059	0.000	22	0.502	1.522	36	4.309	2.100	50	36.967	4.196	64	316.979	0.000
9	0.068	0.000	23	0.586	0.879	37	5.024	2.150	51	43.089	4.800	65	369.570	0.000
10	0.080	0.000	24	0.683	0.531	38	5.857	2.205	52	50.238	5.227	66	430.887	0.000
11	0.093	0.000	25	0.796	0.404	39	6.829	2.294	53	58.573	5.296	67	502.377	0.000
12	0.108	0.000	26	0.928	0.378	40	7.962	2.415	54	68.291	4.770	68	585.729	0.000
13	0.126	0.000	27	1.062	0.449	41	9.283	2.564	55	79.621	3.962	69	682.910	0.000
14	0.147	0.000	28	1.262	0.617	42	10.823	2.707	56	92.832	2.967	70	796.214	0.000

Particle Size Distribution

Attached page 37

Sample name : NPCPP-4D2
Data name : NPCPP-4D2_03
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2116 (µm) : (6)70.00 (%) - 27.5885 (µm)
: (2)20.00 (%) - 0.8400 (µm) : (7)80.00 (%) - 42.9949 (µm)
: (3)30.00 (%) - 2.9204 (µm) : (8)90.00 (%) - 66.0517 (µm)
: (4)40.00 (%) - 5.2672 (µm) : (9)95.00 (%) - 90.3847 (µm)
: (5)60.00 (%) - 15.3647 (µm) : (10)100.0 (%) - 271.6873 (µm)



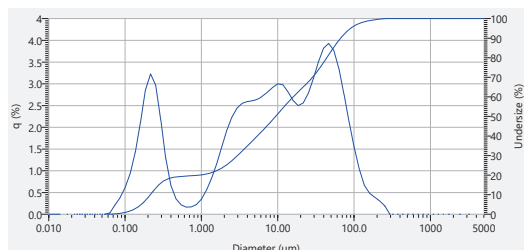
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.149	29	1.471	0.837	43	12.619	2.997	57	108.234	1.480
2	0.023	0.000	16	0.200	2.893	30	1.715	1.169	44	14.713	2.814	58	126.191	1.008
3	0.027	0.000	17	0.233	3.230	31	2.000	1.565	45	17.154	2.606	59	147.128	0.857
4	0.032	0.000	18	0.272	2.945	32	2.332	1.956	46	20.000	2.491	60	171.539	0.502
5	0.037	0.000	19	0.317	2.142	33	2.719	2.262	47	23.318	2.558	61	200.000	0.424
6	0.043	0.000	20	0.370	1.369	34	3.170	2.469	48	27.187	2.784	62	233.183	0.349
7	0.050	0.000	21	0.431	0.648	35	3.696	2.360	49	31.696	3.116	63	271.871	0.227
8	0.059	0.000	22	0.502	0.347	36	4.309	2.626	50	36.967	3.480	64	316.979	0.000
9	0.068	0.000	23	0.586	0.213	37	5.024	2.650	51	43.089	3.755	65	369.570	0.000
10	0.080	0.000	24	0.683	0.164	38	5.857	2.683	52	50.238	3.616	66	430.887	0.000
11	0.093	0.407	25	0.796	0.169	39	6.829	2.755	53	58.573	3.627	67	502.377	0.000
12	0.108	0.651	26	0.928	0.224	40	7.962	2.854	54	68.291	3.199	68	585.729	0.000
13	0.126	0.980	27	1.062	0.353	41	9.283	2.956	55	79.621	2.629	69	682.910	0.000
14	0.147	1.476	28	1.262	0.581	42	10.823	3.032	56	92.832	2.030	70	796.214	0.000

Particle Size Distribution

Attached page 38

Sample name : NPCPP-4D2
Data name : NPCPP-4D2_06
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive Index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2145 (µm) : (6)70.00 (%) - 28.5286 (µm)
: (2)20.00 (%) - 0.9586 (µm) : (7)80.00 (%) - 44.0041 (µm)
: (3)30.00 (%) - 2.9831 (µm) : (8)90.00 (%) - 66.7361 (µm)
: (4)40.00 (%) - 5.4140 (µm) : (9)95.00 (%) - 90.2610 (µm)
: (5)60.00 (%) - 15.9977 (µm) : (10)100.0 (%) - 271.6524 (µm)



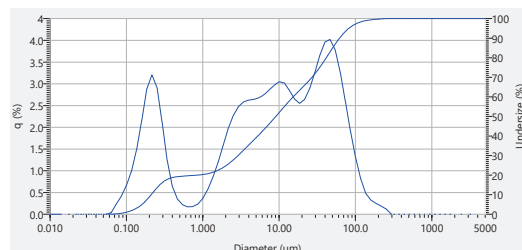
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.095	29	1.471	0.826	43	12.619	2.976	57	108.234	1.539	71	928.316	0.000
2	0.023	0.000	16	0.200	2.859	30	1.715	1.155	44	14.713	2.810	58	126.191	1.038	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.225	31	2.000	1.547	45	17.154	2.612	59	147.128	0.662	73	1261.920	0.000
4	0.032	0.000	18	0.272	2.965	32	2.332	1.934	46	20.000	2.497	60	171.539	0.484	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.170	33	2.719	2.236	47	23.318	2.557	61	200.000	0.382	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.388	34	3.170	2.439	48	27.187	2.780	62	233.183	0.306	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.696	35	3.696	2.546	49	31.696	3.118	63	271.871	0.191	77	5000.000	0.000
8	0.059	0.000	22	0.502	0.349	36	4.309	2.590	50	36.957	3.504	64	316.979	0.000			
9	0.068	0.029	23	0.586	0.213	37	5.024	2.611	51	43.089	3.819	65	369.570	0.000			
10	0.080	0.210	24	0.683	0.163	38	5.857	2.643	52	50.238	3.934	66	430.887	0.000			
11	0.093	0.377	25	0.795	0.167	39	6.829	2.713	53	58.573	3.767	67	502.377	0.000			
12	0.108	0.612	26	0.928	0.220	40	7.962	2.811	54	68.291	3.349	68	585.729	0.000			
13	0.126	0.932	27	1.062	0.347	41	9.283	2.915	55	79.621	2.761	69	682.910	0.000			
14	0.147	1.420	28	1.262	0.553	42	10.823	2.996	56	92.832	2.126	70	796.214	0.000			

Particle Size Distribution

Attached page 39

Sample name : NPCPP-4D2
Data name : NPCPP-4D2_09
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive Index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2113 (µm) : (6)70.00 (%) - 27.0810 (µm)
: (2)20.00 (%) - 0.8735 (µm) : (7)80.00 (%) - 41.5457 (µm)
: (3)30.00 (%) - 2.9127 (µm) : (8)90.00 (%) - 62.1529 (µm)
: (4)40.00 (%) - 5.2572 (µm) : (9)95.00 (%) - 82.2240 (µm)
: (5)60.00 (%) - 15.2734 (µm) : (10)100.0 (%) - 271.5196 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.152	29	1.471	0.852	43	12.619	3.016	57	108.234	1.210	71	928.316	0.000
2	0.023	0.000	16	0.200	2.881	30	1.715	1.186	44	14.713	2.844	58	126.191	0.818	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.202	31	2.000	1.582	45	17.154	2.644	59	147.128	0.478	73	1261.920	0.000
4	0.032	0.000	18	0.272	2.910	32	2.332	1.971	46	20.000	2.548	60	171.539	0.325	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.113	33	2.719	2.273	47	23.318	2.636	61	200.000	0.248	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.230	34	3.170	2.474	48	27.187	2.887	62	233.183	0.189	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.643	35	3.696	2.579	49	31.696	3.253	63	271.871	0.119	77	5000.000	0.000
8	0.059	0.000	22	0.502	0.346	36	4.309	2.622	50	36.957	3.655	64	316.979	0.000			
9	0.068	0.033	23	0.586	0.215	37	5.024	2.643	51	43.089	3.659	65	369.570	0.000			
10	0.080	0.234	24	0.683	0.168	38	5.857	2.676	52	50.238	4.018	66	430.887	0.000			
11	0.093	0.416	25	0.795	0.174	39	6.829	2.750	53	58.573	3.780	67	502.377	0.000			
12	0.108	0.653	26	0.928	0.230	40	7.962	2.852	54	68.291	3.265	68	585.729	0.000			
13	0.126	0.993	27	1.062	0.362	41	9.283	2.961	55	79.621	2.596	69	682.910	0.000			
14	0.147	1.487	28	1.262	0.573	42	10.823	3.046	56	92.832	1.914	70	796.214	0.000			

MTEC0868/68_4

Report of Samples Analysis

Issued Date : 22 July 2025
Customer : Tetra Tech Inc.
77 Soi Udumsuk 39/1, Sukhumvit 103 Road, Bangchak,
Phrakhanong, Bangkok 10260
Tel : 0 2361 3767 Fax : 0 2361 3768

Served by : Physical Analysis Section,
Technical Support for Material Analysis Division, MTEC
13 May 2025

Date received : 27 May – 22 July 2025
Date analyzed :
Samples : Seabed Sediment Project No. T43779.27 (11 samples)
Identification no. : See sample detail.
Objective : Particle size and size distribution analysis.
Instrument : LA-960V2, HORIBA Instruments Incorporated.
Test method : Laser diffraction technique.
Conditions : Red light source : Laser Diode (LD), λ : 650 nm.
Blue light source : Light Emitting Diode (LED), λ : 405 nm.
Particle size range analysis : 0.01 – 5,000 µm.
Dispersion unit : LA-960S2
Dispensing medium : De-ionized water.
Sample refractive index : 1.5300 (as default standard wet)

Sample preparation : 1. Prepare the instrument for wet analysis. Circulation speed
should be set at 12 and agitation speed set at 10.
2. 0.05 – 0.1 g. of sample was dispersed in 40 ml of
de-ionized water and ultrasound 10 minutes with ultrasonic
bath before measurement.
3. Add the dispersed sample into LA-960S2 unit and
measure the dispersed sample with LA-960V2.

Samples detail :

Sample No.	Sample Name	Sample No.	Sample Name
1	NPWB-1C2	7	NPWB-3C2
2	NPWB-1CP2	8	NPWB-3CP2
3	NPWB-1D2	9	NPWB-3D2
4	NPWB-2B3	10	NPWB-4B3X
5	NPWB-2C2X	11	NPWB-4C2
6	NPWB-3B2		

Technical Terms : **Transmittance (R)** : value at particle come transmittance to red light source (percent), ranging from 99-70%.
Transmittance (B) : value at particle come transmittance to blue light source (percent), ranging from 99-70%.
Mean size : mean diameter value by volume.
D [v, 0.1] : 10 volume percent less than or equal to a given diameter.
D [v, 0.5] : 50 volume percent less than or equal to a given diameter, median diameter.
D [v, 0.9] : 90 volume percent less than or equal to a given diameter.
Span : the width of the distribution, which is independent of median size (D [v, 0.5]).

Results :

MTEC received samples from Tetra Tech Inc. Laser diffraction technique is used in order to analyze the particle size and size distribution by wet analysis.

The results of the particle size and size distribution of samples are shown in the attachments No.1 – 33.

- Note : 1. The specific surface area is inapplicable unless the density of a sample is known.
2. The results of particle size distribution are dispersion particle only.
3. Some particle of sample are vary size and size over range of instrument.

Interpretation/Opinion : None

Attached pages :

The attachment number	Detail
1 – 3	HORIBA LA960V2 results of NPWB-1C2
4 – 6	HORIBA LA960V2 results of NPWB-1CP2
7 – 9	HORIBA LA960V2 results of NPWB-1D2
10 – 12	HORIBA LA960V2 results of NPWB-2B3
13 – 15	HORIBA LA960V2 results of NPWB-2C2X
16 – 18	HORIBA LA960V2 results of NPWB-3B2
19 – 21	HORIBA LA960V2 results of NPWB-3C2
22 – 24	HORIBA LA960V2 results of NPWB-3CP2
25 – 27	HORIBA LA960V2 results of NPWB-3D2
28 – 30	HORIBA LA960V2 results of NPWB-4B3X
31 – 33	HORIBA LA960V2 results of NPWB-4C2

Work performed by :

(Mr.Kriangkai Supanpong)

Approved by :

(Ms.Suphakan Kijamnajsuk)

Remarks

- MTEC does not allow any alteration or modification of this report, or any part of this report, without prior formal written permission from MTEC.
- MTEC will not accept liability for any damage whatsoever, resulting directly or indirectly, from using the data, results, conclusions or recommendations in this report for the purposes of designing, manufacturing or for other purposes.
- Experimental results are only valid for the specimens tested.

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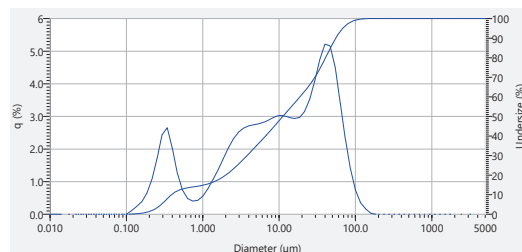


Particle Size Distribution

Attached page 1

Sample name : NPWB-1C2 Mean size : 21.2753 (µm)
 Data name : NPWB-1C2_03 Di(v,0.1) : 0.39237 (µm)
 Lot number : T43779.27 Di(v,0.5) : 11.17565 (µm)
 Transmittance (R) : 86.2 (%) Di(v,0.9) : 55.42628 (µm)
 Distribution base : Volume Span : 4.9244
 Refractive index (R) : Standard Wet Mode size : 40.1488 (µm)
 [Standard wet(1.530 - 0.100),water(1.333)]
 Dispersion : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
 Circulate speed : 12
 Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3924 (µm) : (6)70.00 (%) - 29.4111 (µm)
 : (2)20.00 (%) - 2.0059 (µm) : (7)80.00 (%) - 40.6838 (µm)
 : (3)30.00 (%) - 3.8140 (µm) : (8)90.00 (%) - 55.4263 (µm)
 : (4)40.00 (%) - 6.6520 (µm) : (9)95.00 (%) - 68.1724 (µm)
 : (5)60.00 (%) - 18.7560 (µm) : (10)100.0 (%) - 170.5738 (µm)



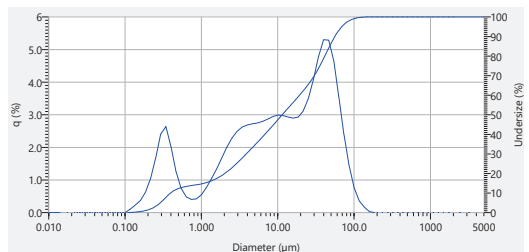
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.379	29	1.471	1.062	43	12.619	3.010	57	108.234	0.733	71	928.316	0.000
2	0.023	0.000	16	0.200	0.643	30	1.715	1.355	44	14.713	2.962	58	126.191	0.344	72	1082.340	0.000
3	0.027	0.000	17	0.233	1.066	31	2.000	1.891	45	17.154	2.931	59	147.128	0.157	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.700	32	2.332	2.027	46	20.000	2.966	60	171.539	0.027	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.436	33	2.719	2.306	47	23.318	3.150	61	200.000	0.000	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.689	34	3.170	2.512	48	27.187	3.518	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.921	35	3.696	2.640	49	31.696	4.084	63	271.871	0.000	77	9000.000	0.000
8	0.059	0.000	22	0.502	3.247	36	4.309	2.708	50	36.967	4.745	64	316.979	0.000			
9	0.068	0.000	23	0.586	3.736	37	5.024	2.741	51	43.089	5.214	65	369.570	0.000			
10	0.080	0.000	24	0.683	4.480	38	5.857	2.770	52	50.238	5.159	66	430.887	0.000			
11	0.093	0.000	25	0.796	4.403	39	6.829	2.821	53	58.573	4.515	67	502.377	0.000			
12	0.108	0.000	26	0.928	4.423	40	7.962	2.892	54	68.291	3.415	68	585.729	0.000			
13	0.126	0.105	27	1.062	0.550	41	9.283	2.974	55	79.621	2.308	69	682.910	0.000			
14	0.147	0.235	28	1.262	0.781	42	10.823	3.024	56	92.832	1.350	70	796.214	0.000			

Particle Size Distribution

Attached page 2

Sample name : NPWB-1C2 Mean size : 21.62634 (µm)
 Data name : NPWB-1C2_06 Di(v,0.1) : 0.39646 (µm)
 Lot number : T43779.27 Di(v,0.5) : 11.44692 (µm)
 Transmittance (R) : 86.4 (%) Di(v,0.9) : 55.05293 (µm)
 Distribution base : Volume Span : 4.9621
 Refractive index (R) : Standard Wet Mode size : 40.1986 (µm)
 [Standard wet(1.530 - 0.100),water(1.333)]
 Dispersion : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
 Circulate speed : 12
 Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3965 (µm) : (6)70.00 (%) - 30.1647 (µm)
 : (2)20.00 (%) - 2.0355 (µm) : (7)80.00 (%) - 41.3816 (µm)
 : (3)30.00 (%) - 3.8750 (µm) : (8)90.00 (%) - 56.0529 (µm)
 : (4)40.00 (%) - 6.7838 (µm) : (9)95.00 (%) - 68.8974 (µm)
 : (5)60.00 (%) - 19.3400 (µm) : (10)100.0 (%) - 170.6116 (µm)



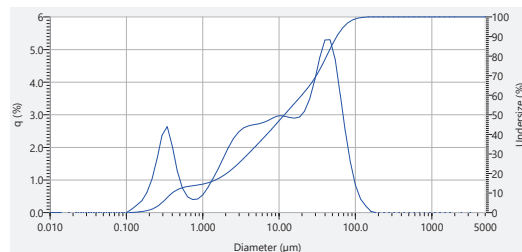
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.367	29	1.471	1.080	43	12.619	2.974	57	108.234	0.758	71	928.316	0.000
2	0.023	0.000	16	0.200	0.624	30	1.715	1.340	44	14.713	2.937	58	126.191	0.356	72	1082.340	0.000
3	0.027	0.000	17	0.233	1.040	31	2.000	1.672	45	17.154	2.886	59	147.128	0.163	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.688	32	2.332	2.007	46	20.000	2.939	60	171.539	0.028	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.406	33	2.719	2.285	47	23.318	3.113	61	200.000	0.000	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.639	34	3.170	2.491	48	27.187	3.489	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.927	35	3.696	2.619	49	31.696	4.075	63	271.871	0.000	77	9000.000	0.000
8	0.059	0.000	22	0.502	3.253	36	4.309	2.680	50	36.967	4.779	64	316.979	0.000			
9	0.068	0.000	23	0.586	3.739	37	5.024	2.720	51	43.089	5.300	65	369.570	0.000			
10	0.080	0.000	24	0.683	4.480	38	5.857	2.748	52	50.238	5.285	66	430.887	0.000			
11	0.093	0.000	25	0.796	4.401	39	6.829	2.796	53	58.573	4.602	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.419	40	7.962	2.864	54	68.291	3.330	68	585.729	0.000			
13	0.126	0.102	27	1.062	0.544	41	9.283	2.942	55	79.621	2.391	69	682.910	0.000			
14	0.147	0.227	28	1.262	0.772	42	10.823	2.988	56	92.832	1.442	70	796.214	0.000			

Particle Size Distribution

Attached page 3

Sample name : NPWB-1C2 Mean size : 22.02952 (µm)
 Data name : NPWB-1C2_09 Di(v,0.1) : 0.39967 (µm)
 Lot number : T43779.27 Di(v,0.5) : 11.70707 (µm)
 Transmittance (R) : 86.4 (%) Di(v,0.9) : 56.90969 (µm)
 Distribution base : Volume Span : 4.9270
 Refractive index (R) : Standard Wet Mode size : 46.1317 (µm)
 [Standard wet(1.530 - 0.100),water(1.333)]
 Dispersion : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
 Circulate speed : 12
 Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3997 (µm) : (6)70.00 (%) - 30.7186 (µm)
 : (2)20.00 (%) - 2.0594 (µm) : (7)80.00 (%) - 42.0007 (µm)
 : (3)30.00 (%) - 3.9312 (µm) : (8)90.00 (%) - 56.9097 (µm)
 : (4)40.00 (%) - 6.9150 (µm) : (9)95.00 (%) - 70.4409 (µm)
 : (5)60.00 (%) - 19.8098 (µm) : (10)100.0 (%) - 170.8116 (µm)



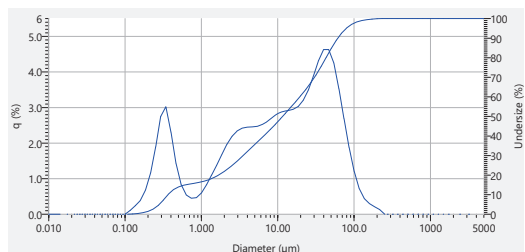
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.369	29	1.471	1.042	43	12.619	2.965	57	108.234	0.802	71	928.316	0.000
2	0.023	0.000	16	0.200	0.610	30	1.715	1.329	44	14.713	2.917	58	126.191	0.409	72	1082.340	0.000
3	0.027	0.000	17	0.233	1.019	31	2.000	1.658	45	17.154	2.883	59	147.128	0.200	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.640	32	2.332	1.988	46	20.000	2.939	60	171.539	0.036	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.379	33	2.719	2.262	47	23.318	3.110	61	200.000	0.000	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.634	34	3.170	2.466	48	27.187	3.478	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.926	35	3.696	2.593	49	31.696	4.060	63	271.871	0.000	77	9000.000	0.000
8	0.059	0.000	22	0.502	3.259	36	4.309	2.659	50	36.967	4.762	64	316.979	0.000			
9	0.068	0.000	23	0.586	3.740	37	5.024	2.692	51	43.089	5.290	65	369.570	0.000			
10	0.080	0.000	24	0.683	4.479	38	5.857	2.720	52	50.238	5.299	66	430.887	0.000			
11	0.093	0.000	25	0.796	3.999	39	6.829	2.768	53	58.573	4.702	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.415	40	7.962	2.837	54	68.291	3.016	68	585.729	0.000			
13	0.126	0.100	27	1.062	0.539	41	9.283	2.917	55	79.621	2.491	69	682.910	0.000			
14	0.147	0.222	28	1.262	0.765	42	10.823	2.969	56	92.832	1.535	70	796.214	0.000			

Particle Size Distribution

Attached page 4

Sample name : NPWB-1CP2
Data name : NPWB-1CP2_03
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3656 (µm) : (6)70.00 (%) - 30.3435 (µm)
: (2)20.00 (%) - 1.6914 (µm) : (7)80.00 (%) - 43.0317 (µm)
: (3)30.00 (%) - 5.5329 (µm) : (8)90.00 (%) - 61.3989 (µm)
: (4)40.00 (%) - 6.5841 (µm) : (9)95.00 (%) - 79.0215 (µm)
: (5)60.00 (%) - 19.4604 (µm) : (10)100.0 (%) - 232.9057 (µm)



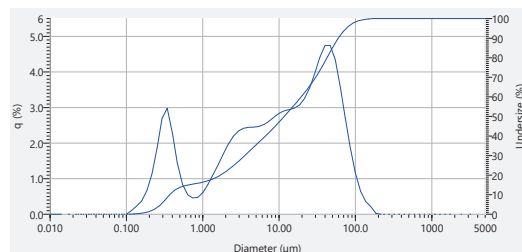
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.389	29	1.471	1.100	43	12.619	2.884	57	108.234	1.303
2	0.023	0.000	16	0.200	0.675	30	1.715	1.373	44	14.713	2.912	58	126.191	0.715
3	0.027	0.000	17	0.233	1.151	31	2.000	1.674	45	17.154	2.949	59	147.128	0.435
4	0.032	0.000	18	0.272	1.884	32	2.332	1.964	46	20.000	3.027	60	171.539	0.296
5	0.037	0.000	19	0.317	2.752	33	2.719	2.189	47	23.318	3.352	61	200.000	0.309
6	0.043	0.000	20	0.370	3.021	34	3.170	2.339	48	27.187	3.489	62	233.183	0.129
7	0.050	0.000	21	0.431	2.311	35	3.696	2.417	49	31.696	3.878	63	271.871	0.000
8	0.059	0.000	22	0.502	1.423	36	4.309	2.445	50	36.957	4.312	64	316.979	0.000
9	0.068	0.000	23	0.586	0.836	37	5.024	2.453	51	43.089	4.625	65	369.570	0.000
10	0.080	0.000	24	0.683	0.540	38	5.857	2.470	52	50.238	4.625	66	430.887	0.000
11	0.093	0.000	25	0.795	0.448	39	6.829	2.524	53	58.573	4.556	67	502.377	0.000
12	0.108	0.000	26	0.928	0.464	40	7.962	2.614	54	68.291	3.559	68	585.729	0.000
13	0.126	0.105	27	1.062	0.594	41	9.283	2.727	55	79.621	2.687	69	682.910	0.000
14	0.147	0.237	28	1.262	0.825	42	10.823	2.827	56	92.832	1.881	70	796.214	0.000

Particle Size Distribution

Attached page 5

Sample name : NPWB-1CP2
Data name : NPWB-1CP2_06
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3693 (µm) : (6)70.00 (%) - 30.1823 (µm)
: (2)20.00 (%) - 1.7198 (µm) : (7)80.00 (%) - 42.5241 (µm)
: (3)30.00 (%) - 5.5653 (µm) : (8)90.00 (%) - 59.8124 (µm)
: (4)40.00 (%) - 6.6497 (µm) : (9)95.00 (%) - 76.1216 (µm)
: (5)60.00 (%) - 19.4967 (µm) : (10)100.0 (%) - 198.5753 (µm)



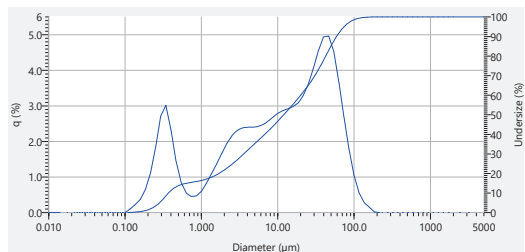
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.378	29	1.471	1.108	43	12.619	2.902	57	108.234	1.139
2	0.023	0.000	16	0.200	0.659	30	1.715	1.381	44	14.713	2.939	58	126.191	0.642
3	0.027	0.000	17	0.233	1.125	31	2.000	1.681	45	17.154	2.964	59	147.128	0.367
4	0.032	0.000	18	0.272	1.844	32	2.332	1.968	46	20.000	3.070	60	171.539	0.210
5	0.037	0.000	19	0.317	2.700	33	2.719	2.191	47	23.318	3.251	61	200.000	0.022
6	0.043	0.000	20	0.370	2.976	34	3.170	2.339	48	27.187	3.546	62	233.183	0.000
7	0.050	0.000	21	0.431	2.292	35	3.696	2.415	49	31.696	3.953	63	271.871	0.000
8	0.059	0.000	22	0.502	1.424	36	4.309	2.440	50	36.957	4.406	64	316.979	0.000
9	0.068	0.000	23	0.586	0.842	37	5.024	2.447	51	43.089	4.739	65	369.570	0.000
10	0.080	0.000	24	0.683	0.548	38	5.857	2.465	52	50.238	4.747	66	430.887	0.000
11	0.093	0.000	25	0.795	0.456	39	6.829	2.519	53	58.573	4.556	67	502.377	0.000
12	0.108	0.000	26	0.928	0.471	40	7.962	2.612	54	68.291	3.586	68	585.729	0.000
13	0.126	0.103	27	1.062	0.602	41	9.283	2.730	55	79.621	2.691	69	682.910	0.000
14	0.147	0.231	28	1.262	0.834	42	10.823	2.836	56	92.832	1.844	70	796.214	0.000

Particle Size Distribution

Attached page 6

Sample name : NPWB-1CP2
Data name : NPWB-1CP2_09
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3691 (µm) : (6)70.00 (%) - 30.6294 (µm)
: (2)20.00 (%) - 1.7175 (µm) : (7)80.00 (%) - 42.5593 (µm)
: (3)30.00 (%) - 5.5949 (µm) : (8)90.00 (%) - 58.8552 (µm)
: (4)40.00 (%) - 6.7853 (µm) : (9)95.00 (%) - 74.1961 (µm)
: (5)60.00 (%) - 20.0358 (µm) : (10)100.0 (%) - 197.8458 (µm)



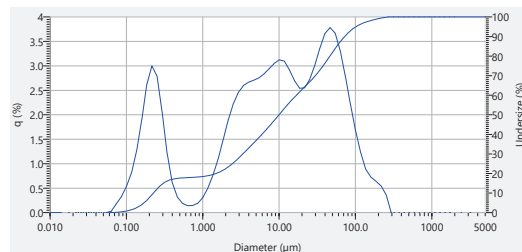
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.372	29	1.471	1.086	43	12.619	2.862	57	108.234	1.030
2	0.023	0.000	16	0.200	0.650	30	1.715	1.365	44	14.713	2.915	58	126.191	0.539
3	0.027	0.000	17	0.233	1.116	31	2.000	1.660	45	17.154	2.978	59	147.128	0.273
4	0.032	0.000	18	0.272	1.840	32	2.332	1.943	46	20.000	3.081	60	171.539	0.144
5	0.037	0.000	19	0.317	2.710	33	2.719	2.160	47	23.318	3.285	61	200.000	0.014
6	0.043	0.000	20	0.370	3.010	34	3.170	2.303	48	27.187	3.686	62	233.183	0.000
7	0.050	0.000	21	0.431	2.326	35	3.696	2.375	49	31.696	4.052	63	271.871	0.000
8	0.059	0.000	22	0.502	1.441	36	4.309	2.397	50	36.957	4.598	64	316.979	0.000
9	0.068	0.000	23	0.586	0.848	37	5.024	2.400	51	43.089	4.937	65	369.570	0.000
10	0.080	0.000	24	0.683	0.548	38	5.857	2.414	52	50.238	4.659	66	430.887	0.000
11	0.093	0.000	25	0.795	0.453	39	6.829	2.466	53	58.573	4.528	67	502.377	0.000
12	0.108	0.000	26	0.928	0.466	40	7.962	2.558	54	68.291	3.666	68	585.729	0.000
13	0.126	0.101	27	1.062	0.594	41	9.283	2.677	55	79.621	2.682	69	682.910	0.000
14	0.147	0.227	28	1.262	0.824	42	10.823	2.787	56	92.832	1.768	70	796.214	0.000

Particle Size Distribution

Attached page 7

Sample name : NPWB-1D2
Data name : NPWB-1D2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2257 (µm) : (6)70.00 (%) - 29.8806 (µm)
: (2)20.00 (%) - 1.5077 (µm) : (7)80.00 (%) - 46.4044 (µm)
: (3)30.00 (%) - 5.3673 (µm) : (8)90.00 (%) - 72.4425 (µm)
: (4)40.00 (%) - 5.9545 (µm) : (9)95.00 (%) - 102.3739 (µm)
: (5)60.00 (%) - 16.8209 (µm) : (10)100.0 (%) - 271.7560 (µm)



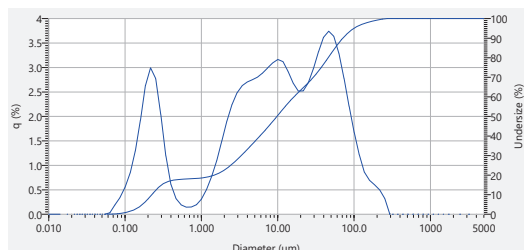
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	1.889	29	1.471	0.763	43	12.619	3.096	57	108.234	1.679
2	0.023	0.000	16	0.200	2.619	30	1.715	1.088	44	14.713	2.917	58	126.191	1.229
3	0.027	0.000	17	0.233	2.996	31	2.000	1.486	45	17.154	2.694	59	147.128	0.885
4	0.032	0.000	18	0.272	2.786	32	2.332	1.893	46	20.000	2.540	60	171.539	0.726
5	0.037	0.000	19	0.317	2.057	33	2.719	2.224	47	23.318	2.548	61	200.000	0.642
6	0.043	0.000	20	0.370	1.199	34	3.170	2.460	48	27.187	2.718	62	233.183	0.547
7	0.050	0.000	21	0.431	0.606	35	3.696	2.597	49	31.696	3.007	63	271.871	0.362
8	0.059	0.000	22	0.502	0.314	36	4.309	2.665	50	36.957	3.358	64	316.979	0.000
9	0.068	0.025	23	0.586	0.187	37	5.024	2.705	51	43.089	3.660	65	369.570	0.000
10	0.080	0.179	24	0.683	0.141	38	5.857	2.751	52	50.238	3.781	66	430.887	0.000
11	0.093	0.324	25	0.795	0.144	39	6.829	2.834	53	58.573	3.666	67	502.377	0.000
12	0.108	0.530	26	0.928	0.190	40	7.962	2.939	54	68.291	3.306	68	585.729	0.000
13	0.126	0.816	27	1.062	0.306	41	9.283	3.046	55	79.621	2.788	69	682.910	0.000
14	0.147	1.260	28	1.262	0.500	42	10.823	3.123	56	92.832	2.214	70	796.214	0.000

Particle Size Distribution

Attached page 8

Sample name : NPWB-1D2
Data name : NPWB-1D2_06
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2242 (µm) : (6)70.00 (%) - 29.2488 (µm)
: (2)20.00 (%) - 1.4844 (µm) : (7)80.00 (%) - 45.8394 (µm)
: (3)30.00 (%) - 3.3534 (µm) : (8)90.00 (%) - 71.5426 (µm)
: (4)40.00 (%) - 5.8522 (µm) : (9)95.00 (%) - 100.3899 (µm)
: (5)60.00 (%) - 16.3257 (µm) : (10)100.0 (%) - 271.7404 (µm)



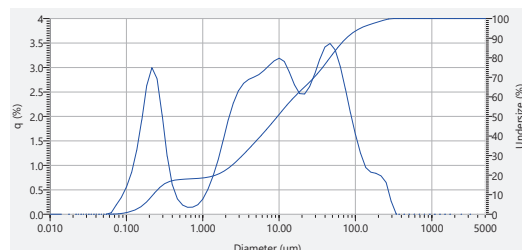
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	1.911	29	1.471	0.765	43	12.619	3.116	57	108.234	1.673
2	0.023	0.000	16	0.200	2.629	30	1.715	1.091	44	14.713	2.918	58	126.191	1.213
3	0.027	0.000	17	0.233	2.991	31	2.000	1.491	45	17.154	2.679	59	147.128	0.859
4	0.032	0.000	18	0.272	2.771	32	2.332	1.901	46	20.000	2.516	60	171.539	0.693
5	0.037	0.000	19	0.317	2.943	33	2.719	2.238	47	23.318	2.519	61	200.000	0.600
6	0.043	0.000	20	0.370	1.180	34	3.170	2.481	48	27.187	2.689	62	233.183	0.496
7	0.050	0.000	21	0.431	0.607	35	3.696	2.626	49	31.696	2.871	63	271.871	0.319
8	0.059	0.000	22	0.502	0.316	36	4.309	2.702	50	36.967	3.317	64	316.979	0.000
9	0.068	0.026	23	0.586	0.189	37	5.024	2.749	51	43.089	3.618	65	369.570	0.000
10	0.080	0.188	24	0.683	0.143	38	5.857	2.800	52	50.238	3.742	66	430.887	0.000
11	0.093	0.339	25	0.796	0.146	39	6.829	2.885	53	58.573	3.636	67	502.377	0.000
12	0.108	0.550	26	0.928	0.192	40	7.962	2.991	54	68.291	3.289	68	585.729	0.000
13	0.126	0.841	27	1.062	0.309	41	9.283	3.094	55	79.621	2.779	69	682.910	0.000
14	0.147	1.288	28	1.262	0.502	42	10.823	3.163	56	92.832	2.210	70	796.214	0.000

Particle Size Distribution

Attached page 9

Sample name : NPWB-1D2
Data name : NPWB-1D2_09
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2238 (µm) : (6)70.00 (%) - 28.9263 (µm)
: (2)20.00 (%) - 1.4825 (µm) : (7)80.00 (%) - 46.4464 (µm)
: (3)30.00 (%) - 3.3047 (µm) : (8)90.00 (%) - 76.2316 (µm)
: (4)40.00 (%) - 5.7466 (µm) : (9)95.00 (%) - 116.2732 (µm)
: (5)60.00 (%) - 15.8936 (µm) : (10)100.0 (%) - 316.7928 (µm)



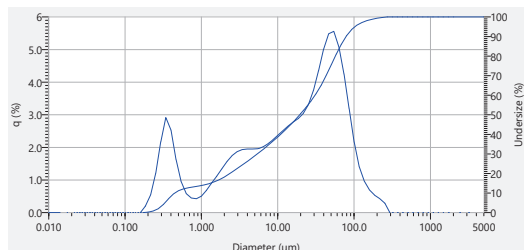
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	1.918	29	1.471	0.771	43	12.619	3.123	57	108.234	1.621
2	0.023	0.000	16	0.200	2.634	30	1.715	1.101	44	14.713	2.900	58	126.191	1.239
3	0.027	0.000	17	0.233	2.993	31	2.000	1.508	45	17.154	2.642	59	147.128	0.955
4	0.032	0.000	18	0.272	2.768	32	2.332	1.927	46	20.000	2.465	60	171.539	0.699
5	0.037	0.000	19	0.317	2.934	33	2.719	2.272	47	23.318	2.457	61	200.000	0.604
6	0.043	0.000	20	0.370	1.180	34	3.170	2.522	48	27.187	2.689	62	233.183	0.794
7	0.050	0.000	21	0.431	0.600	35	3.696	2.673	49	31.696	2.866	63	271.871	0.646
8	0.059	0.000	22	0.502	0.312	36	4.309	2.753	50	36.967	3.170	64	316.979	0.261
9	0.068	0.026	23	0.586	0.186	37	5.024	2.802	51	43.089	3.416	65	369.570	0.000
10	0.080	0.191	24	0.683	0.141	38	5.857	2.853	52	50.238	3.488	66	430.887	0.000
11	0.093	0.343	25	0.796	0.146	39	6.829	2.937	53	58.573	3.566	67	502.377	0.000
12	0.108	0.555	26	0.928	0.192	40	7.962	3.037	54	68.291	3.023	68	585.729	0.000
13	0.126	0.847	27	1.062	0.309	41	9.283	3.132	55	79.621	2.565	69	682.910	0.000
14	0.147	1.294	28	1.262	0.504	42	10.823	3.188	56	92.832	2.074	70	796.214	0.000

Particle Size Distribution

Attached page 10

Sample name : NPWB-2B3
Data name : NPWB-2B3_03
Lot number : T43779.27
Transmittance (R) : 86.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4503 (µm) : (6)70.00 (%) - 43.1144 (µm)
: (2)20.00 (%) - 2.4025 (µm) : (7)80.00 (%) - 56.9558 (µm)
: (3)30.00 (%) - 5.3834 (µm) : (8)90.00 (%) - 78.6528 (µm)
: (4)40.00 (%) - 10.9896 (µm) : (9)95.00 (%) - 103.0136 (µm)
: (5)60.00 (%) - 30.8783 (µm) : (10)100.0 (%) - 271.7276 (µm)



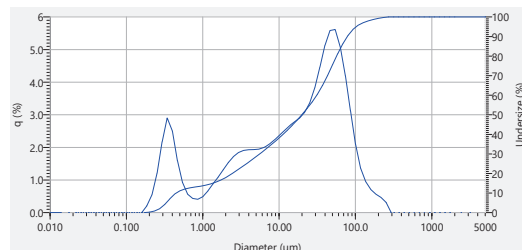
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.904	43	12.619	2.937	57	108.234	2.198
2	0.023	0.000	16	0.200	0.204	30	1.715	1.113	44	14.713	2.651	58	126.191	1.400
3	0.027	0.000	17	0.233	0.537	31	2.000	1.338	45	17.154	2.773	59	147.128	0.958
4	0.032	0.000	18	0.272	1.191	32	2.332	1.563	46	20.000	2.881	60	171.539	0.695
5	0.037	0.000	19	0.317	2.162	33	2.719	1.743	47	23.318	3.037	61	200.000	0.534
6	0.043	0.000	20	0.370	2.989	34	3.170	1.866	48	27.187	3.352	62	233.183	0.428
7	0.050	0.000	21	0.431	2.531	35	3.696	1.929	49	31.696	3.736	63	271.871	0.291
8	0.059	0.000	22	0.502	1.625	36	4.309	1.947	50	36.967	4.339	64	316.979	0.000
9	0.068	0.000	23	0.586	0.949	37	5.024	1.948	51	43.089	5.002	65	369.570	0.000
10	0.080	0.000	24	0.683	0.581	38	5.857	1.958	52	50.238	5.481	66	430.887	0.000
11	0.093	0.000	25	0.796	0.447	39	6.829	2.036	53	58.573	5.653	67	502.377	0.000
12	0.108	0.000	26	0.928	0.422	40	7.962	2.088	54	68.291	5.075	68	585.729	0.000
13	0.126	0.000	27	1.062	0.502	41	9.283	2.229	55	79.621	4.251	69	682.910	0.000
14	0.147	0.000	28	1.262	0.684	42	10.823	2.367	56	92.832	3.198	70	796.214	0.000

Particle Size Distribution

Attached page 11

Sample name : NPWB-2B3
Data name : NPWB-2B3_06
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4515 (µm) : (6)70.00 (%) - 43.1296 (µm)
: (2)20.00 (%) - 2.4645 (µm) : (7)80.00 (%) - 56.7462 (µm)
: (3)30.00 (%) - 5.5703 (µm) : (8)90.00 (%) - 78.3553 (µm)
: (4)40.00 (%) - 11.2976 (µm) : (9)95.00 (%) - 103.1108 (µm)
: (5)60.00 (%) - 31.2047 (µm) : (10)100.0 (%) - 271.7373 (µm)



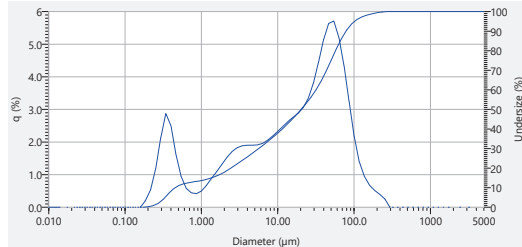
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.878	43	12.619	2.956	57	108.234	2.060
2	0.023	0.000	16	0.200	0.206	30	1.715	1.084	44	14.713	2.655	58	126.191	1.396
3	0.027	0.000	17	0.233	0.543	31	2.000	1.307	45	17.154	2.782	59	147.128	0.943
4	0.032	0.000	18	0.272	1.198	32	2.332	1.531	46	20.000	2.899	60	171.539	0.704
5	0.037	0.000	19	0.317	2.166	33	2.719	1.712	47	23.318	3.071	61	200.000	0.562
6	0.043	0.000	20	0.370	2.897	34	3.170	1.838	48	27.187	3.358	62	233.183	0.462
7	0.050	0.000	21	0.431	2.504	35	3.696	1.904	49	31.696	3.820	63	271.871	0.312
8	0.059	0.000	22	0.502	1.595	36	4.309	1.926	50	36.967	4.452	64	316.979	0.000
9	0.068	0.000	23	0.586	0.925	37	5.024	1.930	51	43.089	5.124	65	369.570	0.000
10	0.080	0.000	24	0.683	0.563	38	5.857	1.943	52	50.238	5.582	66	430.887	0.000
11	0.093	0.000	25	0.796	0.432	39	6.829	1.984	53	58.573	5.610	67	502.377	0.000
12	0.108	0.000	26	0.928	0.487	40	7.962	2.088	54	68.291	5.076	68	585.729	0.000
13	0.126	0.000	27	1.062	0.485	41	9.283	2.221	55	79.621	4.205	69	682.910	0.000
14	0.147	0.000	28	1.262	0.682	42	10.823	2.362	56	92.832	3.129	70	796.214	0.000

Particle Size Distribution

Attached page 12

Sample name : NPWB-2B3
Data name : NPWB-2B3_09
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4563 (µm) : (6)70.00 (%) - 43.6744 (µm)
: (2)20.00 (%) - 2.4702 (µm) : (7)80.00 (%) - 57.2550 (µm)
: (3)30.00 (%) - 5.6396 (µm) : (8)90.00 (%) - 75.5004 (µm)
: (4)40.00 (%) - 11.5220 (µm) : (9)95.00 (%) - 102.0994 (µm)
: (5)60.00 (%) - 31.7746 (µm) : (10)100.0 (%) - 271.7073 (µm)



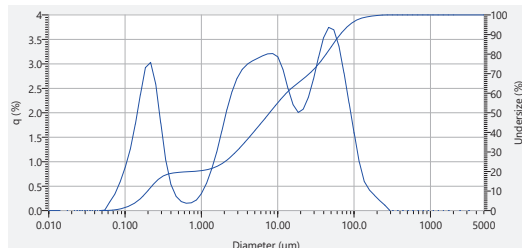
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.007	43	12.619	2.474	57	108.234	2.172
2	0.023	0.000	16	0.200	0.002	30	1.715	1.091	44	14.713	2.628	58	126.191	1.392
3	0.027	0.000	17	0.233	0.531	31	2.000	1.310	45	17.154	2.760	59	147.128	0.942
4	0.032	0.000	18	0.272	1.175	32	2.332	1.528	46	20.000	2.881	60	171.539	0.677
5	0.037	0.000	19	0.317	2.131	33	2.719	1.703	47	23.318	3.054	61	200.000	0.513
6	0.043	0.000	20	0.370	2.886	34	3.170	1.822	48	27.187	3.340	62	233.183	0.396
7	0.050	0.000	21	0.431	2.495	35	3.696	1.681	49	31.696	3.852	63	271.871	0.258
8	0.059	0.000	22	0.502	1.604	36	4.309	1.898	50	36.967	4.440	64	316.979	0.000
9	0.068	0.000	23	0.586	0.938	37	5.024	1.898	51	43.089	5.134	65	369.570	0.000
10	0.080	0.000	24	0.683	0.575	38	5.857	1.908	52	50.238	5.634	66	430.887	0.000
11	0.093	0.000	25	0.796	0.442	39	6.829	1.959	53	58.573	5.786	67	502.377	0.000
12	0.108	0.000	26	0.928	0.417	40	7.962	2.051	54	68.291	5.207	68	585.729	0.000
13	0.126	0.000	27	1.062	0.495	41	9.283	2.185	55	79.621	4.348	69	682.910	0.000
14	0.147	0.000	28	1.262	0.673	42	10.823	2.327	56	92.832	3.252	70	796.214	0.000

Particle Size Distribution

Attached page 14

Sample name : NPWB-2C2X
Data name : NPWB-2C2X_06
Lot number : T43779.27
Transmittance (R) : 86.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1973 (µm) : (6)70.00 (%) - 26.0630 (µm)
: (2)20.00 (%) - 0.7969 (µm) : (7)80.00 (%) - 43.1325 (µm)
: (3)30.00 (%) - 2.8565 (µm) : (8)90.00 (%) - 65.9120 (µm)
: (4)40.00 (%) - 4.8043 (µm) : (9)95.00 (%) - 87.8397 (µm)
: (5)60.00 (%) - 12.9350 (µm) : (10)100.0 (%) - 271.4987 (µm)



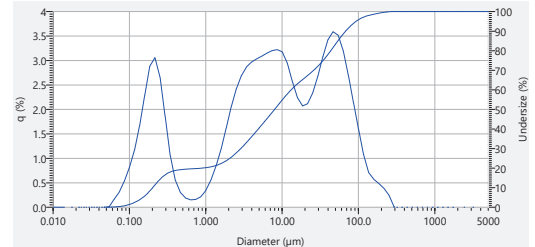
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.364	29	1.471	0.840	43	12.619	2.884	57	108.234	1.982
2	0.023	0.000	16	0.200	2.921	30	1.715	1.191	44	14.713	2.492	58	126.191	0.992
3	0.027	0.000	17	0.233	3.029	31	2.000	1.620	45	17.154	2.147	59	147.128	0.701
4	0.032	0.000	18	0.272	2.591	32	2.332	2.060	46	20.000	2.004	60	171.539	0.419
5	0.037	0.000	19	0.317	1.789	33	2.719	2.428	47	23.318	2.070	61	200.000	0.308
6	0.043	0.000	20	0.370	1.019	34	3.170	2.704	48	27.187	2.339	62	233.183	0.205
7	0.050	0.000	21	0.431	0.532	35	3.696	2.884	49	31.696	2.680	63	271.871	0.112
8	0.059	0.008	22	0.502	0.291	36	4.309	2.991	50	36.967	3.128	64	316.979	0.000
9	0.068	0.179	23	0.586	0.185	37	5.024	3.057	51	43.089	3.532	65	369.570	0.000
10	0.080	0.338	24	0.683	0.148	38	5.857	3.109	52	50.238	3.744	66	430.887	0.000
11	0.093	0.577	25	0.796	0.158	39	6.829	3.163	53	58.573	3.684	67	502.377	0.000
12	0.108	0.873	26	0.928	0.216	40	7.962	3.203	54	68.291	3.364	68	585.729	0.000
13	0.126	1.244	27	1.062	0.345	41	9.283	3.209	55	79.621	2.816	69	682.910	0.000
14	0.147	1.754	28	1.262	0.555	42	10.823	3.142	56	92.832	2.198	70	796.214	0.000

Particle Size Distribution

Attached page 13

Sample name : NPWB-2C2X
Data name : NPWB-2C2X_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2017 (µm) : (6)70.00 (%) - 26.0538 (µm)
: (2)20.00 (%) - 0.9179 (µm) : (7)80.00 (%) - 43.4389 (µm)
: (3)30.00 (%) - 2.8780 (µm) : (8)90.00 (%) - 67.9244 (µm)
: (4)40.00 (%) - 4.8832 (µm) : (9)95.00 (%) - 93.2429 (µm)
: (5)60.00 (%) - 13.1328 (µm) : (10)100.0 (%) - 271.6966 (µm)



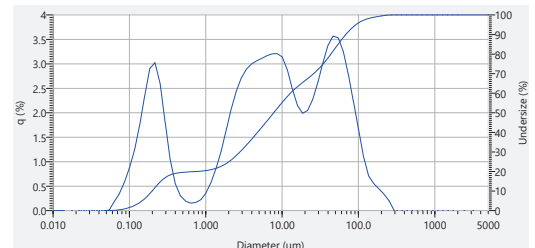
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.284	29	1.471	0.834	43	12.619	2.943	57	108.234	1.986
2	0.023	0.000	16	0.200	2.885	30	1.715	1.183	44	14.713	2.566	58	126.191	1.069
3	0.027	0.000	17	0.233	3.054	31	2.000	1.611	45	17.154	2.236	59	147.128	0.708
4	0.032	0.000	18	0.272	2.689	32	2.332	2.051	46	20.000	2.067	60	171.539	0.589
5	0.037	0.000	19	0.317	1.860	33	2.719	2.417	47	23.318	2.114	61	200.000	0.463
6	0.043	0.000	20	0.370	1.080	34	3.170	2.688	48	27.187	2.331	62	233.183	0.384
7	0.050	0.000	21	0.431	0.592	35	3.696	2.866	49	31.696	2.669	63	271.871	0.239
8	0.059	0.008	22	0.502	0.289	36	4.309	2.969	50	36.967	3.072	64	316.979	0.000
9	0.068	0.163	23	0.586	0.188	37	5.024	3.033	51	43.089	3.424	65	369.570	0.000
10	0.080	0.310	24	0.683	0.149	38	5.857	3.086	52	50.238	3.589	66	430.887	0.000
11	0.093	0.532	25	0.796	0.157	39	6.829	3.147	53	58.573	3.515	67	502.377	0.000
12	0.108	0.813	26	0.928	0.213	40	7.962	3.200	54	68.291	3.198	68	585.729	0.000
13	0.126	1.167	27	1.062	0.341	41	9.283	3.221	55	79.621	2.699	69	682.910	0.000
14	0.147	1.666	28	1.262	0.550	42	10.823	3.175	56	92.832	2.143	70	796.214	0.000

Particle Size Distribution

Attached page 15

Sample name : NPWB-2C2X
Data name : NPWB-2C2X_09
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1979 (µm) : (6)70.00 (%) - 25.9806 (µm)
: (2)20.00 (%) - 0.7760 (µm) : (7)80.00 (%) - 43.7039 (µm)
: (3)30.00 (%) - 2.8156 (µm) : (8)90.00 (%) - 68.2113 (µm)
: (4)40.00 (%) - 4.7671 (µm) : (9)95.00 (%) - 92.6378 (µm)
: (5)60.00 (%) - 12.8206 (µm) : (10)100.0 (%) - 271.6562 (µm)



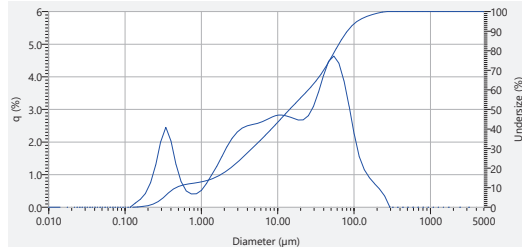
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.345	29	1.471	0.854	43	12.619	2.875	57	108.234	1.981
2	0.023	0.000	16	0.200	2.904	30	1.715	1.206	44	14.713	2.479	58	126.191	1.093
3	0.027	0.000	17	0.233	3.024	31	2.000	1.636	45	17.154	2.147	59	147.128	0.701
4	0.032	0.000	18	0.272	2.603	32	2.332	2.076	46	20.000	1.987	60	171.539	0.547
5	0.037	0.000	19	0.317	1.811	33	2.719	2.442	47	23.318	2.045	61	200.000	0.443
6	0.043	0.000	20	0.370	1.039	34	3.170	2.715	48	27.187	2.368	62	233.183	0.336
7	0.050	0.000	21	0.431	0.546	35	3.696	2.893	49	31.696	2.609	63	271.871	0.194
8	0.059	0.008	22	0.502	0.300	36	4.309	2.997	50	36.967	3.016	64	316.979	0.000
9	0.068	0.180	23	0.586	0.191	37	5.024	3.061	51	43.089	3.376	65	369.570	0.000
10	0.080	0.339	24	0.683	0.153	38	5.857	3.111	52	50.238	3.568	66	430.887	0.000
11	0.093	0.576	25	0.796	0.163	39	6.829	3.164	53	58.573	3.532	67	502.377	0.000
12	0.108	0.869	26	0.928	0.222	40	7.962	3.203	54	68.291	3.254	68	585.729	0.000
13	0.126	1.247	27	1.062	0.353	41	9.283	3.208	55	79.621	2.779	69	682.910	0.000
14	0.147	1.741	28	1.262	0.566	42	10.823	3.138	56	92.832	2.227	70	796.214	0.000

Particle Size Distribution

Attached page 16

Sample name : NPWB-3B2
Data name : NPWB-3B2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4674 (µm) : (6)70.00 (%) - 39.8614 (µm)
: (2)20.00 (%) - 2.4037 (µm) : (7)80.00 (%) - 56.3670 (µm)
: (3)30.00 (%) - 4.6044 (µm) : (8)90.00 (%) - 81.8153 (µm)
: (4)40.00 (%) - 8.2655 (µm) : (9)95.00 (%) - 110.4065 (µm)
: (5)60.00 (%) - 25.1798 (µm) : (10)100.0 (%) - 271.7474 (µm)



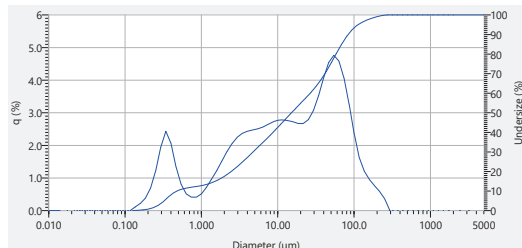
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.242	29	1.471	0.986	43	12.619	2.916	57	108.234	2.247
2	0.023	0.000	16	0.200	0.425	30	1.715	1.249	44	14.713	2.763	58	126.191	1.550
3	0.027	0.000	17	0.233	0.749	31	2.000	1.547	45	17.154	2.729	59	147.128	1.143
4	0.032	0.000	18	0.272	1.288	32	2.332	1.861	46	20.000	2.673	60	171.539	0.901
5	0.037	0.000	19	0.317	2.011	33	2.719	2.106	47	23.318	2.677	61	200.000	0.720
6	0.043	0.000	20	0.370	2.444	34	3.170	2.299	48	27.187	2.892	62	233.183	0.589
7	0.050	0.000	21	0.431	2.932	35	3.696	2.424	49	31.696	3.084	63	271.871	0.338
8	0.059	0.000	22	0.502	3.303	36	4.309	2.493	50	36.967	3.523	64	316.979	0.000
9	0.068	0.000	23	0.586	0.778	37	5.024	2.533	51	43.089	4.045	65	369.570	0.000
10	0.080	0.000	24	0.683	0.499	38	5.857	2.589	52	50.238	4.472	66	430.887	0.000
11	0.093	0.000	25	0.796	0.406	39	6.829	2.623	53	58.573	4.636	67	502.377	0.000
12	0.108	0.000	26	0.928	0.409	40	7.962	2.695	54	68.291	4.415	68	585.729	0.000
13	0.126	0.000	27	1.062	0.517	41	9.283	2.716	55	79.621	3.877	69	682.910	0.000
14	0.147	0.122	28	1.262	0.727	42	10.823	2.821	56	92.832	3.102	70	796.214	0.000

Particle Size Distribution

Attached page 18

Sample name : NPWB-3B2
Data name : NPWB-3B2_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4810 (µm) : (6)70.00 (%) - 41.5439 (µm)
: (2)20.00 (%) - 2.4683 (µm) : (7)80.00 (%) - 58.0794 (µm)
: (3)30.00 (%) - 4.7820 (µm) : (8)90.00 (%) - 83.7968 (µm)
: (4)40.00 (%) - 8.6755 (µm) : (9)95.00 (%) - 113.0733 (µm)
: (5)60.00 (%) - 26.6916 (µm) : (10)100.0 (%) - 271.7537 (µm)



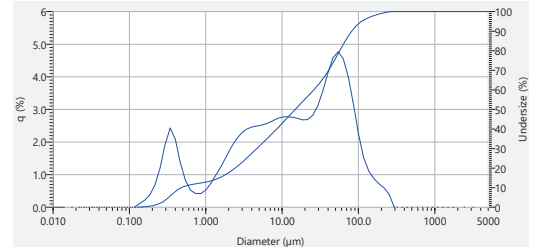
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.218	29	1.471	0.988	43	12.619	2.779	57	108.234	2.368
2	0.023	0.000	16	0.200	0.385	30	1.715	1.223	44	14.713	2.760	58	126.191	1.821
3	0.027	0.000	17	0.233	0.689	31	2.000	1.511	45	17.154	2.718	59	147.128	1.201
4	0.032	0.000	18	0.272	1.213	32	2.332	1.805	46	20.000	2.667	60	171.539	0.847
5	0.037	0.000	19	0.317	1.940	33	2.719	2.053	47	23.318	2.686	61	200.000	0.757
6	0.043	0.000	20	0.370	2.429	34	3.170	2.241	48	27.187	2.786	62	233.183	0.581
7	0.050	0.000	21	0.431	2.962	35	3.696	2.362	49	31.696	3.063	63	271.871	0.398
8	0.059	0.000	22	0.502	3.335	36	4.309	2.429	50	36.967	3.509	64	316.979	0.000
9	0.068	0.000	23	0.586	0.799	37	5.024	2.467	51	43.089	4.060	65	369.570	0.000
10	0.080	0.000	24	0.683	0.510	38	5.857	2.501	52	50.238	4.538	66	430.887	0.000
11	0.093	0.000	25	0.796	0.410	39	6.829	2.557	53	58.573	4.798	67	502.377	0.000
12	0.108	0.000	26	0.928	0.408	40	7.962	2.631	54	68.291	4.584	68	585.729	0.000
13	0.126	0.000	27	1.062	0.510	41	9.283	2.716	55	79.621	4.066	69	682.910	0.000
14	0.147	0.110	28	1.262	0.715	42	10.823	2.767	56	92.832	3.268	70	796.214	0.000

Particle Size Distribution

Attached page 17

Sample name : NPWB-3B2
Data name : NPWB-3B2_06
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4819 (µm) : (6)70.00 (%) - 40.7329 (µm)
: (2)20.00 (%) - 2.4348 (µm) : (7)80.00 (%) - 56.9761 (µm)
: (3)30.00 (%) - 4.6924 (µm) : (8)90.00 (%) - 82.0129 (µm)
: (4)40.00 (%) - 8.5123 (µm) : (9)95.00 (%) - 110.5480 (µm)
: (5)60.00 (%) - 26.1325 (µm) : (10)100.0 (%) - 271.7657 (µm)



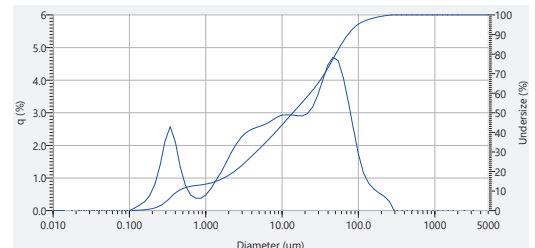
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.217	29	1.471	0.991	43	12.619	2.770	57	108.234	2.241
2	0.023	0.000	16	0.200	0.380	30	1.715	1.250	44	14.713	2.759	58	126.191	1.517
3	0.027	0.000	17	0.233	0.679	31	2.000	1.542	45	17.154	2.722	59	147.128	1.110
4	0.032	0.000	18	0.272	1.198	32	2.332	1.839	46	20.000	2.677	60	171.539	0.875
5	0.037	0.000	19	0.317	1.925	33	2.719	2.088	47	23.318	2.685	61	200.000	0.719
6	0.043	0.000	20	0.370	2.429	34	3.170	2.274	48	27.187	2.816	62	233.183	0.589
7	0.050	0.000	21	0.431	2.977	35	3.696	2.392	49	31.696	3.105	63	271.871	0.398
8	0.059	0.000	22	0.502	3.352	36	4.309	2.454	50	36.967	3.562	64	316.979	0.000
9	0.068	0.000	23	0.586	0.813	37	5.024	2.486	51	43.089	4.115	65	369.570	0.000
10	0.080	0.000	24	0.683	0.520	38	5.857	2.514	52	50.238	4.581	66	430.887	0.000
11	0.093	0.000	25	0.796	0.419	39	6.829	2.564	53	58.573	4.771	67	502.377	0.000
12	0.108	0.000	26	0.928	0.418	40	7.962	2.634	54	68.291	4.546	68	585.729	0.000
13	0.126	0.000	27	1.062	0.522	41	9.283	2.715	55	79.621	3.986	69	682.910	0.000
14	0.147	0.110	28	1.262	0.732	42	10.823	2.764	56	92.832	3.159	70	796.214	0.000

Particle Size Distribution

Attached page 19

Sample name : NPWB-3C2
Data name : NPWB-3C2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4325 (µm) : (6)70.00 (%) - 35.9879 (µm)
: (2)20.00 (%) - 2.3728 (µm) : (7)80.00 (%) - 50.4576 (µm)
: (3)30.00 (%) - 4.5877 (µm) : (8)90.00 (%) - 73.0267 (µm)
: (4)40.00 (%) - 8.1588 (µm) : (9)95.00 (%) - 98.1212 (µm)
: (5)60.00 (%) - 23.3488 (µm) : (10)100.0 (%) - 271.7274 (µm)



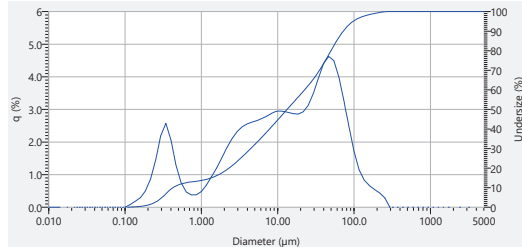
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.270	29	1.471	0.921	43	12.619	2.939	57	108.234	1.714
2	0.023	0.000	16	0.200	0.467	30	1.715	1.176	44	14.713	2.926	58	126.191	1.139
3	0.027	0.000	17	0.233	0.811	31	2.000	1.470	45	17.154	2.908	59	147.128	0.831
4	0.032	0.000	18	0.272	1.380	32	2.332	1.777	46	20.000	2.902	60	171.539	0.660
5	0.037	0.000	19	0.317	2.132	33	2.719	2.044	47	23.318	2.974	61	200.000	0.542
6	0.043	0.000	20	0.370	2.567	34	3.170	2.255	48	27.187	3.177	62	233.183	0.442
7	0.050	0.000	21	0.431	2.999	35	3.696	2.401	49	31.696	3.334	63	271.871	0.291
8	0.059	0.000	22	0.502	3.314	36	4.309	2.491	50	36.967	4.011	64	316.979	0.000
9	0.068	0.000	23	0.586	0.763	37	5.024	2.549	51	43.089	4.469	65	369.570	0.000
10	0.080	0.000	24	0.683	0.476	38	5.857	2.601	52	50.238	4.796	66	430.887	0.000
11	0.093	0.000	25	0.796	0.379	39	6.829	2.674	53	58.573	4.593	67	502.377	0.000
12	0.108	0.000	26	0.928	0.377	40	7.962	2.763	54	68.291	4.079	68	585.729	0.000
13	0.126	0.075	27	1.062	0.474	41	9.283	2.862	55	79.621	3.338	69	682.910	0.000
14	0.147	0.167	28	1.262	0.673	42	10.823	2.923	56	92.832	2.501	70	796.214	0.000

Particle Size Distribution

Attached page 20

Sample name : NPWB-3C2
Data name : NPWB-3C2_06
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4252 (µm) : (6)70.00 (%) - 35.2542 (µm)
: (2)20.00 (%) - 2.3192 (µm) : (7)80.00 (%) - 49.8357 (µm)
: (3)30.00 (%) - 4.4370 (µm) : (8)90.00 (%) - 72.5189 (µm)
: (4)40.00 (%) - 7.8294 (µm) : (9)95.00 (%) - 97.7248 (µm)
: (5)60.00 (%) - 22.5495 (µm) : (10)100.00 (%) - 271.7249 (µm)



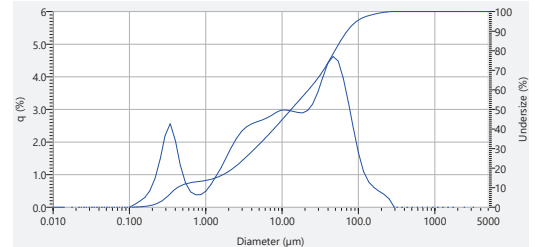
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.289	29	1.471	0.939	43	12.619	2.936	57	108.234	1.891
2	0.023	0.000	16	0.200	0.501	30	1.715	1.203	44	14.713	2.907	58	126.191	1.129
3	0.027	0.000	17	0.233	0.852	31	2.000	1.509	45	17.154	2.869	59	147.128	0.823
4	0.032	0.000	18	0.272	1.445	32	2.332	1.826	46	20.000	2.853	60	171.539	0.657
5	0.037	0.000	19	0.317	2.191	33	2.719	2.101	47	23.318	2.925	61	200.000	0.542
6	0.043	0.000	20	0.370	2.570	34	3.170	2.317	48	27.187	3.130	62	233.183	0.438
7	0.050	0.000	21	0.431	2.952	35	3.696	2.465	49	31.696	3.488	63	271.871	0.286
8	0.059	0.000	22	0.502	3.280	36	4.309	2.555	50	36.957	3.960	64	316.979	0.000
9	0.068	0.000	23	0.586	0.743	37	5.024	2.611	51	43.089	4.404	65	369.570	0.000
10	0.080	0.000	24	0.683	0.466	38	5.857	2.690	52	50.238	4.621	66	430.887	0.000
11	0.093	0.000	25	0.796	0.376	39	6.829	2.727	53	58.573	4.486	67	502.377	0.000
12	0.108	0.000	26	0.928	0.379	40	7.962	2.808	54	68.291	3.957	68	585.729	0.000
13	0.126	0.080	27	1.062	0.481	41	9.283	2.896	55	79.621	3.280	69	682.910	0.000
14	0.147	0.179	28	1.262	0.685	42	10.823	2.945	56	92.832	2.450	70	796.214	0.000

Particle Size Distribution

Attached page 21

Sample name : NPWB-3C2
Data name : NPWB-3C2_09
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4250 (µm) : (6)70.00 (%) - 34.7001 (µm)
: (2)20.00 (%) - 2.3096 (µm) : (7)80.00 (%) - 49.1321 (µm)
: (3)30.00 (%) - 4.4214 (µm) : (8)90.00 (%) - 71.2484 (µm)
: (4)40.00 (%) - 7.7891 (µm) : (9)95.00 (%) - 95.0518 (µm)
: (5)60.00 (%) - 22.1742 (µm) : (10)100.00 (%) - 271.7073 (µm)



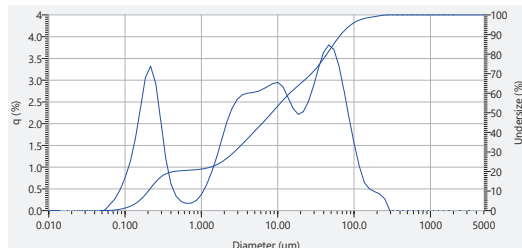
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.290	29	1.471	0.947	43	12.619	2.972	57	108.234	1.652
2	0.023	0.000	16	0.200	0.507	30	1.715	1.211	44	14.713	2.943	58	126.191	1.085
3	0.027	0.000	17	0.233	0.870	31	2.000	1.516	45	17.154	2.906	59	147.128	0.771
4	0.032	0.000	18	0.272	1.453	32	2.332	1.832	46	20.000	2.891	60	171.539	0.604
5	0.037	0.000	19	0.317	2.180	33	2.719	2.105	47	23.318	2.962	61	200.000	0.482
6	0.043	0.000	20	0.370	2.588	34	3.170	2.320	48	27.187	3.166	62	233.183	0.396
7	0.050	0.000	21	0.431	2.947	35	3.696	2.466	49	31.696	3.518	63	271.871	0.259
8	0.059	0.000	22	0.502	3.274	36	4.309	2.556	50	36.957	3.981	64	316.979	0.000
9	0.068	0.000	23	0.586	0.743	37	5.024	2.615	51	43.089	4.415	65	369.570	0.000
10	0.080	0.000	24	0.683	0.469	38	5.857	2.695	52	50.238	4.620	66	430.887	0.000
11	0.093	0.000	25	0.796	0.376	39	6.829	2.738	53	58.573	4.481	67	502.377	0.000
12	0.108	0.000	26	0.928	0.383	40	7.962	2.825	54	68.291	3.959	68	585.729	0.000
13	0.126	0.081	27	1.062	0.487	41	9.283	2.915	55	79.621	3.225	69	682.910	0.000
14	0.147	0.181	28	1.262	0.692	42	10.823	2.975	56	92.832	2.412	70	796.214	0.000

Particle Size Distribution

Attached page 22

Sample name : NPWB-3CP2
Data name : NPWB-3CP2_03
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2020 (µm) : (6)70.00 (%) - 27.6111 (µm)
: (2)20.00 (%) - 0.4515 (µm) : (7)80.00 (%) - 44.0143 (µm)
: (3)30.00 (%) - 2.7046 (µm) : (8)90.00 (%) - 67.2762 (µm)
: (4)40.00 (%) - 4.8281 (µm) : (9)95.00 (%) - 91.4010 (µm)
: (5)60.00 (%) - 14.3787 (µm) : (10)100.00 (%) - 271.7166 (µm)



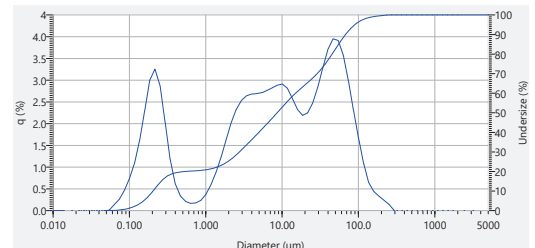
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.339	29	1.471	0.877	43	12.619	2.846	57	108.234	1.538
2	0.023	0.000	16	0.200	3.058	30	1.715	1.226	44	14.713	2.597	58	126.191	1.020
3	0.027	0.000	17	0.233	3.315	31	2.000	1.635	45	17.154	2.346	59	147.128	0.645
4	0.032	0.000	18	0.272	2.931	32	2.332	2.036	46	20.000	2.210	60	171.539	0.496
5	0.037	0.000	19	0.317	2.969	33	2.719	2.346	47	23.318	2.270	61	200.000	0.434
6	0.043	0.000	20	0.370	1.183	34	3.170	2.551	48	27.187	2.489	62	233.183	0.383
7	0.050	0.000	21	0.431	0.614	35	3.696	2.658	49	31.696	2.851	63	271.871	0.270
8	0.059	0.006	22	0.502	0.332	36	4.309	2.699	50	36.957	3.271	64	316.979	0.000
9	0.068	0.138	23	0.586	0.207	37	5.024	2.715	51	43.089	3.639	65	369.570	0.000
10	0.080	0.267	24	0.683	0.163	38	5.857	2.736	52	50.238	3.858	66	430.887	0.000
11	0.093	0.473	25	0.796	0.171	39	6.829	2.787	53	58.573	3.786	67	502.377	0.000
12	0.108	0.750	26	0.928	0.232	40	7.962	2.855	54	68.291	3.336	68	585.729	0.000
13	0.126	1.112	27	1.062	0.369	41	9.283	2.918	55	79.621	2.762	69	682.910	0.000
14	0.147	1.643	28	1.262	0.588	42	10.823	2.947	56	92.832	2.128	70	796.214	0.000

Particle Size Distribution

Attached page 23

Sample name : NPWB-3CP2
Data name : NPWB-3CP2_06
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2039 (µm) : (6)70.00 (%) - 28.8417 (µm)
: (2)20.00 (%) - 0.5594 (µm) : (7)80.00 (%) - 45.2646 (µm)
: (3)30.00 (%) - 2.7732 (µm) : (8)90.00 (%) - 67.8015 (µm)
: (4)40.00 (%) - 4.9631 (µm) : (9)95.00 (%) - 89.9720 (µm)
: (5)60.00 (%) - 15.0254 (µm) : (10)100.00 (%) - 271.5724 (µm)



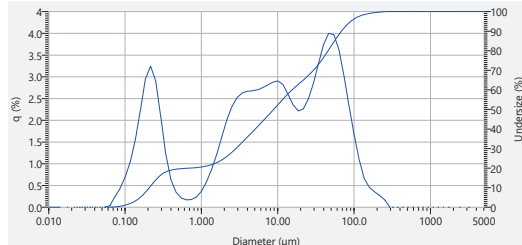
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.287	29	1.471	0.878	43	12.619	2.819	57	108.234	1.666
2	0.023	0.000	16	0.200	3.002	30	1.715	1.222	44	14.713	2.572	58	126.191	1.081
3	0.027	0.000	17	0.233	3.250	31	2.000	1.628	45	17.154	2.325	59	147.128	0.639
4	0.032	0.000	18	0.272	2.873	32	2.332	2.024	46	20.000	2.188	60	171.539	0.438
5	0.037	0.000	19	0.317	2.930	33	2.719	2.330	47	23.318	2.244	61	200.000	0.329
6	0.043	0.000	20	0.370	1.166	34	3.170	2.533	48	27.187	2.471	62	233.183	0.236
7	0.050	0.000	21	0.431	0.610	35	3.696	2.638	49	31.696	2.834	63	271.871	0.140
8	0.059	0.006	22	0.502	0.332	36	4.309	2.678	50	36.957	3.284	64	316.979	0.000
9	0.068	0.134	23	0.586	0.209	37	5.024	2.692	51	43.089	3.707	65	369.570	0.000
10	0.080	0.259	24	0.683	0.165	38	5.857	2.711	52	50.238	3.947	66	430.887	0.000
11	0.093	0.461	25	0.796	0.173	39	6.829	2.758	53	58.573	3.511	67	502.377	0.000
12	0.108	0.733	26	0.928	0.234	40	7.962	2.823	54	68.291	3.576	68	585.729	0.000
13	0.126	1.089	27	1.062	0.371	41	9.283	2.881	55	79.621	2.990	69	682.910	0.000
14	0.147	1.612	28	1.262	0.588	42	10.823	2.909	56	92.832	2.314	70	796.214	0.000

Particle Size Distribution

Attached page 24

Sample name : NPWB-3CP2
Data name : NPWB-3CP2_09
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2083 (µm) : (6)70.00 (%) - 29.4242 (µm)
: (2)20.00 (%) - 0.7268 (µm) : (7)80.00 (%) - 45.7792 (µm)
: (3)30.00 (%) - 2.8573 (µm) : (8)90.00 (%) - 68.2528 (µm)
: (4)40.00 (%) - 5.0844 (µm) : (9)95.00 (%) - 90.6563 (µm)
: (5)60.00 (%) - 15.4697 (µm) : (10)100.0 (%) - 271.6219 (µm)



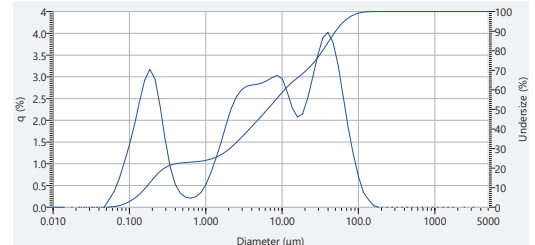
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.224	29	1.471	0.866	43	12.619	2.821	57	108.234	1.861
2	0.023	0.000	16	0.200	2.951	30	1.715	1.210	44	14.713	2.992	58	126.191	1.083
3	0.027	0.000	17	0.233	3.242	31	2.000	1.614	45	17.154	2.950	59	147.128	0.851
4	0.032	0.000	18	0.272	2.987	32	2.332	2.010	46	20.000	2.211	60	171.539	0.455
5	0.037	0.000	19	0.317	2.981	33	2.719	2.316	47	23.318	2.259	61	200.000	0.355
6	0.043	0.000	20	0.370	1.206	34	3.170	2.520	48	27.187	2.482	62	233.183	0.289
7	0.050	0.000	21	0.431	0.631	35	3.696	2.626	49	31.696	2.844	63	271.871	0.167
8	0.059	0.000	22	0.502	0.342	36	4.309	2.666	50	36.967	3.302	64	316.979	0.000
9	0.068	0.033	23	0.586	0.213	37	5.024	2.679	51	43.089	3.741	65	369.570	0.000
10	0.080	0.241	24	0.683	0.166	38	5.857	2.699	52	50.238	3.998	66	430.887	0.000
11	0.093	0.430	25	0.796	0.173	39	6.829	2.745	53	58.573	3.989	67	502.377	0.000
12	0.108	0.689	26	0.928	0.232	40	7.962	2.811	54	68.291	3.625	68	585.729	0.000
13	0.126	1.032	27	1.062	0.367	41	9.283	2.872	55	79.621	3.022	69	682.910	0.000
14	0.147	1.543	28	1.262	0.582	42	10.823	2.904	56	92.832	2.324	70	796.214	0.000

Particle Size Distribution

Attached page 25

Sample name : NPWB-3D2
Data name : NPWB-3D2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1635 (µm) : (6)70.00 (%) - 20.8913 (µm)
: (2)20.00 (%) - 0.2892 (µm) : (7)80.00 (%) - 33.9542 (µm)
: (3)30.00 (%) - 2.0867 (µm) : (8)90.00 (%) - 50.3419 (µm)
: (4)40.00 (%) - 3.7369 (µm) : (9)95.00 (%) - 65.2119 (µm)
: (5)60.00 (%) - 10.7332 (µm) : (10)100.0 (%) - 170.7219 (µm)



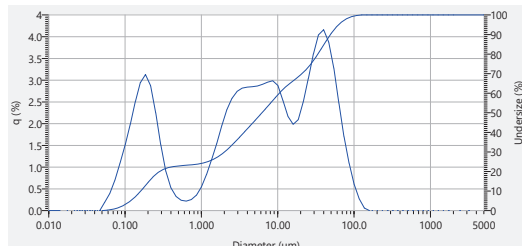
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.821	29	1.471	1.123	43	12.619	2.639	57	108.234	0.700
2	0.023	0.000	16	0.200	3.169	30	1.715	1.486	44	14.713	2.274	58	126.191	0.329
3	0.027	0.000	17	0.233	2.950	31	2.000	1.898	45	17.154	2.073	59	147.128	0.164
4	0.032	0.000	18	0.272	2.335	32	2.332	2.270	46	20.000	2.144	60	171.539	0.032
5	0.037	0.000	19	0.317	1.963	33	2.719	2.635	47	23.318	2.498	61	200.000	0.000
6	0.043	0.000	20	0.370	0.930	34	3.170	2.699	48	27.187	2.978	62	233.183	0.000
7	0.050	0.000	21	0.431	0.523	35	3.696	2.779	49	31.696	3.489	63	271.871	0.000
8	0.059	0.175	22	0.502	0.320	36	4.309	2.809	50	36.967	3.894	64	316.979	0.000
9	0.068	0.364	23	0.586	0.229	37	5.024	2.826	51	43.089	4.019	65	369.570	0.000
10	0.080	0.652	24	0.683	0.206	38	5.857	2.854	52	50.238	3.787	66	430.887	0.000
11	0.093	0.280	25	0.796	0.239	39	6.829	2.910	53	58.573	3.269	67	502.377	0.000
12	0.108	0.435	26	0.928	0.324	40	7.962	2.916	54	68.291	2.538	68	585.729	0.000
13	0.126	1.901	27	1.062	0.516	41	9.283	3.029	55	79.621	1.808	69	682.910	0.000
14	0.147	2.438	28	1.262	0.788	42	10.823	2.959	56	92.832	1.204	70	796.214	0.000

Particle Size Distribution

Attached page 26

Sample name : NPWB-3D2
Data name : NPWB-3D2_06
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1605 (µm) : (6)70.00 (%) - 20.8341 (µm)
: (2)20.00 (%) - 0.2853 (µm) : (7)80.00 (%) - 33.6125 (µm)
: (3)30.00 (%) - 2.0191 (µm) : (8)90.00 (%) - 49.1940 (µm)
: (4)40.00 (%) - 3.6332 (µm) : (9)95.00 (%) - 63.0696 (µm)
: (5)60.00 (%) - 10.4952 (µm) : (10)100.0 (%) - 146.7352 (µm)



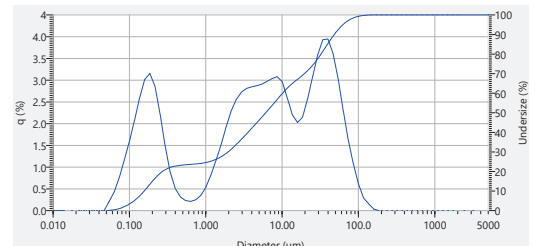
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.940	29	1.471	1.167	43	12.619	2.539	57	108.234	0.602
2	0.023	0.000	16	0.200	3.128	30	1.715	1.535	44	14.713	2.191	58	126.191	0.266
3	0.027	0.000	17	0.233	2.870	31	2.000	1.950	45	17.154	1.981	59	147.128	0.057
4	0.032	0.000	18	0.272	2.256	32	2.332	2.320	46	20.000	2.088	60	171.539	0.000
5	0.037	0.000	19	0.317	1.513	33	2.719	2.582	47	23.318	2.493	61	200.000	0.000
6	0.043	0.000	20	0.370	0.901	34	3.170	2.741	48	27.187	3.039	62	233.183	0.000
7	0.050	0.000	21	0.431	0.519	35	3.696	2.814	49	31.696	3.588	63	271.871	0.000
8	0.059	0.190	22	0.502	0.323	36	4.309	2.838	50	36.967	4.040	64	316.979	0.000
9	0.068	0.392	23	0.586	0.235	37	5.024	2.846	51	43.089	4.159	65	369.570	0.000
10	0.080	0.695	24	0.683	0.215	38	5.857	2.863	52	50.238	3.874	66	430.887	0.000
11	0.093	1.086	25	0.796	0.251	39	6.829	2.904	53	58.573	3.276	67	502.377	0.000
12	0.108	1.500	26	0.928	0.354	40	7.962	2.952	54	68.291	2.472	68	585.729	0.000
13	0.126	1.973	27	1.062	0.544	41	9.283	2.984	55	79.621	1.703	69	682.910	0.000
14	0.147	2.495	28	1.262	0.826	42	10.823	2.878	56	92.832	1.002	70	796.214	0.000

Particle Size Distribution

Attached page 27

Sample name : NPWB-3D2
Data name : NPWB-3D2_09
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1563 (µm) : (6)70.00 (%) - 19.7055 (µm)
: (2)20.00 (%) - 0.2708 (µm) : (7)80.00 (%) - 32.4036 (µm)
: (3)30.00 (%) - 1.9678 (µm) : (8)90.00 (%) - 48.3133 (µm)
: (4)40.00 (%) - 3.5797 (µm) : (9)95.00 (%) - 62.8331 (µm)
: (5)60.00 (%) - 10.1450 (µm) : (10)100.0 (%) - 170.6970 (µm)



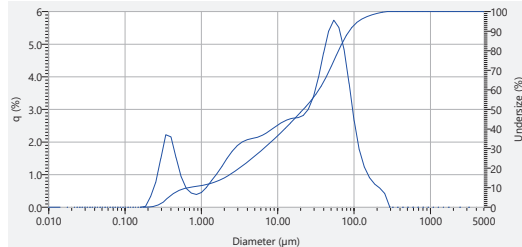
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	3.013	29	1.471	1.148	43	12.619	2.983	57	108.234	0.608
2	0.023	0.000	16	0.200	3.155	30	1.715	1.511	44	14.713	2.201	58	126.191	0.284
3	0.027	0.000	17	0.233	2.889	31	2.000	1.923	45	17.154	2.024	59	147.128	0.153
4	0.032	0.000	18	0.272	2.228	32	2.332	2.293	46	20.000	2.150	60	171.539	0.031
5	0.037	0.000	19	0.317	1.486	33	2.719	2.557	47	23.318	2.564	61	200.000	0.000
6	0.043	0.000	20	0.370	0.880	34	3.170	2.723	48	27.187	3.080	62	233.183	0.000
7	0.050	0.000	21	0.431	0.504	35	3.696	2.808	49	31.696	3.585	63	271.871	0.000
8	0.059	0.207	22	0.502	0.312	36	4.309	2.845	50	36.967	3.927	64	316.979	0.000
9	0.068	0.426	23	0.586	0.228	37	5.024	2.870	51	43.089	3.945	65	369.570	0.000
10	0.080	0.752	24	0.683	0.209	38	5.857	2.906	52	50.238	3.609	66	430.887	0.000
11	0.093	1.164	25	0.796	0.245	39	6.829	2.967	53	58.573	3.031	67	502.377	0.000
12	0.108	1.593	26	0.928	0.345	40	7.962	3.034	54	68.291	2.297	68	585.729	0.000
13	0.126	2.076	27	1.062	0.533	41	9.283	3.080	55	79.621	1.614	69	682.910	0.000
14	0.147	2.594	28	1.262	0.813	42	10.823	2.964	56	92.832	1.054	70	796.214	0.000

Particle Size Distribution

Attached page 28

Sample name : NPWB-4B3X
Data name : NPWB-4B3X_03
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.6841 (µm) : (6)70.00 (%) - 47.6504 (µm)
: (2)20.00 (%) - 3.1608 (µm) : (7)80.00 (%) - 62.6414 (µm)
: (3)30.00 (%) - 6.6577 (µm) : (8)90.00 (%) - 86.5969 (µm)
: (4)40.00 (%) - 12.3260 (µm) : (9)95.00 (%) - 114.1138 (µm)
: (5)60.00 (%) - 34.5643 (µm) : (10)100.0 (%) - 271.7709 (µm)



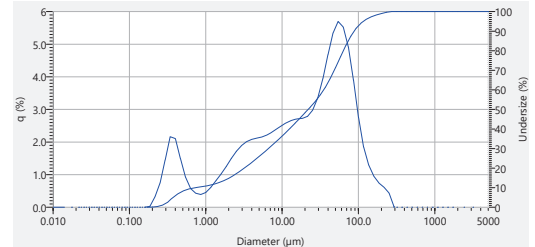
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.816	43	12.619	2.611	57	108.234	2.846
2	0.023	0.000	16	0.200	0.025	30	1.715	1.016	44	14.713	2.692	58	126.191	1.759
3	0.027	0.000	17	0.233	0.325	31	2.000	1.245	45	17.154	2.728	59	147.128	1.229
4	0.032	0.000	18	0.272	0.755	32	2.332	1.491	46	20.000	2.747	60	171.539	0.905
5	0.037	0.000	19	0.317	1.483	33	2.719	1.707	47	23.318	2.813	61	200.000	0.708
6	0.043	0.000	20	0.370	2.230	34	3.170	1.888	48	27.187	3.002	62	233.183	0.889
7	0.050	0.000	21	0.431	2.155	35	3.696	1.999	49	31.696	3.391	63	271.871	0.416
8	0.059	0.000	22	0.502	1.519	36	4.309	2.068	50	36.967	3.978	64	316.979	0.000
9	0.068	0.000	23	0.586	0.936	37	5.024	2.108	51	43.089	4.726	65	369.570	0.000
10	0.080	0.000	24	0.683	0.577	38	5.857	2.145	52	50.238	5.399	66	430.887	0.000
11	0.093	0.000	25	0.796	0.431	39	6.829	2.207	53	58.573	5.771	67	502.377	0.000
12	0.108	0.000	26	0.928	0.390	40	7.962	2.297	54	68.291	5.508	68	585.729	0.000
13	0.126	0.000	27	1.062	0.450	41	9.283	2.412	55	79.621	4.848	69	682.910	0.000
14	0.147	0.000	28	1.262	0.610	42	10.823	2.519	56	92.832	3.802	70	796.214	0.000

Particle Size Distribution

Attached page 29

Sample name : NPWB-4B3X
Data name : NPWB-4B3X_06
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.7436 (µm) : (6)70.00 (%) - 48.3269 (µm)
: (2)20.00 (%) - 3.2184 (µm) : (7)80.00 (%) - 63.5929 (µm)
: (3)30.00 (%) - 6.6581 (µm) : (8)90.00 (%) - 87.9115 (µm)
: (4)40.00 (%) - 12.4614 (µm) : (9)95.00 (%) - 116.2980 (µm)
: (5)60.00 (%) - 35.0785 (µm) : (10)100.0 (%) - 271.7736 (µm)



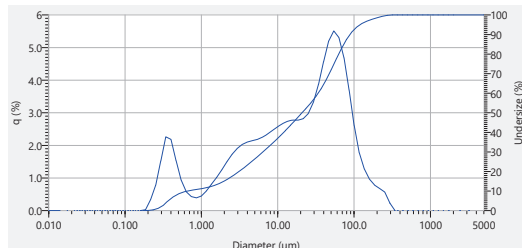
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.814	43	12.619	2.600	57	108.234	2.752
2	0.023	0.000	16	0.200	0.024	30	1.715	1.016	44	14.713	2.672	58	126.191	1.843
3	0.027	0.000	17	0.233	0.316	31	2.000	1.245	45	17.154	2.707	59	147.128	1.291
4	0.032	0.000	18	0.272	0.734	32	2.332	1.491	46	20.000	2.723	60	171.539	0.949
5	0.037	0.000	19	0.317	1.441	33	2.719	1.712	47	23.318	2.787	61	200.000	0.740
6	0.043	0.000	20	0.370	2.180	34	3.170	1.888	48	27.187	2.976	62	233.183	0.812
7	0.050	0.000	21	0.431	2.103	35	3.696	2.007	49	31.696	3.350	63	271.871	0.428
8	0.059	0.000	22	0.502	1.490	36	4.309	2.076	50	36.967	3.937	64	316.979	0.000
9	0.068	0.000	23	0.586	0.923	37	5.024	2.116	51	43.089	4.671	65	369.570	0.000
10	0.080	0.000	24	0.683	0.572	38	5.857	2.152	52	50.238	5.340	66	430.887	0.000
11	0.093	0.000	25	0.796	0.428	39	6.829	2.212	53	58.573	5.693	67	502.377	0.000
12	0.108	0.000	26	0.928	0.389	40	7.962	2.299	54	68.291	5.521	68	585.729	0.000
13	0.126	0.000	27	1.062	0.448	41	9.283	2.410	55	79.621	4.916	69	682.910	0.000
14	0.147	0.000	28	1.262	0.608	42	10.823	2.513	56	92.832	3.907	70	796.214	0.000

Particle Size Distribution

Attached page 30

Sample name : NPWB-4B3X
Data name : NPWB-4B3X_09
Lot number : T43779.27
Transmittance (R) : 87.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.6617 (µm) : (6)70.00 (%) - 47.4290 (µm)
: (2)20.00 (%) - 3.1227 (µm) : (7)80.00 (%) - 63.0518 (µm)
: (3)30.00 (%) - 6.4302 (µm) : (8)90.00 (%) - 86.6282 (µm)
: (4)40.00 (%) - 11.9620 (µm) : (9)95.00 (%) - 120.6189 (µm)
: (5)60.00 (%) - 33.8780 (µm) : (10)100.0 (%) - 316.7664 (µm)



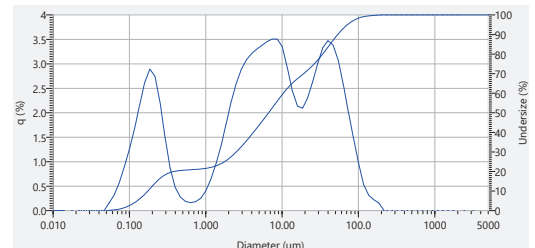
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.814	43	12.619	2.686	57	108.234	2.868
2	0.023	0.000	16	0.200	0.025	30	1.715	1.017	44	14.713	2.741	58	126.191	1.767
3	0.027	0.000	17	0.233	0.331	31	2.000	1.248	45	17.154	2.772	59	147.128	1.269
4	0.032	0.000	18	0.272	0.770	32	2.332	1.498	46	20.000	2.774	60	171.539	0.863
5	0.037	0.000	19	0.317	1.512	33	2.719	1.721	47	23.318	2.816	61	200.000	0.780
6	0.043	0.000	20	0.370	2.258	34	3.170	1.901	48	27.187	2.977	62	233.183	0.874
7	0.050	0.000	21	0.431	2.182	35	3.696	2.024	49	31.696	3.317	63	271.871	0.598
8	0.059	0.000	22	0.502	1.529	36	4.309	2.098	50	36.967	3.880	64	316.979	0.229
9	0.068	0.000	23	0.586	0.937	37	5.024	2.142	51	43.089	4.953	65	369.570	0.000
10	0.080	0.000	24	0.683	0.574	38	5.857	2.183	52	50.238	5.193	66	430.887	0.000
11	0.093	0.000	25	0.796	0.428	39	6.829	2.250	53	58.573	5.687	67	502.377	0.000
12	0.108	0.000	26	0.928	0.387	40	7.962	2.345	54	68.291	5.335	68	585.729	0.000
13	0.126	0.000	27	1.062	0.447	41	9.283	2.463	55	79.621	4.686	69	682.910	0.000
14	0.147	0.000	28	1.262	0.607	42	10.823	2.573	56	92.832	3.701	70	796.214	0.000

Particle Size Distribution

Attached page 31

Sample name : NPWB-4C2
Data name : NPWB-4C2_03
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1749 (µm) : (6)70.00 (%) - 19.2464 (µm)
: (2)20.00 (%) - 0.3897 (µm) : (7)80.00 (%) - 34.0287 (µm)
: (3)30.00 (%) - 2.5219 (µm) : (8)90.00 (%) - 53.7458 (µm)
: (4)40.00 (%) - 4.2161 (µm) : (9)95.00 (%) - 71.9859 (µm)
: (5)60.00 (%) - 10.3681 (µm) : (10)100.0 (%) - 199.7998 (µm)

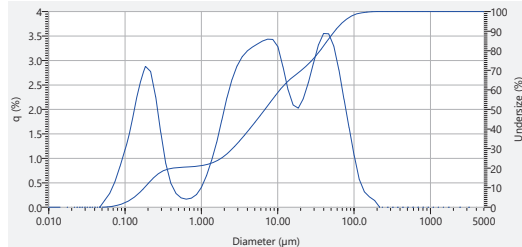


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.617	29	1.471	0.951	43	12.619	2.920	57	108.234	0.972
2	0.023	0.000	16	0.200	2.891	30	1.715	1.321	44	14.713	2.441	58	126.191	0.532
3	0.027	0.000	17	0.233	2.747	31	2.000	1.773	45	17.154	2.134	59	147.128	0.310
4	0.032	0.000	18	0.272	2.213	32	2.332	2.228	46	20.000	2.090	60	171.539	0.220
5	0.037	0.000	19	0.317	1.489	33	2.719	2.604	47	23.318	2.300	61	200.000	0.153
6	0.043	0.000	20	0.370	0.859	34	3.170	2.888	48	27.187	2.632	62	233.183	0.090
7	0.050	0.000	21	0.431	0.498	35	3.696	3.083	49	31.696	3.007	63	271.871	0.000
8	0.059	0.154	22	0.502	0.273	36	4.309	3.209	50	36.967	3.329	64	316.979	0.000
9	0.068	0.317	23	0.586	0.186	37	5.024	3.299	51	43.089	3.475	65	369.570	0.000
10	0.080	0.967	24	0.683	0.160	38	5.857	3.374	52	50.238	3.382	66	430.887	0.000
11	0.093	0.887	25	0.796	0.181	39	6.829	3.451	53	58.573	3.078	67	502.377	0.000
12	0.108	1.256	26	0.928	0.253	40	7.962	3.503	54	68.291	2.962	68	585.729	0.000
13	0.126	1.672	27	1.062	0.401	41	9.283	3.507	55	79.621	2.020	69	682.910	0.000
14	0.147	2.158	28	1.262	0.638	42	10.823	3.350	56	92.832	1.487	70	796.214	0.000

Particle Size Distribution

Attached page 32

Sample name : NPWB-4C2
Data name : NPWB-4C2_06
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive Index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.1794 (µm) : (6)70.00 (%) - 20.4616 (µm)
: (2)20.00 (%) - 0.4376 (µm) : (7)80.00 (%) - 35.8165 (µm)
: (3)30.00 (%) - 2.8661 (µm) : (8)90.00 (%) - 55.7376 (µm)
: (4)40.00 (%) - 4.2810 (µm) : (9)95.00 (%) - 73.8447 (µm)
: (5)60.00 (%) - 10.6804 (µm) : (10)100.0 (%) - 199.7760 (µm)

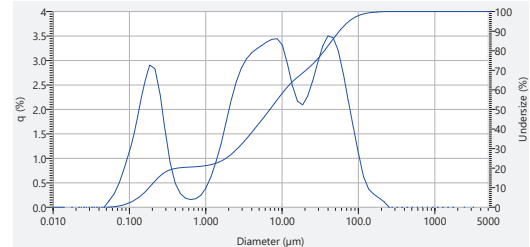


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.557	29	1.471	0.954	43	12.619	2.872	57	108.234	1.059
2	0.023	0.000	16	0.200	2.877	30	1.715	1.325	44	14.713	2.401	58	126.191	0.959
3	0.027	0.000	17	0.233	2.775	31	2.000	1.777	45	17.154	2.088	59	147.128	0.313
4	0.032	0.000	18	0.272	2.260	32	2.332	2.231	46	20.000	2.025	60	171.539	0.209
5	0.037	0.000	19	0.317	1.531	33	2.719	2.605	47	23.318	2.213	61	200.000	0.137
6	0.043	0.000	20	0.370	0.886	34	3.170	2.887	48	27.187	2.540	62	233.183	0.000
7	0.050	0.000	21	0.431	0.483	35	3.696	3.075	49	31.696	2.837	63	271.871	0.000
8	0.059	0.139	22	0.502	0.280	36	4.309	3.193	50	36.957	3.317	64	316.979	0.000
9	0.068	0.287	23	0.586	0.191	37	5.024	3.272	51	43.089	3.551	65	369.570	0.000
10	0.080	0.517	24	0.683	0.163	38	5.857	3.335	52	50.238	3.543	66	430.887	0.000
11	0.093	0.829	25	0.795	0.183	39	6.829	3.397	53	58.573	3.294	67	502.377	0.000
12	0.108	1.176	26	0.928	0.255	40	7.962	3.435	54	68.291	2.839	68	585.729	0.000
13	0.126	1.583	27	1.062	0.403	41	9.283	3.429	55	79.621	2.211	69	682.910	0.000
14	0.147	2.073	28	1.262	0.640	42	10.823	3.282	56	92.832	1.628	70	796.214	0.000

Particle Size Distribution

Attached page 33

Sample name : NPWB-4C2
Data name : NPWB-4C2_09
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive Index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.1810 (µm) : (6)70.00 (%) - 20.6058 (µm)
: (2)20.00 (%) - 0.4338 (µm) : (7)80.00 (%) - 35.8440 (µm)
: (3)30.00 (%) - 2.6029 (µm) : (8)90.00 (%) - 58.2838 (µm)
: (4)40.00 (%) - 4.3571 (µm) : (9)95.00 (%) - 75.5742 (µm)
: (5)60.00 (%) - 10.8916 (µm) : (10)100.0 (%) - 232.8658 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.550	29	1.471	0.924	43	12.619	2.940	57	108.234	1.080
2	0.023	0.000	16	0.200	2.955	30	1.715	1.290	44	14.713	2.482	58	126.191	0.618
3	0.027	0.000	17	0.233	2.829	31	2.000	1.738	45	17.154	2.166	59	147.128	0.365
4	0.032	0.000	18	0.272	2.318	32	2.332	2.191	46	20.000	2.092	60	171.539	0.265
5	0.037	0.000	19	0.317	1.589	33	2.719	2.665	47	23.318	2.287	61	200.000	0.190
6	0.043	0.000	20	0.370	0.900	34	3.170	2.847	48	27.187	2.578	62	233.183	0.113
7	0.050	0.000	21	0.431	0.483	35	3.696	3.036	49	31.696	2.852	63	271.871	0.000
8	0.059	0.133	22	0.502	0.276	36	4.309	3.155	50	36.957	3.302	64	316.979	0.000
9	0.068	0.273	23	0.586	0.184	37	5.024	3.237	51	43.089	3.500	65	369.570	0.000
10	0.080	0.495	24	0.683	0.156	38	5.857	3.305	52	50.238	3.465	66	430.887	0.000
11	0.093	0.800	25	0.795	0.175	39	6.829	3.379	53	58.573	3.286	67	502.377	0.000
12	0.108	1.142	26	0.928	0.242	40	7.962	3.431	54	68.291	2.737	68	585.729	0.000
13	0.126	1.547	27	1.062	0.385	41	9.283	3.442	55	79.621	2.172	69	682.910	0.000
14	0.147	2.044	28	1.262	0.616	42	10.823	3.320	56	92.832	1.622	70	796.214	0.000

MTEC0868/68_5

Report of Samples Analysis

Issued Date : 22 July 2025
Customer : Tetra Tech Inc.
77 Soi Udumsuk 39/1, Sukhumvit 103 Road, Bangchak,
Phrakhanong, Bangkok 10260
Tel : 0 2361 3767 Fax : 0 2361 3768
Served by : Physical Analysis Section,
Technical Support for Material Analysis Division, MTEC
13 May 2025
Date received : 27 May – 22 July 2025
Date analyzed :
Samples : Seabed Sediment Project No. T43779.27 (12 samples)
Identification no. : See sample detail.
Objective : Particle size and size distribution analysis.
Instrument : LA-960V2, HORIBA Instruments Incorporated.
Test method : Laser diffraction technique.
Conditions : Red light source : Laser Diode (LD), λ : 650 nm.
Blue light source : Light Emitting Diode (LED), λ : 405 nm.
Particle size range analysis : 0.01 – 5,000 µm.
Dispersion unit : LA-960S2
Dispersion medium : De-ionized water.
Sample refractive index : 1.5300 (as default standard wet)
Sample preparation : 1. Prepare the instrument for wet analysis. Circulation speed
should be set at 12 and agitation speed set at 10.
2. 0.05 – 0.1 g. of sample was dispersed in 40 ml of
de-ionized water and ultrasound 10 minutes with ultrasonic
bath before measurement.
3. Add the dispersed sample into LA-960S2 unit and
measure the dispersed sample with LA-960V2.

Samples detail :

Sample No.	Sample Name	Sample No.	Sample Name
1	NPWG-1B2X	7	NPWG-3B2X
2	NPWG-1C2	8	NPWG-3C2
3	NPWG-1CP2	9	NPWG-3CP2
4	NPWG-1D2	10	NPWG-3D2
5	NPWG-2B2X	11	NPWG-4B2X
6	NPWG-2C2	12	NPWG-4C2

Technical Terms : **Transmittance (R)** : value at particle come transmittance to red light source (percent), ranging from 99-70%.
Transmittance (B) : value at particle come transmittance to blue light source (percent), ranging from 99-70%.
Mean size : mean diameter value by volume.
D [v, 0.1] : 10 volume percent less than or equal to a given diameter.
D [v, 0.5] : 50 volume percent less than or equal to a given diameter, median diameter.
D [v, 0.9] : 90 volume percent less than or equal to a given diameter.
Span : the width of the distribution, which is independent of median size D [v, 0.5]).

Results :

MTEC received samples from Tetra Tech Inc. Laser diffraction technique is used in order to analyze the particle size and size distribution by wet analysis.

The results of the particle size and size distribution of samples are shown in the attachments No.1 – 36.

- Note** : 1. The specific surface area is inapplicable unless the density of a sample is known.
2. The results of particle size distribution are dispersion particle only.
3. Some particle of sample are vary size and size over range of instrument.

Interpretation/Opinion : None

Attached pages :

The attachment number	Detail
1 – 3	HORIBA LA960V2 results of NPWG-1B2X
4 – 6	HORIBA LA960V2 results of NPWG-1C2
7 – 9	HORIBA LA960V2 results of NPWG-1CP2
10 – 12	HORIBA LA960V2 results of NPWG-1D2
13 – 15	HORIBA LA960V2 results of NPWG-2B2X
16 – 18	HORIBA LA960V2 results of NPWG-2C2
19 – 21	HORIBA LA960V2 results of NPWG-3B2X
22 – 24	HORIBA LA960V2 results of NPWG-3C2
25 – 27	HORIBA LA960V2 results of NPWG-3CP2
28 – 30	HORIBA LA960V2 results of NPWG-3D2
31 – 33	HORIBA LA960V2 results of NPWG-4B2X
34 – 36	HORIBA LA960V2 results of NPWG-4C2

Work performed by :

(Mr.Kriangkai Supanpong)

Approved by :

(Ms.Suphakan Kijamajskul)

Remarks

- MTEC does not allow any alteration or modification of this report, or any part of this report, without prior formal written permission from MTEC.
- MTEC will not accept liability for any damage whatsoever, resulting directly or indirectly, from using the data, results, conclusions or recommendations in this report for the purposes of designing, manufacturing or for other purposes.
- Experimental results are only valid for the specimens tested.

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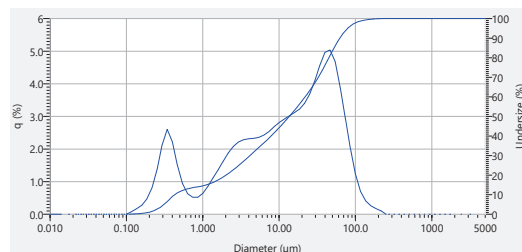


Particle Size Distribution

Attached page 1

Sample name : NPWG-1B2X Mean size : 24.56339 (µm)
 Data name : NPWG-1B2X_03 Di(v,0.1) : 0.42835 (µm)
 Lot number : T43779.27 Di(v,0.5) : 13.57429 (µm)
 Transmittance (R) : 86.3 (%) Di(v,0.9) : 62.59299 (µm)
 Distribution base : Volume Span : 4.5796
 Refractive index (R) : Standard Wet Mode size : 46.3282 (µm)
 [Standard wet(1.530 - 0.100),water(1.333)]
 Dispersion : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
 Circulate speed : 12
 Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4283 (µm) : (6)70.00 (%) - 32.6899 (µm)
 : (2)20.00 (%) - 2.0392 (µm) : (7)80.00 (%) - 44.9575 (µm)
 : (3)30.00 (%) - 4.1623 (µm) : (8)90.00 (%) - 62.5930 (µm)
 : (4)40.00 (%) - 7.8847 (µm) : (9)95.00 (%) - 79.0233 (µm)
 : (5)60.00 (%) - 21.9673 (µm) : (10)100.00 (%) - 232.8388 (µm)



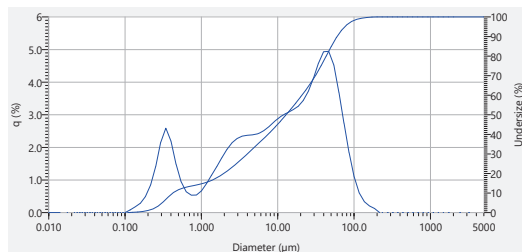
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.271	29	1.471	1.111	43	12.619	2.916	57	108.234	1.219	71	928.318	0.000
2	0.023	0.000	16	0.200	0.466	30	1.715	1.358	44	14.713	3.016	58	126.191	0.087	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.802	31	2.000	1.623	45	17.154	3.114	59	147.128	0.405	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.362	32	2.332	1.878	46	20.000	3.225	60	171.539	0.260	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.121	33	2.719	2.076	47	23.318	3.401	61	200.000	0.173	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.981	34	3.170	2.211	48	27.187	3.678	62	233.183	0.104	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.222	35	3.696	2.263	49	31.696	4.083	63	271.871	0.000	77	9000.000	0.000
8	0.059	0.000	22	0.502	1.495	36	4.309	2.312	50	36.967	4.566	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.938	37	5.024	2.327	51	43.089	4.959	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.636	38	5.857	2.354	52	50.238	5.034	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.519	39	6.829	2.424	53	58.573	4.679	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.519	40	7.962	2.535	54	68.291	3.863	68	585.729	0.000			
13	0.126	0.076	27	1.082	0.635	41	9.283	2.679	55	79.621	2.940	69	682.910	0.000			
14	0.147	0.169	28	1.262	0.855	42	10.823	2.811	56	92.832	2.008	70	796.214	0.000			

Particle Size Distribution

Attached page 2

Sample name : NPWG-1B2X Mean size : 23.37507 (µm)
 Data name : NPWG-1B2X_06 Di(v,0.1) : 0.42466 (µm)
 Lot number : T43779.27 Di(v,0.5) : 12.84158 (µm)
 Transmittance (R) : 86.4 (%) Di(v,0.9) : 60.0986 (µm)
 Distribution base : Volume Span : 4.6470
 Refractive index (R) : Standard Wet Mode size : 46.2369 (µm)
 [Standard wet(1.530 - 0.100),water(1.333)]
 Dispersion : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
 Circulate speed : 12
 Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4247 (µm) : (6)70.00 (%) - 31.2277 (µm)
 : (2)20.00 (%) - 1.9793 (µm) : (7)80.00 (%) - 43.2121 (µm)
 : (3)30.00 (%) - 3.9952 (µm) : (8)90.00 (%) - 60.0989 (µm)
 : (4)40.00 (%) - 7.4853 (µm) : (9)95.00 (%) - 76.0721 (µm)
 : (5)60.00 (%) - 20.7878 (µm) : (10)100.00 (%) - 199.7554 (µm)



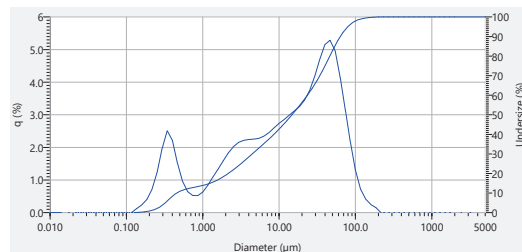
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.286	29	1.471	1.150	43	12.619	2.981	57	108.234	1.094	71	928.318	0.000
2	0.023	0.000	16	0.200	0.491	30	1.715	1.404	44	14.713	3.059	58	126.191	0.096	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.839	31	2.000	1.677	45	17.154	3.156	59	147.128	0.333	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.404	32	2.332	1.938	46	20.000	3.260	60	171.539	0.201	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.154	33	2.719	2.136	47	23.318	3.437	61	200.000	0.125	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.985	34	3.170	2.271	48	27.187	3.716	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.191	35	3.696	2.341	49	31.696	4.114	63	271.871	0.000	77	9000.000	0.000
8	0.059	0.000	22	0.502	1.481	36	4.309	2.369	50	36.967	4.577	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.940	37	5.024	2.384	51	43.089	4.930	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.636	38	5.857	2.412	52	50.238	4.945	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.532	39	6.829	2.485	53	58.573	4.528	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.530	40	7.962	2.599	54	68.291	3.860	68	585.729	0.000			
13	0.126	0.080	27	1.082	0.651	41	9.283	2.745	55	79.621	2.741	69	682.910	0.000			
14	0.147	0.178	28	1.262	0.888	42	10.823	2.880	56	92.832	1.837	70	796.214	0.000			

Particle Size Distribution

Attached page 3

Sample name : NPWG-1B2X Mean size : 25.19414 (µm)
 Data name : NPWG-1B2X_09 Di(v,0.1) : 0.45931 (µm)
 Lot number : T43779.27 Di(v,0.5) : 14.75560 (µm)
 Transmittance (R) : 86.4 (%) Di(v,0.9) : 63.61945 (µm)
 Distribution base : Volume Span : 4.2804
 Refractive index (R) : Standard Wet Mode size : 46.3929 (µm)
 [Standard wet(1.530 - 0.100),water(1.333)]
 Dispersion : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
 Circulate speed : 12
 Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4593 (µm) : (6)70.00 (%) - 34.1852 (µm)
 : (2)20.00 (%) - 2.1738 (µm) : (7)80.00 (%) - 46.2832 (µm)
 : (3)30.00 (%) - 4.4734 (µm) : (8)90.00 (%) - 63.6194 (µm)
 : (4)40.00 (%) - 8.5653 (µm) : (9)95.00 (%) - 79.4048 (µm)
 : (5)60.00 (%) - 23.5468 (µm) : (10)100.00 (%) - 199.7967 (µm)



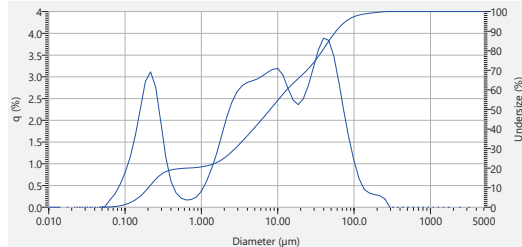
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.234	29	1.471	1.082	43	12.619	2.869	57	108.234	1.283	71	928.318	0.000
2	0.023	0.000	16	0.200	0.403	30	1.715	1.330	44	14.713	2.988	58	126.191	0.709	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.703	31	2.000	1.584	45	17.154	3.118	59	147.128	0.409	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.222	32	2.332	1.828	46	20.000	3.254	60	171.539	0.247	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.961	33	2.719	2.018	47	23.318	3.449	61	200.000	0.151	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.987	34	3.170	2.146	48	27.187	3.745	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.217	35	3.696	2.213	49	31.696	4.178	63	271.871	0.000	77	9000.000	0.000
8	0.059	0.000	22	0.502	1.519	36	4.309	2.238	50	36.967	4.704	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.962	37	5.024	2.249	51	43.089	5.151	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.641	38	5.857	2.273	52	50.238	5.280	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.525	39	6.829	2.340	53	58.573	4.564	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.519	40	7.962	2.451	54	68.291	4.135	68	585.729	0.000			
13	0.126	0.080	27	1.082	0.628	41	9.283	2.598	55	79.621	3.147	69	682.910	0.000			
14	0.147	0.120	28	1.262	0.842	42	10.823	2.735	56	92.832	2.145	70	796.214	0.000			

Particle Size Distribution

Attached page 4

Sample name : NPWG-1C2
Data name : NPWG-1C2_03
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2027 (µm) : (6)70.00 (%) - 24.1426 (µm)
: (2)20.00 (%) - 0.6817 (µm) : (7)80.00 (%) - 38.4604 (µm)
: (3)30.00 (%) - 2.7758 (µm) : (8)90.00 (%) - 58.0763 (µm)
: (4)40.00 (%) - 4.7992 (µm) : (9)95.00 (%) - 78.2025 (µm)
: (5)60.00 (%) - 13.1066 (µm) : (10)100.0 (%) - 271.6535 (µm)



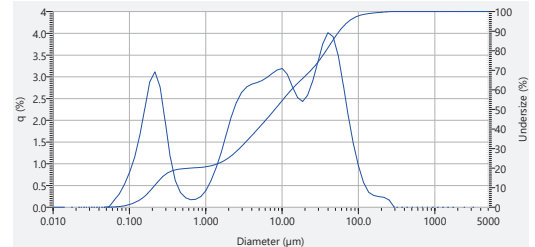
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.263	29	1.471	0.883	43	12.619	3.032	57	108.234	1.054
2	0.023	0.000	16	0.200	2.894	30	1.715	1.234	44	14.713	2.728	58	126.191	0.647
3	0.027	0.000	17	0.233	3.112	31	2.000	1.657	45	17.154	2.464	59	147.128	0.404
4	0.032	0.000	18	0.272	2.759	32	2.332	2.080	46	20.000	2.361	60	171.539	0.324
5	0.037	0.000	19	0.317	1.969	33	2.719	2.418	47	23.318	2.489	61	200.000	0.290
6	0.043	0.000	20	0.370	1.141	34	3.170	2.688	48	27.187	2.789	62	233.183	0.266
7	0.050	0.000	21	0.431	0.598	35	3.696	2.795	49	31.698	3.255	63	271.871	0.192
8	0.059	0.007	22	0.502	0.327	36	4.309	2.866	50	36.967	3.625	64	316.979	0.000
9	0.068	0.161	23	0.586	0.207	37	5.024	2.907	51	43.089	3.888	65	369.570	0.000
10	0.080	0.303	24	0.683	0.165	38	5.857	2.950	52	50.238	3.838	66	430.887	0.000
11	0.093	0.520	25	0.796	0.174	39	6.829	3.019	53	58.573	3.477	67	502.377	0.000
12	0.108	0.796	26	0.928	0.234	40	7.962	3.101	54	68.291	2.874	68	585.729	0.000
13	0.126	1.144	27	1.062	0.370	41	9.283	3.171	55	79.621	2.190	69	682.910	0.000
14	0.147	1.639	28	1.262	0.590	42	10.823	3.189	56	92.832	1.569	70	796.214	0.000

Particle Size Distribution

Attached page 5

Sample name : NPWG-1C2
Data name : NPWG-1C2_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2030 (µm) : (6)70.00 (%) - 23.9688 (µm)
: (2)20.00 (%) - 0.6523 (µm) : (7)80.00 (%) - 37.7232 (µm)
: (3)30.00 (%) - 2.7613 (µm) : (8)90.00 (%) - 56.3193 (µm)
: (4)40.00 (%) - 4.8068 (µm) : (9)95.00 (%) - 75.0509 (µm)
: (5)60.00 (%) - 13.2042 (µm) : (10)100.0 (%) - 271.6198 (µm)



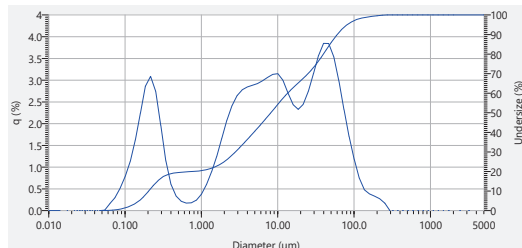
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.256	29	1.471	0.894	43	12.619	3.054	57	108.234	0.942
2	0.023	0.000	16	0.200	2.887	30	1.715	1.244	44	14.713	2.771	58	126.191	0.560
3	0.027	0.000	17	0.233	3.111	31	2.000	1.662	45	17.154	2.523	59	147.128	0.341
4	0.032	0.000	18	0.272	2.768	32	2.332	2.077	46	20.000	2.431	60	171.539	0.289
5	0.037	0.000	19	0.317	1.984	33	2.719	2.405	47	23.318	2.574	61	200.000	0.241
6	0.043	0.000	20	0.370	1.188	34	3.170	2.633	48	27.187	2.886	62	233.183	0.225
7	0.050	0.000	21	0.431	0.611	35	3.696	2.764	49	31.698	3.328	63	271.871	0.198
8	0.059	0.007	22	0.502	0.337	36	4.309	2.828	50	36.967	3.760	64	316.979	0.000
9	0.068	0.161	23	0.586	0.215	37	5.024	2.865	51	43.089	4.013	65	369.570	0.000
10	0.080	0.303	24	0.683	0.172	38	5.857	2.908	52	50.238	3.922	66	430.887	0.000
11	0.093	0.520	25	0.796	0.181	39	6.829	2.981	53	58.573	3.465	67	502.377	0.000
12	0.108	0.792	26	0.928	0.241	40	7.962	3.071	54	68.291	2.821	68	585.729	0.000
13	0.126	1.139	27	1.062	0.375	41	9.283	3.154	55	79.621	2.090	69	682.910	0.000
14	0.147	1.633	28	1.262	0.601	42	10.823	3.189	56	92.832	1.451	70	796.214	0.000

Particle Size Distribution

Attached page 6

Sample name : NPWG-1C2
Data name : NPWG-1C2_09
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2043 (µm) : (6)70.00 (%) - 24.9778 (µm)
: (2)20.00 (%) - 0.7928 (µm) : (7)80.00 (%) - 39.6536 (µm)
: (3)30.00 (%) - 2.7959 (µm) : (8)90.00 (%) - 60.3204 (µm)
: (4)40.00 (%) - 4.8572 (µm) : (9)95.00 (%) - 81.5644 (µm)
: (5)60.00 (%) - 13.4562 (µm) : (10)100.0 (%) - 271.6292 (µm)



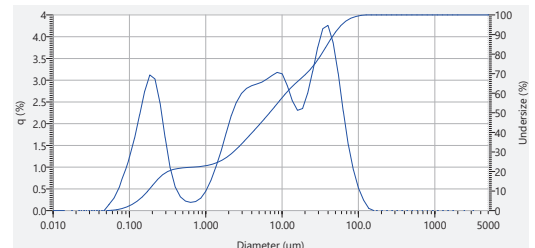
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.233	29	1.471	0.880	43	12.619	2.996	57	108.234	1.179
2	0.023	0.000	16	0.200	2.863	30	1.715	1.240	44	14.713	2.696	58	126.191	0.747
3	0.027	0.000	17	0.233	3.086	31	2.000	1.660	45	17.154	2.434	59	147.128	0.477
4	0.032	0.000	18	0.272	2.743	32	2.332	2.077	46	20.000	2.327	60	171.539	0.383
5	0.037	0.000	19	0.317	1.962	33	2.719	2.409	47	23.318	2.445	61	200.000	0.332
6	0.043	0.000	20	0.370	1.142	34	3.170	2.641	48	27.187	2.737	62	233.183	0.273
7	0.050	0.000	21	0.431	0.603	35	3.696	2.775	49	31.698	3.140	63	271.871	0.172
8	0.059	0.007	22	0.502	0.333	36	4.309	2.842	50	36.967	3.580	64	316.979	0.000
9	0.068	0.157	23	0.586	0.212	37	5.024	2.880	51	43.089	3.844	65	369.570	0.000
10	0.080	0.295	24	0.683	0.169	38	5.857	2.920	52	50.238	3.839	66	430.887	0.000
11	0.093	0.508	25	0.796	0.179	39	6.829	2.985	53	58.573	3.536	67	502.377	0.000
12	0.108	0.778	26	0.928	0.239	40	7.962	3.063	54	68.291	2.981	68	585.729	0.000
13	0.126	1.123	27	1.062	0.377	41	9.283	3.130	55	79.621	2.522	69	682.910	0.000
14	0.147	1.613	28	1.262	0.597	42	10.823	3.147	56	92.832	1.705	70	796.214	0.000

Particle Size Distribution

Attached page 7

Sample name : NPWG-1CP2
Data name : NPWG-1CP2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1745 (µm) : (6)70.00 (%) - 20.7538 (µm)
: (2)20.00 (%) - 0.3189 (µm) : (7)80.00 (%) - 32.8952 (µm)
: (3)30.00 (%) - 2.3079 (µm) : (8)90.00 (%) - 47.7103 (µm)
: (4)40.00 (%) - 4.0837 (µm) : (9)95.00 (%) - 60.7079 (µm)
: (5)60.00 (%) - 11.2275 (µm) : (10)100.0 (%) - 146.6913 (µm)



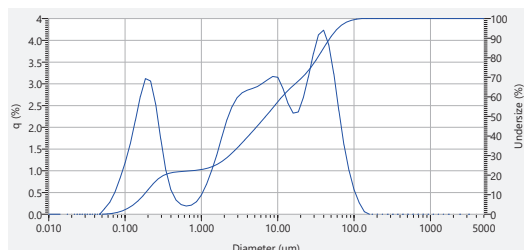
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.743	29	1.471	1.008	43	12.619	2.871	57	108.234	0.913
2	0.023	0.000	16	0.200	3.119	30	1.715	1.362	44	14.713	2.518	58	126.191	0.236
3	0.027	0.000	17	0.233	3.029	31	2.000	1.780	45	17.154	2.302	59	147.128	0.052
4	0.032	0.000	18	0.272	2.476	32	2.332	2.180	46	20.000	2.346	60	171.539	0.000
5	0.037	0.000	19	0.317	1.681	33	2.719	2.485	47	23.318	2.689	61	200.000	0.755
6	0.043	0.000	20	0.370	0.977	34	3.170	2.692	48	27.187	1.996	62	233.183	0.000
7	0.050	0.000	21	0.431	0.537	35	3.696	2.810	49	31.698	3.753	63	271.871	0.000
8	0.059	0.141	22	0.502	0.315	36	4.309	2.870	50	36.967	4.184	64	316.979	0.000
9	0.068	0.292	23	0.586	0.216	37	5.024	2.908	51	43.089	4.258	65	369.570	0.000
10	0.080	0.532	24	0.683	0.186	38	5.857	2.952	52	50.238	3.871	66	430.887	0.000
11	0.093	0.860	25	0.796	0.208	39	6.829	3.024	53	58.573	3.164	67	502.377	0.000
12	0.108	1.227	26	0.928	0.286	40	7.962	3.106	54	68.291	2.291	68	585.729	0.000
13	0.126	1.663	27	1.062	0.444	41	9.283	3.176	55	79.621	1.511	69	682.910	0.000
14	0.147	2.200	28	1.262	0.690	42	10.823	3.144	56	92.832	0.933	70	796.214	0.000

Particle Size Distribution

Attached page 8

Sample name : NPWG-1CP2
Data name : NPWG-1CP2_06
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1770 (µm) : (6)70.00 (%) - 20.9925 (µm)
: (2)20.00 (%) - 0.3264 (µm) : (7)80.00 (%) - 33.3184 (µm)
: (3)30.00 (%) - 2.3394 (µm) : (8)90.00 (%) - 48.4593 (µm)
: (4)40.00 (%) - 4.1255 (µm) : (9)95.00 (%) - 61.8651 (µm)
: (5)60.00 (%) - 11.3851 (µm) : (10)100.0 (%) - 146.7372 (µm)



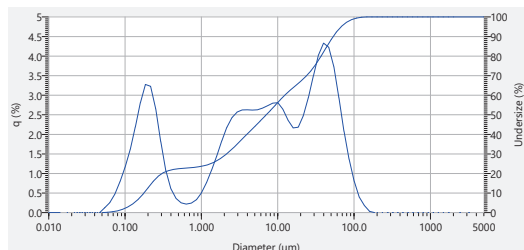
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.705	29	1.471	0.989	43	12.619	2.897	57	108.234	0.556
2	0.023	0.000	16	0.200	3.116	30	1.715	1.355	44	14.713	2.546	58	126.191	0.260
3	0.027	0.000	17	0.233	3.063	31	2.000	1.770	45	17.154	2.325	59	147.128	0.058
4	0.032	0.000	18	0.272	2.531	32	2.332	2.168	46	20.000	2.350	60	171.539	0.000
5	0.037	0.000	19	0.317	1.731	33	2.719	2.471	47	23.318	2.687	61	200.000	0.000
6	0.043	0.000	20	0.370	1.099	34	3.170	2.677	48	27.187	1.549	62	233.183	0.000
7	0.050	0.000	21	0.431	0.554	35	3.696	2.793	49	31.696	3.698	63	271.871	0.000
8	0.059	0.134	22	0.502	0.323	36	4.309	2.852	50	36.967	4.123	64	316.979	0.000
9	0.068	0.276	23	0.586	0.220	37	5.024	2.890	51	43.089	4.233	65	369.570	0.000
10	0.080	0.504	24	0.683	0.188	38	5.857	2.935	52	50.238	3.859	66	430.887	0.000
11	0.093	0.819	25	0.796	0.239	39	6.829	3.009	53	58.573	3.236	67	502.377	0.000
12	0.108	1.177	26	0.928	0.286	40	7.962	3.053	54	68.291	2.363	68	585.729	0.000
13	0.126	1.607	27	1.062	0.442	41	9.283	3.167	55	79.621	1.586	69	682.910	0.000
14	0.147	2.144	28	1.262	0.686	42	10.823	3.146	56	92.832	0.957	70	796.214	0.000

Particle Size Distribution

Attached page 10

Sample name : NPWG-ID2
Data name : NPWG-ID2_03
Lot number : T43779.27
Transmittance (R) : 85.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1768 (µm) : (6)70.00 (%) - 23.9624 (µm)
: (2)20.00 (%) - 0.3078 (µm) : (7)80.00 (%) - 37.0570 (µm)
: (3)30.00 (%) - 2.1428 (µm) : (8)90.00 (%) - 53.4846 (µm)
: (4)40.00 (%) - 3.9612 (µm) : (9)95.00 (%) - 67.7640 (µm)
: (5)60.00 (%) - 12.3873 (µm) : (10)100.0 (%) - 170.7221 (µm)



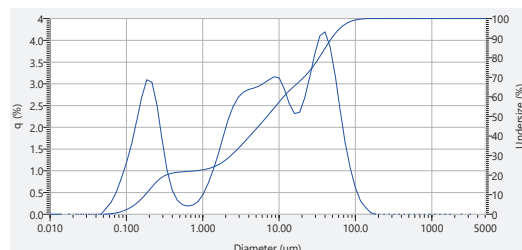
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.802	29	1.471	1.083	43	12.619	2.634	57	108.234	0.803
2	0.023	0.000	16	0.200	3.272	30	1.715	1.438	44	14.713	2.356	58	126.191	0.392
3	0.027	0.000	17	0.233	3.277	31	2.000	1.829	45	17.154	2.163	59	147.128	0.178
4	0.032	0.000	18	0.272	2.658	32	2.332	2.181	46	20.000	2.179	60	171.539	0.032
5	0.037	0.000	19	0.317	1.813	33	2.719	2.425	47	23.318	2.465	61	200.000	0.000
6	0.043	0.000	20	0.370	1.069	34	3.170	2.568	48	27.187	2.937	62	233.183	0.000
7	0.050	0.000	21	0.431	0.602	35	3.696	2.621	49	31.696	3.491	63	271.871	0.000
8	0.059	0.123	22	0.502	0.389	36	4.309	2.626	50	36.967	4.026	64	316.979	0.000
9	0.068	0.255	23	0.586	0.249	37	5.024	2.619	51	43.089	4.328	65	369.570	0.000
10	0.080	0.473	24	0.683	0.215	38	5.857	2.626	52	50.238	4.225	66	430.887	0.000
11	0.093	0.786	25	0.796	0.239	39	6.829	2.687	53	58.573	3.734	67	502.377	0.000
12	0.108	1.155	26	0.928	0.329	40	7.962	2.731	54	68.291	2.936	68	585.729	0.000
13	0.126	1.603	27	1.062	0.503	41	9.283	2.794	55	79.621	2.080	69	682.910	0.000
14	0.147	2.180	28	1.262	0.761	42	10.823	2.807	56	92.832	1.367	70	796.214	0.000

Particle Size Distribution

Attached page 9

Sample name : NPWG-1CP2
Data name : NPWG-1CP2_09
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1772 (µm) : (6)70.00 (%) - 21.1204 (µm)
: (2)20.00 (%) - 0.3329 (µm) : (7)80.00 (%) - 33.4821 (µm)
: (3)30.00 (%) - 2.3474 (µm) : (8)90.00 (%) - 48.8911 (µm)
: (4)40.00 (%) - 4.1399 (µm) : (9)95.00 (%) - 62.9553 (µm)
: (5)60.00 (%) - 11.4224 (µm) : (10)100.0 (%) - 170.6484 (µm)



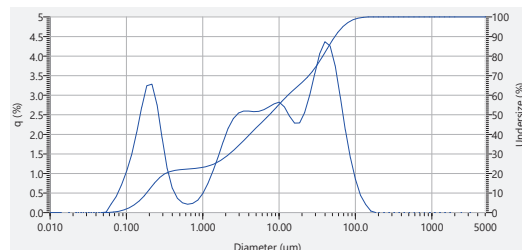
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.689	29	1.471	1.003	43	12.619	2.877	57	108.234	0.602
2	0.023	0.000	16	0.200	3.091	30	1.715	1.361	44	14.713	2.532	58	126.191	0.297
3	0.027	0.000	17	0.233	3.032	31	2.000	1.780	45	17.154	2.315	59	147.128	0.151
4	0.032	0.000	18	0.272	2.591	32	2.332	2.181	46	20.000	2.342	60	171.539	0.030
5	0.037	0.000	19	0.317	1.709	33	2.719	2.487	47	23.318	2.661	61	200.000	0.000
6	0.043	0.000	20	0.370	0.993	34	3.170	2.693	48	27.187	1.549	62	233.183	0.000
7	0.050	0.000	21	0.431	0.545	35	3.696	2.809	49	31.696	3.678	63	271.871	0.000
8	0.059	0.134	22	0.502	0.319	36	4.309	2.866	50	36.967	4.100	64	316.979	0.000
9	0.068	0.278	23	0.586	0.218	37	5.024	2.901	51	43.089	4.193	65	369.570	0.000
10	0.080	0.507	24	0.683	0.187	38	5.857	2.943	52	50.238	3.852	66	430.887	0.000
11	0.093	0.823	25	0.796	0.239	39	6.829	3.012	53	58.573	3.261	67	502.377	0.000
12	0.108	1.179	26	0.928	0.286	40	7.962	3.092	54	68.291	2.378	68	585.729	0.000
13	0.126	1.606	27	1.062	0.443	41	9.283	3.161	55	79.621	1.621	69	682.910	0.000
14	0.147	2.137	28	1.262	0.689	42	10.823	3.135	56	92.832	1.040	70	796.214	0.000

Particle Size Distribution

Attached page 11

Sample name : NPWG-ID2
Data name : NPWG-ID2_06
Lot number : T43779.27
Transmittance (R) : 86.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1835 (µm) : (6)70.00 (%) - 24.5071 (µm)
: (2)20.00 (%) - 0.3275 (µm) : (7)80.00 (%) - 37.4297 (µm)
: (3)30.00 (%) - 2.2460 (µm) : (8)90.00 (%) - 53.9321 (µm)
: (4)40.00 (%) - 4.1457 (µm) : (9)95.00 (%) - 68.3765 (µm)
: (5)60.00 (%) - 13.0665 (µm) : (10)100.0 (%) - 170.8239 (µm)



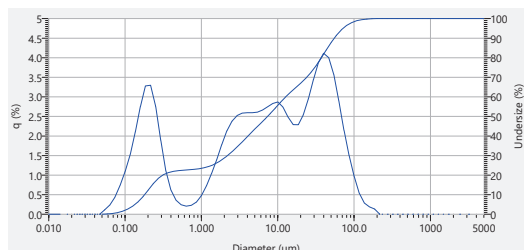
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.891	29	1.471	1.057	43	12.619	2.705	57	108.234	0.809
2	0.023	0.000	16	0.200	3.239	30	1.715	1.412	44	14.713	2.466	58	126.191	0.431
3	0.027	0.000	17	0.233	3.280	31	2.000	1.803	45	17.154	2.286	59	147.128	0.204
4	0.032	0.000	18	0.272	2.760	32	2.332	2.156	46	20.000	2.288	60	171.539	0.037
5	0.037	0.000	19	0.317	1.905	33	2.719	2.402	47	23.318	2.550	61	200.000	0.000
6	0.043	0.000	20	0.370	1.120	34	3.170	2.541	48	27.187	2.984	62	233.183	0.000
7	0.050	0.000	21	0.431	0.622	35	3.696	2.591	49	31.696	3.545	63	271.871	0.000
8	0.059	0.010	22	0.502	0.385	36	4.309	2.591	50	36.967	4.069	64	316.979	0.000
9	0.068	0.220	23	0.586	0.248	37	5.024	2.579	51	43.089	4.366	65	369.570	0.000
10	0.080	0.412	24	0.683	0.210	38	5.857	2.584	52	50.238	4.258	66	430.887	0.000
11	0.093	0.696	25	0.796	0.232	39	6.829	2.628	53	58.573	3.758	67	502.377	0.000
12	0.108	1.041	26	0.928	0.317	40	7.962	2.700	54	68.291	2.962	68	585.729	0.000
13	0.126	1.468	27	1.062	0.486	41	9.283	2.777	55	79.621	2.108	69	682.910	0.000
14	0.147	2.038	28	1.262	0.739	42	10.823	2.820	56	92.832	1.367	70	796.214	0.000

Particle Size Distribution

Attached page 12

Sample name : NPWG-1D2 Mean size : 19.38806 (µm)
Data name : NPWG-1D2_09 Di(v,0.1) : 0.18024 (µm)
Lot number : T43779.27 Di(v,0.5) : 7.34974 (µm)
Transmittance (R) : 86.4 (%) Di(v,0.9) : 55.23874 (µm)
Distribution base : Volume Span : 7.4912
Refractive index (R) : Standard Wet Mode size : 39.9962 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1802 (µm) : (6)70.00 (%) - 24.0184 (µm)
: (2)20.00 (%) - 0.3128 (µm) : (7)80.00 (%) - 37.3985 (µm)
: (3)30.00 (%) - 2.2380 (µm) : (8)90.00 (%) - 55.2387 (µm)
: (4)40.00 (%) - 4.1028 (µm) : (9)95.00 (%) - 72.0455 (µm)
: (5)60.00 (%) - 12.7342 (µm) : (10)100.0 (%) - 199.7658 (µm)



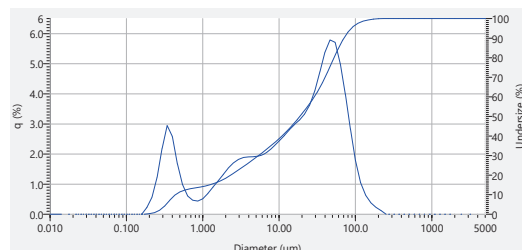
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.744	29	1.471	1.039	43	12.619	2.732	57	108.234	0.965
2	0.023	0.000	16	0.200	3.277	30	1.715	1.389	44	14.713	2.479	58	126.191	0.536
3	0.027	0.000	17	0.233	3.296	31	2.000	1.777	45	17.154	2.288	59	147.128	0.283
4	0.032	0.000	18	0.272	2.756	32	2.332	2.129	46	20.000	2.283	60	171.539	0.186
5	0.037	0.000	19	0.317	1.892	33	2.719	2.377	47	23.318	2.530	61	200.000	0.131
6	0.043	0.000	20	0.370	1.107	34	3.170	2.522	48	27.187	2.986	62	233.183	0.099
7	0.050	0.000	21	0.431	0.612	35	3.696	2.581	49	31.696	3.431	63	271.871	0.000
8	0.059	0.112	22	0.502	0.357	36	4.309	2.591	50	36.957	3.878	64	316.979	0.000
9	0.068	0.232	23	0.586	0.242	37	5.024	2.591	51	43.089	4.112	65	369.570	0.000
10	0.080	0.434	24	0.683	0.205	38	5.857	2.697	52	50.238	4.000	66	430.887	0.000
11	0.093	0.728	25	0.795	0.226	39	6.829	2.682	53	58.573	3.959	67	502.377	0.000
12	0.108	1.082	26	0.928	0.210	40	7.962	2.743	54	68.291	2.889	68	585.729	0.000
13	0.126	1.518	27	1.062	0.476	41	9.283	2.826	55	79.621	2.148	69	682.910	0.000
14	0.147	2.095	28	1.262	0.725	42	10.823	2.866	56	92.832	1.502	70	796.214	0.000

Particle Size Distribution

Attached page 13

Sample name : NPWG-2B2X Mean size : 29.08956 (µm)
Data name : NPWG-2B2X_03 Di(v,0.1) : 0.44291 (µm)
Lot number : T43779.27 Di(v,0.5) : 18.68653 (µm)
Transmittance (R) : 86.8 (%) Di(v,0.9) : 70.91118 (µm)
Distribution base : Volume Span : 3.7711
Refractive index (R) : Standard Wet Mode size : 46.7294 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4429 (µm) : (6)70.00 (%) - 40.0971 (µm)
: (2)20.00 (%) - 2.3515 (µm) : (7)80.00 (%) - 52.5730 (µm)
: (3)30.00 (%) - 5.3865 (µm) : (8)90.00 (%) - 70.9112 (µm)
: (4)40.00 (%) - 10.9161 (µm) : (9)95.00 (%) - 88.6951 (µm)
: (5)60.00 (%) - 28.9421 (µm) : (10)100.0 (%) - 232.8835 (µm)



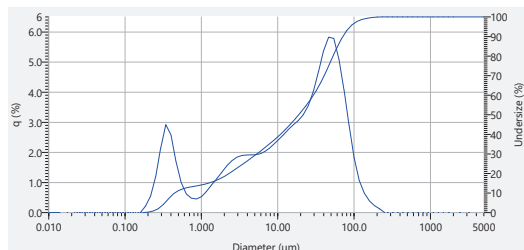
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.901	43	12.619	2.615	57	108.234	1.770
2	0.023	0.000	16	0.200	0.224	30	1.715	1.101	44	14.713	2.808	58	126.191	1.040
3	0.027	0.000	17	0.233	0.558	31	2.000	1.316	45	17.154	2.978	59	147.128	0.623
4	0.032	0.000	18	0.272	1.210	32	2.332	1.530	46	20.000	3.139	60	171.539	0.378
5	0.037	0.000	19	0.317	2.183	33	2.719	1.702	47	23.318	3.325	61	200.000	0.229
6	0.043	0.000	20	0.370	2.984	34	3.170	1.828	48	27.187	3.623	62	233.183	0.119
7	0.050	0.000	21	0.431	2.581	35	3.696	1.882	49	31.696	4.089	63	271.871	0.000
8	0.059	0.000	22	0.502	1.673	36	4.309	1.903	50	36.957	4.720	64	316.979	0.000
9	0.068	0.000	23	0.586	0.983	37	5.024	1.910	51	43.089	5.379	65	369.570	0.000
10	0.080	0.000	24	0.683	0.604	38	5.857	1.931	52	50.238	5.789	66	430.887	0.000
11	0.093	0.000	25	0.795	0.464	39	6.829	1.985	53	58.573	5.708	67	502.377	0.000
12	0.108	0.000	26	0.928	0.425	40	7.962	2.108	54	68.291	5.003	68	585.729	0.000
13	0.126	0.000	27	1.062	0.512	41	9.283	2.264	55	79.621	3.990	69	682.910	0.000
14	0.147	0.000	28	1.262	0.689	42	10.823	2.434	56	92.832	2.829	70	796.214	0.000

Particle Size Distribution

Attached page 14

Sample name : NPWG-2B2X Mean size : 29.32102 (µm)
Data name : NPWG-2B2X_06 Di(v,0.1) : 0.44706 (µm)
Lot number : T43779.27 Di(v,0.5) : 18.83729 (µm)
Transmittance (R) : 86.3 (%) Di(v,0.9) : 71.52113 (µm)
Distribution base : Volume Span : 3.7731
Refractive index (R) : Standard Wet Mode size : 46.7781 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4471 (µm) : (6)70.00 (%) - 40.6210 (µm)
: (2)20.00 (%) - 2.3349 (µm) : (7)80.00 (%) - 53.1534 (µm)
: (3)30.00 (%) - 5.3217 (µm) : (8)90.00 (%) - 71.5212 (µm)
: (4)40.00 (%) - 10.8795 (µm) : (9)95.00 (%) - 89.1849 (µm)
: (5)60.00 (%) - 29.3563 (µm) : (10)100.0 (%) - 232.8801 (µm)



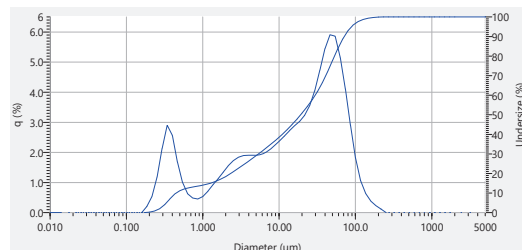
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.920	43	12.619	2.957	57	108.234	1.813
2	0.023	0.000	16	0.200	0.216	30	1.715	1.122	44	14.713	2.749	58	126.191	1.082
3	0.027	0.000	17	0.233	0.544	31	2.000	1.339	45	17.154	2.908	59	147.128	0.635
4	0.032	0.000	18	0.272	1.187	32	2.332	1.553	46	20.000	3.054	60	171.539	0.384
5	0.037	0.000	19	0.317	2.153	33	2.719	1.724	47	23.318	3.247	61	200.000	0.230
6	0.043	0.000	20	0.370	2.919	34	3.170	1.840	48	27.187	3.546	62	233.183	0.115
7	0.050	0.000	21	0.431	2.577	35	3.696	1.898	49	31.696	4.026	63	271.871	0.000
8	0.059	0.000	22	0.502	1.885	36	4.309	1.914	50	36.957	4.679	64	316.979	0.000
9	0.068	0.000	23	0.586	0.999	37	5.024	1.915	51	43.089	5.373	65	369.570	0.000
10	0.080	0.000	24	0.683	0.618	38	5.857	1.929	52	50.238	5.825	66	430.887	0.000
11	0.093	0.000	25	0.795	0.476	39	6.829	1.985	53	58.573	5.780	67	502.377	0.000
12	0.108	0.000	26	0.928	0.447	40	7.962	2.080	54	68.291	5.089	68	585.729	0.000
13	0.126	0.000	27	1.062	0.526	41	9.283	2.237	55	79.621	4.086	69	682.910	0.000
14	0.147	0.000	28	1.262	0.705	42	10.823	2.397	56	92.832	2.902	70	796.214	0.000

Particle Size Distribution

Attached page 15

Sample name : NPWG-2B2X Mean size : 29.44233 (µm)
Data name : NPWG-2B2X_09 Di(v,0.1) : 0.45123 (µm)
Lot number : T43779.27 Di(v,0.5) : 19.15266 (µm)
Transmittance (R) : 86.0 (%) Di(v,0.9) : 71.53108 (µm)
Distribution base : Volume Span : 3.7112
Refractive index (R) : Standard Wet Mode size : 46.7791 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4512 (µm) : (6)70.00 (%) - 40.9075 (µm)
: (2)20.00 (%) - 2.3513 (µm) : (7)80.00 (%) - 53.2927 (µm)
: (3)30.00 (%) - 5.3722 (µm) : (8)90.00 (%) - 71.5311 (µm)
: (4)40.00 (%) - 11.0272 (µm) : (9)95.00 (%) - 89.0781 (µm)
: (5)60.00 (%) - 29.7433 (µm) : (10)100.0 (%) - 232.8731 (µm)



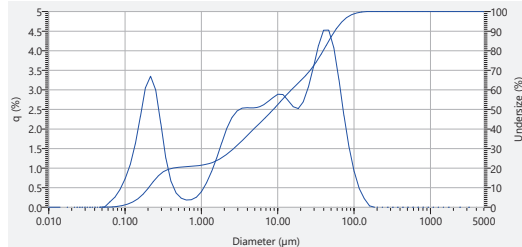
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.922	43	12.619	2.536	57	108.234	1.811
2	0.023	0.000	16	0.200	0.206	30	1.715	1.124	44	14.713	2.718	58	126.191	1.057
3	0.027	0.000	17	0.233	0.530	31	2.000	1.340	45	17.154	2.879	59	147.128	0.629
4	0.032	0.000	18	0.272	1.168	32	2.332	1.553	46	20.000	3.029	60	171.539	0.379
5	0.037	0.000	19	0.317	2.129	33	2.719	1.722	47	23.318	3.231	61	200.000	0.227
6	0.043	0.000	20	0.370	2.896	34	3.170	1.838	48	27.187	3.547	62	233.183	0.115
7	0.050	0.000	21	0.431	2.585	35	3.696	1.892	49	31.696	4.043	63	271.871	0.000
8	0.059	0.000	22	0.502	1.883	36	4.309	1.905	50	36.957	4.723	64	316.979	0.000
9	0.068	0.000	23	0.586	1.002	37	5.024	1.903	51	43.089	5.441	65	369.570	0.000
10	0.080	0.000	24	0.683	0.622	38	5.857	1.913	52	50.238	5.906	66	430.887	0.000
11	0.093	0.000	25	0.795	0.480	39	6.829	1.986	53	58.573	5.688	67	502.377	0.000
12	0.108	0.000	26	0.928	0.450	40	7.962	2.067	54	68.291	5.152	68	585.729	0.000
13	0.126	0.000	27	1.062	0.528	41	9.283	2.211	55	79.621	4.115	69	682.910	0.000
14	0.147	0.000	28	1.262	0.708	42	10.823	2.369	56	92.832	2.910	70	796.214	0.000

Particle Size Distribution

Attached page 16

Sample name : NPWG-2C2
Data name : NPWG-2C2_03
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2036 (µm) : (6)70.00 (%) - 26.6421 (µm)
: (2)20.00 (%) - 0.4293 (µm) : (7)80.00 (%) - 39.4137 (µm)
: (3)30.00 (%) - 2.6523 (µm) : (8)90.00 (%) - 55.9238 (µm)
: (4)40.00 (%) - 4.8921 (µm) : (9)95.00 (%) - 70.5778 (µm)
: (5)60.00 (%) - 15.1006 (µm) : (10)100.00 (%) - 170.8116 (µm)



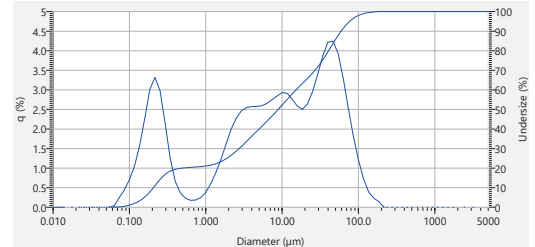
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.309	29	1.471	0.910	43	12.619	2.877	57	108.234	0.809	71	928.318	0.000
2	0.023	0.000	16	0.200	3.053	30	1.715	1.253	44	14.713	2.728	58	126.191	0.474	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.346	31	2.000	1.644	45	17.154	2.568	59	147.128	0.215	73	1261.920	0.000
4	0.032	0.000	18	0.272	2.987	32	2.332	2.016	46	20.000	2.530	60	171.539	0.036	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.148	33	2.719	2.291	47	23.318	2.691	61	200.000	0.000	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.281	34	3.170	2.489	48	27.187	3.089	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.863	35	3.696	2.531	49	31.696	3.574	63	271.871	0.000	77	5000.000	0.000
8	0.059	0.006	22	0.502	0.365	36	4.309	2.543	50	36.967	4.127	64	316.979	0.000			
9	0.068	0.131	23	0.586	0.231	37	5.024	2.538	51	43.089	4.530	65	369.570	0.000			
10	0.080	0.254	24	0.683	0.182	38	5.857	2.548	52	50.238	4.536	66	430.887	0.000			
11	0.093	0.451	25	0.796	0.191	39	6.829	2.602	53	58.573	4.079	67	502.377	0.000			
12	0.108	0.721	26	0.928	0.254	40	7.962	2.691	54	68.291	3.268	68	585.729	0.000			
13	0.126	1.079	27	1.062	0.397	41	9.283	2.793	55	79.621	2.339	69	682.910	0.000			
14	0.147	1.607	28	1.262	0.620	42	10.823	2.886	56	92.832	1.529	70	796.214	0.000			

Particle Size Distribution

Attached page 17

Sample name : NPWG-2C2
Data name : NPWG-2C2_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2064 (µm) : (6)70.00 (%) - 27.0857 (µm)
: (2)20.00 (%) - 0.4983 (µm) : (7)80.00 (%) - 40.7133 (µm)
: (3)30.00 (%) - 2.7465 (µm) : (8)90.00 (%) - 59.3493 (µm)
: (4)40.00 (%) - 5.0282 (µm) : (9)95.00 (%) - 77.0943 (µm)
: (5)60.00 (%) - 15.2514 (µm) : (10)100.00 (%) - 199.7802 (µm)



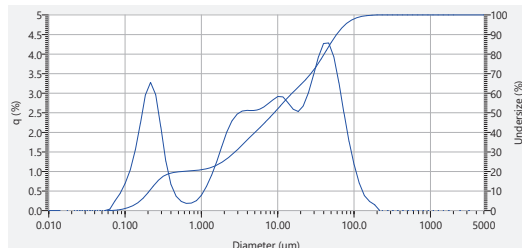
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.284	29	1.471	0.887	43	12.619	2.969	57	108.234	1.196	71	928.318	0.000
2	0.023	0.000	16	0.200	3.099	30	1.715	1.225	44	14.713	2.747	58	126.191	0.719	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.313	31	2.000	1.618	45	17.154	2.573	59	147.128	0.387	73	1261.920	0.000
4	0.032	0.000	18	0.272	2.981	32	2.332	1.996	46	20.000	2.505	60	171.539	0.228	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.144	33	2.719	2.280	47	23.318	2.641	61	200.000	0.140	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.280	34	3.170	2.480	48	27.187	2.987	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.857	35	3.696	2.545	49	31.696	3.399	63	271.871	0.000	77	5000.000	0.000
8	0.059	0.000	22	0.502	0.359	36	4.309	2.569	50	36.967	3.873	64	316.979	0.000			
9	0.068	0.034	23	0.586	0.225	37	5.024	2.574	51	43.089	4.212	65	369.570	0.000			
10	0.080	0.247	24	0.683	0.177	38	5.857	2.592	52	50.238	4.243	66	430.887	0.000			
11	0.093	0.440	25	0.796	0.184	39	6.829	2.651	53	58.573	3.919	67	502.377	0.000			
12	0.108	0.703	26	0.928	0.244	40	7.962	2.742	54	68.291	3.269	68	585.729	0.000			
13	0.126	1.052	27	1.062	0.383	41	9.283	2.843	55	79.621	2.523	69	682.910	0.000			
14	0.147	1.571	28	1.262	0.601	42	10.823	2.928	56	92.832	1.801	70	796.214	0.000			

Particle Size Distribution

Attached page 18

Sample name : NPWG-2C2
Data name : NPWG-2C2_09
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2082 (µm) : (6)70.00 (%) - 27.2047 (µm)
: (2)20.00 (%) - 0.5694 (µm) : (7)80.00 (%) - 40.6352 (µm)
: (3)30.00 (%) - 2.7591 (µm) : (8)90.00 (%) - 59.0124 (µm)
: (4)40.00 (%) - 5.0587 (µm) : (9)95.00 (%) - 76.7131 (µm)
: (5)60.00 (%) - 15.4307 (µm) : (10)100.00 (%) - 199.7938 (µm)



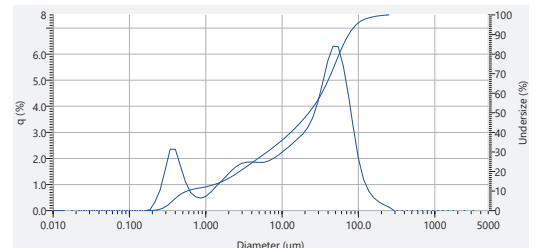
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.220	29	1.471	0.904	43	12.619	2.993	57	108.234	1.166	71	928.318	0.000
2	0.023	0.000	16	0.200	2.957	30	1.715	1.244	44	14.713	2.753	58	126.191	0.701	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.272	31	2.000	1.637	45	17.154	2.588	59	147.128	0.383	73	1261.920	0.000
4	0.032	0.000	18	0.272	2.961	32	2.332	2.011	46	20.000	2.530	60	171.539	0.233	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.145	33	2.719	2.290	47	23.318	2.673	61	200.000	0.149	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.259	34	3.170	2.464	48	27.187	2.987	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.868	35	3.696	2.541	49	31.696	3.448	63	271.871	0.000	77	5000.000	0.000
8	0.059	0.000	22	0.502	0.367	36	4.309	2.558	50	36.967	3.929	64	316.979	0.000			
9	0.068	0.034	23	0.586	0.232	37	5.024	2.557	51	43.089	4.266	65	369.570	0.000			
10	0.080	0.243	24	0.683	0.183	38	5.857	2.572	52	50.238	4.281	66	430.887	0.000			
11	0.093	0.431	25	0.796	0.191	39	6.829	2.628	53	58.573	3.931	67	502.377	0.000			
12	0.108	0.688	26	0.928	0.253	40	7.962	2.720	54	68.291	3.270	68	585.729	0.000			
13	0.126	1.030	27	1.062	0.394	41	9.283	2.824	55	79.621	2.490	69	682.910	0.000			
14	0.147	1.538	28	1.262	0.615	42	10.823	2.913	56	92.832	1.765	70	796.214	0.000			

Particle Size Distribution

Attached page 19

Sample name : NPWG-3B2X
Data name : NPWG-3B2X_03
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5718 (µm) : (6)70.00 (%) - 43.9213 (µm)
: (2)20.00 (%) - 2.7947 (µm) : (7)80.00 (%) - 56.0592 (µm)
: (3)30.00 (%) - 6.4159 (µm) : (8)90.00 (%) - 74.8697 (µm)
: (4)40.00 (%) - 13.0451 (µm) : (9)95.00 (%) - 93.3336 (µm)
: (5)60.00 (%) - 33.1739 (µm) : (10)100.00 (%) - 271.5443 (µm)



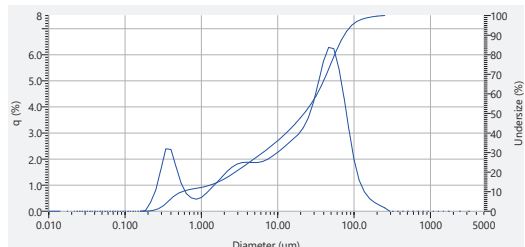
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.918	43	12.619	2.391	57	108.234	1.980	71	928.318	0.000
2	0.023	0.000	16	0.200	0.025	30	1.715	1.111	44	14.713	2.568	58	126.191	1.183	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.330	31	2.000	1.317	45	17.154	2.742	59	147.128	0.740	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.774	32	2.332	1.524	46	20.000	2.922	60	171.539	0.486	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.542	33	2.719	1.691	47	23.318	3.174	61	200.000	0.331	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.353	34	3.170	1.802	48	27.187	3.553	62	233.183	0.223	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.346	35	3.696	1.853	49	31.696	4.136	63	271.871	0.128	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.711	36	4.309	1.860	50	36.967	4.923	64	316.979	0.000			
9	0.068	0.000	23	0.586	1.091	37	5.024	1.848	51	43.089	5.752	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.692	38	5.857	1.845	52	50.238	6.299	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.525	39	6.829	1.880	53	58.573	6.281	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.476	40	7.962	1.964	54	68.291	5.546	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.541	41	9.283	2.091	55	79.621	4.440	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.711	42	10.823	2.234	56	92.832	3.151	70	796.214	0.000			

Particle Size Distribution

Attached page 20

Sample name : NPWG-3B2X Mean size : 31.84740 (µm)
Data name : NPWG-3B2X_06 Di(v,0.1) : 0.56353 (µm)
Lot number : T43779.27 Di(v,0.5) : 22.13853 (µm)
Transmittance (R) : 86.8 (%) Di(v,0.9) : 74.56989 (µm)
Distribution base : Volume Span : 3.3429
Refractive index (R) : Standard Wet Mode size : 46.7939 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5635 (µm) : (6)70.00 (%) - 43.6002 (µm)
: (2)20.00 (%) - 2.8051 (µm) : (7)80.00 (%) - 55.7232 (µm)
: (3)30.00 (%) - 5.3982 (µm) : (8)90.00 (%) - 74.5698 (µm)
: (4)40.00 (%) - 12.9279 (µm) : (9)95.00 (%) - 93.1099 (µm)
: (5)60.00 (%) - 32.8872 (µm) : (10)100.0 (%) - 271.5473 (µm)



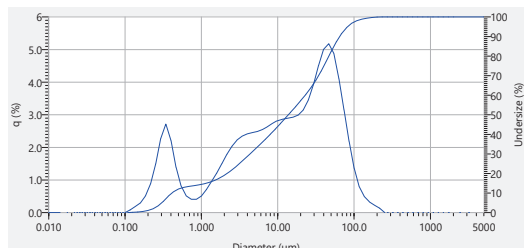
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.901	43	12.619	2.416	57	108.234	1.953
2	0.023	0.000	16	0.200	0.026	30	1.715	1.094	44	14.713	2.592	58	126.191	1.174
3	0.027	0.000	17	0.233	0.339	31	2.000	1.303	45	17.154	2.763	59	147.128	0.738
4	0.032	0.000	18	0.272	0.795	32	2.332	1.515	46	20.000	2.941	60	171.539	0.487
5	0.037	0.000	19	0.317	1.578	33	2.719	1.686	47	23.318	3.193	61	200.000	0.333
6	0.043	0.000	20	0.370	2.392	34	3.170	1.804	48	27.187	3.574	62	233.183	0.224
7	0.050	0.000	21	0.431	2.363	35	3.696	1.862	49	31.696	4.160	63	271.871	0.129
8	0.059	0.000	22	0.502	1.704	36	4.309	1.874	50	36.967	4.945	64	316.979	0.000
9	0.068	0.000	23	0.586	1.074	37	5.024	1.869	51	43.089	5.759	65	369.570	0.000
10	0.080	0.000	24	0.683	0.674	38	5.857	1.869	52	50.238	6.279	66	430.887	0.000
11	0.093	0.000	25	0.796	0.559	39	6.829	1.904	53	58.573	6.229	67	502.377	0.000
12	0.108	0.000	26	0.928	0.461	40	7.962	1.989	54	68.291	5.474	68	585.729	0.000
13	0.126	0.000	27	1.082	0.525	41	9.283	2.119	55	79.621	4.368	69	682.910	0.000
14	0.147	0.000	28	1.262	0.694	42	10.823	2.261	56	92.832	3.097	70	796.214	0.000

Particle Size Distribution

Attached page 22

Sample name : NPWG-3C2 Mean size : 25.58445 (µm)
Data name : NPWG-3C2_03 Di(v,0.1) : 0.41261 (µm)
Lot number : T43779.27 Di(v,0.5) : 13.76572 (µm)
Transmittance (R) : 86.5 (%) Di(v,0.9) : 64.93898 (µm)
Distribution base : Volume Span : 4.6875
Refractive index (R) : Standard Wet Mode size : 46.4425 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4126 (µm) : (6)70.00 (%) - 34.3167 (µm)
: (2)20.00 (%) - 2.1744 (µm) : (7)80.00 (%) - 46.8498 (µm)
: (3)30.00 (%) - 4.3558 (µm) : (8)90.00 (%) - 64.9390 (µm)
: (4)40.00 (%) - 7.9876 (µm) : (9)95.00 (%) - 82.4651 (µm)
: (5)60.00 (%) - 22.9647 (µm) : (10)100.0 (%) - 232.9171 (µm)



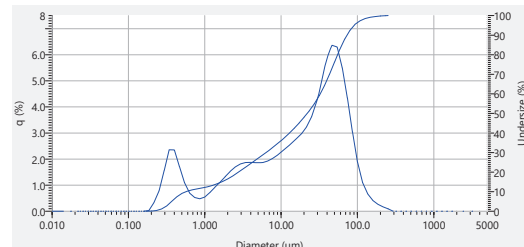
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.290	29	1.471	0.988	43	12.619	2.899	57	108.234	1.366
2	0.023	0.000	16	0.200	0.508	30	1.715	1.211	44	14.713	2.992	58	126.191	0.789
3	0.027	0.000	17	0.233	0.877	31	2.000	1.497	45	17.154	2.926	59	147.128	0.488
4	0.032	0.000	18	0.272	1.481	32	2.332	1.789	46	20.000	2.988	60	171.539	0.325
5	0.037	0.000	19	0.317	2.273	33	2.719	2.036	47	23.318	3.146	61	200.000	0.223
6	0.043	0.000	20	0.370	2.714	34	3.170	2.223	48	27.187	3.445	62	233.183	0.134
7	0.050	0.000	21	0.431	2.212	35	3.696	2.344	49	31.696	3.915	63	271.871	0.008
8	0.059	0.000	22	0.502	1.389	36	4.309	2.411	50	36.967	4.489	64	316.979	0.000
9	0.068	0.000	23	0.586	0.811	37	5.024	2.449	51	43.089	5.005	65	369.570	0.000
10	0.080	0.000	24	0.683	0.509	38	5.857	2.485	52	50.238	5.177	66	430.887	0.000
11	0.093	0.000	25	0.796	0.407	39	6.829	2.547	53	58.573	4.884	67	502.377	0.000
12	0.108	0.000	26	0.928	0.405	40	7.962	2.634	54	68.291	4.108	68	585.729	0.000
13	0.126	0.000	27	1.082	0.507	41	9.283	2.740	55	79.621	3.153	69	682.910	0.000
14	0.147	0.183	28	1.262	0.709	42	10.823	2.820	56	92.832	2.186	70	796.214	0.000

Particle Size Distribution

Attached page 21

Sample name : NPWG-3B2X Mean size : 31.21705 (µm)
Data name : NPWG-3B2X_09 Di(v,0.1) : 0.57130 (µm)
Lot number : T43779.27 Di(v,0.5) : 22.00762 (µm)
Transmittance (R) : 86.8 (%) Di(v,0.9) : 73.15287 (µm)
Distribution base : Volume Span : 3.2980
Refractive index (R) : Standard Wet Mode size : 46.7825 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5713 (µm) : (6)70.00 (%) - 43.1888 (µm)
: (2)20.00 (%) - 2.7896 (µm) : (7)80.00 (%) - 55.0321 (µm)
: (3)30.00 (%) - 5.3734 (µm) : (8)90.00 (%) - 73.1528 (µm)
: (4)40.00 (%) - 12.8982 (µm) : (9)95.00 (%) - 90.7765 (µm)
: (5)60.00 (%) - 32.6300 (µm) : (10)100.0 (%) - 271.4035 (µm)



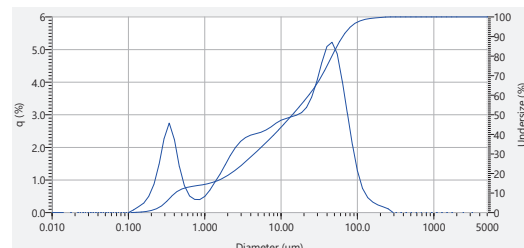
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.919	43	12.619	2.421	57	108.234	1.876
2	0.023	0.000	16	0.200	0.025	30	1.715	1.112	44	14.713	2.604	58	126.191	1.093
3	0.027	0.000	17	0.233	0.330	31	2.000	1.320	45	17.154	2.784	59	147.128	0.688
4	0.032	0.000	18	0.272	0.775	32	2.332	1.529	46	20.000	2.970	60	171.539	0.410
5	0.037	0.000	19	0.317	1.543	33	2.719	1.696	47	23.318	3.231	61	200.000	0.263
6	0.043	0.000	20	0.370	2.384	34	3.170	1.809	48	27.187	3.621	62	233.183	0.166
7	0.050	0.000	21	0.431	2.347	35	3.696	1.863	49	31.696	4.216	63	271.871	0.089
8	0.059	0.000	22	0.502	1.712	36	4.309	1.871	50	36.967	5.012	64	316.979	0.000
9	0.068	0.000	23	0.586	1.091	37	5.024	1.869	51	43.089	5.838	65	369.570	0.000
10	0.080	0.000	24	0.683	0.602	38	5.857	1.859	52	50.238	6.359	66	430.887	0.000
11	0.093	0.000	25	0.796	0.525	39	6.829	1.898	53	58.573	5.293	67	502.377	0.000
12	0.108	0.000	26	0.928	0.476	40	7.962	1.982	54	68.291	5.666	68	585.729	0.000
13	0.126	0.000	27	1.082	0.541	41	9.283	2.113	55	79.621	4.349	69	682.910	0.000
14	0.147	0.000	28	1.262	0.711	42	10.823	2.269	56	92.832	3.044	70	796.214	0.000

Particle Size Distribution

Attached page 23

Sample name : NPWG-3C2 Mean size : 25.73005 (µm)
Data name : NPWG-3C2_06 Di(v,0.1) : 0.41242 (µm)
Lot number : T43779.27 Di(v,0.5) : 14.01445 (µm)
Transmittance (R) : 86.8 (%) Di(v,0.9) : 64.32297 (µm)
Distribution base : Volume Span : 4.5603
Refractive index (R) : Standard Wet Mode size : 46.3755 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4124 (µm) : (6)70.00 (%) - 34.1576 (µm)
: (2)20.00 (%) - 2.1994 (µm) : (7)80.00 (%) - 46.4443 (µm)
: (3)30.00 (%) - 4.4467 (µm) : (8)90.00 (%) - 64.3230 (µm)
: (4)40.00 (%) - 8.1726 (µm) : (9)95.00 (%) - 81.8573 (µm)
: (5)60.00 (%) - 23.0906 (µm) : (10)100.0 (%) - 271.5024 (µm)



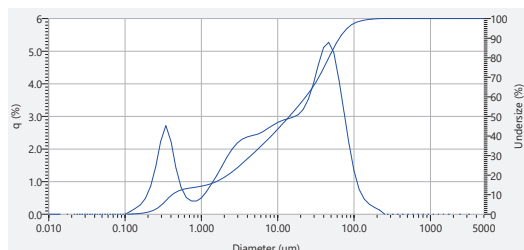
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.290	29	1.471	0.934	43	12.619	2.886	57	108.234	1.366
2	0.023	0.000	16	0.200	0.500	30	1.715	1.180	44	14.713	2.935	58	126.191	0.731
3	0.027	0.000	17	0.233	0.864	31	2.000	1.459	45	17.154	2.986	59	147.128	0.458
4	0.032	0.000	18	0.272	1.468	32	2.332	1.746	46	20.000	3.061	60	171.539	0.317
5	0.037	0.000	19	0.317	2.270	33	2.719	1.990	47	23.318	3.229	61	200.000	0.234
6	0.043	0.000	20	0.370	2.742	34	3.170	2.177	48	27.187	3.538	62	233.183	0.177
7	0.050	0.000	21	0.431	2.247	35	3.696	2.305	49	31.696	4.016	63	271.871	0.113
8	0.059	0.000	22	0.502	1.405	36	4.309	2.372	50	36.967	4.602	64	316.979	0.000
9	0.068	0.000	23	0.586	0.815	37	5.024	2.416	51	43.089	5.089	65	369.570	0.000
10	0.080	0.000	24	0.683	0.506	38	5.857	2.459	52	50.238	5.219	66	430.887	0.000
11	0.093	0.000	25	0.796	0.401	39	6.829	2.529	53	58.573	4.868	67	502.377	0.000
12	0.108	0.000	26	0.928	0.396	40	7.962	2.626	54	68.291	4.036	68	585.729	0.000
13	0.126	0.081	27	1.082	0.493	41	9.283	2.743	55	79.621	3.051	69	682.910	0.000
14	0.147	0.180	28	1.262	0.690	42	10.823	2.833	56	92.832	2.079	70	796.214	0.000

Particle Size Distribution

Attached page 24

Sample name : NPWG-3C2
Data name : NPWG-3C2_09
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4160 (µm) : (6)70.00 (%) - 34.4499 (µm)
: (2)20.00 (%) - 2.2178 (µm) : (7)80.00 (%) - 46.7365 (µm)
: (3)30.00 (%) - 4.4759 (µm) : (8)90.00 (%) - 64.4408 (µm)
: (4)40.00 (%) - 8.2344 (µm) : (9)95.00 (%) - 81.3366 (µm)
: (5)60.00 (%) - 23.3285 (µm) : (10)100.0 (%) - 232.8973 (µm)



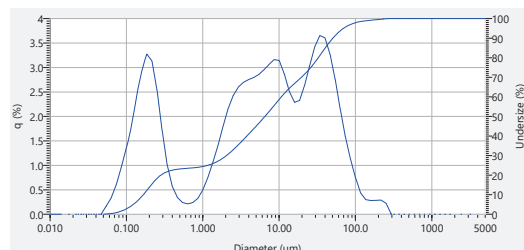
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.284	29	1.471	0.937	43	12.619	2.874	57	108.234	1.309
2	0.023	0.000	16	0.200	0.490	30	1.715	1.183	44	14.713	2.925	58	126.191	0.749
3	0.027	0.000	17	0.233	0.849	31	2.000	1.461	45	17.154	2.975	59	147.128	0.458
4	0.032	0.000	18	0.272	1.444	32	2.332	1.747	46	20.000	3.048	60	171.539	0.302
5	0.037	0.000	19	0.317	2.239	33	2.719	1.990	47	23.318	3.213	61	200.000	0.208
6	0.043	0.000	20	0.370	2.715	34	3.170	2.178	48	27.187	3.519	62	233.183	0.126
7	0.050	0.000	21	0.431	2.235	35	3.696	2.298	49	31.698	3.899	63	271.871	0.000
8	0.059	0.000	22	0.502	1.400	36	4.309	2.368	50	36.967	4.595	64	316.979	0.000
9	0.068	0.000	23	0.586	0.820	37	5.024	2.411	51	43.089	5.107	65	369.570	0.000
10	0.080	0.000	24	0.683	0.511	38	5.857	2.452	52	50.238	5.271	66	430.887	0.000
11	0.093	0.000	25	0.796	0.405	39	6.829	2.521	53	58.573	4.951	67	502.377	0.000
12	0.108	0.000	26	0.928	0.400	40	7.962	2.616	54	68.291	4.131	68	585.729	0.000
13	0.126	0.079	27	1.062	0.496	41	9.283	2.732	55	79.621	3.140	69	682.910	0.000
14	0.147	0.177	28	1.262	0.694	42	10.823	2.822	56	92.832	2.149	70	796.214	0.000

Particle Size Distribution

Attached page 25

Sample name : NPWG-3CP2
Data name : NPWG-3CP2_03
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1667 (µm) : (6)70.00 (%) - 19.7155 (µm)
: (2)20.00 (%) - 0.2848 (µm) : (7)80.00 (%) - 32.6418 (µm)
: (3)30.00 (%) - 0.2530 (µm) : (8)90.00 (%) - 50.7156 (µm)
: (4)40.00 (%) - 3.7956 (µm) : (9)95.00 (%) - 70.0438 (µm)
: (5)60.00 (%) - 10.6994 (µm) : (10)100.0 (%) - 271.6824 (µm)



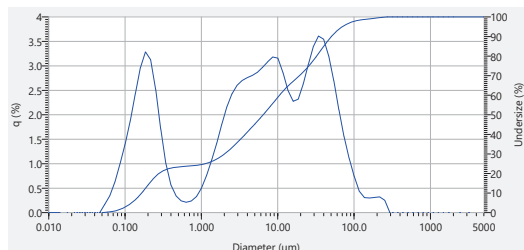
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.867	29	1.471	1.064	43	12.619	2.864	57	108.234	0.745
2	0.023	0.000	16	0.200	3.271	30	1.715	1.409	44	14.713	2.506	58	126.191	0.433
3	0.027	0.000	17	0.233	3.131	31	2.000	1.803	45	17.154	2.287	59	147.128	0.296
4	0.032	0.000	18	0.272	2.534	32	2.332	2.164	46	20.000	2.335	60	171.539	0.280
5	0.037	0.000	19	0.317	1.716	33	2.719	2.429	47	23.318	2.631	61	200.000	0.283
6	0.043	0.000	20	0.370	1.097	34	3.170	2.601	48	27.187	3.039	62	233.183	0.289
7	0.050	0.000	21	0.431	0.595	35	3.696	2.698	49	31.698	3.420	63	271.871	0.221
8	0.059	0.160	22	0.502	0.339	36	4.309	2.750	50	36.967	3.652	64	316.979	0.000
9	0.068	0.332	23	0.586	0.238	37	5.024	2.794	51	43.089	3.606	65	369.570	0.000
10	0.080	0.601	24	0.683	0.209	38	5.857	2.854	52	50.238	3.270	66	430.887	0.000
11	0.093	0.962	25	0.796	0.236	39	6.829	2.952	53	58.573	2.758	67	502.377	0.000
12	0.108	1.358	26	0.928	0.323	40	7.962	3.061	54	68.291	2.150	68	585.729	0.000
13	0.126	1.824	27	1.062	0.493	41	9.283	3.160	55	79.621	1.588	69	682.910	0.000
14	0.147	2.383	28	1.262	0.749	42	10.823	3.142	56	92.832	1.127	70	796.214	0.000

Particle Size Distribution

Attached page 26

Sample name : NPWG-3CP2
Data name : NPWG-3CP2_06
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1649 (µm) : (6)70.00 (%) - 19.3733 (µm)
: (2)20.00 (%) - 0.2797 (µm) : (7)80.00 (%) - 32.3524 (µm)
: (3)30.00 (%) - 2.0235 (µm) : (8)90.00 (%) - 50.6020 (µm)
: (4)40.00 (%) - 3.7532 (µm) : (9)95.00 (%) - 70.5311 (µm)
: (5)60.00 (%) - 10.5449 (µm) : (10)100.0 (%) - 271.7037 (µm)



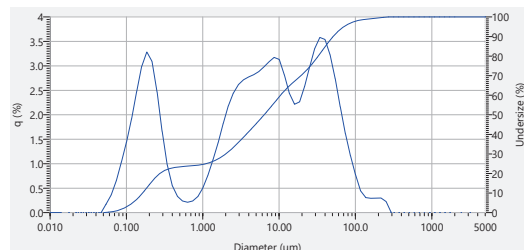
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.967	29	1.471	1.064	43	12.619	2.862	57	108.234	0.741
2	0.023	0.000	16	0.200	3.283	30	1.715	1.410	44	14.713	2.494	58	126.191	0.435
3	0.027	0.000	17	0.233	3.125	31	2.000	1.802	45	17.154	2.275	59	147.128	0.306
4	0.032	0.000	18	0.272	2.521	32	2.332	2.162	46	20.000	2.316	60	171.539	0.297
5	0.037	0.000	19	0.317	1.705	33	2.719	2.426	47	23.318	2.623	61	200.000	0.307
6	0.043	0.000	20	0.370	1.092	34	3.170	2.600	48	27.187	3.032	62	233.183	0.321
7	0.050	0.000	21	0.431	0.594	35	3.696	2.699	49	31.698	3.394	63	271.871	0.248
8	0.059	0.166	22	0.502	0.340	36	4.309	2.750	50	36.967	3.608	64	316.979	0.000
9	0.068	0.344	23	0.586	0.240	37	5.024	2.803	51	43.089	3.544	65	369.570	0.000
10	0.080	0.621	24	0.683	0.211	38	5.857	2.868	52	50.238	3.252	66	430.887	0.000
11	0.093	0.961	25	0.796	0.237	39	6.829	2.969	53	58.573	2.686	67	502.377	0.000
12	0.108	1.392	26	0.928	0.323	40	7.962	3.081	54	68.291	2.103	68	585.729	0.000
13	0.126	1.863	27	1.062	0.496	41	9.283	3.181	55	79.621	1.559	69	682.910	0.000
14	0.147	2.422	28	1.262	0.752	42	10.823	3.156	56	92.832	1.114	70	796.214	0.000

Particle Size Distribution

Attached page 27

Sample name : NPWG-3CP2
Data name : NPWG-3CP2_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1630 (µm) : (6)70.00 (%) - 19.4126 (µm)
: (2)20.00 (%) - 0.2757 (µm) : (7)80.00 (%) - 32.6044 (µm)
: (3)30.00 (%) - 2.0084 (µm) : (8)90.00 (%) - 51.1266 (µm)
: (4)40.00 (%) - 3.7191 (µm) : (9)95.00 (%) - 70.9813 (µm)
: (5)60.00 (%) - 10.4502 (µm) : (10)100.0 (%) - 271.6855 (µm)



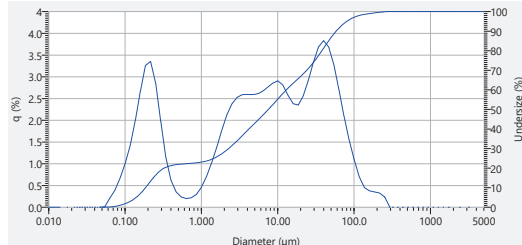
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.989	29	1.471	1.074	43	12.619	2.814	57	108.234	0.770
2	0.023	0.000	16	0.200	3.282	30	1.715	1.420	44	14.713	2.435	58	126.191	0.443
3	0.027	0.000	17	0.233	3.083	31	2.000	1.814	45	17.154	2.213	59	147.128	0.306
4	0.032	0.000	18	0.272	2.473	32	2.332	2.175	46	20.000	2.262	60	171.539	0.292
5	0.037	0.000	19	0.317	1.662	33	2.719	2.441	47	23.318	2.574	61	200.000	0.294
6	0.043	0.000	20	0.370	0.976	34	3.170	2.615	48	27.187	2.976	62	233.183	0.297
7	0.050	0.000	21	0.431	0.590	35	3.696	2.714	49	31.698	3.353	63	271.871	0.225
8	0.059	0.172	22	0.502	0.333	36	4.309	2.771	50	36.967	3.580	64	316.979	0.000
9	0.068	0.358	23	0.586	0.236	37	5.024	2.819	51	43.089	3.539	65	369.570	0.000
10	0.080	0.645	24	0.683	0.209	38	5.857	2.880	52	50.238	3.225	66	430.887	0.000
11	0.093	0.925	25	0.796	0.237	39	6.829	2.977	53	58.573	2.744	67	502.377	0.000
12	0.108	1.433	26	0.928	0.327	40	7.962	3.082	54	68.291	2.153	68	585.729	0.000
13	0.126	1.910	27	1.062	0.499	41	9.283	3.172	55	79.621	1.619	69	682.910	0.000
14	0.147	2.468	28	1.262	0.758	42	10.823	3.130	56	92.832	1.163	70	796.214	0.000

Particle Size Distribution

Attached page 28

Sample name : NPWG-3D2
Data name : NPWG-3D2_03
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1856 (µm) : (6)70.00 (%) - 24.0687 (µm)
: (2)20.00 (%) - 0.3272 (µm) : (7)80.00 (%) - 37.9708 (µm)
: (3)30.00 (%) - 2.2863 (µm) : (8)90.00 (%) - 58.2447 (µm)
: (4)40.00 (%) - 4.2185 (µm) : (9)95.00 (%) - 80.2283 (µm)
: (5)60.00 (%) - 12.9675 (µm) : (10)100.0 (%) - 271.6918 (µm)



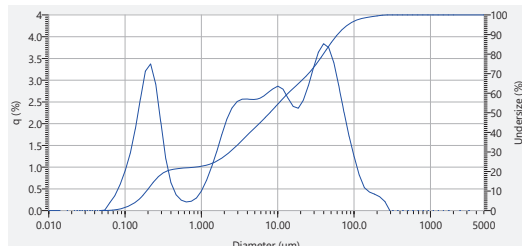
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.661	29	1.471	1.019	43	12.619	2.855	57	108.234	1.892
2	0.023	0.000	16	0.200	3.259	30	1.715	1.372	44	14.713	2.571	58	126.191	0.698
3	0.027	0.000	17	0.233	3.352	31	2.000	1.765	45	17.154	2.378	59	147.128	0.450
4	0.032	0.000	18	0.272	2.851	32	2.332	2.125	46	20.000	2.350	60	171.539	0.376
5	0.037	0.000	19	0.317	1.972	33	2.719	2.379	47	23.318	2.557	61	200.000	0.350
6	0.043	0.000	20	0.370	1.143	34	3.170	2.537	48	27.187	2.919	62	233.183	0.326
7	0.050	0.000	21	0.431	0.620	35	3.696	2.586	49	31.696	3.329	63	271.871	0.233
8	0.059	0.010	22	0.502	0.355	36	4.309	2.594	50	36.957	3.684	64	316.979	0.000
9	0.068	0.207	23	0.586	0.236	37	5.024	2.591	51	43.089	3.831	65	369.570	0.000
10	0.080	0.390	24	0.683	0.198	38	5.857	2.609	52	50.238	3.681	66	430.887	0.000
11	0.093	0.662	25	0.796	0.216	39	6.829	2.588	53	58.573	3.384	67	502.377	0.000
12	0.108	0.998	26	0.928	0.296	40	7.962	2.756	54	68.291	2.706	68	585.729	0.000
13	0.126	1.416	27	1.062	0.459	41	9.283	2.850	55	79.621	2.097	69	682.910	0.000
14	0.147	1.987	28	1.262	0.706	42	10.823	2.907	56	92.832	1.553	70	796.214	0.000

Particle Size Distribution

Attached page 30

Sample name : NPWG-3D2
Data name : NPWG-3D2_09
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1909 (µm) : (6)70.00 (%) - 25.2885 (µm)
: (2)20.00 (%) - 0.3473 (µm) : (7)80.00 (%) - 39.6059 (µm)
: (3)30.00 (%) - 2.3691 (µm) : (8)90.00 (%) - 60.0473 (µm)
: (4)40.00 (%) - 4.3766 (µm) : (9)95.00 (%) - 84.1257 (µm)
: (5)60.00 (%) - 13.6933 (µm) : (10)100.0 (%) - 271.6726 (µm)



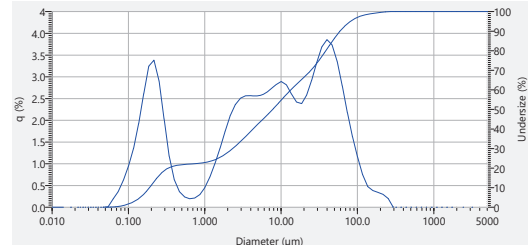
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.567	29	1.471	1.000	43	12.619	2.791	57	108.234	1.294
2	0.023	0.000	16	0.200	3.211	30	1.715	1.351	44	14.713	2.591	58	126.191	0.815
3	0.027	0.000	17	0.233	3.370	31	2.000	1.743	45	17.154	2.356	59	147.128	0.525
4	0.032	0.000	18	0.272	2.915	32	2.332	2.104	46	20.000	2.352	60	171.539	0.424
5	0.037	0.000	19	0.317	2.030	33	2.719	2.359	47	23.318	2.532	61	200.000	0.375
6	0.043	0.000	20	0.370	1.185	34	3.170	2.554	48	27.187	2.855	62	233.183	0.316
7	0.050	0.000	21	0.431	0.640	35	3.696	2.560	49	31.696	3.273	63	271.871	0.210
8	0.059	0.008	22	0.502	0.383	36	4.309	2.563	50	36.957	3.640	64	316.979	0.000
9	0.068	0.180	23	0.586	0.239	37	5.024	2.554	51	43.089	3.837	65	369.570	0.000
10	0.080	0.343	24	0.683	0.197	38	5.857	2.564	52	50.238	3.748	66	430.887	0.000
11	0.093	0.591	25	0.796	0.213	39	6.829	2.618	53	58.573	3.404	67	502.377	0.000
12	0.108	0.907	26	0.928	0.289	40	7.962	2.703	54	68.291	2.864	68	585.729	0.000
13	0.126	1.307	27	1.062	0.448	41	9.283	2.795	55	79.621	2.254	69	682.910	0.000
14	0.147	1.868	28	1.262	0.691	42	10.823	2.862	56	92.832	1.711	70	796.214	0.000

Particle Size Distribution

Attached page 29

Sample name : NPWG-3D2
Data name : NPWG-3D2_06
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1887 (µm) : (6)70.00 (%) - 24.6460 (µm)
: (2)20.00 (%) - 0.3364 (µm) : (7)80.00 (%) - 38.6482 (µm)
: (3)30.00 (%) - 2.3562 (µm) : (8)90.00 (%) - 58.1693 (µm)
: (4)40.00 (%) - 4.3197 (µm) : (9)95.00 (%) - 81.2374 (µm)
: (5)60.00 (%) - 13.4109 (µm) : (10)100.0 (%) - 271.6618 (µm)



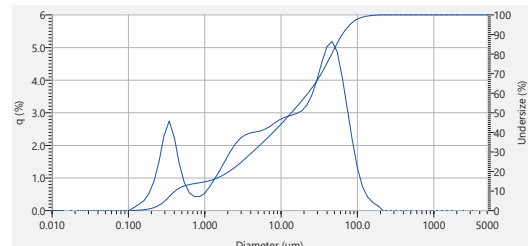
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.607	29	1.471	1.000	43	12.619	2.916	57	108.234	1.154
2	0.023	0.000	16	0.200	3.246	30	1.715	1.352	44	14.713	2.604	58	126.191	0.746
3	0.027	0.000	17	0.233	3.383	31	2.000	1.744	45	17.154	2.418	59	147.128	0.474
4	0.032	0.000	18	0.272	2.987	32	2.332	2.104	46	20.000	2.383	60	171.539	0.381
5	0.037	0.000	19	0.317	2.022	33	2.719	2.358	47	23.318	2.574	61	200.000	0.339
6	0.043	0.000	20	0.370	1.171	34	3.170	2.504	48	27.187	2.917	62	233.183	0.294
7	0.050	0.000	21	0.431	0.631	35	3.696	2.560	49	31.696	3.326	63	271.871	0.199
8	0.059	0.009	22	0.502	0.357	36	4.309	2.565	50	36.957	3.686	64	316.979	0.000
9	0.068	0.189	23	0.586	0.235	37	5.024	2.559	51	43.089	3.853	65	369.570	0.000
10	0.080	0.360	24	0.683	0.194	38	5.857	2.573	52	50.238	3.730	66	430.887	0.000
11	0.093	0.617	25	0.796	0.211	39	6.829	2.631	53	58.573	3.566	67	502.377	0.000
12	0.108	0.941	26	0.928	0.287	40	7.962	2.722	54	68.291	2.791	68	585.729	0.000
13	0.126	1.349	27	1.062	0.448	41	9.283	2.819	55	79.621	2.180	69	682.910	0.000
14	0.147	1.917	28	1.262	0.691	42	10.823	2.891	56	92.832	1.626	70	796.214	0.000

Particle Size Distribution

Attached page 31

Sample name : NPWG-4B2X
Data name : NPWG-4B2X_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4090 (µm) : (6)70.00 (%) - 33.6422 (µm)
: (2)20.00 (%) - 2.0899 (µm) : (7)80.00 (%) - 45.9814 (µm)
: (3)30.00 (%) - 4.2524 (µm) : (8)90.00 (%) - 63.4728 (µm)
: (4)40.00 (%) - 7.8864 (µm) : (9)95.00 (%) - 79.4024 (µm)
: (5)60.00 (%) - 22.5182 (µm) : (10)100.0 (%) - 199.7906 (µm)



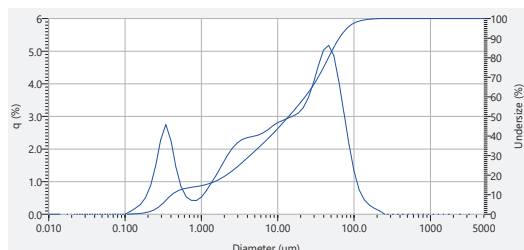
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.298	29	1.471	0.980	43	12.619	2.870	57	108.234	1.291
2	0.023	0.000	16	0.200	0.515	30	1.715	1.242	44	14.713	2.922	58	126.191	0.719
3	0.027	0.000	17	0.233	0.891	31	2.000	1.524	45	17.154	2.975	59	147.128	0.411
4	0.032	0.000	18	0.272	1.504	32	2.332	1.808	46	20.000	3.054	60	171.539	0.246
5	0.037	0.000	19	0.317	2.305	33	2.719	2.044	47	23.318	3.234	61	200.000	0.146
6	0.043	0.000	20	0.370	2.741	34	3.170	2.217	48	27.187	3.524	62	233.183	0.090
7	0.050	0.000	21	0.431	2.240	35	3.696	2.324	49	31.696	3.981	63	271.871	0.000
8	0.059	0.000	22	0.502	1.420	36	4.309	2.380	50	36.957	4.543	64	316.979	0.000
9	0.068	0.000	23	0.586	0.839	37	5.024	2.410	51	43.089	5.026	65	369.570	0.000
10	0.080	0.000	24	0.683	0.532	38	5.857	2.443	52	50.238	5.181	66	430.887	0.000
11	0.093	0.000	25	0.796	0.428	39	6.829	2.538	53	58.573	4.875	67	502.377	0.000
12	0.108	0.000	26	0.928	0.427	40	7.962	2.599	54	68.291	4.003	68	585.729	0.000
13	0.126	0.082	27	1.062	0.532	41	9.283	2.715	55	79.621	3.110	69	682.910	0.000
14	0.147	0.184	28	1.262	0.739	42	10.823	2.811	56	92.832	2.131	70	796.214	0.000

Particle Size Distribution

Attached page 32

Sample name : NPWG-4B2X Mean size : 25.18176 (µm)
Data name : NPWG-4B2X_06 Di(v,0.1) : 0.41095 (µm)
Lot number : T43779.27 Di(v,0.5) : 13.91020 (µm)
Transmittance (R) : 86.9 (%) Di(v,0.9) : 63.94615 (µm)
Distribution base : Volume Span : 4.5675
Refractive index (R) : Standard Wet Mode size : 46.4063 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4110 (µm) : (6)70.00 (%) - 33.8644 (µm)
: (2)20.00 (%) - 2.1308 (µm) : (7)80.00 (%) - 46.2178 (µm)
: (3)30.00 (%) - 4.3438 (µm) : (8)90.00 (%) - 63.9462 (µm)
: (4)40.00 (%) - 8.0818 (µm) : (9)95.00 (%) - 80.5268 (µm)
: (5)60.00 (%) - 22.8296 (µm) : (10)100.0 (%) - 232.8281 (µm)



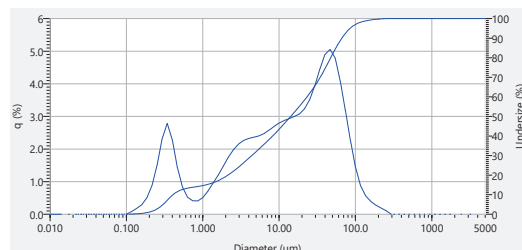
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.291	29	1.471	0.974	43	12.619	2.876	57	108.234	1.298
2	0.023	0.000	16	0.200	0.504	30	1.715	1.222	44	14.713	2.944	58	126.191	0.737
3	0.027	0.000	17	0.233	0.873	31	2.000	1.499	45	17.154	3.010	59	147.128	0.438
4	0.032	0.000	18	0.272	1.481	32	2.332	1.779	46	20.000	3.097	60	171.539	0.277
5	0.037	0.000	19	0.317	2.386	33	2.719	2.011	47	23.318	3.268	61	200.000	0.178
6	0.043	0.000	20	0.370	2.746	34	3.170	2.183	48	27.187	3.986	62	233.183	0.101
7	0.050	0.000	21	0.431	2.254	35	3.696	2.289	49	31.696	4.017	63	271.871	0.000
8	0.059	0.000	22	0.502	1.425	36	4.309	2.347	50	36.967	4.967	64	316.979	0.000
9	0.068	0.000	23	0.586	0.837	37	5.024	2.380	51	43.089	5.036	65	369.570	0.000
10	0.080	0.000	24	0.683	0.527	38	5.857	2.416	52	50.238	5.177	66	430.887	0.000
11	0.093	0.000	25	0.796	0.422	39	6.829	2.484	53	58.573	4.862	67	502.377	0.000
12	0.108	0.000	26	0.928	0.419	40	7.962	2.583	54	68.291	4.067	68	585.729	0.000
13	0.126	0.081	27	1.062	0.522	41	9.283	2.707	55	79.621	3.101	69	682.910	0.000
14	0.147	0.180	28	1.262	0.726	42	10.823	2.810	56	92.832	2.130	70	796.214	0.000

Particle Size Distribution

Attached page 33

Sample name : NPWG-4B2X Mean size : 26.37715 (µm)
Data name : NPWG-4B2X_09 Di(v,0.1) : 0.40914 (µm)
Lot number : T43779.27 Di(v,0.5) : 14.17577 (µm)
Transmittance (R) : 86.9 (%) Di(v,0.9) : 66.43171 (µm)
Distribution base : Volume Span : 4.6374
Refractive index (R) : Standard Wet Mode size : 46.4527 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4091 (µm) : (6)70.00 (%) - 34.5994 (µm)
: (2)20.00 (%) - 2.1511 (µm) : (7)80.00 (%) - 47.4807 (µm)
: (3)30.00 (%) - 4.4172 (µm) : (8)90.00 (%) - 66.4317 (µm)
: (4)40.00 (%) - 8.2327 (µm) : (9)95.00 (%) - 85.6589 (µm)
: (5)60.00 (%) - 23.2950 (µm) : (10)100.0 (%) - 271.4788 (µm)



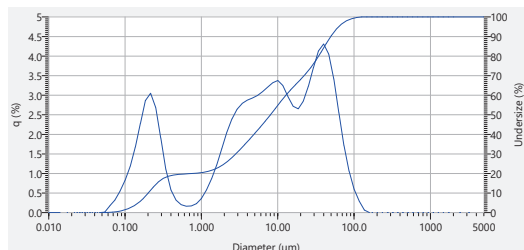
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.287	29	1.471	0.948	43	12.619	2.866	57	108.234	1.436
2	0.023	0.000	16	0.200	0.499	30	1.715	1.191	44	14.713	2.935	58	126.191	0.864
3	0.027	0.000	17	0.233	0.871	31	2.000	1.465	45	17.154	2.968	59	147.128	0.567
4	0.032	0.000	18	0.272	1.489	32	2.332	1.742	46	20.000	3.078	60	171.539	0.388
5	0.037	0.000	19	0.317	2.308	33	2.719	1.874	47	23.318	3.236	61	200.000	0.277
6	0.043	0.000	20	0.370	2.781	34	3.170	2.148	48	27.187	3.919	62	233.183	0.189
7	0.050	0.000	21	0.431	2.276	35	3.696	2.259	49	31.696	3.931	63	271.871	0.108
8	0.059	0.000	22	0.502	1.427	36	4.309	2.321	50	36.967	4.448	64	316.979	0.000
9	0.068	0.000	23	0.586	0.830	37	5.024	2.358	51	43.089	4.896	65	369.570	0.000
10	0.080	0.000	24	0.683	0.517	38	5.857	2.398	52	50.238	5.052	66	430.887	0.000
11	0.093	0.000	25	0.796	0.411	39	6.829	2.469	53	58.573	4.792	67	502.377	0.000
12	0.108	0.000	26	0.928	0.407	40	7.962	2.570	54	68.291	4.065	68	585.729	0.000
13	0.126	0.079	27	1.062	0.506	41	9.283	2.696	55	79.621	3.190	69	682.910	0.000
14	0.147	0.177	28	1.262	0.705	42	10.823	2.799	56	92.832	2.259	70	796.214	0.000

Particle Size Distribution

Attached page 34

Sample name : NPWG-4C2 Mean size : 17.74503 (µm)
Data name : NPWG-4C2_03 Di(v,0.1) : 0.20160 (µm)
Lot number : T43779.27 Di(v,0.5) : 8.02660 (µm)
Transmittance (R) : 87.2 (%) Di(v,0.9) : 49.62254 (µm)
Distribution base : Volume Span : 6.1571
Refractive index (R) : Standard Wet Mode size : 39.8489 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2016 (µm) : (6)70.00 (%) - 22.1917 (µm)
: (2)20.00 (%) - 0.7892 (µm) : (7)80.00 (%) - 34.3555 (µm)
: (3)30.00 (%) - 2.8594 (µm) : (8)90.00 (%) - 49.6225 (µm)
: (4)40.00 (%) - 4.8829 (µm) : (9)95.00 (%) - 63.1853 (µm)
: (5)60.00 (%) - 12.7815 (µm) : (10)100.0 (%) - 146.7814 (µm)



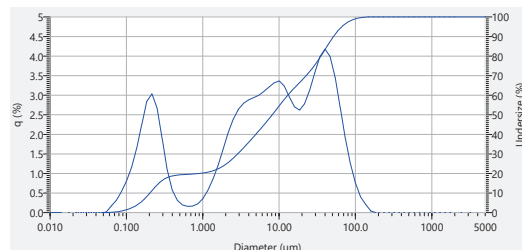
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.270	29	1.471	0.864	43	12.619	3.239	57	108.234	0.890
2	0.023	0.000	16	0.200	2.865	30	1.715	1.210	44	14.713	2.955	58	126.191	0.286
3	0.027	0.000	17	0.233	3.049	31	2.000	1.629	45	17.154	2.715	59	147.128	0.065
4	0.032	0.000	18	0.272	2.685	32	2.332	2.051	46	20.000	2.651	60	171.539	0.000
5	0.037	0.000	19	0.317	1.907	33	2.719	2.393	47	23.318	2.842	61	200.000	0.000
6	0.043	0.000	20	0.370	1.103	34	3.170	2.638	48	27.187	3.239	62	233.183	0.000
7	0.050	0.000	21	0.431	0.577	35	3.696	2.787	49	31.696	3.889	63	271.871	0.000
8	0.059	0.008	22	0.502	0.319	36	4.309	2.870	50	36.967	4.131	64	316.979	0.000
9	0.068	0.172	23	0.586	0.201	37	5.024	2.927	51	43.089	4.309	65	369.570	0.000
10	0.080	0.321	24	0.683	0.161	38	5.857	2.990	52	50.238	4.052	66	430.887	0.000
11	0.093	0.545	25	0.796	0.170	39	6.829	3.089	53	58.573	3.416	67	502.377	0.000
12	0.108	0.822	26	0.928	0.228	40	7.962	3.205	54	68.291	2.546	68	585.729	0.000
13	0.126	1.174	27	1.062	0.360	41	9.283	3.316	55	79.621	1.710	69	682.910	0.000
14	0.147	1.665	28	1.262	0.576	42	10.823	3.373	56	92.832	1.059	70	796.214	0.000

Particle Size Distribution

Attached page 35

Sample name : NPWG-4C2 Mean size : 18.45745 (µm)
Data name : NPWG-4C2_06 Di(v,0.1) : 0.20319 (µm)
Lot number : T43779.27 Di(v,0.5) : 8.12636 (µm)
Transmittance (R) : 86.9 (%) Di(v,0.9) : 51.73119 (µm)
Distribution base : Volume Span : 6.3408
Refractive index (R) : Standard Wet Mode size : 39.9108 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

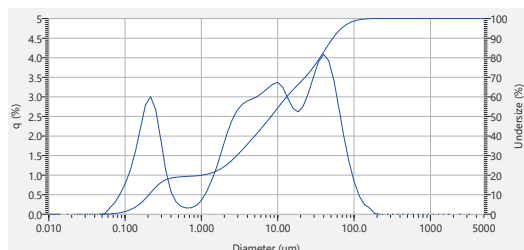
Diameter on cumulative % : (1)10.00 (%) - 0.2032 (µm) : (6)70.00 (%) - 22.6721 (µm)
: (2)20.00 (%) - 0.9301 (µm) : (7)80.00 (%) - 35.3136 (µm)
: (3)30.00 (%) - 2.8781 (µm) : (8)90.00 (%) - 51.7311 (µm)
: (4)40.00 (%) - 4.9552 (µm) : (9)95.00 (%) - 66.4551 (µm)
: (5)60.00 (%) - 12.9770 (µm) : (10)100.0 (%) - 170.8482 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.340	29	1.471	0.863	43	12.619	3.229	57	108.234	0.747
2	0.023	0.000	16	0.200	2.843	30	1.715	1.199	44	14.713	2.945	58	126.191	0.397
3	0.027	0.000	17	0.233	3.033	31	2.000	1.619	45	17.154	2.700	59	147.128	0.203
4	0.032	0.000	18	0.272	2.672	32	2.332	2.044	46	20.000	2.619	60	171.539	0.038
5	0.037	0.000	19	0.317	1.886	33	2.719	2.390	47	23.318	2.782	61	200.000	0.000
6	0.043	0.000	20	0.370	1.089	34	3.170	2.639	48	27.187	3.124	62	233.183	0.000
7	0.050	0.000	21	0.431	0.588	35	3.696	2.792	49	31.696	3.568	63	271.871	0.000
8	0.059	0.008	22	0.502	0.309	36	4.309	2.877	50	36.967	3.980	64	316.979	0.000
9	0.068	0.165	23	0.586	0.196	37	5.024	2.935	51	43.089	4.174	65	369.570	0.000
10	0.080	0.311	24	0.683	0.158	38	5.857	2.997	52	50.238	3.987	66	430.887	0.000
11	0.093	0.530	25	0.796	0.165	39	6.829	3.084	53	58.573	3.454	67	502.377	0.000
12	0.108	0.802	26	0.928	0.222	40	7.962	3.206	54	68.291	2.681	68	585.729	0.000
13	0.126	1.149	27	1.062	0.353	41	9.283	3.312	55	79.621	1.894	69	682.910	0.000
14	0.147	1.637	28	1.262	0.567	42	10.823	3.363	56	92.832	1.245	70	796.214	0.000

Attached page 36

Sample name	NPWG-4C2	Mean size	18.91961 (µm)
Data name	NPWG-4C2_09	Dv(0.1)	0.20607 (µm)
Lot number	143773.27	Dv(0.5)	8.19796 (µm)
Transmittance (R)	86.5 (%)	Dv(0.9)	52.9309 (µm)
Distribution base	Volume	Span	6.4457
Refractive index (R)	Standard Wet Standard wet 1.530 - 0.100), water(1.3333)	Mode size	39.9237 (µm)
Dispersion	De-ionized water		
Treatment	Ultrasonic 10 minutes with ultrasonic bath before analysis		
Circulate speed	12		
	Agitation		
Diameter on cumulative %	(110.00) (%) - 0.2061 (µm)	(6170.00) (%) - 22.8659 (µm)	
	(2320.00) (%) - 1.0370 (µm)	(7180.00) (%) - 35.7648 (µm)	
	(93.00) (%) - 2.9154 (µm)	(6900.00) (%) - 52.9302 (µm)	
	(4400.00) (%) - 5.0010 (µm)	(6965.00) (%) - 68.3939 (µm)	
	(5600.00) (%) - 13.0663 (µm)	(10100.00) (%) - 198.2375 (µm)	



No.	Diameter (μm)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	
1	0.020	0.000	15	0.172	2193	29	1.471	0.684	43	12.619	3.231	57	108.234	0.829	71	928.318	0.000
2	0.023	0.000	16	0.200	2788	30	1.715	1.201	44	17.343	2.948	58	126.191	0.040	72	1062.340	0.000
3	0.027	0.000	17	0.233	3031	31	2.000	1.620	45	17.154	2.700	59	147.128	0.249	73	1261.920	0.000
4	0.032	0.000	18	0.272	2.669	32	2.332	2.021	46	20.000	2.612	60	171.539	0.163	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.912	33	2.719	2.399	47	23.316	2.761	61	200.000	0.017	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.114	34	3.170	2.651	48	27.187	3.084	62	233.163	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.578	35	3.696	2.605	49	31.698	3.352	63	271.871	0.000	77	5000.000	0.000
8	0.059	0.007	22	0.502	0.314	36	4.309	2.891	50	36.957	3.984	64	316.959	0.000			
9	0.068	0.160	23	0.586	0.198	37	5.024	2.948	51	43.089	4.082	65	369.570	0.000			
10	0.080	0.299	24	0.683	0.158	38	5.857	3.010	52	50.238	3.919	66	430.887	0.000			
11	0.093	0.510	25	0.796	0.156	39	6.829	3.105	53	58.573	3.433	67	502.377	0.000			
12	0.108	0.773	26	0.928	0.223	40	7.962	3.214	54	69.216	2.791	68	585.729	0.000			
13	0.126	1.117	27	1.082	0.354	41	9.283	3.318	55	79.621	1.969	69	692.214	0.000			
14	0.147	1.586	28	1.262	0.569	42	10.823	3.365	56	92.832	1.332	70	786.210	0.000			

Samples detail :

Sample No.	Sample Name	Sample No.	Sample Name
1	PACPP-1C1	8	PACPP-1E2
2	PACPP-1C2X	9	PACPP-1F2
3	PACPP-1C3X	10	PACPP-1G2
4	PACPP-1CP1	11	PACPP-2C2
5	PACPP-1CP2X	12	PACPP-2CP2
6	PACPP-1CP3	13	PACPP-2D2
7	PACPP-1D2		

Technical Terms :

- Transmittance (R)** : value at particle come transmittance to red light source (percent), ranging from 99-70%.
- Transmittance (B)** : value at particle come transmittance to blue light source (percent), ranging from 99-70%.
- Mean size** : mean diameter value by volume.
- D [v, 0.1]** : 10 volume percent less than or equal to a given diameter.
- D [v, 0.5]** : 50 volume percent less than or equal to a given diameter, median diameter.
- D [v, 0.9]** : 90 volume percent less than or equal to a given diameter.
- Span** : the width of the distribution, which is independent of median size (D [v, 0.5]).

Results :

MTEC received samples from Tetra Tech Inc. Laser diffraction technique is used in order to analyze the particle size and size distribution by wet analysis.

The results of the particle size and size distribution of samples are shown in the attachments

No.1 – 39.

- Note :**
1. The specific surface area is inapplicable unless the density of a sample is known.
 2. The results of particle size distribution are dispersion particle only.
 3. Some particle of sample are vary size and size over range of instrument.

Interpretation/Opinion : None

MTEC0868/68 6

Report of Samples Analysis

Issued Date	:	22 July 2025
Customer	:	Tetra Tech Inc. 77 Soi Udomsak 39/1, Sukhumvit 103 Road, Bangchak, Phrakhanong, Bangkok 10260 Tel : 0 2361 3767 Fax : 0 2361 3768
Serviced by	:	Physical Analysis Section, Technical Support for Material Analysis Division, MTEC
Date received	:	13 May 2025
Date analyzed	:	27 May – 22 July 2025
Samples	:	Seabed Sediment Project No. T43779.27 (13 samples)
Identification no.	:	See sample detail.
Objective	:	Particle size and size distribution analysis.
Instrument	:	LA-960V2, HORIBA Instruments Incorporated.
Test method	:	Laser diffraction technique.
Conditions	:	Red light source : Laser Diode (LD), λ : 650 nm. Blue light source : Light Emitting Diode (LED), λ : 405 nm. Particle size range analysis : 0.01 – 5,000 μm . Dispersion unit : LA-960S2 Dispersing medium : De-ionized water. Sample refractive index : 1.5300 (as default standard wet)
Sample preparation	:	1. Prepare the instrument for wet analysis. Circulation speed should be set at 12 and agitation speed set at 10. 2. 0.05 – 0.1 g. of sample was dispersed in 40 ml of de-ionized water and ultrasound 10 minutes with ultrasonic bath before measurement. 3. Add the dispersed sample into LA-960S2 unit and measure the dispersed sample with LA-960V2.

Attached pages :

The attachment number	Detail
1 – 3	HORIBA LA960V2 results of PACPP-1C1
4 – 6	HORIBA LA960V2 results of PACPP-1C2X
7 – 9	HORIBA LA960V2 results of PACPP-1C3X
10 – 12	HORIBA LA960V2 results of PACPP-1CP1
13 – 15	HORIBA LA960V2 results of PACPP-1CP2X
16 – 18	HORIBA LA960V2 results of PACPP-1CP3
19 – 21	HORIBA LA960V2 results of PACPP-1D2
22 – 24	HORIBA LA960V2 results of PACPP-1E2
25 – 27	HORIBA LA960V2 results of PACPP-1F2
28 – 30	HORIBA LA960V2 results of PACPP-1G2
31 – 33	HORIBA LA960V2 results of PACPP-2C2
34 – 36	HORIBA LA960V2 results of PACPP-2CP2
37 – 39	HORIBA LA960V2 results of PACPP-2D2

Work performed by :

(Mr.Kriangkai Supanpong)

Approved by :

Suphalem K.
(Ms. Suphakan Kijamnajsuk)

Remarks

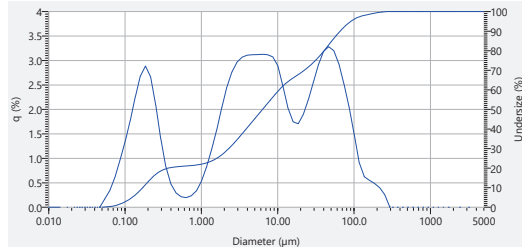
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2. MTEC will not accept liability for any damage whatsoever, resulting directly or indirectly, from using the data, results, conclusions or recommendations in this report for the purposes of designing, manufacturing or for other purposes.
3. Experimental results are only valid for the specimens tested.

Particle Size Distribution

Attached page 1

Sample name : PACPP-1C1
Data name : PACPP-1C1_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1705 (µm) : (6)70.00 (%) - 22.4313 (µm)
: (2)20.00 (%) - 0.3730 (µm) : (7)80.00 (%) - 40.4312 (µm)
: (3)30.00 (%) - 2.2868 (µm) : (8)90.00 (%) - 65.7318 (µm)
: (4)40.00 (%) - 3.8641 (µm) : (9)95.00 (%) - 90.8245 (µm)
: (5)60.00 (%) - 10.4588 (µm) : (10)100.0 (%) - 271.7055 (µm)



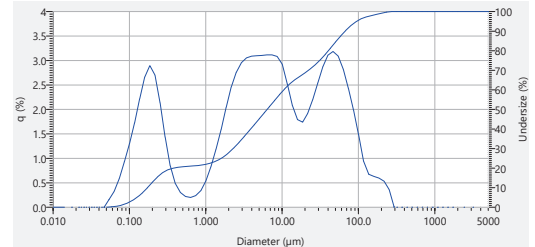
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.682	29	1.471	1.177	43	12.619	2.489	57	108.234	1.488
2	0.023	0.000	16	0.200	2.883	30	1.715	1.576	44	14.713	2.022	58	126.191	0.907
3	0.027	0.000	17	0.233	2.683	31	2.000	2.034	45	17.154	1.744	59	147.128	0.622
4	0.032	0.000	18	0.272	2.096	32	2.332	2.456	46	20.000	1.738	60	171.539	0.550
5	0.037	0.000	19	0.317	1.399	33	2.719	2.766	47	23.318	1.882	61	200.000	0.488
6	0.043	0.000	20	0.370	0.836	34	3.170	2.985	48	27.187	2.199	62	233.183	0.399
7	0.050	0.000	21	0.431	0.472	35	3.696	3.068	49	31.696	2.553	63	271.871	0.252
8	0.059	0.165	22	0.502	0.292	36	4.309	3.107	50	36.967	2.915	64	316.979	0.000
9	0.068	0.340	23	0.586	0.213	37	5.024	3.117	51	43.089	3.182	65	369.570	0.000
10	0.080	0.607	24	0.683	0.197	38	5.857	3.120	52	50.238	3.281	66	430.887	0.000
11	0.093	0.959	25	0.796	0.233	39	6.829	3.124	53	58.573	3.291	67	502.377	0.000
12	0.108	1.335	26	0.928	0.336	40	7.962	3.115	54	68.291	2.927	68	585.729	0.000
13	0.126	1.765	27	1.062	0.539	41	9.283	3.072	55	79.621	2.516	69	682.910	0.000
14	0.147	2.252	28	1.262	0.816	42	10.823	2.891	56	92.832	2.047	70	796.214	0.000

Particle Size Distribution

Attached page 2

Sample name : PACPP-1C1
Data name : PACPP-1C1_06
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1728 (µm) : (6)70.00 (%) - 22.2818 (µm)
: (2)20.00 (%) - 0.3843 (µm) : (7)80.00 (%) - 40.4690 (µm)
: (3)30.00 (%) - 2.2954 (µm) : (8)90.00 (%) - 65.9544 (µm)
: (4)40.00 (%) - 3.8805 (µm) : (9)95.00 (%) - 94.8895 (µm)
: (5)60.00 (%) - 10.5255 (µm) : (10)100.0 (%) - 271.7555 (µm)



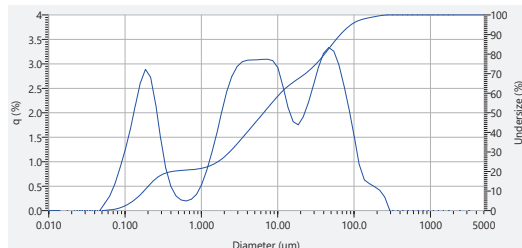
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.689	29	1.471	1.181	43	12.619	2.520	57	108.234	1.486
2	0.023	0.000	16	0.200	2.894	30	1.715	1.580	44	14.713	2.076	58	126.191	0.938
3	0.027	0.000	17	0.233	2.701	31	2.000	2.037	45	17.154	1.790	59	147.128	0.673
4	0.032	0.000	18	0.272	2.141	32	2.332	2.456	46	20.000	1.739	60	171.539	0.629
5	0.037	0.000	19	0.317	1.433	33	2.719	2.761	47	23.318	1.911	61	200.000	0.585
6	0.043	0.000	20	0.370	0.846	34	3.170	2.984	48	27.187	2.199	62	233.183	0.332
7	0.050	0.000	21	0.431	0.482	35	3.696	3.052	49	31.696	2.534	63	271.871	0.361
8	0.059	0.157	22	0.502	0.288	36	4.309	3.087	50	36.967	2.870	64	316.979	0.000
9	0.068	0.323	23	0.586	0.217	37	5.024	3.096	51	43.089	3.107	65	369.570	0.000
10	0.080	0.591	24	0.683	0.200	38	5.857	3.101	52	50.238	3.183	66	430.887	0.000
11	0.093	0.924	25	0.796	0.236	39	6.829	3.112	53	58.573	3.089	67	502.377	0.000
12	0.108	1.293	26	0.928	0.336	40	7.962	3.113	54	68.291	2.822	68	585.729	0.000
13	0.126	1.718	27	1.062	0.531	41	9.283	3.082	55	79.621	2.432	69	682.910	0.000
14	0.147	2.210	28	1.262	0.820	42	10.823	2.922	56	92.832	1.993	70	796.214	0.000

Particle Size Distribution

Attached page 3

Sample name : PACPP-1C1
Data name : PACPP-1C1_09
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1764 (µm) : (6)70.00 (%) - 23.1406 (µm)
: (2)20.00 (%) - 0.4221 (µm) : (7)80.00 (%) - 41.0846 (µm)
: (3)30.00 (%) - 2.3524 (µm) : (8)90.00 (%) - 65.3240 (µm)
: (4)40.00 (%) - 3.9686 (µm) : (9)95.00 (%) - 91.5304 (µm)
: (5)60.00 (%) - 10.8433 (µm) : (10)100.0 (%) - 271.7188 (µm)



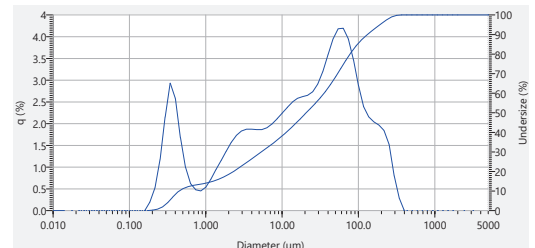
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.689	29	1.471	1.164	43	12.619	2.539	57	108.234	1.521
2	0.023	0.000	16	0.200	2.883	30	1.715	1.563	44	14.713	2.105	58	126.191	0.936
3	0.027	0.000	17	0.233	2.724	31	2.000	2.021	45	17.154	1.815	59	147.128	0.628
4	0.032	0.000	18	0.272	2.176	32	2.332	2.441	46	20.000	1.763	60	171.539	0.548
5	0.037	0.000	19	0.317	1.460	33	2.719	2.748	47	23.318	1.914	61	200.000	0.488
6	0.043	0.000	20	0.370	0.858	34	3.170	2.943	48	27.187	2.199	62	233.183	0.415
7	0.050	0.000	21	0.431	0.486	35	3.696	3.040	49	31.696	2.558	63	271.871	0.274
8	0.059	0.145	22	0.502	0.288	36	4.309	3.073	50	36.967	2.930	64	316.979	0.000
9	0.068	0.300	23	0.586	0.215	37	5.024	3.079	51	43.089	3.216	65	369.570	0.000
10	0.080	0.542	24	0.683	0.195	38	5.857	3.081	52	50.238	3.332	66	430.887	0.000
11	0.093	0.870	25	0.796	0.229	39	6.829	3.090	53	58.573	3.298	67	502.377	0.000
12	0.108	1.228	26	0.928	0.329	40	7.962	3.082	54	68.291	2.980	68	585.729	0.000
13	0.126	1.645	27	1.062	0.519	41	9.283	3.063	55	79.621	2.553	69	682.910	0.000
14	0.147	2.138	28	1.262	0.804	42	10.823	2.918	56	92.832	2.070	70	796.214	0.000

Particle Size Distribution

Attached page 4

Sample name : PACPP-1C2X
Data name : PACPP-1C2X_03
Lot number : T43779.27
Transmittance (R) : 85.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4500 (µm) : (6)70.00 (%) - 53.3536 (µm)
: (2)20.00 (%) - 2.3264 (µm) : (7)80.00 (%) - 77.5405 (µm)
: (3)30.00 (%) - 5.3759 (µm) : (8)90.00 (%) - 131.6461 (µm)
: (4)40.00 (%) - 11.3344 (µm) : (9)95.00 (%) - 191.3620 (µm)
: (5)60.00 (%) - 35.4953 (µm) : (10)100.0 (%) - 369.3683 (µm)

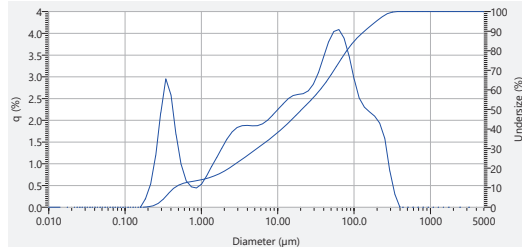


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.909	29	1.471	0.944	43	12.619	2.371	57	108.234	2.870
2	0.023	0.000	16	0.200	0.192	30	1.715	1.149	44	14.713	2.496	58	126.191	2.389
3	0.027	0.000	17	0.233	0.516	31	2.000	1.363	45	17.154	2.581	59	147.128	2.154
4	0.032	0.000	18	0.272	1.163	32	2.332	1.569	46	20.000	2.619	60	171.539	2.041
5	0.037	0.000	19	0.317	2.146	33	2.719	1.727	47	23.318	2.650	61	200.000	1.964
6	0.043	0.000	20	0.370	2.838	34	3.170	1.828	48	27.187	2.732	62	233.183	1.838
7	0.050	0.000	21	0.431	2.581	35	3.696	1.869	49	31.696	2.868	63	271.871	1.520
8	0.059	0.000	22	0.502	1.679	36	4.309	1.871	50	36.967	3.196	64	316.979	0.796
9	0.068	0.000	23	0.586	0.984	37	5.024	1.860	51	43.089	3.577	65	369.570	0.281
10	0.080	0.000	24	0.683	0.616	38	5.857	1.862	52	50.238	3.945	66	430.887	0.000
11	0.093	0.000	25	0.796	0.477	39	6.829	1.934	53	58.573	4.180	67	502.377	0.000
12	0.108	0.000	26	0.928	0.451	40	7.962	1.980	54	68.291	4.192	68	585.729	0.000
13	0.126	0.000	27	1.062	0.534	41	9.283	2.113	55	79.621	3.945	69	682.910	0.000
14	0.147	0.000	28	1.262	0.722	42	10.823	2.241	56	92.832	3.469	70	796.214	0.000

Particle Size Distribution

Attached page 5

Sample name : PACPP-1C2X Mean size : 47.64963 (µm)
Data name : PACPP-1C2X_06 Di(v,0.1) : 0.44748 (µm)
Lot number : T43779.27 Di(v,0.5) : 20.76080 (µm)
Transmittance (R) : 86.1 (%) Di(v,0.9) : 136.96806 (µm)
Distribution base : Volume Span : 6.5759
Refractive index (R) : Standard Wet Mode size : 63.0662 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.4475 (µm) : (6)70.00 (%) - 54.5522 (µm)
: (2)20.00 (%) - 2.3321 (µm) : (7)80.00 (%) - 80.1600 (µm)
: (3)30.00 (%) - 5.3731 (µm) : (8)90.00 (%) - 136.9676 (µm)
: (4)40.00 (%) - 11.2931 (µm) : (9)95.00 (%) - 194.7770 (µm)
: (5)60.00 (%) - 35.9170 (µm) : (10)100.0 (%) - 369.3764 (µm)

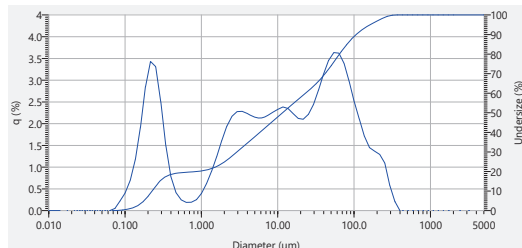


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.937	43	12.619	2.370	57	108.234	2.942
2	0.023	0.000	16	0.200	0.194	30	1.715	1.142	44	14.713	2.491	58	126.191	2.505
3	0.027	0.000	17	0.233	0.522	31	2.000	1.368	45	17.154	2.566	59	147.128	2.300
4	0.032	0.000	18	0.272	1.176	32	2.332	1.566	46	20.000	2.592	60	171.539	2.193
5	0.037	0.000	19	0.317	2.166	33	2.719	1.727	47	23.318	2.698	61	200.000	2.097
6	0.043	0.000	20	0.370	2.947	34	3.170	1.830	48	27.187	2.674	62	233.183	1.932
7	0.050	0.000	21	0.431	2.584	35	3.696	1.875	49	31.696	2.831	63	271.871	1.584
8	0.059	0.000	22	0.502	1.670	36	4.309	1.879	50	36.967	3.096	64	316.979	0.830
9	0.068	0.000	23	0.586	0.982	37	5.024	1.870	51	43.089	3.452	65	369.570	0.293
10	0.080	0.000	24	0.683	0.605	38	5.857	1.873	52	50.238	3.803	66	430.887	0.000
11	0.093	0.000	25	0.796	0.469	39	6.829	1.916	53	58.573	4.041	67	502.377	0.000
12	0.108	0.000	26	0.928	0.442	40	7.962	2.002	54	68.291	4.086	68	585.729	0.000
13	0.126	0.000	27	1.062	0.526	41	9.283	2.123	55	79.621	3.890	69	682.910	0.000
14	0.147	0.000	28	1.262	0.713	42	10.823	2.249	56	92.832	3.478	70	796.214	0.000

Particle Size Distribution

Attached page 7

Sample name : PACPP-1C3X Mean size : 37.63298 (µm)
Data name : PACPP-1C3X_03 Di(v,0.1) : 0.22607 (µm)
Lot number : T43779.27 Di(v,0.5) : 11.61180 (µm)
Transmittance (R) : 86.5 (%) Di(v,0.9) : 106.84049 (µm)
Distribution base : Volume Span : 9.1816
Refractive index (R) : Standard Wet Mode size : 54.4318 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.2261 (µm) : (6)70.00 (%) - 41.7786 (µm)
: (2)20.00 (%) - 0.9812 (µm) : (7)80.00 (%) - 64.5127 (µm)
: (3)30.00 (%) - 2.9250 (µm) : (8)90.00 (%) - 106.8406 (µm)
: (4)40.00 (%) - 6.8551 (µm) : (9)95.00 (%) - 163.0904 (µm)
: (5)60.00 (%) - 23.1737 (µm) : (10)100.0 (%) - 369.2896 (µm)

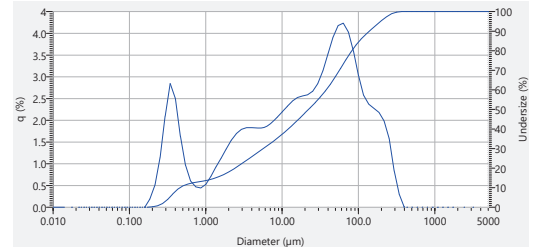


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	1.901	29	1.471	0.903	43	12.619	2.382	57	108.234	2.806
2	0.023	0.000	16	0.200	2.943	30	1.715	1.236	44	14.713	2.346	58	126.191	2.104
3	0.027	0.000	17	0.233	3.427	31	2.000	1.610	45	17.154	2.230	59	147.128	1.712
4	0.032	0.000	18	0.272	3.306	32	2.332	1.943	46	20.000	2.120	60	171.539	1.449
5	0.037	0.000	19	0.317	2.506	33	2.719	2.168	47	23.318	2.089	61	200.000	1.365
6	0.043	0.000	20	0.370	1.491	34	3.170	2.275	48	27.187	2.298	62	233.183	1.290
7	0.050	0.000	21	0.431	0.774	35	3.696	2.282	49	31.696	2.436	63	271.871	1.094
8	0.059	0.000	22	0.502	0.410	36	4.309	2.232	50	36.967	2.780	64	316.979	0.573
9	0.068	0.000	23	0.586	0.247	37	5.024	2.170	51	43.089	3.140	65	369.570	0.202
10	0.080	0.047	24	0.683	0.196	38	5.857	2.130	52	50.238	3.457	66	430.887	0.000
11	0.093	0.218	25	0.796	0.189	39	6.829	2.134	53	58.573	3.634	67	502.377	0.000
12	0.108	0.407	26	0.928	0.240	40	7.962	2.185	54	68.291	3.619	68	585.729	0.000
13	0.126	0.690	27	1.062	0.381	41	9.283	2.257	55	79.621	3.367	69	682.910	0.000
14	0.147	1.166	28	1.262	0.617	42	10.823	2.327	56	92.832	2.977	70	796.214	0.000

Particle Size Distribution

Attached page 6

Sample name : PACPP-1C2X Mean size : 48.70215 (µm)
Data name : PACPP-1C2X_09 Di(v,0.1) : 0.46233 (µm)
Lot number : T43779.27 Di(v,0.5) : 22.24805 (µm)
Transmittance (R) : 86.1 (%) Di(v,0.9) : 139.23848 (µm)
Distribution base : Volume Span : 6.2377
Refractive index (R) : Standard Wet Mode size : 63.0780 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.4623 (µm) : (6)70.00 (%) - 56.3850 (µm)
: (2)20.00 (%) - 2.4370 (µm) : (7)80.00 (%) - 82.0543 (µm)
: (3)30.00 (%) - 5.7146 (µm) : (8)90.00 (%) - 139.2383 (µm)
: (4)40.00 (%) - 12.0605 (µm) : (9)95.00 (%) - 195.7359 (µm)
: (5)60.00 (%) - 37.8887 (µm) : (10)100.0 (%) - 369.3766 (µm)

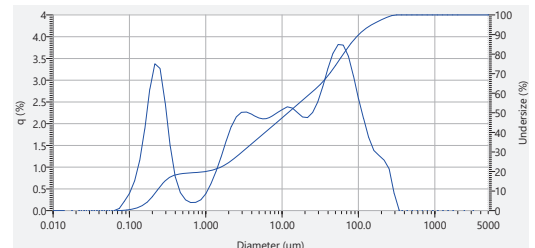


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.926	43	12.619	2.320	57	108.234	3.023
2	0.023	0.000	16	0.200	0.189	30	1.715	1.126	44	14.713	2.442	58	126.191	2.572
3	0.027	0.000	17	0.233	0.504	31	2.000	1.336	45	17.154	2.523	59	147.128	2.370
4	0.032	0.000	18	0.272	1.132	32	2.332	1.537	46	20.000	2.557	60	171.539	2.275
5	0.037	0.000	19	0.317	2.086	33	2.719	1.691	47	23.318	2.585	61	200.000	2.180
6	0.043	0.000	20	0.370	2.841	34	3.170	1.789	48	27.187	2.669	62	233.183	1.986
7	0.050	0.000	21	0.431	2.503	35	3.696	1.829	49	31.696	2.841	63	271.871	1.586
8	0.059	0.000	22	0.502	1.630	36	4.309	1.830	50	36.967	3.132	64	316.979	0.830
9	0.068	0.000	23	0.586	0.966	37	5.024	1.819	51	43.089	3.522	65	369.570	0.293
10	0.080	0.000	24	0.683	0.601	38	5.857	1.821	52	50.238	3.909	66	430.887	0.000
11	0.093	0.000	25	0.796	0.469	39	6.829	1.863	53	58.573	4.175	67	502.377	0.000
12	0.108	0.000	26	0.928	0.442	40	7.962	1.946	54	68.291	4.232	68	585.729	0.000
13	0.126	0.000	27	1.062	0.524	41	9.283	2.068	55	79.621	4.029	69	682.910	0.000
14	0.147	0.000	28	1.262	0.708	42	10.823	2.194	56	92.832	3.591	70	796.214	0.000

Particle Size Distribution

Attached page 8

Sample name : PACPP-1C3X Mean size : 36.16112 (µm)
Data name : PACPP-1C3X_06 Di(v,0.1) : 0.22794 (µm)
Lot number : T43779.27 Di(v,0.5) : 11.96622 (µm)
Transmittance (R) : 86.5 (%) Di(v,0.9) : 101.63625 (µm)
Distribution base : Volume Span : 8.4745
Refractive index (R) : Standard Wet Mode size : 54.4491 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.2279 (µm) : (6)70.00 (%) - 41.9073 (µm)
: (2)20.00 (%) - 1.0124 (µm) : (7)80.00 (%) - 63.4191 (µm)
: (3)30.00 (%) - 2.9939 (µm) : (8)90.00 (%) - 101.6362 (µm)
: (4)40.00 (%) - 6.0365 (µm) : (9)95.00 (%) - 149.7306 (µm)
: (5)60.00 (%) - 23.7668 (µm) : (10)100.0 (%) - 316.8537 (µm)



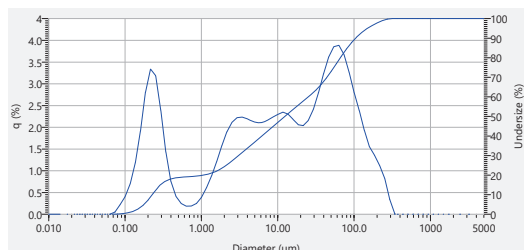
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	1.864	29	1.471	0.896	43	12.619	2.384	57	108.234	2.868
2	0.023	0.000	16	0.200	2.794	30	1.715	1.226	44	14.713	2.358	58	126.191	2.112
3	0.027	0.000	17	0.233	3.376	31	2.000	1.598	45	17.154	2.252	59	147.128	1.678
4	0.032	0.000	18	0.272	3.268	32	2.332	1.930	46	20.000	2.150	60	171.539	1.382
5	0.037	0.000	19	0.317	2.488	33	2.719	2.153	47	23.318	2.137	61	200.000	1.267
6	0.043	0.000	20	0.370	1.484	34	3.170	2.259	48	27.187	2.254	62	233.183	1.160
7	0.050	0.000	21	0.431	0.770	35	3.696	2.266	49	31.696	2.497	63	271.871	0.980
8	0.059	0.000	22	0.502	0.409	36	4.309	2.215	50	36.967	2.854	64	316.979	0.588
9	0.068	0.000	23	0.586	0.245	37	5.024	2.152	51	43.089	3.266	65	369.570	0.000
10	0.080	0.046	24	0.683	0.185	38	5.857	2.112	52	50.238	3.619	66	430.887	0.000
11	0.093	0.214	25	0.796	0.189	39	6.829	2.118	53	58.573	3.616	67	502.377	0.000
12	0.108	0.392	26	0.928	0.246	40	7.962	2.171	54	68.291	3.006	68	585.729	0.000
13	0.126	0.674	27	1.062	0.387	41	9.283	2.247	55	79.621	3.552	69	682.910	0.000
14	0.147	1.141	28	1.262	0.612	42	10.823	2.322	56	92.832	3.057	70	796.214	0.000

Particle Size Distribution

Attached page 9

Sample name : PACPP-1C3X
Data name : PACPP-1C3X_09
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2271 (µm) : (6)70.00 (%) - 44.1165 (µm)
: (2)20.00 (%) - 1.0868 (µm) : (7)80.00 (%) - 66.1853 (µm)
: (3)30.00 (%) - 3.0686 (µm) : (8)90.00 (%) - 105.1623 (µm)
: (4)40.00 (%) - 6.2365 (µm) : (9)95.00 (%) - 149.6066 (µm)
: (5)60.00 (%) - 25.2996 (µm) : (10)100.00 (%) - 316.8321 (µm)



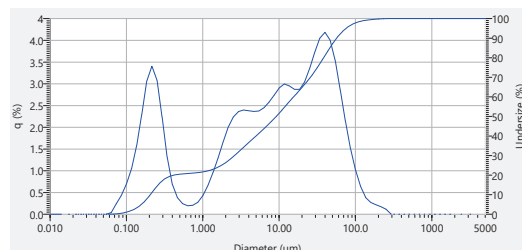
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	1.898	29	1.471	0.881	43	12.619	2.346	57	108.234	2.792	71	928.318	0.000
2	0.023	0.000	16	0.200	2.803	30	1.715	1.205	44	14.713	2.301	58	126.191	2.381	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.335	31	2.000	1.570	45	17.154	2.177	59	147.128	1.927	73	1261.920	0.000
4	0.032	0.000	18	0.272	3.183	32	2.332	1.892	46	20.000	2.058	60	171.539	1.547	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.396	33	2.719	2.112	47	23.318	2.037	61	200.000	1.383	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.428	34	3.170	2.220	48	27.187	2.192	62	233.183	1.118	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.752	35	3.696	2.233	49	31.698	2.413	63	271.871	0.820	77	5000.000	0.000
8	0.059	0.000	22	0.502	0.404	36	4.309	2.192	50	36.967	2.782	64	316.979	0.331			
9	0.068	0.000	23	0.586	0.245	37	5.024	2.138	51	43.089	3.230	65	369.570	0.000			
10	0.080	0.047	24	0.683	0.185	38	5.857	2.105	52	50.238	3.614	66	430.887	0.000			
11	0.093	0.217	25	0.796	0.188	39	6.829	2.113	53	58.573	3.851	67	502.377	0.000			
12	0.108	0.402	26	0.928	0.247	40	7.962	2.163	54	68.291	3.880	68	585.729	0.000			
13	0.126	0.696	27	1.062	0.387	41	9.283	2.230	55	79.621	3.673	69	682.910	0.000			
14	0.147	1.173	28	1.262	0.606	42	10.823	2.295	56	92.832	3.267	70	796.214	0.000			

Particle Size Distribution

Attached page 10

Sample name : PACPP-1CP1
Data name : PACPP-1CP1_03
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2058 (µm) : (6)70.00 (%) - 25.7549 (µm)
: (2)20.00 (%) - 0.4248 (µm) : (7)80.00 (%) - 38.4045 (µm)
: (3)30.00 (%) - 2.6136 (µm) : (8)90.00 (%) - 58.8750 (µm)
: (4)40.00 (%) - 5.0011 (µm) : (9)95.00 (%) - 75.8097 (µm)
: (5)60.00 (%) - 15.4780 (µm) : (10)100.00 (%) - 271.4978 (µm)



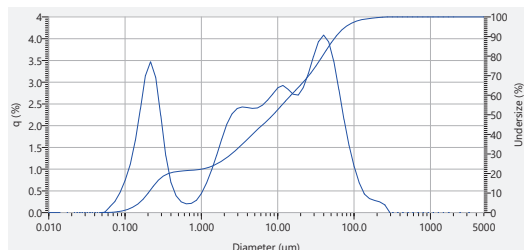
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.287	29	1.471	0.951	43	12.619	2.994	57	108.234	1.014	71	928.318	0.000
2	0.023	0.000	16	0.200	3.066	30	1.715	1.287	44	14.713	2.950	58	126.191	0.635	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.400	31	2.000	1.662	45	17.154	2.871	59	147.128	0.380	73	1261.920	0.000
4	0.032	0.000	18	0.272	3.078	32	2.332	2.002	46	20.000	2.869	60	171.539	0.268	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.228	33	2.719	2.236	47	23.318	3.040	61	200.000	0.216	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.303	34	3.170	2.360	48	27.187	3.349	62	233.183	0.172	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.689	35	3.696	2.394	49	31.698	3.724	63	271.871	0.112	77	5000.000	0.000
8	0.059	0.000	22	0.502	0.379	36	4.309	2.380	50	36.967	4.049	64	316.979	0.000			
9	0.068	0.033	23	0.586	0.242	37	5.024	2.361	51	43.089	4.181	65	369.570	0.000			
10	0.080	0.241	24	0.683	0.194	38	5.857	2.373	52	50.238	4.004	66	430.887	0.000			
11	0.093	0.431	25	0.796	0.235	39	6.829	2.468	53	58.573	3.540	67	502.377	0.000			
12	0.108	0.692	26	0.928	0.273	40	7.962	2.577	54	68.291	2.861	68	585.729	0.000			
13	0.126	1.043	27	1.062	0.434	41	9.283	2.737	55	79.621	2.146	69	682.910	0.000			
14	0.147	1.572	28	1.262	0.657	42	10.823	2.903	56	92.832	1.517	70	796.214	0.000			

Particle Size Distribution

Attached page 11

Sample name : PACPP-1CP1
Data name : PACPP-1CP1_06
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2012 (µm) : (6)70.00 (%) - 25.5245 (µm)
: (2)20.00 (%) - 0.3721 (µm) : (7)80.00 (%) - 38.6338 (µm)
: (3)30.00 (%) - 2.4753 (µm) : (8)90.00 (%) - 57.8003 (µm)
: (4)40.00 (%) - 4.7076 (µm) : (9)95.00 (%) - 78.0761 (µm)
: (5)60.00 (%) - 14.8567 (µm) : (10)100.00 (%) - 271.6341 (µm)



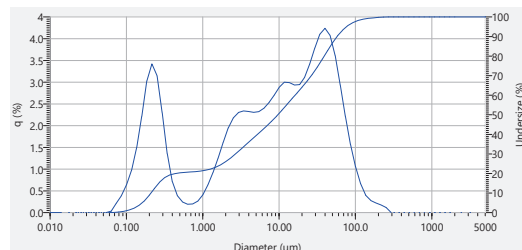
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.374	29	1.471	0.975	43	12.619	2.922	57	108.234	1.068	71	928.318	0.000
2	0.023	0.000	16	0.200	3.152	30	1.715	1.316	44	14.713	2.834	58	126.191	0.883	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.465	31	2.000	1.693	45	17.154	2.722	59	147.128	0.424	73	1261.920	0.000
4	0.032	0.000	18	0.272	3.110	32	2.332	2.035	46	20.000	2.702	60	171.539	0.320	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.232	33	2.719	2.269	47	23.318	2.871	61	200.000	0.278	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.302	34	3.170	2.393	48	27.187	3.190	62	233.183	0.247	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.693	35	3.696	2.428	49	31.698	3.581	63	271.871	0.176	77	5000.000	0.000
8	0.059	0.006	22	0.502	0.385	36	4.309	2.413	50	36.967	3.928	64	316.979	0.000			
9	0.068	0.132	23	0.586	0.247	37	5.024	2.394	51	43.089	4.080	65	369.570	0.000			
10	0.080	0.257	24	0.683	0.199	38	5.857	2.403	52	50.238	3.922	66	430.887	0.000			
11	0.093	0.458	25	0.796	0.211	39	6.829	2.470	53	58.573	3.478	67	502.377	0.000			
12	0.108	0.734	26	0.928	0.282	40	7.962	2.587	54	68.291	2.828	68	585.729	0.000			
13	0.126	1.101	27	1.062	0.438	41	9.283	2.728	55	79.621	2.144	69	682.910	0.000			
14	0.147	1.646	28	1.262	0.675	42	10.823	2.870	56	92.832	1.542	70	796.214	0.000			

Particle Size Distribution

Attached page 12

Sample name : PACPP-1CP1
Data name : PACPP-1CP1_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2096 (µm) : (6)70.00 (%) - 26.4927 (µm)
: (2)20.00 (%) - 0.4499 (µm) : (7)80.00 (%) - 39.0817 (µm)
: (3)30.00 (%) - 2.6988 (µm) : (8)90.00 (%) - 57.6394 (µm)
: (4)40.00 (%) - 5.2377 (µm) : (9)95.00 (%) - 76.7540 (µm)
: (5)60.00 (%) - 16.1840 (µm) : (10)100.00 (%) - 271.5063 (µm)



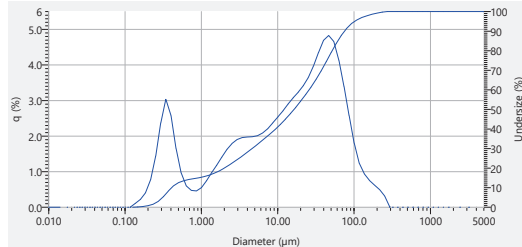
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.307	29	1.471	0.917	43	12.619	2.997	57	108.234	1.063	71	928.318	0.000
2	0.023	0.000	16	0.200	3.024	30	1.715	1.245	44	14.713	2.988	58	126.191	0.684	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.419	31	2.000	1.611	45	17.154	2.934	59	147.128	0.397	73	1261.920	0.000
4	0.032	0.000	18	0.272	3.147	32	2.332	1.946	46	20.000	2.942	60	171.539	0.276	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.308	33	2.719	2.177	47	23.318	3.110	61	200.000	0.220	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.396	34	3.170	2.302	48	27.187	3.412	62	233.183	0.175	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.711	35	3.696	2.336	49	31.698	3.779	63	271.871	0.114	77	5000.000	0.000
8	0.059	0.000	22	0.502	0.386	36	4.309	2.323	50	36.967	4.102	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.242	37	5.024	2.305	51	43.089	4.238	65	369.570	0.000			
10	0.080	0.214	24	0.683	0.190	38	5.857	2.319	52	50.238	4.070	66	430.887	0.000			
11	0.093	0.388	25	0.796	0.198	39	6.829	2.397	53	58.573	3.613	67	502.377	0.000			
12	0.108	0.632	26	0.928	0.282	40	7.962	2.531	54	68.291	2.936	68	585.729	0.000			
13	0.126	0.970	27	1.062	0.407	41	9.283	2.655	55	79.621	2.215	69	682.910	0.000			
14	0.147	1.487	28	1.262	0.632	42	10.823	2.879	56	92.822	1.579	70	796.214	0.000			

Particle Size Distribution

Attached page 13

Sample name : PACPP-1CP2X
Data name : PACPP-1CP2X_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4085 (μm) : (6)70.00 (%) - 37.4707 (μm)
: (2)20.00 (%) - 2.0223 (μm) : (7)80.00 (%) - 51.7619 (μm)
: (3)30.00 (%) - 4.6127 (μm) : (8)90.00 (%) - 75.1642 (μm)
: (4)40.00 (%) - 9.4165 (μm) : (9)95.00 (%) - 102.3350 (μm)
: (5)60.00 (%) - 25.7692 (μm) : (10)100.0 (%) - 271.7360 (μm)



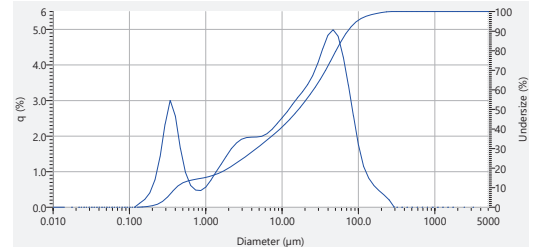
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	0.216	29	1.471	0.969	43	12.619	2.707	57	108.234	1.802
2	0.023	0.000	16	0.200	0.402	30	1.715	1.181	44	14.713	2.887	58	126.191	1.237
3	0.027	0.000	17	0.233	0.767	31	2.000	1.407	45	17.154	3.076	59	147.128	0.833
4	0.032	0.000	18	0.272	1.425	32	2.332	1.622	46	20.000	3.236	60	171.539	0.752
5	0.037	0.000	19	0.317	2.365	33	2.719	1.789	47	23.318	3.412	61	200.000	0.619
6	0.043	0.000	20	0.370	3.033	34	3.170	1.899	48	27.187	3.642	62	233.183	0.492
7	0.050	0.000	21	0.431	3.582	35	3.696	1.954	49	31.696	3.962	63	271.871	0.309
8	0.059	0.000	22	0.502	3.957	36	4.309	1.973	50	36.967	4.346	64	316.979	0.000
9	0.068	0.000	23	0.586	0.966	37	5.024	1.981	51	43.089	4.688	65	369.570	0.000
10	0.080	0.000	24	0.683	0.600	38	5.857	2.007	52	50.238	4.827	66	430.887	0.000
11	0.093	0.000	25	0.796	0.471	39	6.829	2.081	53	58.573	4.686	67	502.377	0.000
12	0.108	0.000	26	0.928	0.455	40	7.962	2.204	54	68.291	4.128	68	585.729	0.000
13	0.126	0.000	27	1.062	0.549	41	9.283	2.370	55	79.621	3.398	69	682.910	0.000
14	0.147	0.107	28	1.262	0.742	42	10.823	2.537	56	92.832	2.581	70	796.214	0.000

Particle Size Distribution

Attached page 14

Sample name : PACPP-1CP2X
Data name : PACPP-1CP2X_06
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4108 (μm) : (6)70.00 (%) - 37.1762 (μm)
: (2)20.00 (%) - 2.0158 (μm) : (7)80.00 (%) - 50.8300 (μm)
: (3)30.00 (%) - 4.5853 (μm) : (8)90.00 (%) - 72.4872 (μm)
: (4)40.00 (%) - 9.4232 (μm) : (9)95.00 (%) - 95.5590 (μm)
: (5)60.00 (%) - 25.7439 (μm) : (10)100.0 (%) - 271.6667 (μm)



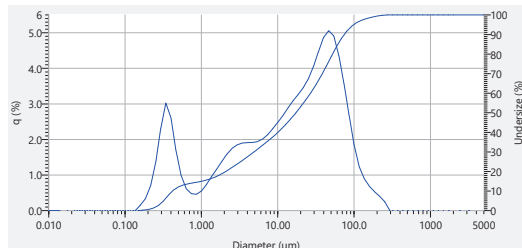
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	0.216	29	1.471	0.968	43	12.619	2.690	57	108.234	1.741
2	0.023	0.000	16	0.200	0.402	30	1.715	1.202	44	14.713	2.887	58	126.191	1.146
3	0.027	0.000	17	0.233	0.760	31	2.000	1.427	45	17.154	3.076	59	147.128	0.816
4	0.032	0.000	18	0.272	1.488	32	2.332	1.640	46	20.000	3.249	60	171.539	0.612
5	0.037	0.000	19	0.317	2.336	33	2.719	1.803	47	23.318	3.444	61	200.000	0.467
6	0.043	0.000	20	0.370	3.030	34	3.170	1.907	48	27.187	3.696	62	233.183	0.342
7	0.050	0.000	21	0.431	3.587	35	3.696	1.956	49	31.696	4.042	63	271.871	0.204
8	0.059	0.000	22	0.502	3.957	36	4.309	1.968	50	36.967	4.459	64	316.979	0.000
9	0.068	0.000	23	0.586	0.974	37	5.024	1.972	51	43.089	4.833	65	369.570	0.000
10	0.080	0.000	24	0.683	0.610	38	5.857	1.994	52	50.238	4.987	66	430.887	0.000
11	0.093	0.000	25	0.796	0.491	39	6.829	2.064	53	58.573	4.804	67	502.377	0.000
12	0.108	0.000	26	0.928	0.486	40	7.962	2.165	54	68.291	4.226	68	585.729	0.000
13	0.126	0.000	27	1.062	0.562	41	9.283	2.349	55	79.621	3.441	69	682.910	0.000
14	0.147	0.108	28	1.262	0.759	42	10.823	2.518	56	92.832	2.567	70	796.214	0.000

Particle Size Distribution

Attached page 15

Sample name : PACPP-1CP2X
Data name : PACPP-1CP2X_09
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4195 (μm) : (6)70.00 (%) - 38.4219 (μm)
: (2)20.00 (%) - 2.1114 (μm) : (7)80.00 (%) - 52.3420 (μm)
: (3)30.00 (%) - 4.8924 (μm) : (8)90.00 (%) - 74.5987 (μm)
: (4)40.00 (%) - 10.0541 (μm) : (9)95.00 (%) - 99.2702 (μm)
: (5)60.00 (%) - 26.8933 (μm) : (10)100.0 (%) - 271.6999 (μm)



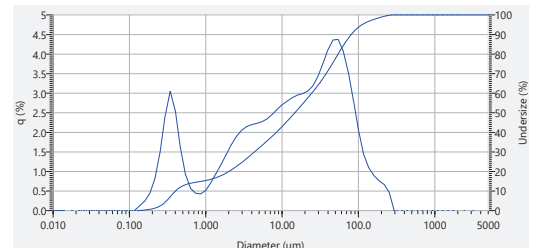
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	0.154	29	1.471	0.987	43	12.619	2.674	57	108.234	1.837
2	0.023	0.000	16	0.200	0.338	30	1.715	1.162	44	14.713	2.889	58	126.191	1.229
3	0.027	0.000	17	0.233	0.689	31	2.000	1.378	45	17.154	3.089	59	147.128	0.888
4	0.032	0.000	18	0.272	1.345	32	2.332	1.585	46	20.000	3.265	60	171.539	0.677
5	0.037	0.000	19	0.317	2.303	33	2.719	1.744	47	23.318	3.454	61	200.000	0.528
6	0.043	0.000	20	0.370	3.019	34	3.170	1.846	48	27.187	3.687	62	233.183	0.399
7	0.050	0.000	21	0.431	3.606	35	3.696	1.895	49	31.696	4.041	63	271.871	0.244
8	0.059	0.000	22	0.502	3.875	36	4.309	1.908	50	36.967	4.460	64	316.979	0.000
9	0.068	0.000	23	0.586	0.985	37	5.024	1.912	51	43.089	4.865	65	369.570	0.000
10	0.080	0.000	24	0.683	0.612	38	5.857	1.936	52	50.238	4.956	66	430.887	0.000
11	0.093	0.000	25	0.796	0.478	39	6.829	2.038	53	58.573	4.987	67	502.377	0.000
12	0.108	0.000	26	0.928	0.458	40	7.962	2.133	54	68.291	4.351	68	585.729	0.000
13	0.126	0.000	27	1.062	0.547	41	9.283	2.303	55	79.621	3.570	69	682.910	0.000
14	0.147	0.000	28	1.262	0.736	42	10.823	2.483	56	92.832	2.602	70	796.214	0.000

Particle Size Distribution

Attached page 16

Sample name : PACPP-1CP3
Data name : PACPP-1CP3_03
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4030 (μm) : (6)70.00 (%) - 37.8318 (μm)
: (2)20.00 (%) - 2.0302 (μm) : (7)80.00 (%) - 54.1874 (μm)
: (3)30.00 (%) - 4.3719 (μm) : (8)90.00 (%) - 80.4636 (μm)
: (4)40.00 (%) - 8.4137 (μm) : (9)95.00 (%) - 112.0751 (μm)
: (5)60.00 (%) - 24.4382 (μm) : (10)100.0 (%) - 271.7822 (μm)



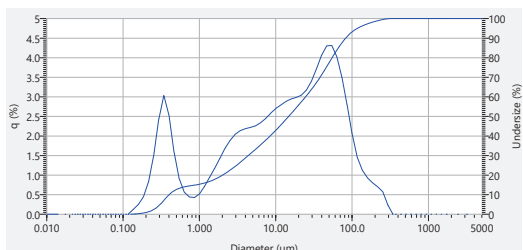
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	0.242	29	1.471	0.947	43	12.619	2.797	57	108.234	2.049
2	0.023	0.000	16	0.200	0.440	30	1.715	1.176	44	14.713	2.887	58	126.191	1.439
3	0.027	0.000	17	0.233	0.817	31	2.000	1.428	45	17.154	3.248	59	147.128	1.094
4	0.032	0.000	18	0.272	1.483	32	2.332	1.681	46	20.000	3.288	60	171.539	0.894
5	0.037	0.000	19	0.317	2.416	33	2.719	1.891	47	23.318	3.047	61	200.000	0.764
6	0.043	0.000	20	0.370	3.043	34	3.170	2.046	48	27.187	3.179	62	233.183	0.666
7	0.050	0.000	21	0.431	3.548	35	3.696	2.142	49	31.696	3.417	63	271.871	0.470
8	0.059	0.000	22	0.502	3.889	36	4.309	2.193	50	36.967	3.749	64	316.979	0.000
9	0.068	0.000	23	0.586	0.922	37	5.024	2.226	51	43.089	4.110	65	369.570	0.000
10	0.080	0.000	24	0.683	0.564	38	5.857	2.265	52	50.238	4.357	66	430.887	0.000
11	0.093	0.000	25	0.796	0.440	39	6.829	2.341	53	58.573	4.371	67	502.377	0.000
12	0.108	0.000	26	0.928	0.424	40	7.962	2.450	54	68.291	4.069	68	585.729	0.000
13	0.126	0.000	27	1.062	0.516	41	9.283	2.586	55	79.621	3.528	69	682.910	0.000
14	0.147	0.120	28	1.262	0.711	42	10.823	2.704	56	92.832	2.817	70	796.214	0.000

Particle Size Distribution

Attached page 17

Sample name : PACPP-1CP3
Data name : PACPP-1CP3_06
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4026 (µm) : (6)70.00 (%) - 38.1299 (µm)
: (2)20.00 (%) - 2.0352 (µm) : (7)80.00 (%) - 54.8510 (µm)
: (3)30.00 (%) - 4.3910 (µm) : (8)90.00 (%) - 82.5131 (µm)
: (4)40.00 (%) - 8.4598 (µm) : (9)95.00 (%) - 117.8837 (µm)
: (5)60.00 (%) - 24.5969 (µm) : (10)100.00 (%) - 316.7697 (µm)



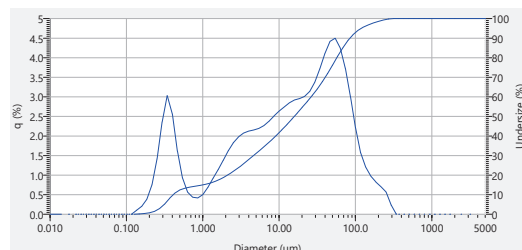
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.247	29	1.471	0.944	43	12.619	2.750	57	108.234	2.847	71	928.318	0.000
2	0.023	0.000	16	0.200	0.449	30	1.715	1.173	44	14.713	2.861	58	126.191	1.452	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.827	31	2.000	1.424	45	17.154	2.943	59	147.128	1.120	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.494	32	2.332	1.676	46	20.000	2.981	60	171.539	0.929	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.421	33	2.719	1.885	47	23.318	3.039	61	200.000	0.801	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.032	34	3.170	2.039	48	27.187	3.188	62	233.183	0.709	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.529	35	3.696	2.134	49	31.696	3.394	63	271.871	0.575	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.587	36	4.309	2.185	50	36.967	3.714	64	316.979	0.232			
9	0.068	0.000	23	0.586	0.915	37	5.024	2.218	51	43.089	4.061	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.562	38	5.857	2.257	52	50.238	4.269	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.438	39	6.829	2.334	53	58.573	4.511	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.424	40	7.962	2.444	54	68.291	4.018	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.515	41	9.283	2.581	55	79.621	3.489	69	682.910	0.000			
14	0.147	0.123	28	1.262	0.709	42	10.823	2.700	56	92.832	2.795	70	796.214	0.000			

Particle Size Distribution

Attached page 18

Sample name : PACPP-1CP3
Data name : PACPP-1CP3_09
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4115 (µm) : (6)70.00 (%) - 40.2138 (µm)
: (2)20.00 (%) - 2.1330 (µm) : (7)80.00 (%) - 57.0756 (µm)
: (3)30.00 (%) - 4.6512 (µm) : (8)90.00 (%) - 84.9409 (µm)
: (4)40.00 (%) - 9.0478 (µm) : (9)95.00 (%) - 119.9985 (µm)
: (5)60.00 (%) - 26.3261 (µm) : (10)100.00 (%) - 316.7659 (µm)



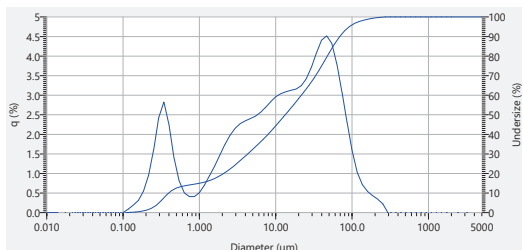
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.292	29	1.471	0.912	43	12.619	2.742	57	108.234	2.206	71	928.318	0.000
2	0.023	0.000	16	0.200	0.382	30	1.715	1.133	44	14.713	2.845	58	126.191	1.567	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.744	31	2.000	1.374	45	17.154	2.916	59	147.128	1.200	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.404	32	2.332	1.619	46	20.000	2.956	60	171.539	0.873	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.351	33	2.719	1.824	47	23.318	3.008	61	200.000	0.821	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.038	34	3.170	1.975	48	27.187	3.134	62	233.183	0.709	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.563	35	3.696	2.070	49	31.696	3.370	63	271.871	0.564	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.612	36	4.309	2.120	50	36.967	3.713	64	316.979	0.228			
9	0.068	0.000	23	0.586	0.926	37	5.024	2.152	51	43.089	4.109	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.562	38	5.857	2.190	52	50.238	4.415	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.438	39	6.829	2.265	53	58.573	4.684	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.414	40	7.962	2.374	54	68.291	4.245	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.499	41	9.283	2.511	55	79.621	3.730	69	682.910	0.000			
14	0.147	0.098	28	1.262	0.685	42	10.823	2.635	56	92.832	3.008	70	796.214	0.000			

Particle Size Distribution

Attached page 19

Sample name : PACPP-1D2
Data name : PACPP-1D2_03
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3977 (µm) : (6)70.00 (%) - 33.3366 (µm)
: (2)20.00 (%) - 2.0906 (µm) : (7)80.00 (%) - 47.4855 (µm)
: (3)30.00 (%) - 4.3161 (µm) : (8)90.00 (%) - 69.0823 (µm)
: (4)40.00 (%) - 7.9237 (µm) : (9)95.00 (%) - 91.9031 (µm)
: (5)60.00 (%) - 21.6896 (µm) : (10)100.00 (%) - 271.6833 (µm)



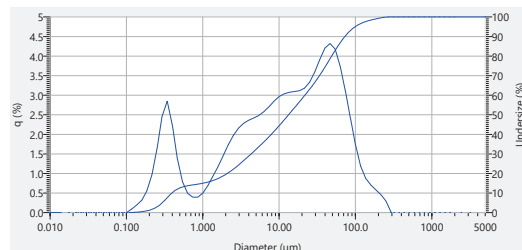
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.310	29	1.471	0.946	43	12.619	3.038	57	108.234	1.577	71	928.318	0.000
2	0.023	0.000	16	0.200	0.544	30	1.715	1.189	44	14.713	3.089	58	126.191	1.023	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.949	31	2.000	1.462	45	17.154	3.123	59	147.128	0.710	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.601	32	2.332	1.739	46	20.000	3.156	60	171.539	0.543	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.427	33	2.719	1.972	47	23.318	3.242	61	200.000	0.432	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.823	34	3.170	2.151	48	27.187	3.429	62	233.183	0.343	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.248	35	3.696	2.270	49	31.696	3.711	63	271.871	0.222	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.382	36	4.309	2.344	50	36.967	4.078	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.807	37	5.024	2.400	51	43.089	4.403	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.506	38	5.857	2.482	52	50.238	4.515	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.406	39	6.829	2.561	53	58.573	4.522	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.405	40	7.962	2.688	54	68.291	3.790	68	585.729	0.000			
13	0.126	0.084	27	1.062	0.507	41	9.283	2.836	55	79.621	3.078	69	682.910	0.000			
14	0.147	0.188	28	1.262	0.705	42	10.823	2.961	56	92.832	2.304	70	796.214	0.000			

Particle Size Distribution

Attached page 20

Sample name : PACPP-1D2
Data name : PACPP-1D2_06
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3949 (µm) : (6)70.00 (%) - 33.8299 (µm)
: (2)20.00 (%) - 2.1010 (µm) : (7)80.00 (%) - 48.8738 (µm)
: (3)30.00 (%) - 4.3269 (µm) : (8)90.00 (%) - 72.8933 (µm)
: (4)40.00 (%) - 7.9121 (µm) : (9)95.00 (%) - 99.6650 (µm)
: (5)60.00 (%) - 21.7764 (µm) : (10)100.00 (%) - 271.7234 (µm)



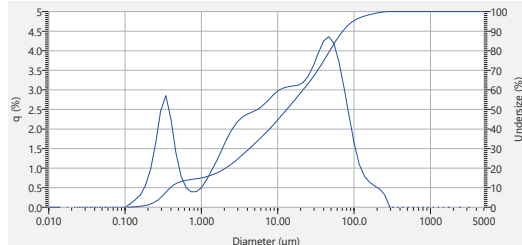
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.312	29	1.471	0.930	43	12.619	3.035	57	106.234	1.728	71	928.318	0.000
2	0.023	0.000	16	0.200	0.552	30	1.715	1.174	44	14.713	3.073	58	126.191	1.185	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.966	31	2.000	1.450	45	17.154	3.088	59	147.128	0.871	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.630	32	2.332	1.731	46	20.000	3.112	60	171.539	0.702	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.462	33	2.719	1.970	47	23.318	3.179	61	200.000	0.577	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.840	34	3.170	2.154	48	27.187	3.334	62	233.183	0.463	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.238	35	3.696	2.278	49	31.696	3.580	63	271.871	0.283	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.371	36	4.309	2.357	50	36.967	3.913	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.787	37	5.024	2.415	51	43.089	4.204	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.491	38	5.857	2.479	52	50.238	4.377	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.383	39	6.829	2.578	53	58.573	4.172	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.383	40	7.962	2.704	54	68.291	3.733	68	585.729	0.000			
13	0.126	0.084	27	1.062	0.483	41	9.283	2.847	55	79.621	3.111	69	682.910	0.000			
14	0.147	0.189	28	1.262	0.643	42	10.623	2.967	56	92.831	2.419	70	796.214	0.000			

Particle Size Distribution

Attached page 21

Sample name : PACPP-1D2
Data name : PACPP-1D2_09
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3942 (µm) : (6)70.00 (%) - 33.3883 (µm)
: (2)20.00 (%) - 2.0854 (µm) : (7)80.00 (%) - 48.1301 (µm)
: (3)30.00 (%) - 4.2788 (µm) : (8)90.00 (%) - 71.3434 (µm)
: (4)40.00 (%) - 7.8087 (µm) : (9)95.00 (%) - 97.1027 (µm)
: (5)60.00 (%) - 21.4898 (µm) : (10)100.0 (%) - 271.7382 (µm)



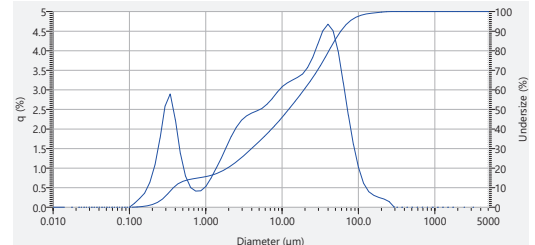
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.315	29	1.471	0.939	43	12.619	3.039	57	108.234	1.632	71	928.318	0.000
2	0.023	0.000	16	0.200	0.554	30	1.715	1.186	44	14.713	3.077	58	126.191	1.094	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.967	31	2.000	1.465	45	17.154	3.087	59	147.128	0.783	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.631	32	2.332	1.749	46	20.000	3.118	60	171.539	0.640	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.464	33	2.719	1.889	47	23.318	3.190	61	200.000	0.544	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.848	34	3.170	2.174	48	27.187	3.351	62	233.183	0.462	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.246	35	3.696	2.298	49	31.696	3.616	63	271.871	0.314	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.374	36	4.309	2.376	50	36.967	3.949	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.788	37	5.024	2.433	51	43.089	4.247	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.491	38	5.857	2.495	52	50.238	4.357	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.394	39	6.829	2.592	53	58.573	4.159	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.394	40	7.962	2.716	54	68.291	3.718	68	585.729	0.000			
13	0.126	0.085	27	1.062	0.496	41	9.283	2.857	55	79.621	3.062	69	682.910	0.000			
14	0.147	0.191	28	1.262	0.696	42	10.823	2.974	56	92.832	2.332	70	796.214	0.000			

Particle Size Distribution

Attached page 22

Sample name : PACPP-1E2
Data name : PACPP-1E2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3791 (µm) : (6)70.00 (%) - 29.1587 (µm)
: (2)20.00 (%) - 1.9261 (µm) : (7)80.00 (%) - 41.0924 (µm)
: (3)30.00 (%) - 3.9957 (µm) : (8)90.00 (%) - 58.7407 (µm)
: (4)40.00 (%) - 7.3045 (µm) : (9)95.00 (%) - 77.1522 (µm)
: (5)60.00 (%) - 19.3674 (µm) : (10)100.0 (%) - 271.5758 (µm)



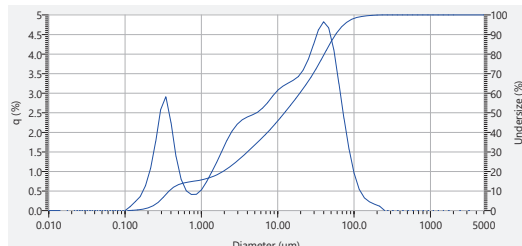
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.365	29	1.471	0.987	43	12.619	3.177	57	108.234	1.010	71	928.318	0.000
2	0.023	0.000	16	0.200	0.631	30	1.715	1.241	44	14.713	3.248	58	126.191	0.608	72	1082.340	0.000
3	0.027	0.000	17	0.233	1.073	31	2.000	1.525	45	17.154	3.315	59	147.128	0.388	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.758	32	2.332	1.809	46	20.000	3.404	60	171.539	0.301	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.583	33	2.719	2.043	47	23.318	3.568	61	200.000	0.247	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.894	34	3.170	2.219	48	27.187	3.823	62	233.183	0.207	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.246	35	3.696	2.333	49	31.696	4.162	63	271.871	0.141	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.370	36	4.309	2.403	50	36.967	4.506	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.793	37	5.024	2.457	51	43.089	4.675	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.502	38	5.857	2.521	52	50.238	4.506	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.409	39	6.829	2.628	53	58.573	3.990	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.419	40	7.962	2.768	54	68.291	3.189	68	585.729	0.000			
13	0.126	0.100	27	1.062	0.539	41	9.283	2.934	55	79.621	2.353	69	682.910	0.000			
14	0.147	0.224	28	1.262	0.736	42	10.823	3.080	56	92.832	1.606	70	796.214	0.000			

Particle Size Distribution

Attached page 23

Sample name : PACPP-1E2
Data name : PACPP-1E2_06
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3787 (µm) : (6)70.00 (%) - 29.1584 (µm)
: (2)20.00 (%) - 1.9241 (µm) : (7)80.00 (%) - 40.7622 (µm)
: (3)30.00 (%) - 4.0130 (µm) : (8)90.00 (%) - 57.4340 (µm)
: (4)40.00 (%) - 7.3514 (µm) : (9)95.00 (%) - 73.9544 (µm)
: (5)60.00 (%) - 19.4525 (µm) : (10)100.0 (%) - 232.8553 (µm)



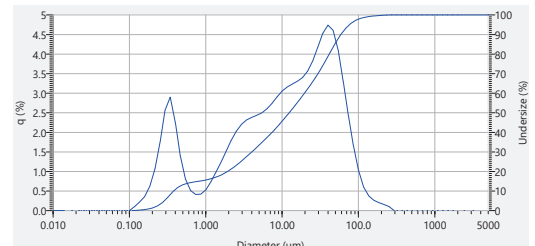
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.365	29	1.471	0.980	43	12.619	3.179	57	108.234	0.947	71	928.318	0.000
2	0.023	0.000	16	0.200	0.631	30	1.715	1.230	44	14.713	3.254	58	126.191	0.538	72	1082.340	0.000
3	0.027	0.000	17	0.233	1.072	31	2.000	1.512	45	17.154	3.326	59	147.128	0.324	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.757	32	2.332	1.793	46	20.000	3.420	60	171.539	0.222	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.586	33	2.719	2.028	47	23.318	3.591	61	200.000	0.162	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.896	34	3.170	2.202	48	27.187	3.861	62	233.183	0.109	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.255	35	3.696	2.316	49	31.696	4.232	63	271.871	0.000	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.381	36	4.309	2.389	50	36.967	4.617	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.799	37	5.024	2.443	51	43.089	4.836	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.505	38	5.857	2.509	52	50.238	4.665	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.410	39	6.829	2.617	53	58.573	4.117	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.419	40	7.962	2.760	54	68.291	3.251	68	585.729	0.000			
13	0.126	0.098	27	1.062	0.525	41	9.283	2.928	55	79.621	2.596	69	682.910	0.000			
14	0.147	0.224	28	1.262	0.731	42	10.823	3.078	56	92.832	1.566	70	796.214	0.000			

Particle Size Distribution

Attached page 24

Sample name : PACPP-1E2
Data name : PACPP-1E2_09
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3809 (µm) : (6)70.00 (%) - 29.5381 (µm)
: (2)20.00 (%) - 1.9353 (µm) : (7)80.00 (%) - 41.4661 (µm)
: (3)30.00 (%) - 4.0290 (µm) : (8)90.00 (%) - 58.8657 (µm)
: (4)40.00 (%) - 7.3983 (µm) : (9)95.00 (%) - 76.5396 (µm)
: (5)60.00 (%) - 19.6708 (µm) : (10)100.0 (%) - 271.4537 (µm)



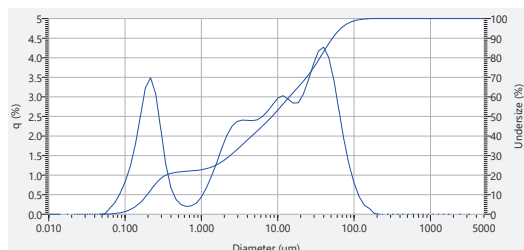
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.369	29	1.471	0.984	43	12.619	3.156	57	108.234	1.026	71	928.318	0.000
2	0.023	0.000	16	0.200	0.620	30	1.715	1.235	44	14.713	3.233	58	126.191	0.599	72	1082.340	0.000
3	0.027	0.000	17	0.233	1.067	31	2.000	1.516	45	17.154	3.306	59	147.128	0.373	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.739	32	2.332	1.796	46	20.000	3.398	60	171.539	0.264	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.569	33	2.719	2.028	47	23.318	3.562	61	200.000	0.200	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.896	34	3.170	2.200	48	27.187	3.819	62	233.183	0.154	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.254	35	3.696	2.312	49	31.696	4.168	63	271.871	0.100	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.383	36	4.309	2.381	50	36.967	4.532	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.801	37	5.024	2.433	51	43.089	4.736	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.507	38	5.857	2.495	52	50.238	4.603	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.412	39	6.829	2.601	53	58.573	4.106	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.417	40	7.962	2.741	54	68.291	3.297	68	585.729	0.000			
13	0.126	0.098	27	1.062	0.527	41	9.283	2.908	55	79.621	2.437	69	682.910	0.000			
14	0.147	0.220	28	1.262	0.734	42	10.823	3.056	56	92.832	1.666	70	792.214	0.000			

Particle Size Distribution

Attached page 25

Sample name : PACPP-1F2
Data name : PACPP-1F2_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1952 (µm) : (6)70.00 (%) - 23.9157 (µm)
: (2)20.00 (%) - 0.3471 (µm) : (7)80.00 (%) - 35.8183 (µm)
: (3)30.00 (%) - 2.3850 (µm) : (8)90.00 (%) - 52.2473 (µm)
: (4)40.00 (%) - 4.5869 (µm) : (9)95.00 (%) - 67.4137 (µm)
: (5)60.00 (%) - 14.1886 (µm) : (10)100.0 (%) - 198.0149 (µm)



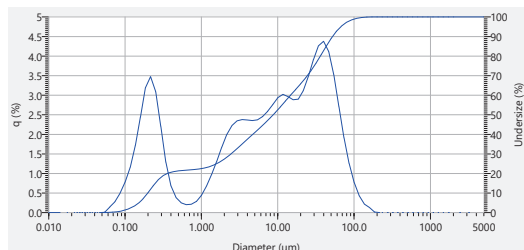
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.494	29	1.471	0.976	43	12.619	3.027	57	108.234	0.785	71	928.318	0.000
2	0.023	0.000	16	0.200	3.234	30	1.715	1.312	44	14.713	2.940	58	126.191	0.438	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.487	31	2.000	1.683	45	17.154	2.839	59	147.128	0.228	73	1261.920	0.000
4	0.032	0.000	18	0.272	3.078	32	2.332	2.018	46	20.000	2.846	60	171.539	0.144	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.190	33	2.719	2.247	47	23.318	3.058	61	200.000	0.015	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.280	34	3.170	2.369	48	27.187	3.416	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.671	35	3.696	2.405	49	31.696	3.830	63	271.871	0.000	77	5000.000	0.000
8	0.059	0.007	22	0.502	0.375	36	4.309	2.368	50	36.967	4.167	64	316.979	0.000			
9	0.068	0.155	23	0.586	0.244	37	5.024	2.389	51	43.089	4.266	65	369.570	0.000			
10	0.080	0.299	24	0.683	0.199	38	5.857	2.412	52	50.238	4.066	66	430.887	0.000			
11	0.093	0.525	25	0.796	0.212	39	6.829	2.498	53	58.573	3.437	67	502.377	0.000			
12	0.108	0.821	26	0.928	0.284	40	7.962	2.635	54	68.291	2.666	68	585.729	0.000			
13	0.126	1.207	27	1.062	0.441	41	9.283	2.801	55	79.621	1.889	69	682.910	0.000			
14	0.147	1.768	28	1.262	0.678	42	10.823	2.968	56	92.832	1.266	70	796.214	0.000			

Particle Size Distribution

Attached page 27

Sample name : PACPP-1F2
Data name : PACPP-1F2_09
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1984 (µm) : (6)70.00 (%) - 24.4572 (µm)
: (2)20.00 (%) - 0.3599 (µm) : (7)80.00 (%) - 36.2268 (µm)
: (3)30.00 (%) - 2.4459 (µm) : (8)90.00 (%) - 52.3863 (µm)
: (4)40.00 (%) - 4.7231 (µm) : (9)95.00 (%) - 67.2103 (µm)
: (5)60.00 (%) - 14.6891 (µm) : (10)100.0 (%) - 197.7317 (µm)



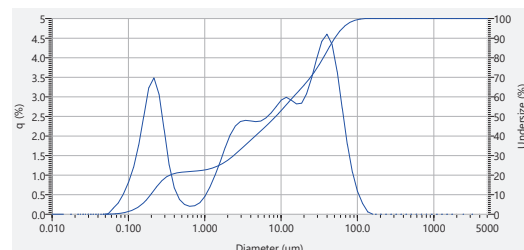
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.430	29	1.471	0.970	43	12.619	3.019	57	108.234	0.768	71	928.318	0.000
2	0.023	0.000	16	0.200	3.188	30	1.715	1.303	44	14.713	2.963	58	126.191	0.424	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.472	31	2.000	1.670	45	17.154	2.883	59	147.128	0.215	73	1261.920	0.000
4	0.032	0.000	18	0.272	3.083	32	2.332	2.000	46	20.000	2.888	60	171.539	0.128	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.208	33	2.719	2.225	47	23.318	3.110	61	200.000	0.014	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.286	34	3.170	2.343	48	27.187	3.471	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.684	35	3.696	2.375	49	31.696	3.860	63	271.871	0.000	77	5000.000	0.000
8	0.059	0.007	22	0.502	0.381	36	4.309	2.363	50	36.967	4.280	64	316.979	0.000			
9	0.068	0.143	23	0.586	0.247	37	5.024	2.350	51	43.089	4.377	65	369.570	0.000			
10	0.080	0.277	24	0.683	0.201	38	5.857	2.369	52	50.238	4.117	66	430.887	0.000			
11	0.093	0.481	25	0.796	0.213	39	6.829	2.453	53	58.573	3.522	67	502.377	0.000			
12	0.108	0.775	26	0.928	0.285	40	7.962	2.580	54	68.291	2.712	68	585.729	0.000			
13	0.126	1.150	27	1.062	0.440	41	9.283	2.759	55	79.621	1.912	69	682.910	0.000			
14	0.147	1.703	28	1.262	0.675	42	10.823	2.934	56	92.832	1.258	70	796.214	0.000			

Particle Size Distribution

Attached page 26

Sample name : PACPP-1F2
Data name : PACPP-1F2_06
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.1959 (µm) : (6)70.00 (%) - 24.3052 (µm)
: (2)20.00 (%) - 0.3518 (µm) : (7)80.00 (%) - 35.7695 (µm)
: (3)30.00 (%) - 2.3883 (µm) : (8)90.00 (%) - 50.5014 (µm)
: (4)40.00 (%) - 4.6012 (µm) : (9)95.00 (%) - 63.6766 (µm)
: (5)60.00 (%) - 14.4554 (µm) : (10)100.0 (%) - 146.7505 (µm)



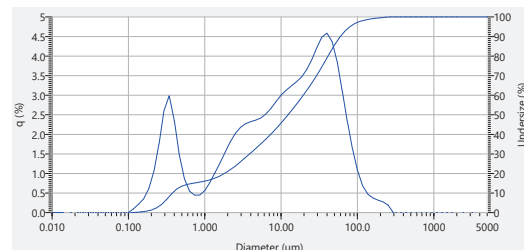
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.480	29	1.471	0.989	43	12.619	2.985	57	108.234	0.679	71	928.318	0.000
2	0.023	0.000	16	0.200	3.234	30	1.715	1.328	44	14.713	2.910	58	126.191	0.270	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.482	31	2.000	1.697	45	17.154	2.818	59	147.128	0.080	73	1261.920	0.000
4	0.032	0.000	18	0.272	3.085	32	2.332	2.029	46	20.000	2.835	60	171.539	0.000	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.184	33	2.719	2.253	47	23.318	3.072	61	200.000	0.005	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.286	34	3.170	2.368	48	27.187	3.481	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.672	35	3.696	2.398	49	31.696	3.979	63	271.871	0.000	77	5000.000	0.000
8	0.059	0.007	22	0.502	0.378	36	4.309	2.382	50	36.967	4.420	64	316.979	0.000			
9	0.068	0.149	23	0.586	0.247	37	5.024	2.365	51	43.089	4.600	65	369.570	0.000			
10	0.080	0.288	24	0.683	0.202	38	5.857	2.380	52	50.238	4.335	66	430.887	0.000			
11	0.093	0.511	25	0.796	0.216	39	6.829	2.457	53	58.573	3.651	67	502.377	0.000			
12	0.108	0.807	26	0.928	0.290	40	7.962	2.587	54	68.291	2.707	68	585.729	0.000			
13	0.126	1.193	27	1.062	0.449	41	9.283	2.746	55	79.621	1.785	69	682.910	0.000			
14	0.147	1.758	28	1.262	0.688	42	10.823	2.915	56	92.832	1.072	70	796.214	0.000			

Particle Size Distribution

Attached page 28

Sample name : PACPP-1G2
Data name : PACPP-1G2_03
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3772 (µm) : (6)70.00 (%) - 29.1951 (µm)
: (2)20.00 (%) - 1.8222 (µm) : (7)80.00 (%) - 41.2237 (µm)
: (3)30.00 (%) - 3.8955 (µm) : (8)90.00 (%) - 59.8923 (µm)
: (4)40.00 (%) - 7.3083 (µm) : (9)95.00 (%) - 79.7313 (µm)
: (5)60.00 (%) - 19.5608 (µm) : (10)100.0 (%) - 271.6505 (µm)



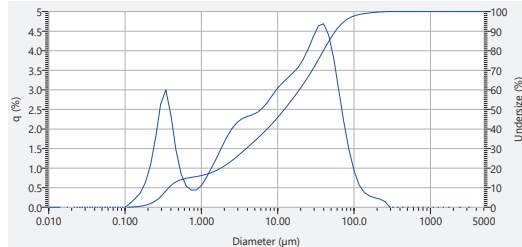
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.354	29	1.471	1.019	43	12.619	3.128	57	108.234	1.071	71	928.318	0.000
2	0.023	0.000	16	0.200	0.615	30	1.715	1.267	44	14.713	3.236	58	126.191	0.682	72	1082.340	0.000
3	0.027	0.000	17	0.233	1.096	31	2.000	1.539	45	17.154	3.343	59	147.128	0.474	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.752	32	2.332	1.806	46	20.000	3.466	60	171.539	0.376	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.615	33	2.719	2.021	47	23.318	3.649	61	200.000	0.318	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.980	34	3.170	2.175	48	27.187	3.886	62	233.183	0.272	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.330	35	3.696	2.269	49	31.696	4.268	63	271.871	0.189	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.480	36	4.309	2.322	50	36.967	4.485	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.855	37	5.024	2.362	51	43.089	4.583	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.544	38	5.857	2.417	52	50.238	4.370	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.442	39	6.829	2.519	53	58.573	3.658	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.446	40	7.962	2.663	54	68.291	3.108	68	585.729	0.000			
13	0.126	0.096	27	1.062	0.558	41	9.283	2.839	55	79.621	2.329	69	682.910	0.000			
14	0.147	0.217	28	1.262	0.789	42	10.823	3.003	56	92.832	1.633	70	796.214	0.000			

Particle Size Distribution

Attached page 29

Sample name : PACPP-1G2
Data name : PACPP-1G2_06
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3739 (µm) : (6)70.00 (%) - 28.3434 (µm)
: (2)20.00 (%) - 1.8094 (µm) : (7)80.00 (%) - 39.7074 (µm)
: (3)30.00 (%) - 3.8578 (µm) : (8)90.00 (%) - 56.9728 (µm)
: (4)40.00 (%) - 7.2847 (µm) : (9)95.00 (%) - 75.1732 (µm)
: (5)60.00 (%) - 19.1640 (µm) : (10)100.0 (%) - 271.5874 (µm)



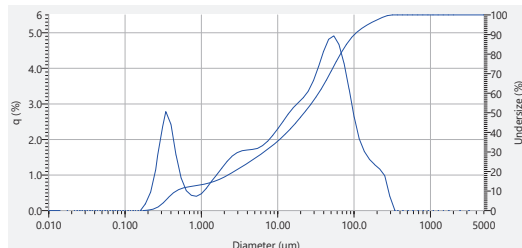
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.365	29	1.471	1.013	43	12.619	3.196	57	108.234	0.919	71	928.316	0.000
2	0.023	0.000	16	0.200	0.633	30	1.715	1.260	44	14.713	3.312	58	126.191	0.560	72	1082.340	0.000
3	0.027	0.000	17	0.233	1.080	31	2.000	1.531	45	17.154	3.435	59	147.128	0.374	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.782	32	2.332	1.797	46	20.000	3.576	60	171.539	0.288	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.643	33	2.719	2.012	47	23.318	3.778	61	200.000	0.240	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.984	34	3.170	2.188	48	27.187	4.094	62	233.183	0.207	76	2000.000	0.000
7	0.050	0.000	21	0.431	5.246	35	3.696	2.262	49	31.696	4.301	63	271.871	0.147	77	5000.000	0.000
8	0.059	0.000	22	0.502	6.450	36	4.309	2.317	50	36.967	4.631	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.846	37	5.024	2.362	51	43.089	4.686	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.538	38	5.857	2.422	52	50.238	4.395	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.437	39	6.829	2.533	53	58.573	3.795	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.441	40	7.962	2.687	54	68.291	2.968	68	585.729	0.000			
13	0.126	0.100	27	1.082	0.553	41	9.283	2.875	55	79.621	2.154	69	682.910	0.000			
14	0.147	0.224	28	1.262	0.753	42	10.823	3.052	56	92.832	1.458	70	796.214	0.000			

Particle Size Distribution

Attached page 31

Sample name : PACPP-2C2
Data name : PACPP-2C2_03
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4701 (µm) : (6)70.00 (%) - 48.2157 (µm)
: (2)20.00 (%) - 2.7811 (µm) : (7)80.00 (%) - 66.3709 (µm)
: (3)30.00 (%) - 6.6611 (µm) : (8)90.00 (%) - 101.7464 (µm)
: (4)40.00 (%) - 13.2311 (µm) : (9)95.00 (%) - 151.4753 (µm)
: (5)60.00 (%) - 34.2503 (µm) : (10)100.0 (%) - 316.8560 (µm)



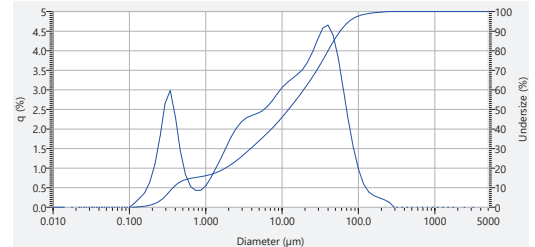
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.826	43	12.619	2.930	57	108.234	2.628	71	928.316	0.000
2	0.023	0.000	16	0.200	0.195	30	1.715	1.004	44	14.713	2.709	58	126.191	2.012	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.513	31	2.000	1.192	45	17.154	2.888	59	147.128	1.857	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.137	32	2.332	1.377	46	20.000	3.028	60	171.539	1.439	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.065	33	2.719	1.524	47	23.318	3.170	61	200.000	1.292	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.781	34	3.170	1.625	48	27.187	3.359	62	233.183	1.168	76	2000.000	0.000
7	0.050	0.000	21	0.431	4.244	35	3.696	1.680	49	31.696	3.646	63	271.871	0.978	77	5000.000	0.000
8	0.059	0.000	22	0.502	5.980	36	4.309	1.702	50	36.967	4.038	64	316.979	0.395			
9	0.068	0.000	23	0.586	0.913	37	5.024	1.716	51	43.089	4.475	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.559	38	5.857	1.747	52	50.238	4.813	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.429	39	6.829	1.824	53	58.573	4.910	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.461	40	7.962	1.949	54	68.291	4.670	68	585.729	0.000			
13	0.126	0.000	27	1.082	0.471	41	9.283	2.117	55	79.621	4.146	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.633	42	10.823	2.302	56	92.832	3.417	70	796.214	0.000			

Particle Size Distribution

Attached page 30

Sample name : PACPP-1G2
Data name : PACPP-1G2_09
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3727 (µm) : (6)70.00 (%) - 28.4837 (µm)
: (2)20.00 (%) - 1.8229 (µm) : (7)80.00 (%) - 40.0521 (µm)
: (3)30.00 (%) - 3.8520 (µm) : (8)90.00 (%) - 57.5436 (µm)
: (4)40.00 (%) - 7.2433 (µm) : (9)95.00 (%) - 75.9325 (µm)
: (5)60.00 (%) - 19.1317 (µm) : (10)100.0 (%) - 271.5475 (µm)



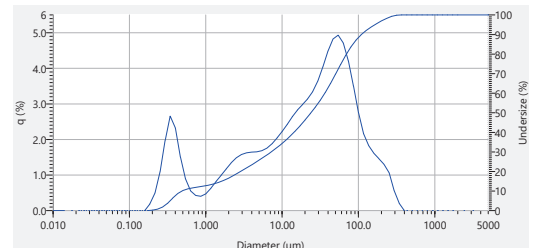
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.372	29	1.471	1.005	43	12.619	3.196	57	108.234	0.964	71	928.316	0.000
2	0.023	0.000	16	0.200	0.643	30	1.715	1.253	44	14.713	3.291	58	126.191	0.588	72	1082.340	0.000
3	0.027	0.000	17	0.233	1.096	31	2.000	1.529	45	17.154	3.358	59	147.128	0.389	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.800	32	2.332	1.801	46	20.000	3.519	60	171.539	0.295	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.653	33	2.719	2.021	47	23.318	3.716	61	200.000	0.239	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.980	34	3.170	2.183	48	27.187	3.971	62	233.183	0.196	76	2000.000	0.000
7	0.050	0.000	21	0.431	5.237	35	3.696	2.263	49	31.696	4.290	63	271.871	0.129	77	5000.000	0.000
8	0.059	0.000	22	0.502	6.439	36	4.309	2.344	50	36.967	4.574	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.830	37	5.024	2.391	51	43.089	4.653	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.527	38	5.857	2.453	52	50.238	4.397	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.429	39	6.829	2.563	53	58.573	3.830	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.434	40	7.962	2.712	54	68.291	3.026	68	585.729	0.000			
13	0.126	0.102	27	1.082	0.546	41	9.283	2.893	55	79.621	2.217	69	682.910	0.000			
14	0.147	0.228	28	1.262	0.755	42	10.823	3.061	56	92.832	1.516	70	796.214	0.000			

Particle Size Distribution

Attached page 32

Sample name : PACPP-2C2
Data name : PACPP-2C2_06
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4921 (µm) : (6)70.00 (%) - 50.6218 (µm)
: (2)20.00 (%) - 2.8936 (µm) : (7)80.00 (%) - 69.8212 (µm)
: (3)30.00 (%) - 7.2410 (µm) : (8)90.00 (%) - 100.3707 (µm)
: (4)40.00 (%) - 14.2936 (µm) : (9)95.00 (%) - 164.5261 (µm)
: (5)60.00 (%) - 36.3188 (µm) : (10)100.0 (%) - 369.2807 (µm)



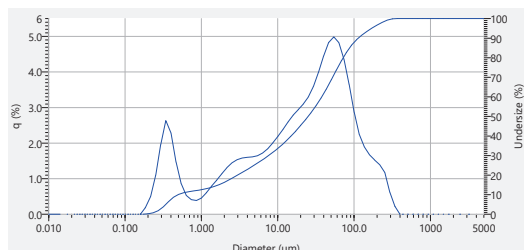
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.815	43	12.619	2.427	57	108.234	2.746	71	928.316	0.000
2	0.023	0.000	16	0.200	0.196	30	1.715	0.988	44	14.713	2.640	58	126.191	2.155	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.489	31	2.000	1.169	45	17.154	2.828	59	147.128	1.820	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.082	32	2.332	1.345	46	20.000	2.882	60	171.539	1.610	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.965	33	2.719	1.483	47	23.318	3.139	61	200.000	1.454	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.652	34	3.170	1.575	48	27.187	3.340	62	233.183	1.297	76	2000.000	0.000
7	0.050	0.000	21	0.431	3.223	35	3.696	1.623	49	31.696	3.637	63	271.871	1.080	77	5000.000	0.000
8	0.059	0.000	22	0.502	5.907	36	4.309	1.640	50	36.967	4.035	64	316.979	0.555			
9	0.068	0.000	23	0.586	0.890	37	5.024	1.651	51	43.089	4.478	65	369.570	0.196			
10	0.080	0.000	24	0.683	0.550	38	5.857	1.680	52	50.238	4.820	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.424	39	6.829	1.755	53	58.573	4.827	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.399	40	7.962	1.877	54	68.291	4.710	68	585.729	0.000			
13	0.126	0.000	27	1.082	0.468	41	9.283	2.043	55	79.621	4.208	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.647	42	10.823	2.227	56	92.832	3.506	70	921.914	0.000			

Particle Size Distribution

Attached page 33

Sample name : PACPP-2C2
Data name : PACPP-2C2_09
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4969 (µm) : (6)70.00 (%) - 52.4339 (µm)
: (2)20.00 (%) - 3.0121 (µm) : (7)80.00 (%) - 72.2252 (µm)
: (3)30.00 (%) - 7.6420 (µm) : (8)90.00 (%) - 113.6608 (µm)
: (4)40.00 (%) - 14.9946 (µm) : (9)95.00 (%) - 170.2007 (µm)
: (5)60.00 (%) - 37.8056 (µm) : (10)100.0 (%) - 369.3079 (µm)



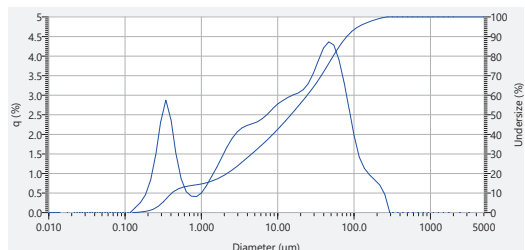
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.791	43	12.619	2.360	57	108.234	2.866	71	928.316	0.000
2	0.023	0.000	16	0.200	0.188	30	1.715	0.959	44	14.713	2.595	58	126.191	2.242	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.493	31	2.000	1.135	45	17.154	2.763	59	147.128	1.887	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.086	32	2.332	1.307	46	20.000	2.939	60	171.539	1.671	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.961	33	2.719	1.441	47	23.318	3.086	61	200.000	1.523	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.628	34	3.170	1.532	48	27.187	3.296	62	233.183	1.392	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.283	35	3.696	1.579	49	31.696	3.589	63	271.871	1.171	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.489	36	4.309	1.598	50	36.957	3.986	64	316.979	0.813			
9	0.068	0.000	23	0.586	0.860	37	5.024	1.611	51	43.089	4.444	65	369.570	0.216			
10	0.080	0.000	24	0.683	0.529	38	5.857	1.641	52	50.238	4.834	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.408	39	6.829	1.716	53	58.573	4.983	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.383	40	7.962	1.838	54	68.291	4.818	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.452	41	9.283	2.003	55	79.621	4.354	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.607	42	10.823	2.185	56	92.832	3.654	70	796.214	0.000			

Particle Size Distribution

Attached page 35

Sample name : PACPP-2CP2
Data name : PACPP-2CP2_06
Lot number : T43779.27
Transmittance (R) : 86.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4121 (µm) : (6)70.00 (%) - 37.2609 (µm)
: (2)20.00 (%) - 2.1790 (µm) : (7)80.00 (%) - 53.3126 (µm)
: (3)30.00 (%) - 4.5853 (µm) : (8)90.00 (%) - 80.2268 (µm)
: (4)40.00 (%) - 8.6380 (µm) : (9)95.00 (%) - 114.4679 (µm)
: (5)60.00 (%) - 24.3983 (µm) : (10)100.0 (%) - 271.7813 (µm)



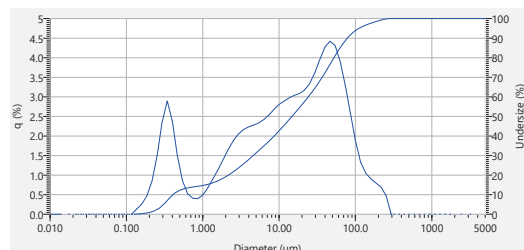
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.254	29	1.471	0.923	43	12.619	2.860	57	108.234	1.869	71	928.316	0.000
2	0.023	0.000	16	0.200	0.455	30	1.715	1.153	44	14.713	2.944	58	126.191	1.417	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.824	31	2.000	1.410	45	17.154	3.035	59	147.128	1.126	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.459	32	2.332	1.671	46	20.000	3.054	60	171.539	0.863	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.326	33	2.719	1.891	47	23.318	3.137	61	200.000	0.839	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.870	34	3.170	2.058	48	27.187	3.296	62	233.183	0.708	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.377	35	3.696	2.165	49	31.696	3.589	63	271.871	0.468	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.491	36	4.309	2.228	50	36.957	3.891	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.862	37	5.024	2.271	51	43.089	4.205	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.531	38	5.857	2.319	52	50.238	4.363	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.417	39	6.829	2.402	53	58.573	4.286	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.406	40	7.962	2.517	54	68.291	3.868	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.487	41	9.283	2.657	55	79.621	3.336	69	682.910	0.000			
14	0.147	0.127	28	1.262	0.688	42	10.823	2.776	56	92.832	2.654	70	796.214	0.000			

Particle Size Distribution

Attached page 34

Sample name : PACPP-2CP2
Data name : PACPP-2CP2_03
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4095 (µm) : (6)70.00 (%) - 36.7539 (µm)
: (2)20.00 (%) - 2.1837 (µm) : (7)80.00 (%) - 52.3677 (µm)
: (3)30.00 (%) - 4.6012 (µm) : (8)90.00 (%) - 78.4359 (µm)
: (4)40.00 (%) - 8.6299 (µm) : (9)95.00 (%) - 111.2750 (µm)
: (5)60.00 (%) - 24.1489 (µm) : (10)100.0 (%) - 271.7819 (µm)



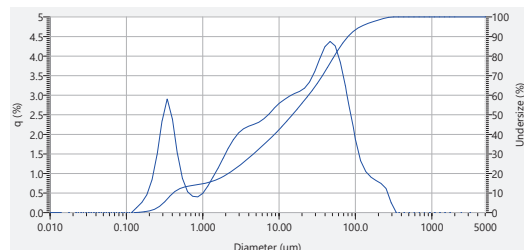
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.259	29	1.471	0.907	43	12.619	2.860	57	108.234	1.867	71	928.316	0.000
2	0.023	0.000	16	0.200	0.464	30	1.715	1.137	44	14.713	2.974	58	126.191	1.329	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.838	31	2.000	1.393	45	17.154	3.036	59	147.128	1.049	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.479	32	2.332	1.656	46	20.000	3.086	60	171.539	0.802	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.350	33	2.719	1.878	47	23.318	3.172	61	200.000	0.799	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.889	34	3.170	2.048	48	27.187	3.299	62	233.183	0.694	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.381	35	3.696	2.162	49	31.696	3.610	63	271.871	0.488	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.484	36	4.309	2.230	50	36.957	3.954	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.852	37	5.024	2.278	51	43.089	4.272	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.522	38	5.857	2.331	52	50.238	4.420	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.408	39	6.829	2.420	53	58.573	4.309	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.397	40	7.962	2.539	54	68.291	3.866	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.487	41	9.283	2.682	55	79.621	3.283	69	682.910	0.000			
14	0.147	0.128	28	1.262	0.676	42	10.823	2.804	56	92.832	2.572	70	796.214	0.000			

Particle Size Distribution

Attached page 36

Sample name : PACPP-2CP2
Data name : PACPP-2CP2_09
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4102 (µm) : (6)70.00 (%) - 37.0389 (µm)
: (2)20.00 (%) - 2.1793 (µm) : (7)80.00 (%) - 52.9338 (µm)
: (3)30.00 (%) - 4.6242 (µm) : (8)90.00 (%) - 80.0863 (µm)
: (4)40.00 (%) - 8.7135 (µm) : (9)95.00 (%) - 117.3008 (µm)
: (5)60.00 (%) - 24.3457 (µm) : (10)100.0 (%) - 316.7817 (µm)



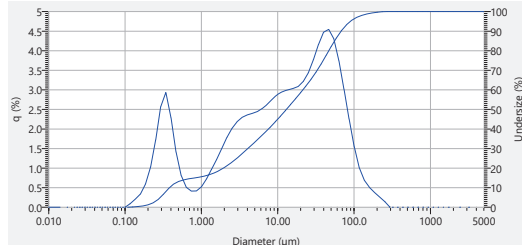
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.254	29	1.471	0.907	43	12.619	2.865	57	108.234	1.855	71	928.316	0.000
2	0.023	0.000	16	0.200	0.456	30	1.715	1.134	44	14.713	2.974	58	126.191	1.324	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.826	31	2.000	1.387	45	17.154	3.041	59	147.128	1.047	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.466	32	2.332	1.646	46	20.000	3.094	60	171.539	0.806	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.343	33	2.719	1.863	47	23.318	3.179	61	200.000	0.819	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.889	34	3.170	2.039	48	27.187	3.311	62	233.183	0.742	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.402	35	3.696	2.140	49	31.696	3.603	63	271.871	0.610	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.503	36	4.309	2.206	50	36.957	3.934	64	316.979	0.246			
9	0.068	0.000	23	0.586	0.865	37	5.024	2.253	51	43.089	4.237	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.530	38	5.857	2.306	52	50.238	4.374	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.414	39	6.829	2.398	53	58.573	4.268	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.401	40	7.962	2.517	54	68.291	3.849	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.490	41	9.283	2.664	55	79.621	3.247	69	682.910	0.000			
14	0.147	0.127	28	1.262	0.678	42	10.823	2.789	56	92.832	2.549	70	796.214	0.000			

Particle Size Distribution

Attached page 37

Sample name : PACPP-2D2
Data name : PACPP-2D2_03
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3834 (µm) : (6)70.00 (%) - 32.9032 (µm)
: (2)20.00 (%) - 1.9536 (µm) : (7)80.00 (%) - 46.7103 (µm)
: (3)30.00 (%) - 4.0749 (µm) : (8)90.00 (%) - 67.7339 (µm)
: (4)40.00 (%) - 7.5726 (µm) : (9)95.00 (%) - 89.9010 (µm)
: (5)60.00 (%) - 21.3993 (µm) : (10)100.00 (%) - 271.5785 (µm)



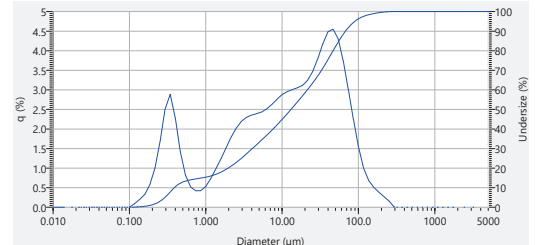
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.324	29	1.471	0.971	43	12.619	2.953	57	108.234	1.553	71	928.316	0.000
2	0.023	0.000	16	0.200	0.589	30	1.715	1.220	44	14.713	2.987	58	126.191	1.008	72	1082.340	0.000
3	0.027	0.000	17	0.233	1.023	31	2.000	1.500	45	17.154	3.033	59	147.128	0.685	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.715	32	2.332	1.780	46	20.000	3.086	60	171.539	0.506	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.570	33	2.719	2.013	47	23.318	3.249	61	200.000	0.376	75	1715.360	0.000
6	0.043	0.000	20	0.370	2.929	34	3.170	2.185	48	27.187	3.431	62	233.183	0.298	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.293	35	3.696	2.294	49	31.698	3.763	63	271.871	0.143	77	5000.000	0.000
8	0.059	0.009	22	0.502	1.408	36	4.309	2.356	50	36.957	4.154	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.813	37	5.024	2.397	51	43.089	4.468	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.510	38	5.857	2.444	52	50.238	4.542	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.411	39	6.829	2.526	53	58.573	4.304	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.413	40	7.962	2.638	54	68.291	3.742	68	585.729	0.000			
13	0.126	0.090	27	1.062	0.519	41	9.283	2.771	55	79.621	3.016	69	682.910	0.000			
14	0.147	0.203	28	1.262	0.723	42	10.823	2.885	56	92.832	2.256	70	796.214	0.000			

Particle Size Distribution

Attached page 38

Sample name : PACPP-2D2
Data name : PACPP-2D2_06
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3892 (µm) : (6)70.00 (%) - 32.8906 (µm)
: (2)20.00 (%) - 1.9817 (µm) : (7)80.00 (%) - 46.6481 (µm)
: (3)30.00 (%) - 4.1009 (µm) : (8)90.00 (%) - 67.6427 (µm)
: (4)40.00 (%) - 7.6313 (µm) : (9)95.00 (%) - 89.8355 (µm)
: (5)60.00 (%) - 21.4776 (µm) : (10)100.00 (%) - 271.6014 (µm)



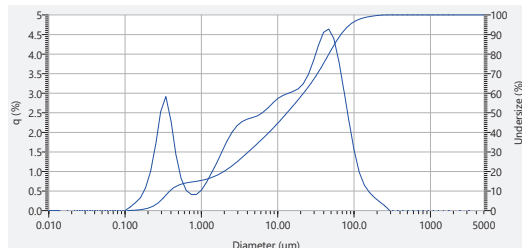
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.325	29	1.471	0.987	43	12.619	2.953	57	108.234	1.535	71	928.316	0.000
2	0.023	0.000	16	0.200	0.572	30	1.715	1.238	44	14.713	3.006	58	126.191	0.993	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.994	31	2.000	1.518	45	17.154	3.052	59	147.128	0.679	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.688	32	2.332	1.797	46	20.000	3.114	60	171.539	0.507	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.509	33	2.719	2.026	47	23.318	3.243	61	200.000	0.383	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.880	34	3.170	2.194	48	27.187	3.466	62	233.183	0.271	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.272	35	3.696	2.297	49	31.696	3.793	63	271.871	0.159	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.405	36	4.309	2.354	50	36.957	4.175	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.817	37	5.024	2.391	51	43.089	4.460	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.516	38	5.857	2.435	52	50.238	4.546	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.417	39	6.829	2.515	53	58.573	4.362	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.421	40	7.962	2.627	54	68.291	3.735	68	585.729	0.000			
13	0.126	0.088	27	1.062	0.525	41	9.283	2.763	55	79.621	3.006	69	682.910	0.000			
14	0.147	0.198	28	1.262	0.737	42	10.823	2.880	56	92.832	2.241	70	796.214	0.000			

Particle Size Distribution

Attached page 39

Sample name : PACPP-2D2
Data name : PACPP-2D2_09
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3871 (µm) : (6)70.00 (%) - 33.1610 (µm)
: (2)20.00 (%) - 1.9847 (µm) : (7)80.00 (%) - 46.7516 (µm)
: (3)30.00 (%) - 4.1357 (µm) : (8)90.00 (%) - 67.2508 (µm)
: (4)40.00 (%) - 7.7182 (µm) : (9)95.00 (%) - 88.4901 (µm)
: (5)60.00 (%) - 21.7518 (µm) : (10)100.00 (%) - 271.5312 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.326	29	1.471	0.988	43	12.619	2.939	57	108.234	1.535	71	928.316	0.000
2	0.023	0.000	16	0.200	0.573	30	1.715	1.215	44	14.713	2.994	58	126.191	0.973	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.999	31	2.000	1.492	45	17.154	3.043	59	147.128	0.645	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.680	32	2.332	1.770	46	20.000	3.108	60	171.539	0.461	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.531	33	2.719	2.000	47	23.318	3.241	61	200.000	0.332	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.912	34	3.170	2.169	48	27.187	3.473	62	233.183	0.223	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.296	35	3.696	2.275	49	31.696	3.817	63	271.871	0.123	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.412	36	4.309	2.335	50	36.957	4.223	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.815	37	5.024	2.374	51	43.089	4.554	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.511	38	5.857	2.419	52	50.238	4.638	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.411	39	6.829	2.500	53	58.573	4.386	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.412	40	7.962	2.612	54	68.291	3.812	68	585.729	0.000			
13	0.126	0.088	27	1.062	0.517	41	9.283	2.745	55	79.621	3.059	69	682.910	0.000			
14	0.147	0.198	28	1.262	0.721	42	10.823	2.865	56	92.832	2.268	70	796.214	0.000			

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Report of Samples Analysis

Issued Date : 22 July 2025
Customer : Tetra Tech Inc.
77 Soi Udumuk 39/1, Sukhumvit 103 Road, Bangchak,
Phrakhanong, Bangkok 10260
Tel : 0 2361 3767 Fax : 0 2361 3768
Served by : Physical Analysis Section,
Technical Support for Material Analysis Division, MTEC
Date received : 13 May 2025
Date analyzed : 27 May – 22 July 2025
Samples : Seabed Sediment Project No. T43779.27 (13 samples)
Identification no. : See sample detail.
Objective : Particle size and size distribution analysis.
Instrument : LA-960V2, HORIBA Instruments Incorporated.
Test method : Laser diffraction technique.
Conditions : Red light source : Laser Diode (LD), λ : 650 nm.
Blue light source : Light Emitting Diode (LED), λ : 405 nm.
Particle size range analysis : 0.01 – 5,000 µm.
Dispersion unit : LA-960S2
Dispersing medium : De-ionized water.
Sample refractive index : 1.5300 (as default standard wet)

Sample preparation : 1. Prepare the instrument for wet analysis. Circulation speed should be set at 12 and agitation speed set at 10.
2. 0.05 – 0.1 g. of sample was dispersed in 40 ml of de-ionized water and ultrasound 10 minutes with ultrasonic bath before measurement.
3. Add the dispersed sample into LA-960S2 unit and measure the dispersed sample with LA-960V2.

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Samples detail :

Sample No.	Sample Name	Sample No.	Sample Name
1	PACPP-3C1	8	PACPP-3E2X
2	PACPP-3C2Y	9	PACPP-3F2X
3	PACPP-3C3X	10	PACPP-3G2
4	PACPP-3CP1X	11	PACPP-4C2X
5	PACPP-3CP2	12	PACPP-4CP2X
6	PACPP-3CP3	13	PACPP-4D2X
7	PACPP-3D2X		

Technical Terms :

- Transmittance (R) :** value at particle come transmittance to red light source (percent), ranging from 99-70%.
- Transmittance (B) :** value at particle come transmittance to blue light source (percent), ranging from 99-70%.
- Mean size :** mean diameter value by volume.
- D [v, 0.1] :** 10 volume percent less than or equal to a given diameter.
- D [v, 0.5] :** 50 volume percent less than or equal to a given diameter, median diameter.
- D [v, 0.9] :** 90 volume percent less than or equal to a given diameter.
- Span :** the width of the distribution, which is independent of median size (D [v, 0.5]).

Results :

MTEC received samples from Tetra Tech Inc. Laser diffraction technique is used in order to analyze the particle size and size distribution by wet analysis.
The results of the particle size and size distribution of samples are shown in the attachments No.1 – 39.

- Note :**
- The specific surface area is inapplicable unless the density of a sample is known.
 - The results of particle size distribution are dispersion particle only.
 - Some particle of sample are vary size and size over range of instrument.

Interpretation/Opinion : None

Attached pages :

The attachment number	Detail
1 – 3	HORIBA LA960V2 results of PACPP-3C1
4 – 6	HORIBA LA960V2 results of PACPP-3C2Y
7 – 9	HORIBA LA960V2 results of PACPP-3C3X
10 – 12	HORIBA LA960V2 results of PACPP-3CP1X
13 – 15	HORIBA LA960V2 results of PACPP-3CP2
16 – 18	HORIBA LA960V2 results of PACPP-3CP3
19 – 21	HORIBA LA960V2 results of PACPP-3D2X
22 – 24	HORIBA LA960V2 results of PACPP-3E2X
25 – 27	HORIBA LA960V2 results of PACPP-3F2X
28 – 30	HORIBA LA960V2 results of PACPP-3G2
31 – 33	HORIBA LA960V2 results of PACPP-4C2X
34 – 36	HORIBA LA960V2 results of PACPP-4CP2X
37 – 39	HORIBA LA960V2 results of PACPP-4D2X

Work performed by :


(Mr.Kriangkai Supanpong)

Approved by :


(Ms.Suphakan Kijamnajsuk)

Remarks

- MTEC does not allow any alteration or modification of this report, or any part of this report, without prior formal written permission from MTEC.
- MTEC will not accept liability for any damage whatsoever, resulting directly or indirectly, from using the data, results, conclusions or recommendations in this report for the purposes of designing, manufacturing or for other purposes.
- Experimental results are only valid for the specimens tested.

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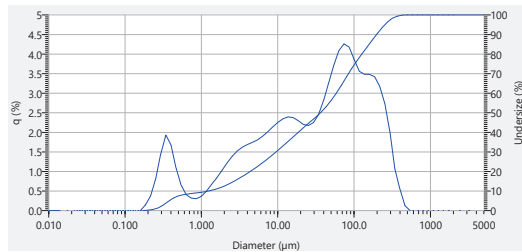


Particle Size Distribution

Attached page 1

Sample name : PACPP-3C1
Data name : PACPP-3C1_03
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 1.2645 (µm) : (6)70.00 (%) - 84.5566 (µm)
: (2)20.00 (%) - 4.3385 (µm) : (7)80.00 (%) - 126.4261 (µm)
: (3)30.00 (%) - 9.5869 (µm) : (8)90.00 (%) - 196.9621 (µm)
: (4)40.00 (%) - 18.4965 (µm) : (9)95.00 (%) - 253.4077 (µm)
: (5)60.00 (%) - 58.5323 (µm) : (10)100.00 (%) - 501.7607 (µm)



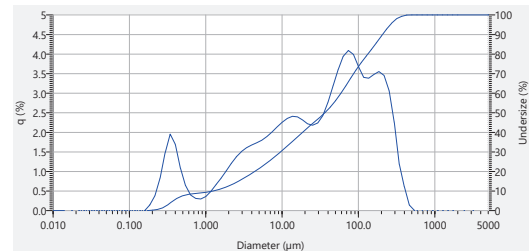
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.670	43	12.619	2.342	57	108.234	3.899	71	928.318	0.000
2	0.023	0.000	16	0.200	0.145	30	1.715	0.836	44	14.713	2.393	58	126.191	3.557	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.373	31	2.000	1.020	45	17.154	2.375	59	147.128	3.483	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.809	32	2.332	1.212	46	20.000	2.294	60	171.539	3.479	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.445	33	2.719	1.380	47	23.318	2.291	61	200.000	3.421	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.928	34	3.170	1.516	48	27.187	2.172	62	233.183	3.174	76	2000.000	0.000
7	0.050	0.000	21	0.431	1.679	35	3.696	1.614	49	31.698	2.246	63	271.871	2.748	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.089	36	4.309	1.683	50	36.967	2.451	64	316.979	2.019			
9	0.068	0.000	23	0.586	0.645	37	5.024	1.741	51	43.089	2.810	65	369.570	1.003			
10	0.080	0.000	24	0.683	0.403	38	5.857	1.804	52	50.238	3.960	66	430.887	0.547			
11	0.093	0.000	25	0.796	0.315	39	6.829	1.898	53	58.573	3.706	67	502.377	0.125			
12	0.108	0.000	26	0.928	0.301	40	7.962	2.011	54	68.291	4.086	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.362	41	9.283	2.137	55	79.621	4.261	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.499	42	10.823	2.252	56	92.832	4.178	70	796.214	0.000			

Particle Size Distribution

Attached page 2

Sample name : PACPP-3C1
Data name : PACPP-3C1_06
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 1.2487 (µm) : (6)70.00 (%) - 86.6146 (µm)
: (2)20.00 (%) - 4.3509 (µm) : (7)80.00 (%) - 132.7842 (µm)
: (3)30.00 (%) - 9.6370 (µm) : (8)90.00 (%) - 206.4504 (µm)
: (4)40.00 (%) - 18.4964 (µm) : (9)95.00 (%) - 261.1845 (µm)
: (5)60.00 (%) - 59.0760 (µm) : (10)100.00 (%) - 501.8274 (µm)



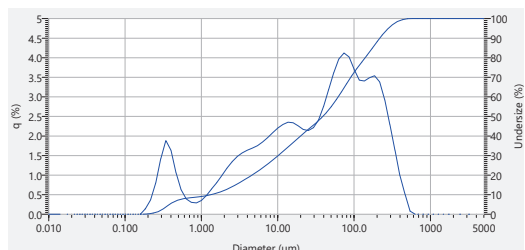
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.681	43	12.619	2.363	57	108.234	3.879	71	928.318	0.000
2	0.023	0.000	16	0.200	0.148	30	1.715	0.826	44	14.713	2.409	58	126.191	3.401	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.380	31	2.000	1.011	45	17.154	2.366	59	147.128	3.382	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.824	32	2.332	1.203	46	20.000	2.314	60	171.539	3.474	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.471	33	2.719	1.371	47	23.318	2.216	61	200.000	3.502	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.954	34	3.170	1.507	48	27.187	2.179	62	233.183	3.492	76	2000.000	0.000
7	0.050	0.000	21	0.431	1.689	35	3.696	1.605	49	31.698	2.239	63	271.871	3.062	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.085	36	4.309	1.673	50	36.967	2.426	64	316.979	2.265			
9	0.068	0.000	23	0.586	0.638	37	5.024	1.731	51	43.089	2.761	65	369.570	1.182			
10	0.080	0.000	24	0.683	0.396	38	5.857	1.795	52	50.238	3.183	66	430.887	0.614			
11	0.093	0.000	25	0.796	0.308	39	6.829	1.880	53	58.573	3.600	67	502.377	0.140			
12	0.108	0.000	26	0.928	0.295	40	7.962	2.007	54	68.291	3.943	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.356	41	9.283	2.137	55	79.621	4.088	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.492	42	10.823	2.257	56	92.832	3.990	70	796.214	0.000			

Particle Size Distribution

Attached page 3

Sample name : PACPP-3C1
Data name : PACPP-3C1_09
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 1.3537 (µm) : (6)70.00 (%) - 90.5724 (µm)
: (2)20.00 (%) - 4.5841 (µm) : (7)80.00 (%) - 139.5440 (µm)
: (3)30.00 (%) - 10.2076 (µm) : (8)90.00 (%) - 217.1222 (µm)
: (4)40.00 (%) - 19.9012 (µm) : (9)95.00 (%) - 281.2776 (µm)
: (5)60.00 (%) - 61.9725 (µm) : (10)100.0 (%) - 584.5743 (µm)



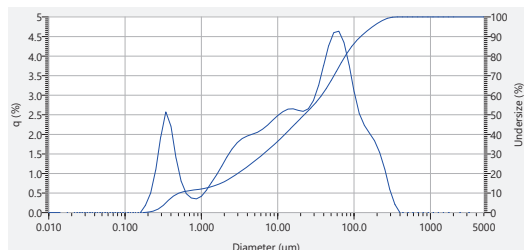
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.645	43	12.619	2.296	57	108.234	3.700	71	928.316	0.000
2	0.023	0.000	16	0.200	0.142	30	1.715	0.806	44	14.713	2.348	58	126.191	3.425	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.365	31	2.000	0.986	45	17.154	2.334	59	147.128	3.403	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.791	32	2.332	1.173	46	20.000	2.258	60	171.539	3.486	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.412	33	2.719	1.338	47	23.318	2.186	61	200.000	3.536	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.880	34	3.170	1.470	48	27.187	2.132	62	233.183	3.377	76	2000.000	0.000
7	0.050	0.000	21	0.431	1.832	35	3.696	1.565	49	31.696	2.207	63	271.871	2.922	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.053	36	4.309	1.632	50	36.967	2.405	64	316.979	2.294			
9	0.068	0.000	23	0.586	0.622	37	5.024	1.688	51	43.089	2.752	65	369.570	1.639			
10	0.080	0.000	24	0.683	0.387	38	5.857	1.750	52	50.238	3.186	66	430.887	0.988			
11	0.093	0.000	25	0.796	0.302	39	6.829	1.843	53	58.573	3.615	67	502.377	0.511			
12	0.108	0.000	26	0.928	0.289	40	7.962	1.956	54	68.291	3.968	68	585.729	0.078			
13	0.126	0.000	27	1.062	0.348	41	9.283	2.083	55	79.621	4.118	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.481	42	10.823	2.200	56	92.832	4.018	70	796.214	0.000			

Particle Size Distribution

Attached page 5

Sample name : PACPP-3C2Y
Data name : PACPP-3C2Y_06
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5168 (µm) : (6)70.00 (%) - 54.5714 (µm)
: (2)20.00 (%) - 3.0114 (µm) : (7)80.00 (%) - 76.5869 (µm)
: (3)30.00 (%) - 6.5303 (µm) : (8)90.00 (%) - 122.5302 (µm)
: (4)40.00 (%) - 12.4142 (µm) : (9)95.00 (%) - 175.3391 (µm)
: (5)60.00 (%) - 37.7087 (µm) : (10)100.0 (%) - 369.2941 (µm)



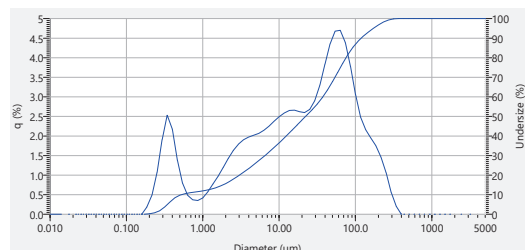
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.772	43	12.619	2.577	57	108.234	3.086	71	928.316	0.000
2	0.023	0.000	16	0.200	0.187	30	1.715	0.968	44	14.713	2.644	58	126.191	2.529	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.490	31	2.000	1.188	45	17.154	2.651	59	147.128	2.228	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.076	32	2.332	1.419	46	20.000	2.610	60	171.539	2.026	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.934	33	2.719	1.622	47	23.318	2.583	61	200.000	1.831	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.570	34	3.170	1.781	48	27.187	2.650	62	233.183	1.531	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.204	35	3.696	1.889	49	31.696	2.889	63	271.871	1.112	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.382	36	4.309	1.956	50	36.967	3.238	64	316.979	0.847			
9	0.068	0.000	23	0.586	0.801	37	5.024	2.001	51	43.089	3.753	65	369.570	0.205			
10	0.080	0.000	24	0.683	0.484	38	5.857	2.050	52	50.238	4.262	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.370	39	6.829	2.130	53	58.573	4.586	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.348	40	7.962	2.235	54	68.291	4.632	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.416	41	9.283	2.362	55	79.621	4.543	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.574	42	10.823	2.480	56	92.832	3.776	70	796.214	0.000			

Particle Size Distribution

Attached page 4

Sample name : PACPP-3C2Y
Data name : PACPP-3C2Y_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5326 (µm) : (6)70.00 (%) - 53.9629 (µm)
: (2)20.00 (%) - 3.0478 (µm) : (7)80.00 (%) - 75.3448 (µm)
: (3)30.00 (%) - 6.5642 (µm) : (8)90.00 (%) - 113.3909 (µm)
: (4)40.00 (%) - 12.4306 (µm) : (9)95.00 (%) - 171.6467 (µm)
: (5)60.00 (%) - 37.4891 (µm) : (10)100.0 (%) - 369.2801 (µm)



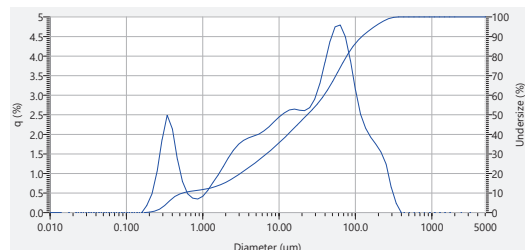
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.773	43	12.619	2.586	57	108.234	3.089	71	928.316	0.000
2	0.023	0.000	16	0.200	0.184	30	1.715	0.969	44	14.713	2.650	58	126.191	2.475	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.482	31	2.000	1.191	45	17.154	2.656	59	147.128	2.195	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.058	32	2.332	1.426	46	20.000	2.617	60	171.539	1.945	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.900	33	2.719	1.629	47	23.318	2.597	61	200.000	1.746	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.537	34	3.170	1.791	48	27.187	2.676	62	233.183	1.464	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.171	35	3.696	1.901	49	31.696	2.889	63	271.871	1.058	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.376	36	4.309	1.969	50	36.967	3.295	64	316.979	0.854			
9	0.068	0.000	23	0.586	0.794	37	5.024	2.016	51	43.089	3.830	65	369.570	0.195			
10	0.080	0.000	24	0.683	0.482	38	5.857	2.055	52	50.238	4.347	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.369	39	6.829	2.144	53	58.573	4.677	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.347	40	7.962	2.249	54	68.291	4.697	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.416	41	9.283	2.375	55	79.621	4.382	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.574	42	10.823	2.491	56	92.832	3.784	70	796.214	0.000			

Particle Size Distribution

Attached page 6

Sample name : PACPP-3C2Y
Data name : PACPP-3C2Y_09
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5492 (µm) : (6)70.00 (%) - 55.3652 (µm)
: (2)20.00 (%) - 3.1314 (µm) : (7)80.00 (%) - 76.8862 (µm)
: (3)30.00 (%) - 6.8606 (µm) : (8)90.00 (%) - 122.1106 (µm)
: (4)40.00 (%) - 13.0422 (µm) : (9)95.00 (%) - 177.6085 (µm)
: (5)60.00 (%) - 38.7958 (µm) : (10)100.0 (%) - 369.3216 (µm)



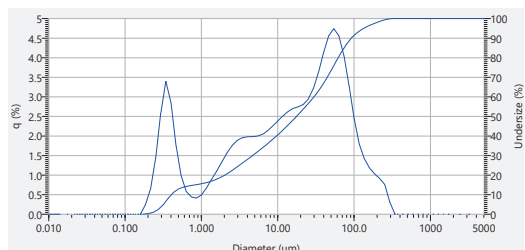
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.787	43	12.619	2.546	57	108.234	3.127	71	928.316	0.000
2	0.023	0.000	16	0.200	0.181	30	1.715	0.959	44	14.713	2.622	58	126.191	2.504	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.473	31	2.000	1.172	45	17.154	2.641	59	147.128	2.148	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.038	32	2.332	1.396	46	20.000	2.616	60	171.539	1.921	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.865	33	2.719	1.590	47	23.318	2.603	61	200.000	1.742	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.484	34	3.170	1.742	48	27.187	2.681	62	233.183	1.542	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.140	35	3.696	1.845	49	31.696	2.889	63	271.871	1.236	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.381	36	4.309	1.909	50	36.967	3.290	64	316.979	0.847			
9	0.068	0.000	23	0.586	0.789	37	5.024	1.954	51	43.089	3.832	65	369.570	0.228			
10	0.080	0.000	24	0.683	0.481	38	5.857	2.004	52	50.238	4.377	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.369	39	6.829	2.084	53	58.573	4.743	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.347	40	7.962	2.192	54	68.291	4.791	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.415	41	9.283	2.321	55	79.621	4.462	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.571	42	10.823	2.443	56	92.832	3.862	70	796.214	0.000			

Particle Size Distribution

Attached page 7

Sample name : PACPP-3C3X
Data name : PACPP-3C3X_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4052 (µm) : (6)70.00 (%) - 44.5704 (µm)
: (2)20.00 (%) - 2.0411 (µm) : (7)80.00 (%) - 62.0408 (µm)
: (3)30.00 (%) - 4.6864 (µm) : (8)90.00 (%) - 92.0656 (µm)
: (4)40.00 (%) - 9.6957 (µm) : (9)95.00 (%) - 134.6019 (µm)
: (5)60.00 (%) - 29.8657 (µm) : (10)100.0 (%) - 316.8193 (µm)



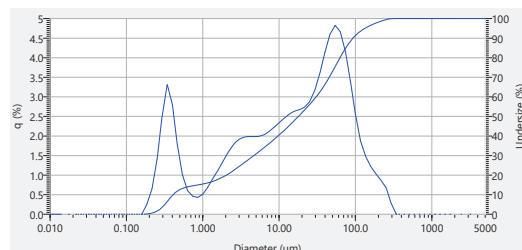
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.892	43	12.619	2.507	57	108.234	2.441
2	0.023	0.000	16	0.200	0.244	30	1.715	1.104	44	14.713	2.624	58	126.191	1.788
3	0.027	0.000	17	0.233	0.646	31	2.000	1.332	45	17.154	2.703	59	147.128	1.411
4	0.032	0.000	18	0.272	1.432	32	2.332	1.562	46	20.000	2.746	60	171.539	1.181
5	0.037	0.000	19	0.317	2.576	33	2.719	1.750	47	23.318	2.893	61	200.000	1.031
6	0.043	0.000	20	0.370	3.390	34	3.170	1.882	48	27.187	2.960	62	233.183	0.814
7	0.050	0.000	21	0.431	2.851	35	3.696	1.952	49	31.696	3.212	63	271.871	0.753
8	0.059	0.000	22	0.502	1.752	36	4.309	1.977	50	36.967	3.624	64	316.979	0.304
9	0.068	0.000	23	0.586	0.981	37	5.024	1.982	51	43.089	4.127	65	369.570	0.000
10	0.080	0.000	24	0.683	0.581	38	5.857	1.994	52	50.238	4.652	66	430.887	0.000
11	0.093	0.000	25	0.796	0.439	39	6.829	2.043	53	58.573	4.741	67	502.377	0.000
12	0.108	0.000	26	0.928	0.411	40	7.962	2.133	54	68.291	4.553	68	585.729	0.000
13	0.126	0.000	27	1.082	0.489	41	9.283	2.257	55	79.621	4.047	69	682.910	0.000
14	0.147	0.000	28	1.262	0.670	42	10.823	2.384	56	92.832	3.284	70	796.214	0.000

Particle Size Distribution

Attached page 8

Sample name : PACPP-3C3X
Data name : PACPP-3C3X_06
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4103 (µm) : (6)70.00 (%) - 45.4013 (µm)
: (2)20.00 (%) - 2.0510 (µm) : (7)80.00 (%) - 62.8547 (µm)
: (3)30.00 (%) - 4.6763 (µm) : (8)90.00 (%) - 92.5051 (µm)
: (4)40.00 (%) - 9.7364 (µm) : (9)95.00 (%) - 133.2939 (µm)
: (5)60.00 (%) - 30.6347 (µm) : (10)100.0 (%) - 316.8007 (µm)



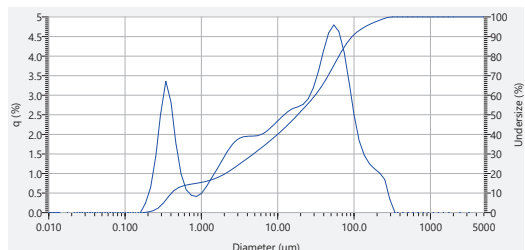
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.916	43	12.619	2.453	57	108.234	2.535
2	0.023	0.000	16	0.200	0.251	30	1.715	1.128	44	14.713	2.561	58	126.191	1.863
3	0.027	0.000	17	0.233	0.638	31	2.000	1.358	45	17.154	2.632	59	147.128	1.470
4	0.032	0.000	18	0.272	1.391	32	2.332	1.587	46	20.000	2.672	60	171.539	1.215
5	0.037	0.000	19	0.317	2.496	33	2.719	1.722	47	23.318	2.732	61	200.000	1.030
6	0.043	0.000	20	0.370	3.391	34	3.170	1.899	48	27.187	2.878	62	233.183	0.864
7	0.050	0.000	21	0.431	2.813	35	3.696	1.964	49	31.696	3.162	63	271.871	0.674
8	0.059	0.000	22	0.502	1.757	36	4.309	1.983	50	36.967	3.597	64	316.979	0.273
9	0.068	0.000	23	0.586	0.989	37	5.024	1.981	51	43.089	4.133	65	369.570	0.000
10	0.080	0.000	24	0.683	0.600	38	5.857	1.987	52	50.238	4.602	66	430.887	0.000
11	0.093	0.000	25	0.796	0.459	39	6.829	2.028	53	58.573	4.623	67	502.377	0.000
12	0.108	0.000	26	0.928	0.428	40	7.962	2.109	54	68.291	4.051	68	585.729	0.000
13	0.126	0.000	27	1.082	0.508	41	9.283	2.224	55	79.621	4.165	69	682.910	0.000
14	0.147	0.000	28	1.262	0.692	42	10.823	2.341	56	92.832	3.395	70	796.214	0.000

Particle Size Distribution

Attached page 9

Sample name : PACPP-3C3X
Data name : PACPP-3C3X_09
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4081 (µm) : (6)70.00 (%) - 45.7349 (µm)
: (2)20.00 (%) - 2.0812 (µm) : (7)80.00 (%) - 63.4214 (µm)
: (3)30.00 (%) - 4.8100 (µm) : (8)90.00 (%) - 94.6874 (µm)
: (4)40.00 (%) - 10.0175 (µm) : (9)95.00 (%) - 140.4158 (µm)
: (5)60.00 (%) - 30.9943 (µm) : (10)100.0 (%) - 316.8360 (µm)



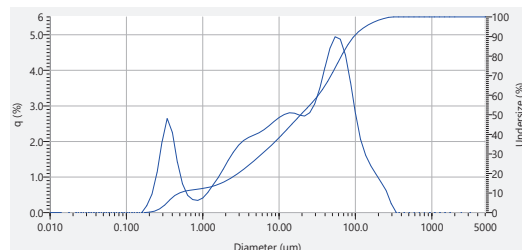
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.886	43	12.619	2.487	57	108.234	2.481
2	0.023	0.000	16	0.200	0.238	30	1.715	1.094	44	14.713	2.593	58	126.191	1.824
3	0.027	0.000	17	0.233	0.635	31	2.000	1.319	45	17.154	2.662	59	147.128	1.458
4	0.032	0.000	18	0.272	1.410	32	2.332	1.545	46	20.000	2.706	60	171.539	1.247
5	0.037	0.000	19	0.317	2.541	33	2.719	1.729	47	23.318	2.788	61	200.000	1.117
6	0.043	0.000	20	0.370	3.351	34	3.170	1.857	48	27.187	2.911	62	233.183	1.012
7	0.050	0.000	21	0.431	2.824	35	3.696	1.925	49	31.696	3.188	63	271.871	0.841
8	0.059	0.000	22	0.502	1.741	36	4.309	1.947	50	36.967	3.614	64	316.979	0.340
9	0.068	0.000	23	0.586	0.978	37	5.024	1.950	51	43.089	4.137	65	369.570	0.000
10	0.080	0.000	24	0.683	0.580	38	5.857	1.961	52	50.238	4.652	66	430.887	0.000
11	0.093	0.000	25	0.796	0.439	39	6.829	2.039	53	58.573	4.797	67	502.377	0.000
12	0.108	0.000	26	0.928	0.410	40	7.962	2.087	54	68.291	4.021	68	585.729	0.000
13	0.126	0.000	27	1.082	0.487	41	9.283	2.219	55	79.621	4.115	69	682.910	0.000
14	0.147	0.000	28	1.262	0.667	42	10.823	2.344	56	92.832	3.338	70	796.214	0.000

Particle Size Distribution

Attached page 10

Sample name : PACPP-3CP1X
Data name : PACPP-3CP1X_03
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4956 (µm) : (6)70.00 (%) - 47.7634 (µm)
: (2)20.00 (%) - 2.8947 (µm) : (7)80.00 (%) - 65.4764 (µm)
: (3)30.00 (%) - 5.9879 (µm) : (8)90.00 (%) - 95.6917 (µm)
: (4)40.00 (%) - 11.0277 (µm) : (9)95.00 (%) - 135.2079 (µm)
: (5)60.00 (%) - 32.6508 (µm) : (10)100.0 (%) - 316.7848 (µm)



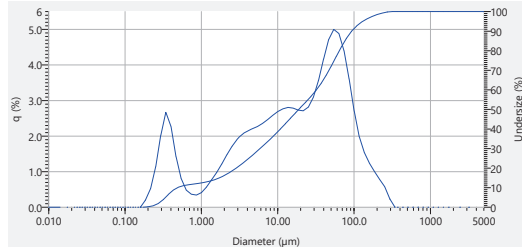
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.773	43	12.619	2.798	57	108.234	2.777
2	0.023	0.000	16	0.200	0.198	30	1.715	0.978	44	14.713	2.895	58	126.191	2.049
3	0.027	0.000	17	0.233	0.511	31	2.000	1.214	45	17.154	2.792	59	147.128	1.608
4	0.032	0.000	18	0.272	1.115	32	2.332	1.469	46	20.000	2.737	60	171.539	1.311
5	0.037	0.000	19	0.317	1.984	33	2.719	1.699	47	23.318	2.712	61	200.000	1.082
6	0.043	0.000	20	0.370	2.641	34	3.170	1.887	48	27.187	2.892	62	233.183	0.853
7	0.050	0.000	21	0.431	2.234	35	3.696	2.023	49	31.696	3.056	63	271.871	0.620
8	0.059	0.000	22	0.502	1.413	36	4.309	2.113	50	36.967	3.495	64	316.979	0.250
9	0.068	0.000	23	0.586	0.805	37	5.024	2.176	51	43.089	4.076	65	369.570	0.000
10	0.080	0.000	24	0.683	0.482	38	5.857	2.238	52	50.238	4.624	66	430.887	0.000
11	0.093	0.000	25	0.796	0.365	39	6.829	2.326	53	58.573	4.542	67	502.377	0.000
12	0.108	0.000	26	0.928	0.342	40	7.962	2.436	54	68.291	4.873	68	585.729	0.000
13	0.126	0.000	27	1.082	0.409	41	9.283	2.562	55	79.621	4.438	69	682.910	0.000
14	0.147	0.000	28	1.262	0.588	42	10.823	2.674	56	92.832	3.677	70	796.214	0.000

Particle Size Distribution

Attached page 11

Sample name : PACPP-3CP1X
Data name : PACPP-3CP1X_06
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4907 (μm) : (6)70.00 (%) - 46.9360 (μm)
: (2)20.00 (%) - 2.8695 (μm) : (7)80.00 (%) - 64.1997 (μm)
: (3)30.00 (%) - 5.8698 (μm) : (8)90.00 (%) - 92.9693 (μm)
: (4)40.00 (%) - 10.8410 (μm) : (9)95.00 (%) - 130.5752 (μm)
: (5)60.00 (%) - 32.1718 (μm) : (10)100.0 (%) - 316.7679 (μm)



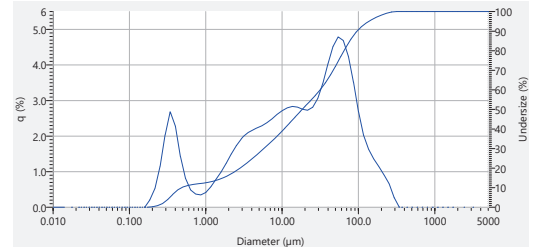
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.771	43	12.619	2.760	57	108.234	2.705
2	0.023	0.000	16	0.200	0.201	30	1.715	0.974	44	14.713	2.803	58	126.191	1.980
3	0.027	0.000	17	0.233	0.519	31	2.000	1.217	45	17.154	2.783	59	147.128	1.535
4	0.032	0.000	18	0.272	1.128	32	2.332	1.476	46	20.000	2.727	60	171.539	1.231
5	0.037	0.000	19	0.317	2.016	33	2.719	1.711	47	23.318	2.738	61	200.000	0.997
6	0.043	0.000	20	0.370	2.886	34	3.170	1.905	48	27.187	2.812	62	233.183	0.778
7	0.050	0.000	21	0.431	2.270	35	3.696	2.045	49	31.696	3.090	63	271.871	0.570
8	0.059	0.000	22	0.502	1.419	36	4.309	2.138	50	36.967	3.559	64	316.979	0.230
9	0.068	0.000	23	0.586	0.805	37	5.024	2.204	51	43.089	4.162	65	369.570	0.000
10	0.080	0.000	24	0.683	0.480	38	5.857	2.266	52	50.238	4.768	66	430.887	0.000
11	0.093	0.000	25	0.796	0.363	39	6.829	2.353	53	58.573	4.986	67	502.377	0.000
12	0.108	0.000	26	0.928	0.339	40	7.962	2.460	54	68.291	4.881	68	585.729	0.000
13	0.126	0.000	27	1.062	0.406	41	9.283	2.582	55	79.621	4.400	69	682.910	0.000
14	0.147	0.000	28	1.262	0.566	42	10.823	2.687	56	92.832	3.610	70	796.214	0.000

Particle Size Distribution

Attached page 12

Sample name : PACPP-3CP1X
Data name : PACPP-3CP1X_09
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4871 (μm) : (6)70.00 (%) - 46.7226 (μm)
: (2)20.00 (%) - 2.8265 (μm) : (7)80.00 (%) - 64.7934 (μm)
: (3)30.00 (%) - 5.7960 (μm) : (8)90.00 (%) - 98.2327 (μm)
: (4)40.00 (%) - 10.6205 (μm) : (9)95.00 (%) - 137.8689 (μm)
: (5)60.00 (%) - 31.5187 (μm) : (10)100.0 (%) - 316.7961 (μm)



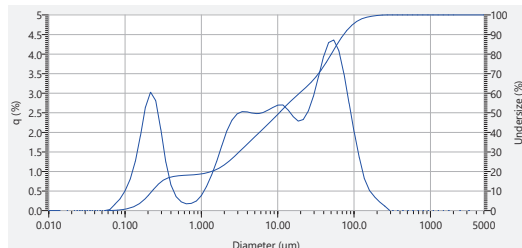
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.781	43	12.619	2.750	57	108.234	2.682
2	0.023	0.000	16	0.200	0.206	30	1.715	0.991	44	14.713	2.833	58	126.191	2.014
3	0.027	0.000	17	0.233	0.525	31	2.000	1.232	45	17.154	2.814	59	147.128	1.617
4	0.032	0.000	18	0.272	1.137	32	2.332	1.493	46	20.000	2.753	60	171.539	1.351
5	0.037	0.000	19	0.317	2.028	33	2.719	1.729	47	23.318	2.722	61	200.000	1.135
6	0.043	0.000	20	0.370	2.881	34	3.170	1.923	48	27.187	2.808	62	233.183	0.898
7	0.050	0.000	21	0.431	2.284	35	3.696	2.064	49	31.696	3.096	63	271.871	0.658
8	0.059	0.000	22	0.502	1.439	36	4.309	2.157	50	36.967	3.479	64	316.979	0.286
9	0.068	0.000	23	0.586	0.811	37	5.024	2.223	51	43.089	4.024	65	369.570	0.000
10	0.080	0.000	24	0.683	0.485	38	5.857	2.286	52	50.238	4.520	66	430.887	0.000
11	0.093	0.000	25	0.796	0.367	39	6.829	2.374	53	58.573	4.784	67	502.377	0.000
12	0.108	0.000	26	0.928	0.344	40	7.962	2.483	54	68.291	4.885	68	585.729	0.000
13	0.126	0.000	27	1.062	0.412	41	9.283	2.607	55	79.621	4.246	69	682.910	0.000
14	0.147	0.000	28	1.262	0.573	42	10.823	2.714	56	92.832	3.521	70	796.214	0.000

Particle Size Distribution

Attached page 13

Sample name : PACPP-3CP2
Data name : PACPP-3CP2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2262 (μm) : (6)70.00 (%) - 34.1961 (μm)
: (2)20.00 (%) - 1.3626 (μm) : (7)80.00 (%) - 50.3177 (μm)
: (3)30.00 (%) - 3.1355 (μm) : (8)90.00 (%) - 73.2945 (μm)
: (4)40.00 (%) - 5.7883 (μm) : (9)95.00 (%) - 95.5311 (μm)
: (5)60.00 (%) - 19.3014 (μm) : (10)100.0 (%) - 271.5078 (μm)



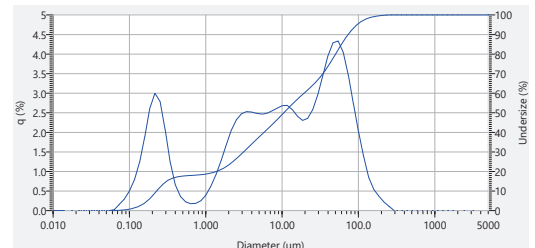
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	1.896	29	1.471	0.935	43	12.619	2.686	57	108.234	2.006
2	0.023	0.000	16	0.200	2.642	30	1.715	1.255	44	14.713	2.572	58	126.191	1.358
3	0.027	0.000	17	0.233	3.022	31	2.000	1.657	45	17.154	2.388	59	147.128	0.814
4	0.032	0.000	18	0.272	2.809	32	2.332	2.034	46	20.000	2.284	60	171.539	0.511
5	0.037	0.000	19	0.317	2.080	33	2.719	2.308	47	23.318	2.335	61	200.000	0.350
6	0.043	0.000	20	0.370	1.235	34	3.170	2.469	48	27.187	2.541	62	233.183	0.220
7	0.050	0.000	21	0.431	0.694	35	3.696	2.527	49	31.696	2.916	63	271.871	0.115
8	0.059	0.000	22	0.502	0.359	36	4.309	2.520	50	36.967	3.417	64	316.979	0.000
9	0.068	0.022	23	0.586	0.221	37	5.024	2.492	51	43.089	3.934	65	369.570	0.000
10	0.080	0.160	24	0.683	0.173	38	5.857	2.478	52	50.238	4.293	66	430.887	0.000
11	0.093	0.296	25	0.796	0.181	39	6.829	2.502	53	58.573	4.338	67	502.377	0.000
12	0.108	0.506	26	0.928	0.243	40	7.962	2.562	54	68.291	4.079	68	585.729	0.000
13	0.126	0.798	27	1.062	0.387	41	9.283	2.632	55	79.621	3.491	69	682.910	0.000
14	0.147	1.252	28	1.262	0.612	42	10.823	2.692	56	92.832	2.742	70	796.214	0.000

Particle Size Distribution

Attached page 14

Sample name : PACPP-3CP2
Data name : PACPP-3CP2_06
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2274 (μm) : (6)70.00 (%) - 34.1993 (μm)
: (2)20.00 (%) - 1.3856 (μm) : (7)80.00 (%) - 50.2722 (μm)
: (3)30.00 (%) - 3.1442 (μm) : (8)90.00 (%) - 73.4754 (μm)
: (4)40.00 (%) - 5.8142 (μm) : (9)95.00 (%) - 96.1796 (μm)
: (5)60.00 (%) - 19.4555 (μm) : (10)100.0 (%) - 271.4792 (μm)



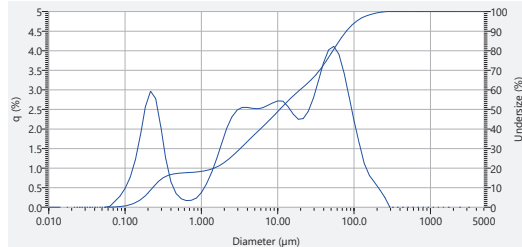
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	1.876	29	1.471	0.915	43	12.619	2.688	57	108.234	2.014
2	0.023	0.000	16	0.200	2.615	30	1.715	1.267	44	14.713	2.573	58	126.191	1.385
3	0.027	0.000	17	0.233	2.995	31	2.000	1.669	45	17.154	2.408	59	147.128	0.846
4	0.032	0.000	18	0.272	2.789	32	2.332	2.046	46	20.000	2.303	60	171.539	0.536
5	0.037	0.000	19	0.317	2.071	33	2.719	2.318	47	23.318	2.352	61	200.000	0.362
6	0.043	0.000	20	0.370	1.234	34	3.170	2.474	48	27.187	2.574	62	233.183	0.217
7	0.050	0.000	21	0.431	0.696	35	3.696	2.527	49	31.696	2.953	63	271.871	0.108
8	0.059	0.000	22	0.502	0.389	36	4.309	2.515	50	36.967	3.450	64	316.979	0.000
9	0.068	0.022	23	0.586	0.224	37	5.024	2.482	51	43.089	3.951	65	369.570	0.000
10	0.080	0.158	24	0.683	0.176	38	5.857	2.465	52	50.238	4.287	66	430.887	0.000
11	0.093	0.296	25	0.796	0.184	39	6.829	2.486	53	58.573	4.332	67	502.377	0.000
12	0.108	0.501	26	0.928	0.247	40	7.962	2.545	54	68.291	4.040	68	585.729	0.000
13	0.126	0.790	27	1.062	0.382	41	9.283	2.615	55	79.621	3.458	69	682.910	0.000
14	0.147	1.238	28	1.262	0.619	42	10.823	2.678	56	92.832	2.727	70	796.214	0.000

Particle Size Distribution

Attached page 15

Sample name : PACPP-3CP2
Data name : PACPP-3CP2_09
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2301 (µm) : (6)70.00 (%) - 35.3416 (µm)
: (2)20.00 (%) - 1.4789 (µm) : (7)80.00 (%) - 52.8245 (µm)
: (3)30.00 (%) - 3.2386 (µm) : (8)90.00 (%) - 79.2359 (µm)
: (4)40.00 (%) - 5.9331 (µm) : (9)95.00 (%) - 107.2744 (µm)
: (5)60.00 (%) - 19.7120 (µm) : (10)100.0 (%) - 271.7051 (µm)



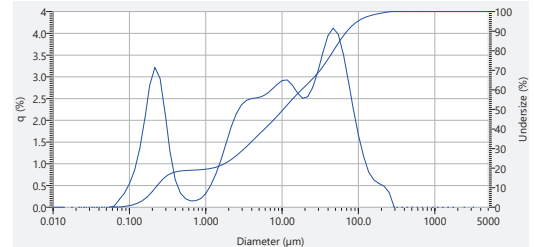
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	1.830	29	1.471	0.865	43	12.619	2.707	57	108.234	2.196
2	0.023	0.000	16	0.200	2.571	30	1.715	1.234	44	14.713	2.959	58	126.191	1.628
3	0.027	0.000	17	0.233	2.963	31	2.000	1.639	45	17.154	2.379	59	147.128	1.108
4	0.032	0.000	18	0.272	2.771	32	2.332	2.024	46	20.000	2.246	60	171.539	0.806
5	0.037	0.000	19	0.317	2.962	33	2.719	2.309	47	23.318	2.264	61	200.000	0.631
6	0.043	0.000	20	0.370	1.235	34	3.170	2.480	48	27.187	2.459	62	233.183	0.449
7	0.050	0.000	21	0.431	0.645	35	3.696	2.549	49	31.696	2.783	63	271.871	0.251
8	0.059	0.000	22	0.502	0.349	36	4.309	2.550	50	36.967	3.232	64	316.979	0.000
9	0.068	0.021	23	0.586	0.215	37	5.024	2.528	51	43.089	3.694	65	369.570	0.000
10	0.080	0.151	24	0.683	0.167	38	5.857	2.517	52	50.238	4.022	66	430.867	0.000
11	0.093	0.282	25	0.796	0.175	39	6.829	2.543	53	58.573	4.197	67	502.377	0.000
12	0.108	0.480	26	0.928	0.234	40	7.962	2.600	54	68.291	3.955	68	585.729	0.000
13	0.126	0.762	27	1.062	0.374	41	9.283	2.665	55	79.621	3.440	69	682.910	0.000
14	0.147	1.201	28	1.262	0.595	42	10.823	2.716	56	92.832	2.823	70	796.214	0.000

Particle Size Distribution

Attached page 16

Sample name : PACPP-3CP3
Data name : PACPP-3CP3_03
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2193 (µm) : (6)70.00 (%) - 31.5200 (µm)
: (2)20.00 (%) - 1.2215 (µm) : (7)80.00 (%) - 47.1019 (µm)
: (3)30.00 (%) - 3.2118 (µm) : (8)90.00 (%) - 71.1016 (µm)
: (4)40.00 (%) - 5.9250 (µm) : (9)95.00 (%) - 98.3026 (µm)
: (5)60.00 (%) - 18.0027 (µm) : (10)100.0 (%) - 271.7482 (µm)



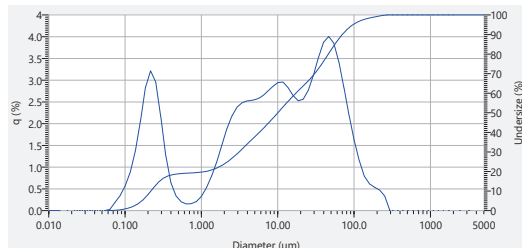
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.019	29	1.471	0.770	43	12.619	2.925	57	108.234	1.647
2	0.023	0.000	16	0.200	2.815	30	1.715	1.088	44	14.713	2.802	58	126.191	1.168
3	0.027	0.000	17	0.233	3.211	31	2.000	1.470	45	17.154	2.625	59	147.128	0.804
4	0.032	0.000	18	0.272	2.981	32	2.332	1.851	46	20.000	2.503	60	171.539	0.626
5	0.037	0.000	19	0.317	2.160	33	2.719	2.150	47	23.318	2.540	61	200.000	0.547
6	0.043	0.000	20	0.370	1.286	34	3.170	2.362	48	27.187	2.751	62	233.183	0.480
7	0.050	0.000	21	0.431	0.627	35	3.696	2.457	49	31.696	3.108	63	271.871	0.339
8	0.059	0.000	22	0.502	0.324	36	4.309	2.498	50	36.967	3.552	64	316.979	0.000
9	0.068	0.024	23	0.586	0.193	37	5.024	2.516	51	43.089	3.946	65	369.570	0.000
10	0.080	0.174	24	0.683	0.146	38	5.857	2.544	52	50.238	4.116	66	430.867	0.000
11	0.093	0.322	25	0.796	0.149	39	6.829	2.613	53	58.573	3.976	67	502.377	0.000
12	0.108	0.539	26	0.928	0.197	40	7.962	2.712	54	68.291	3.532	68	585.729	0.000
13	0.126	0.847	27	1.062	0.315	41	9.283	2.821	55	79.621	2.906	69	682.910	0.000
14	0.147	1.330	28	1.262	0.510	42	10.823	2.911	56	92.832	2.243	70	796.214	0.000

Particle Size Distribution

Attached page 17

Sample name : PACPP-3CP3
Data name : PACPP-3CP3_06
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2178 (µm) : (6)70.00 (%) - 30.4213 (µm)
: (2)20.00 (%) - 1.1439 (µm) : (7)80.00 (%) - 46.1261 (µm)
: (3)30.00 (%) - 3.1340 (µm) : (8)90.00 (%) - 70.2068 (µm)
: (4)40.00 (%) - 5.7591 (µm) : (9)95.00 (%) - 97.3398 (µm)
: (5)60.00 (%) - 17.2848 (µm) : (10)100.0 (%) - 271.7448 (µm)



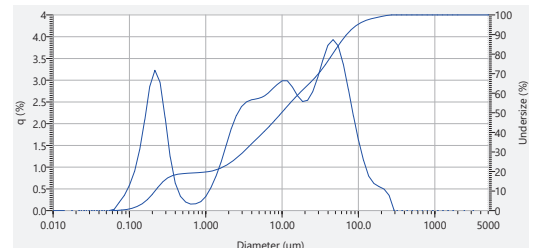
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.044	29	1.471	0.792	43	12.619	2.994	57	108.234	1.616
2	0.023	0.000	16	0.200	2.829	30	1.715	1.113	44	14.713	2.824	58	126.191	1.147
3	0.027	0.000	17	0.233	3.213	31	2.000	1.498	45	17.154	2.643	59	147.128	0.789
4	0.032	0.000	18	0.272	2.957	32	2.332	1.880	46	20.000	2.522	60	171.539	0.613
5	0.037	0.000	19	0.317	2.160	33	2.719	2.178	47	23.318	2.580	61	200.000	0.535
6	0.043	0.000	20	0.370	1.251	34	3.170	2.378	48	27.187	2.787	62	233.183	0.471
7	0.050	0.000	21	0.431	0.637	35	3.696	2.481	49	31.696	3.109	63	271.871	0.338
8	0.059	0.000	22	0.502	0.333	36	4.309	2.521	50	36.967	3.520	64	316.979	0.000
9	0.068	0.025	23	0.586	0.201	37	5.024	2.538	51	43.089	3.871	65	369.570	0.000
10	0.080	0.184	24	0.683	0.153	38	5.857	2.567	52	50.238	4.003	66	430.867	0.000
11	0.093	0.339	25	0.796	0.157	39	6.829	2.638	53	58.573	3.846	67	502.377	0.000
12	0.108	0.592	26	0.928	0.226	40	7.962	2.740	54	68.291	3.416	68	585.729	0.000
13	0.126	0.875	27	1.062	0.328	41	9.283	2.851	55	79.621	2.820	69	682.910	0.000
14	0.147	1.359	28	1.262	0.527	42	10.823	2.943	56	92.832	2.189	70	796.214	0.000

Particle Size Distribution

Attached page 18

Sample name : PACPP-3CP3
Data name : PACPP-3CP3_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2181 (µm) : (6)70.00 (%) - 29.9620 (µm)
: (2)20.00 (%) - 1.1153 (µm) : (7)80.00 (%) - 45.9006 (µm)
: (3)30.00 (%) - 3.1160 (µm) : (8)90.00 (%) - 70.3138 (µm)
: (4)40.00 (%) - 5.6915 (µm) : (9)95.00 (%) - 97.9417 (µm)
: (5)60.00 (%) - 16.8660 (µm) : (10)100.0 (%) - 271.7509 (µm)



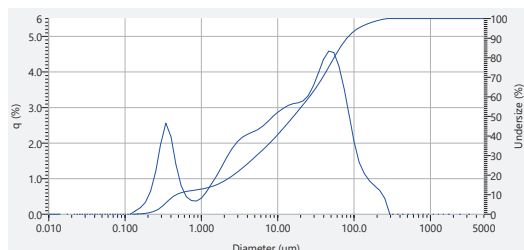
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.080	29	1.471	0.787	43	12.619	2.984	57	108.234	1.613
2	0.023	0.000	16	0.200	2.858	30	1.715	1.109	44	14.713	2.837	58	126.191	1.147
3	0.027	0.000	17	0.233	3.224	31	2.000	1.496	45	17.154	2.649	59	147.128	0.789
4	0.032	0.000	18	0.272	2.947	32	2.332	1.881	46	20.000	2.506	60	171.539	0.623
5	0.037	0.000	19	0.317	2.138	33	2.719	2.184	47	23.318	2.534	61	200.000	0.562
6	0.043	0.000	20	0.370	1.232	34	3.170	2.399	48	27.187	2.731	62	233.183	0.463
7	0.050	0.000	21	0.431	0.625	35	3.696	2.500	49	31.696	3.060	63	271.871	0.347
8	0.059	0.000	22	0.502	0.327	36	4.309	2.546	50	36.967	3.459	64	316.979	0.000
9	0.068	0.026	23	0.586	0.197	37	5.024	2.570	51	43.089	3.800	65	369.570	0.000
10	0.080	0.192	24	0.683	0.150	38	5.857	2.605	52	50.238	3.931	66	430.867	0.000
11	0.093	0.352	25	0.796	0.154	39	6.829	2.680	53	58.573	3.786	67	502.377	0.000
12	0.108	0.580	26	0.928	0.203	40	7.962	2.784	54	68.291	3.371	68	585.729	0.000
13	0.126	0.895	27	1.062	0.324	41	9.283	2.895	55	79.621	2.792	69	682.910	0.000
14	0.147	1.391	28	1.262	0.522	42	10.823	2.984	56	92.832	2.176	70	796.214	0.000

Particle Size Distribution

Attached page 19

Sample name : PACPP-3D2X Mean size : 32.10501 (µm)
Data name : PACPP-3D2X_03 Di(v,0.1) : 0.47279 (µm)
Lot number : T43779.27 Di(v,0.5) : 16.07586 (µm)
Transmittance (R) : 86.5 (%) Di(v,0.9) : 80.75738 (µm)
Distribution base : Volume Span : 4.9941
Refractive index (R) : Standard Wet Mode size : 46.6738 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4728 (µm) : (6)70.00 (%) - 38.8977 (µm)
: (2)20.00 (%) - 2.6287 (µm) : (7)80.00 (%) - 54.6924 (µm)
: (3)30.00 (%) - 5.3112 (µm) : (8)90.00 (%) - 80.7574 (µm)
: (4)40.00 (%) - 9.6268 (µm) : (9)95.00 (%) - 113.3591 (µm)
: (5)60.00 (%) - 26.0039 (µm) : (10)100.00 (%) - 271.7774 (µm)



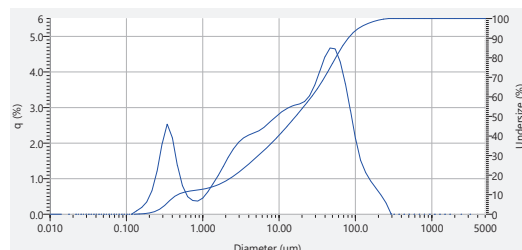
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.081	29	1.471	0.855	43	12.619	2.995	57	108.234	2.026
2	0.023	0.000	16	0.200	0.337	30	1.715	1.082	44	14.713	3.054	58	126.191	1.450
3	0.027	0.000	17	0.233	0.641	31	2.000	1.338	45	17.154	3.106	59	147.128	1.136
4	0.032	0.000	18	0.272	1.193	32	2.332	1.607	46	20.000	3.131	60	171.539	0.939
5	0.037	0.000	19	0.317	1.983	33	2.719	1.841	47	23.318	3.187	61	200.000	0.788
6	0.043	0.000	20	0.370	2.587	34	3.170	2.028	48	27.187	3.339	62	233.183	0.669
7	0.050	0.000	21	0.431	2.181	35	3.696	2.159	49	31.696	3.628	63	271.871	0.446
8	0.059	0.000	22	0.502	1.384	36	4.309	2.244	50	36.957	3.976	64	316.979	0.000
9	0.068	0.000	23	0.586	0.804	37	5.024	2.306	51	43.089	4.354	65	369.570	0.000
10	0.080	0.000	24	0.683	0.493	38	5.857	2.372	52	50.238	4.983	66	430.887	0.000
11	0.093	0.000	25	0.796	0.384	39	6.829	2.470	53	58.573	4.543	67	502.377	0.000
12	0.108	0.000	26	0.928	0.370	40	7.962	2.596	54	68.291	4.154	68	585.729	0.000
13	0.126	0.000	27	1.062	0.452	41	9.283	2.743	55	79.621	3.550	69	682.910	0.000
14	0.147	0.090	28	1.262	0.631	42	10.823	2.867	56	92.832	2.795	70	796.214	0.000

Particle Size Distribution

Attached page 20

Sample name : PACPP-3D2X Mean size : 31.90186 (µm)
Data name : PACPP-3D2X_06 Di(v,0.1) : 0.47445 (µm)
Lot number : T43779.27 Di(v,0.5) : 16.43715 (µm)
Transmittance (R) : 86.7 (%) Di(v,0.9) : 80.52081 (µm)
Distribution base : Volume Span : 4.9698
Refractive index (R) : Standard Wet Mode size : 46.6972 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4745 (µm) : (6)70.00 (%) - 39.4768 (µm)
: (2)20.00 (%) - 2.6435 (µm) : (7)80.00 (%) - 55.1251 (µm)
: (3)30.00 (%) - 5.3652 (µm) : (8)90.00 (%) - 80.5207 (µm)
: (4)40.00 (%) - 9.7807 (µm) : (9)95.00 (%) - 110.2033 (µm)
: (5)60.00 (%) - 26.6290 (µm) : (10)100.00 (%) - 271.7373 (µm)



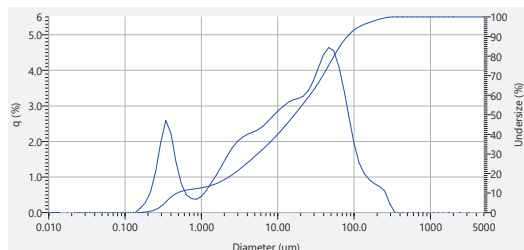
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.190	29	1.471	0.855	43	12.619	2.919	57	108.234	2.122
2	0.023	0.000	16	0.200	0.348	30	1.715	1.080	44	14.713	3.007	58	126.191	1.512
3	0.027	0.000	17	0.233	0.653	31	2.000	1.335	45	17.154	3.062	59	147.128	1.163
4	0.032	0.000	18	0.272	1.200	32	2.332	1.600	46	20.000	3.097	60	171.539	0.924
5	0.037	0.000	19	0.317	1.976	33	2.719	1.832	47	23.318	3.168	61	200.000	0.730
6	0.043	0.000	20	0.370	2.530	34	3.170	2.015	48	27.187	3.339	62	233.183	0.637
7	0.050	0.000	21	0.431	2.152	35	3.696	2.142	49	31.696	3.628	63	271.871	0.312
8	0.059	0.000	22	0.502	1.369	36	4.309	2.223	50	36.957	4.022	64	316.979	0.000
9	0.068	0.000	23	0.586	0.797	37	5.024	2.282	51	43.089	4.422	65	369.570	0.000
10	0.080	0.000	24	0.683	0.491	38	5.857	2.344	52	50.238	4.669	66	430.887	0.000
11	0.093	0.000	25	0.796	0.385	39	6.829	2.438	53	58.573	4.645	67	502.377	0.000
12	0.108	0.000	26	0.928	0.370	40	7.962	2.560	54	68.291	4.260	68	585.729	0.000
13	0.126	0.000	27	1.062	0.453	41	9.283	2.703	55	79.621	3.672	69	682.910	0.000
14	0.147	0.094	28	1.262	0.632	42	10.823	2.824	56	92.832	2.914	70	796.214	0.000

Particle Size Distribution

Attached page 21

Sample name : PACPP-3D2X Mean size : 33.05221 (µm)
Data name : PACPP-3D2X_09 Di(v,0.1) : 0.48455 (µm)
Lot number : T43779.27 Di(v,0.5) : 16.52404 (µm)
Transmittance (R) : 86.0 (%) Di(v,0.9) : 81.34550 (µm)
Distribution base : Volume Span : 4.8935
Refractive index (R) : Standard Wet Mode size : 46.6027 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4845 (µm) : (6)70.00 (%) - 36.9821 (µm)
: (2)20.00 (%) - 2.6894 (µm) : (7)80.00 (%) - 54.5961 (µm)
: (3)30.00 (%) - 5.4842 (µm) : (8)90.00 (%) - 81.3455 (µm)
: (4)40.00 (%) - 9.9687 (µm) : (9)95.00 (%) - 118.0024 (µm)
: (5)60.00 (%) - 26.3790 (µm) : (10)100.00 (%) - 316.7808 (µm)



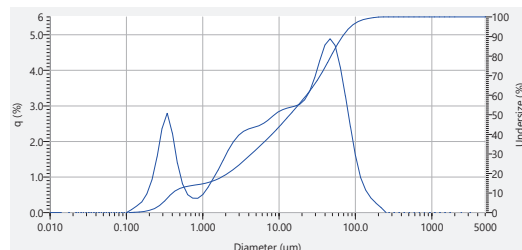
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.126	29	1.471	0.849	43	12.619	2.981	57	108.234	1.933
2	0.023	0.000	16	0.200	0.281	30	1.715	1.069	44	14.713	3.056	58	126.191	1.382
3	0.027	0.000	17	0.233	0.583	31	2.000	1.318	45	17.154	3.167	59	147.128	1.088
4	0.032	0.000	18	0.272	1.148	32	2.332	1.579	46	20.000	3.205	60	171.539	0.917
5	0.037	0.000	19	0.317	1.970	33	2.719	1.807	47	23.318	3.270	61	200.000	0.810
6	0.043	0.000	20	0.370	2.584	34	3.170	1.988	48	27.187	3.426	62	233.183	0.729
7	0.050	0.000	21	0.431	2.224	35	3.696	2.113	49	31.696	3.704	63	271.871	0.607
8	0.059	0.000	22	0.502	1.419	36	4.309	2.194	50	36.957	4.078	64	316.979	0.245
9	0.068	0.000	23	0.586	0.825	37	5.024	2.254	51	43.089	4.444	65	369.570	0.000
10	0.080	0.000	24	0.683	0.505	38	5.857	2.318	52	50.238	4.638	66	430.887	0.000
11	0.093	0.000	25	0.796	0.390	39	6.829	2.419	53	58.573	4.543	67	502.377	0.000
12	0.108	0.000	26	0.928	0.373	40	7.962	2.552	54	68.291	4.100	68	585.729	0.000
13	0.126	0.000	27	1.062	0.452	41	9.283	2.710	55	79.621	3.443	69	682.910	0.000
14	0.147	0.000	28	1.262	0.628	42	10.823	2.854	56	92.832	2.672	70	796.214	0.000

Particle Size Distribution

Attached page 22

Sample name : PACPP-3E2X Mean size : 26.30039 (µm)
Data name : PACPP-3E2X_03 Di(v,0.1) : 0.40359 (µm)
Lot number : T43779.27 Di(v,0.5) : 13.80750 (µm)
Transmittance (R) : 86.2 (%) Di(v,0.9) : 67.58221 (µm)
Distribution base : Volume Span : 4.8654
Refractive index (R) : Standard Wet Mode size : 46.5157 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4036 (µm) : (6)70.00 (%) - 34.5262 (µm)
: (2)20.00 (%) - 2.1318 (µm) : (7)80.00 (%) - 47.9413 (µm)
: (3)30.00 (%) - 4.3606 (µm) : (8)90.00 (%) - 67.5822 (µm)
: (4)40.00 (%) - 8.0617 (µm) : (9)95.00 (%) - 87.2249 (µm)
: (5)60.00 (%) - 22.8529 (µm) : (10)100.00 (%) - 232.9274 (µm)



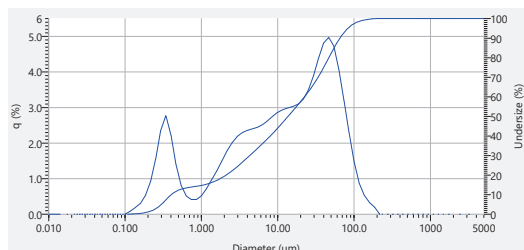
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.289	29	1.471	0.946	43	12.619	2.905	57	108.234	1.696
2	0.023	0.000	16	0.200	0.524	30	1.715	1.191	44	14.713	2.951	58	126.191	0.982
3	0.027	0.000	17	0.233	0.915	31	2.000	1.469	45	17.154	2.989	59	147.128	0.825
4	0.032	0.000	18	0.272	1.553	32	2.332	1.752	46	20.000	3.040	60	171.539	0.414
5	0.037	0.000	19	0.317	2.372	33	2.719	1.899	47	23.318	3.166	61	200.000	0.265
6	0.043	0.000	20	0.370	2.790	34	3.170	2.168	48	27.187	3.409	62	233.183	0.140
7	0.050	0.000	21	0.431	2.240	35	3.696	2.284	49	31.696	3.794	63	271.871	0.000
8	0.059	0.000	22	0.502	1.391	36	4.309	2.204	50	36.957	4.276	64	316.979	0.000
9	0.068	0.000	23	0.586	0.806	37	5.024	2.393	51	43.089	4.708	65	369.570	0.000
10	0.080	0.000	24	0.683	0.504	38	5.857	2.438	52	50.238	4.885	66	430.887	0.000
11	0.093	0.000	25	0.796	0.403	39	6.829	2.514	53	58.573	4.694	67	502.377	0.000
12	0.108	0.000	26	0.928	0.402	40	7.962	2.618	54	68.291	4.095	68	585.729	0.000
13	0.126	0.081	27	1.062	0.503	41	9.283	2.742	55	79.621	3.288	69	682.910	0.000
14	0.147	0.183	28	1.262	0.702	42	10.823	2.844	56	92.832	2.414	70	796.214	0.000

Particle Size Distribution

Attached page 23

Sample name : PACPP-3E2X
Data name : PACPP-3E2X_06
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4046 (µm) : (6)70.00 (%) - 33.7773 (µm)
: (2)20.00 (%) - 2.1167 (µm) : (7)80.00 (%) - 46.7329 (µm)
: (3)30.00 (%) - 4.3225 (µm) : (8)90.00 (%) - 65.4333 (µm)
: (4)40.00 (%) - 7.9922 (µm) : (9)95.00 (%) - 83.2824 (µm)
: (5)60.00 (%) - 22.4198 (µm) : (10)100.0 (%) - 199.8451 (µm)



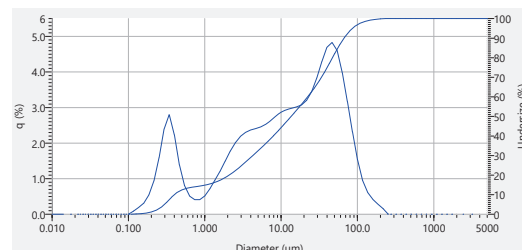
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.301	29	1.471	0.963	43	12.619	2.930	57	108.234	1.407
2	0.023	0.000	16	0.200	0.526	30	1.715	1.211	44	14.713	2.976	58	126.191	0.866
3	0.027	0.000	17	0.233	0.916	31	2.000	1.490	45	17.154	3.032	59	147.128	0.523
4	0.032	0.000	18	0.272	1.548	32	2.332	1.771	46	20.000	3.070	60	171.539	0.326
5	0.037	0.000	19	0.317	2.359	33	2.719	2.006	47	23.318	3.229	61	200.000	0.198
6	0.043	0.000	20	0.370	2.770	34	3.170	2.181	48	27.187	3.489	62	233.183	0.000
7	0.050	0.000	21	0.431	2.228	35	3.696	2.202	49	31.696	3.880	63	271.871	0.000
8	0.059	0.000	22	0.502	1.381	36	4.309	2.355	50	36.967	4.374	64	316.979	0.000
9	0.068	0.000	23	0.586	0.812	37	5.024	2.396	51	43.089	4.689	65	369.570	0.000
10	0.080	0.000	24	0.683	0.511	38	5.857	2.441	52	50.238	4.967	66	430.887	0.000
11	0.093	0.000	25	0.796	0.411	39	6.829	2.519	53	58.573	4.729	67	502.377	0.000
12	0.108	0.000	26	0.928	0.411	40	7.962	2.626	54	68.291	4.062	68	585.729	0.000
13	0.126	0.082	27	1.062	0.515	41	9.283	2.755	55	79.621	3.198	69	682.910	0.000
14	0.147	0.184	28	1.262	0.717	42	10.823	2.865	56	92.832	2.291	70	796.214	0.000

Particle Size Distribution

Attached page 24

Sample name : PACPP-3E2X
Data name : PACPP-3E2X_09
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4008 (µm) : (6)70.00 (%) - 33.8144 (µm)
: (2)20.00 (%) - 2.0976 (µm) : (7)80.00 (%) - 47.1461 (µm)
: (3)30.00 (%) - 4.2954 (µm) : (8)90.00 (%) - 66.7932 (µm)
: (4)40.00 (%) - 7.9126 (µm) : (9)95.00 (%) - 86.5004 (µm)
: (5)60.00 (%) - 22.3040 (µm) : (10)100.0 (%) - 232.9547 (µm)



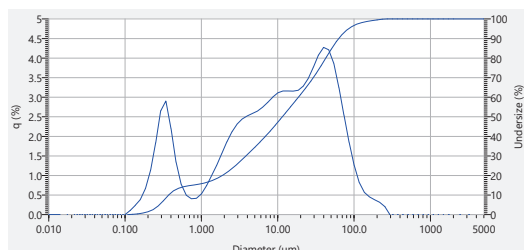
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.301	29	1.471	0.961	43	12.619	2.930	57	108.234	1.430
2	0.023	0.000	16	0.200	0.539	30	1.715	1.210	44	14.713	2.976	58	126.191	0.944
3	0.027	0.000	17	0.233	0.935	31	2.000	1.490	45	17.154	3.016	59	147.128	0.088
4	0.032	0.000	18	0.272	1.579	32	2.332	1.773	46	20.000	3.070	60	171.539	0.415
5	0.037	0.000	19	0.317	2.396	33	2.719	2.010	47	23.318	3.200	61	200.000	0.279
6	0.043	0.000	20	0.370	2.796	34	3.170	2.187	48	27.187	3.444	62	233.183	0.167
7	0.050	0.000	21	0.431	2.233	35	3.696	2.300	49	31.696	3.823	63	271.871	0.000
8	0.059	0.000	22	0.502	1.387	36	4.309	2.365	50	36.967	4.288	64	316.979	0.000
9	0.068	0.000	23	0.586	0.806	37	5.024	2.407	51	43.089	4.689	65	369.570	0.000
10	0.080	0.000	24	0.683	0.506	38	5.857	2.452	52	50.238	4.925	66	430.887	0.000
11	0.093	0.000	25	0.796	0.407	39	6.829	2.529	53	58.573	4.598	67	502.377	0.000
12	0.108	0.000	26	0.928	0.408	40	7.962	2.635	54	68.291	3.961	68	585.729	0.000
13	0.126	0.084	27	1.062	0.511	41	9.283	2.762	55	79.621	3.174	69	682.910	0.000
14	0.147	0.188	28	1.262	0.714	42	10.823	2.868	56	92.832	2.318	70	796.214	0.000

Particle Size Distribution

Attached page 25

Sample name : PACPP-3F2X
Data name : PACPP-3F2X_03
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3722 (µm) : (6)70.00 (%) - 29.2773 (µm)
: (2)20.00 (%) - 1.8843 (µm) : (7)80.00 (%) - 42.6305 (µm)
: (3)30.00 (%) - 3.8506 (µm) : (8)90.00 (%) - 63.2818 (µm)
: (4)40.00 (%) - 6.8985 (µm) : (9)95.00 (%) - 85.3906 (µm)
: (5)60.00 (%) - 18.6679 (µm) : (10)100.0 (%) - 271.6685 (µm)



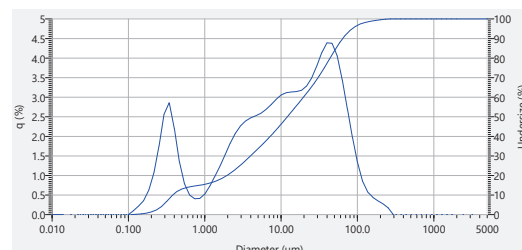
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.385	29	1.471	0.994	43	12.619	3.159	57	108.234	1.358
2	0.023	0.000	16	0.200	0.855	30	1.715	1.257	44	14.713	3.157	58	126.191	0.817
3	0.027	0.000	17	0.233	1.127	31	2.000	1.557	45	17.154	3.153	59	147.128	0.567
4	0.032	0.000	18	0.272	1.829	32	2.332	1.860	46	20.000	3.176	60	171.539	0.451
5	0.037	0.000	19	0.317	2.653	33	2.719	2.114	47	23.318	3.279	61	200.000	0.380
6	0.043	0.000	20	0.370	2.900	34	3.170	2.309	48	27.187	3.479	62	233.183	0.314
7	0.050	0.000	21	0.431	2.204	35	3.696	2.439	49	31.696	3.798	63	271.871	0.208
8	0.059	0.000	22	0.502	1.341	36	4.309	2.520	50	36.967	4.076	64	316.979	0.000
9	0.068	0.000	23	0.586	0.776	37	5.024	2.580	51	43.089	4.273	65	369.570	0.000
10	0.080	0.000	24	0.683	0.494	38	5.857	2.644	52	50.238	4.211	66	430.887	0.000
11	0.093	0.000	25	0.796	0.404	39	6.829	2.742	53	58.573	3.862	67	502.377	0.000
12	0.108	0.000	26	0.928	0.413	40	7.962	2.864	54	68.291	3.246	68	585.729	0.000
13	0.126	0.105	27	1.062	0.527	41	9.283	3.001	55	79.621	2.538	69	682.910	0.000
14	0.147	0.236	28	1.262	0.738	42	10.823	3.109	56	92.832	1.951	70	796.214	0.000

Particle Size Distribution

Attached page 26

Sample name : PACPP-3F2X
Data name : PACPP-3F2X_06
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3815 (µm) : (6)70.00 (%) - 30.5243 (µm)
: (2)20.00 (%) - 1.9824 (µm) : (7)80.00 (%) - 43.9175 (µm)
: (3)30.00 (%) - 3.9965 (µm) : (8)90.00 (%) - 64.3519 (µm)
: (4)40.00 (%) - 7.2113 (µm) : (9)95.00 (%) - 85.7953 (µm)
: (5)60.00 (%) - 19.6477 (µm) : (10)100.0 (%) - 271.6298 (µm)



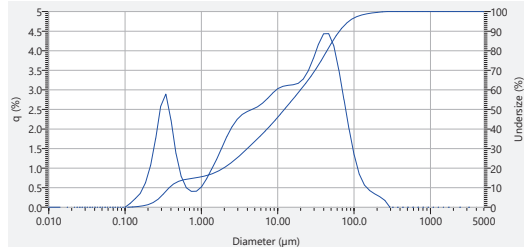
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.380	29	1.471	0.981	43	12.619	3.112	57	108.234	1.338
2	0.023	0.000	16	0.200	0.825	30	1.715	1.238	44	14.713	3.130	58	126.191	0.848
3	0.027	0.000	17	0.233	1.087	31	2.000	1.530	45	17.154	3.141	59	147.128	0.575
4	0.032	0.000	18	0.272	1.750	32	2.332	1.828	46	20.000	3.173	60	171.539	0.439
5	0.037	0.000	19	0.317	2.569	33	2.719	2.074	47	23.318	3.282	61	200.000	0.361
6	0.043	0.000	20	0.370	2.857	34	3.170	2.264	48	27.187	3.489	62	233.183	0.274
7	0.050	0.000	21	0.431	2.202	35	3.696	2.390	49	31.696	3.798	63	271.871	0.173
8	0.059	0.000	22	0.502	1.349	36	4.309	2.468	50	36.967	4.139	64	316.979	0.000
9	0.068	0.000	23	0.586	0.782	37	5.024	2.525	51	43.089	4.365	65	369.570	0.000
10	0.080	0.000	24	0.683	0.487	38	5.857	2.587	52	50.238	4.374	66	430.887	0.000
11	0.093	0.000	25	0.796	0.405	39	6.829	2.683	53	58.573	3.658	67	502.377	0.000
12	0.108	0.000	26	0.928	0.411	40	7.962	2.805	54	68.291	3.443	68	585.729	0.000
13	0.126	0.098	27	1.062	0.522	41	9.283	2.944	55	79.621	2.707	69	682.910	0.000
14	0.147	0.220	28	1.262	0.729	42	10.823	3.057	56	92.832	1.974	70	796.214	0.000

Particle Size Distribution

Attached page 27

Sample name : PACPP-3F2X
Data name : PACPP-3F2X_09
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3805 (µm) : (6)70.00 (%) - 30.8807 (µm)
: (2)20.00 (%) - 1.9542 (µm) : (7)80.00 (%) - 44.2376 (µm)
: (3)30.00 (%) - 4.0095 (µm) : (8)90.00 (%) - 64.5387 (µm)
: (4)40.00 (%) - 7.2695 (µm) : (9)95.00 (%) - 85.6789 (µm)
: (5)60.00 (%) - 19.9170 (µm) : (10)100.0 (%) - 271.6334 (µm)



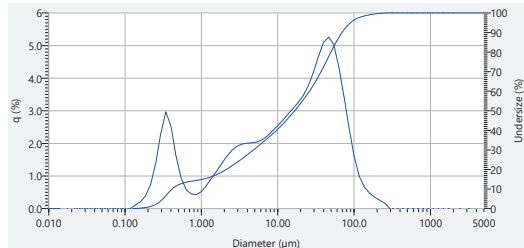
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.357	29	1.471	0.972	43	12.619	3.086	57	108.234	1.333
2	0.023	0.000	16	0.200	0.621	30	1.715	1.226	44	14.713	3.112	58	126.191	0.843
3	0.027	0.000	17	0.233	1.063	31	2.000	1.515	45	17.154	3.127	59	147.128	0.566
4	0.032	0.000	18	0.272	1.751	32	2.332	1.868	46	20.000	3.163	60	171.539	0.428
5	0.037	0.000	19	0.317	2.592	33	2.719	2.055	47	23.318	3.274	61	200.000	0.342
6	0.043	0.000	20	0.370	3.689	34	3.170	2.243	48	27.187	3.486	62	233.183	0.271
7	0.050	0.000	21	0.431	2.234	35	3.696	2.368	49	31.696	3.852	63	271.871	0.175
8	0.059	0.000	22	0.502	1.387	36	4.309	2.446	50	36.957	4.163	64	316.979	0.000
9	0.068	0.000	23	0.586	0.790	37	5.024	2.502	51	43.089	4.430	65	369.570	0.000
10	0.080	0.000	24	0.683	0.498	38	5.857	2.592	52	50.238	4.436	66	430.887	0.000
11	0.093	0.000	25	0.796	0.404	39	6.829	2.657	53	58.573	4.124	67	502.377	0.000
12	0.108	0.000	26	0.928	0.406	40	7.962	2.719	54	68.291	3.500	68	585.729	0.000
13	0.126	0.097	27	1.062	0.517	41	9.283	2.918	55	79.621	2.748	69	682.910	0.000
14	0.147	0.218	28	1.262	0.722	42	10.823	3.031	56	92.832	1.996	70	796.214	0.000

Particle Size Distribution

Attached page 29

Sample name : PACPP-3G2
Data name : PACPP-3G2_06
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4159 (µm) : (6)70.00 (%) - 37.0669 (µm)
: (2)20.00 (%) - 2.1464 (µm) : (7)80.00 (%) - 49.8698 (µm)
: (3)30.00 (%) - 4.8116 (µm) : (8)90.00 (%) - 69.4959 (µm)
: (4)40.00 (%) - 9.6557 (µm) : (9)95.00 (%) - 89.8771 (µm)
: (5)60.00 (%) - 26.0329 (µm) : (10)100.0 (%) - 271.6117 (µm)



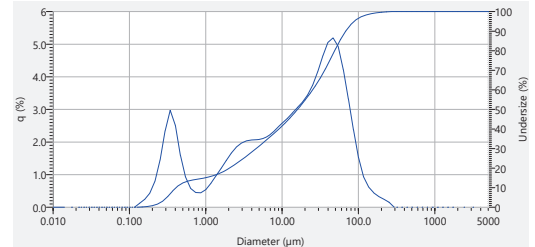
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.206	29	1.471	0.935	43	12.619	2.711	57	108.234	1.594
2	0.023	0.000	16	0.200	0.353	30	1.715	1.151	44	14.713	2.897	58	126.191	0.988
3	0.027	0.000	17	0.233	0.734	31	2.000	1.382	45	17.154	3.078	59	147.128	0.660
4	0.032	0.000	18	0.272	1.374	32	2.332	1.658	46	20.000	3.252	60	171.539	0.469
5	0.037	0.000	19	0.317	2.295	33	2.719	1.789	47	23.318	3.468	61	200.000	0.349
6	0.043	0.000	20	0.370	2.964	34	3.170	1.912	48	27.187	3.762	62	233.183	0.259
7	0.050	0.000	21	0.431	2.527	35	3.696	1.978	49	31.696	4.174	63	271.871	0.161
8	0.059	0.000	22	0.502	1.803	36	4.309	2.004	50	36.957	4.664	64	316.979	0.000
9	0.068	0.000	23	0.586	0.930	37	5.024	2.017	51	43.089	5.003	65	369.570	0.000
10	0.080	0.000	24	0.683	0.572	38	5.857	2.044	52	50.238	5.257	66	430.887	0.000
11	0.093	0.000	25	0.796	0.446	39	6.829	2.115	53	58.573	5.023	67	502.377	0.000
12	0.108	0.000	26	0.928	0.430	40	7.962	2.232	54	68.291	4.330	68	585.729	0.000
13	0.126	0.000	27	1.062	0.520	41	9.283	2.360	55	79.621	3.440	69	682.910	0.000
14	0.147	0.102	28	1.262	0.710	42	10.823	2.549	56	92.832	2.473	70	796.214	0.000

Particle Size Distribution

Attached page 28

Sample name : PACPP-3G2
Data name : PACPP-3G2_03
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4094 (µm) : (6)70.00 (%) - 36.1310 (µm)
: (2)20.00 (%) - 2.0650 (µm) : (7)80.00 (%) - 48.8815 (µm)
: (3)30.00 (%) - 4.5682 (µm) : (8)90.00 (%) - 68.0884 (µm)
: (4)40.00 (%) - 9.1439 (µm) : (9)95.00 (%) - 88.2303 (µm)
: (5)60.00 (%) - 25.1540 (µm) : (10)100.0 (%) - 271.5961 (µm)



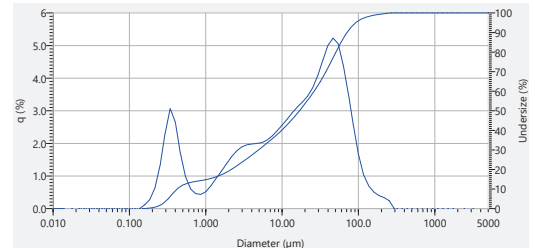
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.241	29	1.471	0.963	43	12.619	2.721	57	108.234	1.518
2	0.023	0.000	16	0.200	0.431	30	1.715	1.186	44	14.713	2.891	58	126.191	0.929
3	0.027	0.000	17	0.233	0.782	31	2.000	1.425	45	17.154	3.059	59	147.128	0.614
4	0.032	0.000	18	0.272	1.433	32	2.332	1.658	46	20.000	3.227	60	171.539	0.435
5	0.037	0.000	19	0.317	2.338	33	2.719	1.841	47	23.318	3.442	61	200.000	0.324
6	0.043	0.000	20	0.370	2.989	34	3.170	1.967	48	27.187	3.739	62	233.183	0.242
7	0.050	0.000	21	0.431	2.510	35	3.696	2.033	49	31.696	4.152	63	271.871	0.152
8	0.059	0.000	22	0.502	1.591	36	4.309	2.058	50	36.957	4.638	64	316.979	0.000
9	0.068	0.000	23	0.586	0.926	37	5.024	2.070	51	43.089	5.051	65	369.570	0.000
10	0.080	0.000	24	0.683	0.573	38	5.857	2.094	52	50.238	5.191	66	430.887	0.000
11	0.093	0.000	25	0.796	0.451	39	6.829	2.162	53	58.573	4.932	67	502.377	0.000
12	0.108	0.000	26	0.928	0.439	40	7.962	2.215	54	68.291	4.225	68	585.729	0.000
13	0.126	0.000	27	1.062	0.534	41	9.283	2.427	55	79.621	3.329	69	682.910	0.000
14	0.147	0.121	28	1.262	0.731	42	10.823	2.578	56	92.832	2.376	70	796.214	0.000

Particle Size Distribution

Attached page 30

Sample name : PACPP-3G2
Data name : PACPP-3G2_09
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4222 (µm) : (6)70.00 (%) - 37.6361 (µm)
: (2)20.00 (%) - 2.1784 (µm) : (7)80.00 (%) - 50.7864 (µm)
: (3)30.00 (%) - 4.9232 (µm) : (8)90.00 (%) - 71.0568 (µm)
: (4)40.00 (%) - 9.8651 (µm) : (9)95.00 (%) - 91.9929 (µm)
: (5)60.00 (%) - 26.3187 (µm) : (10)100.0 (%) - 271.6985 (µm)

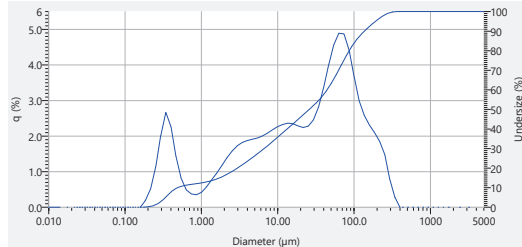


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.114	29	1.471	0.930	43	12.619	2.746	57	108.234	1.646
2	0.023	0.000	16	0.200	0.281	30	1.715	1.130	44	14.713	2.945	58	126.191	1.020
3	0.027	0.000	17	0.233	0.633	31	2.000	1.355	45	17.154	3.121	59	147.128	0.892
4	0.032	0.000	18	0.272	1.311	32	2.332	1.578	46	20.000	3.273	60	171.539	0.504
5	0.037	0.000	19	0.317	2.308	33	2.719	1.757	47	23.318	3.449	61	200.000	0.389
6	0.043	0.000	20	0.370	3.062	34	3.170	1.883	48	27.187	3.761	62	233.183	0.337
7	0.050	0.000	21	0.431	2.644	35	3.696	1.951	49	31.696	4.075	63	271.871	0.242
8	0.059	0.000	22	0.502	1.886	36	4.309	1.979	50	36.957	4.549	64	316.979	0.000
9	0.068	0.000	23	0.586	0.979	37	5.024	1.993	51	43.089	5.003	65	369.570	0.000
10	0.080	0.000	24	0.683	0.596	38	5.857	2.021	52	50.238	5.225	66	430.887	0.000
11	0.093	0.000	25	0.796	0.459	39	6.829	2.096	53	58.573	5.062	67	502.377	0.000
12	0.108	0.000	26	0.928	0.433	40	7.962	2.219	54	68.291	4.402	68	585.729	0.000
13	0.126	0.000	27	1.062	0.515	41	9.283	2.386	55	79.621	3.522	69	682.910	0.000
14	0.147	0.000	28	1.262	0.699	42	10.823	2.582	56	92.832	2.540	70	796.214	0.000

Particle Size Distribution

Attached page 31

Sample name : PACPP-4C2X Mean size : 50.65184 (µm)
Data name : PACPP-4C2X_03 Di(v,0.1) : 0.49278 (µm)
Lot number : T43779.27 Di(v,0.5) : 26.00947 (µm)
Transmittance (R) : 86.0 (%) Di(v,0.9) : 136.72414 (µm)
Distribution base : Volume Span : 5.2378
Refractive index (R) : Standard Wet Mode size : 63.5485 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.4928 (µm) : (6)70.00 (%) - 62.6796 (µm)
: (2)20.00 (%) - 2.9643 (µm) : (7)80.00 (%) - 86.5470 (µm)
: (3)30.00 (%) - 6.6149 (µm) : (8)90.00 (%) - 136.7240 (µm)
: (4)40.00 (%) - 13.3333 (µm) : (9)95.00 (%) - 191.0309 (µm)
: (5)60.00 (%) - 44.3004 (µm) : (10)100.00 (%) - 369.3626 (µm)

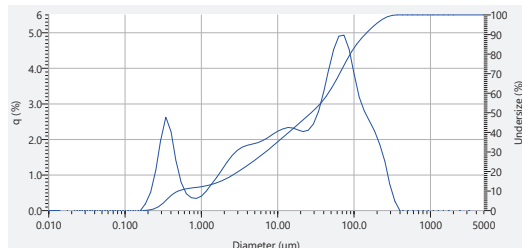


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.767	43	12.619	2.332	57	108.234	3.862
2	0.023	0.000	16	0.200	0.195	30	1.715	0.957	44	14.713	2.362	58	126.191	2.977
3	0.027	0.000	17	0.233	0.511	31	2.000	1.167	45	17.154	2.543	59	147.128	2.572
4	0.032	0.000	18	0.272	1.122	32	2.332	1.386	46	20.000	2.284	60	171.539	2.306
5	0.037	0.000	19	0.317	2.010	33	2.719	1.575	47	23.318	2.237	61	200.000	2.000
6	0.043	0.000	20	0.370	2.689	34	3.170	1.722	48	27.187	2.279	62	233.183	1.847
7	0.050	0.000	21	0.431	2.264	35	3.696	1.819	49	31.696	2.454	63	271.871	1.480
8	0.059	0.000	22	0.502	1.419	36	4.309	1.874	50	36.967	2.808	64	316.979	0.775
9	0.068	0.000	23	0.586	0.810	37	5.024	1.908	51	43.089	3.358	65	369.570	0.273
10	0.080	0.000	24	0.683	0.487	38	5.857	1.943	52	50.238	4.000	66	430.887	0.000
11	0.093	0.000	25	0.796	0.371	39	6.829	2.002	53	58.573	4.584	67	502.377	0.000
12	0.108	0.000	26	0.928	0.348	40	7.962	2.063	54	68.291	4.890	68	585.729	0.000
13	0.126	0.000	27	1.062	0.414	41	9.283	2.180	55	79.621	4.869	69	682.910	0.000
14	0.147	0.000	28	1.262	0.571	42	10.823	2.265	56	92.832	4.417	70	796.214	0.000

Particle Size Distribution

Attached page 33

Sample name : PACPP-4C2X Mean size : 51.62029 (µm)
Data name : PACPP-4C2X_09 Di(v,0.1) : 0.50011 (µm)
Lot number : T43779.27 Di(v,0.5) : 27.50603 (µm)
Transmittance (R) : 85.9 (%) Di(v,0.9) : 139.17076 (µm)
Distribution base : Volume Span : 5.0415
Refractive index (R) : Standard Wet Mode size : 73.3210 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.5001 (µm) : (6)70.00 (%) - 64.6657 (µm)
: (2)20.00 (%) - 3.0668 (µm) : (7)80.00 (%) - 89.1192 (µm)
: (3)30.00 (%) - 6.9782 (µm) : (8)90.00 (%) - 139.1708 (µm)
: (4)40.00 (%) - 13.9991 (µm) : (9)95.00 (%) - 189.8594 (µm)
: (5)60.00 (%) - 45.9424 (µm) : (10)100.00 (%) - 369.3498 (µm)

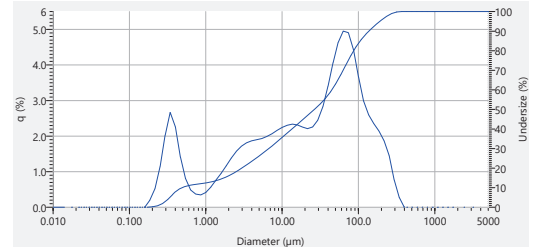


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.747	43	12.619	2.296	57	108.234	3.832
2	0.023	0.000	16	0.200	0.194	30	1.715	0.933	44	14.713	2.333	58	126.191	3.180
3	0.027	0.000	17	0.233	0.509	31	2.000	1.139	45	17.154	2.319	59	147.128	2.794
4	0.032	0.000	18	0.272	1.114	32	2.332	1.354	46	20.000	2.263	60	171.539	2.512
5	0.037	0.000	19	0.317	1.990	33	2.719	1.541	47	23.318	2.219	61	200.000	2.233
6	0.043	0.000	20	0.370	2.622	34	3.170	1.685	48	27.187	2.289	62	233.183	1.863
7	0.050	0.000	21	0.431	2.224	35	3.696	1.780	49	31.696	2.433	63	271.871	1.383
8	0.059	0.000	22	0.502	1.389	36	4.309	1.835	50	36.967	2.779	64	316.979	0.730
9	0.068	0.000	23	0.586	0.790	37	5.024	1.869	51	43.089	3.320	65	369.570	0.267
10	0.080	0.000	24	0.683	0.474	38	5.857	1.903	52	50.238	3.959	66	430.887	0.000
11	0.093	0.000	25	0.796	0.361	39	6.829	1.963	53	58.573	4.536	67	502.377	0.000
12	0.108	0.000	26	0.928	0.338	40	7.962	2.044	54	68.291	4.891	68	585.729	0.000
13	0.126	0.000	27	1.062	0.404	41	9.283	2.142	55	79.621	4.909	69	682.910	0.000
14	0.147	0.000	28	1.262	0.556	42	10.823	2.229	56	92.832	4.536	70	796.214	0.000

Particle Size Distribution

Attached page 32

Sample name : PACPP-4C2X Mean size : 50.86603 (µm)
Data name : PACPP-4C2X_06 Di(v,0.1) : 0.49222 (µm)
Lot number : T43779.27 Di(v,0.5) : 26.61777 (µm)
Transmittance (R) : 86.2 (%) Di(v,0.9) : 137.32993 (µm)
Distribution base : Volume Span : 5.1408
Refractive index (R) : Standard Wet Mode size : 63.5196 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.4922 (µm) : (6)70.00 (%) - 63.0033 (µm)
: (2)20.00 (%) - 2.9781 (µm) : (7)80.00 (%) - 86.8138 (µm)
: (3)30.00 (%) - 6.7321 (µm) : (8)90.00 (%) - 137.3300 (µm)
: (4)40.00 (%) - 13.5183 (µm) : (9)95.00 (%) - 190.9266 (µm)
: (5)60.00 (%) - 44.8059 (µm) : (10)100.00 (%) - 369.3591 (µm)

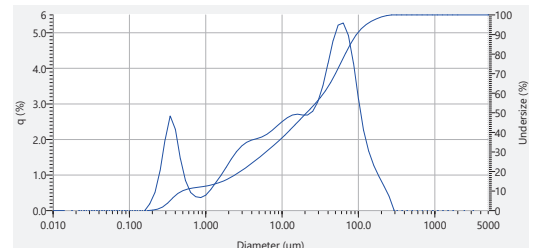


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.761	43	12.619	2.302	57	108.234	3.861
2	0.023	0.000	16	0.200	0.196	30	1.715	0.950	44	14.713	2.333	58	126.191	2.977
3	0.027	0.000	17	0.233	0.514	31	2.000	1.160	45	17.154	2.519	59	147.128	2.589
4	0.032	0.000	18	0.272	1.127	32	2.332	1.379	46	20.000	2.251	60	171.539	2.345
5	0.037	0.000	19	0.317	2.016	33	2.719	1.569	47	23.318	2.266	61	200.000	2.140
6	0.043	0.000	20	0.370	2.682	34	3.170	1.715	48	27.187	2.269	62	233.183	1.868
7	0.050	0.000	21	0.431	2.281	35	3.696	1.811	49	31.696	2.444	63	271.871	1.459
8	0.059	0.000	22	0.502	1.412	36	4.309	1.865	50	36.967	2.819	64	316.979	0.762
9	0.068	0.000	23	0.586	0.804	37	5.024	1.897	51	43.089	3.394	65	369.570	0.269
10	0.080	0.000	24	0.683	0.483	38	5.857	1.930	52	50.238	4.055	66	430.887	0.000
11	0.093	0.000	25	0.796	0.367	39	6.829	1.987	53	58.573	4.628	67	502.377	0.000
12	0.108	0.000	26	0.928	0.344	40	7.962	2.065	54	68.291	4.947	68	585.729	0.000
13	0.126	0.000	27	1.062	0.411	41	9.283	2.159	55	79.621	4.906	69	682.910	0.000
14	0.147	0.000	28	1.262	0.566	42	10.823	2.242	56	92.832	4.432	70	796.214	0.000

Particle Size Distribution

Attached page 34

Sample name : PACPP-4CP2X Mean size : 37.83540 (µm)
Data name : PACPP-4CP2X_03 Di(v,0.1) : 0.49221 (µm)
Lot number : T43779.27 Di(v,0.5) : 20.95803 (µm)
Transmittance (R) : 87.0 (%) Di(v,0.9) : 94.41931 (µm)
Distribution base : Volume Span : 4.4817
Refractive index (R) : Standard Wet Mode size : 62.9836 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10
Diameter on cumulative % : (1)10.00 (%) - 0.4922 (µm) : (6)70.00 (%) - 50.0857 (µm)
: (2)20.00 (%) - 2.8549 (µm) : (7)80.00 (%) - 67.1542 (µm)
: (3)30.00 (%) - 6.1947 (µm) : (8)90.00 (%) - 94.4193 (µm)
: (4)40.00 (%) - 11.8263 (µm) : (9)95.00 (%) - 125.9398 (µm)
: (5)60.00 (%) - 35.0561 (µm) : (10)100.00 (%) - 271.7660 (µm)



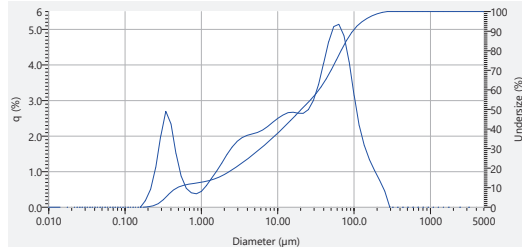
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.785	43	12.619	2.606	57	108.234	3.130
2	0.023	0.000	16	0.200	0.193	30	1.715	0.993	44	14.713	2.685	58	126.191	2.245
3	0.027	0.000	17	0.233	0.504	31	2.000	1.215	45	17.154	2.708	59	147.128	1.867
4	0.032	0.000	18	0.272	1.108	32	2.332	1.449	46	20.000	2.686	60	171.539	1.264
5	0.037	0.000	19	0.317	1.982	33	2.719	1.652	47	23.318	2.686	61	200.000	0.968
6	0.043	0.000	20	0.370	2.655	34	3.170	1.810	48	27.187	2.788	62	233.183	0.685
7	0.050	0.000	21	0.431	2.288	35	3.696	1.916	49	31.696	3.049	63	271.871	0.397
8	0.059	0.000	22	0.502	1.454	36	4.309	1.979	50	36.967	3.501	64	316.979	0.000
9	0.068	0.000	23	0.586	0.840	37	5.024	2.022	51	43.089	4.125	65	369.570	0.000
10	0.080	0.000	24	0.683	0.509	38	5.857	2.067	52	50.238	4.765	66	430.887	0.000
11	0.093	0.000	25	0.796	0.388	39	6.829	2.165	53	58.573	5.211	67	502.377	0.000
12	0.108	0.000	26	0.928	0.364	40	7.962	2.250	54	68.291	5.271	68	585.729	0.000
13	0.126	0.000	27	1.062	0.432	41	9.283	2.380	55	79.621	4.908	69	682.910	0.000
14	0.147	0.000	28	1.262	0.594	42	10.823	2.503	56	92.832	4.152	70	796.214	0.000

Particle Size Distribution

Attached page 35

Sample name : PACPP-4CP2X
Data name : PACPP-4CP2X_06
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4857 (µm) : (6)70.00 (%) - 49.9732 (µm)
: (2)20.00 (%) - 2.7621 (µm) : (7)80.00 (%) - 67.5356 (µm)
: (3)30.00 (%) - 5.9460 (µm) : (8)90.00 (%) - 96.1274 (µm)
: (4)40.00 (%) - 11.4152 (µm) : (9)95.00 (%) - 129.5139 (µm)
: (5)60.00 (%) - 34.6128 (µm) : (10)100.0 (%) - 271.7774 (µm)



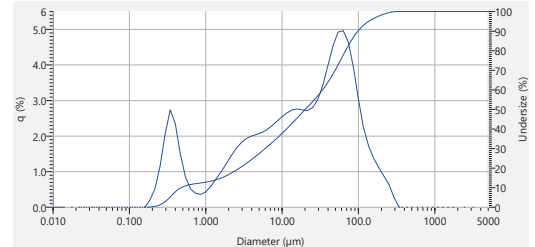
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.814	43	12.619	2.586	57	108.234	3.132	71	928.316	0.000
2	0.023	0.000	16	0.200	0.190	30	1.715	1.015	44	14.713	2.655	58	126.191	2.287	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.499	31	2.000	1.241	45	17.154	2.668	59	147.128	1.730	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.103	32	2.332	1.479	46	20.000	2.641	60	171.539	1.335	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.090	33	2.719	1.686	47	23.318	2.638	61	200.000	1.000	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.891	34	3.170	1.848	48	27.187	2.739	62	233.183	0.762	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.343	35	3.696	1.956	49	31.696	2.897	63	271.871	0.446	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.503	36	4.309	2.018	50	36.967	3.439	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.875	37	5.024	2.058	51	43.089	4.041	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.532	38	5.857	2.098	52	50.238	4.651	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.405	39	6.829	2.168	53	58.573	5.075	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.377	40	7.962	2.265	54	68.291	5.138	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.446	41	9.283	2.385	55	79.621	4.819	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.609	42	10.823	2.497	56	92.832	4.087	70	796.214	0.000			

Particle Size Distribution

Attached page 36

Sample name : PACPP-4CP2X
Data name : PACPP-4CP2X_09
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4791 (µm) : (6)70.00 (%) - 49.5727 (µm)
: (2)20.00 (%) - 2.7901 (µm) : (7)80.00 (%) - 67.7693 (µm)
: (3)30.00 (%) - 6.0306 (µm) : (8)90.00 (%) - 98.4540 (µm)
: (4)40.00 (%) - 11.4522 (µm) : (9)95.00 (%) - 137.1731 (µm)
: (5)60.00 (%) - 33.9808 (µm) : (10)100.0 (%) - 316.7885 (µm)



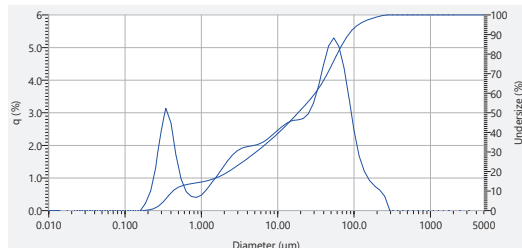
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.793	43	12.619	2.656	57	108.234	3.011	71	928.316	0.000
2	0.023	0.000	16	0.200	0.197	30	1.715	0.992	44	14.713	2.738	58	126.191	2.216	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.517	31	2.000	1.216	45	17.154	2.758	59	147.128	1.711	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.139	32	2.332	1.453	46	20.000	2.731	60	171.539	1.364	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.061	33	2.719	1.659	47	23.318	2.717	61	200.000	1.105	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.731	34	3.170	1.822	48	27.187	2.799	62	233.183	0.864	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.344	35	3.696	1.932	49	31.696	3.026	63	271.871	0.631	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.479	36	4.309	1.999	50	36.967	3.426	64	316.979	0.255			
9	0.068	0.000	23	0.586	0.847	37	5.024	2.046	51	43.089	3.860	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.503	38	5.857	2.095	52	50.238	4.540	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.396	39	6.829	2.177	53	58.573	4.922	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.361	40	7.962	2.268	54	68.291	4.960	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.429	41	9.283	2.422	55	79.621	4.633	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.590	42	10.823	2.549	56	92.832	3.931	70	796.214	0.000			

Particle Size Distribution

Attached page 37

Sample name : PACPP-4D2X
Data name : PACPP-4D2X_03
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4240 (µm) : (6)70.00 (%) - 44.7147 (µm)
: (2)20.00 (%) - 2.3035 (µm) : (7)80.00 (%) - 60.1593 (µm)
: (3)30.00 (%) - 5.2197 (µm) : (8)90.00 (%) - 84.9915 (µm)
: (4)40.00 (%) - 10.4308 (µm) : (9)95.00 (%) - 114.3666 (µm)
: (5)60.00 (%) - 30.9680 (µm) : (10)100.0 (%) - 271.7743 (µm)



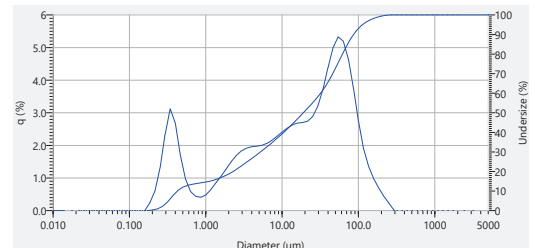
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.880	43	12.619	2.592	57	108.234	2.429	71	928.316	0.000
2	0.023	0.000	16	0.200	0.225	30	1.715	1.050	44	14.713	2.702	58	126.191	1.857	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.590	31	2.000	1.269	45	17.154	2.762	59	147.128	1.199	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.301	32	2.332	1.495	46	20.000	2.780	60	171.539	0.823	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.350	33	2.719	1.696	47	23.318	2.820	61	200.000	0.754	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.132	34	3.170	1.828	48	27.187	2.965	62	233.183	0.632	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.694	35	3.696	1.916	49	31.696	3.284	63	271.871	0.431	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.887	36	4.309	1.961	50	36.967	3.809	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.962	37	5.024	1.987	51	43.089	4.474	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.575	38	5.857	2.020	52	50.238	5.050	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.434	39	6.829	2.089	53	58.573	5.293	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.402	40	7.962	2.194	54	68.291	5.032	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.473	41	9.283	2.330	55	79.621	4.363	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.641	42	10.823	2.465	56	92.832	3.437	70	796.214	0.000			

Particle Size Distribution

Attached page 38

Sample name : PACPP-4D2X
Data name : PACPP-4D2X_06
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4244 (µm) : (6)70.00 (%) - 46.0714 (µm)
: (2)20.00 (%) - 2.2980 (µm) : (7)80.00 (%) - 61.8788 (µm)
: (3)30.00 (%) - 5.2179 (µm) : (8)90.00 (%) - 86.4369 (µm)
: (4)40.00 (%) - 10.5449 (µm) : (9)95.00 (%) - 112.9450 (µm)
: (5)60.00 (%) - 32.0375 (µm) : (10)100.0 (%) - 271.6781 (µm)

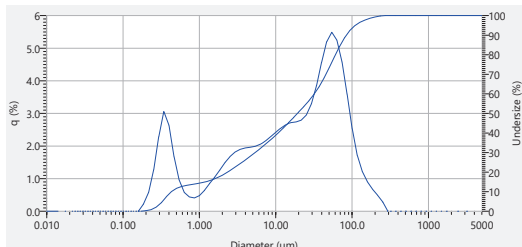


No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.854	43	12.619	2.523	57	108.234	2.728	71	928.316	0.000
2	0.023	0.000	16	0.200	0.235	30	1.715	1.054	44	14.713	2.625	58	126.191	1.886	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.596	31	2.000	1.274	45	17.154	2.681	59	147.128	1.344	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.300	32	2.332	1.500	46	20.000	2.697	60	171.539	0.967	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.338	33	2.719	1.690	47	23.318	2.737	61	200.000	0.681	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.117	34	3.170	1.830	48	27.187	2.889	62	233.183	0.429	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.677	35	3.696	1.914	49	31.696	3.192	63	271.871	0.216	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.889	36	4.309	1.954	50	36.967	3.706	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.965	37	5.024	1.974	51	43.089	4.374	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.578	38	5.857	2.000	52	50.238	4.992	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.437	39	6.829	2.060	53	58.573	5.237	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.406	40	7.962	2.156	54	68.291	5.193	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.477	41	9.283	2.281	55	79.621	4.653	69	682.910	0.000			
14	0.148	0.000	28	1.262	0.646	42	10.823	2.406	56	92.832	3.760	70	924.316	0.000			

Particle Size Distribution

Attached page 39

Sample name : PACPP-4D2X Mean size : 34.14843 (µm)
 Data name : PACPP-4D2X_09 D(v,0.1) : 0.43022 (µm)
 Lot number : T43779.27 D(v,0.5) : 19.25172 (µm)
 Transmittance (R) : 87.0 (%) D(v,0.9) : 84.46849 (µm)
 Distribution base : Volume Span : 4.3652
 Refractive index (R) : Standard Wet Mode size : 54.2820 (µm)
 [Standard wet (1.530 - 0.100), water (1.333)]
 Dispersion : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
 Circulate speed : 12
 Agitation : 10
 Diameter on cumulative % : (1)10.00 (%) - 0.4302 (µm) : (6)70.00 (%) - 45.5643 (µm)
 : (2)20.00 (%) - 2.3884 (µm) : (7)80.00 (%) - 60.6840 (µm)
 : (3)30.00 (%) - 5.3803 (µm) : (8)90.00 (%) - 84.4685 (µm)
 : (4)40.00 (%) - 10.8077 (µm) : (9)95.00 (%) - 110.7626 (µm)
 : (5)60.00 (%) - 32.0777 (µm) : (10)100.00 (%) - 271.7220 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.848	43	12.619	2.546	57	108.234	2.532	71	928.318	0.000
2	0.023	0.000	16	0.200	0.220	30	1.715	1.046	44	14.713	2.655	58	126.191	1.713	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.573	31	2.000	1.263	45	17.154	2.717	59	147.128	1.215	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.263	32	2.332	1.486	46	20.000	2.739	60	171.539	0.895	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.283	33	2.719	1.673	47	23.318	2.788	61	200.000	0.673	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.084	34	3.170	1.812	48	27.187	2.946	62	233.183	0.483	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.633	35	3.696	1.897	49	31.698	3.287	63	271.871	0.280	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.989	36	4.309	1.938	50	36.957	3.847	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.959	37	5.024	1.961	51	43.089	4.561	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.577	38	5.857	1.990	52	50.238	5.195	66	430.887	0.000			
11	0.093	0.000	25	0.795	0.436	39	6.829	2.055	53	58.573	5.486	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.405	40	7.962	2.157	54	68.291	5.240	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.475	41	9.283	2.289	55	79.621	4.583	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.642	42	10.823	2.421	56	92.832	3.954	70	796.214	0.000			

MTEC0868/68_8

Report of Samples Analysis

Issued Date : 22 July 2025
Customer : Tetra Tech Inc.
 77 Soi Udomsuk 39/1, Sukhumvit 103 Road, Bangchak, Phrakhanong, Bangkok 10260
 Tel : 0 2361 3767 Fax : 0 2361 3768
Served by : Physical Analysis Section,
 Technical Support for Material Analysis Division, MTEC
Date received : 13 May 2025
Date analyzed : 27 May – 22 July 2025
Samples : Seabed Sediment Project No. T43779.27 (11 samples)
Identification no. : See sample detail.
Objective : Particle size and size distribution analysis.
Instrument : LA-960V2, HORIBA Instruments Incorporated.
Test method : Laser diffraction technique.
Conditions : Red light source : Laser Diode (LD), λ : 650 nm.
 Blue light source : Light Emitting Diode (LED), λ : 405 nm.
 Particle size range analysis : 0.01 – 5,000 µm.
 Dispersion unit : LA-960S2
 Dispersing medium : De-ionized water.
 Sample refractive index : 1.5300 (as default standard wet)
Sample preparation : 1. Prepare the instrument for wet analysis. Circulation speed should be set at 12 and agitation speed set at 10.
 2. 0.05 – 0.1 g. of sample was dispersed in 40 ml of de-ionized water and ultrasound 10 minutes with ultrasonic bath before measurement.
 3. Add the dispersed sample into LA-960S2 unit and measure the dispersed sample with LA-960V2.

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1/3

Samples detail :

Sample No.	Sample Name	Sample No.	Sample Name
1	PAWB-1C2	7	PAWB-3C2
2	PAWB-1CP2	8	PAWB-3CP2
3	PAWB-1D2	9	PAWB-3D2
4	PAWB-2B1X	10	PAWB-4B2X
5	PAWB-2C2	11	PAWB-4C2
6	PAWB-3B2		

Technical Terms : **Transmittance (R)** : value at particle come transmittance to red light source (percent), ranging from 99-70%.
Transmittance (B) : value at particle come transmittance to blue light source (percent), ranging from 99-70%.
Mean size : mean diameter value by volume.
D [v, 0.1] : 10 volume percent less than or equal to a given diameter.
D [v, 0.5] : 50 volume percent less than or equal to a given diameter, median diameter.
D [v, 0.9] : 90 volume percent less than or equal to a given diameter.
Span : the width of the distribution, which is independent of median size (D [v, 0.5]).

Results :

MTEC received samples from Tetra Tech Inc. Laser diffraction technique is used in order to analyze the particle size and size distribution by wet analysis.
 The results of the particle size and size distribution of samples are shown in the attachments No.1 – 33.

- Note** : 1. The specific surface area is inapplicable unless the density of a sample is known.
 2. The results of particle size distribution are dispersion particle only.
 3. Some particle of sample are vary size and size over range of instrument.

Interpretation/Opinion : None

Attached pages :

The attachment number	Detail
1 – 3	HORIBA LA960V2 results of PAWB-1C2
4 – 6	HORIBA LA960V2 results of PAWB-1CP2
7 – 9	HORIBA LA960V2 results of PAWB-1D2
10 – 12	HORIBA LA960V2 results of PAWB-2B1X
13 – 15	HORIBA LA960V2 results of PAWB-2C2
16 – 18	HORIBA LA960V2 results of PAWB-3B2
19 – 21	HORIBA LA960V2 results of PAWB-3C2
22 – 24	HORIBA LA960V2 results of PAWB-3CP2
25 – 27	HORIBA LA960V2 results of PAWB-3D2
28 – 30	HORIBA LA960V2 results of PAWB-4B2X
31 – 33	HORIBA LA960V2 results of PAWB-4C2

Work performed by :

(Mr.Kriangkai Supanpong)

Approved by :

(Ms.Suphakan Kijamnajuk)

Remarks

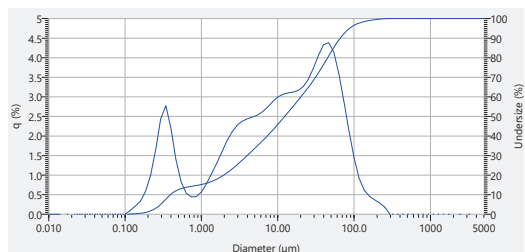
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- MTEC will not accept liability for any damage whatsoever, resulting directly or indirectly, from using the data, results, conclusions or recommendations in this report for the purposes of designing, manufacturing or for other purposes.
- Experimental results are only valid for the specimens tested.

Particle Size Distribution

Attached page 1

Sample name : PAWB-1C2
Data name : PAWB-1C2_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3951 (µm) : (6)70.00 (%) - 31.3269 (µm)
: (2)20.00 (%) - 1.9780 (µm) : (7)80.00 (%) - 45.1336 (µm)
: (3)30.00 (%) - 4.0012 (µm) : (8)90.00 (%) - 66.0332 (µm)
: (4)40.00 (%) - 7.3035 (µm) : (9)95.00 (%) - 87.7809 (µm)
: (5)60.00 (%) - 20.1409 (µm) : (10)100.0 (%) - 271.6399 (µm)



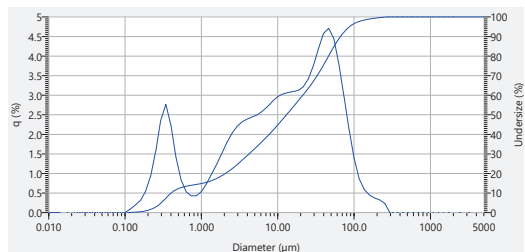
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.332	29	1.471	1.038	43	12.619	3.065	57	108.234	1.428	71	928.318	0.000
2	0.023	0.000	16	0.200	0.577	30	1.715	1.296	44	14.713	3.058	58	126.191	0.905	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.991	31	2.000	1.583	45	17.154	3.121	59	147.128	0.607	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.640	32	2.332	1.868	46	20.000	3.159	60	171.539	0.458	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.441	33	2.719	2.100	47	23.318	3.259	61	200.000	0.366	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.771	34	3.170	2.270	48	27.187	3.447	62	233.183	0.287	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.191	35	3.696	2.377	49	31.696	3.729	63	271.871	0.180	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.380	36	4.309	2.437	50	36.967	4.061	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.823	37	5.024	2.479	51	43.089	4.330	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.534	38	5.857	2.530	52	50.238	4.362	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.440	39	6.829	2.618	53	58.573	4.142	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.449	40	7.962	2.737	54	68.291	3.565	68	585.729	0.000			
13	0.126	0.091	27	1.062	0.585	41	9.283	2.876	55	79.621	2.870	69	682.910	0.000			
14	0.147	0.203	28	1.262	0.781	42	10.823	2.995	56	92.832	2.116	70	796.214	0.000			

Particle Size Distribution

Attached page 3

Sample name : PAWB-1C2
Data name : PAWB-1C2_09
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4039 (µm) : (6)70.00 (%) - 32.8732 (µm)
: (2)20.00 (%) - 2.0796 (µm) : (7)80.00 (%) - 46.3344 (µm)
: (3)30.00 (%) - 4.2361 (µm) : (8)90.00 (%) - 66.3306 (µm)
: (4)40.00 (%) - 7.7350 (µm) : (9)95.00 (%) - 87.5559 (µm)
: (5)60.00 (%) - 21.3532 (µm) : (10)100.0 (%) - 271.6915 (µm)



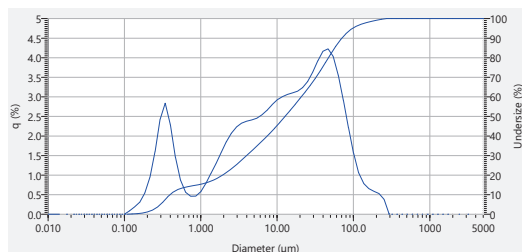
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.307	29	1.471	0.984	43	12.619	3.039	57	108.234	1.363	71	928.318	0.000
2	0.023	0.000	16	0.200	0.534	30	1.715	1.232	44	14.713	3.057	58	126.191	0.858	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.924	31	2.000	1.509	45	17.154	3.090	59	147.128	0.579	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.553	32	2.332	1.788	46	20.000	3.119	60	171.539	0.445	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.358	33	2.719	2.023	47	23.318	3.211	61	200.000	0.371	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.763	34	3.170	2.201	48	27.187	3.414	62	233.183	0.324	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.226	35	3.696	2.318	49	31.696	3.752	63	271.871	0.232	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.403	36	4.309	2.390	50	36.967	4.189	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.828	37	5.024	2.442	51	43.089	4.579	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.527	38	5.857	2.500	52	50.238	4.754	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.427	39	6.829	2.592	53	58.573	4.448	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.428	40	7.962	2.712	54	68.291	3.750	68	585.729	0.000			
13	0.126	0.084	27	1.062	0.533	41	9.283	2.851	55	79.621	2.968	69	682.910	0.000			
14	0.147	0.188	28	1.262	0.737	42	10.823	2.964	56	92.832	2.121	70	796.214	0.000			

Particle Size Distribution

Attached page 2

Sample name : PAWB-1C2
Data name : PAWB-1C2_06
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3976 (µm) : (6)70.00 (%) - 32.3954 (µm)
: (2)20.00 (%) - 1.9467 (µm) : (7)80.00 (%) - 47.1462 (µm)
: (3)30.00 (%) - 4.0095 (µm) : (8)90.00 (%) - 70.7393 (µm)
: (4)40.00 (%) - 7.4428 (µm) : (9)95.00 (%) - 97.9039 (µm)
: (5)60.00 (%) - 20.7832 (µm) : (10)100.0 (%) - 271.7600 (µm)



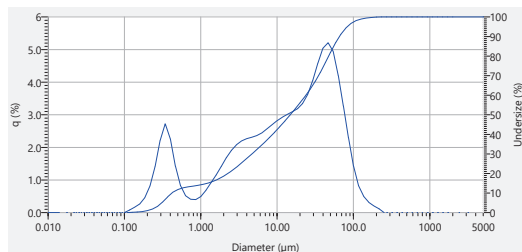
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.307	29	1.471	1.043	43	12.619	3.003	57	108.234	1.559	71	928.318	0.000
2	0.023	0.000	16	0.200	0.540	30	1.715	1.296	44	14.713	3.058	58	126.191	1.059	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.941	31	2.000	1.573	45	17.154	3.100	59	147.128	0.782	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.591	32	2.332	1.846	46	20.000	3.143	60	171.539	0.654	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.423	33	2.719	2.067	47	23.318	3.231	61	200.000	0.583	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.836	34	3.170	2.227	48	27.187	3.391	62	233.183	0.509	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.293	35	3.696	2.323	49	31.696	3.631	63	271.871	0.376	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.458	36	4.309	2.374	50	36.967	3.919	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.870	37	5.024	2.408	51	43.089	4.161	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.561	38	5.857	2.453	52	50.238	4.223	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.457	39	6.829	2.537	53	58.573	4.031	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.460	40	7.962	2.656	54	68.291	3.553	68	585.729	0.000			
13	0.126	0.083	27	1.062	0.573	41	9.283	2.789	55	79.621	2.913	69	682.910	0.000			
14	0.147	0.188	28	1.262	0.787	42	10.823	2.923	56	92.832	2.215	70	796.214	0.000			

Particle Size Distribution

Attached page 4

Sample name : PAWB-1CP2
Data name : PAWB-1CP2_03
Lot number : T43779.27
Transmittance (R) : 87.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4206 (µm) : (6)70.00 (%) - 34.9465 (µm)
: (2)20.00 (%) - 2.2805 (µm) : (7)80.00 (%) - 47.4809 (µm)
: (3)30.00 (%) - 4.7030 (µm) : (8)90.00 (%) - 65.6984 (µm)
: (4)40.00 (%) - 8.7427 (µm) : (9)95.00 (%) - 83.2371 (µm)
: (5)60.00 (%) - 23.8946 (µm) : (10)100.0 (%) - 232.8739 (µm)



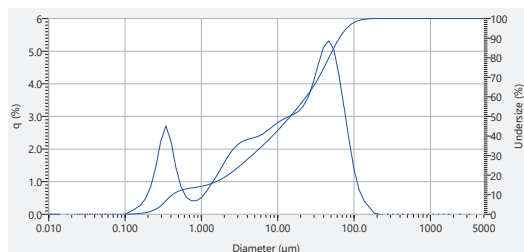
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.285	29	1.471	0.914	43	12.619	2.914	57	108.234	1.423	71	928.318	0.000
2	0.023	0.000	16	0.200	0.460	30	1.715	1.147	44	14.713	3.010	58	126.191	0.820	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.809	31	2.000	1.410	45	17.154	3.096	59	147.128	0.495	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.401	32	2.332	1.678	46	20.000	3.185	60	171.539	0.312	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.206	33	2.719	1.905	47	23.318	3.343	61	200.000	0.201	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.719	34	3.170	2.079	48	27.187	3.619	62	233.183	0.116	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.260	35	3.696	2.194	49	31.696	4.047	63	271.871	0.000	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.424	36	4.309	2.262	50	36.967	4.577	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.828	37	5.024	2.309	51	43.089	5.040	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.514	38	5.857	2.359	52	50.238	5.266	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.406	39	6.829	2.444	53	58.573	4.542	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.397	40	7.962	2.591	54	68.291	4.203	68	585.729	0.000			
13	0.126	0.074	27	1.062	0.489	41	9.283	2.701	55	79.621	3.275	69	682.910	0.000			
14	0.147	0.164	28	1.262	0.680	42	10.823	2.822	56	92.822	2.581	70	796.214	0.000			

Particle Size Distribution

Attached page 5

Sample name : PAWB-1CP2
Data name : PAWB-1CP2_06
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4189 (µm) : (6)70.00 (%) - 34.6178 (µm)
: (2)20.00 (%) - 2.2325 (µm) : (7)80.00 (%) - 46.8771 (µm)
: (3)30.00 (%) - 4.5768 (µm) : (8)90.00 (%) - 64.1844 (µm)
: (4)40.00 (%) - 8.5231 (µm) : (9)95.00 (%) - 79.5395 (µm)
: (5)60.00 (%) - 23.6099 (µm) : (10)100.0 (%) - 198.4908 (µm)



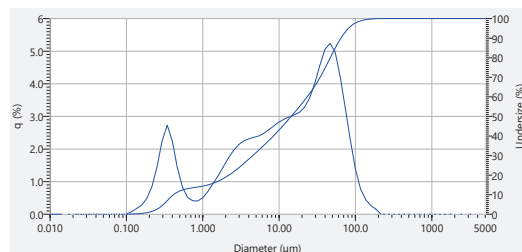
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.272	29	1.471	0.941	43	12.619	2.886	57	108.234	1.388	71	928.318	0.000
2	0.023	0.000	16	0.200	0.474	30	1.715	1.180	44	14.713	2.984	58	126.191	0.732	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.830	31	2.000	1.448	45	17.154	3.051	59	147.128	0.391	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.427	32	2.332	1.720	46	20.000	3.130	60	171.539	0.207	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.225	33	2.719	1.948	47	23.318	3.339	61	200.000	0.020	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.706	34	3.170	2.119	48	27.187	3.589	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.235	35	3.696	2.230	49	31.696	4.007	63	271.871	0.000	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.412	36	4.309	2.262	50	36.967	4.612	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.828	37	5.024	2.333	51	43.089	5.117	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.519	38	5.857	2.377	52	50.238	5.316	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.414	39	6.829	2.454	53	58.573	5.664	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.409	40	7.962	2.563	54	68.291	4.275	68	585.729	0.000			
13	0.126	0.075	27	1.062	0.505	41	9.283	2.698	55	79.621	3.296	69	682.910	0.000			
14	0.147	0.168	28	1.262	0.701	42	10.823	2.814	56	92.832	2.271	70	796.214	0.000			

Particle Size Distribution

Attached page 6

Sample name : PAWB-1CP2
Data name : PAWB-1CP2_09
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4158 (µm) : (6)70.00 (%) - 34.4943 (µm)
: (2)20.00 (%) - 2.2199 (µm) : (7)80.00 (%) - 46.9083 (µm)
: (3)30.00 (%) - 4.5468 (µm) : (8)90.00 (%) - 64.6291 (µm)
: (4)40.00 (%) - 8.4245 (µm) : (9)95.00 (%) - 80.9669 (µm)
: (5)60.00 (%) - 23.4047 (µm) : (10)100.0 (%) - 199.8032 (µm)



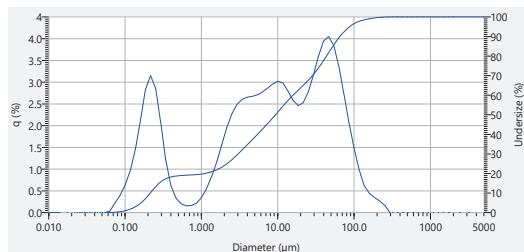
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.279	29	1.471	0.934	43	12.619	2.910	57	108.234	1.388	71	928.318	0.000
2	0.023	0.000	16	0.200	0.484	30	1.715	1.173	44	14.713	2.984	58	126.191	0.766	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.845	31	2.000	1.443	45	17.154	3.051	59	147.128	0.443	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.447	32	2.332	1.717	46	20.000	3.130	60	171.539	0.264	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.240	33	2.719	1.849	47	23.318	3.385	61	200.000	0.198	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.726	34	3.170	2.126	48	27.187	3.586	62	233.183	0.000	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.243	35	3.696	2.241	49	31.696	4.007	63	271.871	0.000	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.413	36	4.309	2.309	50	36.967	4.562	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.825	37	5.024	2.354	51	43.089	5.054	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.516	38	5.857	2.401	52	50.238	5.236	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.410	39	6.829	2.480	53	58.573	4.967	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.404	40	7.962	2.569	54	68.291	4.203	68	585.729	0.000			
13	0.126	0.077	27	1.062	0.500	41	9.283	2.722	55	79.621	3.446	69	682.910	0.000			
14	0.147	0.173	28	1.262	0.695	42	10.823	2.833	56	92.832	2.249	70	796.214	0.000			

Particle Size Distribution

Attached page 7

Sample name : PAWB-1D2
Data name : PAWB-1D2_03
Lot number : T43779.27
Transmittance (R) : 87.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2141 (µm) : (6)70.00 (%) - 28.5031 (µm)
: (2)20.00 (%) - 1.1221 (µm) : (7)80.00 (%) - 43.5397 (µm)
: (3)30.00 (%) - 5.0388 (µm) : (8)90.00 (%) - 65.3278 (µm)
: (4)40.00 (%) - 6.4342 (µm) : (9)95.00 (%) - 87.8186 (µm)
: (5)60.00 (%) - 15.9003 (µm) : (10)100.0 (%) - 271.6165 (µm)



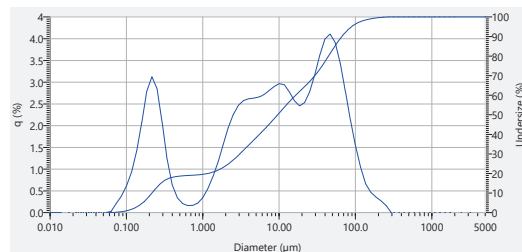
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.104	29	1.471	0.824	43	12.619	2.979	57	108.234	1.466	71	928.318	0.000
2	0.023	0.000	16	0.200	2.829	30	1.715	1.159	44	14.713	2.790	58	126.191	0.972	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.147	31	2.000	1.560	45	17.154	2.577	59	147.128	0.808	73	1261.920	0.000
4	0.032	0.000	18	0.272	2.852	32	2.332	1.959	46	20.000	2.457	60	171.539	0.437	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.961	33	2.719	2.274	47	23.318	2.525	61	200.000	0.345	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.194	34	3.170	2.488	48	27.187	2.779	62	233.183	0.265	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.615	35	3.696	2.604	49	31.696	3.156	63	271.871	0.164	77	5000.000	0.000
8	0.059	0.000	22	0.502	0.327	36	4.309	2.653	50	36.967	3.396	64	316.979	0.000			
9	0.068	0.030	23	0.586	0.201	37	5.024	2.675	51	43.089	3.946	65	369.570	0.000			
10	0.080	0.219	24	0.683	0.155	38	5.857	2.706	52	50.238	4.046	66	430.887	0.000			
11	0.093	0.362	25	0.796	0.161	39	6.829	2.772	53	58.573	3.640	67	502.377	0.000			
12	0.108	0.631	26	0.928	0.215	40	7.962	2.862	54	68.291	3.357	68	585.729	0.000			
13	0.126	0.955	27	1.062	0.342	41	9.283	2.955	55	79.621	2.717	69	682.910	0.000			
14	0.147	1.442	28	1.262	0.548	42	10.823	3.020	56	92.832	2.057	70	796.214	0.000			

Particle Size Distribution

Attached page 8

Sample name : PAWB-1D2
Data name : PAWB-1D2_06
Lot number : T43779.27
Transmittance (R) : 87.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2162 (µm) : (6)70.00 (%) - 29.4039 (µm)
: (2)20.00 (%) - 1.1657 (µm) : (7)80.00 (%) - 44.4619 (µm)
: (3)30.00 (%) - 5.0725 (µm) : (8)90.00 (%) - 66.4572 (µm)
: (4)40.00 (%) - 5.5355 (µm) : (9)95.00 (%) - 89.3751 (µm)
: (5)60.00 (%) - 16.5213 (µm) : (10)100.0 (%) - 271.6149 (µm)



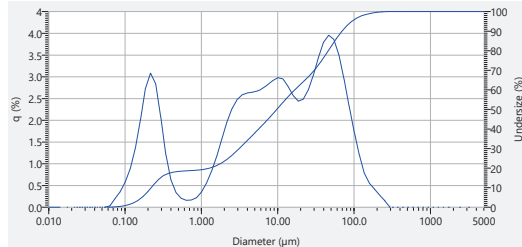
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.069	29	1.471	0.825	43	12.619	2.937	57	106.234	1.533	71	928.318	0.000
2	0.023	0.000	16	0.200	2.792	30	1.715	1.189	44	14.713	2.788	58	126.191	1.036	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.121	31	2.000	1.557	45	17.154	2.569	59	147.128	0.655	73	1261.920	0.000
4	0.032	0.000	18	0.272	2.847	32	2.332	1.951	46	20.000	2.455	60	171.539	0.463	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.975	33	2.719	2.260	47	23.318	2.524	61	200.000	0.368	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.213	34	3.170	2.467	48	27.187	2.776	62	233.183	0.267	76	5000.000	0.000
7	0.050	0.000	21	0.431	0.630	35	3.696	2.575	49	31.696	3.168	63	271.871	0.163	77	2000.000	0.000
8	0.059	0.000	22	0.502	0.338	36	4.309	2.616	50	36.967	3.622	64	316.979	0.000			
9	0.068	0.029	23	0.586	0.207	37	5.024	2.631	51	43.089	3.969	65	369.570	0.000			
10	0.080	0.209	24	0.683	0.160	38	5.857	2.655	52	50.238	4.104	66	430.887	0.000			
11	0.093	0.377	25	0.796	0.164	39	6.829	2.715	53	58.573	3.911	67	502.377	0.000			
12	0.108	0.610	26	0.928	0.217	40	7.962	2.803	54	68.291	3.432	68	585.729	0.000			
13	0.126	0.927	27	1.062	0.344	41	9.283	2.895	55	79.621	2.751	69	682.910	0.000			
14	0.147	1.408	28	1.262	0.550	42	10.823	2.964	56	92.832	2.126	70	796.214	0.000			

Particle Size Distribution

Attached page 9

Sample name : PAWB-1D2
Data name : PAWB-1D2_09
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2200 (µm) : (6)70.00 (%) - 30.0527 (µm)
: (2)20.00 (%) - 1.2872 (µm) : (7)80.00 (%) - 46.0382 (µm)
: (3)30.00 (%) - 3.1419 (µm) : (8)90.00 (%) - 69.6849 (µm)
: (4)40.00 (%) - 6.6370 (µm) : (9)95.00 (%) - 93.7160 (µm)
: (5)60.00 (%) - 16.7503 (µm) : (10)100.0 (%) - 271.5879 (µm)



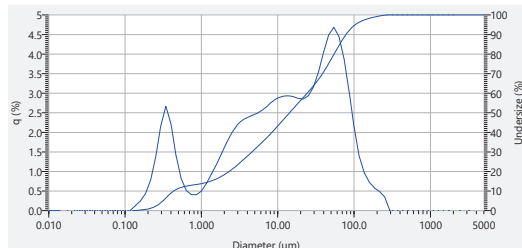
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	1.996	29	1.471	0.628	43	12.619	2.960	57	108.234	1.737
2	0.023	0.000	16	0.200	2.731	30	1.715	1.163	44	14.713	2.776	58	126.191	1.208
3	0.027	0.000	17	0.233	3.084	31	2.000	1.562	45	17.154	2.568	59	147.128	0.778
4	0.032	0.000	18	0.272	2.833	32	2.332	1.957	46	20.000	2.439	60	171.539	0.550
5	0.037	0.000	19	0.317	2.572	33	2.719	2.266	47	23.318	2.483	61	200.000	0.411
6	0.043	0.000	20	0.370	1.211	34	3.170	2.474	48	27.187	2.889	62	233.183	0.277
7	0.050	0.000	21	0.431	0.628	35	3.696	2.584	49	31.696	3.038	63	271.871	0.147
8	0.059	0.000	22	0.502	0.330	36	4.309	2.627	50	36.967	3.443	64	316.979	0.000
9	0.068	0.027	23	0.586	0.205	37	5.024	2.644	51	43.089	3.796	65	369.570	0.000
10	0.080	0.192	24	0.683	0.158	38	5.857	2.670	52	50.238	3.956	66	430.867	0.000
11	0.093	0.348	25	0.796	0.163	39	6.829	2.732	53	58.573	3.961	67	502.377	0.000
12	0.108	0.571	26	0.928	0.217	40	7.962	2.819	54	68.291	3.501	68	585.729	0.000
13	0.126	0.878	27	1.062	0.345	41	9.283	2.910	55	79.621	2.951	69	682.910	0.000
14	0.147	1.346	28	1.262	0.552	42	10.823	2.977	56	92.832	2.330	70	796.214	0.000

Particle Size Distribution

Attached page 11

Sample name : PAWB-2B1X
Data name : PAWB-2B1X_06
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4326 (µm) : (6)70.00 (%) - 36.6312 (µm)
: (2)20.00 (%) - 2.3212 (µm) : (7)80.00 (%) - 54.7730 (µm)
: (3)30.00 (%) - 4.6170 (µm) : (8)90.00 (%) - 78.4212 (µm)
: (4)40.00 (%) - 8.3810 (µm) : (9)95.00 (%) - 104.0068 (µm)
: (5)60.00 (%) - 24.3053 (µm) : (10)100.0 (%) - 271.7487 (µm)



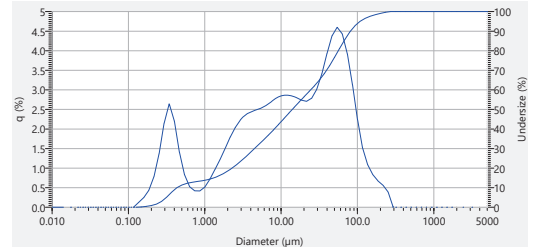
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.243	29	1.471	0.943	43	12.619	2.916	57	108.234	2.117
2	0.023	0.000	16	0.200	0.431	30	1.715	1.189	44	14.713	2.952	58	126.191	1.379
3	0.027	0.000	17	0.233	0.774	31	2.000	1.466	45	17.154	2.912	59	147.128	0.959
4	0.032	0.000	18	0.272	1.359	32	2.332	1.749	46	20.000	2.865	60	171.539	0.718
5	0.037	0.000	19	0.317	2.157	33	2.719	1.991	47	23.318	2.848	61	200.000	0.572
6	0.043	0.000	20	0.370	2.863	34	3.170	2.178	48	27.187	2.931	62	233.183	0.482
7	0.050	0.000	21	0.431	2.216	35	3.696	2.303	49	31.696	3.158	63	271.871	0.341
8	0.059	0.000	22	0.502	1.402	36	4.309	2.380	50	36.967	3.339	64	316.979	0.000
9	0.068	0.000	23	0.586	0.821	37	5.024	2.433	51	43.089	4.043	65	369.570	0.000
10	0.080	0.000	24	0.683	0.513	38	5.857	2.487	52	50.238	4.480	66	430.867	0.000
11	0.093	0.000	25	0.796	0.408	39	6.829	2.569	53	58.573	4.675	67	502.377	0.000
12	0.108	0.000	26	0.928	0.402	40	7.962	2.673	54	68.291	4.452	68	585.729	0.000
13	0.126	0.000	27	1.062	0.499	41	9.283	2.791	55	79.621	3.888	69	682.910	0.000
14	0.147	0.122	28	1.262	0.898	42	10.823	2.877	56	92.832	3.048	70	796.214	0.000

Particle Size Distribution

Attached page 10

Sample name : PAWB-2B1X
Data name : PAWB-2B1X_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4347 (µm) : (6)70.00 (%) - 39.4261 (µm)
: (2)20.00 (%) - 2.2890 (µm) : (7)80.00 (%) - 56.1874 (µm)
: (3)30.00 (%) - 4.5054 (µm) : (8)90.00 (%) - 81.2368 (µm)
: (4)40.00 (%) - 8.1524 (µm) : (9)95.00 (%) - 108.6361 (µm)
: (5)60.00 (%) - 24.4459 (µm) : (10)100.0 (%) - 271.7633 (µm)



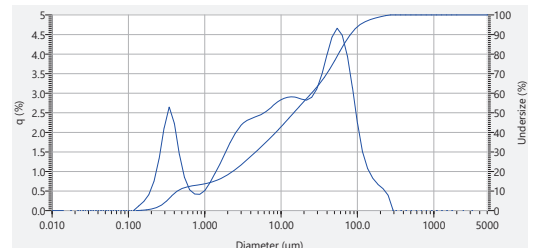
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.245	29	1.471	0.966	43	12.619	2.860	57	108.234	2.239
2	0.023	0.000	16	0.200	0.434	30	1.715	1.217	44	14.713	2.846	58	126.191	1.507
3	0.027	0.000	17	0.233	0.775	31	2.000	1.501	45	17.154	2.798	59	147.128	1.079
4	0.032	0.000	18	0.272	1.353	32	2.332	1.792	46	20.000	2.732	60	171.539	0.831
5	0.037	0.000	19	0.317	2.144	33	2.719	2.040	47	23.318	2.705	61	200.000	0.672
6	0.043	0.000	20	0.370	2.840	34	3.170	2.231	48	27.187	2.786	62	233.183	0.581
7	0.050	0.000	21	0.431	2.205	35	3.696	2.358	49	31.696	3.014	63	271.871	0.387
8	0.059	0.000	22	0.502	1.407	36	4.309	2.433	50	36.967	3.407	64	316.979	0.000
9	0.068	0.000	23	0.586	0.831	37	5.024	2.482	51	43.089	3.919	65	369.570	0.000
10	0.080	0.000	24	0.683	0.524	38	5.857	2.528	52	50.238	4.380	66	430.867	0.000
11	0.093	0.000	25	0.796	0.419	39	6.829	2.598	53	58.573	4.598	67	502.377	0.000
12	0.108	0.000	26	0.928	0.413	40	7.962	2.886	54	68.291	4.426	68	585.729	0.000
13	0.126	0.000	27	1.062	0.512	41	9.283	2.784	55	79.621	3.919	69	682.910	0.000
14	0.147	0.123	28	1.262	0.715	42	10.823	2.847	56	92.832	3.134	70	796.214	0.000

Particle Size Distribution

Attached page 12

Sample name : PAWB-2B1X
Data name : PAWB-2B1X_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4409 (µm) : (6)70.00 (%) - 39.7068 (µm)
: (2)20.00 (%) - 2.3334 (µm) : (7)80.00 (%) - 56.2876 (µm)
: (3)30.00 (%) - 4.6678 (µm) : (8)90.00 (%) - 81.0258 (µm)
: (4)40.00 (%) - 8.5396 (µm) : (9)95.00 (%) - 108.1658 (µm)
: (5)60.00 (%) - 25.0193 (µm) : (10)100.0 (%) - 271.7637 (µm)



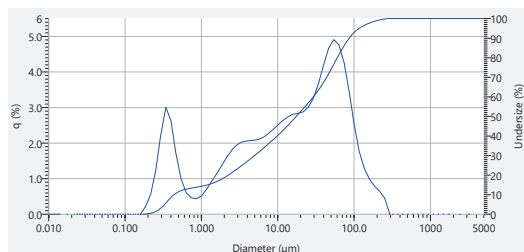
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.229	29	1.471	0.951	43	12.619	2.881	57	108.234	2.233
2	0.023	0.000	16	0.200	0.409	30	1.715	1.194	44	14.713	2.906	58	126.191	1.488
3	0.027	0.000	17	0.233	0.739	31	2.000	1.465	45	17.154	2.891	59	147.128	1.067
4	0.032	0.000	18	0.272	1.313	32	2.332	1.743	46	20.000	2.845	60	171.539	0.822
5	0.037	0.000	19	0.317	2.109	33	2.719	1.978	47	23.318	2.822	61	200.000	0.666
6	0.043	0.000	20	0.370	2.840	34	3.170	2.158	48	27.187	2.893	62	233.183	0.560
7	0.050	0.000	21	0.431	2.232	35	3.696	2.277	49	31.696	3.103	63	271.871	0.389
8	0.059	0.000	22	0.502	1.430	36	4.309	2.348	50	36.967	3.474	64	316.979	0.000
9	0.068	0.000	23	0.586	0.845	37	5.024	2.396	51	43.089	3.973	65	369.570	0.000
10	0.080	0.000	24	0.683	0.530	38	5.857	2.446	52	50.238	4.435	66	430.867	0.000
11	0.093	0.000	25	0.796	0.421	39	6.829	2.526	53	58.573	4.667	67	502.377	0.000
12	0.108	0.000	26	0.928	0.413	40	7.962	2.629	54	68.291	4.476	68	585.729	0.000
13	0.126	0.000	27	1.062	0.508	41	9.283	2.747	55	79.621	3.956	69	682.910	0.000
14	0.147	0.115	28	1.262	0.707	42	10.823	2.835	56	92.832	3.144	70	796.214	0.000

Particle Size Distribution

Attached page 13

Sample name : PAWB-2C2
Data name : PAWB-2C2_03
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4383 (µm) : (6)70.00 (%) - 43.7702 (µm)
: (2)20.00 (%) - 2.2835 (µm) : (7)80.00 (%) - 60.3087 (µm)
: (3)30.00 (%) - 4.3746 (µm) : (8)90.00 (%) - 86.5241 (µm)
: (4)40.00 (%) - 8.8712 (µm) : (9)95.00 (%) - 117.0283 (µm)
: (5)60.00 (%) - 29.3175 (µm) : (10)100.00 (%) - 271.7764 (µm)



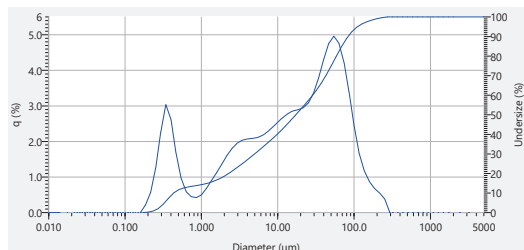
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.921	43	12.619	2.616	57	108.234	2.519	71	928.318	0.000
2	0.023	0.000	16	0.200	0.208	30	1.715	1.137	44	14.713	2.741	58	126.191	1.755	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.547	31	2.000	1.372	45	17.154	2.808	59	147.128	1.284	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.216	32	2.332	1.610	46	20.000	2.835	60	171.539	0.884	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.220	33	2.719	1.808	47	23.318	2.877	61	200.000	0.788	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.092	34	3.170	1.947	48	27.187	3.094	62	233.183	0.844	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.621	35	3.696	2.027	49	31.696	3.263	63	271.871	0.441	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.886	36	4.309	2.060	50	36.957	3.672	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.984	37	5.024	2.073	51	43.089	4.192	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.901	38	5.857	2.093	52	50.238	4.665	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.460	39	6.829	2.150	53	58.573	4.957	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.431	40	7.962	2.246	54	68.291	4.759	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.510	41	9.283	2.376	55	79.621	4.270	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.695	42	10.823	2.506	56	92.832	3.464	70	796.214	0.000			

Particle Size Distribution

Attached page 15

Sample name : PAWB-2C2
Data name : PAWB-2C2_09
Lot number : T43779.27
Transmittance (R) : 86.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4342 (µm) : (6)70.00 (%) - 42.7444 (µm)
: (2)20.00 (%) - 2.2958 (µm) : (7)80.00 (%) - 58.7078 (µm)
: (3)30.00 (%) - 4.3894 (µm) : (8)90.00 (%) - 83.6508 (µm)
: (4)40.00 (%) - 8.8305 (µm) : (9)95.00 (%) - 111.1180 (µm)
: (5)60.00 (%) - 28.7043 (µm) : (10)100.00 (%) - 271.7604 (µm)



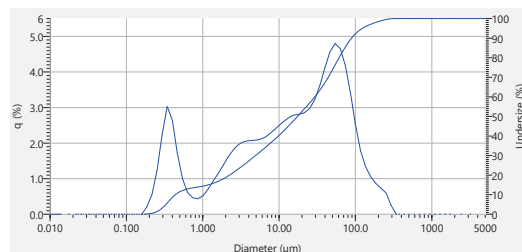
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.907	43	12.619	2.669	57	108.234	2.424	71	928.318	0.000
2	0.023	0.000	16	0.200	0.211	30	1.715	1.124	44	14.713	2.785	58	126.191	1.851	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.559	31	2.000	1.361	45	17.154	2.857	59	147.128	1.170	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.242	32	2.332	1.601	46	20.000	2.891	60	171.539	0.865	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.257	33	2.719	1.801	47	23.318	2.942	61	200.000	0.673	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.029	34	3.170	1.946	48	27.187	3.079	62	233.183	0.547	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.619	35	3.696	2.030	49	31.696	3.350	63	271.871	0.377	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.885	36	4.309	2.068	50	36.957	3.789	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.962	37	5.024	2.085	51	43.089	4.200	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.984	38	5.857	2.109	52	50.238	4.748	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.446	39	6.829	2.171	53	58.573	4.966	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.418	40	7.962	2.272	54	68.291	4.758	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.498	41	9.283	2.406	55	79.621	4.223	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.681	42	10.823	2.541	56	92.832	3.384	70	796.214	0.000			

Particle Size Distribution

Attached page 14

Sample name : PAWB-2C2
Data name : PAWB-2C2_06
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4358 (µm) : (6)70.00 (%) - 44.0944 (µm)
: (2)20.00 (%) - 2.2606 (µm) : (7)80.00 (%) - 61.1736 (µm)
: (3)30.00 (%) - 4.3306 (µm) : (8)90.00 (%) - 89.0305 (µm)
: (4)40.00 (%) - 8.8083 (µm) : (9)95.00 (%) - 123.9810 (µm)
: (5)60.00 (%) - 29.3987 (µm) : (10)100.00 (%) - 316.7772 (µm)



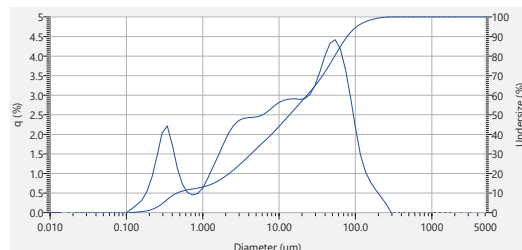
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.923	43	12.619	2.616	57	108.234	2.504	71	928.318	0.000
2	0.023	0.000	16	0.200	0.209	30	1.715	1.139	44	14.713	2.724	58	126.191	1.772	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.547	31	2.000	1.374	45	17.154	2.787	59	147.128	1.324	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.219	32	2.332	1.612	46	20.000	2.811	60	171.539	1.043	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.231	33	2.719	1.809	47	23.318	2.850	61	200.000	0.862	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.024	34	3.170	1.951	48	27.187	2.970	62	233.183	0.731	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.645	35	3.696	2.030	49	31.696	3.221	63	271.871	0.598	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.702	36	4.309	2.063	50	36.957	3.616	64	316.979	0.241			
9	0.068	0.000	23	0.586	0.983	37	5.024	2.074	51	43.089	4.117	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.906	38	5.857	2.093	52	50.238	4.571	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.460	39	6.829	2.148	53	58.573	4.799	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.433	40	7.962	2.242	54	68.291	4.655	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.511	41	9.283	2.369	55	79.621	4.182	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.696	42	10.823	2.498	56	92.832	3.408	70	796.214	0.000			

Particle Size Distribution

Attached page 16

Sample name : PAWB-3B2
Data name : PAWB-3B2_03
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4642 (µm) : (6)70.00 (%) - 37.1603 (µm)
: (2)20.00 (%) - 2.2278 (µm) : (7)80.00 (%) - 53.5074 (µm)
: (3)30.00 (%) - 4.3106 (µm) : (8)90.00 (%) - 78.1080 (µm)
: (4)40.00 (%) - 7.9597 (µm) : (9)95.00 (%) - 103.9157 (µm)
: (5)60.00 (%) - 23.2937 (µm) : (10)100.00 (%) - 271.6800 (µm)



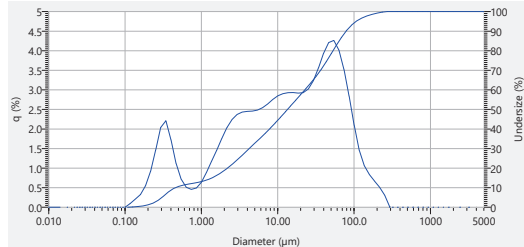
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.315	29	1.471	1.161	43	12.619	2.870	57	108.234	2.153	71	928.318	0.000
2	0.023	0.000	16	0.200	0.535	30	1.715	1.438	44	14.713	2.901	58	126.191	1.455	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.900	31	2.000	1.736	45	17.154	2.907	59	147.128	1.022	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.441	32	2.332	2.012	46	20.000	2.893	60	171.539	0.766	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.031	33	2.719	2.216	47	23.318	2.907	61	200.000	0.573	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.211	34	3.170	2.346	48	27.187	3.010	62	233.183	0.396	76	2000.000	0.000
7	0.050	0.000	21	0.431	1.732	35	3.696	2.407	49	31.696	3.237	63	271.871	0.218	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.124	36	4.309	2.426	50	36.957	3.591	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.717	37	5.024	2.434	51	43.089	4.004	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.508	38	5.857	2.455	52	50.238	4.325	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.452	39	6.829	2.515	53	58.573	4.417	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.487	40	7.962	2.608	54	68.291	4.184	68	585.729	0.000			
13	0.126	0.091	27	1.062	0.632	41	9.283	2.721	55	79.621	3.673	69	682.910	0.000			
14	0.147	0.199	28	1.262	0.878	42	10.823	2.816	56	92.832	2.959	70	796.214	0.000			

Particle Size Distribution

Attached page 17

Sample name : PAWB-3B2
Data name : PAWB-3B2_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4613 (µm) : (6)70.00 (%) - 36.4448 (µm)
: (2)20.00 (%) - 2.2071 (µm) : (7)80.00 (%) - 53.0976 (µm)
: (3)30.00 (%) - 4.2527 (µm) : (8)90.00 (%) - 78.7365 (µm)
: (4)40.00 (%) - 7.8137 (µm) : (9)95.00 (%) - 106.8920 (µm)
: (5)60.00 (%) - 22.6954 (µm) : (10)100.0 (%) - 271.7334 (µm)



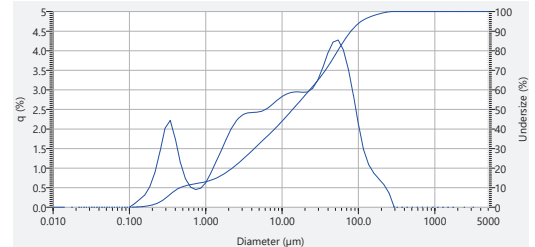
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.321	29	1.471	1.172	43	12.619	2.886	57	108.234	2.887
2	0.023	0.000	16	0.200	0.545	30	1.715	1.463	44	14.713	2.935	58	126.191	1.451
3	0.027	0.000	17	0.233	0.913	31	2.000	1.754	45	17.154	2.930	59	147.128	1.054
4	0.032	0.000	18	0.272	1.455	32	2.332	2.032	46	20.000	2.914	60	171.539	0.830
5	0.037	0.000	19	0.317	2.040	33	2.719	2.237	47	23.318	2.924	61	200.000	0.663
6	0.043	0.000	20	0.370	2.399	34	3.170	2.387	48	27.187	3.019	62	233.183	0.503
7	0.050	0.000	21	0.431	1.724	35	3.696	2.429	49	31.696	3.231	63	271.871	0.303
8	0.059	0.000	22	0.502	1.119	36	4.309	2.449	50	36.957	3.558	64	316.979	0.000
9	0.068	0.000	23	0.586	0.715	37	5.024	2.457	51	43.089	3.933	65	369.570	0.000
10	0.080	0.000	24	0.683	0.509	38	5.857	2.479	52	50.238	4.297	66	430.887	0.000
11	0.093	0.000	25	0.796	0.454	39	6.829	2.541	53	58.573	4.261	67	502.377	0.000
12	0.108	0.000	26	0.928	0.491	40	7.962	2.637	54	68.291	4.016	68	585.729	0.000
13	0.126	0.093	27	1.062	0.638	41	9.283	2.752	55	79.621	3.517	69	682.910	0.000
14	0.147	0.204	28	1.262	0.887	42	10.823	2.847	56	92.832	2.843	70	796.214	0.000

Particle Size Distribution

Attached page 18

Sample name : PAWB-3B2
Data name : PAWB-3B2_09
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4665 (µm) : (6)70.00 (%) - 36.9626 (µm)
: (2)20.00 (%) - 2.2362 (µm) : (7)80.00 (%) - 53.6865 (µm)
: (3)30.00 (%) - 4.3337 (µm) : (8)90.00 (%) - 73.7044 (µm)
: (4)40.00 (%) - 7.9987 (µm) : (9)95.00 (%) - 108.9287 (µm)
: (5)60.00 (%) - 23.1463 (µm) : (10)100.0 (%) - 271.7542 (µm)



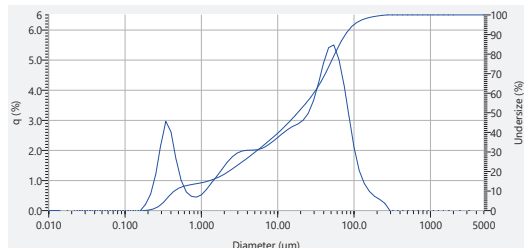
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.309	29	1.471	1.157	43	12.619	2.884	57	108.234	2.103
2	0.023	0.000	16	0.200	0.525	30	1.715	1.433	44	14.713	2.935	58	126.191	1.463
3	0.027	0.000	17	0.233	0.885	31	2.000	1.730	45	17.154	2.948	59	147.128	1.082
4	0.032	0.000	18	0.272	1.424	32	2.332	2.004	46	20.000	2.936	60	171.539	0.870
5	0.037	0.000	19	0.317	2.019	33	2.719	2.208	47	23.318	2.945	61	200.000	0.718
6	0.043	0.000	20	0.370	2.231	34	3.170	2.337	48	27.187	3.038	62	233.183	0.570
7	0.050	0.000	21	0.431	1.747	35	3.696	2.399	49	31.696	3.247	63	271.871	0.357
8	0.059	0.000	22	0.502	1.134	36	4.309	2.419	50	36.957	3.570	64	316.979	0.000
9	0.068	0.000	23	0.586	0.723	37	5.024	2.428	51	43.089	3.941	65	369.570	0.000
10	0.080	0.000	24	0.683	0.511	38	5.857	2.452	52	50.238	4.215	66	430.887	0.000
11	0.093	0.000	25	0.796	0.452	39	6.829	2.516	53	58.573	4.271	67	502.377	0.000
12	0.108	0.000	26	0.928	0.486	40	7.962	2.614	54	68.291	4.026	68	585.729	0.000
13	0.126	0.090	27	1.062	0.629	41	9.283	2.734	55	79.621	3.531	69	682.910	0.000
14	0.147	0.196	28	1.262	0.875	42	10.823	2.833	56	92.832	2.855	70	796.214	0.000

Particle Size Distribution

Attached page 19

Sample name : PAWB-3C2
Data name : PAWB-3C2_03
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4435 (µm) : (6)70.00 (%) - 42.0761 (µm)
: (2)20.00 (%) - 2.2953 (µm) : (7)80.00 (%) - 55.9548 (µm)
: (3)30.00 (%) - 5.0895 (µm) : (8)90.00 (%) - 77.0981 (µm)
: (4)40.00 (%) - 10.2843 (µm) : (9)95.00 (%) - 99.9878 (µm)
: (5)60.00 (%) - 29.5926 (µm) : (10)100.0 (%) - 271.6991 (µm)



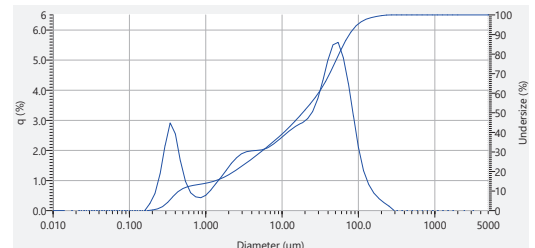
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.935	43	12.619	2.986	57	108.234	2.076
2	0.023	0.000	16	0.200	0.206	30	1.715	1.135	44	14.713	2.700	58	126.191	1.325
3	0.027	0.000	17	0.233	0.537	31	2.000	1.362	45	17.154	2.802	59	147.128	0.890
4	0.032	0.000	18	0.272	1.189	32	2.332	1.591	46	20.000	2.881	60	171.539	0.631
5	0.037	0.000	19	0.317	2.174	33	2.719	1.777	47	23.318	3.001	61	200.000	0.473
6	0.043	0.000	20	0.370	2.960	34	3.170	1.907	48	27.187	3.332	62	233.183	0.367
7	0.050	0.000	21	0.431	2.614	35	3.696	1.976	49	31.696	3.637	63	271.871	0.243
8	0.059	0.000	22	0.502	1.704	36	4.309	2.001	50	36.957	4.228	64	316.979	0.000
9	0.068	0.000	23	0.586	1.006	37	5.024	2.005	51	43.089	4.904	65	369.570	0.000
10	0.080	0.000	24	0.683	0.619	38	5.857	2.019	52	50.238	5.410	66	430.887	0.000
11	0.093	0.000	25	0.796	0.474	39	6.829	2.070	53	58.573	5.502	67	502.377	0.000
12	0.108	0.000	26	0.928	0.444	40	7.962	2.165	54	68.291	5.022	68	585.729	0.000
13	0.126	0.093	27	1.062	0.521	41	9.283	2.295	55	79.621	4.165	69	682.910	0.000
14	0.147	0.000	28	1.262	0.704	42	10.823	2.431	56	92.832	3.118	70	796.214	0.000

Particle Size Distribution

Attached page 20

Sample name : PAWB-3C2
Data name : PAWB-3C2_06
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4463 (µm) : (6)70.00 (%) - 42.0375 (µm)
: (2)20.00 (%) - 2.3731 (µm) : (7)80.00 (%) - 55.5872 (µm)
: (3)30.00 (%) - 5.2725 (µm) : (8)90.00 (%) - 76.1828 (µm)
: (4)40.00 (%) - 10.5715 (µm) : (9)95.00 (%) - 97.3099 (µm)
: (5)60.00 (%) - 29.8057 (µm) : (10)100.0 (%) - 271.5791 (µm)



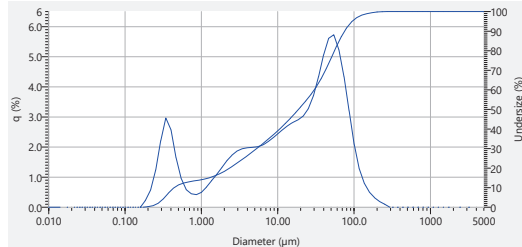
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.900	43	12.619	2.984	57	108.234	2.062
2	0.023	0.000	16	0.200	0.233	30	1.715	1.108	44	14.713	2.724	58	126.191	1.314
3	0.027	0.000	17	0.233	0.564	31	2.000	1.335	45	17.154	2.833	59	147.128	0.882
4	0.032	0.000	18	0.272	1.205	32	2.332	1.562	46	20.000	2.900	60	171.539	0.581
5	0.037	0.000	19	0.317	2.163	33	2.719	1.749	47	23.318	3.050	61	200.000	0.387
6	0.043	0.000	20	0.370	2.911	34	3.170	1.881	48	27.187	3.261	62	233.183	0.260
7	0.050	0.000	21	0.431	2.548	35	3.696	1.955	49	31.696	3.711	63	271.871	0.143
8	0.059	0.000	22	0.502	1.647	36	4.309	1.985	50	36.957	4.316	64	316.979	0.000
9	0.068	0.000	23	0.586	0.969	37	5.024	1.995	51	43.089	5.001	65	369.570	0.000
10	0.080	0.000	24	0.683	0.592	38	5.857	2.015	52	50.238	5.506	66	430.887	0.000
11	0.093	0.000	25	0.796	0.454	39	6.829	2.072	53	58.573	5.587	67	502.377	0.000
12	0.108	0.000	26	0.928	0.426	40	7.962	2.171	54	68.291	5.089	68	585.729	0.000
13	0.126	0.000	27	1.062	0.504	41	9.283	2.306	55	79.621	4.230	69	682.910	0.000
14	0.147	0.000	28	1.262	0.683	42	10.823	2.445	56	92.832	3.144	70	796.214	0.000

Particle Size Distribution

Attached page 21

Sample name : PAWB-3C2
Data name : PAWB-3C2_09
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4407 (µm) : (6)70.00 (%) - 42.2472 (µm)
: (2)20.00 (%) - 2.3744 (µm) : (7)80.00 (%) - 55.5391 (µm)
: (3)30.00 (%) - 5.3039 (µm) : (8)90.00 (%) - 75.3681 (µm)
: (4)40.00 (%) - 10.6455 (µm) : (9)95.00 (%) - 94.4760 (µm)
: (5)60.00 (%) - 30.0665 (µm) : (10)100.0 (%) - 271.4305 (µm)



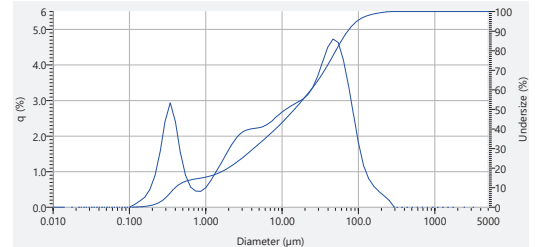
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.884	43	12.619	2.576	57	108.234	2.088
2	0.023	0.000	16	0.200	0.227	30	1.715	1.090	44	14.713	2.716	58	126.191	1.273
3	0.027	0.000	17	0.233	0.567	31	2.000	1.315	45	17.154	2.820	59	147.128	0.790
4	0.032	0.000	18	0.272	1.228	32	2.332	1.543	46	20.000	2.902	60	171.539	0.496
5	0.037	0.000	19	0.317	2.207	33	2.719	1.731	47	23.318	3.028	61	200.000	0.312
6	0.043	0.000	20	0.370	2.989	34	3.170	1.865	48	27.187	3.389	62	233.183	0.186
7	0.050	0.000	21	0.431	2.571	35	3.696	1.941	49	31.696	3.686	63	271.871	0.096
8	0.059	0.000	22	0.502	1.640	36	4.309	1.973	50	36.967	4.325	64	316.979	0.000
9	0.068	0.000	23	0.586	0.956	37	5.024	1.985	51	43.089	5.052	65	369.570	0.000
10	0.080	0.000	24	0.683	0.582	38	5.857	2.009	52	50.238	5.609	66	430.887	0.000
11	0.093	0.000	25	0.796	0.444	39	6.829	2.065	53	58.573	5.726	67	502.377	0.000
12	0.108	0.000	26	0.928	0.416	40	7.962	2.164	54	68.291	5.226	68	585.729	0.000
13	0.126	0.000	27	1.062	0.493	41	9.283	2.299	55	79.621	4.343	69	682.910	0.000
14	0.147	0.000	28	1.262	0.689	42	10.823	2.439	56	92.832	3.208	70	796.214	0.000

Particle Size Distribution

Attached page 22

Sample name : PAWB-3CP2
Data name : PAWB-3CP2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3992 (µm) : (6)70.00 (%) - 36.1009 (µm)
: (2)20.00 (%) - 1.9801 (µm) : (7)80.00 (%) - 50.4725 (µm)
: (3)30.00 (%) - 4.2374 (µm) : (8)90.00 (%) - 72.6521 (µm)
: (4)40.00 (%) - 8.2270 (µm) : (9)95.00 (%) - 95.2155 (µm)
: (5)60.00 (%) - 23.8876 (µm) : (10)100.0 (%) - 271.6530 (µm)



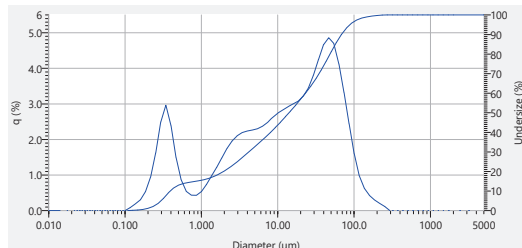
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.279	29	1.471	0.994	43	12.619	2.776	57	108.234	1.796
2	0.023	0.000	16	0.200	0.495	30	1.715	1.230	44	14.713	2.869	58	126.191	1.163
3	0.027	0.000	17	0.233	0.883	31	2.000	1.489	45	17.154	2.950	59	147.128	0.799
4	0.032	0.000	18	0.272	1.539	32	2.332	1.742	46	20.000	3.030	60	171.539	0.588
5	0.037	0.000	19	0.317	2.416	33	2.719	1.845	47	23.318	3.154	61	200.000	0.440
6	0.043	0.000	20	0.370	2.931	34	3.170	2.087	48	27.187	3.369	62	233.183	0.319
7	0.050	0.000	21	0.431	2.416	35	3.696	2.167	49	31.696	3.686	63	271.871	0.191
8	0.059	0.000	22	0.502	1.529	36	4.309	2.203	50	36.967	4.104	64	316.979	0.000
9	0.068	0.000	23	0.586	0.897	37	5.024	2.222	51	43.089	4.508	65	369.570	0.000
10	0.080	0.000	24	0.683	0.564	38	5.857	2.251	52	50.238	4.734	66	430.887	0.000
11	0.093	0.000	25	0.796	0.450	39	6.829	2.318	53	58.573	4.629	67	502.377	0.000
12	0.108	0.000	26	0.928	0.444	40	7.962	2.424	54	68.291	4.154	68	585.729	0.000
13	0.126	0.076	27	1.062	0.547	41	9.283	2.558	55	79.621	3.445	69	682.910	0.000
14	0.147	0.170	28	1.262	0.751	42	10.823	2.680	56	92.832	2.617	70	796.214	0.000

Particle Size Distribution

Attached page 23

Sample name : PAWB-3CP2
Data name : PAWB-3CP2_06
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3919 (µm) : (6)70.00 (%) - 34.8005 (µm)
: (2)20.00 (%) - 1.9658 (µm) : (7)80.00 (%) - 48.3966 (µm)
: (3)30.00 (%) - 4.1873 (µm) : (8)90.00 (%) - 68.2983 (µm)
: (4)40.00 (%) - 8.0615 (µm) : (9)95.00 (%) - 88.4687 (µm)
: (5)60.00 (%) - 23.1199 (µm) : (10)100.0 (%) - 271.5060 (µm)



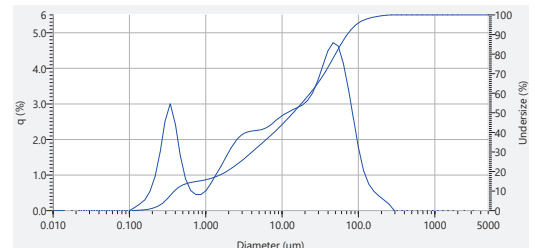
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.300	29	1.471	0.977	43	12.619	2.832	57	108.234	1.602
2	0.023	0.000	16	0.200	0.531	30	1.715	1.216	44	14.713	2.918	58	126.191	0.977
3	0.027	0.000	17	0.233	0.937	31	2.000	1.479	45	17.154	2.996	59	147.128	0.823
4	0.032	0.000	18	0.272	1.609	32	2.332	1.739	46	20.000	3.076	60	171.539	0.424
5	0.037	0.000	19	0.317	2.486	33	2.719	1.950	47	23.318	3.212	61	200.000	0.295
6	0.043	0.000	20	0.370	2.969	34	3.170	2.101	48	27.187	3.442	62	233.183	0.199
7	0.050	0.000	21	0.431	2.393	35	3.696	2.190	49	31.696	3.797	63	271.871	0.114
8	0.059	0.000	22	0.502	1.491	36	4.309	2.234	50	36.967	4.240	64	316.979	0.000
9	0.068	0.000	23	0.586	0.865	37	5.024	2.261	51	43.089	4.603	65	369.570	0.000
10	0.080	0.000	24	0.683	0.540	38	5.857	2.297	52	50.238	4.856	66	430.887	0.000
11	0.093	0.000	25	0.796	0.431	39	6.829	2.370	53	58.573	4.686	67	502.377	0.000
12	0.108	0.000	26	0.928	0.428	40	7.962	2.479	54	68.291	4.121	68	585.729	0.000
13	0.126	0.082	27	1.062	0.531	41	9.283	2.616	55	79.621	3.327	69	682.910	0.000
14	0.147	0.183	28	1.262	0.733	42	10.823	2.739	56	92.832	2.441	70	796.214	0.000

Particle Size Distribution

Attached page 24

Sample name : PAWB-3CP2
Data name : PAWB-3CP2_09
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3895 (µm) : (6)70.00 (%) - 35.6467 (µm)
: (2)20.00 (%) - 1.8891 (µm) : (7)80.00 (%) - 49.9645 (µm)
: (3)30.00 (%) - 4.0806 (µm) : (8)90.00 (%) - 71.6084 (µm)
: (4)40.00 (%) - 7.8842 (µm) : (9)95.00 (%) - 93.1879 (µm)
: (5)60.00 (%) - 23.3974 (µm) : (10)100.0 (%) - 271.6357 (µm)



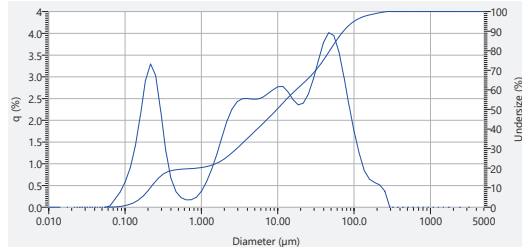
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.298	29	1.471	1.008	43	12.619	2.794	57	108.234	1.797
2	0.023	0.000	16	0.200	0.530	30	1.715	1.249	44	14.713	2.829	58	126.191	1.116
3	0.027	0.000	17	0.233	0.941	31	2.000	1.513	45	17.154	2.896	59	147.128	0.748
4	0.032	0.000	18	0.272	1.624	32	2.332	1.771	46	20.000	2.968	60	171.539	0.544
5	0.037	0.000	19	0.317	2.517	33	2.719	1.977	47	23.318	3.094	61	200.000	0.407
6	0.043	0.000	20	0.370	2.987	34	3.170	2.120	48	27.187	3.311	62	233.183	0.296
7	0.050	0.000	21	0.431	2.433	35	3.696	2.205	49	31.696	3.646	63	271.871	0.177
8	0.059	0.000	22	0.502	1.527	36	4.309	2.234	50	36.967	4.076	64	316.979	0.000
9	0.068	0.000	23	0.586	0.893	37	5.024	2.250	51	43.089	4.402	65	369.570	0.000
10	0.080	0.000	24	0.683	0.562	38	5.857	2.274	52	50.238	4.718	66	430.887	0.000
11	0.093	0.000	25	0.796	0.450	39	6.829	2.335	53	58.573	4.626	67	502.377	0.000
12	0.108	0.000	26	0.928	0.447	40	7.962	2.433	54	68.291	4.147	68	585.729	0.000
13	0.126	0.080	27	1.062	0.553	41	9.283	2.559	55	79.621	3.429	69	682.910	0.000
14	0.147	0.181	28	1.262	0.761	42	10.823	2.671	56	92.832	2.587	70	796.214	0.000

Particle Size Distribution

Attached page 25

Sample name : PAWB-3D2
Data name : PAWB-3D2_03
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2151 (µm) : (6)70.00 (%) - 31.6013 (µm)
: (2)20.00 (%) - 0.8985 (µm) : (7)80.00 (%) - 47.8971 (µm)
: (3)30.00 (%) - 2.9166 (µm) : (8)90.00 (%) - 72.7370 (µm)
: (4)40.00 (%) - 6.4131 (µm) : (9)95.00 (%) - 100.5452 (µm)
: (5)60.00 (%) - 17.4112 (µm) : (10)100.0 (%) - 271.7583 (µm)



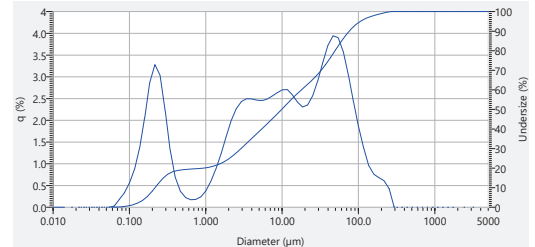
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.104	29	1.471	0.865	43	12.619	2.776	57	108.234	1.733	71	928.318	0.000
2	0.023	0.000	16	0.200	2.989	30	1.715	1.205	44	14.713	2.648	58	126.191	1.234	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.295	31	2.000	1.598	45	17.154	2.471	59	147.128	0.836	73	1261.920	0.000
4	0.032	0.000	18	0.272	3.026	32	2.332	1.974	46	20.000	2.354	60	171.539	0.645	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.206	33	2.719	2.253	47	23.318	2.382	61	200.000	0.569	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.284	34	3.170	2.423	48	27.187	2.589	62	233.183	0.814	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.864	35	3.696	2.493	49	31.696	2.844	63	271.871	0.370	77	5000.000	0.000
8	0.059	0.000	22	0.502	0.354	36	4.309	2.499	50	36.967	3.382	64	316.979	0.000			
9	0.068	0.025	23	0.586	0.216	37	5.024	2.486	51	43.089	3.793	65	369.570	0.000			
10	0.080	0.185	24	0.683	0.167	38	5.857	2.487	52	50.238	4.014	66	430.887	0.000			
11	0.093	0.343	25	0.796	0.173	39	6.829	2.520	53	58.573	3.947	67	502.377	0.000			
12	0.108	0.574	26	0.928	0.230	40	7.962	2.606	54	68.291	3.577	68	585.729	0.000			
13	0.126	0.897	27	1.062	0.365	41	9.283	2.694	55	79.621	2.991	69	682.910	0.000			
14	0.147	1.398	28	1.262	0.582	42	10.823	2.769	56	92.832	2.337	70	796.214	0.000			

Particle Size Distribution

Attached page 26

Sample name : PAWB-3D2
Data name : PAWB-3D2_06
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2170 (µm) : (6)70.00 (%) - 32.5638 (µm)
: (2)20.00 (%) - 0.9448 (µm) : (7)80.00 (%) - 49.4403 (µm)
: (3)30.00 (%) - 2.9128 (µm) : (8)90.00 (%) - 75.9570 (µm)
: (4)40.00 (%) - 6.4214 (µm) : (9)95.00 (%) - 106.3090 (µm)
: (5)60.00 (%) - 17.9757 (µm) : (10)100.0 (%) - 271.7731 (µm)



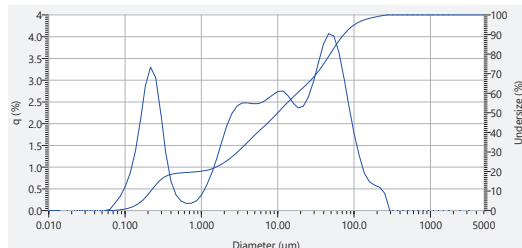
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.063	29	1.471	0.881	43	12.619	2.703	57	108.234	1.651	71	928.318	0.000
2	0.023	0.000	16	0.200	2.872	30	1.715	1.223	44	14.713	2.582	58	126.191	1.363	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.278	31	2.000	1.618	45	17.154	2.414	59	147.128	0.955	73	1261.920	0.000
4	0.032	0.000	18	0.272	3.033	32	2.332	1.993	46	20.000	2.305	60	171.539	0.757	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.220	33	2.719	2.268	47	23.318	2.351	61	200.000	0.678	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.301	34	3.170	2.431	48	27.187	2.569	62	233.183	0.868	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.881	35	3.696	2.492	49	31.696	2.802	63	271.871	0.426	77	5000.000	0.000
8	0.059	0.000	22	0.502	0.365	36	4.309	2.488	50	36.967	3.328	64	316.979	0.000			
9	0.068	0.024	23	0.586	0.224	37	5.024	2.464	51	43.089	3.724	65	369.570	0.000			
10	0.080	0.177	24	0.683	0.173	38	5.857	2.454	52	50.238	3.943	66	430.887	0.000			
11	0.093	0.328	25	0.796	0.179	39	6.829	2.485	53	58.573	3.900	67	502.377	0.000			
12	0.108	0.554	26	0.928	0.236	40	7.962	2.551	54	68.291	3.578	68	585.729	0.000			
13	0.126	0.871	27	1.062	0.374	41	9.283	2.629	55	79.621	3.047	69	682.910	0.000			
14	0.147	1.363	28	1.262	0.594	42	10.823	2.897	56	92.832	2.431	70	796.214	0.000			

Particle Size Distribution

Attached page 27

Sample name : PAWB-3D2
Data name : PAWB-3D2_09
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2175 (µm) : (6)70.00 (%) - 32.3363 (µm)
: (2)20.00 (%) - 0.9861 (µm) : (7)80.00 (%) - 48.6232 (µm)
: (3)30.00 (%) - 2.9648 (µm) : (8)90.00 (%) - 73.5670 (µm)
: (4)40.00 (%) - 6.5319 (µm) : (9)95.00 (%) - 101.6894 (µm)
: (5)60.00 (%) - 18.0250 (µm) : (10)100.0 (%) - 271.7649 (µm)



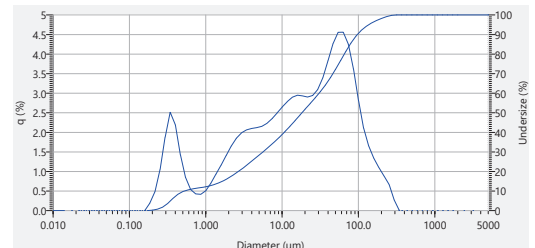
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.054	29	1.471	0.881	43	12.619	2.751	57	108.234	1.763	71	928.318	0.000
2	0.023	0.000	16	0.200	2.877	30	1.715	1.188	44	14.713	2.638	58	126.191	1.257	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.296	31	2.000	1.580	45	17.154	2.472	59	147.128	0.856	73	1261.920	0.000
4	0.032	0.000	18	0.272	3.055	32	2.332	1.956	46	20.000	2.359	60	171.539	0.659	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.246	33	2.719	2.235	47	23.318	2.386	61	200.000	0.583	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.311	34	3.170	2.405	48	27.187	2.656	62	233.183	0.836	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.675	35	3.696	2.473	49	31.696	2.857	63	271.871	0.383	77	5000.000	0.000
8	0.059	0.000	22	0.502	0.359	36	4.309	2.477	50	36.967	3.406	64	316.979	0.000			
9	0.068	0.024	23	0.586	0.215	37	5.024	2.460	51	43.089	3.833	65	369.570	0.000			
10	0.080	0.172	24	0.683	0.164	38	5.857	2.458	52	50.238	4.070	66	430.887	0.000			
11	0.093	0.321	25	0.796	0.169	39	6.829	2.496	53	58.573	4.012	67	502.377	0.000			
12	0.108	0.543	26	0.928	0.224	40	7.962	2.572	54	68.291	3.640	68	585.729	0.000			
13	0.126	0.857	27	1.062	0.356	41	9.283	2.659	55	79.621	3.051	69	682.910	0.000			
14	0.147	1.350	28	1.262	0.570	42	10.823	2.736	56	92.832	2.362	70	796.214	0.000			

Particle Size Distribution

Attached page 28

Sample name : PAWB-4B2X
Data name : PAWB-4B2X_03
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5300 (µm) : (6)70.00 (%) - 46.3829 (µm)
: (2)20.00 (%) - 2.6913 (µm) : (7)80.00 (%) - 65.3053 (µm)
: (3)30.00 (%) - 5.6398 (µm) : (8)90.00 (%) - 96.9760 (µm)
: (4)40.00 (%) - 10.6707 (µm) : (9)95.00 (%) - 137.0750 (µm)
: (5)60.00 (%) - 30.5577 (µm) : (10)100.0 (%) - 316.7975 (µm)



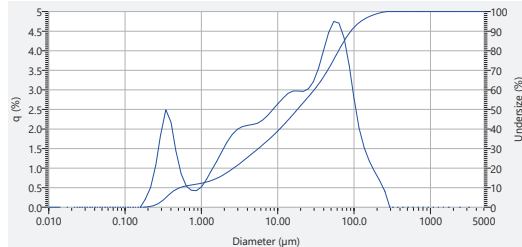
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.900	29	1.471	0.933	43	12.619	2.784	57	108.234	2.809	71	928.318	0.000
2	0.023	0.000	16	0.200	0.198	30	1.715	1.159	44	14.713	2.898	58	126.191	2.102	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.479	31	2.000	1.405	45	17.154	2.946	59	147.128	1.648	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.041	32	2.332	1.649	46	20.000	2.930	60	171.539	1.333	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.872	33	2.719	1.845	47	23.318	2.901	61	200.000	1.086	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.559	34	3.170	1.983	48	27.187	2.940	62	233.183	0.880	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.191	35	3.696	2.061	49	31.696	3.086	63	271.871	0.683	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.424	36	4.309	2.096	50	36.967	3.393	64	316.979	0.268			
9	0.068	0.000	23	0.586	0.849	37	5.024	2.117	51	43.089	3.823	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.536	38	5.857	2.150	52	50.238	4.262	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.425	39	6.829	2.228	53	58.573	4.563	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.413	40	7.962	2.346	54	68.291	4.557	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.505	41	9.283	2.496	55	79.621	4.249	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.699	42	10.823	2.646	56	92.832	3.625	70	796.214	0.000			

Particle Size Distribution

Attached page 29

Sample name : PAWB-4B2X Mean size : 35.46134 (µm)
Data name : PAWB-4B2X_06 Di(v,0.1) : 0.52882 (µm)
Lot number : T43779.27 Di(v,0.5) : 18.08850 (µm)
Transmittance (R) : 87.1 (%) Di(v,0.9) : 90.61765 (µm)
Distribution base : Volume Span : 4.9804
Refractive index (R) : Standard Wet Mode size : 54.4586 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5288 (µm) : (6)70.00 (%) - 45.0898 (µm)
: (2)20.00 (%) - 2.6670 (µm) : (7)80.00 (%) - 62.7518 (µm)
: (3)30.00 (%) - 5.6935 (µm) : (8)90.00 (%) - 90.6174 (µm)
: (4)40.00 (%) - 10.6255 (µm) : (9)95.00 (%) - 123.0772 (µm)
: (5)60.00 (%) - 30.0258 (µm) : (10)100.0 (%) - 271.7691 (µm)



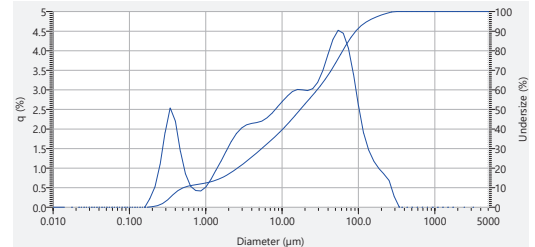
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.946	43	12.619	2.784	57	108.234	2.756
2	0.023	0.000	16	0.200	0.212	30	1.715	1.172	44	14.713	2.956	58	126.191	1.996
3	0.027	0.000	17	0.233	0.502	31	2.000	1.417	45	17.154	2.967	59	147.128	1.508
4	0.032	0.000	18	0.272	1.054	32	2.332	1.657	46	20.000	2.967	60	171.539	1.168
5	0.037	0.000	19	0.317	1.866	33	2.719	1.850	47	23.318	2.959	61	200.000	0.911
6	0.043	0.000	20	0.370	2.487	34	3.170	1.984	48	27.187	3.029	62	233.183	0.879
7	0.050	0.000	21	0.431	2.174	35	3.696	2.058	49	31.696	3.209	63	271.871	0.409
8	0.059	0.000	22	0.502	1.420	36	4.309	2.091	50	36.967	3.542	64	316.979	0.000
9	0.068	0.000	23	0.586	0.851	37	5.024	2.111	51	43.089	4.005	65	369.570	0.000
10	0.080	0.000	24	0.683	0.541	38	5.857	2.144	52	50.238	4.463	66	430.887	0.000
11	0.093	0.000	25	0.796	0.432	39	6.829	2.222	53	58.573	4.745	67	502.377	0.000
12	0.108	0.000	26	0.928	0.422	40	7.962	2.541	54	68.291	4.705	68	585.729	0.000
13	0.126	0.000	27	1.062	0.516	41	9.283	2.493	55	79.621	4.337	69	682.910	0.000
14	0.147	0.000	28	1.262	0.712	42	10.823	2.643	56	92.832	3.643	70	796.214	0.000

Particle Size Distribution

Attached page 30

Sample name : PAWB-4B2X Mean size : 36.29909 (µm)
Data name : PAWB-4B2X_09 Di(v,0.1) : 0.51321 (µm)
Lot number : T43779.27 Di(v,0.5) : 17.32923 (µm)
Transmittance (R) : 86.8 (%) Di(v,0.9) : 92.33936 (µm)
Distribution base : Volume Span : 5.2969
Refractive index (R) : Standard Wet Mode size : 54.3826 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5132 (µm) : (6)70.00 (%) - 44.0460 (µm)
: (2)20.00 (%) - 2.6229 (µm) : (7)80.00 (%) - 62.3341 (µm)
: (3)30.00 (%) - 5.4376 (µm) : (8)90.00 (%) - 92.3393 (µm)
: (4)40.00 (%) - 10.2247 (µm) : (9)95.00 (%) - 131.7358 (µm)
: (5)60.00 (%) - 28.7939 (µm) : (10)100.0 (%) - 316.8014 (µm)



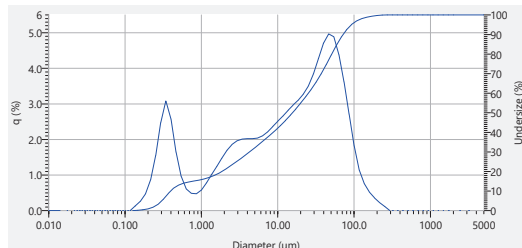
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.947	43	12.619	2.636	57	108.234	2.885
2	0.023	0.000	16	0.200	0.219	30	1.715	1.178	44	14.713	2.954	58	126.191	1.889
3	0.027	0.000	17	0.233	0.514	31	2.000	1.430	45	17.154	3.008	59	147.128	1.457
4	0.032	0.000	18	0.272	1.079	32	2.332	1.679	46	20.000	2.998	60	171.539	1.175
5	0.037	0.000	19	0.317	1.909	33	2.719	1.879	47	23.318	2.979	61	200.000	0.986
6	0.043	0.000	20	0.370	2.536	34	3.170	2.021	48	27.187	3.029	62	233.183	0.840
7	0.050	0.000	21	0.431	2.203	35	3.696	2.102	49	31.696	3.191	63	271.871	0.677
8	0.059	0.000	22	0.502	1.420	36	4.309	2.140	50	36.967	3.489	64	316.979	0.274
9	0.068	0.000	23	0.586	0.848	37	5.024	2.163	51	43.089	3.899	65	369.570	0.000
10	0.080	0.000	24	0.683	0.535	38	5.857	2.200	52	50.238	4.294	66	430.887	0.000
11	0.093	0.000	25	0.796	0.425	39	6.829	2.280	53	58.573	4.519	67	502.377	0.000
12	0.108	0.000	26	0.928	0.416	40	7.962	2.401	54	68.291	4.443	68	585.729	0.000
13	0.126	0.000	27	1.062	0.511	41	9.283	2.553	55	79.621	4.069	69	682.910	0.000
14	0.147	0.000	28	1.262	0.709	42	10.823	2.702	56	92.832	3.408	70	796.214	0.000

Particle Size Distribution

Attached page 31

Sample name : PAWB-4C2 Mean size : 28.31135 (µm)
Data name : PAWB-4C2_03 Di(v,0.1) : 0.39685 (µm)
Lot number : T43779.27 Di(v,0.5) : 15.59347 (µm)
Transmittance (R) : 86.2 (%) Di(v,0.9) : 71.9788 (µm)
Distribution base : Volume Span : 4.5905
Refractive index (R) : Standard Wet Mode size : 46.6532 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3968 (µm) : (6)70.00 (%) - 37.1758 (µm)
: (2)20.00 (%) - 1.8734 (µm) : (7)80.00 (%) - 51.0475 (µm)
: (3)30.00 (%) - 4.2573 (µm) : (8)90.00 (%) - 71.9788 (µm)
: (4)40.00 (%) - 8.7616 (µm) : (9)95.00 (%) - 92.3231 (µm)
: (5)60.00 (%) - 25.2198 (µm) : (10)100.0 (%) - 271.5029 (µm)



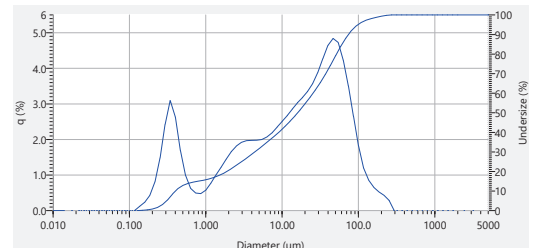
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.299	29	1.471	1.014	43	12.619	2.657	57	108.234	1.817
2	0.023	0.000	16	0.200	0.468	30	1.715	1.235	44	14.713	2.816	58	126.191	1.138
3	0.027	0.000	17	0.233	0.859	31	2.000	1.469	45	17.154	2.966	59	147.128	0.749
4	0.032	0.000	18	0.272	1.537	32	2.332	1.689	46	20.000	3.104	60	171.539	0.515
5	0.037	0.000	19	0.317	2.474	33	2.719	1.855	47	23.318	3.268	61	200.000	0.351
6	0.043	0.000	20	0.370	3.079	34	3.170	1.961	48	27.187	3.497	62	233.183	0.220
7	0.050	0.000	21	0.431	2.579	35	3.696	2.009	49	31.696	3.836	63	271.871	0.113
8	0.059	0.000	22	0.502	1.842	36	4.309	2.019	50	36.967	4.272	64	316.979	0.000
9	0.068	0.000	23	0.586	0.967	37	5.024	2.020	51	43.089	4.709	65	369.570	0.000
10	0.080	0.000	24	0.683	0.607	38	5.857	2.037	52	50.238	4.963	66	430.887	0.000
11	0.093	0.000	25	0.796	0.483	39	6.829	2.101	53	58.573	4.885	67	502.377	0.000
12	0.108	0.000	26	0.928	0.473	40	7.962	2.212	54	68.291	4.380	68	585.729	0.000
13	0.126	0.000	27	1.062	0.575	41	9.283	2.363	55	79.621	3.622	69	682.910	0.000
14	0.147	0.126	28	1.262	0.779	42	10.823	2.514	56	92.832	2.717	70	796.214	0.000

Particle Size Distribution

Attached page 32

Sample name : PAWB-4C2 Mean size : 29.56893 (µm)
Data name : PAWB-4C2_06 Di(v,0.1) : 0.40209 (µm)
Lot number : T43779.27 Di(v,0.5) : 15.96581 (µm)
Transmittance (R) : 86.7 (%) Di(v,0.9) : 74.20949 (µm)
Distribution base : Volume Span : 4.6229
Refractive index (R) : Standard Wet Mode size : 46.5856 (µm)
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4021 (µm) : (6)70.00 (%) - 37.3665 (µm)
: (2)20.00 (%) - 1.9042 (µm) : (7)80.00 (%) - 51.6486 (µm)
: (3)30.00 (%) - 4.3638 (µm) : (8)90.00 (%) - 74.2095 (µm)
: (4)40.00 (%) - 9.0747 (µm) : (9)95.00 (%) - 98.7963 (µm)
: (5)60.00 (%) - 25.4692 (µm) : (10)100.0 (%) - 271.7236 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.233	29	1.471	1.003	43	12.619	2.679	57	108.234	1.816
2	0.023	0.000	16	0.200	0.427	30	1.715	1.217	44	14.713	2.857	58	126.191	1.132
3	0.027	0.000	17	0.233	0.800	31	2.000	1.441	45	17.154	3.030	59	147.128	0.848
4	0.032	0.000	18	0.272	1.469	32	2.332	1.653	46	20.000	3.183	60	171.539	0.650
5	0.037	0.000	19	0.317	2.420	33	2.719	1.814	47	23.318	3.350	61	200.000	0.523
6	0.043	0.000	20	0.370	3.089	34	3.170	1.916	48	27.187	3.568	62	233.183	0.427
7	0.050	0.000	21	0.431	2.632	35	3.696	1.962	49	31.696	3.880	63	271.871	0.283
8	0.059	0.000	22	0.502	1.887	36	4.309	1.973	50	36.967	4.269	64	316.979	0.000
9	0.068	0.000	23	0.586	0.995	37	5.024	1.978	51	43.089	4.644	65	369.570	0.000
10	0.080	0.000	24	0.683	0.622	38	5.857	1.997	52	50.238	4.837	66	430.887	0.000
11	0.093	0.000	25	0.796	0.490	39	6.829	2.068	53	58.573	4.724	67	502.377	0.000
12	0.108	0.000	26	0.928	0.475	40	7.962	2.185	54	68.291	4.229	68	585.729	0.000
13	0.126	0.000	27	1.062	0.573	41	9.283	2.346	55	79.621	3.507	69	682.910	0.000
14	0.147	0.116	28	1.262	0.772	42	10.823	2.510	56	92.832	2.656	70	796.214	0.000

Attached page 33

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Report of Samples Analysis

No.	Diameter (μm)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	
1	0.020	0.000	15	0.172	0.211	29	1.471	0.992	43	12.619	2.679	57	106.234	1.820	71	928.318	0.000
2	0.023	0.000	16	0.200	0.336	30	1.715	1.044	44	14.713	2.871	58	128.151	1.209	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.479	31	2.000	1.426	45	17.154	3.049	59	147.128	0.877	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.161	32	2.332	1.636	46	20.000	3.200	60	171.539	0.689	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.392	33	2.719	1.796	47	23.316	3.361	61	200.000	0.575	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.934	34	3.170	1.897	48	27.187	3.572	62	233.163	0.484	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.652	35	3.696	1.944	49	31.698	3.787	63	271.817	0.342	77	5000.000	0.000
8	0.059	0.009	22	0.502	1.702	36	4.309	1.966	50	36.957	4.262	64	316.970	0.250			
9	0.068	0.000	23	0.586	1.002	37	5.024	1.960	51	43.089	4.635	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.624	38	5.857	1.980	52	50.238	4.836	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.490	39	6.829	2.053	53	58.573	4.726	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.473	40	7.962	2.174	54	69.231	4.623	68	585.729	0.000			
13	0.126	0.000	27	1.082	0.567	41	9.283	2.339	55	79.621	3.530	69	682.910	0.000			
14	0.147	0.104	28	1.262	0.764	42	10.823	2.567	56	92.832	2.657	70	792.214	0.000			

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 $\frac{1}{3}$

ศูนย์เทคโนโลยีโลหะและวัสดุแห่งชาติ National Metal and Materials Technology Center
 สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ
 ๑๔๔ ศูนย์วิจัยวิทยาศาสตร์และเทคโนโลยี ถนนพหลโยธิน ตำบลคลองเตย อำเภอคลองหลวง จังหวัดปทุมธานี ๑๒๑๒๐ โทรศัพท์ +๖๖๔ ๒๕๖๔ ๖๕๐๐ โทรสาร +๖๖๔ ๒๕๖๔ ๖๕๐๑-๕
 114 Thailand Science Park, Phahonyothin Road, Khlong Nueng, Khlong Luang
 Pathum Thani 12120 Thailand Tel. +66 2564 6500 Fax +66 2564 6501-5

Samples detail :

Sample No.	Sample Name	Sample No.	Sample Name
1	PAWE-1B1	7	PAWE-3B3
2	PAWE-1C2	8	PAWE-3C2
3	PAWE-1CP2	9	PAWE-3CP2
4	PAWE-1D2	10	PAWE-3D2
5	PAWE-2B3	11	PAWE-4B2
6	PAWE-2C2	12	PAWE-4C2

Technical Terms :

- Transmittance (R)** : value at particle come transmittance to red light source (percent), ranging from 99-70%.
- Transmittance (B)** : value at particle come transmittance to blue light source (percent), ranging from 99-70%.
- Mean size** : mean diameter value by volume.
- D [v, 0.1]** : 10 volume percent less than or equal to a given diameter.
- D [v, 0.5]** : 50 volume percent less than or equal to a given diameter, median diameter.
- D [v, 0.9]** : 90 volume percent less than or equal to a given diameter.
- Span** : the width of the distribution, which is independent of median size (D [v, 0.5]).

Results :

MTEC received samples from Tetra Tech Inc. Laser diffraction technique is used in order to analyze the particle size and size distribution by wet analysis.

The results of the particle size and size distribution of samples are shown in the attachments No.1 – 36.

Note :

1. The specific surface area is inapplicable unless the density of a sample is known.
2. The results of particle size distribution are dispersion particle only.
3. Some particle of sample are vary size and size over range of instrument.

Interpretation/Opinion : None

Attached pages :

The attachment number	Detail
1 – 3	HORIBA LA960V2 results of PAWE-1B1
4 – 6	HORIBA LA960V2 results of PAWE-1C2
7 – 9	HORIBA LA960V2 results of PAWE-1CP2
10 – 12	HORIBA LA960V2 results of PAWE-1D2
13 – 15	HORIBA LA960V2 results of PAWE-2B3
16 – 18	HORIBA LA960V2 results of PAWE-2C2
19 – 21	HORIBA LA960V2 results of PAWE-3B3
22 – 24	HORIBA LA960V2 results of PAWE-3C2
25 – 27	HORIBA LA960V2 results of PAWE-3CP2
28 – 30	HORIBA LA960V2 results of PAWE-3D2
31 – 33	HORIBA LA960V2 results of PAWE-4B2
34 – 36	HORIBA LA960V2 results of PAWE-4C2

Work performed by :

(Mr.Kriangkai Supanpong)

Approved by :

(Ms.Suphakan Kijamnajsuk)

Remarks

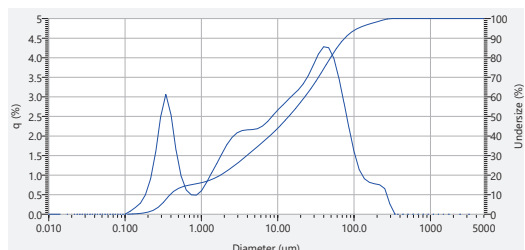
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2. MTEC will not accept liability for any damage whatsoever, resulting directly or indirectly, from using the data, results, conclusions or recommendations in this report for the purposes of designing, manufacturing or for other purposes.
3. Experimental results are only valid for the specimens tested.

Particle Size Distribution

Attached page 1

Sample name : PAWE-1B1
Data name : PAWE-1B1_03
Lot number : T43779.27
Transmittance (R) : 86.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3912 (µm) : (6)70.00 (%) - 34.1937 (µm)
: (2)20.00 (%) - 1.7925 (µm) : (7)80.00 (%) - 49.1495 (µm)
: (3)30.00 (%) - 3.9529 (µm) : (8)90.00 (%) - 75.7653 (µm)
: (4)40.00 (%) - 7.8734 (µm) : (9)95.00 (%) - 112.6570 (µm)
: (5)60.00 (%) - 22.6536 (µm) : (10)100.0 (%) - 316.7944 (µm)



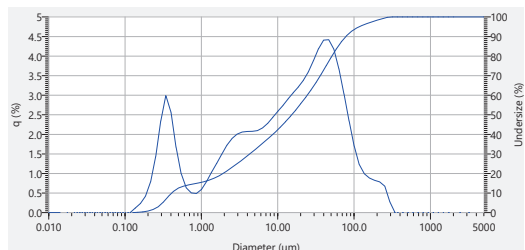
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.279	29	1.471	1.055	43	12.619	2.756	57	108.234	1.586	71	928.318	0.000
2	0.023	0.000	16	0.200	0.499	30	1.715	1.291	44	14.713	2.925	58	126.191	1.135	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.898	31	2.000	1.541	45	17.154	3.050	59	147.128	0.906	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.578	32	2.332	1.779	46	20.000	3.174	60	171.539	0.813	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.500	33	2.719	1.961	47	23.318	3.330	61	200.000	0.775	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.980	34	3.170	2.079	48	27.187	3.539	62	233.183	0.702	76	2000.000	0.000
7	0.050	0.000	21	0.431	5.248	35	3.696	2.137	49	31.696	3.812	63	271.871	0.652	77	5000.000	0.000
8	0.059	0.000	22	0.502	6.832	36	4.309	2.155	50	36.957	4.095	64	316.979	0.263			
9	0.068	0.000	23	0.586	9.971	37	5.024	2.161	51	43.089	4.280	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.617	38	5.857	2.183	52	50.238	4.254	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.494	39	6.829	2.262	53	58.573	3.986	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.487	40	7.962	2.367	54	68.291	3.479	68	585.729	0.000			
13	0.126	0.075	27	1.062	0.596	41	9.283	2.518	55	79.621	2.850	69	682.910	0.000			
14	0.147	0.168	28	1.262	0.808	42	10.823	2.655	56	92.832	2.195	70	796.214	0.000			

Particle Size Distribution

Attached page 3

Sample name : PAWE-1B1
Data name : PAWE-1B1_09
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4095 (µm) : (6)70.00 (%) - 36.1411 (µm)
: (2)20.00 (%) - 1.9402 (µm) : (7)80.00 (%) - 51.3016 (µm)
: (3)30.00 (%) - 4.2961 (µm) : (8)90.00 (%) - 78.3714 (µm)
: (4)40.00 (%) - 8.6702 (µm) : (9)95.00 (%) - 117.3634 (µm)
: (5)60.00 (%) - 24.3850 (µm) : (10)100.0 (%) - 316.8005 (µm)



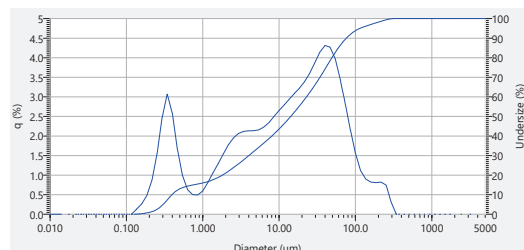
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.230	29	1.471	1.032	43	12.619	2.732	57	108.234	1.698	71	928.318	0.000
2	0.023	0.000	16	0.200	0.419	30	1.715	1.257	44	14.713	2.902	58	126.191	1.225	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.778	31	2.000	1.494	45	17.154	3.050	59	147.128	0.991	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.420	32	2.332	1.720	46	20.000	3.206	60	171.539	0.880	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.336	33	2.719	1.892	47	23.318	3.375	61	200.000	0.822	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.989	34	3.170	2.004	48	27.187	3.592	62	233.183	0.763	76	2000.000	0.000
7	0.050	0.000	21	0.431	5.266	35	3.696	2.057	49	31.696	3.878	63	271.871	0.674	77	5000.000	0.000
8	0.059	0.000	22	0.502	6.889	36	4.309	2.071	50	36.957	4.186	64	316.979	0.272			
9	0.068	0.000	23	0.586	0.897	37	5.024	2.075	51	43.089	4.405	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.631	38	5.857	2.095	52	50.238	4.417	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.500	39	6.829	2.162	53	58.573	4.177	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.486	40	7.962	2.278	54	68.291	3.675	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.587	41	9.283	2.434	55	79.621	3.031	69	682.910	0.000			
14	0.147	0.115	28	1.262	0.792	42	10.823	2.589	56	92.832	2.344	70	796.214	0.000			

Particle Size Distribution

Attached page 2

Sample name : PAWE-1B1
Data name : PAWE-1B1_06
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3968 (µm) : (6)70.00 (%) - 34.3250 (µm)
: (2)20.00 (%) - 1.8240 (µm) : (7)80.00 (%) - 49.2163 (µm)
: (3)30.00 (%) - 4.0287 (µm) : (8)90.00 (%) - 75.1835 (µm)
: (4)40.00 (%) - 8.0637 (µm) : (9)95.00 (%) - 115.9578 (µm)
: (5)60.00 (%) - 22.9117 (µm) : (10)100.0 (%) - 316.8174 (µm)



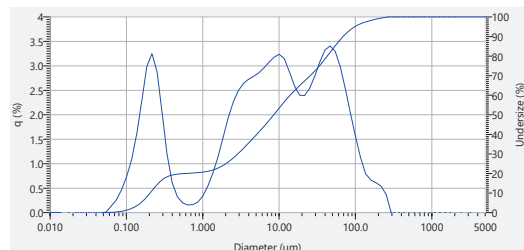
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.285	29	1.471	1.055	43	12.619	2.756	57	108.234	1.546	71	928.318	0.000
2	0.023	0.000	16	0.200	0.475	30	1.715	1.287	44	14.713	2.944	58	126.191	1.109	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.864	31	2.000	1.533	45	17.154	3.088	59	147.128	0.899	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.537	32	2.332	1.766	46	20.000	3.224	60	171.539	0.821	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.487	33	2.719	1.844	47	23.318	3.388	61	200.000	0.804	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.989	34	3.170	2.069	48	27.187	3.597	62	233.183	0.800	76	2000.000	0.000
7	0.050	0.000	21	0.431	5.279	35	3.696	2.114	49	31.696	3.866	63	271.871	0.745	77	5000.000	0.000
8	0.059	0.000	22	0.502	6.899	36	4.309	2.130	50	36.957	4.141	64	316.979	0.301			
9	0.068	0.000	23	0.586	0.986	37	5.024	2.134	51	43.089	4.312	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.625	38	5.857	2.195	52	50.238	4.266	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.499	39	6.829	2.228	53	58.573	3.978	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.489	40	7.962	2.344	54	68.291	3.451	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.596	41	9.283	2.502	55	79.621	2.808	69	682.910	0.000			
14	0.147	0.132	28	1.262	0.808	42	10.823	2.655	56	92.832	2.149	70	796.214	0.000			

Particle Size Distribution

Attached page 4

Sample name : PAWE-1C2
Data name : PAWE-1C2_03
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2048 (µm) : (6)70.00 (%) - 25.7005 (µm)
: (2)20.00 (%) - 0.6123 (µm) : (7)80.00 (%) - 42.8594 (µm)
: (3)30.00 (%) - 2.8825 (µm) : (8)90.00 (%) - 69.1270 (µm)
: (4)40.00 (%) - 5.1055 (µm) : (9)95.00 (%) - 98.8738 (µm)
: (5)60.00 (%) - 13.9381 (µm) : (10)100.0 (%) - 271.7579 (µm)



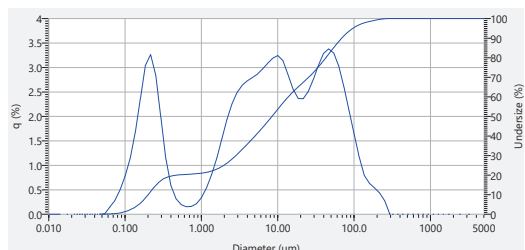
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	2.273	29	1.471	0.810	43	12.619	3.144	57	108.234	1.554	71	928.318	0.000
2	0.023	0.000	16	0.200	2.984	30	1.715	1.140	44	14.713	2.875	58	126.191	1.177	72	1082.340	0.000
3	0.027	0.000	17	0.233	3.247	31	2.000	1.538	45	17.154	3.587	59	147.128	0.787	73	1261.920	0.000
4	0.032	0.000	18	0.272	2.882	32	2.332	1.938	46	20.000	2.989	60	171.539	0.663	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.943	33	2.719	2.263	47	23.318	2.952	61	200.000	0.608	75	1715.390	0.000
6	0.043	0.000	20	0.370	1.169	34	3.170	2.497	48	27.187	2.540	62	233.183	0.540	76	2000.000	0.000
7	0.050	0.000	21	0.431	0.600	35	3.696	2.642	49	31.696	2.786	63	271.871	0.369	77	5000.000	0.000
8	0.059	0.006	22	0.502	0.320	36	4.309	2.726	50	36.957	3.078	64	316.979	0.000			
9	0.068	0.133	23	0.586	0.198	37	5.024	2.787	51	43.089	3.320	65	369.570	0.000			
10	0.080	0.257	24	0.683	0.154	38	5.857	2.854	52	50.238	3.405	66	430.887	0.000			
11	0.093	0.456	25	0.796	0.160	39	6.829	2.958	53	58.573	3.266	67	502.377	0.000			
12	0.108	0.722	26	0.928	0.213	40	7.962	3.072	54	68.291	2.984	68	585.729	0.000			
13	0.126	1.074	27	1.062	0.338	41	9.283	3.176	55	79.621	2.531	69	682.910	0.000			
14	0.147	1.592	28	1.262	0.540	42	10.823	3.236	56	92.832	2.031	70	992.510	0.000			

Particle Size Distribution

Attached page 5

Sample name : PAWE-1C2
Data name : PAWE-1C2_06
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2008 (μm) : (6)70.00 (%) - 25.4888 (μm)
: (2)20.00 (%) - 0.4897 (μm) : (7)80.00 (%) - 42.7945 (μm)
: (3)30.00 (%) - 2.8588 (μm) : (8)90.00 (%) - 68.9599 (μm)
: (4)40.00 (%) - 5.0403 (μm) : (9)95.00 (%) - 96.8626 (μm)
: (5)60.00 (%) - 13.7399 (μm) : (10)100.0 (%) - 271.7164 (μm)



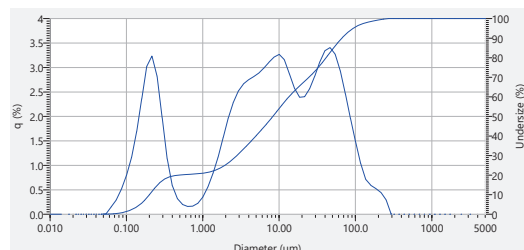
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	2.357	29	1.471	0.807	43	12.619	3.135	57	108.234	1.635
2	0.023	0.000	16	0.200	3.045	30	1.715	1.135	44	14.713	2.867	58	126.191	1.161
3	0.027	0.000	17	0.233	3.262	31	2.000	1.531	45	17.154	2.551	59	147.128	0.788
4	0.032	0.000	18	0.272	2.854	32	2.332	1.931	46	20.000	2.362	60	171.539	0.631
5	0.037	0.000	19	0.317	1.996	33	2.719	2.254	47	23.318	2.380	61	200.000	0.538
6	0.043	0.000	20	0.370	1.133	34	3.170	2.488	48	27.187	2.512	62	233.183	0.430
7	0.050	0.000	21	0.431	0.583	35	3.696	2.636	49	31.696	2.758	63	271.871	0.270
8	0.059	0.007	22	0.502	0.313	36	4.309	2.725	50	36.967	3.047	64	316.979	0.000
9	0.068	0.145	23	0.586	0.194	37	5.024	2.790	51	43.089	3.286	65	369.570	0.000
10	0.080	0.280	24	0.683	0.152	38	5.857	2.853	52	50.238	3.380	66	430.887	0.000
11	0.093	0.493	25	0.796	0.159	39	6.829	2.989	53	58.573	3.259	67	502.377	0.000
12	0.108	0.774	26	0.928	0.212	40	7.962	3.065	54	68.291	3.016	68	585.729	0.000
13	0.126	1.140	27	1.062	0.337	41	9.283	3.187	55	79.621	2.596	69	682.910	0.000
14	0.147	1.673	28	1.262	0.538	42	10.823	3.242	56	92.832	2.116	70	796.214	0.000

Particle Size Distribution

Attached page 6

Sample name : PAWE-1C2
Data name : PAWE-1C2_09
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.2004 (μm) : (6)70.00 (%) - 24.6718 (μm)
: (2)20.00 (%) - 0.4845 (μm) : (7)80.00 (%) - 41.3484 (μm)
: (3)30.00 (%) - 2.8077 (μm) : (8)90.00 (%) - 66.5215 (μm)
: (4)40.00 (%) - 4.9648 (μm) : (9)95.00 (%) - 93.5431 (μm)
: (5)60.00 (%) - 13.4364 (μm) : (10)100.0 (%) - 271.7274 (μm)



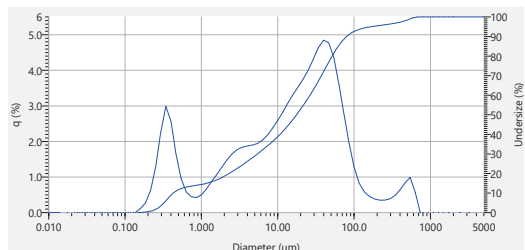
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	2.355	29	1.471	0.828	43	12.619	3.155	57	108.234	1.402
2	0.023	0.000	16	0.200	3.025	30	1.715	1.161	44	14.713	2.867	58	126.191	1.037
3	0.027	0.000	17	0.233	3.233	31	2.000	1.561	45	17.154	2.571	59	147.128	0.712
4	0.032	0.000	18	0.272	2.827	32	2.332	1.962	46	20.000	2.391	60	171.539	0.588
5	0.037	0.000	19	0.317	1.981	33	2.719	2.286	47	23.318	2.401	61	200.000	0.522
6	0.043	0.000	20	0.370	1.139	34	3.170	2.519	48	27.187	2.569	62	233.183	0.442
7	0.050	0.000	21	0.431	0.585	35	3.696	2.664	49	31.696	2.821	63	271.871	0.291
8	0.059	0.007	22	0.502	0.316	36	4.309	2.749	50	36.967	3.113	64	316.979	0.000
9	0.068	0.150	23	0.586	0.198	37	5.024	2.813	51	43.089	3.342	65	369.570	0.000
10	0.080	0.290	24	0.683	0.157	38	5.857	2.884	52	50.238	3.404	66	430.887	0.000
11	0.093	0.508	25	0.796	0.164	39	6.829	2.989	53	58.573	3.269	67	502.377	0.000
12	0.108	0.790	26	0.928	0.220	40	7.962	3.106	54	68.291	2.932	68	585.729	0.000
13	0.126	1.155	27	1.062	0.348	41	9.283	3.211	55	79.621	2.464	69	682.910	0.000
14	0.147	1.682	28	1.262	0.554	42	10.823	3.267	56	92.832	1.961	70	796.214	0.000

Particle Size Distribution

Attached page 7

Sample name : PAWE-1CP2
Data name : PAWE-1CP2_03
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4285 (μm) : (6)70.00 (%) - 37.4131 (μm)
: (2)20.00 (%) - 2.3386 (μm) : (7)80.00 (%) - 51.6210 (μm)
: (3)30.00 (%) - 5.4447 (μm) : (8)90.00 (%) - 79.8413 (μm)
: (4)40.00 (%) - 10.7463 (μm) : (9)95.00 (%) - 169.7437 (μm)
: (5)60.00 (%) - 26.5144 (μm) : (10)100.0 (%) - 682.7267 (μm)



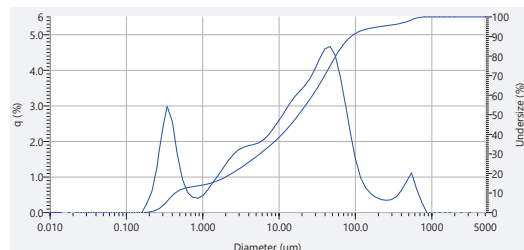
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	0.109	29	1.471	0.872	43	12.619	2.829	57	108.234	1.368
2	0.023	0.000	16	0.200	0.273	30	1.715	1.066	44	14.713	3.086	58	126.191	0.819
3	0.027	0.000	17	0.233	0.619	31	2.000	1.274	45	17.154	3.325	59	147.128	0.580
4	0.032	0.000	18	0.272	1.283	32	2.332	1.480	46	20.000	3.536	60	171.539	0.450
5	0.037	0.000	19	0.317	2.256	33	2.719	1.647	47	23.318	3.753	61	200.000	0.380
6	0.043	0.000	20	0.370	2.983	34	3.170	1.769	48	27.187	4.004	62	233.183	0.348
7	0.050	0.000	21	0.431	2.589	35	3.696	1.835	49	31.696	4.318	63	271.871	0.348
8	0.059	0.000	22	0.502	1.835	36	4.309	1.870	50	36.967	4.642	64	316.979	0.385
9	0.068	0.000	23	0.586	0.949	37	5.024	1.896	51	43.089	4.845	65	369.570	0.477
10	0.080	0.000	24	0.683	0.579	38	5.857	1.939	52	50.238	4.771	66	430.887	0.636
11	0.093	0.000	25	0.796	0.444	39	6.829	2.035	53	58.573	4.359	67	502.377	0.835
12	0.108	0.000	26	0.928	0.418	40	7.962	2.184	54	68.291	3.611	68	585.729	0.989
13	0.126	0.000	27	1.062	0.494	41	9.283	2.382	55	79.621	2.767	69	682.910	0.572
14	0.147	0.000	28	1.262	0.666	42	10.823	2.597	56	92.832	1.948	70	796.214	0.000

Particle Size Distribution

Attached page 8

Sample name : PAWE-1CP2
Data name : PAWE-1CP2_06
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4347 (μm) : (6)70.00 (%) - 39.5018 (μm)
: (2)20.00 (%) - 2.4287 (μm) : (7)80.00 (%) - 55.2207 (μm)
: (3)30.00 (%) - 5.6104 (μm) : (8)90.00 (%) - 87.8149 (μm)
: (4)40.00 (%) - 10.9376 (μm) : (9)95.00 (%) - 206.3951 (μm)
: (5)60.00 (%) - 27.5569 (μm) : (10)100.0 (%) - 795.8063 (μm)



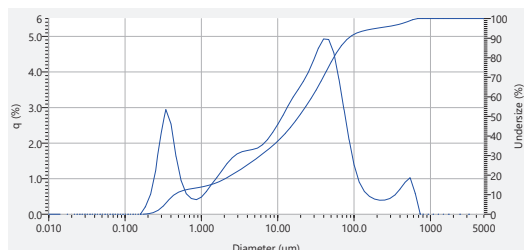
No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)	No.	Diameter (μm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.848	43	12.619	2.829	57	108.234	1.403
2	0.023	0.000	16	0.200	0.251	30	1.715	1.041	44	14.713	3.050	58	126.191	0.980
3	0.027	0.000	17	0.233	0.600	31	2.000	1.250	45	17.154	3.248	59	147.128	0.893
4	0.032	0.000	18	0.272	1.289	32	2.332	1.460	46	20.000	3.407	60	171.539	0.626
5	0.037	0.000	19	0.317	2.251	33	2.719	1.634	47	23.318	3.561	61	200.000	0.426
6	0.043	0.000	20	0.370	2.980	34	3.170	1.761	48	27.187	3.753	62	233.183	0.364
7	0.050	0.000	21	0.431	2.596	35	3.696	1.838	49	31.696	4.021	63	271.871	0.343
8	0.059	0.000	22	0.502	1.819	36	4.309	1.880	50	36.967	4.336	64	316.979	0.361
9	0.068	0.000	23	0.586	0.930	37	5.024	1.911	51	43.089	4.604	65	369.570	0.445
10	0.080	0.000	24	0.683	0.563	38	5.857	1.959	52	50.238	4.668	66	430.887	0.617
11	0.093	0.000	25	0.796	0.430	39	6.829	2.057	53	58.573	4.423	67	502.377	0.867
12	0.108	0.000	26	0.928	0.403	40	7.962	2.203	54	68.291	3.822	68	585.729	1.112
13	0.126	0.000	27	1.062	0.475	41	9.283	2.396	55	79.621	3.055	69	682.910	0.666
14	0.147	0.000	28	1.262	0.644	42	10.823	2.602	56	92.832	2.233	70	796.214	0.300

Particle Size Distribution

Attached page 9

Sample name : PAWE-1CP2
Data name : PAWE-1CP2_09
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4449 (µm) : (6)70.00 (%) - 39.3683 (µm)
: (2)20.00 (%) - 2.5019 (µm) : (7)80.00 (%) - 54.1057 (µm)
: (3)30.00 (%) - 5.9852 (µm) : (8)90.00 (%) - 85.0800 (µm)
: (4)40.00 (%) - 11.6581 (µm) : (9)95.00 (%) - 198.0452 (µm)
: (5)60.00 (%) - 28.1815 (µm) : (10)100.0 (%) - 682.7323 (µm)



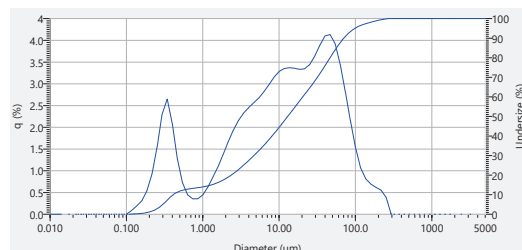
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.840	43	12.619	2.776	57	108.234	1.377
2	0.023	0.000	16	0.200	0.213	30	1.715	1.025	44	14.713	3.045	58	126.191	0.899
3	0.027	0.000	17	0.233	0.553	31	2.000	1.222	45	17.154	3.250	59	147.128	0.640
4	0.032	0.000	18	0.272	1.217	32	2.332	1.419	46	20.000	3.539	60	171.539	0.498
5	0.037	0.000	19	0.317	2.197	33	2.719	1.579	47	23.318	3.728	61	200.000	0.424
6	0.043	0.000	20	0.370	2.938	34	3.170	1.692	48	27.187	3.984	62	233.183	0.391
7	0.050	0.000	21	0.431	2.542	35	3.696	1.758	49	31.696	4.312	63	271.871	0.396
8	0.059	0.000	22	0.502	1.823	36	4.309	1.790	50	36.967	4.689	64	316.979	0.438
9	0.068	0.000	23	0.586	0.943	37	5.024	1.815	51	43.089	4.938	65	369.570	0.539
10	0.080	0.000	24	0.683	0.575	38	5.857	1.859	52	50.238	4.910	66	430.887	0.703
11	0.093	0.000	25	0.796	0.439	39	6.829	1.954	53	58.573	4.536	67	502.377	0.892
12	0.108	0.000	26	0.928	0.409	40	7.962	2.103	54	68.291	3.834	68	585.729	1.025
13	0.126	0.000	27	1.062	0.479	41	9.283	2.304	55	79.621	2.946	69	682.910	0.990
14	0.147	0.000	28	1.262	0.643	42	10.823	2.529	56	92.832	2.095	70	796.214	0.000

Particle Size Distribution

Attached page 10

Sample name : PAWE-1D2
Data name : PAWE-1D2_03
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4130 (µm) : (6)70.00 (%) - 31.8088 (µm)
: (2)20.00 (%) - 2.3759 (µm) : (7)80.00 (%) - 46.5916 (µm)
: (3)30.00 (%) - 4.6794 (µm) : (8)90.00 (%) - 70.6115 (µm)
: (4)40.00 (%) - 8.0979 (µm) : (9)95.00 (%) - 99.1046 (µm)
: (5)60.00 (%) - 20.4685 (µm) : (10)100.0 (%) - 271.7633 (µm)



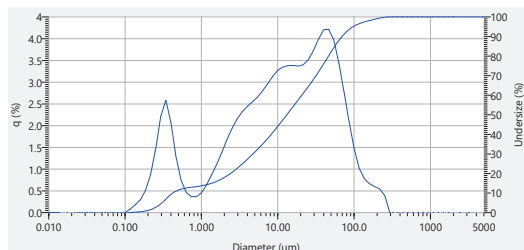
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.395	29	1.471	0.854	43	12.619	3.350	57	108.234	1.528
2	0.023	0.000	16	0.200	0.532	30	1.715	1.093	44	14.713	3.370	58	126.191	1.062
3	0.027	0.000	17	0.233	0.917	31	2.000	1.371	45	17.154	3.357	59	147.128	0.813
4	0.032	0.000	18	0.272	1.531	32	2.332	1.666	46	20.000	3.330	60	171.539	0.693
5	0.037	0.000	19	0.317	2.296	33	2.719	1.831	47	23.318	3.342	61	200.000	0.617
6	0.043	0.000	20	0.370	2.646	34	3.170	2.153	48	27.187	3.440	62	233.183	0.581
7	0.050	0.000	21	0.431	2.086	35	3.696	2.323	49	31.696	3.634	63	271.871	0.387
8	0.059	0.000	22	0.502	1.286	36	4.309	2.452	50	36.967	3.886	64	316.979	0.000
9	0.068	0.000	23	0.586	0.721	37	5.024	2.560	51	43.089	4.098	65	369.570	0.000
10	0.080	0.000	24	0.683	0.445	38	5.857	2.671	52	50.238	4.132	66	430.887	0.000
11	0.093	0.000	25	0.796	0.354	39	6.829	2.817	53	58.573	3.920	67	502.377	0.000
12	0.108	0.000	26	0.928	0.352	40	7.962	2.980	54	68.291	3.440	68	585.729	0.000
13	0.126	0.083	27	1.062	0.443	41	9.283	3.152	55	79.621	2.814	69	682.910	0.000
14	0.147	0.187	28	1.262	0.625	42	10.823	3.285	56	92.832	2.148	70	796.214	0.000

Particle Size Distribution

Attached page 11

Sample name : PAWE-1D2
Data name : PAWE-1D2_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4233 (µm) : (6)70.00 (%) - 31.8608 (µm)
: (2)20.00 (%) - 2.4161 (µm) : (7)80.00 (%) - 46.2500 (µm)
: (3)30.00 (%) - 4.7471 (µm) : (8)90.00 (%) - 69.5214 (µm)
: (4)40.00 (%) - 8.2189 (µm) : (9)95.00 (%) - 97.3232 (µm)
: (5)60.00 (%) - 20.7023 (µm) : (10)100.0 (%) - 271.7633 (µm)



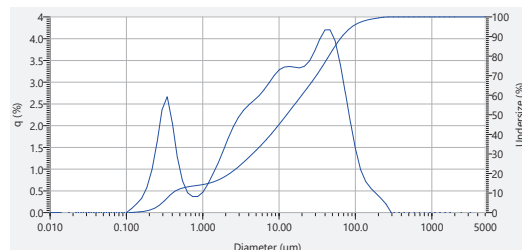
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.291	29	1.471	0.866	43	12.619	3.346	57	108.234	1.470
2	0.023	0.000	16	0.200	0.505	30	1.715	1.104	44	14.713	3.390	58	126.191	1.015
3	0.027	0.000	17	0.233	0.870	31	2.000	1.380	45	17.154	3.382	59	147.128	0.777
4	0.032	0.000	18	0.272	1.459	32	2.332	1.672	46	20.000	3.370	60	171.539	0.664
5	0.037	0.000	19	0.317	2.207	33	2.719	1.933	47	23.318	3.397	61	200.000	0.597
6	0.043	0.000	20	0.370	2.983	34	3.170	2.151	48	27.187	3.511	62	233.183	0.543
7	0.050	0.000	21	0.431	2.067	35	3.696	2.317	49	31.696	3.722	63	271.871	0.387
8	0.059	0.000	22	0.502	1.279	36	4.309	2.441	50	36.967	3.988	64	316.979	0.000
9	0.068	0.000	23	0.586	0.738	37	5.024	2.545	51	43.089	4.201	65	369.570	0.000
10	0.080	0.000	24	0.683	0.459	38	5.857	2.654	52	50.238	4.215	66	430.887	0.000
11	0.093	0.000	25	0.796	0.365	39	6.829	2.798	53	58.573	3.966	67	502.377	0.000
12	0.108	0.000	26	0.928	0.362	40	7.962	2.961	54	68.291	3.440	68	585.729	0.000
13	0.126	0.080	27	1.062	0.453	41	9.283	3.136	55	79.621	2.779	69	682.910	0.000
14	0.147	0.178	28	1.262	0.636	42	10.823	3.273	56	92.832	2.092	70	796.214	0.000

Particle Size Distribution

Attached page 12

Sample name : PAWE-1D2
Data name : PAWE-1D2_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4038 (µm) : (6)70.00 (%) - 30.7402 (µm)
: (2)20.00 (%) - 2.2867 (µm) : (7)80.00 (%) - 44.8003 (µm)
: (3)30.00 (%) - 4.4008 (µm) : (8)90.00 (%) - 66.7865 (µm)
: (4)40.00 (%) - 7.8150 (µm) : (9)95.00 (%) - 90.6113 (µm)
: (5)60.00 (%) - 19.8450 (µm) : (10)100.0 (%) - 271.6508 (µm)



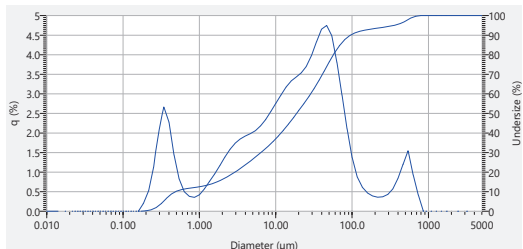
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.329	29	1.471	0.888	43	12.619	3.346	57	108.234	1.461
2	0.023	0.000	16	0.200	0.572	30	1.715	1.131	44	14.713	3.398	58	126.191	1.087
3	0.027	0.000	17	0.233	0.979	31	2.000	1.414	45	17.154	3.343	59	147.128	0.711
4	0.032	0.000	18	0.272	1.608	32	2.332	1.711	46	20.000	3.327	60	171.539	0.559
5	0.037	0.000	19	0.317	2.369	33	2.719	1.974	47	23.318	3.364	61	200.000	0.442
6	0.043	0.000	20	0.370	2.863	34	3.170	2.190	48	27.187	3.493	62	233.183	0.524
7	0.050	0.000	21	0.431	2.086	35	3.696	2.353	49	31.696	3.717	63	271.871	0.199
8	0.059	0.000	22	0.502	1.282	36	4.309	2.474	50	36.967	3.991	64	316.979	0.000
9	0.068	0.000	23	0.586	0.727	37	5.024	2.575	51	43.089	4.200	65	369.570	0.000
10	0.080	0.000	24	0.683	0.458	38	5.857	2.680	52	50.238	4.202	66	430.887	0.000
11	0.093	0.000	25	0.796	0.367	39	6.829	2.821	53	58.573	3.944	67	502.377	0.000
12	0.108	0.000	26	0.928	0.369	40	7.962	2.980	54	68.291	3.416	68	585.729	0.000
13	0.126	0.089	27	1.062	0.465	41	9.283	3.149	55	79.621	2.755	69	682.910	0.000
14	0.147	0.201	28	1.262	0.653	42	10.823	3.283	56	92.832	2.078	70	796.214	0.000

Particle Size Distribution

Attached page 13

Sample name : PAWE-2B3
Data name : PAWE-2B3_03
Lot number : T43779.27
Transmittance (R) : 87.2 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4903 (µm) : (6)70.00 (%) - 40.9329 (µm)
: (2)20.00 (%) - 2.9397 (µm) : (7)80.00 (%) - 57.0275 (µm)
: (3)30.00 (%) - 6.4396 (µm) : (8)90.00 (%) - 96.4212 (µm)
: (4)40.00 (%) - 11.7071 (µm) : (9)95.00 (%) - 360.8283 (µm)
: (5)60.00 (%) - 28.6890 (µm) : (10)100.0 (%) - 795.9203 (µm)



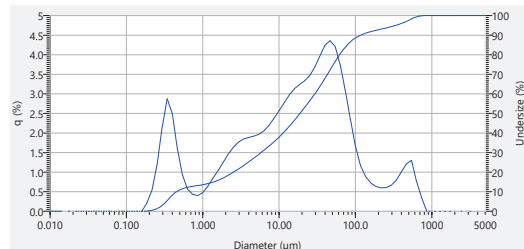
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.765	43	12.619	2.969	57	108.234	1.307	71	928.316	0.000
2	0.023	0.000	16	0.200	0.201	30	1.715	0.954	44	14.713	3.172	58	126.191	0.875	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.517	31	2.000	1.164	45	17.154	3.326	59	147.128	0.609	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.125	32	2.332	1.386	46	20.000	3.429	60	171.539	0.464	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.010	33	2.719	1.580	47	23.318	3.533	61	200.000	0.388	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.882	34	3.170	1.735	48	27.187	3.689	62	233.183	0.366	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.278	35	3.696	1.844	49	31.696	3.871	63	271.871	0.367	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.430	36	4.309	1.919	50	36.967	4.325	64	316.979	0.428			
9	0.068	0.000	23	0.586	0.824	37	5.024	1.982	51	43.089	4.650	65	369.570	0.573			
10	0.080	0.000	24	0.683	0.497	38	5.857	2.057	52	50.238	4.746	66	430.887	0.835			
11	0.093	0.000	25	0.796	0.377	39	6.829	2.180	53	58.573	4.479	67	502.377	1.194			
12	0.108	0.000	26	0.928	0.352	40	7.962	2.343	54	68.291	3.856	68	585.729	1.542			
13	0.126	0.000	27	1.062	0.418	41	9.283	2.547	55	79.621	2.971	69	682.910	0.924			
14	0.147	0.000	28	1.262	0.572	42	10.823	2.758	56	92.832	2.105	70	796.214	0.416			

Particle Size Distribution

Attached page 14

Sample name : PAWE-2B3
Data name : PAWE-2B3_06
Lot number : T43779.27
Transmittance (R) : 86.9 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4563 (µm) : (6)70.00 (%) - 43.1050 (µm)
: (2)20.00 (%) - 2.5611 (µm) : (7)80.00 (%) - 62.1587 (µm)
: (3)30.00 (%) - 5.6566 (µm) : (8)90.00 (%) - 117.8977 (µm)
: (4)40.00 (%) - 11.3125 (µm) : (9)95.00 (%) - 342.3957 (µm)
: (5)60.00 (%) - 29.4162 (µm) : (10)100.0 (%) - 795.8548 (µm)



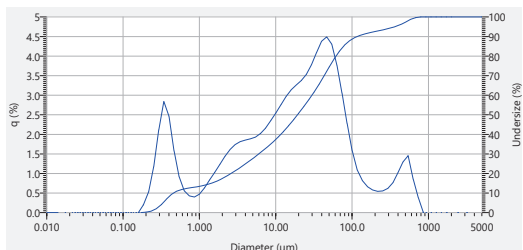
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.844	43	12.619	2.775	57	108.234	1.650	71	928.316	0.000
2	0.023	0.000	16	0.200	0.205	30	1.715	1.037	44	14.713	2.975	58	126.191	1.156	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.533	31	2.000	1.247	45	17.154	3.133	59	147.128	0.878	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.177	32	2.332	1.459	46	20.000	3.238	60	171.539	0.720	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.136	33	2.719	1.634	47	23.318	3.336	61	200.000	0.633	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.876	34	3.170	1.763	48	27.187	3.463	62	233.183	0.596	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.489	35	3.696	1.842	49	31.696	3.677	63	271.871	0.603	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.589	36	4.309	1.884	50	36.967	3.961	64	316.979	0.861			
9	0.068	0.000	23	0.586	0.921	37	5.024	1.915	51	43.089	4.238	65	369.570	0.794			
10	0.080	0.000	24	0.683	0.560	38	5.857	1.961	52	50.238	3.358	66	430.887	1.001			
11	0.093	0.000	25	0.796	0.427	39	6.829	2.055	53	58.573	4.208	67	502.377	1.208			
12	0.108	0.000	26	0.928	0.400	40	7.962	2.195	54	68.291	3.736	68	585.729	1.300			
13	0.126	0.000	27	1.062	0.472	41	9.283	2.376	55	79.621	3.078	69	682.910	0.756			
14	0.147	0.000	28	1.262	0.639	42	10.823	2.572	56	92.832	2.339	70	796.214	0.340			

Particle Size Distribution

Attached page 15

Sample name : PAWE-2B3
Data name : PAWE-2B3_09
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4617 (µm) : (6)70.00 (%) - 43.2120 (µm)
: (2)20.00 (%) - 2.6191 (µm) : (7)80.00 (%) - 61.7409 (µm)
: (3)30.00 (%) - 6.0400 (µm) : (8)90.00 (%) - 117.9210 (µm)
: (4)40.00 (%) - 11.6524 (µm) : (9)95.00 (%) - 368.8947 (µm)
: (5)60.00 (%) - 29.8737 (µm) : (10)100.0 (%) - 795.8946 (µm)



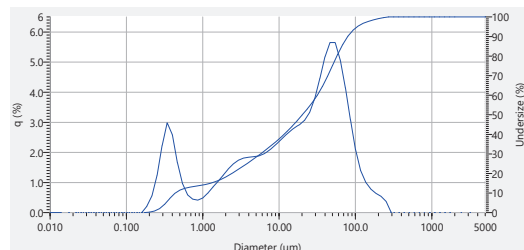
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.834	43	12.619	2.794	57	108.234	1.579	71	928.316	0.000
2	0.023	0.000	16	0.200	0.200	30	1.715	1.024	44	14.713	2.965	58	126.191	1.088	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.524	31	2.000	1.229	45	17.154	3.136	59	147.128	0.815	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.160	32	2.332	1.436	46	20.000	3.257	60	171.539	0.661	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.108	33	2.719	1.608	47	23.318	3.371	61	200.000	0.578	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.836	34	3.170	1.734	48	27.187	3.539	62	233.183	0.541	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.463	35	3.696	1.810	49	31.696	3.770	63	271.871	0.552	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.575	36	4.309	1.851	50	36.967	4.083	64	316.979	0.816			
9	0.068	0.000	23	0.586	0.915	37	5.024	1.882	51	43.089	4.377	65	369.570	0.767			
10	0.080	0.000	24	0.683	0.557	38	5.857	1.928	52	50.238	3.489	66	430.887	1.014			
11	0.093	0.000	25	0.796	0.425	39	6.829	2.022	53	58.573	4.302	67	502.377	1.282			
12	0.108	0.000	26	0.928	0.397	40	7.962	2.163	54	68.291	3.768	68	585.729	1.432			
13	0.126	0.000	27	1.062	0.467	41	9.283	2.348	55	79.621	3.057	69	682.910	0.850			
14	0.147	0.000	28	1.262	0.633	42	10.823	2.547	56	92.832	2.281	70	796.214	0.382			

Particle Size Distribution

Attached page 16

Sample name : PAWE-2C2
Data name : PAWE-2C2_03
Lot number : T43779.27
Transmittance (R) : 86.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4398 (µm) : (6)70.00 (%) - 43.5731 (µm)
: (2)20.00 (%) - 2.4347 (µm) : (7)80.00 (%) - 57.1858 (µm)
: (3)30.00 (%) - 5.7263 (µm) : (8)90.00 (%) - 79.3141 (µm)
: (4)40.00 (%) - 11.6060 (µm) : (9)95.00 (%) - 106.0397 (µm)
: (5)60.00 (%) - 31.7296 (µm) : (10)100.0 (%) - 271.7582 (µm)



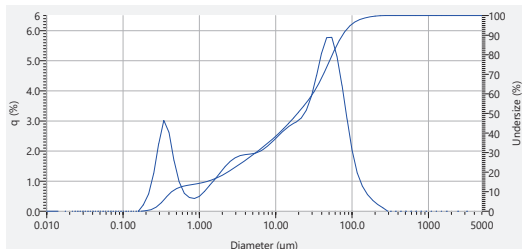
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.848	43	12.619	2.524	57	108.234	2.091	71	928.316	0.000
2	0.023	0.000	16	0.200	0.210	30	1.715	1.036	44	14.713	2.885	58	126.191	1.395	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.554	31	2.000	1.241	45	17.154	2.815	59	147.128	1.006	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.226	32	2.332	1.447	46	20.000	2.917	60	171.539	0.778	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.222	33	2.719	1.616	47	23.318	3.064	61	200.000	0.637	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.981	34	3.170	1.738	48	27.187	3.328	62	233.183	0.537	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.587	35	3.696	1.807	49	31.696	3.787	63	271.871	0.370	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.866	36	4.309	1.837	50	36.967	4.450	64	316.979	0.800			
9	0.068	0.000	23	0.586	0.963	37	5.024	1.853	51	43.089	4.168	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.596	38	5.857	1.880	52	50.238	3.646	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.446	39	6.829	1.948	53	58.573	3.648	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.414	40	7.962	2.058	54	68.291	3.067	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.483	41	9.283	2.206	55	79.621	4.156	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.647	42	10.823	2.364	56	92.832	3.884	70	796.214	0.000			

Particle Size Distribution

Attached page 17

Sample name : PAWE-2C2
Data name : PAWE-2C2_06
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4348 (µm) : (6)70.00 (%) - 42.2058 (µm)
: (2)20.00 (%) - 2.3734 (µm) : (7)80.00 (%) - 55.1824 (µm)
: (3)30.00 (%) - 5.5050 (µm) : (8)90.00 (%) - 75.1295 (µm)
: (4)40.00 (%) - 11.1088 (µm) : (9)95.00 (%) - 95.4044 (µm)
: (5)60.00 (%) - 30.4883 (µm) : (10)100.0 (%) - 271.5042 (µm)



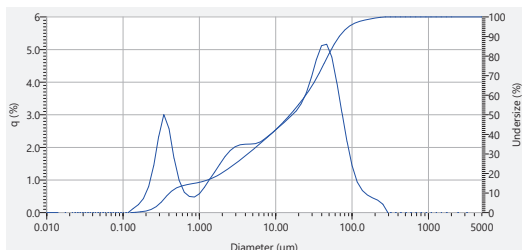
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.860	43	12.619	2.592	57	108.234	2.808	71	928.318	0.000
2	0.023	0.000	16	0.200	0.219	30	1.715	1.052	44	14.713	2.742	58	126.191	1.266	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.566	31	2.000	1.261	45	17.154	2.865	59	147.128	0.829	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.243	32	2.332	1.473	46	20.000	2.959	60	171.539	0.552	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.346	33	2.719	1.647	47	23.318	3.080	61	200.000	0.364	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.012	34	3.170	1.773	48	27.187	3.381	62	233.183	0.223	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.815	35	3.696	1.846	49	31.696	3.812	63	271.871	0.114	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.679	36	4.309	1.879	50	36.957	4.483	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.976	37	5.024	1.897	51	43.089	5.248	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.594	38	5.857	1.939	52	50.238	5.762	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.452	39	6.829	1.996	53	58.573	5.779	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.420	40	7.962	2.109	54	68.291	5.153	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.490	41	9.283	2.260	55	79.621	4.189	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.657	42	10.823	2.420	56	92.832	3.058	70	796.214	0.000			

Particle Size Distribution

Attached page 19

Sample name : PAWE-3B3
Data name : PAWE-3B3_03
Lot number : T43779.27
Transmittance (R) : 86.3 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4078 (µm) : (6)70.00 (%) - 35.6694 (µm)
: (2)20.00 (%) - 1.9442 (µm) : (7)80.00 (%) - 48.2399 (µm)
: (3)30.00 (%) - 4.2873 (µm) : (8)90.00 (%) - 68.0059 (µm)
: (4)40.00 (%) - 8.6375 (µm) : (9)95.00 (%) - 90.6432 (µm)
: (5)60.00 (%) - 24.7520 (µm) : (10)100.0 (%) - 271.7109 (µm)



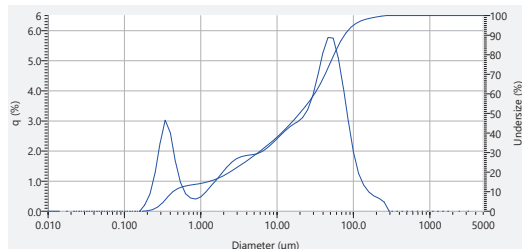
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.242	29	1.471	1.018	43	12.619	2.689	57	108.234	1.428	71	928.318	0.000
2	0.023	0.000	16	0.200	0.431	30	1.715	1.244	44	14.713	2.816	58	126.191	0.931	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.789	31	2.000	1.483	45	17.154	2.962	59	147.128	0.877	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.426	32	2.332	1.715	46	20.000	3.116	60	171.539	0.538	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.339	33	2.719	1.895	47	23.318	3.337	61	200.000	0.449	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.001	34	3.170	2.015	48	27.187	3.686	62	233.183	0.380	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.577	35	3.696	2.076	49	31.696	4.144	63	271.871	0.261	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.887	36	4.309	2.094	50	36.957	4.701	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.990	37	5.024	2.098	51	43.089	5.117	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.622	38	5.857	2.113	52	50.238	5.162	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.492	39	6.829	2.170	53	58.573	4.786	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.478	40	7.962	2.272	54	68.291	3.975	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.576	41	9.283	2.411	55	79.621	3.058	69	682.910	0.000			
14	0.147	0.122	28	1.262	0.779	42	10.823	2.543	56	92.832	2.172	70	796.214	0.000			

Particle Size Distribution

Attached page 18

Sample name : PAWE-2C2
Data name : PAWE-2C2_09
Lot number : T43779.27
Transmittance (R) : 86.5 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4336 (µm) : (6)70.00 (%) - 42.6233 (µm)
: (2)20.00 (%) - 2.4219 (µm) : (7)80.00 (%) - 55.6904 (µm)
: (3)30.00 (%) - 5.6717 (µm) : (8)90.00 (%) - 78.4366 (µm)
: (4)40.00 (%) - 11.3973 (µm) : (9)95.00 (%) - 99.9352 (µm)
: (5)60.00 (%) - 30.9528 (µm) : (10)100.0 (%) - 271.7330 (µm)



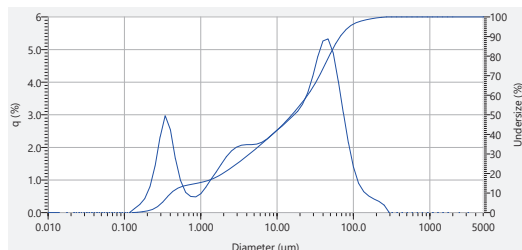
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.838	43	12.619	2.577	57	108.234	1.951	71	928.318	0.000
2	0.023	0.000	16	0.200	0.216	30	1.715	1.027	44	14.713	2.741	58	126.191	1.250	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.569	31	2.000	1.233	45	17.154	2.868	59	147.128	0.862	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.256	32	2.332	1.442	46	20.000	2.968	60	171.539	0.538	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.287	33	2.719	1.615	47	23.318	3.108	61	200.000	0.507	75	1715.390	0.000
6	0.043	0.000	20	0.370	3.024	34	3.170	1.741	48	27.187	3.389	62	233.183	0.427	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.603	35	3.696	1.815	49	31.696	3.831	63	271.871	0.302	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.681	36	4.309	1.851	50	36.957	4.513	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.961	37	5.024	1.872	51	43.089	5.266	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.575	38	5.857	1.904	52	50.238	5.768	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.436	39	6.829	1.978	53	58.573	5.750	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.404	40	7.962	2.094	54	68.291	5.066	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.473	41	9.283	2.249	55	79.621	4.106	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.638	42	10.823	2.412	56	92.832	2.971	70	796.214	0.000			

Particle Size Distribution

Attached page 20

Sample name : PAWE-3B3
Data name : PAWE-3B3_06
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4097 (µm) : (6)70.00 (%) - 35.9341 (µm)
: (2)20.00 (%) - 1.9681 (µm) : (7)80.00 (%) - 48.1693 (µm)
: (3)30.00 (%) - 4.3423 (µm) : (8)90.00 (%) - 67.2966 (µm)
: (4)40.00 (%) - 8.7712 (µm) : (9)95.00 (%) - 88.9610 (µm)
: (5)60.00 (%) - 25.0926 (µm) : (10)100.0 (%) - 271.6866 (µm)



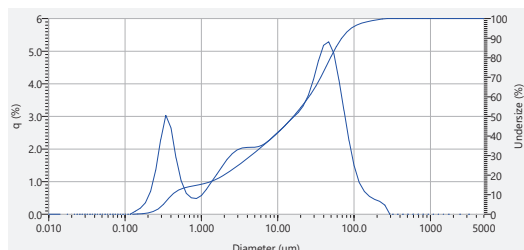
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.244	29	1.471	1.017	43	12.619	2.687	57	108.234	1.386	71	928.318	0.000
2	0.023	0.000	16	0.200	0.433	30	1.715	1.242	44	14.713	2.803	58	126.191	0.892	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.787	31	2.000	1.480	45	17.154	2.949	59	147.128	0.842	73	1261.920	0.000
4	0.032	0.000	18	0.272	1.418	32	2.332	1.708	46	20.000	3.102	60	171.539	0.504	74	1471.290	0.000
5	0.037	0.000	19	0.317	2.318	33	2.719	1.888	47	23.318	3.325	61	200.000	0.415	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.966	34	3.170	2.004	48	27.187	3.687	62	233.183	0.342	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.548	35	3.696	2.063	49	31.697	4.175	63	271.871	0.228	77	5000.000	0.000
8	0.059	0.000	22	0.502	1.851	36	4.309	2.080	50	36.957	4.786	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.983	37	5.024	2.083	51	43.089	5.259	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.620	38	5.857	2.099	52	50.238	5.325	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.492	39	6.829	2.156	53	58.573	4.901	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.478	40	7.962	2.257	54	68.291	4.038	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.577	41	9.283	2.396	55	79.621	3.059	69	682.910	0.000			
14	0.147	0.123	28	1.262	0.780	42	10.823	2.528	56	92.832	2.170	70	796.214	0.000			

Particle Size Distribution

Attached page 21

Sample name : PAWE-3B3
Data name : PAWE-3B3_09
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4154 (µm) : (6)70.00 (%) - 36.6729 (µm)
: (2)20.00 (%) - 2.0007 (µm) : (7)80.00 (%) - 49.2261 (µm)
: (3)30.00 (%) - 4.4526 (µm) : (8)90.00 (%) - 63.0840 (µm)
: (4)40.00 (%) - 9.0478 (µm) : (9)95.00 (%) - 91.6270 (µm)
: (5)60.00 (%) - 25.6109 (µm) : (10)100.0 (%) - 271.7212 (µm)



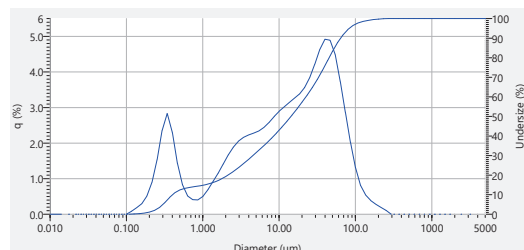
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.085	29	1.471	0.988	43	12.619	2.650	57	108.234	1.477
2	0.023	0.000	16	0.200	0.353	30	1.715	1.217	44	14.713	2.815	58	126.191	0.964
3	0.027	0.000	17	0.233	0.697	31	2.000	1.448	45	17.154	2.987	59	147.128	0.695
4	0.032	0.000	18	0.272	1.341	32	2.332	1.673	46	20.000	3.115	60	171.539	0.546
5	0.037	0.000	19	0.317	2.292	33	2.719	1.849	47	23.318	3.321	61	200.000	0.458
6	0.043	0.000	20	0.370	3.027	34	3.170	1.989	48	27.187	3.639	62	233.183	0.393
7	0.050	0.000	21	0.431	2.647	35	3.696	2.029	49	31.696	4.118	63	271.871	0.278
8	0.059	0.000	22	0.502	1.724	36	4.309	2.047	50	36.967	4.703	64	316.979	0.000
9	0.068	0.000	23	0.586	1.025	37	5.024	2.050	51	43.089	5.178	65	369.570	0.000
10	0.080	0.000	24	0.683	0.640	38	5.857	2.055	52	50.238	5.986	66	430.887	0.000
11	0.093	0.000	25	0.796	0.500	39	6.829	2.123	53	58.573	4.929	67	502.377	0.000
12	0.108	0.000	26	0.928	0.478	40	7.962	2.227	54	68.291	4.128	68	585.729	0.000
13	0.126	0.000	27	1.062	0.589	41	9.283	2.369	55	79.621	3.181	69	682.910	0.000
14	0.147	0.090	28	1.262	0.766	42	10.823	2.511	56	92.832	2.253	70	796.214	0.000

Particle Size Distribution

Attached page 22

Sample name : PAWE-3C2
Data name : PAWE-3C2_03
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4044 (µm) : (6)70.00 (%) - 32.9293 (µm)
: (2)20.00 (%) - 2.1558 (µm) : (7)80.00 (%) - 45.3992 (µm)
: (3)30.00 (%) - 4.5549 (µm) : (8)90.00 (%) - 64.1729 (µm)
: (4)40.00 (%) - 8.5132 (µm) : (9)95.00 (%) - 83.4480 (µm)
: (5)60.00 (%) - 22.5233 (µm) : (10)100.0 (%) - 271.4799 (µm)



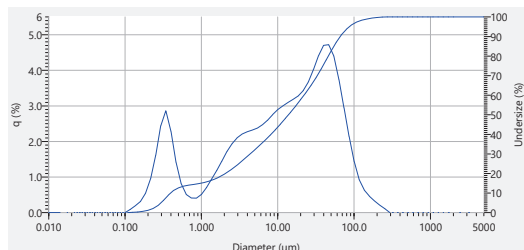
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.292	29	1.471	0.918	43	12.619	3.017	57	108.234	1.303
2	0.023	0.000	16	0.200	0.509	30	1.715	1.149	44	14.713	3.142	58	126.191	0.803
3	0.027	0.000	17	0.233	0.888	31	2.000	1.407	45	17.154	3.260	59	147.128	0.535
4	0.032	0.000	18	0.272	1.520	32	2.332	1.667	46	20.000	3.382	60	171.539	0.382
5	0.037	0.000	19	0.317	2.352	33	2.719	1.886	47	23.318	3.562	61	200.000	0.276
6	0.043	0.000	20	0.370	2.838	34	3.170	2.051	48	27.187	3.833	62	233.183	0.189
7	0.050	0.000	21	0.431	2.302	35	3.696	2.160	49	31.696	4.213	63	271.871	0.107
8	0.059	0.000	22	0.502	1.432	36	4.309	2.227	50	36.967	4.632	64	316.979	0.000
9	0.068	0.000	23	0.586	0.827	37	5.024	2.277	51	43.089	4.918	65	369.570	0.000
10	0.080	0.000	24	0.683	0.513	38	5.857	2.337	52	50.238	4.890	66	430.887	0.000
11	0.093	0.000	25	0.796	0.407	39	6.829	2.438	53	58.573	4.680	67	502.377	0.000
12	0.108	0.000	26	0.928	0.401	40	7.962	2.575	54	68.291	3.734	68	585.729	0.000
13	0.126	0.080	27	1.062	0.495	41	9.283	2.744	55	79.621	2.868	69	682.910	0.000
14	0.147	0.180	28	1.262	0.686	42	10.823	2.895	56	92.832	2.025	70	796.214	0.000

Particle Size Distribution

Attached page 23

Sample name : PAWE-3C2
Data name : PAWE-3C2_06
Lot number : T43779.27
Transmittance (R) : 86.4 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3963 (µm) : (6)70.00 (%) - 32.9821 (µm)
: (2)20.00 (%) - 2.0795 (µm) : (7)80.00 (%) - 46.0377 (µm)
: (3)30.00 (%) - 4.3685 (µm) : (8)90.00 (%) - 65.0117 (µm)
: (4)40.00 (%) - 8.1640 (µm) : (9)95.00 (%) - 86.9332 (µm)
: (5)60.00 (%) - 22.1180 (µm) : (10)100.0 (%) - 271.4917 (µm)



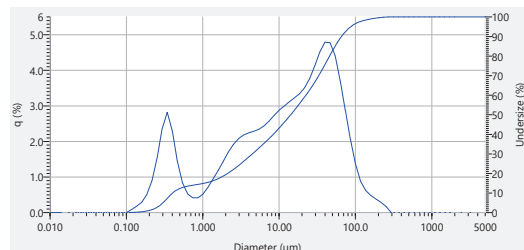
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.308	29	1.471	0.941	43	12.619	3.009	57	108.234	1.436
2	0.023	0.000	16	0.200	0.540	30	1.715	1.179	44	14.713	3.095	58	126.191	0.920
3	0.027	0.000	17	0.233	0.943	31	2.000	1.445	45	17.154	3.182	59	147.128	0.628
4	0.032	0.000	18	0.272	1.599	32	2.332	1.712	46	20.000	3.276	60	171.539	0.455
5	0.037	0.000	19	0.317	2.427	33	2.719	1.934	47	23.318	3.427	61	200.000	0.325
6	0.043	0.000	20	0.370	2.899	34	3.170	2.101	48	27.187	3.689	62	233.183	0.210
7	0.050	0.000	21	0.431	2.296	35	3.696	2.208	49	31.696	4.013	63	271.871	0.116
8	0.059	0.000	22	0.502	1.411	36	4.309	2.272	50	36.967	4.405	64	316.979	0.000
9	0.068	0.000	23	0.586	0.815	37	5.024	2.319	51	43.089	4.689	65	369.570	0.000
10	0.080	0.000	24	0.683	0.509	38	5.857	2.374	52	50.238	4.720	66	430.887	0.000
11	0.093	0.000	25	0.796	0.407	39	6.829	2.469	53	58.573	4.461	67	502.377	0.000
12	0.108	0.000	26	0.928	0.406	40	7.962	2.598	54	68.291	3.742	68	585.729	0.000
13	0.126	0.084	27	1.062	0.506	41	9.283	2.754	55	79.621	2.945	69	682.910	0.000
14	0.147	0.188	28	1.262	0.703	42	10.823	2.895	56	92.832	2.145	70	796.214	0.000

Particle Size Distribution

Attached page 24

Sample name : PAWE-3C2
Data name : PAWE-3C2_09
Lot number : T43779.27
Transmittance (R) : 86.6 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4050 (µm) : (6)70.00 (%) - 33.1048 (µm)
: (2)20.00 (%) - 2.1274 (µm) : (7)80.00 (%) - 45.9078 (µm)
: (3)30.00 (%) - 4.4800 (µm) : (8)90.00 (%) - 65.7678 (µm)
: (4)40.00 (%) - 8.4013 (µm) : (9)95.00 (%) - 87.2318 (µm)
: (5)60.00 (%) - 22.4793 (µm) : (10)100.0 (%) - 271.6272 (µm)



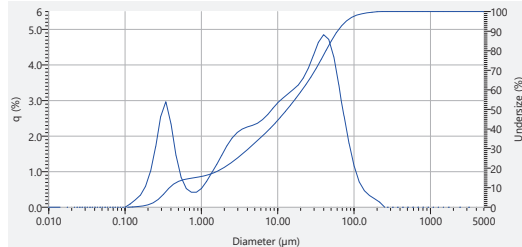
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.290	29	1.471	0.942	43	12.619	2.996	57	108.234	1.360
2	0.023	0.000	16	0.200	0.507	30	1.715	1.176	44	14.713	3.114	58	126.191	0.874
3	0.027	0.000	17	0.233	0.888	31	2.000	1.436	45	17.154	3.225	59	147.128	0.618
4	0.032	0.000	18	0.272	1.520	32	2.332	1.697	46	20.000	3.340	60	171.539	0.478
5	0.037	0.000	19	0.317	2.340	33	2.719	1.913	47	23.318	3.510	61	200.000	0.375
6	0.043	0.000	20	0.370	2.819	34	3.170	2.075	48	27.187	3.764	62	233.183	0.266
7	0.050	0.000	21	0.431	2.296	35	3.696	2.178	49	31.696	4.121	63	271.871	0.171
8	0.059	0.000	22	0.502	1.435	36	4.309	2.240	50	36.967	4.515	64	316.979	0.000
9	0.068	0.000	23	0.586	0.835	37	5.024	2.284	51	43.089	4.791	65	369.570	0.000
10	0.080	0.000	24	0.683	0.523	38	5.857	2.339	52	50.238	4.774	66	430.887	0.000
11	0.093	0.000	25	0.796	0.417	39	6.829	2.435	53	58.573	4.406	67	502.377	0.000
12	0.108	0.000	26	0.928	0.412	40	7.962	2.567	54	68.291	3.697	68	585.729	0.000
13	0.126	0.080	27	1.062	0.510	41	9.283	2.731	55	79.621	2.870	69	682.910	0.000
14	0.147	0.178	28	1.262	0.706	42	10.823	2.878	56	92.832	2.057	70	796.214	0.000

Particle Size Distribution

Attached page 25

Sample name : PAWE-3CP2
Data name : PAWE-3CP2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3836 (µm) : (6)70.00 (%) - 30.8716 (µm)
: (2)20.00 (%) - 1.9365 (µm) : (7)80.00 (%) - 42.7874 (µm)
: (3)30.00 (%) - 4.1559 (µm) : (8)90.00 (%) - 60.7506 (µm)
: (4)40.00 (%) - 7.8520 (µm) : (9)95.00 (%) - 78.7894 (µm)
: (5)60.00 (%) - 20.9184 (µm) : (10)100.0 (%) - 232.9325 (µm)



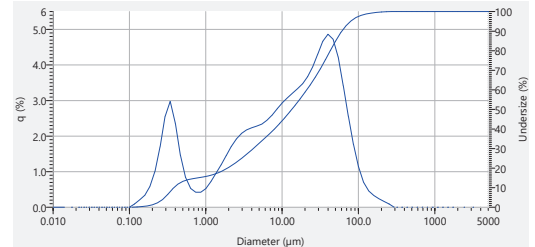
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.330	29	1.471	0.963	43	12.619	3.066	57	108.234	1.132
2	0.023	0.000	16	0.200	0.583	30	1.715	1.200	44	14.713	3.186	58	126.191	0.708
3	0.027	0.000	17	0.233	1.009	31	2.000	1.463	45	17.154	3.304	59	147.128	0.464
4	0.032	0.000	18	0.272	1.692	32	2.332	1.724	46	20.000	3.438	60	171.539	0.330
5	0.037	0.000	19	0.317	2.554	33	2.719	1.938	47	23.318	3.627	61	200.000	0.238
6	0.043	0.000	20	0.370	2.982	34	3.170	2.098	48	27.187	3.892	62	233.183	0.143
7	0.050	0.000	21	0.431	2.351	35	3.696	2.196	49	31.696	4.266	63	271.871	0.000
8	0.059	0.000	22	0.502	1.450	36	4.309	2.255	50	36.957	4.640	64	316.979	0.000
9	0.068	0.000	23	0.586	0.838	37	5.024	2.300	51	43.089	4.848	65	369.570	0.000
10	0.080	0.000	24	0.683	0.525	38	5.857	2.359	52	50.238	4.718	66	430.887	0.000
11	0.093	0.000	25	0.796	0.421	39	6.829	2.460	53	58.573	4.236	67	502.377	0.000
12	0.108	0.000	26	0.928	0.420	40	7.962	2.602	54	68.291	3.432	68	585.729	0.000
13	0.126	0.091	27	1.062	0.523	41	9.283	2.775	55	79.621	2.575	69	682.910	0.000
14	0.147	0.205	28	1.262	0.723	42	10.823	2.937	56	92.832	1.752	70	796.214	0.000

Particle Size Distribution

Attached page 26

Sample name : PAWE-3CP2
Data name : PAWE-3CP2_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3839 (µm) : (6)70.00 (%) - 30.9341 (µm)
: (2)20.00 (%) - 1.9431 (µm) : (7)80.00 (%) - 42.8010 (µm)
: (3)30.00 (%) - 4.2002 (µm) : (8)90.00 (%) - 60.8169 (µm)
: (4)40.00 (%) - 7.9572 (µm) : (9)95.00 (%) - 78.9730 (µm)
: (5)60.00 (%) - 21.0516 (µm) : (10)100.0 (%) - 271.4014 (µm)



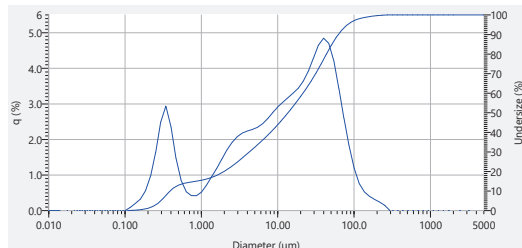
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.332	29	1.471	0.955	43	12.619	3.066	57	108.234	1.132
2	0.023	0.000	16	0.200	0.579	30	1.715	1.189	44	14.713	3.201	58	126.191	0.694
3	0.027	0.000	17	0.233	1.002	31	2.000	1.448	45	17.154	3.338	59	147.128	0.457
4	0.032	0.000	18	0.272	1.685	32	2.332	1.708	46	20.000	3.469	60	171.539	0.327
5	0.037	0.000	19	0.317	2.551	33	2.719	1.817	47	23.318	3.666	61	200.000	0.238
6	0.043	0.000	20	0.370	2.979	34	3.170	2.073	48	27.187	3.941	62	233.183	0.143
7	0.050	0.000	21	0.431	2.364	35	3.696	2.172	49	31.696	4.300	63	271.871	0.089
8	0.059	0.000	22	0.502	1.459	36	4.309	2.231	50	36.957	4.666	64	316.979	0.000
9	0.068	0.000	23	0.586	0.842	37	5.024	2.277	51	43.089	4.863	65	369.570	0.000
10	0.080	0.000	24	0.683	0.526	38	5.857	2.336	52	50.238	4.724	66	430.887	0.000
11	0.093	0.000	25	0.796	0.421	39	6.829	2.441	53	58.573	4.226	67	502.377	0.000
12	0.108	0.000	26	0.928	0.419	40	7.962	2.586	54	68.291	3.419	68	585.729	0.000
13	0.126	0.091	27	1.062	0.520	41	9.283	2.765	55	79.621	2.586	69	682.910	0.000
14	0.147	0.204	28	1.262	0.718	42	10.823	2.932	56	92.832	1.771	70	796.214	0.000

Particle Size Distribution

Attached page 27

Sample name : PAWE-3CP2
Data name : PAWE-3CP2_09
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.3898 (µm) : (6)70.00 (%) - 31.4692 (µm)
: (2)20.00 (%) - 1.9969 (µm) : (7)80.00 (%) - 43.5190 (µm)
: (3)30.00 (%) - 4.2771 (µm) : (8)90.00 (%) - 62.3430 (µm)
: (4)40.00 (%) - 8.0768 (µm) : (9)95.00 (%) - 82.2045 (µm)
: (5)60.00 (%) - 21.4237 (µm) : (10)100.0 (%) - 271.5846 (µm)



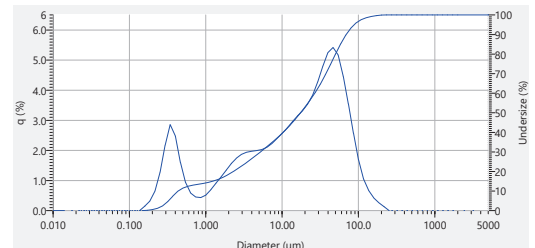
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.319	29	1.471	0.940	43	12.619	3.046	57	108.234	1.189
2	0.023	0.000	16	0.200	0.555	30	1.715	1.183	44	14.713	3.175	58	126.191	0.756
3	0.027	0.000	17	0.233	0.964	31	2.000	1.442	45	17.154	3.301	59	147.128	0.524
4	0.032	0.000	18	0.272	1.632	32	2.332	1.700	46	20.000	3.438	60	171.539	0.388
5	0.037	0.000	19	0.317	2.491	33	2.719	1.914	47	23.318	3.636	61	200.000	0.311
6	0.043	0.000	20	0.370	2.937	34	3.170	2.072	48	27.187	3.914	62	233.183	0.236
7	0.050	0.000	21	0.431	2.360	35	3.696	2.173	49	31.696	4.281	63	271.871	0.146
8	0.059	0.000	22	0.502	1.483	36	4.309	2.234	50	36.957	4.650	64	316.979	0.000
9	0.068	0.000	23	0.586	0.846	37	5.024	2.279	51	43.089	4.844	65	369.570	0.000
10	0.080	0.000	24	0.683	0.527	38	5.857	2.337	52	50.238	4.701	66	430.887	0.000
11	0.093	0.000	25	0.796	0.420	39	6.829	2.439	53	58.573	4.211	67	502.377	0.000
12	0.108	0.000	26	0.928	0.417	40	7.962	2.580	54	68.291	3.427	68	585.729	0.000
13	0.126	0.087	27	1.062	0.516	41	9.283	2.754	55	79.621	2.587	69	682.910	0.000
14	0.147	0.196	28	1.262	0.713	42	10.823	2.915	56	92.832	1.819	70	796.214	0.000

Particle Size Distribution

Attached page 28

Sample name : PAWE-3D2
Data name : PAWE-3D2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4369 (µm) : (6)70.00 (%) - 37.6066 (µm)
: (2)20.00 (%) - 2.3345 (µm) : (7)80.00 (%) - 50.1431 (µm)
: (3)30.00 (%) - 5.2222 (µm) : (8)90.00 (%) - 69.2032 (µm)
: (4)40.00 (%) - 10.3166 (µm) : (9)95.00 (%) - 88.4256 (µm)
: (5)60.00 (%) - 26.8220 (µm) : (10)100.0 (%) - 232.9070 (µm)



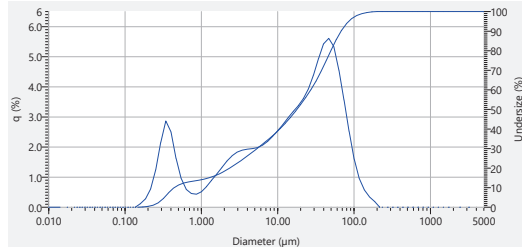
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.145	29	1.471	0.909	43	12.619	2.791	57	108.234	1.681
2	0.023	0.000	16	0.200	0.315	30	1.715	1.116	44	14.713	2.954	58	126.191	1.042
3	0.027	0.000	17	0.233	0.644	31	2.000	1.339	45	17.154	3.142	59	147.128	0.881
4	0.032	0.000	18	0.272	1.281	32	2.332	1.560	46	20.000	3.318	60	171.539	0.417
5	0.037	0.000	19	0.317	2.165	33	2.719	1.739	47	23.318	3.534	61	200.000	0.255
6	0.043	0.000	20	0.370	2.851	34	3.170	1.866	48	27.187	3.837	62	233.183	0.130
7	0.050	0.000	21	0.431	2.476	35	3.696	1.938	49	31.696	4.272	63	271.871	0.000
8	0.059	0.000	22	0.502	1.589	36	4.309	1.971	50	36.957	4.794	64	316.979	0.000
9	0.068	0.000	23	0.586	0.940	37	5.024	1.990	51	43.089	5.247	65	369.570	0.000
10	0.080	0.000	24	0.683	0.581	38	5.857	2.023	52	50.238	5.415	66	430.887	0.000
11	0.093	0.000	25	0.796	0.451	39	6.829	2.101	53	58.573	5.167	67	502.377	0.000
12	0.108	0.000	26	0.928	0.430	40	7.962	2.227	54	68.291	4.459	68	585.729	0.000
13	0.126	0.000	27	1.062	0.513	41	9.283	2.394	55	79.621	3.549	69	682.910	0.000
14	0.147	0.000	28	1.262	0.693	42	10.823	2.588	56	92.832	2.573	70	796.214	0.000

Particle Size Distribution

Attached page 29

Sample name : PAWE-3D2
Data name : PAWE-3D2_06
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4417 (µm) : (6)70.00 (%) - 37.6640 (µm)
: (2)20.00 (%) - 2.3691 (µm) : (7)80.00 (%) - 49.7415 (µm)
: (3)30.00 (%) - 5.3517 (µm) : (8)90.00 (%) - 67.7029 (µm)
: (4)40.00 (%) - 10.6705 (µm) : (9)95.00 (%) - 85.5157 (µm)
: (5)60.00 (%) - 27.1659 (µm) : (10)100.0 (%) - 199.8404 (µm)



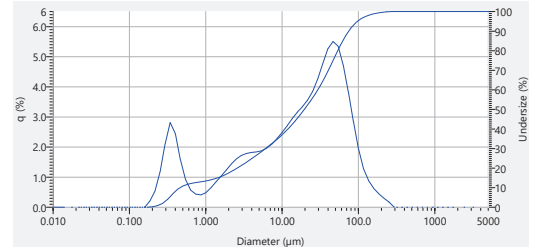
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.116	29	1.471	0.897	43	12.619	2.749	57	108.234	1.986
2	0.023	0.000	16	0.200	0.274	30	1.715	1.098	44	14.713	2.911	58	126.191	0.951
3	0.027	0.000	17	0.233	0.602	31	2.000	1.314	45	17.154	3.177	59	147.128	0.572
4	0.032	0.000	18	0.272	1.228	32	2.332	1.529	46	20.000	3.388	60	171.539	0.339
5	0.037	0.000	19	0.317	2.152	33	2.719	1.703	47	23.318	3.630	61	200.000	0.192
6	0.043	0.000	20	0.370	2.884	34	3.170	1.828	48	27.187	3.829	62	233.183	0.090
7	0.050	0.000	21	0.431	2.502	35	3.696	1.894	49	31.696	4.377	63	271.871	0.000
8	0.059	0.000	22	0.502	1.621	36	4.309	1.925	50	36.957	4.933	64	316.979	0.000
9	0.068	0.000	23	0.586	0.955	37	5.024	1.943	51	43.089	5.423	65	369.570	0.000
10	0.080	0.000	24	0.683	0.590	38	5.857	1.975	52	50.238	5.659	66	430.887	0.000
11	0.093	0.000	25	0.795	0.456	39	6.829	2.056	53	58.573	5.336	67	502.377	0.000
12	0.108	0.000	26	0.928	0.431	40	7.962	2.165	54	68.291	4.556	68	585.729	0.000
13	0.126	0.000	27	1.062	0.510	41	9.283	2.360	55	79.621	3.589	69	682.910	0.000
14	0.147	0.000	28	1.262	0.685	42	10.823	2.547	56	92.832	2.525	70	796.214	0.000

Particle Size Distribution

Attached page 30

Sample name : PAWE-3D2
Data name : PAWE-3D2_09
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.4635 (µm) : (6)70.00 (%) - 40.4497 (µm)
: (2)20.00 (%) - 2.6129 (µm) : (7)80.00 (%) - 53.7047 (µm)
: (3)30.00 (%) - 6.1170 (µm) : (8)90.00 (%) - 74.7761 (µm)
: (4)40.00 (%) - 11.9268 (µm) : (9)95.00 (%) - 97.2878 (µm)
: (5)60.00 (%) - 29.3629 (µm) : (10)100.0 (%) - 271.6198 (µm)



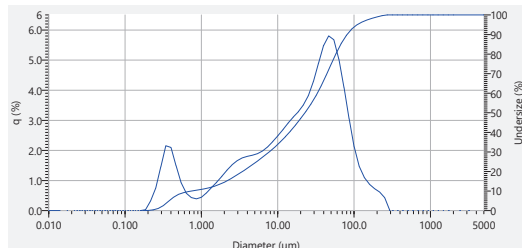
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.842	43	12.619	2.715	57	108.234	1.929
2	0.023	0.000	16	0.200	0.205	30	1.715	1.029	44	14.713	2.949	58	126.191	1.269
3	0.027	0.000	17	0.233	0.531	31	2.000	1.232	45	17.154	3.162	59	147.128	0.874
4	0.032	0.000	18	0.272	1.184	32	2.332	1.435	46	20.000	3.348	60	171.539	0.617
5	0.037	0.000	19	0.317	2.098	33	2.719	1.600	47	23.318	3.569	61	200.000	0.438
6	0.043	0.000	20	0.370	2.830	34	3.170	1.717	48	27.187	3.847	62	233.183	0.296
7	0.050	0.000	21	0.431	2.444	35	3.696	1.784	49	31.696	4.261	63	271.871	0.168
8	0.059	0.000	22	0.502	1.573	36	4.309	1.816	50	36.957	4.778	64	316.979	0.000
9	0.068	0.000	23	0.586	0.922	37	5.024	1.838	51	43.089	5.266	65	369.570	0.000
10	0.080	0.000	24	0.683	0.566	38	5.857	1.876	52	50.238	5.507	66	430.887	0.000
11	0.093	0.000	25	0.795	0.434	39	6.829	1.963	53	58.573	5.367	67	502.377	0.000
12	0.108	0.000	26	0.928	0.407	40	7.962	2.100	54	68.291	4.713	68	585.729	0.000
13	0.126	0.000	27	1.062	0.478	41	9.283	2.286	55	79.621	3.832	69	682.910	0.000
14	0.147	0.000	28	1.262	0.643	42	10.823	2.491	56	92.832	2.844	70	796.214	0.000

Particle Size Distribution

Attached page 31

Sample name : PAWE-4B2
Data name : PAWE-4B2_03
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.7443 (µm) : (6)70.00 (%) - 44.1999 (µm)
: (2)20.00 (%) - 3.4736 (µm) : (7)80.00 (%) - 57.7617 (µm)
: (3)30.00 (%) - 7.7753 (µm) : (8)90.00 (%) - 81.0884 (µm)
: (4)40.00 (%) - 14.1809 (µm) : (9)95.00 (%) - 110.4366 (µm)
: (5)60.00 (%) - 33.0497 (µm) : (10)100.0 (%) - 271.7715 (µm)



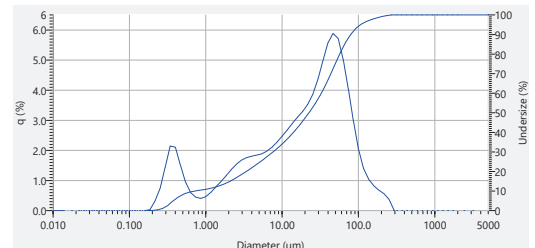
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.788	43	12.619	2.689	57	108.234	2.116
2	0.023	0.000	16	0.200	0.024	30	1.715	0.943	44	14.713	2.905	58	126.191	1.463
3	0.027	0.000	17	0.233	0.319	31	2.000	1.136	45	17.154	3.100	59	147.128	1.095
4	0.032	0.000	18	0.272	0.736	32	2.332	1.339	46	20.000	3.280	60	171.539	0.873
5	0.037	0.000	19	0.317	1.441	33	2.719	1.516	47	23.318	3.530	61	200.000	0.728
6	0.043	0.000	20	0.370	2.153	34	3.170	1.654	48	27.187	3.819	62	233.183	0.615
7	0.050	0.000	21	0.431	2.097	35	3.696	1.745	49	31.696	4.281	63	271.871	0.419
8	0.059	0.000	22	0.502	1.489	36	4.309	1.800	50	36.957	4.887	64	316.979	0.000
9	0.068	0.000	23	0.586	0.926	37	5.024	1.839	51	43.089	5.480	65	369.570	0.000
10	0.080	0.000	24	0.683	0.575	38	5.857	1.888	52	50.238	5.803	66	430.887	0.000
11	0.093	0.000	25	0.795	0.430	39	6.829	1.980	53	58.573	5.675	67	502.377	0.000
12	0.108	0.000	26	0.928	0.388	40	7.962	2.115	54	68.291	5.026	68	585.729	0.000
13	0.126	0.000	27	1.062	0.441	41	9.283	2.293	55	79.621	4.056	69	682.910	0.000
14	0.147	0.000	28	1.262	0.586	42	10.823	2.485	56	92.832	3.056	70	796.214	0.000

Particle Size Distribution

Attached page 32

Sample name : PAWE-4B2
Data name : PAWE-4B2_06
Lot number : T43779.27
Transmittance (R) : 86.8 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.7358 (µm) : (6)70.00 (%) - 43.6460 (µm)
: (2)20.00 (%) - 3.4078 (µm) : (7)80.00 (%) - 56.8523 (µm)
: (3)30.00 (%) - 7.6588 (µm) : (8)90.00 (%) - 79.1543 (µm)
: (4)40.00 (%) - 14.0528 (µm) : (9)95.00 (%) - 106.9502 (µm)
: (5)60.00 (%) - 32.7199 (µm) : (10)100.0 (%) - 271.7571 (µm)



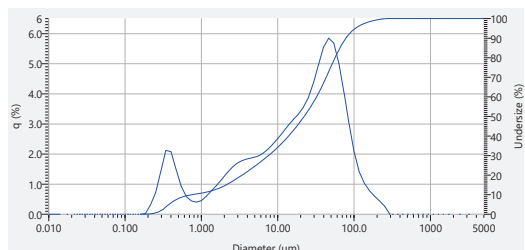
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.788	43	12.619	2.689	57	108.234	2.031
2	0.023	0.000	16	0.200	0.024	30	1.715	0.964	44	14.713	2.901	58	126.191	1.390
3	0.027	0.000	17	0.233	0.314	31	2.000	1.158	45	17.154	3.103	59	147.128	1.034
4	0.032	0.000	18	0.272	0.726	32	2.332	1.361	46	20.000	3.291	60	171.539	0.819
5	0.037	0.000	19	0.317	1.426	33	2.719	1.536	47	23.318	3.523	61	200.000	0.676
6	0.043	0.000	20	0.370	2.143	34	3.170	1.670	48	27.187	3.851	62	233.183	0.556
7	0.050	0.000	21	0.431	2.103	35	3.696	1.757	49	31.696	4.339	63	271.871	0.368
8	0.059	0.000	22	0.502	1.509	36	4.309	1.806	50	36.957	4.965	64	316.979	0.000
9	0.068	0.000	23	0.586	0.947	37	5.024	1.840	51	43.089	5.569	65	369.570	0.000
10	0.080	0.000	24	0.683	0.583	38	5.857	1.884	52	50.238	5.880	66	430.887	0.000
11	0.093	0.000	25	0.795	0.446	39	6.829	1.971	53	58.573	5.716	67	502.377	0.000
12	0.108	0.000	26	0.928	0.402	40	7.962	2.104	54	68.291	5.014	68	585.729	0.000
13	0.126	0.000	27	1.062	0.457	41	9.283	2.281	55	79.621	4.038	69	682.910	0.000
14	0.147	0.000	28	1.262	0.604	42	10.823	2.474	56	92.832	2.972	70	796.214	0.000

Particle Size Distribution

Attached page 33

Sample name : PAWE-4B2
Data name : PAWE-4B2_09
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.7681 (µm) : (6)70.00 (%) - 43.2314 (µm)
: (2)20.00 (%) - 3.4377 (µm) : (7)80.00 (%) - 56.3948 (µm)
: (3)30.00 (%) - 7.6128 (µm) : (8)90.00 (%) - 78.2721 (µm)
: (4)40.00 (%) - 13.8655 (µm) : (9)95.00 (%) - 104.1960 (µm)
: (5)60.00 (%) - 32.3346 (µm) : (10)100.0 (%) - 271.7082 (µm)



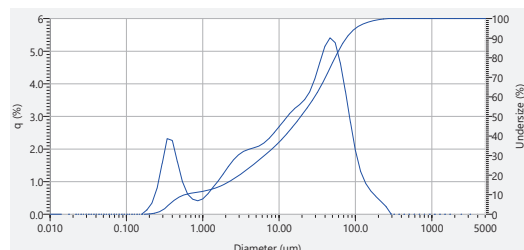
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.784	43	12.619	2.724	57	108.234	2.059	71	928.316	0.000
2	0.023	0.000	16	0.200	0.023	30	1.715	0.962	44	14.713	2.942	58	126.191	1.402	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.311	31	2.000	1.159	45	17.154	3.138	59	147.128	1.022	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.719	32	2.332	1.367	46	20.000	3.319	60	171.539	0.776	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.410	33	2.719	1.549	47	23.318	3.544	61	200.000	0.597	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.117	34	3.170	1.689	48	27.187	3.889	62	233.183	0.437	76	2000.000	0.000
7	0.050	0.000	21	0.431	2.977	35	3.696	1.781	49	31.696	4.351	63	271.871	0.258	77	5000.000	0.000
8	0.059	0.000	22	0.502	3.489	36	4.309	1.835	50	36.957	4.967	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.935	37	5.024	1.873	51	43.089	5.551	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.985	38	5.857	1.921	52	50.238	5.946	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.439	39	6.829	2.012	53	58.573	5.662	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.397	40	7.962	2.146	54	68.291	5.000	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.451	41	9.283	2.325	55	79.621	4.048	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.599	42	10.823	2.519	56	92.832	3.000	70	796.214	0.000			

Particle Size Distribution

Attached page 34

Sample name : PAWE-4C2
Data name : PAWE-4C2_03
Lot number : T43779.27
Transmittance (R) : 86.7 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5893 (µm) : (6)70.00 (%) - 40.5647 (µm)
: (2)20.00 (%) - 3.0244 (µm) : (7)80.00 (%) - 54.1456 (µm)
: (3)30.00 (%) - 6.4659 (µm) : (8)90.00 (%) - 76.0654 (µm)
: (4)40.00 (%) - 11.8671 (µm) : (9)95.00 (%) - 100.9055 (µm)
: (5)60.00 (%) - 29.1882 (µm) : (10)100.0 (%) - 271.6873 (µm)



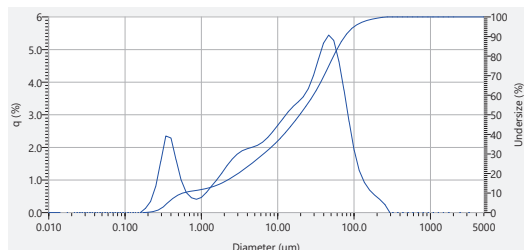
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.823	43	12.619	2.862	57	108.234	1.837	71	928.316	0.000
2	0.023	0.000	16	0.200	0.129	30	1.715	1.015	44	14.713	3.077	58	126.191	1.308	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.340	31	2.000	1.230	45	17.154	3.236	59	147.128	0.942	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.787	32	2.332	1.458	46	20.000	3.360	60	171.539	0.708	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.545	33	2.719	1.659	47	23.318	3.510	61	200.000	0.540	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.338	34	3.170	1.818	48	27.187	3.751	62	233.183	0.391	76	2000.000	0.000
7	0.050	0.000	21	0.431	3.281	35	3.696	1.924	49	31.696	4.138	63	271.871	0.227	77	5000.000	0.000
8	0.059	0.000	22	0.502	3.604	36	4.309	1.988	50	36.957	4.651	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.994	37	5.024	2.033	51	43.089	5.152	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.614	38	5.857	2.085	52	50.238	5.407	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.459	39	6.829	2.181	53	58.573	5.260	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.412	40	7.962	2.319	54	68.291	4.648	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.489	41	9.283	2.498	55	79.621	3.785	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.625	42	10.823	2.688	56	92.832	2.821	70	796.214	0.000			

Particle Size Distribution

Attached page 35

Sample name : PAWE-4C2
Data name : PAWE-4C2_06
Lot number : T43779.27
Transmittance (R) : 87.1 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5795 (µm) : (6)70.00 (%) - 40.5056 (µm)
: (2)20.00 (%) - 3.0354 (µm) : (7)80.00 (%) - 53.9760 (µm)
: (3)30.00 (%) - 6.5555 (µm) : (8)90.00 (%) - 75.7984 (µm)
: (4)40.00 (%) - 12.0177 (µm) : (9)95.00 (%) - 100.5974 (µm)
: (5)60.00 (%) - 29.2563 (µm) : (10)100.0 (%) - 271.7047 (µm)



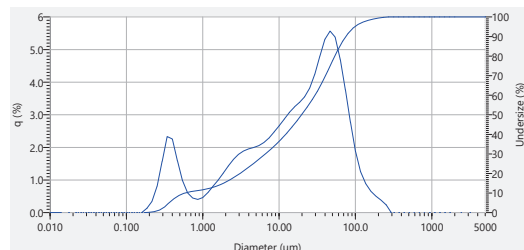
No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.812	43	12.619	2.881	57	108.234	1.912	71	928.316	0.000
2	0.023	0.000	16	0.200	0.129	30	1.715	1.000	44	14.713	3.086	58	126.191	1.286	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.342	31	2.000	1.211	45	17.154	3.256	59	147.128	0.921	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.794	32	2.332	1.435	46	20.000	3.381	60	171.539	0.692	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.563	33	2.719	1.632	47	23.318	3.550	61	200.000	0.534	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.345	34	3.170	1.788	48	27.187	3.786	62	233.183	0.405	76	2000.000	0.000
7	0.050	0.000	21	0.431	3.284	35	3.696	1.894	49	31.696	4.180	63	271.871	0.251	77	5000.000	0.000
8	0.059	0.000	22	0.502	3.616	36	4.309	1.958	50	36.957	4.708	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.997	37	5.024	2.004	51	43.089	5.201	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.613	38	5.857	2.058	52	50.238	5.441	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.455	39	6.829	2.157	53	58.573	5.272	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.408	40	7.962	2.299	54	68.291	4.637	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.463	41	9.283	2.483	55	79.621	3.761	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.617	42	10.823	2.679	56	92.832	2.794	70	796.214	0.000			

Particle Size Distribution

Attached page 36

Sample name : PAWE-4C2
Data name : PAWE-4C2_09
Lot number : T43779.27
Transmittance (R) : 87.0 (%)
Distribution base : Volume
Refractive index (R) : Standard Wet
[Standard wet(1.530 - 0.100),water(1.333)]
Dispersion : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis
Circulate speed : 12
Agitation : 10

Diameter on cumulative % : (1)10.00 (%) - 0.5893 (µm) : (6)70.00 (%) - 40.6216 (µm)
: (2)20.00 (%) - 3.0808 (µm) : (7)80.00 (%) - 53.7916 (µm)
: (3)30.00 (%) - 6.6569 (µm) : (8)90.00 (%) - 75.0566 (µm)
: (4)40.00 (%) - 12.1896 (µm) : (9)95.00 (%) - 98.9216 (µm)
: (5)60.00 (%) - 29.5496 (µm) : (10)100.0 (%) - 271.6942 (µm)



No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)	No.	Diameter (µm)	q (%)
1	0.020	0.000	15	0.172	0.000	29	1.471	0.806	43	12.619	2.866	57	108.234	1.875	71	928.316	0.000
2	0.023	0.000	16	0.200	0.128	30	1.715	0.994	44	14.713	3.070	58	126.191	1.246	72	1082.340	0.000
3	0.027	0.000	17	0.233	0.343	31	2.000	1.204	45	17.154	3.248	59	147.128	0.882	73	1261.920	0.000
4	0.032	0.000	18	0.272	0.795	32	2.332	1.428	46	20.000	3.379	60	171.539	0.656	74	1471.290	0.000
5	0.037	0.000	19	0.317	1.559	33	2.719	1.626	47	23.318	3.550	61	200.000	0.502	75	1715.390	0.000
6	0.043	0.000	20	0.370	2.329	34	3.170	1.781	48	27.187	3.816	62	233.183	0.379	76	2000.000	0.000
7	0.050	0.000	21	0.431	3.257	35	3.696	1.889	49	31.698	4.236	63	271.871	0.236	77	5000.000	0.000
8	0.059	0.000	22	0.502	3.589	36	4.309	1.950	50	36.957	4.789	64	316.979	0.000			
9	0.068	0.000	23	0.586	0.977	37	5.024	1.995	51	43.089	5.316	65	369.570	0.000			
10	0.080	0.000	24	0.683	0.600	38	5.857	2.049	52	50.238	5.565	66	430.887	0.000			
11	0.093	0.000	25	0.796	0.447	39	6.829	2.147	53	58.573	5.376	67	502.377	0.000			
12	0.108	0.000	26	0.928	0.402	40	7.962	2.287	54	68.291	4.695	68	585.729	0.000			
13	0.126	0.000	27	1.062	0.458	41	9.283	2.471	55	79.621	3.774	69	682.910	0.000			
14	0.147	0.000	28	1.262	0.611	42	10.823	2.665	56	92.832	2.773	70	792.914	0.000			

MTEC0871/68

Report of Samples Analysis

Issued Date : 30 July 2025
Customer : Tetra Tech Inc.
 77 Soi Udomsuk 39/1, Sukhumvit 103 Road, Bangchak,
 Phrakhanong, Bangkok 10260
 Tel : 0 2361 3767 Fax : 0 2361 3768
Serviced by : Physical Analysis Section,
 Technical Support for Material Analysis Division, MTEC
Date received : 13 May 2025
Date analyzed : 13 June 2025
Samples : Seabed Sediment Project No. T43779.28 (12 samples)
Identification no. : See sample detail.
Objective : Particle size and size distribution analysis.
Instrument : Mastersizer 2000, Malvern Instruments.
Test method : Laser diffraction technique.
Conditions : Red light source : He-Ne laser source, λ : 633 nm.
 Blue light source : Solid state light source
 Beam length : 2.35 mm.
 Particle size range analysis : 0.02 – 2,000 μm .
 Dispersion unit : Hydro 2000S (A)
 Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath.
 : Stir at 2000 rpm during measuring.
 Sample refractive index : 1.5300 (as default standard wet)
 Laser power : 84.5

Sample preparation : 1. Prepare the instrument for wet analysis. Stirrer should be
 set at 2000 rpm on Hydro 2000S (A).
 2. 10 – 50 ml. of sample was dispersed and ultrasound
 10 minutes with ultrasonic bath.
 3. Add the dispersed sample into Hydro 2000S (A) unit and
 measure the dispersed sample with Mastersizer 2000.

Samples detail :

Sample No.	Sample Name	Sample No.	Sample Name
1	MGWA-1B2Y	7	MGWA-3B2X
2	MGWA-1C2	8	MGWA-3C2
3	MGWA-1CP2	9	MGWA-3CP2
4	MGWA-1D2	10	MGWA-3D2
5	MGWA-2B2X	11	MGWA-4B2X
6	MGWA-2C2	12	MGWA-4C2

Technical Terms : **Obscuration** : value at particle come cover to laser beam
 (percent), ranging from 10 – 30%.
Residual : on error value of analysis. This value should be
 less than 5%.
D [4, 3] : mean diameter value by volume.
D [3, 2] : mean diameter value by surface area.
D (v, 0.1) : 10 volume percent less than or equal to a given
 diameter.
D (v, 0.5) : 50 volume percent less than or equal to a given
 diameter, median diameter.
D (v, 0.9) : 90 volume percent less than or equal to a given
 diameter.
Span : the width of the distribution, which is independent
 of median size (D (v, 0.5)).
Uniformity : a measure of the absolute deviations from the
 median (D (v, 0.5)).
Specific S.A. : specific surface area, calculated from
 density and D [3, 2] of a sample.

Results :

MTEC received samples from Tetra Tech Inc. Laser diffraction technique is used in order
 to analyze the particle size and size distribution by wet analysis.
 The results of the particle size and size distribution of samples are shown in the attachments
 No.1 – 36.

MTEC0871/68

1/4

ศูนย์เทคโนโลยีโลหะและวัสดุแห่งชาติ
 สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ
 114 Thailand Science Park, Phahonyothin Road, Khlong Nueng, Khlong Luang,
 จังหวัดปทุมธานี ๑๑๑๑๐ โทรศัพท์ : ๐๒-๒๖๔ ๖๕๐๐ โทรสาร : ๐๒-๒๖๔ ๖๕๐๑-๕
 National Metal and Materials Technology Center
 National Science and Technology Development Agency
 114 Thailand Science Park, Phahonyothin Road, Khlong Nueng, Khlong Luang,
 Pathum Thani 12120 Thailand Tel : +66 2564 6500 Fax : +66 2564 6501-5 http: r.th

Note : 1. The specific surface area is inapplicable unless the density of a sample is known.
 2. The results of particle size distribution are dispersion particle only.
 3. Some particle of sample are vary size and size over range of instrument.

Interpretation/Opinion : None

Attached pages :

The attachment number	Detail
1 – 3	Mastersizer 2000 results of MGWA-1B2Y
4 – 6	Mastersizer 2000 results of MGWA-1C2
7 – 9	Mastersizer 2000 results of MGWA-1CP2
10 – 12	Mastersizer 2000 results of MGWA-1D2
13 – 15	Mastersizer 2000 results of MGWA-2B2X
16 – 18	Mastersizer 2000 results of MGWA-2C2
19 – 21	Mastersizer 2000 results of MGWA-3B2X
22 – 24	Mastersizer 2000 results of MGWA-3C2
25 – 27	Mastersizer 2000 results of MGWA-3CP2
28 – 30	Mastersizer 2000 results of MGWA-3D2
31 – 33	Mastersizer 2000 results of MGWA-4B2X
34 – 36	Mastersizer 2000 results of MGWA-4C2

MTEC0871/68

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Work performed by :

Sarmart Nutsai

(Mr.Sarmart Nutsai)

Approved by :

Suphakan K.

(Ms.Suphakan Kijamnajsuk)

Remarks

- MTEC does not allow any alteration or modification of this report, or any part of
 this report, without prior formal written permission from MTEC.
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 indirectly, from using the data, results, conclusions or recommendations in this
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- Experimental results are only valid for the specimens tested.

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Result : Analysis Report

Attached page 1

Sample ID : MGWA-1B2Y_1

Measured : 13 มิถุนายน 2568 10:38:20

Sample File : E:\TSM-A-PHAMS2000\Modified
C:\Program Files (x86)\MTEC\Tetra Tech\mas

Analysed : 13 มิถุนายน 2568 10:38:22

Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

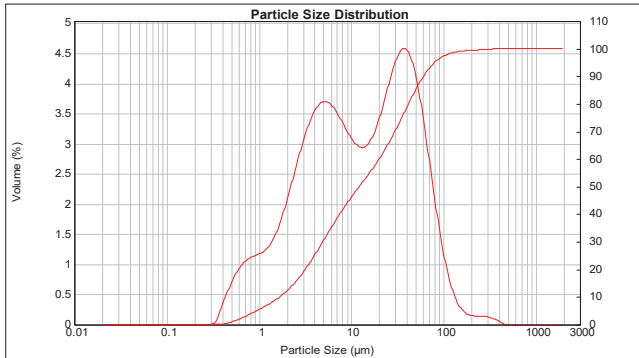
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 18.39 Residual (%) : 0.724
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0133 %Vol Specific Surface Area : 1.4 m²/g
Mean Diameters : D (0.1) : 1.67 um D (0.5) : 12.13 um D (0.9) : 60.62 um
D [4.3] : 24.74 um D [3.2] : 4.29 um Span : 4.858 Uniformity : 1.66

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.34	7.962	3.28	58.573	3.21	430.887	0.00	0.020	0.00	0.147	0.00
0.027	0.00	0.172	0.00	1.262	1.37	9.263	3.10	68.291	2.48	502.397	0.00	0.027	0.00	0.200	0.00
0.032	0.00	0.203	0.00	1.471	1.37	10.823	2.98	79.621	1.78	565.729	0.00	0.032	0.00	0.233	0.00
0.037	0.00	0.272	0.00	1.715	1.88	12.619	2.96	92.832	1.19	602.910	0.00	0.037	0.00	0.302	0.00
0.043	0.00	0.317	0.00	2.000	2.24	14.713	2.96	108.234	1.18	706.214	0.00	0.043	0.00	0.371	0.00
0.050	0.00	0.370	0.00	2.332	2.24	17.154	3.04	126.191	0.75	786.214	0.00	0.050	0.00	0.441	0.00
0.058	0.00	0.421	0.00	2.719	2.60	20.000	3.27	908.338	0.00	868.338	0.00	0.058	0.00	0.510	0.00
0.068	0.00	0.468	0.00	3.170	3.30	23.316	3.60	1021.915	0.00	983.316	0.00	0.068	0.00	0.582	0.00
0.080	0.00	0.524	0.00	3.696	3.31	27.187	3.98	1175.392	0.17	1083.399	0.00	0.080	0.00	0.657	0.00
0.093	0.00	0.582	0.00	4.309	3.69	31.698	4.55	1316.970	0.10	1201.915	0.00	0.093	0.00	0.734	0.00
0.108	0.00	0.657	1.07	4.924	3.69	36.957	4.32	1471.285	0.13	1326.970	0.00	0.108	0.00	0.823	0.00
0.126	0.00	0.734	1.13	5.587	3.70	43.089	4.57	1583.399	0.10	1458.399	0.00	0.126	0.00	0.908	0.00
0.147	0.00	0.823	1.18	6.298	3.85	50.238	4.33	1715.392	0.10	1583.399	0.00	0.147	0.00	1.002	0.00
				7.962	3.47	58.573	3.85	2000.000	0.00						



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Masterizer 2000 Ver. 6.01
Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Tech.msa
Record Number: 552
30/7/2568 15:38:37

Result : Analysis Report

Attached page 3

Sample ID : MGWA-1B2Y_3

Measured : 13 มิถุนายน 2568 10:40:27

Sample File : E:\TSM-A-PHAMS2000\Modified
C:\Program Files (x86)\MTEC\Tetra Tech\mas

Analysed : 13 มิถุนายน 2568 10:40:29

Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

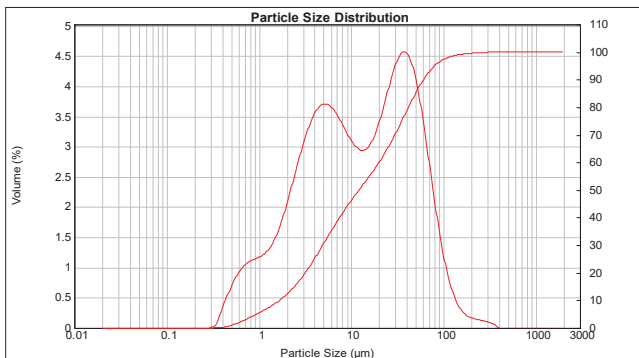
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 18.21 Residual (%) : 0.714
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0132 %Vol Specific Surface Area : 1.4 m²/g
Mean Diameters : D (0.1) : 1.67 um D (0.5) : 12.09 um D (0.9) : 60.63 um
D [4.3] : 24.47 um D [3.2] : 4.29 um Span : 4.877 Uniformity : 1.64

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.34	7.962	3.29	58.573	3.21	430.887	0.00	0.020	0.00	0.147	0.00
0.027	0.00	0.172	0.00	1.262	1.37	9.263	3.11	68.291	2.48	502.397	0.00	0.027	0.00	0.200	0.00
0.032	0.00	0.203	0.00	1.471	1.37	10.823	2.98	79.621	1.78	565.729	0.00	0.032	0.00	0.233	0.00
0.037	0.00	0.272	0.00	1.715	1.88	12.619	2.96	92.832	1.19	602.910	0.00	0.037	0.00	0.302	0.00
0.043	0.00	0.317	0.00	2.000	2.24	14.713	2.96	108.234	1.18	706.214	0.00	0.043	0.00	0.371	0.00
0.050	0.00	0.370	0.00	2.332	2.24	17.154	3.04	126.191	0.75	786.214	0.00	0.050	0.00	0.441	0.00
0.058	0.00	0.421	0.00	2.719	2.60	20.000	3.28	908.338	0.00	868.338	0.00	0.058	0.00	0.510	0.00
0.068	0.00	0.468	0.00	3.170	3.30	23.316	3.59	1021.915	0.00	983.316	0.00	0.068	0.00	0.582	0.00
0.080	0.00	0.524	0.57	3.696	3.31	27.187	3.97	1175.392	0.19	1083.399	0.00	0.080	0.00	0.657	0.00
0.093	0.00	0.582	0.80	4.309	3.69	31.698	4.54	1316.970	0.13	1201.915	0.00	0.093	0.00	0.734	0.00
0.108	0.00	0.657	1.07	4.924	3.72	36.957	4.56	1471.285	0.10	1326.970	0.00	0.108	0.00	0.823	0.00
0.126	0.00	0.734	1.13	5.587	3.74	43.089	4.56	1583.399	0.10	1458.399	0.00	0.126	0.00	0.908	0.00
0.147	0.00	0.823	1.18	6.298	3.84	50.238	4.35	1715.392	0.07	1583.399	0.00	0.147	0.00	1.002	0.00
				7.962	3.48	58.573	3.85	2000.000	0.00						



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Masterizer 2000 Ver. 6.01
Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Tech.msa
Record Number: 554
30/7/2568 15:38:37

Result : Analysis Report

Attached page 2

Sample ID : MGWA-1B2Y_2

Measured : 13 มิถุนายน 2568 10:38:52

Sample File : E:\TSM-A-PHAMS2000\Modified
C:\Program Files (x86)\MTEC\Tetra Tech\mas

Analysed : 13 มิถุนายน 2568 10:38:53

Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

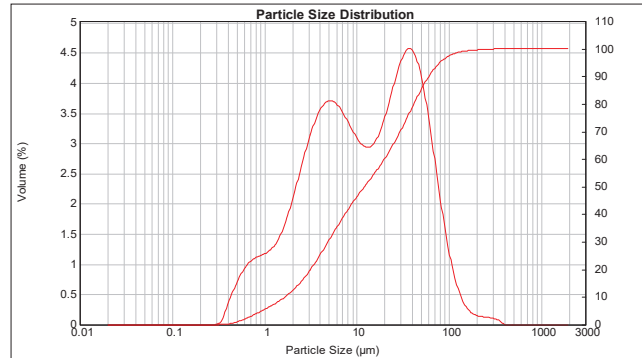
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 18.33 Residual (%) : 0.715
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0133 %Vol Specific Surface Area : 1.4 m²/g
Mean Diameters : D (0.1) : 1.67 um D (0.5) : 12.11 um D (0.9) : 60.67 um
D [4.3] : 24.45 um D [3.2] : 4.29 um Span : 4.872 Uniformity : 1.64

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.34	7.962	3.28	58.573	3.21	430.887	0.00	0.020	0.00	0.147	0.00
0.027	0.00	0.172	0.00	1.262	1.37	9.263	3.10	68.291	2.49	502.397	0.00	0.027	0.00	0.200	0.00
0.032	0.00	0.203	0.00	1.471	1.37	10.823	2.97	79.621	1.80	565.729	0.00	0.032	0.00	0.233	0.00
0.037	0.00	0.272	0.00	1.715	1.88	12.619	2.96	92.832	1.86	602.910	0.00	0.037	0.00	0.302	0.00
0.043	0.00	0.317	0.00	2.000	2.24	14.713	2.96	108.234	1.04	706.214	0.00	0.043	0.00	0.371	0.00
0.050	0.00	0.370	0.00	2.332	2.24	17.154	3.04	126.191	0.75	786.214	0.00	0.050	0.00	0.441	0.00
0.058	0.00	0.421	0.00	2.719	2.60	20.000	3.27	908.338	0.00	868.338	0.00	0.058	0.00	0.510	0.00
0.068	0.00	0.468	0.00	3.170	3.30	23.316	3.60	1021.915	0.00	983.316	0.00	0.068	0.00	0.582	0.00
0.080	0.00	0.524	0.00	3.696	3.32	27.187	3.98	1175.392	0.14	1083.399	0.00	0.080	0.00	0.657	0.00
0.093	0.00	0.582	0.00	4.309	3.69	31.698	4.54	1316.970	0.12	1201.915	0.00	0.093	0.00	0.734	0.00
0.108	0.00	0.657	1.07	4.924	3.71	36.957	4.55	1471.285	0.11	1326.970	0.00	0.108	0.00	0.823	0.00
0.126	0.00	0.734	1.13	5.587	3.68	43.089	4.32	1583.399	0.08	1458.399	0.00	0.126	0.00	0.908	0.00
0.147	0.00	0.823	1.18	6.298	3.68	50.238	4.32	1715.392	0.01	1583.399	0.00	0.147	0.00	1.002	0.00
				7.962	3.47	58.573	3.85	2000.000	0.00						



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Masterizer 2000 Ver. 6.01
Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Tech.msa
Record Number: 553
30/7/2568 15:38:37

Result : Analysis Report

Attached page 4

Sample ID : MGWA-1C2_1

Measured : 13 มิถุนายน 2568 11:00:58

Sample File : E:\TSM-A-PHAMS2000\Modified
C:\Program Files (x86)\MTEC\Tetra Tech\mas

Analysed : 13 มิถุนายน 2568 11:00:59

Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.41 Residual (%) : 0.646
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0129 %Vol Specific Surface Area : 1.65 m²/g
Mean Diameters : D (0.1) : 1.34 um D (0.5) : 9.85 um D (0.9) : 51.52 um
D [4.3] : 20.41 um D [3.2] : 3.64 um Span : 5.095 Uniformity : 1.69

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.98	7.962	3.02	58.573	2.99	430.887	0.00
0.027	0.00	0.172	0.00	1.262	1.75	9.263	2.90	68.291	2.89	502.397	0.00
0.032	0.00	0.200	0.00	1.471	1.75	10.823	2.96	79.621	1.85	565.729	0.00
0.037	0.00	0.233	0.00	1.715	2.35	12.619	2.90	92.832	1.85	602.910	0.00
0.043	0.00	0.272	0.00	2.000	2.73	14.713	3.15	108.234	0.68	798.214	0.00
0.043	0.00	0.317	0.01	2.332	2.73	17.354	3.15	126.191	0.38	928.318	0.00
0.050	0.00	0.361	0.11	2.733	3.15	20.000	3.15	147.108	0.19	1082.000	0.00
0.050	0.00	0.370	0.46	2.733	3.15	20.000	3.81	147.108	0.08	1082.000	0.00
0.050	0.00	0.441	0.00	3.172	3.81	23.168	4.42	168.291	0.08	1262.000	0.00
0.050	0.00	0.502	0.74	3.696	3.80	27.187	4.98	200.000	0.00	1477.265	0.00
0.050	0.00	0.568	1.01	4.191	3.80	31.698	5.40	233.185	0.00	1682.000	0.00
0.050	0.00	0.586	1.20	4.504	3.68	35.698	5.40	271.871	0.00	1716.902	0.00
0.050	0.00	0.766	1.34	5.024	3.68	43.089	4.90	316.979	0.00	2000.000	0.00
0.050	0.00	0.928	1.42	5.687	3.80	50.238	3.90	369.570	0.00		
0.126	0.00	1.058	1.49	6.157	3.95	58.238	3.33	430.887	0.00		

Result : Analysis Report

Sample Details

Sample ID : MGWA-1C2_2 Measured : 13 September 2568 11:01:29
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

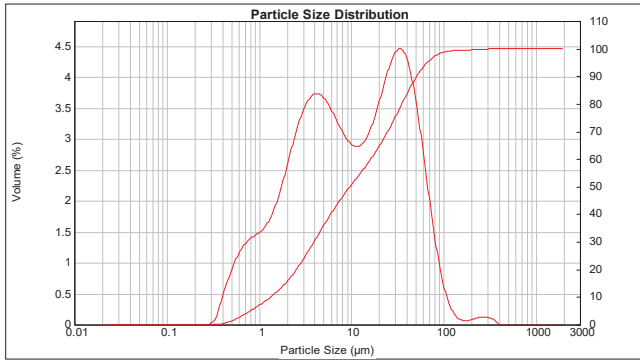
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.37 Residual (%) : 0.656
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0128 %Vol Specific Surface Area : 1.66 m²/g
 Mean Diameters : D (0.1) : 1.34 um D (0.5) : 9.65 um D (0.9) : 51.12 um
 D [4,3] : 20.45 um D [3,2] : 3.62 um Span : 5.158 Uniformity : 1.74

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.89	7.962	3.00	58.573	2.84	430.887	0.00
0.025	0.00	0.172	0.00	1.262	1.89	9.263	2.87	68.291	1.79	502.397	0.00
0.027	0.00	0.200	0.00	1.471	1.76	10.823	2.92	79.621	1.14	585.729	0.00
0.032	0.00	0.233	0.00	1.715	2.03	12.619	2.89	92.832	0.63	682.910	0.00
0.037	0.00	0.272	0.00	2.000	2.37	14.713	2.96	108.234	0.00	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.75	17.154	3.15	126.191	0.31	908.318	0.00
0.050	0.00	0.370	0.11	2.719	3.32	20.000	3.44	147.128	0.10	1082.399	0.00
0.058	0.00	0.421	0.01	3.170	3.78	23.316	3.63	171.529	0.10	1261.915	0.00
0.068	0.00	0.502	0.74	3.696	3.64	27.187	4.13	200.000	0.07	1471.285	0.00
0.080	0.00	0.586	1.20	4.309	3.72	31.698	4.47	233.163	0.10	1715.392	0.00
0.093	0.00	0.683	1.01	5.024	3.45	36.957	3.91	271.871	0.12	2000.000	0.00
0.108	0.00	0.796	1.34	5.887	3.61	43.089	4.31	316.979	0.12		
0.126	0.00	0.928	1.42	6.829	3.40	50.238	3.91	369.570	0.09		
0.147	0.00	1.062	1.49	7.962	3.23	58.573	3.29	430.887	0.01		



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Masterizer 2000 Ver. 6.01
 Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 556
 30/7/2568 15:38:38

Result : Analysis Report

Sample Details

Sample ID : MGWA-1CP2_1 Measured : 13 September 2568 13:30:49
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

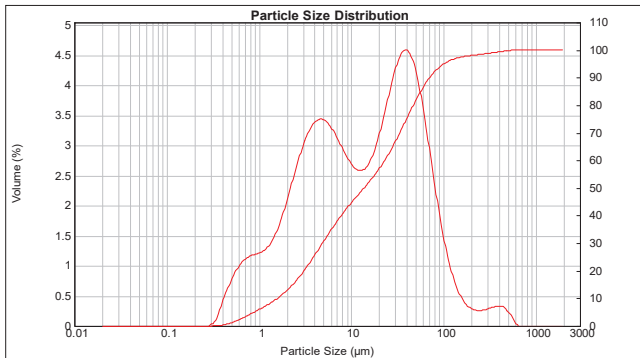
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.70 Residual (%) : 0.719
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0151 %Vol Specific Surface Area : 1.43 m²/g
 Mean Diameters : D (0.1) : 1.58 um D (0.5) : 13.68 um D (0.9) : 70.52 um
 D [4,3] : 31.7 um D [3,2] : 4.19 um Span : 5.039 Uniformity : 1.97

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.38	7.962	2.87	58.573	3.41	430.887	0.30
0.025	0.00	0.172	0.00	1.262	1.40	9.263	2.87	68.291	0.91	502.397	0.00
0.027	0.00	0.200	0.00	1.471	1.40	10.823	2.70	79.621	2.73	585.729	0.17
0.032	0.00	0.233	0.00	1.715	1.60	12.619	2.80	92.832	2.06	682.910	0.00
0.037	0.00	0.272	0.00	2.000	1.91	14.713	2.61	108.234	0.00	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.27	17.154	2.74	126.191	1.00	908.318	0.00
0.050	0.00	0.370	0.40	2.719	2.95	20.000	3.39	147.128	0.07	1082.399	0.00
0.058	0.00	0.421	0.87	3.170	3.39	23.316	4.23	171.529	0.27	1261.915	0.00
0.068	0.00	0.502	0.65	3.696	3.22	27.187	3.62	200.000	0.32	1471.285	0.00
0.080	0.00	0.586	1.03	4.309	3.45	31.698	4.52	233.163	0.26	1715.392	0.00
0.093	0.00	0.683	0.87	5.024	3.39	36.957	4.23	271.871	0.21	2000.000	0.00
0.108	0.00	0.796	1.13	5.887	3.40	43.089	4.59	316.979	0.28		
0.126	0.00	0.928	1.18	6.829	3.25	50.238	4.42	369.570	0.21		
0.147	0.00	1.062	1.22	7.962	3.07	58.573	4.00	430.887	0.33		



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Masterizer 2000 Ver. 6.01
 Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 558
 30/7/2568 15:38:38

Result : Analysis Report

Sample Details

Sample ID : MGWA-1C2_3 Measured : 13 September 2568 11:02:01
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

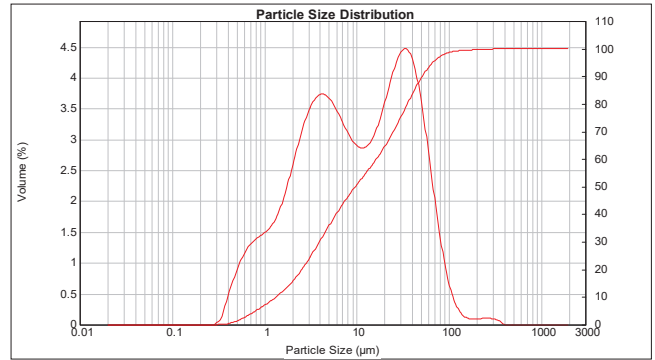
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.35 Residual (%) : 0.649
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0128 %Vol Specific Surface Area : 1.65 m²/g
 Mean Diameters : D (0.1) : 1.34 um D (0.5) : 9.68 um D (0.9) : 51.4 um
 D [4,3] : 20.51 um D [3,2] : 3.63 um Span : 5.171 Uniformity : 1.74

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.89	7.962	3.04	58.573	2.84	430.887	0.00
0.025	0.00	0.172	0.00	1.262	1.89	9.263	2.87	68.291	1.80	502.397	0.00
0.027	0.00	0.200	0.00	1.471	1.76	10.823	2.91	79.621	1.19	585.729	0.00
0.032	0.00	0.233	0.00	1.715	2.07	12.619	2.87	92.832	0.67	682.910	0.00
0.037	0.00	0.272	0.00	2.000	2.37	14.713	2.94	108.234	0.00	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.75	17.154	3.13	126.191	0.35	908.318	0.00
0.050	0.00	0.370	0.11	2.719	3.32	20.000	3.42	147.128	0.10	1082.399	0.00
0.058	0.00	0.421	1.00	3.170	3.74	23.316	3.78	171.529	0.10	1261.915	0.00
0.068	0.00	0.502	0.74	3.696	3.64	27.187	4.13	200.000	0.09	1471.285	0.00
0.080	0.00	0.586	1.20	4.309	3.72	31.698	4.48	233.163	0.10	1715.392	0.00
0.093	0.00	0.683	1.00	5.024	3.45	36.957	3.91	271.871	0.07	2000.000	0.00
0.108	0.00	0.796	1.34	5.887	3.61	43.089	4.32	316.979	0.10		
0.126	0.00	0.928	1.42	6.829	3.40	50.238	3.91	369.570	0.09		
0.147	0.00	1.062	1.49	7.962	3.23	58.573	3.28	430.887	0.01		



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File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 557
 30/7/2568 15:38:38

Result : Analysis Report

Sample Details

Sample ID : MGWA-1CP2_2 Measured : 13 September 2568 13:39:43
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

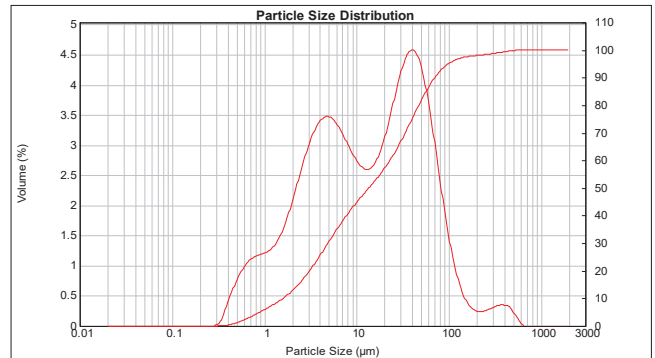
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.02 Residual (%) : 0.708
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0146 %Vol Specific Surface Area : 1.43 m²/g
 Mean Diameters : D (0.1) : 1.59 um D (0.5) : 13.5 um D (0.9) : 70.1 um
 D [4,3] : 31.56 um D [3,2] : 4.21 um Span : 5.076 Uniformity : 1.99

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.27	7.962	2.83	58.573	3.00	430.887	0.30
0.025	0.00	0.172	0.00	1.262	1.27	9.263	2.83	68.291	0.91	502.397	0.00
0.027	0.00	0.200	0.00	1.471	1.40	10.823	2.74	79.621	2.81	585.729	0.16
0.032	0.00	0.233	0.00	1.715	1.60	12.619	2.83	92.832	2.10	682.910	0.00
0.037	0.00	0.272	0.00	2.000	1.91	14.713	2.61	108.234	0.00	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.25	17.154	2.72	126.191	0.98	908.318	0.00
0.050	0.00	0.370	0.10	2.719	2.95	20.000	3.32	147.128	0.08	1082.399	0.00
0.058	0.00	0.421	0.87	3.170	3.41	23.316	4.16	171.529	0.24	1261.915	0.00
0.068	0.00	0.502	0.64	3.696	3.22	27.187	3.74	200.000	0.27	1471.285	0.00
0.080	0.00	0.586	1.03	4.309	3.48	31.698	4.47	233.163	0.26	1715.392	0.00
0.093	0.00	0.683	0.87	5.024	3.32	36.957	4.46	271.871	0.24	2000.000	0.00
0.108	0.00	0.796	1.13	5.887	3.45	43.089	4.59	316.979	0.30		
0.126	0.00	0.928	1.18	6.829	3.25	50.238	4.46	369.570	0.24		
0.147	0.00	1.062	1.21	7.962	3.14	58.573	4.08	430.887	0.35		



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File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 559
 30/7/2568 15:38:38

Result : Analysis Report

Sample Details

Sample ID : MGWA-1CP2_3 Measured : 13 Aug 2016 2568 13:40:15
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

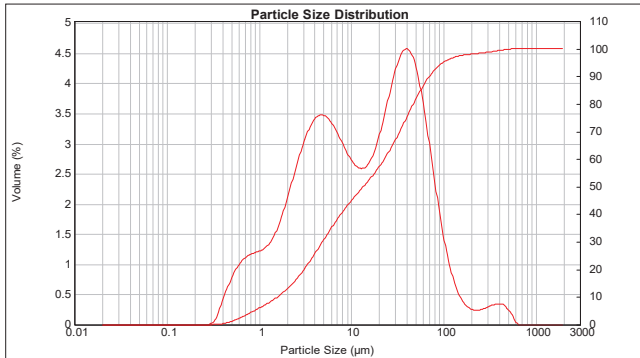
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.01 Residual (%) : 0.753
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0146 %Vol Specific Surface Area : 1.43 m²/g
 Mean Diameters : D (0.1) : 1.58 µm D (0.5) : 13.46 µm D (0.9) : 70.12 µm
 D [4,3] : 31.65 µm D [3,2] : 4.19 µm Span : 5.092 Uniformity : 2

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.38	7.962	2.92	58.573	3.46	430.887	0.31
0.027	0.00	0.172	0.00	1.262	1.38	9.263	2.92	68.291	2.77	502.397	0.18
0.032	0.00	0.200	0.00	1.471	1.40	10.823	2.74	79.621	2.08	565.729	0.01
0.037	0.00	0.233	0.00	1.715	1.90	12.619	2.80	92.832	2.08	662.910	0.00
0.043	0.00	0.272	0.00	2.000	2.25	14.713	2.86	108.234	1.46	786.214	0.00
0.049	0.00	0.317	0.01	2.332	2.25	17.154	2.72	126.191	0.97	908.318	0.00
0.056	0.00	0.370	0.10	2.719	2.61	20.000	2.96	147.128	0.62	1062.399	0.00
0.063	0.00	0.421	0.40	3.170	2.95	23.316	3.33	171.529	0.40	1261.915	0.00
0.069	0.00	0.482	0.65	3.696	3.23	27.187	3.76	200.000	0.28	1471.285	0.00
0.080	0.00	0.558	1.03	4.309	3.48	31.698	4.48	233.163	0.25	1715.392	0.00
0.093	0.00	0.647	0.87	5.024	3.79	36.957	4.17	271.871	0.28	2000.000	0.00
0.108	0.00	0.756	1.13	5.897	3.40	43.089	4.59	316.970	0.28		
0.126	0.00	0.883	1.19	6.829	3.32	50.238	4.45	369.570	0.35		
0.147	0.00	1.062	1.22	7.962	3.13	58.573	4.05	430.887			



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File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 560
 30/7/2068 15:38:39

Result : Analysis Report

Sample Details

Sample ID : MGWA-ID2_2 Measured : 13 Aug 2016 2568 14:04:47
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

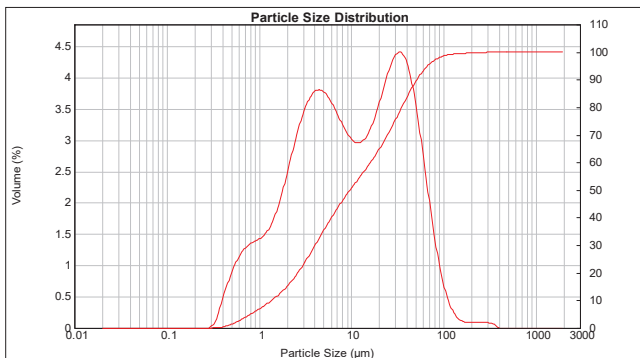
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.25 Residual (%) : 0.666
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0122 %Vol Specific Surface Area : 1.63 m²/g
 Mean Diameters : D (0.1) : 1.37 µm D (0.5) : 9.68 µm D (0.9) : 51.37 µm
 D [4,3] : 20.47 µm D [3,2] : 3.68 µm Span : 5.163 Uniformity : 1.72

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.51	7.962	3.17	58.573	2.51	430.887	0.00
0.027	0.00	0.172	0.00	1.262	1.50	9.263	3.03	68.291	1.17	502.397	0.00
0.032	0.00	0.200	0.00	1.471	1.67	10.823	3.03	79.621	1.80	565.729	0.00
0.037	0.00	0.233	0.00	1.715	1.26	12.619	2.96	92.832	1.18	662.910	0.00
0.043	0.00	0.272	0.00	2.000	1.80	14.713	3.01	108.234	0.69	786.214	0.00
0.049	0.00	0.317	0.01	2.332	2.66	17.154	3.17	126.191	0.37	908.318	0.00
0.056	0.00	0.370	0.46	2.719	3.09	20.000	3.77	147.128	0.11	1062.399	0.00
0.063	0.00	0.421	1.00	3.170	3.39	23.316	4.35	171.529	0.09	1261.915	0.00
0.069	0.00	0.482	0.74	3.696	3.64	27.187	4.10	200.000	0.09	1471.285	0.00
0.080	0.00	0.558	1.18	4.309	3.81	31.698	4.42	233.163	0.10	1715.392	0.00
0.093	0.00	0.647	1.00	5.024	3.79	36.957	4.35	271.871	0.07	2000.000	0.00
0.108	0.00	0.756	1.30	5.897	3.73	43.089	4.25	316.970	0.09		
0.126	0.00	0.883	1.37	6.829	3.57	50.238	3.84	369.570	0.07		
0.147	0.00	1.062	1.43	7.962	3.37	58.573	3.23	430.887	0.01		



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 Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 562
 30/7/2068 15:38:39

Result : Analysis Report

Sample Details

Sample ID : MGWA-ID2_1 Measured : 13 Aug 2016 2568 14:04:01
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

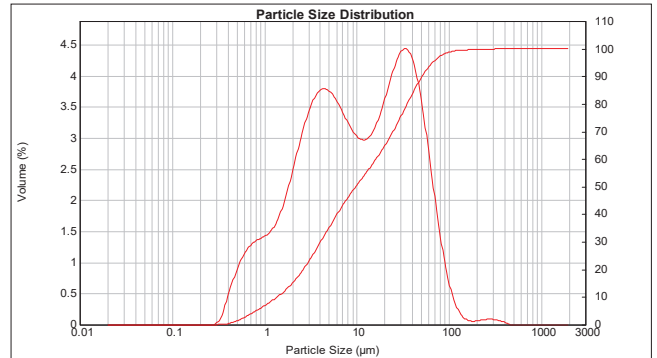
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.27 Residual (%) : 0.663
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0123 %Vol Specific Surface Area : 1.63 m²/g
 Mean Diameters : D (0.1) : 1.37 µm D (0.5) : 9.75 µm D (0.9) : 51.22 µm
 D [4,3] : 20.4 µm D [3,2] : 3.68 µm Span : 5.110 Uniformity : 1.7

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.50	7.962	3.18	58.573	2.50	430.887	0.00
0.027	0.00	0.172	0.00	1.262	1.50	9.263	3.03	68.291	1.82	502.397	0.00
0.032	0.00	0.200	0.00	1.471	1.91	10.823	3.03	79.621	1.82	565.729	0.00
0.037	0.00	0.233	0.00	1.715	1.91	12.619	2.96	92.832	1.17	662.910	0.00
0.043	0.00	0.272	0.00	2.000	2.26	14.713	3.02	108.234	0.67	786.214	0.00
0.049	0.00	0.317	0.01	2.332	2.65	17.154	3.18	126.191	0.34	908.318	0.00
0.056	0.00	0.370	0.12	2.719	3.04	20.000	3.45	147.128	0.15	1062.399	0.00
0.063	0.00	0.421	1.00	3.170	3.39	23.316	3.76	171.529	0.07	1261.915	0.00
0.069	0.00	0.482	0.74	3.696	3.63	27.187	4.12	200.000	0.08	1471.285	0.00
0.080	0.00	0.558	1.18	4.309	3.79	31.698	4.44	233.163	0.09	1715.392	0.00
0.093	0.00	0.647	1.00	5.024	3.69	36.957	3.89	271.871	0.07	2000.000	0.00
0.108	0.00	0.756	1.30	5.897	3.71	43.089	4.29	316.970	0.09		
0.126	0.00	0.883	1.37	6.829	3.56	50.238	3.89	369.570	0.07		
0.147	0.00	1.062	1.42	7.962	3.35	58.573	3.28	430.887	0.04		



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File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 561
 30/7/2068 15:38:39

Result : Analysis Report

Sample Details

Sample ID : MGWA-ID2_3 Measured : 13 Aug 2016 2568 14:06:22
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

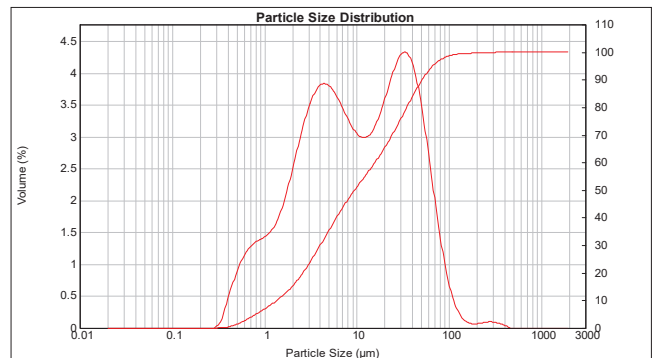
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.18 Residual (%) : 0.663
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0121 %Vol Specific Surface Area : 1.64 m²/g
 Mean Diameters : D (0.1) : 1.37 µm D (0.5) : 9.52 µm D (0.9) : 51.21 µm
 D [4,3] : 20.4 µm D [3,2] : 3.66 µm Span : 5.237 Uniformity : 1.75

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.52	7.962	3.21	58.573	2.50	430.887	0.00
0.027	0.00	0.172	0.00	1.262	1.50	9.263	3.03	68.291	1.80	502.397	0.00
0.032	0.00	0.200	0.00	1.471	1.68	10.823	3.06	79.621	1.80	565.729	0.00
0.037	0.00	0.233	0.00	1.715	1.28	12.619	2.96	92.832	1.18	662.910	0.00
0.043	0.00	0.272	0.00	2.000	2.26	14.713	3.03	108.234	0.69	786.214	0.00
0.049	0.00	0.317	0.01	2.332	2.68	17.154	3.18	126.191	0.36	908.318	0.00
0.056	0.00	0.370	0.12	2.719	3.42	20.000	3.43	147.128	0.11	1062.399	0.00
0.063	0.00	0.421	1.00	3.170	3.81	23.316	4.28	171.529	0.07	1261.915	0.00
0.069	0.00	0.482	0.74	3.696	3.67	27.187	4.05	200.000	0.08	1471.285	0.00
0.080	0.00	0.558	1.19	4.309	3.84	31.698	4.34	233.163	0.09	1715.392	0.00
0.093	0.00	0.647	1.00	5.024	3.65	36.957	3.78	271.871	0.07	2000.000	0.00
0.108	0.00	0.756	1.31	5.897	3.76	43.089	4.17	316.970	0.09		
0.126	0.00	0.883	1.38	6.829	3.60	50.238	3.78	369.570	0.07		
0.147	0.00	1.062	1.43	7.962	3.40	58.573	3.19	430.887	0.05		



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File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 563
 30/7/2068 15:38:39

Result : Analysis Report

Attached page 13

Sample Details

Sample ID : MGWA-2B2X_1 Measured : 13 Aug 2006 25:58 14:19:53
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

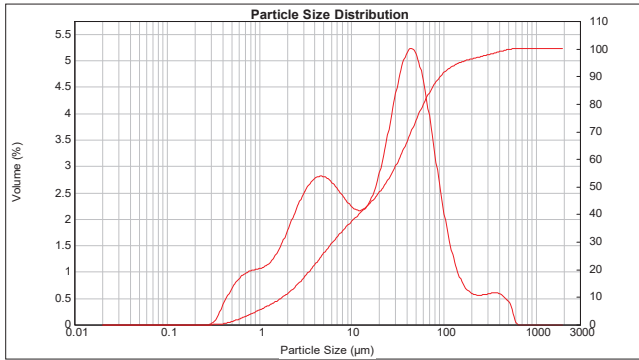
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 21.78 Residual (%) : 0.906
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0186 %Vol Specific Surface Area : 1.24 m²/g
 Mean Diameters : D (0.1) : 1.81 um D (0.5) : 22.37 um D (0.9) : 92.7 um
 D [4.3] : 43.51 um D [3.2] : 4.85 um Span : 4.064 Uniformity : 1.64

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.11	7.962	2.38	58.573	4.43	430.887	0.50
0.025	0.00	0.172	0.00	1.262	0.80	9.263	2.24	68.291	3.70	502.397	0.33
0.027	0.00	0.200	0.00	1.471	1.21	10.823	2.24	79.621	2.91	585.729	0.21
0.032	0.00	0.233	0.00	1.715	1.62	12.619	2.19	92.832	2.91	682.910	0.01
0.037	0.00	0.272	0.00	2.000	2.35	14.713	2.19	108.234	2.16	786.214	0.00
0.043	0.00	0.317	0.01	2.332	1.90	17.154	2.34	126.191	1.55	908.318	0.00
0.050	0.00	0.370	0.10	2.719	2.44	20.000	2.84	147.128	1.19	1082.399	0.00
0.058	0.00	0.421	0.36	3.170	2.77	23.316	3.09	171.529	0.80	1281.915	0.00
0.068	0.00	0.502	0.57	3.696	2.64	27.187	3.66	200.000	0.64	1471.285	0.00
0.080	0.00	0.586	0.90	4.309	2.82	31.698	4.81	233.163	0.56	1715.392	0.00
0.093	0.00	0.683	0.76	5.024	2.77	36.957	4.27	271.871	0.50	2000.000	0.00
0.108	0.00	0.796	0.99	5.887	2.78	43.089	5.16	316.979	0.58		
0.126	0.00	0.928	1.03	6.829	2.68	50.238	5.22	369.570	0.50		
0.147	0.00	1.062	1.06	7.962	2.54	58.573	4.97	430.887	0.59		



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 Record Number: 564
 38/7/2006 15:18:39

Result : Analysis Report

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Sample Details

Sample ID : MGWA-2B2X_3 Measured : 13 Aug 2006 25:58 14:20:41
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

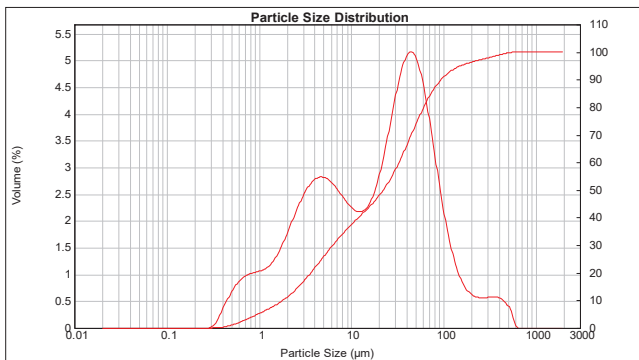
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 21.64 Residual (%) : 0.921
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0185 %Vol Specific Surface Area : 1.24 m²/g
 Mean Diameters : D (0.1) : 1.81 um D (0.5) : 22.19 um D (0.9) : 93.77 um
 D [4.3] : 43.32 um D [3.2] : 4.84 um Span : 4.144 Uniformity : 1.64

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.11	7.962	2.40	58.573	4.37	430.887	0.47
0.025	0.00	0.172	0.00	1.262	0.80	9.263	2.26	68.291	3.67	502.397	0.30
0.027	0.00	0.200	0.00	1.471	1.21	10.823	2.26	79.621	2.91	585.729	0.00
0.032	0.00	0.233	0.00	1.715	1.62	12.619	2.20	92.832	2.91	682.910	0.00
0.037	0.00	0.272	0.00	2.000	1.90	14.713	2.20	108.234	2.20	786.214	0.00
0.043	0.00	0.317	0.01	2.332	1.90	17.154	2.35	126.191	1.61	908.318	0.00
0.050	0.00	0.370	0.05	2.719	2.44	20.000	3.09	147.128	0.85	1082.399	0.00
0.058	0.00	0.421	0.10	3.170	2.78	23.316	3.24	171.529	0.59	1281.915	0.00
0.068	0.00	0.502	0.57	3.696	2.65	27.187	3.65	200.000	0.68	1471.285	0.00
0.080	0.00	0.586	0.90	4.309	2.83	31.698	4.77	233.163	0.57	1715.392	0.00
0.093	0.00	0.683	0.76	5.024	2.78	36.957	4.25	271.871	0.58	2000.000	0.00
0.108	0.00	0.796	0.99	5.887	2.80	43.089	5.10	316.979	0.57		
0.126	0.00	0.928	1.03	6.829	2.70	50.238	5.16	369.570	0.58		
0.147	0.00	1.062	1.06	7.962	2.56	58.573	4.90	430.887	0.57		



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File name: MTEC0871_68_12am_Tetra Techmes
 Record Number: 566
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Result : Analysis Report

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Sample Details

Sample ID : MGWA-2B2X_2 Measured : 13 Aug 2006 25:58 14:20:25
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

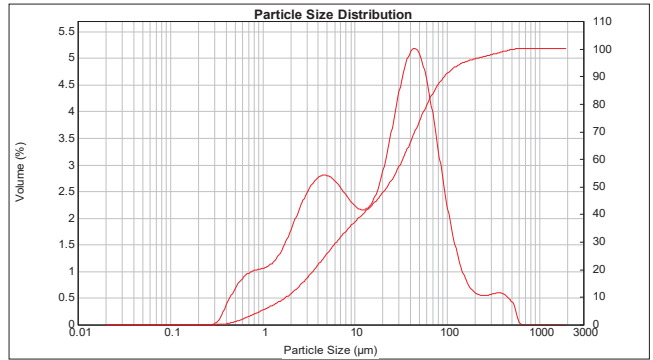
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 21.68 Residual (%) : 0.917
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0186 %Vol Specific Surface Area : 1.23 m²/g
 Mean Diameters : D (0.1) : 1.82 um D (0.5) : 22.54 um D (0.9) : 94.34 um
 D [4.3] : 43.72 um D [3.2] : 4.87 um Span : 4.106 Uniformity : 1.63

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.11	7.962	2.37	58.573	4.41	430.887	0.50
0.025	0.00	0.172	0.00	1.262	0.80	9.263	2.24	68.291	3.72	502.397	0.32
0.027	0.00	0.200	0.00	1.471	1.20	10.823	2.24	79.621	2.97	585.729	0.01
0.032	0.00	0.233	0.00	1.715	1.61	12.619	2.19	92.832	2.97	682.910	0.00
0.037	0.00	0.272	0.00	2.000	2.35	14.713	2.19	108.234	2.25	786.214	0.00
0.043	0.00	0.317	0.01	2.332	1.89	17.154	2.34	126.191	1.64	908.318	0.00
0.050	0.00	0.370	0.10	2.719	2.17	20.000	3.09	147.128	1.18	1082.399	0.00
0.058	0.00	0.421	0.36	3.170	2.43	23.316	3.09	171.529	0.86	1281.915	0.00
0.068	0.00	0.502	0.56	3.696	2.63	27.187	3.66	200.000	0.69	1471.285	0.00
0.080	0.00	0.586	0.90	4.309	2.81	31.698	4.78	233.163	0.57	1715.392	0.00
0.093	0.00	0.683	0.76	5.024	2.76	36.957	4.25	271.871	0.59	2000.000	0.00
0.108	0.00	0.796	0.98	5.887	2.77	43.089	5.11	316.979	0.56		
0.126	0.00	0.928	1.03	6.829	2.67	50.238	5.17	369.570	0.59		
0.147	0.00	1.062	1.06	7.962	2.53	58.573	4.92	430.887	0.59		



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 Record Number: 565
 38/7/2006 15:18:39

Result : Analysis Report

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Sample Details

Sample ID : MGWA-2C2_1 Measured : 13 Aug 2006 25:58 14:35:22
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

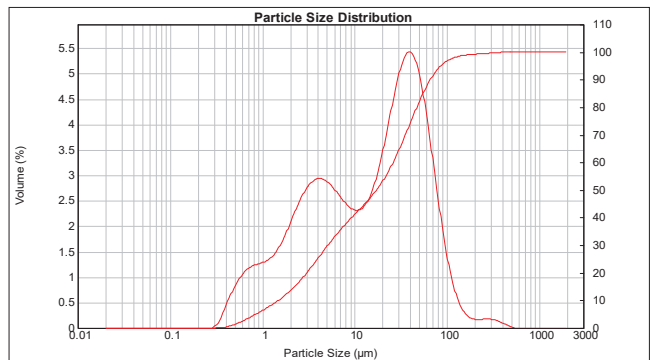
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 21.28 Residual (%) : 0.871
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0158 %Vol Specific Surface Area : 1.44 m²/g
 Mean Diameters : D (0.1) : 1.49 um D (0.5) : 17.19 um D (0.9) : 66.04 um
 D [4.3] : 28.45 um D [3.2] : 4.17 um Span : 3.756 Uniformity : 1.34

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.35	7.962	2.40	58.573	3.92	430.887	0.56
0.025	0.00	0.172	0.00	1.262	0.80	9.263	2.32	68.291	3.02	502.397	0.00
0.027	0.00	0.200	0.00	1.471	1.47	10.823	2.32	79.621	3.03	585.729	0.00
0.032	0.00	0.233	0.00	1.715	1.80	12.619	2.48	92.832	3.12	682.910	0.00
0.037	0.00	0.272	0.00	2.000	1.90	14.713	2.48	108.234	2.16	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.21	17.154	2.77	126.191	0.88	908.318	0.00
0.050	0.00	0.370	0.13	2.719	2.72	20.000	3.20	147.128	0.28	1082.399	0.00
0.058	0.00	0.421	0.32	3.170	2.49	23.316	4.92	171.529	0.17	1281.915	0.00
0.068	0.00	0.502	0.69	3.696	2.88	27.187	4.36	200.000	0.19	1471.285	0.00
0.080	0.00	0.586	1.09	4.309	2.99	31.698	5.31	233.163	0.17	1715.392	0.00
0.093	0.00	0.683	0.92	5.024	2.99	36.957	5.23	271.871	0.15	2000.000	0.00
0.108	0.00	0.796	1.20	5.887	2.83	43.089	5.44	316.979	0.17		
0.126	0.00	0.928	1.25	6.829	2.69	50.238	5.23	369.570	0.15		
0.147	0.00	1.062	1.29	7.962	2.53	58.573	4.70	430.887	0.10		



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Result : Analysis Report

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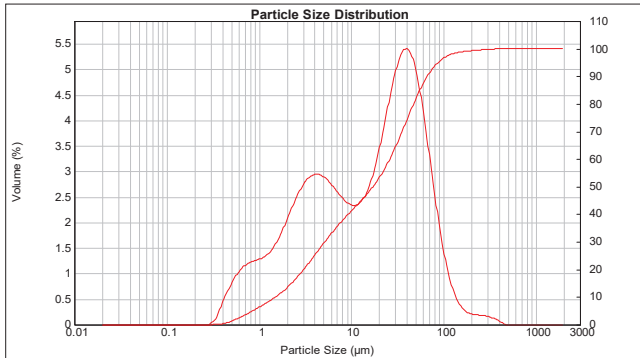
Sample ID : MGWA-2C2_2
Sample File : E:\TSM-PAHMS2000\Modified
Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

Measured : 13 Aug 2006 2568 14:38:46
Analysed : 13 Aug 2006 2568 14:38:48

System Details			
Accessory Name :	Hydro 2000S (A)	Beam Length (mm) :	2.35
Particle RI :	1.530	Obscuration (%) :	20.79
		Dispersant Name :	Water
		Dispersant RI :	1.330

Result Statistics			
Distribution Type :	Volume	Concentration :	0.0154 %Vol
Mean Diameters :		Specific Surface Area :	1.43 m ² /g
D [0.1] :	1.51 um	D (0.5) :	17.15 um
D [4.3] :	28.41 um	D [3.2] :	4.2 um
		Span :	3.788
		Uniformity :	1.34

Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.34	7.962	2.43	58.573	3.91	430.887	0.00
0.027	0.00	0.172	0.00	1.262	0.00	9.263	0.00	68.291	0.00	502.397	0.00
0.032	0.00	0.200	0.00	1.471	1.40	10.823	2.36	79.621	3.03	585.729	0.00
0.037	0.00	0.233	0.00	1.715	1.91	12.619	2.36	92.832	2.17	682.910	0.00
0.043	0.00	0.272	0.43	2.000	0.00	14.713	2.40	108.234	1.44	786.214	0.00
0.050	0.00	0.317	0.01	2.332	2.20	17.154	2.76	126.191	0.89	908.316	0.00
0.058	0.00	0.370	0.13	2.719	2.46	20.000	3.18	147.128	0.32	1082.399	0.00
0.068	0.00	0.421	0.21	3.170	2.72	23.316	4.80	171.529	0.20	1281.915	0.00
0.080	0.00	0.502	0.68	3.696	2.87	27.187	4.32	200.000	0.23	1471.285	0.00
0.093	0.00	0.586	1.08	4.309	2.94	31.698	5.20	233.163	0.18	1715.392	0.00
0.108	0.00	0.683	1.19	5.024	2.72	36.957	5.21	271.871	0.17	2000.000	0.00
0.126	0.00	0.808	1.28	6.829	2.56	50.238	5.37	369.570	0.08		
0.147	0.00	1.062	1.28	7.962	2.56	58.573	4.68	430.887	0.00		



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File name: MTEC0871_68_12zam_Tetra Technica
Record Number: 568
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Result : Analysis Report

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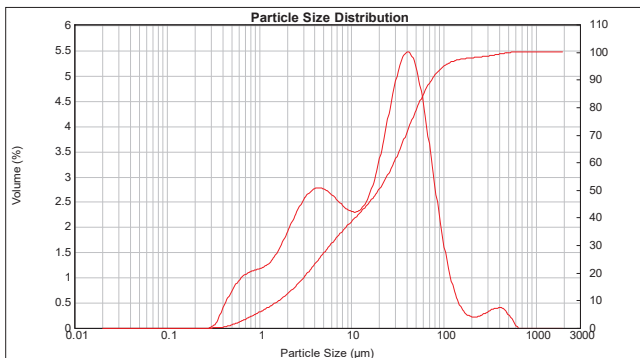
Sample ID : MGWA-3B2X_1
Sample File : E:\TSM-PAHMS2000\Modified
Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

Measured : 13 Aug 2006 2568 14:51:20
Analysed : 13 Aug 2006 2568 14:51:22

System Details			
Accessory Name :	Hydro 2000S (A)	Beam Length (mm) :	2.35
Particle RI :	1.530	Obscuration (%) :	21.60
		Dispersant Name :	Water
		Dispersant RI :	1.330

Result Statistics			
Distribution Type :	Volume	Concentration :	0.0174 %Vol
Mean Diameters :		Specific Surface Area :	1.32 m ² /g
D (0.1) :	1.65 um	D (0.5) :	19.79 um
D [4.3] :	35.32 um	D [3.2] :	4.56 um
		Span :	3.665
		Uniformity :	1.47

Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.25	7.962	2.39	58.573	4.20	430.887	0.36
0.027	0.00	0.172	0.00	1.262	0.00	9.263	0.00	68.291	0.00	502.397	0.19
0.032	0.00	0.200	0.00	1.471	1.34	10.823	2.32	79.621	3.34	585.729	0.19
0.037	0.00	0.233	0.00	1.715	1.50	12.619	2.32	92.832	2.46	682.910	0.01
0.043	0.00	0.272	0.00	2.000	1.50	14.713	2.43	108.234	1.68	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.02	17.154	2.68	126.191	1.00	908.316	0.00
0.050	0.00	0.370	0.07	2.719	2.51	20.000	3.07	147.128	0.37	1082.399	0.00
0.058	0.00	0.421	0.10	3.170	2.38	23.316	4.81	171.529	0.22	1281.915	0.00
0.068	0.00	0.502	0.61	3.696	2.67	27.187	4.21	200.000	0.25	1471.285	0.00
0.080	0.00	0.586	0.98	4.309	2.76	31.698	5.27	233.163	0.25	1715.392	0.00
0.093	0.00	0.683	1.08	5.024	2.76	36.957	5.37	271.871	0.38	2000.000	0.00
0.108	0.00	0.796	1.08	5.887	2.73	43.089	5.48	316.970	0.31		
0.126	0.00	0.928	1.14	6.829	2.60	50.238	5.37	369.570	0.36		
0.147	0.00	1.062	1.18	7.962	2.51	58.573	4.92	430.887	0.40		



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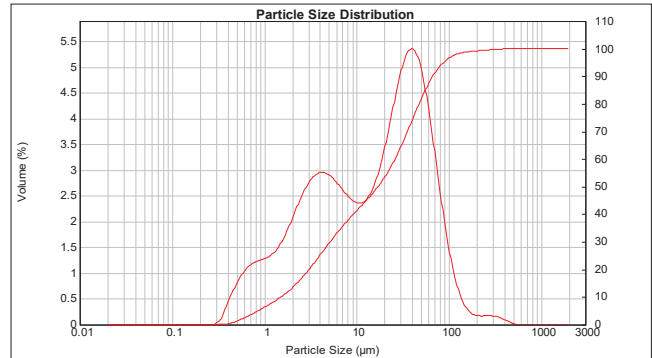
Sample ID : MGWA-2C2_3
Sample File : E:\TSM-PAHMS2000\Modified
Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

Measured : 13 Aug 2006 2568 14:39:33
Analysed : 13 Aug 2006 2568 14:39:35

System Details			
Accessory Name :	Hydro 2000S (A)	Beam Length (mm) :	2.35
Particle RI :	1.530	Obscuration (%) :	20.71
		Dispersant Name :	Water
		Dispersant RI :	1.330

Result Statistics			
Distribution Type :	Volume	Concentration :	0.0154 %Vol
Mean Diameters :		Specific Surface Area :	1.43 m ² /g
D (0.1) :	1.51 um	D (0.5) :	17.01 um
D [4.3] :	28.57 um	D [3.2] :	4.2 um
		Span :	3.831
		Uniformity :	1.36

Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.34	7.962	2.40	58.573	3.93	430.887	0.00
0.027	0.00	0.172	0.00	1.262	0.00	9.263	0.00	68.291	0.00	502.397	0.00
0.032	0.00	0.200	0.00	1.471	1.60	10.823	2.37	79.621	3.06	585.729	0.00
0.037	0.00	0.233	0.00	1.715	1.80	12.619	2.36	92.832	2.21	682.910	0.00
0.043	0.00	0.272	0.00	2.000	0.00	14.713	2.38	108.234	1.46	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.21	17.154	2.77	126.191	0.89	908.316	0.00
0.050	0.00	0.370	0.13	2.719	2.49	20.000	3.18	147.128	0.31	1082.399	0.00
0.058	0.00	0.421	0.21	3.170	2.72	23.316	4.84	171.529	0.20	1281.915	0.00
0.068	0.00	0.502	0.68	3.696	2.88	27.187	4.29	200.000	0.20	1471.285	0.00
0.080	0.00	0.586	1.08	4.309	2.94	31.698	5.23	233.163	0.17	1715.392	0.00
0.093	0.00	0.683	1.24	5.024	2.73	36.957	5.18	271.871	0.16	2000.000	0.00
0.108	0.00	0.796	1.19	5.887	2.86	43.089	5.37	316.970	0.17		
0.126	0.00	0.928	1.28	6.829	2.75	50.238	5.18	369.570	0.16		
0.147	0.00	1.062	1.28	7.962	2.58	58.573	4.68	430.887	0.10		



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Record Number: 569
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Result : Analysis Report

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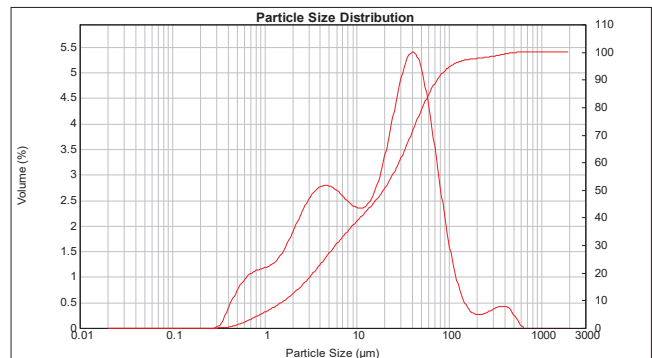
Sample ID : MGWA-3B2X_2
Sample File : E:\TSM-PAHMS2000\Modified
Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

Measured : 13 Aug 2006 2568 15:00:23
Analysed : 13 Aug 2006 2568 15:00:25

System Details			
Accessory Name :	Hydro 2000S (A)	Beam Length (mm) :	2.35
Particle RI :	1.530	Obscuration (%) :	20.67
		Dispersant Name :	Water
		Dispersant RI :	1.330

Result Statistics			
Distribution Type :	Volume	Concentration :	0.0166 %Vol
Mean Diameters :		Specific Surface Area :	1.32 m ² /g
D (0.1) :	1.66 um	D (0.5) :	19.55 um
D [4.3] :	35.66 um	D [3.2] :	4.56 um
		Span :	3.738
		Uniformity :	1.5

Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.23	7.962	2.44	58.573	4.11	430.887	0.36
0.027	0.00	0.172	0.00	1.262	0.00	9.263	0.00	68.291	0.00	502.397	0.19
0.032	0.00	0.200	0.00	1.471	1.33	10.823	2.36	79.621	3.27	585.729	0.19
0.037	0.00	0.233	0.00	1.715	1.50	12.619	2.47	92.832	2.41	682.910	0.01
0.043	0.00	0.272	0.00	2.000	1.50	14.713	2.47	108.234	1.67	786.214	0.00
0.043	0.00	0.317	0.01	2.332	1.99	17.154	2.71	126.191	1.00	908.316	0.00
0.050	0.00	0.370	0.07	2.719	2.48	20.000	3.10	147.128	0.40	1082.399	0.00
0.058	0.00	0.421	0.09	3.170	2.35	23.316	4.79	171.529	0.26	1281.915	0.00
0.068	0.00	0.502	0.61	3.696	2.66	27.187	4.22	200.000	0.28	1471.285	0.00
0.080	0.00	0.586	0.98	4.309	2.80	31.698	5.23	233.163	0.30	1715.392	0.00
0.093	0.00	0.683	1.08	5.024	2.67	36.957	5.28	271.871	0.41	2000.000	0.00
0.108	0.00	0.796	1.09	5.887	2.76	43.089	5.41	316.970	0.36		
0.126	0.00	0.928	1.14	6.829	2.60	50.238	5.28	369.570	0.41		
0.147	0.00	1.062	1.18	7.962	2.56	58.573	4.82	430.887	0.42		



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Masterizer 2000 Ver. 6.01
Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Technica
Record Number: 571
38/7/2006 15:38:40

Result : Analysis Report

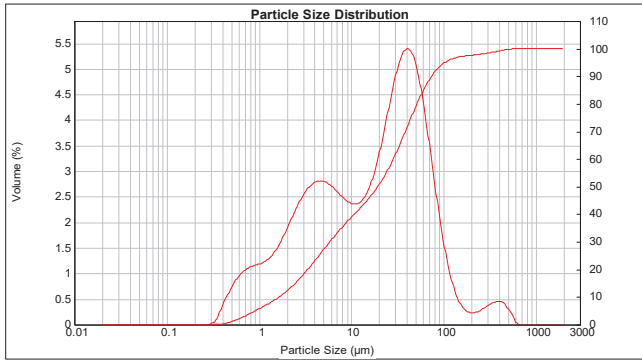
Attached page 21

Sample ID : MGWA-3B2X_3	Measured : 13 Aug 2006 25:58 15:04:04
Sample File : E:\TSM-A-PHAMS2000\Modified	Analysed : 13 Aug 2006 25:58 15:04:05
Sample Notes : Dispersing medium : De-ionized water Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.	

System Details			
Accessory Name : Hydro 2000S (A)	Beam Length (mm) : 2.35	Obscuration (%) : 20.56	Residual (%) : 0.891
Particle RI : 1.530	Absorption : 0.1	Dispersant Name : Water	Dispersant RI : 1.330

Result Statistics			
Distribution Type : Volume	Concentration : 0.0164 %Vol	Specific Surface Area : 1.32 m ² /g	
Mean Diameters :	D (0.1) : 1.65 µm	D (0.5) : 19.29 µm	D (0.9) : 73.92 µm
D [4,3] : 35.74 µm	D [3,2] : 4.54 µm	Span : 3.747	Uniformity : 1.53

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.34	7.962	2.46	58.573	4.10	430.887	0.40
0.027	0.00	0.172	0.00	1.262	1.34	9.263	2.37	68.291	3.24	502.397	0.22
0.032	0.00	0.200	0.00	1.471	1.34	10.823	2.37	79.621	2.58	585.729	0.01
0.037	0.00	0.233	0.00	1.715	1.01	12.619	2.37	92.832	1.84	682.910	0.00
0.043	0.00	0.272	0.00	2.000	1.74	14.713	2.48	108.234	1.60	786.214	0.00
0.050	0.00	0.317	0.01	2.332	2.01	17.154	2.72	126.191	1.00	908.318	0.00
0.058	0.00	0.370	0.00	2.719	2.27	20.000	3.10	147.128	0.35	1082.399	0.00
0.068	0.00	0.421	0.00	3.170	2.50	23.316	3.62	171.529	0.09	1261.915	0.00
0.068	0.00	0.502	0.61	3.696	2.68	27.187	4.21	200.000	0.24	1471.285	0.00
0.080	0.00	0.586	0.99	4.309	2.82	31.698	5.22	233.163	0.28	1715.392	0.00
0.093	0.00	0.683	0.98	5.024	2.79	36.957	4.76	271.871	0.43	2000.000	0.00
0.108	0.00	0.796	1.09	5.887	2.78	43.089	5.41	316.970	0.36		
0.126	0.00	0.928	1.15	6.829	2.69	50.238	5.28	369.570	0.40		
0.147	0.00	1.062	1.19	7.962	2.57	58.573	4.82	430.887	0.45		



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File name: MTEC0871_68_12zam_Tetra Technica
Record Number: 572
38/7/2006 15:38:40

Result : Analysis Report

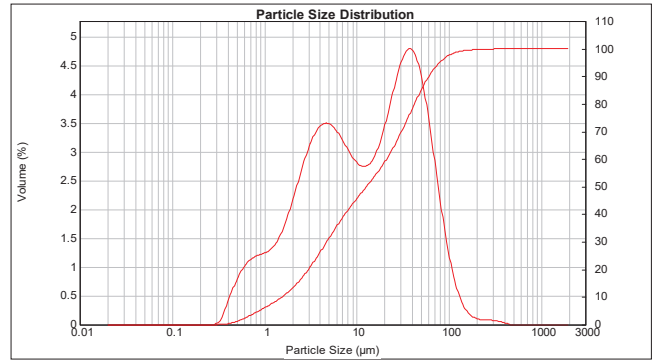
Attached page 22

Sample ID : MGWA-3C2_1	Measured : 13 Aug 2006 25:58 15:18:24
Sample File : E:\TSM-A-PHAMS2000\Modified	Analysed : 13 Aug 2006 25:58 15:18:26
Sample Notes : Dispersing medium : De-ionized water Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.	

System Details			
Accessory Name : Hydro 2000S (A)	Beam Length (mm) : 2.35	Obscuration (%) : 21.22	Residual (%) : 0.727
Particle RI : 1.530	Absorption : 0.1	Dispersant Name : Water	Dispersant RI : 1.330

Result Statistics			
Distribution Type : Volume	Concentration : 0.0152 %Vol	Specific Surface Area : 1.46 m ² /g	
Mean Diameters :	D (0.1) : 1.55 µm	D (0.5) : 12.74 µm	D (0.9) : 60.63 µm
D [4,3] : 24.46 µm	D [3,2] : 4.11 µm	Span : 4.639	Uniformity : 1.56

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.31	7.962	2.97	58.573	3.39	430.887	0.00
0.027	0.00	0.172	0.00	1.262	1.44	9.263	2.82	68.291	2.58	502.397	0.00
0.032	0.00	0.200	0.00	1.471	1.44	10.823	2.82	79.621	2.58	585.729	0.00
0.037	0.00	0.233	0.00	1.715	1.06	12.619	2.79	92.832	1.21	682.910	0.00
0.043	0.00	0.272	0.00	2.000	2.32	14.713	2.96	108.234	0.41	786.214	0.00
0.050	0.00	0.317	0.01	2.332	2.32	17.154	2.96	126.191	0.22	908.318	0.00
0.058	0.00	0.370	0.10	2.719	2.69	20.000	3.25	147.128	0.41	1082.399	0.00
0.068	0.00	0.421	0.41	3.170	3.02	23.316	3.65	171.529	0.09	1261.915	0.00
0.068	0.00	0.502	0.65	3.696	3.28	27.187	4.09	200.000	0.13	1471.285	0.00
0.080	0.00	0.586	1.05	4.309	3.51	31.698	4.75	233.163	0.13	1715.392	0.00
0.093	0.00	0.683	0.86	5.024	3.35	36.957	4.40	271.871	0.09	2000.000	0.00
0.108	0.00	0.796	1.15	5.887	3.46	43.089	4.78	316.970	0.08		
0.126	0.00	0.928	1.21	6.829	3.35	50.238	4.54	369.570	0.08		
0.147	0.00	1.062	1.25	7.962	3.15	58.573	4.04	430.887	0.04		



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Masterizer 2000 Ver. 6.01
Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Technica
Record Number: 573
38/7/2006 15:38:40

Result : Analysis Report

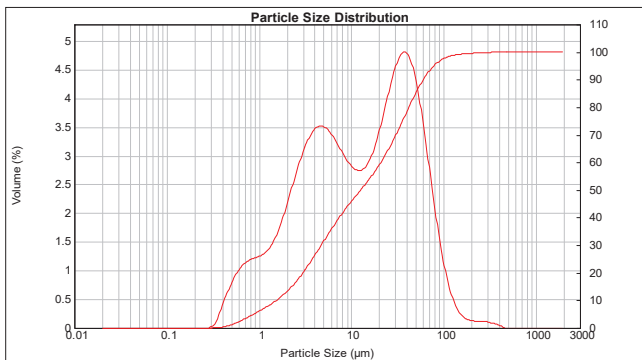
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Sample ID : MGWA-3C2_2	Measured : 13 Aug 2006 25:58 15:19:11
Sample File : E:\TSM-A-PHAMS2000\Modified	Analysed : 13 Aug 2006 25:58 15:19:13
Sample Notes : Dispersing medium : De-ionized water Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.	

System Details			
Accessory Name : Hydro 2000S (A)	Beam Length (mm) : 2.35	Obscuration (%) : 21.15	Residual (%) : 0.727
Particle RI : 1.530	Absorption : 0.1	Dispersant Name : Water	Dispersant RI : 1.330

Result Statistics			
Distribution Type : Volume	Concentration : 0.0151 %Vol	Specific Surface Area : 1.47 m ² /g	
Mean Diameters :	D (0.1) : 1.55 µm	D (0.5) : 12.59 µm	D (0.9) : 60.14 µm
D [4,3] : 24.55 µm	D [3,2] : 4.09 µm	Span : 4.653	Uniformity : 1.59

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.30	7.962	2.98	58.573	3.31	430.887	0.00
0.027	0.00	0.172	0.00	1.262	1.40	9.263	2.83	68.291	2.53	502.397	0.00
0.032	0.00	0.200	0.00	1.471	1.40	10.823	2.83	79.621	2.53	585.729	0.00
0.037	0.00	0.233	0.00	1.715	1.07	12.619	2.79	92.832	1.77	682.910	0.00
0.043	0.00	0.272	0.00	2.000	1.97	14.713	2.78	108.234	1.14	786.214	0.00
0.050	0.00	0.317	0.01	2.332	2.33	17.154	2.94	126.191	0.67	908.318	0.00
0.058	0.00	0.370	0.10	2.719	3.30	20.000	3.64	147.128	0.21	1082.399	0.00
0.068	0.00	0.421	0.41	3.170	2.70	23.316	4.00	171.529	0.37	1261.915	0.00
0.068	0.00	0.502	0.66	3.696	3.47	27.187	4.09	200.000	0.14	1471.285	0.00
0.080	0.00	0.586	1.05	4.309	3.53	31.698	4.77	233.163	0.12	1715.392	0.00
0.093	0.00	0.683	0.89	5.024	3.47	36.957	4.54	271.871	0.11	2000.000	0.00
0.108	0.00	0.796	1.16	5.887	3.46	43.089	4.80	316.970	0.11		
0.126	0.00	0.928	1.21	6.829	3.35	50.238	4.54	369.570	0.09		
0.147	0.00	1.062	1.25	7.962	3.17	58.573	3.99	430.887	0.05		



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Masterizer 2000 Ver. 6.01
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File name: MTEC0871_68_12zam_Tetra Technica
Record Number: 574
38/7/2006 15:38:40

Result : Analysis Report

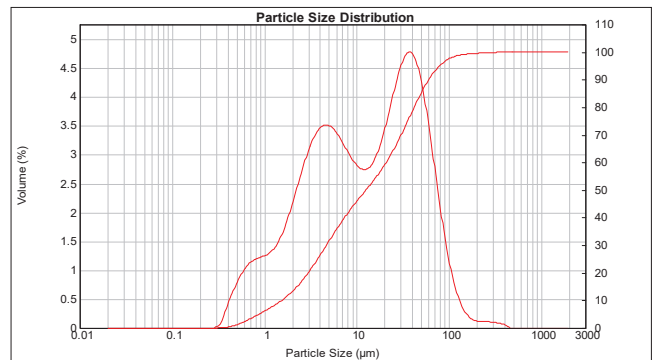
Attached page 24

Sample ID : MGWA-3C2_3	Measured : 13 Aug 2006 25:58 15:19:27
Sample File : E:\TSM-A-PHAMS2000\Modified	Analysed : 13 Aug 2006 25:58 15:19:29
Sample Notes : Dispersing medium : De-ionized water Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.	

System Details			
Accessory Name : Hydro 2000S (A)	Beam Length (mm) : 2.35	Obscuration (%) : 21.13	Residual (%) : 0.726
Particle RI : 1.530	Absorption : 0.1	Dispersant Name : Water	Dispersant RI : 1.330

Result Statistics			
Distribution Type : Volume	Concentration : 0.0151 %Vol	Specific Surface Area : 1.47 m ² /g	
Mean Diameters :	D (0.1) : 1.54 µm	D (0.5) : 12.58 µm	D (0.9) : 60.35 µm
D [4,3] : 24.61 µm	D [3,2] : 4.09 µm	Span : 4.677	Uniformity : 1.6

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.32	7.962	2.98	58.573	3.39	430.887	0.00
0.027	0.00	0.172	0.00	1.262	1.40	9.263	2.83	68.291	2.52	502.397	0.00
0.032	0.00	0.200	0.00	1.471	1.40	10.823	2.83	79.621	2.52	585.729	0.00
0.037	0.00	0.233	0.00	1.715	1.07	12.619	2.79	92.832	1.79	682.910	0.00
0.043	0.00	0.272	0.00	2.000	1.97	14.713	2.78	108.234	1.14	786.214	0.00
0.050	0.00	0.317	0.01	2.332	2.30	17.154	2.96	126.191	0.67	908.318	0.00
0.058	0.00	0.370	0.10	2.719	3.30	20.000	3.65	147.128	0.22	1082.399	0.00
0.068	0.00	0.421	0.41	3.170	2.70	23.316	4.00	171.529	0.11	1261.915	0.00
0.068	0.00	0.502	0.66	3.696	3.47	27.187	4.09	200.000	0.14	1471.285	0.00
0.080	0.00	0.586	1.05	4.309	3.53	31.698	4.75	233.163	0.11	1715.392	0.00
0.093	0.00	0.683	0.89	5.024	3.47	36.957	4.51	271.871	0.09	2000.000	0.00
0.108	0.00	0.796	1.16	5.887	3.46	43.089	4.77	316.970	0.10		
0.126	0.00	0.928	1.22	6.829	3.35	50.238	4.51	369.570	0.09		
0.147	0.00	1.062	1.25	7.962	3.16	58.573	3.99	430.887	0.06		



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Master

Result : Analysis Report

Attached page 25

Sample Details

Sample ID : MGWA-3CP2_1

Measured : 13 days 2568 15:37:13

Sample File : E:\TSM-PAHMS2000\Modified
E:\TSM-PAHMS2000\Modified

Analyzed : 13 days 2568 15:37:15

Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and
stirring at 2,000 rpm during measuring.

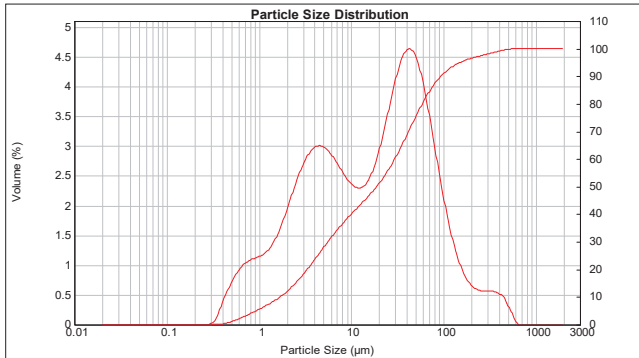
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.30 Residual (%) : 0.806
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0161 %Vol Specific Surface Area : 1.32 m²/g
Mean Diameters : D (0.1) : 1.68 μm D (0.5) : 18.77 μm D (0.9) : 93.36 μm
D [4,3] : 41.12 μm D [3,2] : 4.55 μm Span : 4.884 Uniformity : 1.88

Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.21	7.962	2.90	58.573	3.90	430.887	0.42
0.025	0.00	0.172	0.00	1.262	0.80	9.263	2.37	68.291	3.32	502.397	0.21
0.027	0.00	0.200	0.00	1.471	1.33	10.823	2.38	79.621	3.32	585.729	0.01
0.032	0.00	0.233	0.00	1.715	1.79	12.619	2.30	92.832	2.71	682.910	0.00
0.037	0.00	0.272	0.00	2.000	2.36	14.713	2.33	108.234	2.13	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.00	17.154	2.48	126.191	1.62	786.214	0.00
0.050	0.00	0.370	0.10	2.719	2.65	20.000	2.75	147.128	1.22	1082.399	0.00
0.058	0.00	0.421	0.37	3.170	2.98	23.316	3.14	171.529	0.92	1281.915	0.00
0.068	0.00	0.502	0.60	3.696	2.87	27.187	3.60	200.000	0.73	1471.285	0.00
0.080	0.00	0.586	0.96	4.309	3.01	31.698	4.43	233.163	0.57	1715.392	0.00
0.093	0.00	0.683	0.91	5.024	2.98	36.957	4.05	271.871	0.56	2000.000	0.00
0.108	0.00	0.796	1.05	5.887	2.95	43.089	4.63	316.970	0.56		
0.126	0.00	0.928	1.11	6.829	2.85	50.238	4.61	369.570	0.56		
0.147	0.00	1.062	1.15	7.962	2.67	58.573	4.35	430.887	0.52		

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Serial Number : MAL1021434File name: MTEC0871_68_12jam_Tetra Technica
Record Number: 576
30/7/2068 15:38:41

Result : Analysis Report

Attached page 27

Sample Details

Sample ID : MGWA-3CP2_3

Measured : 13 days 2568 15:39:03

Sample File : E:\TSM-PAHMS2000\Modified
E:\TSM-PAHMS2000\Modified

Analyzed : 13 days 2568 15:39:04

Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and
stirring at 2,000 rpm during measuring.

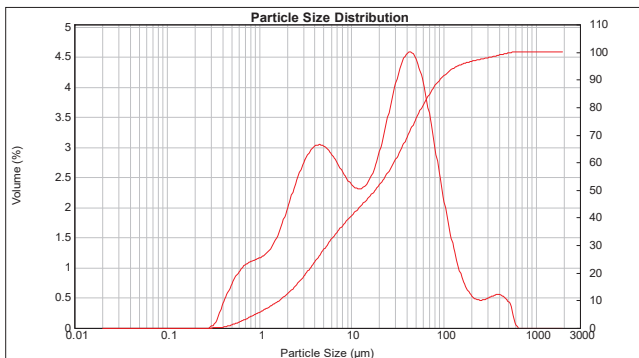
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.22 Residual (%) : 0.823
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0158 %Vol Specific Surface Area : 1.34 m²/g
Mean Diameters : D (0.1) : 1.66 μm D (0.5) : 18.19 μm D (0.9) : 91.35 μm
D [4,3] : 40.98 μm D [3,2] : 4.49 μm Span : 4.931 Uniformity : 1.94

Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.25	7.962	2.93	58.573	3.92	430.887	0.49
0.025	0.00	0.172	0.00	1.262	0.83	9.263	2.37	68.291	3.37	502.397	0.33
0.027	0.00	0.200	0.00	1.471	1.30	10.823	2.39	79.621	3.37	585.729	0.01
0.032	0.00	0.233	0.00	1.715	1.81	12.619	2.32	92.832	2.76	682.910	0.01
0.037	0.00	0.272	0.00	2.000	1.94	14.713	2.34	108.234	2.16	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.12	17.154	2.48	126.191	1.61	786.214	0.00
0.050	0.00	0.370	0.10	2.719	2.70	20.000	2.74	147.128	1.16	1082.399	0.00
0.058	0.00	0.421	0.38	3.170	2.90	23.316	3.09	171.529	0.83	1281.915	0.00
0.068	0.00	0.502	0.61	3.696	3.02	27.187	3.55	200.000	0.61	1471.285	0.00
0.080	0.00	0.586	0.87	4.309	3.05	31.698	4.36	233.163	0.46	1715.392	0.00
0.093	0.00	0.683	0.82	5.024	3.02	36.957	4.57	271.871	0.49	2000.000	0.00
0.108	0.00	0.796	1.07	5.887	2.99	43.089	4.57	316.970	0.49		
0.126	0.00	0.928	1.12	6.829	2.86	50.238	4.57	369.570	0.53		
0.147	0.00	1.062	1.16	7.962	2.70	58.573	4.34	430.887	0.56		

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Serial Number : MAL1021434File name: MTEC0871_68_12jam_Tetra Technica
Record Number: 578
30/7/2068 15:38:41

Result : Analysis Report

Attached page 26

Sample Details

Sample ID : MGWA-3CP2_2

Measured : 13 days 2568 15:37:29

Sample File : E:\TSM-PAHMS2000\Modified
E:\TSM-PAHMS2000\Modified

Analyzed : 13 days 2568 15:37:31

Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and
stirring at 2,000 rpm during measuring.

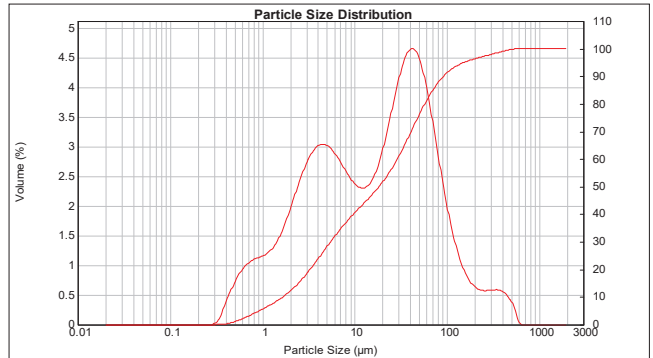
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.28 Residual (%) : 0.820
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0159 %Vol Specific Surface Area : 1.33 m²/g
Mean Diameters : D (0.1) : 1.66 μm D (0.5) : 18.29 μm D (0.9) : 91.77 μm
D [4,3] : 41.11 μm D [3,2] : 4.5 μm Span : 4.926 Uniformity : 1.93

Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.22	7.962	2.92	58.573	3.83	430.887	0.46
0.025	0.00	0.172	0.00	1.262	0.80	9.263	2.36	68.291	3.22	502.397	0.26
0.027	0.00	0.200	0.00	1.471	1.34	10.823	2.38	79.621	3.22	585.729	0.01
0.032	0.00	0.233	0.00	1.715	1.81	12.619	2.34	92.832	2.68	682.910	0.01
0.037	0.00	0.272	0.00	2.000	2.26	14.713	2.34	108.234	2.00	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.11	17.154	2.48	126.191	1.51	786.214	0.00
0.050	0.00	0.370	0.10	2.719	2.42	20.000	2.76	147.128	1.13	1082.399	0.00
0.058	0.00	0.421	0.38	3.170	2.69	23.316	3.15	171.529	0.86	1281.915	0.00
0.068	0.00	0.502	0.61	3.696	2.90	27.187	3.62	200.000	0.69	1471.285	0.00
0.080	0.00	0.586	0.87	4.309	3.05	31.698	4.46	233.163	0.57	1715.392	0.00
0.093	0.00	0.683	0.82	5.024	2.96	36.957	4.58	271.871	0.59	2000.000	0.00
0.108	0.00	0.796	1.07	5.887	2.99	43.089	4.65	316.970	0.58		
0.126	0.00	0.928	1.12	6.829	2.86	50.238	4.61	369.570	0.59		
0.147	0.00	1.062	1.16	7.962	2.69	58.573	4.32	430.887	0.56		

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Malvern, UK
Tel : +44(0) (0) 1684-892456 Fax : +44(0) 1684-892789Masterizer 2000 Ver. 6.01
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Record Number: 577
30/7/2068 15:38:41

Result : Analysis Report

Attached page 28

Sample Details

Sample ID : MGWA-3D2_1

Measured : 13 days 2568 15:52:45

Sample File : E:\TSM-PAHMS2000\Modified
E:\TSM-PAHMS2000\Modified

Analyzed : 13 days 2568 15:52:47

Sample Notes : Dispersing medium : De-ionized water
Treatment : Ultrasound 10 minutes with ultrasonic bath and
stirring at 2,000 rpm during measuring.

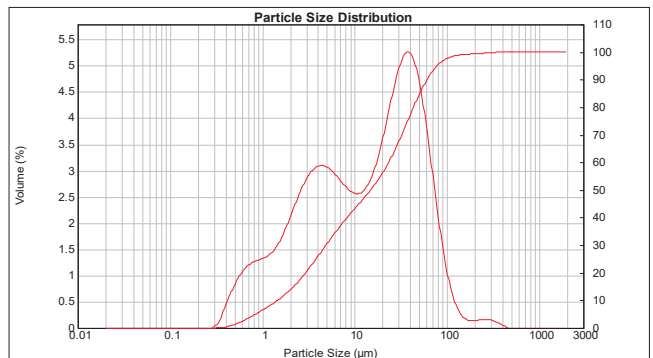
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.82 Residual (%) : 0.809
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0141 %Vol Specific Surface Area : 1.48 m²/g
Mean Diameters : D (0.1) : 1.46 μm D (0.5) : 14.85 μm D (0.9) : 60.63 μm
D [4,3] : 25.71 μm D [3,2] : 4.05 μm Span : 3.985 Uniformity : 1.4

Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)	Size (μm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.39	7.962	2.69	58.573	3.64	430.887	0.00
0.025	0.00	0.172	0.00	1.262	0.89	9.263	2.69	68.291	3.23	502.397	0.00
0.027	0.00	0.200	0.00	1.471	1.51	10.823	2.67	79.621	2.63	585.729	0.00
0.032	0.00	0.233	0.00	1.715	1.97	12.619	2.59	92.832	1.78	682.910	0.00
0.037	0.00	0.272	0.00	2.000	1.71	14.713	2.59	108.234	1.78	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.27	17.154	2.97	126.191	0.99	786.214	0.00
0.050	0.00	0.370	0.13	2.719	2.57	20.000	3.36	147.128	0.59	1082.399	0.00
0.058	0.00	0.421	0.34	3.170	3.09	23.316	4.00	171.529	1.15	1281.915	0.00
0.068	0.00	0.502	0.70	3.696	3.00	27.187	4.41	200.000	0.14	1471.285	0.00
0.080	0.00	0.586	1.11	4.309	3.10	31.698	5.21	233.163	0.16	1715.392	0.00
0.093	0.00	0.683	0.94	5.024	3.09	36.957	4.97	271.871	0.11	2000.000	0.00
0.108	0.00	0.796	1.22	5.887	3.03	43.089	5.25	316.970	0.16		
0.126	0.00	0.928	1.26	6.829	2.91	50.238	4.97	369.570	0.11		
0.147	0.00	1.062	1.33	7.962	2.77	58.573	4.37	430.887	0.06		

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Serial Number : MAL1021434File name: MTEC0871_68_12jam_Tetra Technica
Record Number: 579
30/7/2068 15:38:41

Result : Analysis Report

Sample Details

Sample ID : MGWA-3D2_2 Measured : 13 Aug 2006 2568 15:53:16
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

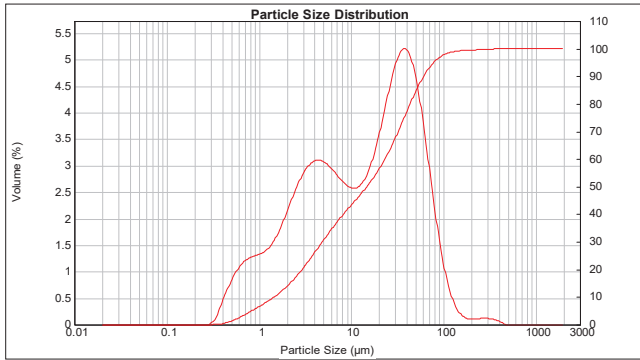
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.79 Residual (%) : 0.799
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0141 %Vol Specific Surface Area : 1.49 m²/g
 Mean Diameters : D (0.1) : 1.45 µm D (0.5) : 14.7 µm D (0.9) : 60.74 µm
 D [4.3] : 25.45 µm D [3.2] : 4.04 µm Span : 4.034 Uniformity : 1.4

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.39	7.962	2.86	58.573	3.94	430.887	0.00
0.025	0.00	0.172	0.00	1.262	1.39	9.263	2.86	68.291	0.00	502.397	0.00
0.027	0.00	0.200	0.00	1.471	1.51	10.823	2.99	79.621	2.66	585.729	0.00
0.032	0.00	0.233	0.00	1.715	1.71	12.619	2.80	92.832	1.82	682.910	0.00
0.037	0.00	0.272	0.00	2.000	1.98	14.713	2.72	108.234	1.13	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.28	17.154	2.96	126.191	0.64	928.318	0.00
0.050	0.00	0.370	0.13	2.719	2.87	20.000	3.37	147.128	0.33	1082.399	0.00
0.059	0.00	0.421	0.44	3.170	2.82	23.316	2.89	171.529	0.17	1281.915	0.00
0.068	0.00	0.502	0.71	3.696	3.00	27.187	4.39	200.000	0.11	1471.285	0.00
0.080	0.00	0.586	1.12	4.309	3.11	31.698	5.16	233.163	0.12	1715.392	0.00
0.093	0.00	0.683	0.95	5.024	2.92	36.957	4.80	271.871	0.10	2000.000	0.00
0.108	0.00	0.796	1.23	5.887	3.04	43.089	5.20	316.979	0.12		
0.126	0.00	0.928	1.29	6.829	2.92	50.238	4.80	369.570	0.10		
0.147	0.00	1.062	1.33	7.962	2.76	58.573	4.33	430.887	0.07		



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Masterizer 2000 Ver. 6.01
 Serial Number : MAL1021434

File name: MTEC0871_68_12am_Tetra Technica
 Record Number: 581
 30/7/2006 15:38:42

Result : Analysis Report

Sample Details

Sample ID : MGWA-4B2X_1 Measured : 13 Aug 2006 2568 16:04:48
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

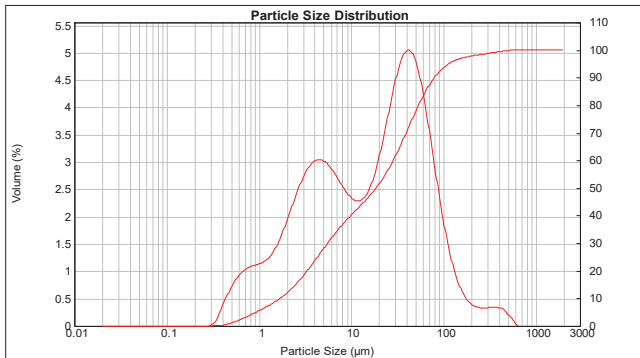
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.75 Residual (%) : 0.781
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0164 %Vol Specific Surface Area : 1.32 m²/g
 Mean Diameters : D (0.1) : 1.69 µm D (0.5) : 18.52 µm D (0.9) : 79.46 µm
 D [4.3] : 35.74 µm D [3.2] : 4.53 µm Span : 4.198 Uniformity : 1.62

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.30	7.962	2.40	58.573	4.09	430.887	0.28
0.025	0.00	0.172	0.00	1.262	1.30	9.263	2.39	68.291	0.33	502.397	0.19
0.027	0.00	0.200	0.00	1.471	1.31	10.823	2.35	79.621	3.33	585.729	0.19
0.032	0.00	0.233	0.00	1.715	1.77	12.619	2.36	92.832	1.90	682.910	0.00
0.037	0.00	0.272	0.00	2.000	1.91	14.713	2.30	108.234	0.99	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.00	17.154	2.54	126.191	1.34	928.318	0.00
0.050	0.00	0.370	0.07	2.719	2.60	20.000	2.89	147.128	0.63	1082.399	0.00
0.059	0.00	0.421	0.10	3.170	2.40	23.316	2.89	171.529	0.37	1281.915	0.00
0.068	0.00	0.502	0.60	3.696	3.00	27.187	3.89	200.000	0.40	1471.285	0.00
0.080	0.00	0.586	0.96	4.309	3.05	31.698	4.85	233.163	0.33	1715.392	0.00
0.093	0.00	0.683	0.96	5.024	2.98	36.957	5.05	271.871	0.34	2000.000	0.00
0.108	0.00	0.796	1.06	5.887	2.98	43.089	5.05	316.979	0.33		
0.126	0.00	0.928	1.11	6.829	2.94	50.238	4.80	369.570	0.34		
0.147	0.00	1.062	1.14	7.962	2.67	58.573	4.63	430.887	0.33		



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 Serial Number : MAL1021434

File name: MTEC0871_68_12am_Tetra Technica
 Record Number: 582
 30/7/2006 15:38:42

Result : Analysis Report

Sample Details

Sample ID : MGWA-3D2_3 Measured : 13 Aug 2006 2568 15:54:04
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

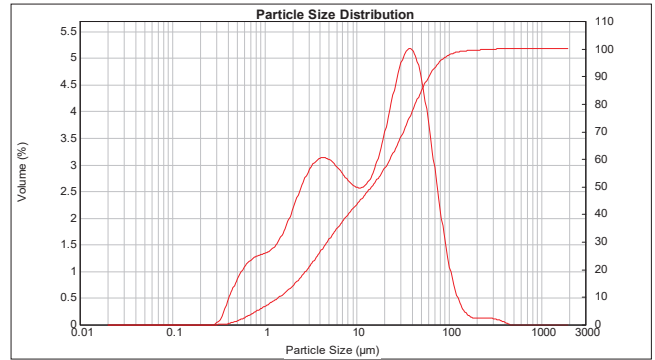
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.73 Residual (%) : 0.792
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0139 %Vol Specific Surface Area : 1.49 m²/g
 Mean Diameters : D (0.1) : 1.45 µm D (0.5) : 14.53 µm D (0.9) : 60.77 µm
 D [4.3] : 25.35 µm D [3.2] : 4.02 µm Span : 4.083 Uniformity : 1.41

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.40	7.962	2.86	58.573	3.91	430.887	0.00
0.025	0.00	0.172	0.00	1.262	1.40	9.263	2.86	68.291	2.84	502.397	0.00
0.027	0.00	0.200	0.00	1.471	1.52	10.823	2.99	79.621	1.82	585.729	0.00
0.032	0.00	0.233	0.00	1.715	1.72	12.619	2.80	92.832	1.14	682.910	0.00
0.037	0.00	0.272	0.00	2.000	1.99	14.713	2.71	108.234	0.88	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.30	17.154	2.97	126.191	0.65	928.318	0.00
0.050	0.00	0.370	0.13	2.719	2.39	20.000	3.36	147.128	0.18	1082.399	0.00
0.059	0.00	0.421	0.46	3.170	2.85	23.316	2.89	171.529	0.12	1281.915	0.00
0.068	0.00	0.502	0.71	3.696	3.03	27.187	4.37	200.000	0.13	1471.285	0.00
0.080	0.00	0.586	1.12	4.309	3.13	31.698	5.13	233.163	0.12	1715.392	0.00
0.093	0.00	0.683	0.95	5.024	2.94	36.957	4.84	271.871	0.09	2000.000	0.00
0.108	0.00	0.796	1.24	5.887	3.06	43.089	5.16	316.979	0.12		
0.126	0.00	0.928	1.30	6.829	2.94	50.238	4.88	369.570	0.10		
0.147	0.00	1.062	1.34	7.962	2.79	58.573	4.30	430.887	0.05		



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File name: MTEC0871_68_12am_Tetra Technica
 Record Number: 581
 30/7/2006 15:38:42

Result : Analysis Report

Sample Details

Sample ID : MGWA-4B2X_2 Measured : 13 Aug 2006 2568 16:06:40
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

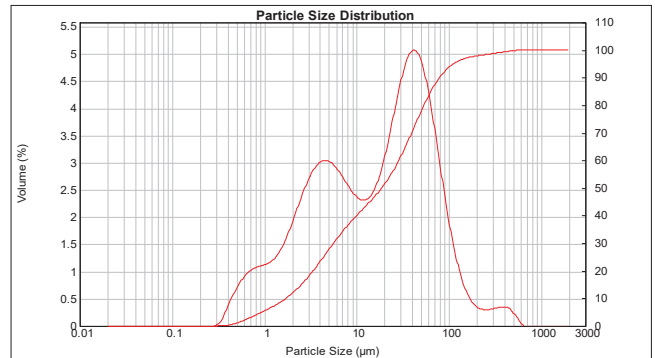
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.36 Residual (%) : 0.795
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0162 %Vol Specific Surface Area : 1.31 m²/g
 Mean Diameters : D (0.1) : 1.71 µm D (0.5) : 18.62 µm D (0.9) : 79.02 µm
 D [4.3] : 35.76 µm D [3.2] : 4.58 µm Span : 4.151 Uniformity : 1.6

Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)	Size (µm)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.18	7.962	2.52	58.573	4.09	430.887	0.30
0.025	0.00	0.172	0.00	1.262	1.30	9.263	2.32	68.291	0.33	502.397	0.17
0.027	0.00	0.200	0.00	1.471	1.30	10.823	2.38	79.621	3.38	585.729	0.17
0.032	0.00	0.233	0.00	1.715	1.75	12.619	2.37	92.832	2.02	682.910	0.00
0.037	0.00	0.272	0.00	2.000	2.00	14.713	2.38	108.234	0.89	786.214	0.00
0.043	0.00	0.317	0.01	2.332	2.00	17.154	2.55	126.191	1.33	928.318	0.00
0.050	0.00	0.370	0.09	2.719	2.66	20.000	2.89	147.128	0.63	1082.399	0.00
0.059	0.00	0.421	0.30	3.170	2.38	23.316	2.89	171.529	0.32	1281.915	0.00
0.068	0.00	0.502	0.59	3.696	3.00	27.187	3.89	200.000	0.40	1471.285	0.00
0.080	0.00	0.586	0.95	4.309	3.05	31.698	4.85	233.163	0.30	1715.392	0.00
0.093	0.00	0.683	0.95	5.024	2.97	36.957	5.01	271.871	0.34	2000.000	0.00
0.108	0.00	0.796	1.04	5.887	2.99	43.089	5.07	316.979	0.31		
0.126	0.00	0.928	1.09	6.829	2.87	50.238	4.80	369.570	0.34		
0.147	0.00	1.062	1.13	7.962	2.69	58.573	4.67	430.887	0.35		



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 Record Number: 583
 30/7/2006 15:38:42

Result : Analysis Report

Attached page 33

Sample Details

Sample ID : MGWA-4B2X_3 Measured : 13 Aug 2006 2568 16:11:09
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

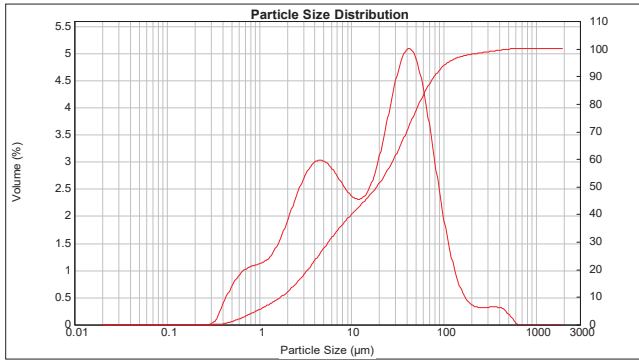
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.02 Residual (%) : 0.780
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0160 %Vol Specific Surface Area : 1.3 m²/g
 Mean Diameters : D (0.1) : 1.72 um D (0.5) : 18.86 um D (0.9) : 79.58 um
 D [4.3] : 35.65 um D [3.2] : 4.6 um Span : 4.128 Uniformity : 1.57

Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.18	7.962	2.92	58.573	4.16
0.025	0.00	0.172	0.00	1.262	1.31	9.263	3.28	68.591	4.37
0.027	0.00	0.200	0.00	1.471	1.41	10.823	2.36	79.621	2.84
0.032	0.00	0.233	0.00	1.715	1.74	12.619	2.32	92.852	2.09
0.037	0.00	0.272	0.00	2.000	1.99	14.713	2.36	108.234	1.97
0.043	0.00	0.317	0.01	2.332	2.04	17.154	2.54	126.191	1.37
0.050	0.00	0.370	0.09	2.719	2.36	20.000	2.87	147.128	0.91
0.058	0.00	0.421	0.79	3.170	2.54	23.316	3.33	171.529	0.61
0.068	0.00	0.502	0.59	3.696	2.86	27.187	3.87	200.000	0.42
0.080	0.00	0.586	0.94	4.309	3.04	31.698	4.84	233.163	0.31
0.093	0.00	0.683	0.99	5.024	2.75	36.957	5.52	271.871	0.33
0.108	0.00	0.796	1.04	5.887	2.68	43.089	5.07	316.979	0.32
0.126	0.00	0.928	1.09	6.829	2.96	50.238	5.94	369.570	0.33
0.147	0.00	1.062	1.12	7.962	2.69	58.573	4.72	430.887	0.32



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Masterizer 2000 Ver. 6.01
 Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 584
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Result : Analysis Report

Attached page 35

Sample Details

Sample ID : MGWA-4C2_2 Measured : 13 Aug 2006 2568 16:26:59
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

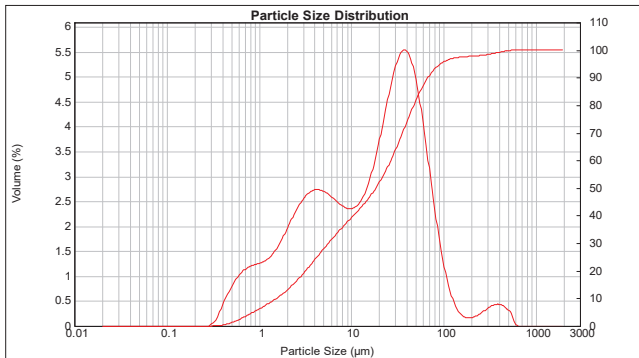
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.07 Residual (%) : 0.874
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0154 %Vol Specific Surface Area : 1.38 m²/g
 Mean Diameters : D (0.1) : 1.54 um D (0.5) : 18.45 um D (0.9) : 67.58 um
 D [4.3] : 33.54 um D [3.2] : 4.33 um Span : 3.580 Uniformity : 1.5

Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.31	7.962	2.38	58.573	3.76
0.025	0.00	0.172	0.00	1.262	1.39	9.263	2.36	68.591	3.79
0.027	0.00	0.200	0.00	1.471	1.42	10.823	2.36	79.621	2.84
0.032	0.00	0.233	0.00	1.715	1.82	12.619	2.62	92.852	2.01
0.037	0.00	0.272	0.00	2.000	1.99	14.713	2.62	108.234	1.97
0.043	0.00	0.317	0.01	2.332	2.07	17.154	2.96	126.191	0.71
0.050	0.00	0.370	0.12	2.719	2.52	20.000	3.43	147.128	0.21
0.058	0.00	0.421	0.89	3.170	2.32	23.316	5.14	171.529	0.38
0.068	0.00	0.502	0.66	3.696	2.67	27.187	4.61	200.000	0.16
0.080	0.00	0.586	1.06	4.309	2.75	31.698	5.48	233.163	0.25
0.093	0.00	0.683	1.16	5.024	2.75	36.957	5.52	271.871	0.41
0.108	0.00	0.796	1.16	5.887	2.67	43.089	5.52	316.979	0.34
0.126	0.00	0.928	1.22	6.829	2.97	50.238	5.94	369.570	0.41
0.147	0.00	1.062	1.26	7.962	2.46	58.573	4.62	430.887	0.44



Malvern Instruments Ltd.
 Malvern, UK
 Tel : +44 (0) 1684-892456 Fax : +44 (0) 1684-892789

Masterizer 2000 Ver. 6.01
 Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 586
 38/72568 15:38:42

Result : Analysis Report

Attached page 34

Sample Details

Sample ID : MGWA-4C2_1 Measured : 13 Aug 2006 2568 16:21:22
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

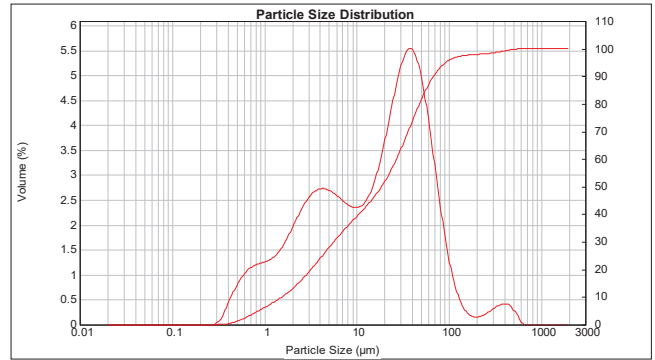
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.32 Residual (%) : 0.885
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0156 %Vol Specific Surface Area : 1.38 m²/g
 Mean Diameters : D (0.1) : 1.54 um D (0.5) : 18.55 um D (0.9) : 68.01 um
 D [4.3] : 33.34 um D [3.2] : 4.33 um Span : 3.583 Uniformity : 1.48

Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.31	7.962	2.38	58.573	3.82
0.025	0.00	0.172	0.00	1.262	1.39	9.263	2.36	68.591	3.82
0.027	0.00	0.200	0.00	1.471	1.41	10.823	2.36	79.621	2.91
0.032	0.00	0.233	0.00	1.715	1.80	12.619	2.42	92.852	2.04
0.037	0.00	0.272	0.01	2.000	2.07	14.713	2.60	108.234	1.31
0.043	0.00	0.317	0.01	2.332	2.07	17.154	2.93	126.191	0.77
0.050	0.00	0.370	0.12	2.719	2.52	20.000	3.39	147.128	0.23
0.058	0.00	0.421	0.89	3.170	2.32	23.316	5.12	171.529	0.42
0.068	0.00	0.502	0.67	3.696	2.66	27.187	4.59	200.000	0.16
0.080	0.00	0.586	1.06	4.309	2.73	31.698	5.47	233.163	0.25
0.093	0.00	0.683	1.09	5.024	2.57	36.957	5.52	271.871	0.38
0.108	0.00	0.796	1.16	5.887	2.66	43.089	5.53	316.979	0.30
0.126	0.00	0.928	1.22	6.829	2.57	50.238	5.35	369.570	0.38
0.147	0.00	1.062	1.26	7.962	2.46	58.573	4.64	430.887	0.41



Malvern Instruments Ltd.
 Malvern, UK
 Tel : +44 (0) 1684-892456 Fax : +44 (0) 1684-892789

Masterizer 2000 Ver. 6.01
 Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 585
 38/72568 15:38:42

Result : Analysis Report

Attached page 36

Sample Details

Sample ID : MGWA-4C2_3 Measured : 13 Aug 2006 2568 16:29:37
 Sample File : E:\TSM-A-PHAMS2000\Modified
 Sample Notes : Dispersing medium : De-ionized water
 Treatment : Ultrasound 10 minutes with ultrasonic bath and stirring at 2,000 rpm during measuring.

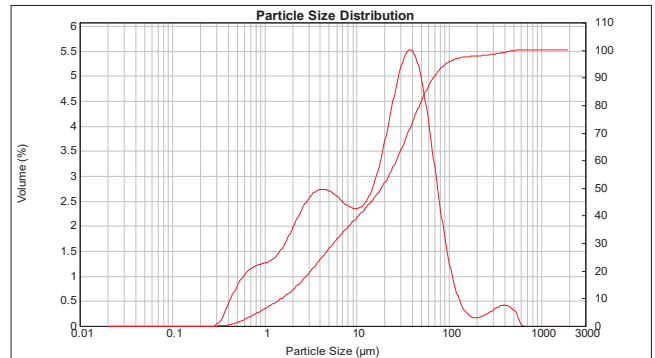
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.00 Residual (%) : 0.898
 Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0153 %Vol Specific Surface Area : 1.39 m²/g
 Mean Diameters : D (0.1) : 1.54 um D (0.5) : 18.48 um D (0.9) : 68.04 um
 D [4.3] : 33.45 um D [3.2] : 4.32 um Span : 3.599 Uniformity : 1.49

Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)	Size (um)	Volume (%)
0.020	0.00	0.147	0.00	1.062	1.31	7.962	2.38	58.573	3.79
0.025	0.00	0.172	0.00	1.262	1.39	9.263	2.36	68.591	3.79
0.027	0.00	0.200	0.00	1.471	1.42	10.823	2.36	79.621	2.84
0.032	0.00	0.233	0.00	1.715	1.82	12.619	2.60	92.852	2.01
0.037	0.00	0.272	0.00	2.000	2.07	14.713	2.60	108.234	1.97
0.043	0.00	0.317	0.01	2.332	2.07	17.154	2.93	126.191	0.71
0.050	0.00	0.370	0.12	2.719	2.52	20.000	3.39	147.128	0.23
0.058	0.00	0.421	0.89	3.170	2.32	23.316	5.11	171.529	0.42
0.068	0.00	0.502	0.67	3.696	2.67	27.187	4.59	200.000	0.17
0.080	0.00	0.586	1.06	4.309	2.74	31.698	5.46	233.163	0.25
0.093	0.00	0.683	1.09	5.024	2.57	36.957	5.52	271.871	0.38
0.108	0.00	0.796	1.17	5.887	2.67	43.089	5.51	316.979	0.31
0.126	0.00	0.928	1.22	6.829	2.57	50.238	5.32	369.570	0.39
0.147	0.00	1.062	1.26	7.962	2.46	58.573	4.62	430.887	0.42



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 Malvern, UK
 Tel : +44 (0) 1684-892456 Fax : +44 (0) 1684-892789

Masterizer 2000 Ver. 6.01
 Serial Number : MAL1021434

File name: MTEC0871_68_12zam_Tetra Technica
 Record Number: 587
 38/72568 15:38:42



17 March 2025

Ted Donn
Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette, CA 94549

RE: Gulf of Thailand (T779.27)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s) 25C0089
Associated SDG ID(s) N/A

Susan
Dunnihoo
Digitally signed by
Susan Dunnihoo
Date: 2025.03.17
16:10:29 -0700'

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Susan Dunnihoo, Director, Client Services

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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25C0089 ARISample FINAL 17 Mar 2025 1607 - Page 1 of 49

Ship to:

Sue Dunnihoo
Analytical Resources LLC
4611 South 134 Place
Tukwila, WA
USA

CHAIN of CUSTODY

25C0089

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

General Notes:

Please report all results to the MDL. J-flag results between MDL and RL.

Please report results and invoice separately for each Project ID.

Please report results in pdf format with Excel EDO deliverable

Standard Processing

Project	Sample ID	Date	Time	Medium	Preserve	TOC	Dry Weight
T779.27	NPCPP-1C1	2/16/2025	3:55	SED	Cold	1	1
T779.27	NPCPP-1C1-FD	2/16/2025	4:14	SED	Cold	1	1
T779.27	NPCPP-1C2X	2/16/2025	2:53	SED	Cold	1	1
T779.27	NPCPP-1CP1	2/16/2025	8:12	SED	Cold	1	1
T779.27	NPCPP-1CP2	2/16/2025	7:36	SED	Cold	1	1
T779.27	NPCPP-1CP3X	2/16/2025	5:55	SED	Cold	1	1
T779.27	NPCPP-1D2	2/15/2025	1:46	SED	Cold	1	1
T779.27	NPCPP-1E2	2/15/2025	1:55	SED	Cold	1	1
T779.27	NPCPP-1F2	2/15/2025	0:22	SED	Cold	1	1
T779.27	NPCPP-1G2	2/14/2025	22:53	SED	Cold	1	1
T779.27	NPCPP-2C1X	2/16/2025	4:54	SED	Cold	1	1
T779.27	NPCPP-2C2	2/16/2025	5:22	SED	Cold	1	1
T779.27	NPCPP-2CP2	2/15/2025	5:42	SED	Cold	1	1
T779.27	NPCPP-2D2	2/15/2025	6:22	SED	Cold	1	1
T779.27	NPCPP-3C1	2/16/2025	8:56	SED	Cold	1	1
T779.27	NPCPP-3C2	2/15/2025	22:58	SED	Cold	1	1
T779.27	NPCPP-3C3X	2/15/2025	20:36	SED	Cold	1	1
T779.27	NPCPP-3C3X-FD	2/15/2025	20:54	SED	Cold	1	1
T779.27	NPCPP-3CP1	2/15/2025	17:01	SED	Cold	1	1
T779.27	NPCPP-3CP2	2/15/2025	11:07	SED	Cold	1	1
T779.27	NPCPP-3CP3X	2/15/2025	16:23	SED	Cold	1	1
T779.27	NPCPP-3D2	2/16/2025	9:50	SED	Cold	1	1
T779.27	NPCPP-3E2	2/16/2025	10:28	SED	Cold	1	1
T779.27	NPCPP-3F2X	2/16/2025	11:05	SED	Cold	1	1
T779.27	NPCPP-3G2	2/16/2025	13:04	SED	Cold	1	1
T779.27	NPCPP-4C2	2/15/2025	19:59	SED	Cold	1	1
T779.27	NPCPP-4CP2	2/15/2025	19:27	SED	Cold	1	1
T779.27	NPCPP-4D2	2/15/2025	18:54	SED	Cold	1	1
T779.27	NPREF-A	2/12/2025	21:54	SED	Cold	1	1
T779.27	NPREF-B	2/12/2025	22:27	SED	Cold	1	1
T779.27	NPREF-B-FD	2/12/2025	22:47	SED	Cold	1	1
T779.27	NPREF-C	2/12/2025	23:16	SED	Cold	1	1
T779.27	NPWB-1C2	2/14/2025	4:51	SED	Cold	1	1
T779.27	NPWB-1C2-FD	2/14/2025	5:13	SED	Cold	1	1
T779.27	NPWB-1CP2	2/14/2025	3:50	SED	Cold	1	1
T779.27	NPWB-1D2	2/14/2025	4:06	SED	Cold	1	1
T779.27	NPWB-2B3	2/14/2025	18:54	SED	Cold	1	1
T779.27	NPWB-2C2X	2/14/2025	5:33	SED	Cold	1	1
T779.27	NPWB-3B2	2/14/2025	18:29	SED	Cold	1	1
T779.27	NPWB-3C2	2/14/2025	20:22	SED	Cold	1	1
T779.27	NPWB-3CP2	2/14/2025	21:24	SED	Cold	1	1
T779.27	NPWB-3D2	2/14/2025	21:55	SED	Cold	1	1
T779.27	NPWB-4B3X	2/14/2025	19:19	SED	Cold	1	1

Relinquished by:

Relinquished by:

Received by:
12 6 FEB 2025
3/10/25 12:17

Received by:

1 of 5

25C0089 ARISample FINAL 17 Mar 2025 1607 - Page 2 of 49



Analytical Report

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
17-Mar-2025 16:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NPCPP-1C1	25C0089-01	Solid	16-Feb-2025 03:55	06-Mar-2025 12:19
NPCPP-1C1-FD	25C0089-02	Solid	16-Feb-2025 04:14	06-Mar-2025 12:19
NPCPP-1C2X	25C0089-03	Solid	16-Feb-2025 02:53	06-Mar-2025 12:19
NPCPP-1CP1	25C0089-04	Solid	16-Feb-2025 08:12	06-Mar-2025 12:19
NPCPP-1CP2	25C0089-05	Solid	16-Feb-2025 07:36	06-Mar-2025 12:19
NPCPP-1CP3X	25C0089-06	Solid	16-Feb-2025 05:55	06-Mar-2025 12:19
NPCPP-1D2	25C0089-07	Solid	15-Feb-2025 01:46	06-Mar-2025 12:19
NPCPP-1E2	25C0089-08	Solid	15-Feb-2025 01:05	06-Mar-2025 12:19
NPCPP-1F2	25C0089-09	Solid	15-Feb-2025 00:22	06-Mar-2025 12:19
NPCPP-1G2	25C0089-10	Solid	14-Feb-2025 22:53	06-Mar-2025 12:19
NPCPP-2C1X	25C0089-11	Solid	16-Feb-2025 04:54	06-Mar-2025 12:19
NPCPP-2C2	25C0089-12	Solid	16-Feb-2025 05:22	06-Mar-2025 12:19
NPCPP-2CP2	25C0089-13	Solid	15-Feb-2025 05:42	06-Mar-2025 12:19
NPCPP-2D2	25C0089-14	Solid	15-Feb-2025 06:22	06-Mar-2025 12:19
NPCPP-3C1	25C0089-15	Solid	16-Feb-2025 08:56	06-Mar-2025 12:19
NPCPP-3C2	25C0089-16	Solid	15-Feb-2025 22:58	06-Mar-2025 12:19
NPCPP-3C3X	25C0089-17	Solid	15-Feb-2025 20:36	06-Mar-2025 12:19
NPCPP-3C3X-FD	25C0089-18	Solid	15-Feb-2025 20:54	06-Mar-2025 12:19
NPCPP-3CP1	25C0089-19	Solid	15-Feb-2025 17:01	06-Mar-2025 12:19
NPCPP-3CP2	25C0089-20	Solid	15-Feb-2025 11:07	06-Mar-2025 12:19



Analytical Report

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
17-Mar-2025 16:07

Work Order Case Narrative

Client: Tetra Tech, Inc. (Lafayette)
Project: Gulf of Thailand
Project Number: T779.27
Work Order: 25C0089

Sample receipt

The sample(s) as listed on the preceding page were received 06-Mar-2025 12:19 under ARI work order 25C0089. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The reference material (SRM) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the replicate (DUP1, DUP2) relative percent differences (RPD) were within advisory control limits.

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25C0089 ARISample FINAL 17 Mar 2025 1607 - Page 3 of 49

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25C0089 ARISample FINAL 17 Mar 2025 1607 - Page 4 of 49

Cooler Receipt Form

ARI Client: Tetra Tech
COC No(s): 25C0089
Assigned ARI Job No: 25C0089
Project Name: Gulf of Thailand
Delivered by: FedEx UPS Courier Hand Delivered Other:
Tracking No: 0201 71234610 2121 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES ☒ NO ☐
Were custody papers included with the cooler? YES ☒ NO ☐
Were custody papers properly filled out (ink, signed, etc.)? YES ☒ NO ☐
Temperature of Cooler(s) (°C) Time: 12:10 -23
Temp Gun ID#: 7003708
Was a temperature blank included in the cooler? YES ☒ NO ☐
Were coolers received between 0°-8° (°C)? YES ☒ NO ☐
Was sufficient ice used (if appropriate)? NA ☒ YES ☐ NO ☐

Cooler Accepted by: PIB Date: 03/06/25 Time: 12:10

Complete custody forms and attach all shipping documents

Log-In Phase:

What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block N/A Other: _____
Are any samples that were out of temperature compliance documented in LIMS? YES ☒ NO ☐
How were bottles sealed in plastic bags? Individually ☒ Grouped ☐ Not ☐
Did all bottles arrive in good condition (unbroken)? YES ☒ NO ☐
Were all bottle labels complete and legible? YES ☒ NO ☐
Did the number of containers listed on COC match with the number of containers received? YES ☒ NO ☐
Did all bottle labels and tags agree with the number of containers received? YES ☒ NO ☐
Were all bottles used correct for the requested analyses? YES ☒ NO ☐
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) NA ☒ YES ☐ NO ☐
Were all VOC vials free of air bubbles? NA ☒ YES ☐ NO ☐
Was sufficient amount of sample sent in each bottle? NA ☒ YES ☐ NO ☐
Date VOC Trip Blank was made at ARI: NA ☒ YES ☐ NO ☐
Were the sample(s) split by ARI? NA ☒ YES ☐ NO ☐

Samples Logged by: dw Date: 3/6/25 Time: 13:53 Labels checked by: dw

Notify Project Manager of discrepancies or concerns

Additional Notes, Discrepancies, & Resolutions:

1) Samples were shipped with dry ice and were received frozen per the project requirements. - PIB 03/06/25
2) Extra sample not on COC - "PAWE-ZLL-FD"
3) Multiple samples received with discrepant times between the COC and labels. Samples will be logged based on the COC.
By: dw Date: 3/6/25

0010F
10312024

Cooler Receipt Form

Revision 015A

25C0089 ARISample FINAL 17 Mar 2025 1607 - Page 5 of 49

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
17-Mar-2025 16:07

NPCPP-ICI
25C0089-01 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR
Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0197
Sample Size: 0.2443 g (wet)
Final Volume: 0.2443 mL
Extract ID: 25C0089-01 A
Dry Weight: 0.14 g
% Solids: 57.52

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.22	%	

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25C0089 ARISample FINAL 17 Mar 2025 1607 - Page 6 of 49

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
17-Mar-2025 16:07

NPCPP-ICI
25C0089-01 (Solid)

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG
Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0199
Sample Size: 5 g (wet)
Final Volume: 5 mL
Extract ID: 25C0089-01
% Solids: 57.52

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	57.52	%	

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
17-Mar-2025 16:07

NPCPP-ICI-FD
25C0089-02 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR
Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0197
Sample Size: 0.2761 g (wet)
Final Volume: 0.2761 mL
Extract ID: 25C0089-02 A
Dry Weight: 0.16 g
% Solids: 59.07

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.20	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 17-Mar-2025 16:07
	Project Number: T779.27		
	Project Manager: Ted Donn		
	NPCPP-1C1-FD 25C0089-02 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/16/2025 04:14			
Instrument: BAL2 Analyst: AG				Analyzed: 03/10/2025 12:23			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-02	
				% Solids: 59.07			
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	59.07	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 17-Mar-2025 16:07
	Project Number: T779.27		
	Project Manager: Ted Donn		
	NPCPP-1C2X 25C0089-03 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/16/2025 02:53			
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/11/2025 21:39			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 0.2578 g (wet)		Extract ID: 25C0089-03 A	
		Preparation Batch: BNC0197					
		Prepared: 03/10/2025					
		Final Volume: 0.2578 mL		Dry Weight: 0.16 g		% Solids: 60.40	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.17	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 17-Mar-2025 16:07
	Project Number: T779.27		
	Project Manager: Ted Donn		
NPCPP-1C2X 25C0089-03 (Solid)			

Wet Chemistry

Method: SM 2540 G-11						Sampled: 02/16/2025 02:53		
Instrument: BAL2 Analyst: AG						Analyzed: 03/10/2025 12:23		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-03	
						% Solids: 60.40		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	60.40	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 17-Mar-2025 16:07
	Project Number: T779.27		
	Project Manager: Ted Donn		
NPCPP-1CPI			
25C0089-04 (Solid)			

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/16/2025 08:12			
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/11/2025 22:10			
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0089-04 A		
		Preparation Batch: BNC0197			Dry Weight: 0.12 g		
		Prepared: 03/10/2025			% Solids: 53.73		
		Sample Size: 0.2283 g (wet)					
		Final Volume: 0.2283 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.25	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
NPCPP-1CP1 25C0089-04 (Solid)		

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG				Sampled: 02/16/2025 08:12 Analyzed: 03/10/2025 12:23				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-04 % Solids: 53.73		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	53.73	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
NPCPP-1CP2 25C0089-05 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/16/2025 07:36			
Instrument: BAL2 Analyst: AG				Analyzed: 03/10/2025 12:23			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0089-05	
		Preparation Batch: BNC0199		Final Volume: 5 mL		% Solids: 52.54	
		Prepared: 03/10/2025					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	52.54	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
NPCPP-1CP2 25C0089-05 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR					Sampled: 02/16/2025 07:36 Analyzed: 03/11/2025 22:40		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0197 Prepared: 03/10/2025		Sample Size: 0.2937 g (wet) Final Volume: 0.2937 mL		Extract ID: 25C0089-05 A Dry Weight: 0.15 g % Solids: 52.54	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.24	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
NPCPP-1CP3X 25C0089-06 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR					Sampled: 02/16/2025 05:55 Analyzed: 03/12/2025 00:11		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0197 Prepared: 03/10/2025		Sample Size: 0.2971 g (wet) Final Volume: 0.2971 mL		Extract ID: 25C0089-06 A Dry Weight: 0.16 g % Solids: 55.24	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.23	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 17-Mar-2025 16:07
	Project Number: T779.27	
	Project Manager: Ted Donn	
NPCPP-1CP3X 25C0089-06 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/16/2025 05:55				
Instrument: BAL2 Analyst: AG				Analyzed: 03/10/2025 12:23				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-06		
				% Solids: 55.24				
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	55.24	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 17-Mar-2025 16:07
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPCPP-ID2 25C0089-07 (Solid)	

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/15/2025 01:46			
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/12/2025 00:41			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 0.21 g (wet)		Extract ID: 25C0089-07 A	
		Preparation Batch: BNC0197		Final Volume: 0.21 mL		Dry Weight: 0.10 g	
		Prepared: 03/10/2025				% Solids: 49.24	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.36	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 17-Mar-2025 16:07
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPCPP-ID2 25C0089-07 (Solid)	

Wet Chemistry

Method: SM 2540 G-11						Sampled: 02/15/2025 01:46		
Instrument: BAL2 Analyst: AG						Analyzed: 03/10/2025 12:23		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-07	
						% Solids: 49.24		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	49.24	%	

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	Reported:
Lafayette CA, 94549	Project Manager: Ted Donn	17-Mar-2025 16:07
NPCPP-1E2		
25C0089-08 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/15/2025 01:05				
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/12/2025 01:11				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0197 Prepared: 03/10/2025			Sample Size: 0.267 g (wet) Final Volume: 0.267 mL		Extract ID: 25C0089-08 A Dry Weight: 0.13 g % Solids: 49.44	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes	
Total Organic Carbon		1	0.02	0.02	0.34	%		

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 17-Mar-2025 16:07
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPCPP-1E2 25C0089-08 (Solid)	

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/15/2025 01:05			
Instrument: BAL2 Analyst: AG					Analyzed: 03/10/2025 12:23			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-08	
					% Solids: 49.44			
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	49.44	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 17-Mar-2025 16:07
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPCPP-1F2 25C0089-09 (Solid)	

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/15/2025 00:22				
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/12/2025 01:42				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0197 Prepared: 03/10/2025		Sample Size: 0.3632 g (wet) Final Volume: 0.3632 mL		Extract ID: 25C0089-09 A Dry Weight: 0.18 g % Solids: 50.01		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.37	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 17-Mar-2025 16:07
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPCPP-1F2 25C0089-09 (Solid)	

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/15/2025 00:22			
Instrument: BAL2 Analyst: AG					Analyzed: 03/10/2025 12:23			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-09		
					% Solids: 50.01			
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	50.01	%	

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported: 17-Mar-2025 16:07
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	
Lafayette CA, 94549	Project Manager: Ted Donn	
NPCPP-1G2 25C0089-10 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR						Sampled: 02/14/2025 22:53	
Instrument: TOC Cube Analyst: ARR						Analyzed: 03/12/2025 02:12	
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0197 Prepared: 03/10/2025			Sample Size: 0.2414 g (wet) Final Volume: 0.2414 mL		Extract ID: 25C0089-10 A Dry Weight: 0.12 g % Solids: 50.95
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.31	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
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NPCPP-1G2
25C0089-10 (Solid)

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0199
Prepared: 03/10/2025

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	50.95	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
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NPCPP-2C1X
25C0089-11 (Solid)

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0199
Prepared: 03/10/2025

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	57.29	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
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NPCPP-2C1X
25C0089-11 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0197
Prepared: 03/10/2025

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.19	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
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NPCPP-2C2
25C0089-12 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0197
Prepared: 03/10/2025

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.21	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
NPCPP-2C2 25C0089-12 (Solid)		

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG				Sampled: 02/16/2025 05:22 Analyzed: 03/10/2025 12:23				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-12 % Solids: 57.11		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	57.11	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
NPCPP-2CP2 25C0089-13 (Solid)		

Wet Chemistry

Method: SM 2540 G-11						Sampled: 02/15/2025 05:42		
Instrument: BAL2 Analyst: AG						Analyzed: 03/10/2025 12:23		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-13		
						% Solids: 51.85		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	51.85	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
NPCPP-2CP2 25C0089-13 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR				Sampled: 02/15/2025 05:42 Analyzed: 03/12/2025 03:43			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0197 Prepared: 03/10/2025		Sample Size: 0.2178 g (wet) Final Volume: 0.2178 mL		Extract ID: 25C0089-13 A Dry Weight: 0.11 g % Solids: 51.85	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.37	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
NPCPP-2D2 25C0089-14 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR					Sampled: 02/15/2025 06:22 Analyzed: 03/12/2025 04:14		
Sample Preparation:	Preparation Method: No Prep Wet Chem Preparation Batch: BNC0197 Prepared: 03/10/2025		Sample Size: 0.3528 g (wet) Final Volume: 0.3528 mL		Extract ID: 25C0089-14 A Dry Weight: 0.18 g % Solids: 50.21		
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.35	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
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NPCPP-2D2
25C0089-14 (Solid)

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0199
Prepared: 03/10/2025

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	50.21	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
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NPCPP-3C1
25C0089-15 (Solid)

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0199
Prepared: 03/10/2025

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	57.12	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
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NPCPP-3C1
25C0089-15 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0197
Prepared: 03/10/2025

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.20	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
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NPCPP-3C2
25C0089-16 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0197
Prepared: 03/10/2025

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.21	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 17-Mar-2025 16:07
	Project Number: T779.27		
	Project Manager: Ted Donn		
	NPCPP-3C2 25C0089-16 (Solid)		

Wet Chemistry

Method: SM 2540 G-11		Sampled: 02/15/2025 22:58	
Instrument: BAL2 Analyst: AG		Analyzed: 03/10/2025 12:23	
Sample Preparation:		Extract ID: 25C0089-16	
Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)	
Preparation Batch: BNC0199		Final Volume: 5 mL	
Prepared: 03/10/2025		% Solids: 60.44	
Analyte	CAS Number	Dilution	Result Units Notes
Total Solids		1	60.44 %

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 17-Mar-2025 16:07
	Project Number: T779.27		
	Project Manager: Ted Donn		
	NPCPP-3C3X 25C0089-17 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR		Sampled: 02/15/2025 20:36	
Instrument: TOC Cube Analyst: ARR		Analyzed: 03/12/2025 06:45	
Sample Preparation:		Extract ID: 25C0089-17 A	
Preparation Method: No Prep Wet Chem		Sample Size: 0.2964 g (wet)	
Preparation Batch: BNC0197		Final Volume: 0.2964 mL	
Prepared: 03/10/2025		Dry Weight: 0.17 g	
		% Solids: 57.42	
Analyte	CAS Number	Dilution	Result Units Notes
Total Organic Carbon		1	0.20 %

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 17-Mar-2025 16:07
	Project Number: T779.27		
	Project Manager: Ted Donn		
NPCPP-3C3X 25C0089-17 (Solid)			

Wet Chemistry

Method: SM 2540 G-11		Sampled: 02/15/2025 20:36	
Instrument: BAL2 Analyst: AG		Analyzed: 03/10/2025 12:23	
Sample Preparation:		Extract ID: 25C0089-17	
Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)	
Preparation Batch: BNC0199		Final Volume: 5 mL	
Prepared: 03/10/2025		% Solids: 57.42	
Analyte	CAS Number	Dilution	Result Units Notes
Total Solids		1	57.42 %

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 17-Mar-2025 16:07
	Project Number: T779.27		
	Project Manager: Ted Donn		
	NPCPP-3C3X-FD 25C0089-18 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR		Sampled: 02/15/2025 20:54	
Instrument: TOC Cube Analyst: ARR		Analyzed: 03/12/2025 07:15	
Sample Preparation:		Extract ID: 25C0089-18 A	
Preparation Method: No Prep Wet Chem		Sample Size: 0.306 g (wet)	
Preparation Batch: BNC0197		Final Volume: 0.306 mL	
Prepared: 03/10/2025		Dry Weight: 0.18 g	
		% Solids: 57.26	
Analyte	CAS Number	Dilution	Result Units Notes
Total Organic Carbon		1	0.21 %

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 17-Mar-2025 16:07
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPCPP-3C3X-FD 25C0089-18 (Solid)	

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/15/2025 20:54				
Instrument: BAL2 Analyst: AG				Analyzed: 03/10/2025 12:23				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-18 % Solids: 57.26		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	57.26	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 17-Mar-2025 16:07
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPCPP-3CP1 25C0089-19 (Solid)	

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/15/2025 17:01				
Instrument: BAL2 Analyst: AG				Analyzed: 03/10/2025 12:23				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-19		
						% Solids: 52.18		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	52.18	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 17-Mar-2025 16:07
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPCPP-3CP1 25C0089-19 (Solid)	

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/15/2025 17:01		
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/12/2025 07:46		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0197 Prepared: 03/10/2025		Sample Size: 0.2064 g (wet) Final Volume: 0.2064 mL		Extract ID: 25C0089-19 A Dry Weight: 0.11 g % Solids: 52.18	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.25	%	

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported: 17-Mar-2025 16:07
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	
Lafayette CA, 94549	Project Manager: Ted Donn	
NPCPP-3CP2 25C0089-20 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/15/2025 11:07		
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/12/2025 08:16		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0197 Prepared: 03/10/2025		Sample Size: 0.2162 g (wet) Final Volume: 0.2162 mL		Extract ID: 25C0089-20 A Dry Weight: 0.12 g % Solids: 53.89	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units Notes	
Total Organic Carbon		1	0.02	0.02	0.25	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
NPCPP-3CP2 25C0089-20 (Solid)		

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG				Sampled: 02/15/2025 11:07 Analyzed: 03/10/2025 12:23				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0199 Prepared: 03/10/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0089-20 % Solids: 53.89	
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	53.89	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
Analysis by: Analytical Resources, LLC		
Wet Chemistry - Quality Control		

Batch BNC0197 - Plumb 1981, Combustion IR

Instrument: TOC Cube Analyst: ARR										
QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BNC0197-BLK1)					Prepared: 10-Mar-2025	Analyzed: 11-Mar-2025 12:35				
Total Organic Carbon	ND	0.02	0.02	%						U
LCS (BNC0197-BS1)					Prepared: 10-Mar-2025	Analyzed: 11-Mar-2025 13:35				
Total Organic Carbon	44.0	0.02	0.02	%	44.4	98.9	80-120			
Duplicate (BNC0197-DUP1)					Source: 25C 0089-01	Prepared: 10-Mar-2025	Analyzed: 11-Mar-2025 19:08			
Total Organic Carbon	0.22	0.02	0.02	%		0.22		3.15	20	
Duplicate (BNC0197-DUP2)					Source: 25C 0089-01	Prepared: 10-Mar-2025	Analyzed: 11-Mar-2025 19:38			
Total Organic Carbon	0.21	0.02	0.02	%		0.22		8.06	20	
Matrix Spike (BNC0197-MS1)					Source: 25C 0089-01	Prepared: 10-Mar-2025	Analyzed: 11-Mar-2025 20:08			
Total Organic Carbon	2.45	0.02	0.02	%	2.31	0.22	96.6	75-125		
Recovery limits for target analytes in MS/MSD QC samples are advisory only.										

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
Analysis by: Analytical Resources, LLC		
Wet Chemistry - Quality Control		

Batch BNC0199 - SM 2540 G-11

Instrument: BAL2 Analyst: AG										
QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BNC0199-BLK1)	Prepared: 10-Mar-2025 Analyzed: 10-Mar-2025 12:23									
Total Solids	ND	0.04	0.04	%						U
Duplicate (BNC0199-DUP1)	Source: 25C 0089-01 Prepared: 10-Mar-2025 Analyzed: 10-Mar-2025 12:23									
Total Solids	56.91	0.04	0.04	%		57.52		1.06	20	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 17-Mar-2025 16:07
Certified Analyses included in this Report		
Analyte	Certifications	
Plumb 1981, Combustion IR in Solid		
Total Organic Carbon	DoD-ELAP	
Code	Description	Expires
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	01/31/2026

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted DonnReported:
17-Mar-2025 16:07

Notes and Definitions

U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

[2C] Indicates this result was quantified on the second column on a dual column analysis.

28 March 2025

Ted Donn
Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette, CA 94549

RE: Gulf of Thailand (T779.27)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
25C0162Associated SDG ID(s)
N/ASusan
Dunniho
Digitally signed by
Susan Dunniho
Date: 2025.03.28
13:18:48 -07'00'

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclosure Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC


Susan Dunniho, Director, Client Services

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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25C0089 ARISample FINAL 17 Mar 2025 1607 - Page 49 of 49

25C0162, 25C0163, 25C0164, 25C0165

Ship To:
Sue Dunniho
Analytical Resources LLC
4611 South 134 Place
Tukwila, WA
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

General Notes:

Please report all results to the MDL. J-tag results between MDL and RL.

Please report results and invoice separately for each Project ID

Please report results in pdf format with Excel EDD deliverable

Standard Processing

Project	Sample ID	Date	Time	Medium	Preserve	TOC	Dry Weight
T779.27	NPCPP-1C1	2/16/2025	3:55	SED	Frozen	1	1
T779.27	NPCPP-1C1-FD	2/16/2025	4:14	SED	Frozen	1	1
T779.27	NPCPP-1C2X	2/16/2025	2:53	SED	Frozen	1	1
T779.27	NPCPP-1CP1	2/16/2025	8:12	SED	Frozen	1	1
T779.27	NPCPP-1CP2	2/16/2025	7:36	SED	Frozen	1	1
T779.27	NPCPP-1CP3X	2/16/2025	5:55	SED	Frozen	1	1
T779.27	NPCPP-1D2	2/15/2025	1:46	SED	Frozen	1	1
T779.27	NPCPP-1E2	2/15/2025	1:05	SED	Frozen	1	1
T779.27	NPCPP-1F2	2/15/2025	0:22	SED	Frozen	1	1
T779.27	NPCPP-1G2	2/14/2025	22:53	SED	Frozen	1	1
T779.27	NPCPP-2C1X	2/16/2025	4:54	SED	Frozen	1	1
T779.27	NPCPP-2C2	2/16/2025	5:22	SED	Frozen	1	1
T779.27	NPCPP-2CP2	2/15/2025	5:42	SED	Frozen	1	1
T779.27	NPCPP-2D2	2/15/2025	6:22	SED	Frozen	1	1
T779.27	NPCPP-3C1	2/16/2025	8:56	SED	Frozen	1	1
T779.27	NPCPP-3C2	2/15/2025	22:58	SED	Frozen	1	1
T779.27	NPCPP-3C3X	2/15/2025	20:36	SED	Frozen	1	1
T779.27	NPCPP-3C3X-FD	2/15/2025	20:54	SED	Frozen	1	1
T779.27	NPCPP-3CP1	2/15/2025	17:01	SED	Frozen	1	1
T779.27	NPCPP-3CP2	2/15/2025	11:07	SED	Frozen	1	1
T779.27	NPCPP-3CP3X	2/15/2025	16:23	SED	Frozen	1	1
T779.27	NPCPP-3D2	2/16/2025	9:50	SED	Frozen	1	1
T779.27	NPCPP-3E2	2/16/2025	10:28	SED	Frozen	1	1
T779.27	NPCPP-3F2X	2/16/2025	11:05	SED	Frozen	1	1
T779.27	NPCPP-3G2	2/16/2025	13:04	SED	Frozen	1	1
T779.27	NPCPP-4C2	2/15/2025	19:59	SED	Frozen	1	1
T779.27	NPCPP-4CP2	2/15/2025	19:27	SED	Frozen	1	1
T779.27	NPCPP-4D2	2/15/2025	18:54	SED	Frozen	1	1
T779.27	NPREF-A	2/12/2025	21:54	SED	Frozen	1	1
T779.27	NPREF-B	2/12/2025	22:27	SED	Frozen	1	1
T779.27	NPREF-B-FD	2/12/2025	22:47	SED	Frozen	1	1
T779.27	NPREF-C	2/12/2025	23:16	SED	Frozen	1	1
T779.27	NPWB-1C2	2/14/2025	4:51	SED	Frozen	1	1
T779.27	NPWB-1C2-FD	2/14/2025	5:13	SED	Frozen	1	1
T779.27	NPWB-1CP2	2/14/2025	3:00	SED	Frozen	1	1
T779.27	NPWB-1D2	2/14/2025	4:06	SED	Frozen	1	1
T779.27	NPWB-2B3	2/14/2025	18:54	SED	Frozen	1	1
T779.27	NPWB-2C2X	2/14/2025	5:33	SED	Frozen	1	1
T779.27	NPWB-3B2	2/14/2025	18:29	SED	Frozen	1	1
T779.27	NPWB-3C2	2/14/2025	20:22	SED	Frozen	1	1
T779.27	NPWB-3CP2	2/14/2025	21:24	SED	Frozen	1	1
T779.27	NPWB-3D2	2/14/2025	21:55	SED	Frozen	1	1
T779.27	NPWB-4B3X	2/14/2025	19:19	SED	Frozen	1	1

Relinquished by:

Relinquished by:

Received by:

Received by:

3/10/25 0926

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Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted DonnReported:
28-Mar-2025 13:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NPCPP-3CP3X	25C0162-01	Solid	15-Feb-2025 16:23	10-Mar-2025 09:26
NPCPP-3D2	25C0162-02	Solid	16-Feb-2025 09:50	10-Mar-2025 09:26
NPCPP-3E2	25C0162-03	Solid	16-Feb-2025 10:28	10-Mar-2025 09:26
NPCPP-3F2X	25C0162-04	Solid	16-Feb-2025 11:05	10-Mar-2025 09:26
NPCPP-3G2	25C0162-05	Solid	16-Feb-2025 13:04	10-Mar-2025 09:26
NPCPP-4C2	25C0162-06	Solid	15-Feb-2025 19:59	10-Mar-2025 09:26
NPCPP-4CP2	25C0162-07	Solid	15-Feb-2025 19:27	10-Mar-2025 09:26
NPCPP-4D2	25C0162-08	Solid	15-Feb-2025 18:54	10-Mar-2025 09:26
NPREF-A	25C0162-09	Solid	12-Feb-2025 21:54	10-Mar-2025 09:26
NPREF-B	25C0162-10	Solid	12-Feb-2025 22:27	10-Mar-2025 09:26
NPREF-B-FD	25C0162-11	Solid	12-Feb-2025 22:47	10-Mar-2025 09:26
NPREF-C	25C0162-12	Solid	12-Feb-2025 23:16	10-Mar-2025 09:26
NPWB-1C2	25C0162-13	Solid	14-Feb-2025 04:51	10-Mar-2025 09:26
NPWB-1C2-FD	25C0162-14	Solid	14-Feb-2025 05:13	10-Mar-2025 09:26
NPWB-1CP2	25C0162-15	Solid	14-Feb-2025 03:00	10-Mar-2025 09:26
NPWB-1D2	25C0162-16	Solid	14-Feb-2025 04:06	10-Mar-2025 09:26
NPWB-2B3	25C0162-17	Solid	14-Feb-2025 18:54	10-Mar-2025 09:26
NPWB-2C2X	25C0162-18	Solid	14-Feb-2025 05:33	10-Mar-2025 09:26
NPWB-3B2	25C0162-19	Solid	14-Feb-2025 18:29	10-Mar-2025 09:26
NPWB-3C2	25C0162-20	Solid	14-Feb-2025 20:22	10-Mar-2025 09:26

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Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported:
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	28-Mar-2025 13:16
Lafayette CA, 94549	Project Manager: Ted Donn	

Work Order Case Narrative

Client: Tetra Tech, Inc. (Lafayette)
Project: Gulf of Thailand
Project Number: T779.27
Work Order: 25C0162

Sample receipt

The sample(s) as listed on the preceding page were received 10-Mar-2025 09:26 under ARI work order 25C0162. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The reference material (SRM) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the replicate (DUP1, DUP2) relative percent differences (RPD) were within advisory control limits.

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported:
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	28-Mar-2025 13:16
Lafayette CA, 94549	Project Manager: Ted Donn	

NPCPP-3CP3X 25C0162-01 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0403
Prepared: 03/17/2025

Sample Size: 0.2364 g (wet)
Final Volume: 0.2364 mL

Extraction ID: 25C0162-01 A
Dry Weight: 0.14 g
% Solids: 60.05

Dilution: 1
Detection Limit: 0.02
Reporting Limit: 0.02
Result: 0.25
Units: %
Notes:

Total Organic Carbon

ARI Client: Tetra Tech
COC No(s): 25C0162
Assigned ARI Job No: 25C0162
Preliminary Examination Phase: SA
Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES
Were custody papers included with the cooler? YES
Were custody papers properly filled out (ink, signed, etc.)? YES
Temperature of Cooler(s) (°C) Time 12:13 -8.3
Temp Gun ID#: 7007302
Was a temperature blank included in the cooler? YES
Were coolers received between 0°-6° (°C) YES
Was sufficient ice used (if appropriate)? YES
Cooler Accepted by: PIB Date: 03/06/25 Time: 12:13

Log-In Phase:

What kind of packing material was used? Bubble Wrap Wet Gel Packs
Are any samples that were out of temperature compliance documented in LIMS? YES
How were bottles sealed in plastic bags? Sealed
Did all bottles arrive in good condition (unbroken)? YES
Were all bottle labels complete and legible? YES
Did the number of containers listed on COC match with the number of containers received? YES
Did all bottle labels and tags agree with custody papers? YES
Were all bottles used correct for the requested analyses? YES
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) NA
Were all VOC vials free of air bubbles? YES
Was sufficient amount of sample sent in each bottle? YES
Date VOC Trip Blank was made at ARI: NA
Were the sample(s) split by ARI? NA YES Date/Time: 3/10/25 SA 1553 Equipment: 1353 Split by: SA
Samples Logged by: SA Date: 3/10/25 Time: 13:53 Labels checked by: SA
"Notify Project Manager of discrepancies or concerns" 3/10/25

Additional Notes, Discrepancies, & Resolutions:
① samples were shipped with dry ice and were received frozen per the project requirements. - PIB 03/06/25
② Extra sample not on COC - "PAWE-222-FD"
③ Multiple samples received with discrepant times between the COC and labels. Samples will be logged based on the COC.
By: SA Date: 3/6/25

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported:
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	28-Mar-2025 13:16
Lafayette CA, 94549	Project Manager: Ted Donn	

NPCPP-3CP3X 25C0162-01 (Solid)

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0283
Prepared: 03/12/2025

Sample Size: 5 g (wet)
Final Volume: 5 mL

% Solids: 60.05

Dilution: 1
Detection Limit: 0.04
Reporting Limit: 0.04
Result: 60.05
Units: %
Notes:

Total Solids

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPCPP-3D2 25C0162-02 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/16/2025 09:50		
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/19/2025 01:44		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0403 Prepared: 03/17/2025		Sample Size: 0.2847 g (wet) Final Volume: 0.2847 mL		Extract ID: 25C0162-02 A Dry Weight: 0.15 g % Solids: 51.39	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.33	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPCPP-3D2 25C0162-02 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/16/2025 09:50				
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 13:34				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0283 Prepared: 03/12/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0162-02 % Solids: 51.39	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes	
Total Solids		1	0.04	0.04	51.39	%		

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPCPP-3E2 25C0162-03 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/16/2025 10:28			
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/19/2025 02:14			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0403 Prepared: 03/17/2025		Sample Size: 0.2408 g (wet) Final Volume: 0.2408 mL		Extract ID: 25C0162-03 A Dry Weight: 0.12 g % Solids: 50.98		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.30	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPCPP-3E2 25C0162-03 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/16/2025 10:28			
Instrument: BAL2 Analyst: AG					Analyzed: 03/12/2025 13:34			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0283 Prepared: 03/12/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0162-03 % Solids: 50.98	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes	
Total Solids		1	0.04	0.04	50.98	%		

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPCPP-3F2X 25C0162-04 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/16/2025 11:05		
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/19/2025 02:44		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0403 Prepared: 03/17/2025		Sample Size: 0.284 g (wet) Final Volume: 0.284 mL		Extract ID: 25C0162-04 A Dry Weight: 0.15 g % Solids: 52.67	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.29	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPCPP-3F2X 25C0162-04 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/16/2025 11:05					
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 13:34					
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0283 Prepared: 03/12/2025			Sample Size: 5 g (wet) Final Volume: 5 mL			Extract ID: 25C0162-04 % Solids: 52.67	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes		
Total Solids		1	0.04	0.04	52.67	%			

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPCPP-3G2 25C0162-05 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR						Sampled: 02/16/2025 13:04	
Instrument: TOC Cube Analyst: ARR						Analyzed: 03/19/2025 03:15	
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0403 Prepared: 03/17/2025			Sample Size: 0.2245 g (wet) Final Volume: 0.2245 mL		Extract ID: 25C0162-05 A Dry Weight: 0.13 g % Solids: 55.88
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units Notes
Total Organic Carbon			1	0.02	0.02	0.38	%

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPCPP-3G2 25C0162-05 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/16/2025 13:04			
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 13:34			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0283 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0162-05 % Solids: 55.88	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	55.88	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:16
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPCPP-4C2 25C0162-06 (Solid)	

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/15/2025 19:59			
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/19/2025 03:45			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 0.2171 g (wet)		Extract ID: 25C0162-06 A	
		Preparation Batch: BNC0403		Final Volume: 0.2171 mL		Dry Weight: 0.13 g	
		Prepared: 03/17/2025				% Solids: 58.91	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.20	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:16
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPCPP-4C2 25C0162-06 (Solid)	

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/15/2025 19:59			
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 13:34			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0162-06	
		Preparation Batch: BNC0283					
		Prepared: 03/12/2025		Final Volume: 5 mL		% Solids: 58.91	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	58.91	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:16
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPCPP-4CP2 25C0162-07 (Solid)	

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/15/2025 19:27		
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/19/2025 04:16		
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0162-07 A		
		Preparation Batch: BNC0403			Dry Weight: 0.15 g		
		Prepared: 03/17/2025			% Solids: 55.66		
		Sample Size: 0.2781 g (wet)					
		Final Volume: 0.2781 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.26	%	

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:16
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	
Lafayette CA, 94549	Project Manager: Ted Donn	
NPCPP-4CP2 25C0162-07 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/15/2025 19:27			
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 13:34			
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0162-07		
		Preparation Batch: BNC0283			% Solids: 55.66		
		Prepared: 03/12/2025					
		Sample Size: 5 g (wet)					
		Final Volume: 5 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	55.66	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPCPP-4D2 25C0162-08 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/15/2025 18:54			
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/19/2025 04:46			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0403 Prepared: 03/17/2025		Sample Size: 0.2841 g (wet) Final Volume: 0.2841 mL		Extract ID: 25C0162-08 A Dry Weight: 0.15 g % Solids: 54.55		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.32	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPCPP-4D2 25C0162-08 (Solid)		

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG

Sampled: 02/15/2025 18:54
Analyzed: 03/12/2025 13:34

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0283
Prepared: 03/12/2025

Sample Size: 5 g (wet)
Final Volume: 5 mL

Extract ID: 25C0162-08
% Solids: 54.55

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	54.55	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPREF-A 25C0162-09 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/12/2025 21:54			
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/19/2025 06:16			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0403 Prepared: 03/17/2025			Extract ID: 25C0162-09 A Dry Weight: 0.11 g % Solids: 45.49			
		Sample Size: 0.2331 g (wet) Final Volume: 0.2331 mL						
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.43	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPREF-A 25C0162-09 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/12/2025 21:54				
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 13:34				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0283 Prepared: 03/12/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0162-09 % Solids: 45.49	
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	45.49	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
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NPREF-B
25C0162-10 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR
Sampled: 02/12/2025 22:27
Analyzed: 03/19/2025 06:47

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0403
Prepared: 03/17/2025
Sample Size: 0.2328 g (wet)
Final Volume: 0.2328 mL
Extract ID: 25C0162-10 A
Dry Weight: 0.12 g
% Solids: 50.83

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.36	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
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NPREF-B
25C0162-10 (Solid)

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG
Sampled: 02/12/2025 22:27
Analyzed: 03/12/2025 13:34

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0283
Prepared: 03/12/2025
Sample Size: 5 g (wet)
Final Volume: 5 mL
Extract ID: 25C0162-10
% Solids: 50.83

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	50.83	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
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NPREF-B-FD
25C0162-11 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR
Sampled: 02/12/2025 22:47
Analyzed: 03/19/2025 07:17

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0403
Prepared: 03/17/2025
Sample Size: 0.2441 g (wet)
Final Volume: 0.2441 mL
Extract ID: 25C0162-11 A
Dry Weight: 0.12 g
% Solids: 50.50

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.35	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
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NPREF-B-FD
25C0162-11 (Solid)

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG
Sampled: 02/12/2025 22:47
Analyzed: 03/12/2025 13:34

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0283
Prepared: 03/12/2025
Sample Size: 5 g (wet)
Final Volume: 5 mL
Extract ID: 25C0162-11
% Solids: 50.50

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	50.50	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
NPREF-C 25C0162-12 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR					Sampled: 02/12/2025 23:16 Analyzed: 03/21/2025 16:18			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025		Sample Size: 0.2554 g (wet) Final Volume: 0.2554 mL		Extract ID: 25C0162-12 A Dry Weight: 0.13 g % Solids: 49.53		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.42	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
NPREF-C 25C0162-12 (Solid)		

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG				Sampled: 02/12/2025 23:16 Analyzed: 03/12/2025 13:34				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0283 Prepared: 03/12/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0162-12 % Solids: 49.53	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes	
Total Solids		1	0.04	0.04	49.53	%		

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
NPWB-1C2 25C0162-13 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR					Sampled: 02/14/2025 04:51 Analyzed: 03/22/2025 02:23		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025			Extract ID: 25C0162-13 A Dry Weight: 0.16 g % Solids: 53.87		
		Sample Size: 0.2924 g (wet) Final Volume: 0.2924 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.34	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
NPWB-1C2 25C0162-13 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/14/2025 04:51			
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 13:34			
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0162-13		
		Preparation Batch: BNC0283					
		Prepared: 03/12/2025					
		Sample Size: 5 g (wet)					
		Final Volume: 5 mL			% Solids: 53.87		
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	53.87	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 28-Mar-2025 13:16
	Project Number: T779.27		
	Project Manager: Ted Donn		
	NPWB-1C2-FD 25C0162-14 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/14/2025 05:13		
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/22/2025 02:54		
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 0.2156 g (wet)		Extract ID: 25C0162-14 A	
		Preparation Batch: BNC0444		Final Volume: 0.2156 mL		Dry Weight: 0.11 g	
		Prepared: 03/18/2025				% Solids: 52.83	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.37	%	

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:16
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	
Lafayette CA, 94549	Project Manager: Ted Donn	
NPWB-1C2-FD 25C0162-14 (Solid)		

Wet Chemistry

Method: SM 2540 G-11		Sampled: 02/14/2025 05:13					
Instrument: BAL2 Analyst: AG		Analyzed: 03/12/2025 13:34					
Sample Preparation:	Preparation Method: No Prep Wet Chem	Extract ID: 25C0162-14					
	Preparation Batch: BNC0283	% Solids: 52.83					
Prepared: 03/12/2025		Sample Size: 5 g (wet)					
		Final Volume: 5 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	52.83	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 28-Mar-2025 13:16
	Project Number: T779.27		
	Project Manager: Ted Donn		
NPWB-1CP2			
25C0162-15 (Solid)			

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/14/2025 03:00		
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/22/2025 03:24		
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0162-15 A		
		Preparation Batch: BNC0444			Dry Weight: 0.11 g		
		Prepared: 03/18/2025			% Solids: 52.08		
		Sample Size: 0.2207 g (wet)					
		Final Volume: 0.2207 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.43	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 28-Mar-2025 13:16
	Project Number: T779.27		
	Project Manager: Ted Donn		
	NPWB-1CP2 25C0162-15 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/14/2025 03:00			
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 13:34			
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0162-15		
		Preparation Batch: BNC0283			% Solids: 52.08		
		Prepared: 03/12/2025					
		Sample Size: 5 g (wet)					
		Final Volume: 5 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	52.08	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
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NPWB-ID2
25C0162-16 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR
Sampled: 02/14/2025 04:06
Analyzed: 03/22/2025 03:55

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0444
Prepared: 03/18/2025
Sample Size: 0.3063 g (wet)
Final Volume: 0.3063 mL
Extract ID: 25C0162-16 A
Dry Weight: 0.15 g
% Solids: 49.19

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.35	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
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NPWB-ID2
25C0162-16 (Solid)

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG
Sampled: 02/14/2025 04:06
Analyzed: 03/12/2025 13:34

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0283
Prepared: 03/12/2025
Sample Size: 5 g (wet)
Final Volume: 5 mL
Extract ID: 25C0162-16
% Solids: 49.19

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	49.19	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
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NPWB-2B3
25C0162-17 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR
Sampled: 02/14/2025 18:54
Analyzed: 03/22/2025 04:25

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0444
Prepared: 03/18/2025
Sample Size: 0.2222 g (wet)
Final Volume: 0.2222 mL
Extract ID: 25C0162-17 A
Dry Weight: 0.12 g
% Solids: 55.72

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.25	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
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NPWB-2B3
25C0162-17 (Solid)

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG
Sampled: 02/14/2025 18:54
Analyzed: 03/12/2025 13:34

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0283
Prepared: 03/12/2025
Sample Size: 5 g (wet)
Final Volume: 5 mL
Extract ID: 25C0162-17
% Solids: 55.72

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	55.72	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPWB-2C2X 25C0162-18 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/14/2025 05:33			
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/22/2025 04:55			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025		Sample Size: 0.2569 g (wet) Final Volume: 0.2569 mL		Extract ID: 25C0162-18 A Dry Weight: 0.14 g % Solids: 55.34		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.29	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPWB-2C2X 25C0162-18 (Solid)		

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG

Sampled: 02/14/2025 05:33
Analyzed: 03/12/2025 13:34

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0283
Prepared: 03/12/2025

Sample Size: 5 g (wet)
Final Volume: 5 mL

Extract ID: 25C0162-18
% Solids: 55.34

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	55.34	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPWB-3B2 25C0162-19 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/14/2025 18:29			
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/22/2025 05:26			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025			Sample Size: 0.21 g (wet) Final Volume: 0.21 mL		Extract ID: 25C0162-19 A Dry Weight: 0.11 g % Solids: 52.28	
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.34	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:16
NPWB-3B2 25C0162-19 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/14/2025 18:29				
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 13:34				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0283 Prepared: 03/12/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0162-19 % Solids: 52.28	
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	52.28	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
NPWB-3C2 25C0162-20 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR				Sampled: 02/14/2025 20:22 Analyzed: 03/22/2025 05:56			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025		Sample Size: 0.2241 g (wet) Final Volume: 0.2241 mL		Extract ID: 25C0162-20 A Dry Weight: 0.13 g % Solids: 55.93	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.31	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
NPWB-3C2 25C0162-20 (Solid)		

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL.2 Analyst: AG				Sampled: 02/14/2025 20:22 Analyzed: 03/12/2025 13:34			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0283 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0162-20 % Solids: 55.93	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	55.93	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
Analysis by: Analytical Resources, LLC		
Wet Chemistry - Quality Control		

Batch BNC0283 - SM 2540 G-11
Instrument: BAL.2 Analyst: AG

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Notes
Blank (BNC0283-BLK1)							Prepared: 12-Mar-2025 Analyzed: 12-Mar-2025 13:34			
Total Solids	ND	0.04	0.04	%						U
Duplicate (BNC0283-DUP1)							Source: 25C0162-01 Prepared: 12-Mar-2025 Analyzed: 12-Mar-2025 13:34			
Total Solids	58.79	0.04	0.04	%		60.05		2.12	20	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
Analysis by: Analytical Resources, LLC		
Wet Chemistry - Quality Control		

Batch BNC0403 - Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Notes
Blank (BNC0403-BLK1)							Prepared: 17-Mar-2025 Analyzed: 17-Mar-2025 18:32			
Total Organic Carbon	ND	0.02	0.02	%						U
LCS (BNC0403-BS1)							Prepared: 17-Mar-2025 Analyzed: 17-Mar-2025 19:32			
Total Organic Carbon	45.1	0.02	0.02	%	44.4	101	80-120			
Duplicate (BNC0403-DUP3)							Source: 25C0162-01 Prepared: 17-Mar-2025 Analyzed: 18-Mar-2025 07:06			
Total Organic Carbon	0.26	0.02	0.02	%	0.25		0.65	20		
Duplicate (BNC0403-DUP4)							Source: 25C0162-01 Prepared: 17-Mar-2025 Analyzed: 18-Mar-2025 07:36			
Total Organic Carbon	0.26	0.02	0.02	%	0.25		3.22	20		
Matrix Spike (BNC0403-MS2)							Source: 25C0162-01 Prepared: 17-Mar-2025 Analyzed: 18-Mar-2025 08:06			
Total Organic Carbon	2.41	0.02	0.02	%	2.15	0.25	100	75-125		

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
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Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BNC0444 - Plumb 1981, Combustion IR

Instrument: TOC Cube Analyst: ARR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BNC0444-BLK1)											
Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 13:47											
Total Organic Carbon	ND	0.02	0.02	%							U
LCS (BNC0444-BS1)											
Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 14:48											
Total Organic Carbon	44.6	0.02	0.02	%	44.4		100	80-120			
Duplicate (BNC0444-DUP1)											
Source: 25C0162-12 Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 16:49											
Total Organic Carbon	0.40	0.02	0.02	%		0.42			5.41	20	
Duplicate (BNC0444-DUP2)											
Source: 25C0162-12 Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 17:19											
Total Organic Carbon	0.40	0.02	0.02	%		0.42			5.41	20	
Matrix Spike (BNC0444-MS1)											
Source: 25C0162-12 Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 17:49											
Total Organic Carbon	2.80	0.02	0.02	%	2.48	0.42	95.8	75-125			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

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Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
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Notes and Definitions

U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:16
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Certified Analyses included in this Report

Analyte		Certifications	
Plumb 1981, Combustion IR in Solid			
Total Organic Carbon		DoD-ELAP	
Code	Description	Number	Expires
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	01/31/2026

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25C0162 ARISample FINAL 28 Mar 2025 1316 - Page 49 of 50

28 March 2025

Ted Donn
Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette, CA 94549

RE: Gulf of Thailand (T779.27)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARF's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
25C0163

Associated SDG ID(s)
N/A


Susan
Dunniho

Digitally signed by
Susan Dunniho
Date: 2025.03.28
13:27:19 -0700

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC



Susan Dunniho, Director, Client Services

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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25C0162 ARISample FINAL 28 Mar 2025 1316 - Page 50 of 50

25C0162, 25C0163, 25C0164, 25C0165

Ship To:
Sue Dunnison
Analytical Resources LLC
4611 South 134 Place
Tukwila, WA
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

General Notes:
Please report all results to the MDL. J-flag results between MDL and RI.
Please report results and invoice separately for each Project ID.
Please report results in pdf format with Excel EDD deliverable.
Standard Processing

Project	Sample ID	Date	Time	Medium	Preserve	TOC	Dry Weight
1779.27	NPW-1C1	2/16/2025	3:55	SED	Frozen	1	1
1779.27	NPW-1C1-FD	2/16/2025	4:14	SED	Frozen	1	1
1779.27	NPW-1C2X	2/16/2025	2:53	SED	Frozen	1	1
1779.27	NPW-1C2X	2/16/2025	8:12	SED	Frozen	1	1
1779.27	NPW-1C2X	2/16/2025	7:36	SED	Frozen	1	1
1779.27	NPW-1C3X	2/16/2025	5:55	SED	Frozen	1	1
1779.27	NPW-1C3X	2/15/2025	1:46	SED	Frozen	1	1
1779.27	NPW-1C2	2/15/2025	1:05	SED	Frozen	1	1
1779.27	NPW-1C2	2/15/2025	0:22	SED	Frozen	1	1
1779.27	NPW-1C2	2/14/2025	22:53	SED	Frozen	1	1
1779.27	NPW-1C2X	2/16/2025	4:54	SED	Frozen	1	1
1779.27	NPW-1C2X	2/16/2025	5:22	SED	Frozen	1	1
1779.27	NPW-1C2X	2/15/2025	5:42	SED	Frozen	1	1
1779.27	NPW-1C2X	2/15/2025	6:22	SED	Frozen	1	1
1779.27	NPW-1C2X	2/16/2025	8:58	SED	Frozen	1	1
1779.27	NPW-1C2X	2/15/2025	22:58	SED	Frozen	1	1
1779.27	NPW-1C3X	2/15/2025	20:36	SED	Frozen	1	1
1779.27	NPW-1C3X-FD	2/15/2025	20:54	SED	Frozen	1	1
1779.27	NPW-1C3X	2/15/2025	17:01	SED	Frozen	1	1
1779.27	NPW-1C2X	2/15/2025	11:07	SED	Frozen	1	1
1779.27	NPW-1C3X	2/15/2025	16:23	SED	Frozen	1	1
1779.27	NPW-1C2X	2/16/2025	9:50	SED	Frozen	1	1
1779.27	NPW-1C2X	2/16/2025	10:28	SED	Frozen	1	1
1779.27	NPW-1C2X	2/16/2025	11:05	SED	Frozen	1	1
1779.27	NPW-1C2X	2/16/2025	13:04	SED	Frozen	1	1
1779.27	NPW-1C2X	2/15/2025	19:59	SED	Frozen	1	1
1779.27	NPW-1C2X	2/15/2025	19:27	SED	Frozen	1	1
1779.27	NPW-1C2X	2/15/2025	18:54	SED	Frozen	1	1
1779.27	NPW-1C2X	2/12/2025	21:54	SED	Frozen	1	1
1779.27	NPW-1C2X	2/12/2025	22:27	SED	Frozen	1	1
1779.27	NPW-1C2X	2/12/2025	22:47	SED	Frozen	1	1
1779.27	NPW-1C2X	2/12/2025	23:16	SED	Frozen	1	1
1779.27	NPW-1C2X	2/14/2025	4:51	SED	Frozen	1	1
1779.27	NPW-1C2X	2/14/2025	5:13	SED	Frozen	1	1
1779.27	NPW-1C2X	2/14/2025	3:00	SED	Frozen	1	1
1779.27	NPW-1C2X	2/14/2025	4:06	SED	Frozen	1	1
1779.27	NPW-1C2X	2/14/2025	18:54	SED	Frozen	1	1
1779.27	NPW-1C2X	2/14/2025	5:33	SED	Frozen	1	1
1779.27	NPW-1C2X	2/14/2025	18:29	SED	Frozen	1	1
1779.27	NPW-1C2X	2/14/2025	20:22	SED	Frozen	1	1
1779.27	NPW-1C2X	2/14/2025	21:24	SED	Frozen	1	1
1779.27	NPW-1C2X	2/14/2025	21:55	SED	Frozen	1	1
1779.27	NPW-1C2X	2/14/2025	19:19	SED	Frozen	1	1

Relinquished by:

Relinquished by:

Received by:

Received by:

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Analytical Report

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
28-Mar-2025 13:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NPW-3C2	25C0163-01	Solid	14-Feb-2025 21:24	10-Mar-2025 09:26
NPW-3D2	25C0163-02	Solid	14-Feb-2025 21:55	10-Mar-2025 09:26
NPW-4B3X	25C0163-03	Solid	14-Feb-2025 19:19	10-Mar-2025 09:26
NPW-4C2	25C0163-04	Solid	14-Feb-2025 19:52	10-Mar-2025 09:26
NPW-1B2X	25C0163-05	Solid	17-Feb-2025 10:17	10-Mar-2025 09:26
NPW-1B2X-FD	25C0163-06	Solid	17-Feb-2025 10:42	10-Mar-2025 09:26
NPW-1C2	25C0163-07	Solid	17-Feb-2025 05:05	10-Mar-2025 09:26
NPW-1C2	25C0163-08	Solid	17-Feb-2025 03:37	10-Mar-2025 09:26
NPW-1D2	25C0163-09	Solid	17-Feb-2025 04:14	10-Mar-2025 09:26
NPW-2B2X	25C0163-10	Solid	16-Feb-2025 22:45	10-Mar-2025 09:26
NPW-2C2	25C0163-11	Solid	16-Feb-2025 22:06	10-Mar-2025 09:26
NPW-3B2X	25C0163-12	Solid	17-Feb-2025 15:36	10-Mar-2025 09:26
NPW-3C2	25C0163-13	Solid	17-Feb-2025 14:17	10-Mar-2025 09:26
NPW-3C2	25C0163-14	Solid	16-Feb-2025 16:47	10-Mar-2025 09:26
NPW-3D2	25C0163-15	Solid	16-Feb-2025 17:16	10-Mar-2025 09:26
NPW-4B2X	25C0163-16	Solid	17-Feb-2025 16:05	10-Mar-2025 09:26
NPW-4C2	25C0163-17	Solid	17-Feb-2025 16:50	10-Mar-2025 09:26
PACPP-1C1	25C0163-18	Solid	19-Feb-2025 00:48	10-Mar-2025 09:26
PACPP-1C2X	25C0163-19	Solid	17-Feb-2025 22:46	10-Mar-2025 09:26
PACPP-1C3X	25C0163-20	Solid	19-Feb-2025 01:32	10-Mar-2025 09:26

25C0162, 25C0163, 25C0164, 25C0165

Ship To:
Sue Dunnison
Analytical Resources LLC
4611 South 134 Place
Tukwila, WA
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	TOC	Dry Weight
1779.27	NPW-4C2	2/14/2025	19:52	SED	Frozen	1	1
1779.27	NPW-1B2X	2/17/2025	10:17	SED	Frozen	1	1
1779.27	NPW-1B2X-FD	2/17/2025	10:42	SED	Frozen	1	1
1779.27	NPW-1C2	2/17/2025	5:05	SED	Frozen	1	1
1779.27	NPW-1C2	2/17/2025	3:37	SED	Frozen	1	1
1779.27	NPW-1D2	2/17/2025	4:14	SED	Frozen	1	1
1779.27	NPW-2B2X	2/16/2025	22:45	SED	Frozen	1	1
1779.27	NPW-2C2	2/16/2025	22:06	SED	Frozen	1	1
1779.27	NPW-3B2X	2/17/2025	15:36	SED	Frozen	1	1
1779.27	NPW-3C2	2/17/2025	14:17	SED	Frozen	1	1
1779.27	NPW-3C2	2/16/2025	16:47	SED	Frozen	1	1
1779.27	NPW-3D2	2/17/2025	17:16	SED	Frozen	1	1
1779.27	NPW-4B2X	2/17/2025	16:05	SED	Frozen	1	1
1779.27	NPW-4C2	2/17/2025	16:50	SED	Frozen	1	1
1779.27	PACPP-1C1	2/19/2025	0:48	SED	Frozen	1	1
1779.27	PACPP-1C2X	2/19/2025	22:46	SED	Frozen	1	1
1779.27	PACPP-1C3X	2/19/2025	1:32	SED	Frozen	1	1
1779.27	PACPP-1C1	2/18/2025	10:41	SED	Frozen	1	1
1779.27	PACPP-1C2X	2/17/2025	23:19	SED	Frozen	1	1
1779.27	PACPP-1C3X	2/18/2025	11:23	SED	Frozen	1	1
1779.27	PACPP-1D2	2/18/2025	21:28	SED	Frozen	1	1
1779.27	PACPP-1F2	2/18/2025	20:52	SED	Frozen	1	1
1779.27	PACPP-1F2	2/18/2025	20:16	SED	Frozen	1	1
1779.27	PACPP-1G2	2/18/2025	19:39	SED	Frozen	1	1
1779.27	PACPP-2C2	2/19/2025	2:15	SED	Frozen	1	1
1779.27	PACPP-2C2	2/19/2025	23:14	SED	Frozen	1	1
1779.27	PACPP-2D2	2/18/2025	22:32	SED	Frozen	1	1
1779.27	PACPP-3C1	2/19/2025	10:36	SED	Frozen	1	1
1779.27	PACPP-3C2	2/19/2025	9:49	SED	Frozen	1	1
1779.27	PACPP-3C3X	2/19/2025	9:15	SED	Frozen	1	1
1779.27	PACPP-3C1X	2/19/2025	3:00	SED	Frozen	1	1
1779.27	PACPP-3C2	2/19/2025	4:09	SED	Frozen	1	1
1779.27	PACPP-3C3X	2/19/2025	4:44	SED	Frozen	1	1
1779.27	PACPP-3D2X	2/19/2025	5:27	SED	Frozen	1	1
1779.27	PACPP-3E2X	2/19/2025	11:22	SED	Frozen	1	1
1779.27	PACPP-3F2X	2/19/2025	12:46	SED	Frozen	1	1
1779.27	PACPP-3G2X	2/19/2025	13:35	SED	Frozen	1	1
1779.27	PACPP-4C2X	2/18/2025	3:58	SED	Frozen	1	1
1779.27	PACPP-4C2X-FD	2/18/2025	4:22	SED	Frozen	1	1
1779.27	PACPP-4C2X	2/18/2025	4:56	SED	Frozen	1	1
1779.27	PACPP-4D2X	2/18/2025	8:49	SED	Frozen	1	1
1779.27	PAREF-A	2/13/2025	19:06	SED	Frozen	1	1
1779.27	PAREF-B	2/13/2025	19:38	SED	Frozen	1	1
1779.27	PAREF-C	2/13/2025	19:59	SED	Frozen	1	1
1779.27	PAWB-1C2	2/20/2025	23:07	SED	Frozen	1	1
1779.27	PAWB-1C2	2/20/2025	22:25	SED	Frozen	1	1
1779.27	PAWB-1D2	2/20/2025	21:40	SED	Frozen	1	1
1779.27	PAWB-2B1	2/21/2025	16:23	SED	Frozen	1	1
1779.27	PAWB-2C2	2/21/2025	16:59	SED	Frozen	1	1

Relinquished by:

Relinquished by:

Received by:

Received by:

25C0163 ARISample FINAL 28 Mar 2025 1325 - Page 3 of 51



Analytical Report

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
28-Mar-2025 13:25

Work Order Case Narrative

Client: Tetra Tech, Inc. (Lafayette)
Project: Gulf of Thailand
Project Number: T779.27
Work Order: 25C0163

Sample receipt

The sample(s) as listed on the preceding page were received 10-Mar-2025 09:26 under ARI work order 25C0163. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The reference material (SRM) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the replicate (DUP1, DUP2) relative percent differences (RPD) were within advisory control limits.

Cooler Receipt Form

ARI Client: TR 174 3047 Project Name: TR 174 Gulf of Thailand
 CDC No(s): 25C0163 Delivered by: FEDEX UPS Courier Hand Delivered Other: NA
 Assigned ARI Job No.: 25C0034 Tracking No.: 0201 71234810 2121
 Preliminary Examination Phase: SA 3/10/25
 Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES ☒ NO ☐
 Were custody papers included with the cooler? YES ☒ NO ☐
 Were custody papers properly filled out (ink, signed, etc.)? YES ☒ NO ☐
 Temperature of Cooler(s) (°C) Time 12:17 -8.3 Temp Gun ID#: 2089908
 Was a temperature blank included in the cooler? YES ☒ NO ☐
 Were coolers received between 0°-6° (°C)? YES ☒ NO ☐
 Was sufficient ice used (if appropriate)? NA ☒ YES ☐ NO ☐
 Cooler Accepted by: PEB Date: 03/06/25 Time: 12:17

Log-In Phase:

Complete custody forms and attach all shipping documents
 What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block N/A Other: Wet Ice
 Are any samples that were out of temperature compliance documented in LIMS? YES ☐ NO ☒
 How were bottles sealed in plastic bags? Individually ☒ Not ☐
 Did all bottles arrive in good condition (unbroken)? YES ☒ NO ☐
 Were all bottle labels complete and legible? YES ☒ NO ☐
 Did the number of containers listed on CDC match with the number of containers received? YES ☒ NO ☐
 Did all bottle labels and tags agree with custody papers? YES ☒ NO ☐
 Were all bottles used correct for the requested analyses? YES ☒ NO ☐
 Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) NA ☒ YES ☐ NO ☐
 Were all VOC vials free of air bubbles? NA ☒ YES ☐ NO ☐
 Was sufficient amount of sample sent in each bottle? YES ☒ NO ☐
 Date VOC Trip Blank was made at ARI: NA ☒ YES ☐
 Were the sample(s) split by ARI? SA YES ☒ NO ☐ Date/Time: 3/10/25 SA 1611 Split by: SA
 Samples Logged by: SA Date: 3/10/25 Time: 13:33 Labels checked by: SA
 Notify Project Manager of discrepancies or concerns: 3/10/25

Additional Notes, Discrepancies, & Resolutions:

① Samples were shipped with dry ice and were received frozen per the project requirements. - PEB 03/06/25
 ② Extra sample w/ on CDC - "PWWE-ZLE-FD"
 ③ Multiple samples received with discrepant times between the CDC and labels. Samples will be logged based on the CDC.
 By: SA Date: 3/6/25

0018F
10/31/2024

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Revision 015A

Analytical Report

Tetra Tech, Inc. (Lafayette) Project: Gulf of Thailand
 3697 Mt Diablo Blvd, Suite 150 Project Number: T779-27
 Lafayette CA, 94549 Project Manager: Ted Donn Reported: 28-Mar-2025 13:25

NPWB-3CP2 25C0163-01 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR Sampled: 02/14/2025 21:24
 Instrument: TOC Cube Analyst: ARR Analyzed: 03/21/2025 18:19
 Sample Preparation: Preparation Method: No Prep Wet Chem Sample Size: 0.3173 g (wet) Extract ID: 25C0163-01 A
 Preparation Batch: BNC0444 Final Volume: 0.3173 mL Dry Weight: 0.16 g
 Prepared: 03/18/2025 % Solids: 51.55

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.32	%	

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 25C0163 ARISample FINAL 28 Mar 2025 1325 - Page 7 of 51

Analytical Report

Tetra Tech, Inc. (Lafayette) Project: Gulf of Thailand
 3697 Mt Diablo Blvd, Suite 150 Project Number: T779-27
 Lafayette CA, 94549 Project Manager: Ted Donn Reported: 28-Mar-2025 13:25

NPWB-3CP2 25C0163-01 (Solid)

Wet Chemistry

Method: SM 2540 G-11 Sampled: 02/14/2025 21:24
 Instrument: BALZ Analyst: AG Analyzed: 03/12/2025 15:02

Sample Preparation: Preparation Method: No Prep Wet Chem Sample Size: 5 g (wet) Extract ID: 25C0163-01
 Preparation Batch: BNC0288 Final Volume: 5 mL
 Prepared: 03/12/2025 % Solids: 51.55

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	51.55	%	

Analytical Report

Tetra Tech, Inc. (Lafayette) Project: Gulf of Thailand
 3697 Mt Diablo Blvd, Suite 150 Project Number: T779-27
 Lafayette CA, 94549 Project Manager: Ted Donn Reported: 28-Mar-2025 13:25

NPWB-3D2 25C0163-02 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR Sampled: 02/14/2025 21:55
 Instrument: TOC Cube Analyst: ARR Analyzed: 03/22/2025 06:26

Sample Preparation: Preparation Method: No Prep Wet Chem Sample Size: 0.304 g (wet) Extract ID: 25C0163-02 A
 Preparation Batch: BNC0444 Final Volume: 0.304 mL Dry Weight: 0.16 g
 Prepared: 03/18/2025 % Solids: 51.12

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.40	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:25
NPWB-3D2 25C0163-02 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/14/2025 21:55				
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 15:02				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-02		
				% Solids: 51.12				
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	51.12	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:25
NPWB-4B3X 25C0163-03 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/14/2025 19:19					
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/22/2025 07:57					
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025			Sample Size: 0.2513 g (wet) Final Volume: 0.2513 mL			Extract ID: 25C0163-03 A Dry Weight: 0.14 g % Solids: 55.37	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes		
Total Organic Carbon		1	0.02	0.02	0.29	%			

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:25
NPWB-4B3X 25C0163-03 (Solid)		

Wet Chemistry

Method: SM 2540 G-11						Sampled: 02/14/2025 19:19	
Instrument: BAL2 Analyst: AG						Analyzed: 03/12/2025 15:02	
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-03
							% Solids: 55.37
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units Notes
Total Solids			1	0.04	0.04	55.37	%

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:25
NPWB-4C2 25C0163-04 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR			Sampled: 02/14/2025 19:52				
Instrument: TOC Cube Analyst: ARR			Analyzed: 03/22/2025 08:27				
Sample Preparation:	Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025	Sample Size: 0.2808 g (wet) Final Volume: 0.2808 mL	Extract ID: 25C0163-04 A Dry Weight: 0.15 g % Solids: 52.23				
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.33	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:25
NPWB-4C2 25C0163-04 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/14/2025 19:52				
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 15:02				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-04		
				% Solids: 52.23				
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	52.23	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:25
NPWB-1B2X 25C0163-05 (Solid)		

Wet Chemistry

Method: SM 2540 G-11						Sampled: 02/17/2025 10:17	
Instrument: BAL2 Analyst: AG						Analyzed: 03/12/2025 15:02	
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-05 % Solids: 57.72
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units Notes
Total Solids			1	0.04	0.04	57.72	%

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:25
NPWB-1B2X 25C0163-05 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/17/2025 10:17			
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/22/2025 08:58			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025		Sample Size: 0.365 g (wet) Final Volume: 0.365 mL		Extract ID: 25C0163-05 A Dry Weight: 0.21 g % Solids: 57.72	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.35	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	28-Mar-2025 13:25
NPWB-1B2X-FD 25C0163-06 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/17/2025 10:42			
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/22/2025 09:28			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025			Sample Size: 0.231 g (wet) Final Volume: 0.231 mL		Extract ID: 25C0163-06 A Dry Weight: 0.14 g % Solids: 60.49	
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.40	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:25
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPWB-1B2X-FD 25C0163-06 (Solid)	

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/17/2025 10:42				
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 15:02				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-06 % Solids: 60.49		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	60.49	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:25
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPWB-1C2 25C0163-07 (Solid)	

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/17/2025 05:05						
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/22/2025 09:58						
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025		Sample Size: 0.3289 g (wet) Final Volume: 0.3289 mL		Extract ID: 25C0163-07 A Dry Weight: 0.18 g % Solids: 55.09				
Total Organic Carbon				CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Analyte					1	0.02	0.02	0.34	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:25
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPWB-1C2 25C0163-07 (Solid)	

Wet Chemistry

Method: SM 2540 G-11						Sampled: 02/17/2025 05:05	
Instrument: BAL2 Analyst: AG						Analyzed: 03/12/2025 15:02	
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-07
							% Solids: 55.09
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units Notes
Total Solids			1	0.04	0.04	55.09	%

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:25
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPWB-1CP2 25C0163-08 (Solid)	

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/17/2025 03:37			
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/22/2025 10:28			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025		Sample Size: 0.2585 g (wet) Final Volume: 0.2585 mL		Extract ID: 25C0163-08 A Dry Weight: 0.12 g % Solids: 47.82	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.35	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-1CP2 25C0163-08 (Solid)		

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG				Sampled: 02/17/2025 03:37 Analyzed: 03/12/2025 15:02				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-08 % Solids: 47.82		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	47.82	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-1D2 25C0163-09 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/17/2025 04:14	
Instrument: BAL2 Analyst: AG					Analyzed: 03/12/2025 15:02	
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-09
					% Solids: 51.05	
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	
Total Solids			1	0.04	0.04	51.05 %
						Units Notes

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-1D2 25C0163-09 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR				Sampled: 02/17/2025 04:14 Analyzed: 03/22/2025 10:59			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025		Sample Size: 0.2461 g (wet) Final Volume: 0.2461 mL		Extract ID: 25C0163-09 A Dry Weight: 0.13 g % Solids: 51.05	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.34	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-2B2X 25C0163-10 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR					Sampled: 02/16/2025 22:45 Analyzed: 03/22/2025 14:01		
Sample Preparation:	Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025		Sample Size: 0.2112 g (wet) Final Volume: 0.2112 mL		Extract ID: 25C0163-10 A Dry Weight: 0.12 g % Solids: 55.40		
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.36	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-2B2X 25C0163-10 (Solid)		

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG				Sampled: 02/16/2025 22:45 Analyzed: 03/12/2025 15:02				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-10 % Solids: 55.40		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	55.40	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-2C2 25C0163-11 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR				Sampled: 02/16/2025 22:06 Analyzed: 03/22/2025 14:31				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0444 Prepared: 03/18/2025		Sample Size: 0.2404 g (wet) Final Volume: 0.2404 mL		Extract ID: 25C0163-11 A Dry Weight: 0.13 g % Solids: 54.54		
		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.32	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-2C2 25C0163-11 (Solid)		

Wet Chemistry

Method: SM 2540 G-11						Sampled: 02/16/2025 22:06		
Instrument: BAL2 Analyst: AG						Analyzed: 03/12/2025 15:02		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025			Extract ID: 25C0163-11			
		Sample Size: 5 g (wet) Final Volume: 5 mL			% Solids: 54.54			
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	54.54	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-3B2X 25C0163-12 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/17/2025 15:36			
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/21/2025 21:21			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 0.282 g (wet)		Extract ID: 25C0163-12 A	
		Preparation Batch: BNC0445		Final Volume: 0.282 mL		Dry Weight: 0.17 g	
		Prepared: 03/18/2025				% Solids: 58.88	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.31	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:25
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPWB-3B2X 25C0163-12 (Solid)	

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/17/2025 15:36				
Instrument: BAL2 Analyst: AG				Analyzed: 03/12/2025 15:02				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-12		
				% Solids: 58.88				
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	58.88	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:25
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPWB-3C2 25C0163-13 (Solid)	

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/17/2025 14:17			
Instrument: TOC Cube Analyst: ARR				Analyzed: 03/22/2025 15:01			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0445 Prepared: 03/18/2025		Sample Size: 0.3372 g (wet) Final Volume: 0.3372 mL		Extract ID: 25C0163-13 A Dry Weight: 0.19 g % Solids: 55.00	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.31	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:25
	Project Number: T779.27	
	Project Manager: Ted Donn	
	NPWB-3C2 25C0163-13 (Solid)	

Wet Chemistry

Method: SM 2540 G-11						Sampled: 02/17/2025 14:17		
Instrument: BAL2 Analyst: AG						Analyzed: 03/12/2025 15:02		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-13 % Solids: 55.00		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	55.00	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	Reported: 28-Mar-2025 13:25
	Project Number: T779.27	
	Project Manager: Ted Donn	
NPWB-3CP2 25C0163-14 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/16/2025 16:47			
Instrument: TOC Cube Analyst: ARR					Analyzed: 03/22/2025 15:31			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0445 Prepared: 03/18/2025			Sample Size: 0.2368 g (wet) Final Volume: 0.2368 mL		Extract ID: 25C0163-14 A Dry Weight: 0.13 g % Solids: 53.23	
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.36	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-3CP2 25C0163-14 (Solid)		

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG					Sampled: 02/16/2025 16:47 Analyzed: 03/12/2025 15:02			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-14 % Solids: 53.23		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	53.23	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-3D2 25C0163-15 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/16/2025 17:16		
Instrument: BAL2 Analyst: AG					Analyzed: 03/12/2025 15:02		
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0163-15	
		Preparation Batch: BNC0288		Final Volume: 5 mL		% Solids: 53.39	
		Prepared: 03/12/2025					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	53.39	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-3D2 25C0163-15 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR				Sampled: 02/16/2025 17:16 Analyzed: 03/22/2025 16:02			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0445 Prepared: 03/18/2025		Sample Size: 0.2087 g (wet) Final Volume: 0.2087 mL		Extract ID: 25C0163-15 A Dry Weight: 0.11 g % Solids: 53.39	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.33	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-4B2X 25C0163-16 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR				Sampled: 02/17/2025 16:05 Analyzed: 03/22/2025 16:32			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0445 Prepared: 03/18/2025		Sample Size: 0.3095 g (wet) Final Volume: 0.3095 mL		Extract ID: 25C0163-16 A Dry Weight: 0.17 g % Solids: 56.16	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.32	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-4B2X 25C0163-16 (Solid)		

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG					Sampled: 02/17/2025 16:05 Analyzed: 03/12/2025 15:02			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-16 % Solids: 56.16		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	56.16	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-4C2 25C0163-17 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR				Sampled: 02/17/2025 16:50 Analyzed: 03/22/2025 17:02				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0445 Prepared: 03/18/2025			Sample Size: 0.2153 g (wet) Final Volume: 0.2153 mL		Extract ID: 25C0163-17 A Dry Weight: 0.12 g % Solids: 54.90	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes	
Total Organic Carbon		1	0.02	0.02	0.35	%		

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
NPWB-4C2 25C0163-17 (Solid)		

Wet Chemistry

Method: SM 2540 G-11						Sampled: 02/17/2025 16:50		
Instrument: BAL2 Analyst: AG						Analyzed: 03/12/2025 15:02		
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-17		
						% Solids: 54.90		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	54.90	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
PACPP-1C1 25C0163-18 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR				Sampled: 02/19/2025 00:48 Analyzed: 03/22/2025 17:32				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0445 Prepared: 03/18/2025		Sample Size: 0.3337 g (wet) Final Volume: 0.3337 mL		Extract ID: 25C0163-18 A Dry Weight: 0.21 g % Solids: 62.32		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.34	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
PACPP-1C1 25C0163-18 (Solid)		

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG					Sampled: 02/19/2025 00:48 Analyzed: 03/12/2025 15:02			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-18 % Solids: 62.32	
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	62.32	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
PACPP-1C2X 25C0163-19 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/17/2025 22:46		
Instrument: BAL2 Analyst: AG					Analyzed: 03/12/2025 15:02		
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0163-19	
		Preparation Batch: BNC0288					
		Prepared: 03/12/2025		Final Volume: 5 mL		% Solids: 61.34	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	61.34	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
PACPP-1C2X 25C0163-19 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR				Sampled: 02/17/2025 22:46 Analyzed: 03/22/2025 18:03				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0445 Prepared: 03/18/2025			Sample Size: 0.202 g (wet) Final Volume: 0.202 mL		Extract ID: 25C0163-19 A Dry Weight: 0.12 g % Solids: 61.34	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes	
Total Organic Carbon		1	0.02	0.02	0.43	%		

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
PACPP-1C3X 25C0163-20 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR					Sampled: 02/19/2025 01:32 Analyzed: 03/22/2025 18:33				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0445 Prepared: 03/18/2025			Sample Size: 0.203 g (wet) Final Volume: 0.203 mL			Extract ID: 25C0163-20 A Dry Weight: 0.12 g % Solids: 60.85	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes		
Total Organic Carbon		1	0.02	0.02	0.32	%			



Analytical Report

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
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PACPP-1C3X
25C0163-20 (Solid)

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG				Sampled: 02/19/2025 01:32 Analyzed: 03/12/2025 15:02				
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0288 Prepared: 03/12/2025			Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0163-20	
				% Solids: 60.85				
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	60.85	%	



Analytical Report

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
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Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BNC0444 - Plumb 1981, Combustion IR

Instrument: TOC Cube Analyst: ARR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BNC0444-BLK1)							Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 13:47			
Total Organic Carbon	ND	0.02	0.02	%						U
LCS (BNC0444-BS1)							Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 14:48			
Total Organic Carbon	44.6	0.02	0.02	%	44.4	100	80-120			
Duplicate (BNC0444-DUP3)							Source: 25C0163-01 Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 19:50			
Total Organic Carbon	0.30	0.02	0.02	%	0.32		7.50	20		
Duplicate (BNC0444-DUP4)							Source: 25C0163-01 Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 20:20			
Total Organic Carbon	0.32	0.02	0.02	%	0.32		0.00	20		
Matrix Spike (BNC0444-MS2)							Source: 25C0163-01 Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 20:50			
Total Organic Carbon	2.27	0.02	0.02	%	1.97	0.32	99.0	75-125		

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



Analytical Report

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
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Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BNC0288 - SM 2540 G-11

Instrument: BAL2 Analyst: AG

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BNC0288-BLK1)							Prepared: 12-Mar-2025 Analyzed: 12-Mar-2025 15:02			
Total Solids	ND	0.04	0.04	%						U
Duplicate (BNC0288-DUP1)							Source: 25C0163-01 Prepared: 12-Mar-2025 Analyzed: 12-Mar-2025 15:02			
Total Solids	50.17	0.04	0.04	%		51.55		2.71	20	



Analytical Report

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 28-Mar-2025 13:25
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Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BNC0445 - Plumb 1981, Combustion IR

Instrument: TOC Cube Analyst: ARR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BNC0445-BLK1)							Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 14:18			
Total Organic Carbon	ND	0.02	0.02	%						U
LCS (BNC0445-BS1)							Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 15:18			
Total Organic Carbon	45.2	0.02	0.02	%	44.4	102	80-120			
Duplicate (BNC0445-DUP1)							Source: 25C0163-12 Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 21:51			
Total Organic Carbon	0.28	0.02	0.02	%	0.31		11.00	20		
Duplicate (BNC0445-DUP2)							Source: 25C0163-12 Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 22:21			
Total Organic Carbon	0.26	0.02	0.02	%	0.31		16.60	20		
Matrix Spike (BNC0445-MS1)							Source: 25C0163-12 Prepared: 18-Mar-2025 Analyzed: 21-Mar-2025 22:51			
Total Organic Carbon	2.37	0.02	0.02	%	2.19	0.31	94.0	75-125		

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
28-Mar-2025 13:25

Certified Analyses included in this Report

Analyte		Certifications	
Plumb 1981, Combustion IR in Solid			
Total Organic Carbon		DoD-ELAP	
Code	Description	Number	Expires
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	01/31/2026

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
28-Mar-2025 13:25

Notes and Definitions

U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

[2C] Indicates this result was quantified on the second column on a dual column analysis.

14 April 2025

Ted Donn
Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette, CA 94549

RE: Gulf of Thailand (T779.27)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to AR's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s) 25C0165
Associated SDG ID(s) N/A

Susan
Dunnihoo
Digitally signed by
Susan Dunnihoo
Date: 2025.04.14
12:32:09 -07'00'

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclosed Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Susan Dunnihoo, Director, Client Services

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



25C0162, 25C0163, 25C0164, 25C0165

Ship To:
Sue Dunnihoo
Analytical Resources LLC
4611 South 134 Place
Tukwila, WA
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	TOC	Dry Weight
T779.27	PAWB-3B2	2/21/2025	14:36	SED	Frozen	1	1
T779.27	PAWB-3C2	2/21/2025	5:40	SED	Frozen	1	1
T779.27	PAWB-3CP2	2/21/2025	4:55	SED	Frozen	1	1
T779.27	PAWB-3D2	2/21/2025	4:19	SED	Frozen	1	1
T779.27	PAWB-4B2X	2/21/2025	15:54	SED	Frozen	1	1
T779.27	PAWB-4C2	2/21/2025	19:24	SED	Frozen	1	1
T779.27	PAWE-1B1	2/26/2025	17:12	SED	Frozen	1	1
T779.27	PAWE-1C2	2/26/2025	1:48	SED	Frozen	1	1
T779.27	PAWE-1CP2	2/26/2025	2:23	SED	Frozen	1	1
T779.27	PAWE-1D2	2/26/2025	3:08	SED	Frozen	1	1
T779.27	PAWE-2B3	2/26/2025	17:56	SED	Frozen	1	1
T779.27	PAWE-2C2	2/26/2025	4:25	SED	Frozen	1	1
T779.27	PAWE-3B3	2/26/2025	15:43	SED	Frozen	1	1
T779.27	PAWE-3C2	2/26/2025	17:13	SED	Frozen	1	1
T779.27	PAWE-3CP2	2/26/2025	16:47	SED	Frozen	1	1
T779.27	PAWE-3D2	2/26/2025	19:49	SED	Frozen	1	1
T779.27	PAWE-4B2	2/26/2025	16:25	SED	Frozen	1	1
T779.27	PAWE-4C2	2/26/2025	1:09	SED	Frozen	1	1

T779.30	G443REF-A	2/19/2025	2:08	SED	Frozen	1	1
T779.31-B	BAPLH-M1	2/22/2025	2:03	SED	Frozen	1	1
T779.31-B	BAPLH-M2	2/22/2025	2:36	SED	Frozen	1	1
T779.31-B	BAPLH-M3	2/22/2025	4:45	SED	Frozen	1	1
T779.31-B	BAPLH-M4	2/22/2025	6:33	SED	Frozen	1	1
T779.31-B	BAPLH-M5	2/22/2025	8:09	SED	Frozen	1	1
T779.31-B	BAPLH-M6	2/22/2025	8:35	SED	Frozen	1	1
T779.31-B	BAPLH-N1	2/22/2025	9:18	SED	Frozen	1	1
T779.31-B	BAPLH-N2	2/22/2025	9:50	SED	Frozen	1	1
T779.31-B	BAPLH-S1	2/22/2025	9:42	SED	Frozen	1	1
T779.31-B	BAPLH-S2	2/22/2025	1:18	SED	Frozen	1	1
T779.31-B	PDPLB-M1	2/11/2025	22:54	SED	Frozen	1	1
T779.31-B	PDPLB-M2	2/11/2025	22:41	SED	Frozen	1	1
T779.31-B	PDPLB-M3	2/11/2025	20:17	SED	Frozen	1	1
T779.31-B	PDPLB-M4	2/11/2025	20:36	SED	Frozen	1	1
T779.31-B	PDPLB-N1	2/11/2025	17:17	SED	Frozen	1	1
T779.31-B	PDPLB-N2	2/11/2025	17:36	SED	Frozen	1	1
T779.31-B	PDPLB-S1	2/12/2025	2:10	SED	Frozen	1	1
T779.31-B	PDPLB-S2	2/12/2025	1:53	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-C1	2/10/2025	22:26	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-C2	2/10/2025	22:35	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-C3	2/10/2025	22:43	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-X(10-5)	2/11/2025	8:41	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-X(10-15)	2/11/2025	8:41	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-X(15-20)	2/11/2025	8:41	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-X(15-10)	2/11/2025	8:41	SED	Frozen	1	1
T779.31-B	PMWH-1C2-C1	2/10/2025	21:54	SED	Frozen	1	1
T779.31-B	PMWH-1C2-C2	2/10/2025	22:02	SED	Frozen	1	1
T779.31-B	PMWH-1C2-C3	2/10/2025	22:11	SED	Frozen	1	1

Relinquished by: [Signature]

Relinquished by: [Signature]

Redeemed by: [Signature]

Received by: [Signature]

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PAWE-1CP2	25C0165-01	Solid	20-Feb-2025 02:23	10-Mar-2025 09:26
PAWE-1D2	25C0165-02	Solid	20-Feb-2025 03:08	10-Mar-2025 09:26
PAWE-2B3	25C0165-03	Solid	20-Feb-2025 17:56	10-Mar-2025 09:26
PAWE-2C2	25C0165-04	Solid	20-Feb-2025 04:25	10-Mar-2025 09:26
PAWE-3B3	25C0165-05	Solid	20-Feb-2025 15:43	10-Mar-2025 09:26
PAWE-3C2	25C0165-06	Solid	20-Feb-2025 17:13	10-Mar-2025 09:26
PAWE-3CP2	25C0165-07	Solid	20-Feb-2025 16:47	10-Mar-2025 09:26
PAWE-3D2	25C0165-08	Solid	20-Feb-2025 19:49	10-Mar-2025 09:26
PAWE-4B2	25C0165-09	Solid	20-Feb-2025 16:25	10-Mar-2025 09:26
PAWE-4C2	25C0165-10	Solid	20-Feb-2025 01:09	10-Mar-2025 09:26
PAWE-2C2-FD	25C0165-11	Solid	20-Feb-2025 04:56	10-Mar-2025 09:26

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:30

Work Order Case Narrative

Client: Tetra Tech, Inc. (Lafayette)
Project: Gulf of Thailand
Project Number: T779.27
Work Order: 25C0165

Sample receipt

The sample(s) as listed on the preceding page were received 10-Mar-2025 09:26 under ARI work order 25C0165. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the replicate (DUP3, DUP4) relative percent differences (RPD) were within advisory control limits.

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25C0165 ARISample FINAL 14 Apr 2025 1230 - Page 3 of 31

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25C0165 ARISample FINAL 14 Apr 2025 1230 - Page 4 of 31

Cooler Receipt Form

ARI Client: Tetra Tech Project Name: Gulf of Thailand
COC No(s): 25C0165 Delivered by: FEDEX UPS Courier Hand Delivered Other: NA
Assigned ARI Job No.: 25C0165 Tracking No: 0201 7123 4810 2121 NA
Preliminary Examination Phase: SA
Date: 01/01/25
Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES ☒ NO ☐
Were custody papers included with the cooler? YES ☒ NO ☐
Were custody papers properly filled out (ink, signed, etc.) YES ☒ NO ☐
Temperature of Cooler(s) (°C) Time 12:17 -8.2 Temp Gun ID#: 2049708
Was a temperature blank included in the cooler? YES ☒ NO ☐
Were coolers received between 0°-6° (°C) YES ☒ NO ☐
Was sufficient ice used (if appropriate)? NA ☒ YES ☐ NO ☐
Cooler Accepted by: PEB Date: 03/06/25 Time: 12:17

Complete custody forms and attach all shipping documents

Log-In Phase:

What kind of packing material was used? Bubble Wrap ☒ Gel Packs ☐ Baggies ☐ Foam Block ☐ Other: NA
Are any samples that were out of temperature compliance documented in LIMS? YES ☐ NO ☒
How were bottles sealed in plastic bags? Individually ☒ Not ☐
Did all bottles arrive in good condition (unbroken)? YES ☒ NO ☐
Were all bottle labels complete and legible? YES ☒ NO ☐
Did the number of containers listed on COC match with the number of containers received? YES ☒ NO ☐
Did all bottle labels and tags agree with custody papers? YES ☒ NO ☐
Were all bottles used correct for the requested analyses? YES ☒ NO ☐
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCA) NA ☒ YES ☐ NO ☐
Were all VOC vials free of air bubbles? NA ☒ YES ☐ NO ☐
Was sufficient amount of sample sent in each bottle? NA ☒ YES ☐ NO ☐
Date VOC Trip Blank was made at ARI: NA
Were the sample(s) split by ARI? YES ☐ NO ☒ Date/Time: 03/06/25 16:30 Equipment: SA Split by: SA
Samples Logged by: SA Date: 03/06/25 Time: 13:53 Labels checked by: SA
Notify Project Manager of discrepancies or concerns: SA

Additional Notes, Discrepancies, & Resolutions:

(1) samples were shipped with dry ice and were received frozen per the project requirements - PEB 03/06/25
(2) Extra sample not on COC - "PAWE-2C2-FD" Added at end of COC 3/10/25
(3) Multiple samples received with discrepant times between the COC and labels, samples will be logged based on the COC
By: SA Date: 3/6/25

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:30

PAWE-1CP2
25C0165-01 (Solid)

Wet Chemistry

Method: Flum 1981, Combustion IR Sampled: 02/20/2025 02:23
Instrument: TOC Cube Analyst: ARR Analyzed: 03/31/2025 18:23
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0728 Sample Size: 0.2307 g (wet) Extract ID: 25C0165-01 A
Prepared: 03/28/2025 Final Volume: 0.2307 mL Dry Weight: 0.12 g
% Solids: 51.73

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.35	%	

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25C0165 ARISample FINAL 14 Apr 2025 1230 - Page 6 of 31

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
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PAWE-1CP2
25C0165-01 (Solid)

Wet Chemistry

Method: SM 2540 G-11	Sampled: 02/20/2025 02:23
Instrument: BAL2 Analyst: AG	Analyzed: 03/13/2025 15:04
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0321 Prepared: 03/13/2025	Extract ID: 25C0165-01 Sample Size: 5 g (wet) Final Volume: 5 mL % Solids: 51.73

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	51.73	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
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PAWE-ID2
25C0165-02 (Solid)

Wet Chemistry

Method: SM 2540 G-11	Sampled: 02/20/2025 03:08
Instrument: BAL2 Analyst: AG	Analyzed: 03/13/2025 15:04
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0321 Prepared: 03/13/2025	Extract ID: 25C0165-02 Sample Size: 5 g (wet) Final Volume: 5 mL % Solids: 52.07

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	52.07	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
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PAWE-ID2
25C0165-02 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR	Sampled: 02/20/2025 03:08
Instrument: TOC Cube Analyst: ARR	Analyzed: 04/04/2025 04:52
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0728 Prepared: 03/28/2025	Extract ID: 25C0165-02 A Sample Size: 0.2871 g (wet) Final Volume: 0.2871 mL Dry Weight: 0.15 g % Solids: 52.07

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.30	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
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PAWE-2B3
25C0165-03 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR	Sampled: 02/20/2025 17:56
Instrument: TOC Cube Analyst: ARR	Analyzed: 04/04/2025 05:22
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0728 Prepared: 03/28/2025	Extract ID: 25C0165-03 A Sample Size: 0.2125 g (wet) Final Volume: 0.2125 mL Dry Weight: 0.12 g % Solids: 57.01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.27	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:30
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWE-2B3 25C0165-03 (Solid)		

Wet Chemistry								
Method: SM 2540 G-11				Sampled: 02/20/2025 17:56				
Instrument: BAL2 Analyst: AG				Analyzed: 03/13/2025 15:04				
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0165-03		
		Preparation Batch: BNC0321						
		Prepared: 03/13/2025						
		Final Volume: 5 mL		% Solids: 57.01				
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	57.01	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:30
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWE-2C2 25C0165-04 (Solid)		

Wet Chemistry							
Method: Plumb 1981, Combustion IR				Sampled: 02/20/2025 04:25			
Instrument: TOC Cube Analyst: ARR				Analyzed: 04/04/2025 05:53			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 0.3029 g (wet)		Extract ID: 25C0165-04 A	
		Preparation Batch: BNC0728		Final Volume: 0.3029 mL		Dry Weight: 0.17 g	
		Prepared: 03/28/2025				% Solids: 54.48	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.28	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:30
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWE-2C2 25C0165-04 (Solid)		

Wet Chemistry								
Method: SM 2540 G-11				Sampled: 02/20/2025 04:25				
Instrument: BAL2 Analyst: AG				Analyzed: 03/13/2025 15:04				
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0165-04		
		Preparation Batch: BNC0321						
		Prepared: 03/13/2025						
						% Solids: 54.48		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	54.48	%	

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported: 14-Apr-2025 12:30
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	
Lafayette CA, 94549	Project Manager: Ted Donn	
PAWE-3B3 25C0165-05 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR

Instrument: TOC Cube Analyst: ARR

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0728
Prepared: 03/28/2025

Sample Size: 0.2596 g (wet)
Final Volume: 0.2596 mL

Sampled: 02/20/2025 15:43
Analyzed: 04/04/2025 06:23
Extract ID: 25C0165-05 A
Dry Weight: 0.15 g
% Solids: 56.08

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.34	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
PAWE-3B3 25C0165-05 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/20/2025 15:43			
Instrument: BAL2 Analyst: AG				Analyzed: 03/13/2025 15:04			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0321 Prepared: 03/13/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0165-05 % Solids: 56.08	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
PAWE-3C2 25C0165-06 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR			Sampled: 02/20/2025 17:13				
Instrument: TOC Cube Analyst: ARR			Analyzed: 04/04/2025 06:53				
Sample Preparation:	Preparation Method: No Prep Wet Chem Preparation Batch: BNC0728 Prepared: 03/28/2025	Sample Size: 0.2231 g (wet) Final Volume: 0.2231 mL	Extract ID: 25C0165-06 A Dry Weight: 0.11 g % Solids: 51.34				
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.32	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
PAWE-3C2 25C0165-06 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/20/2025 17:13	
Instrument: BAL2 Analyst: AG					Analyzed: 03/13/2025 15:04	
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0321 Prepared: 03/13/2025		Sample Size: 5 g (wet) Final Volume: 5 mL		Extract ID: 25C0165-06 % Solids: 51.34
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units Notes
Total Solids		1	0.04	0.04	51.34	%

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
PAWE-3CP2 25C0165-07 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/20/2025 16:47			
Instrument: TOC Cube Analyst: ARR				Analyzed: 04/04/2025 07:23			
Sample Preparation:		Preparation Method: No Prep Wet Chem Preparation Batch: BNC0728 Prepared: 03/28/2025		Sample Size: 0.2952 g (wet) Final Volume: 0.2952 mL		Extract ID: 25C0165-07 A Dry Weight: 0.15 g % Solids: 50.52	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.34	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:30
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWE-3CP2 25C0165-07 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/20/2025 16:47				
Instrument: BAL2 Analyst: AG				Analyzed: 03/13/2025 15:04				
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0165-07		
		Preparation Batch: BNC0321						
		Prepared: 03/13/2025						
				Final Volume: 5 mL		% Solids: 50.52		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	50.52	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:30
	Project Number: T779.27		
	Project Manager: Ted Donn		
PAWE-3D2 25C0165-08 (Solid)			

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/20/2025 19:49				
Instrument: TOC Cube Analyst: ARR				Analyzed: 04/04/2025 08:54				
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0165-08 A			
		Preparation Batch: BNC0728						
		Prepared: 03/28/2025						
		Sample Size: 0.2315 g (wet)			Dry Weight: 0.12 g % Solids: 53.07			
		Final Volume: 0.2315 mL						
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon			1	0.02	0.02	0.32	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:30
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWE-3D2 25C0165-08 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/20/2025 19:49	
Instrument: BAL2 Analyst: AG					Analyzed: 03/13/2025 15:04	
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0165-08	
		Preparation Batch: BNC0321				
		Prepared: 03/13/2025				
		Sample Size: 5 g (wet)		% Solids: 53.07		
		Dilution				
		Final Volume: 5 mL				
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units Notes
Total Solids		1	0.04	0.04	53.07	%

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported: 14-Apr-2025 12:30
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	
Lafayette CA, 94549	Project Manager: Ted Donn	
PAWE-4B2 25C0165-09 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/20/2025 16:25			
Instrument: TOC Cube Analyst: ARR				Analyzed: 04/04/2025 09:24			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 0.2435 g (wet)		Extract ID: 25C0165-09 A	
		Preparation Batch: BNC0728					
		Prepared: 03/28/2025					
				Final Volume: 0.2435 mL		Dry Weight: 0.14 g	
						% Solids: 58.21	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.26	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	14-Apr-2025 12:30
PAWE-4B2 25C0165-09 (Solid)		

Wet Chemistry

Method: SM 2540 G-11		Sampled: 02/20/2025 16:25	
Instrument: BAL2 Analyst: AG		Analyzed: 03/13/2025 15:04	
Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 5 g (wet)	Extract ID: 25C0165-09
	Preparation Batch: BNC0321	Final Volume: 5 mL	% Solids: 58.21
	Prepared: 03/13/2025		
Analyte	CAS Number	Dilution	Detection Limit Reporting Limit Result Units Notes
Total Solids		1	0.04 0.04 58.21 %

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	14-Apr-2025 12:30
PAWE-4C2 25C0165-10 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR		Sampled: 02/20/2025 01:09	
Instrument: TOC Cube Analyst: ARR		Analyzed: 04/04/2025 09:54	
Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.2003 g (wet)	Extract ID: 25C0165-10 A
	Preparation Batch: BNC0728	Final Volume: 0.2003 mL	Dry Weight: 0.11 g
	Prepared: 03/28/2025		% Solids: 52.62
Analyte	CAS Number	Dilution	Detection Limit Reporting Limit Result Units Notes
Total Organic Carbon		1	0.02 0.02 0.32 %

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	14-Apr-2025 12:30
PAWE-4C2 25C0165-10 (Solid)		

Wet Chemistry

Method: SM 2540 G-11		Sampled: 02/20/2025 01:09	
Instrument: BAL2 Analyst: AG		Analyzed: 03/13/2025 15:04	
Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 5 g (wet)	Extract ID: 25C0165-10
	Preparation Batch: BNC0321	Final Volume: 5 mL	% Solids: 52.62
	Prepared: 03/13/2025		
Analyte	CAS Number	Dilution	Detection Limit Reporting Limit Result Units Notes
Total Solids		1	0.04 0.04 52.62 %

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand	
	Project Number: T779.27	Reported:
	Project Manager: Ted Donn	14-Apr-2025 12:30
PAWE-2C2-FD 25C0165-11 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR		Sampled: 02/20/2025 04:56	
Instrument: TOC Cube Analyst: ARR		Analyzed: 04/04/2025 10:24	
Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.3012 g (wet)	Extract ID: 25C0165-11 A
	Preparation Batch: BNC0728	Final Volume: 0.3012 mL	Dry Weight: 0.17 g
	Prepared: 03/28/2025		% Solids: 57.38
Analyte	CAS Number	Dilution	Detection Limit Reporting Limit Result Units Notes
Total Organic Carbon		1	0.02 0.02 0.30 %

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
PAWE-2C2-FD 25C0165-11 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/20/2025 04:56			
Instrument: BAL2 Analyst: AG				Analyzed: 03/13/2025 15:04			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0165-11	
		Preparation Batch: BNC0321		Final Volume: 5 mL		% Solids: 57.38	
Prepared: 03/13/2025							
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units
Total Solids			1	0.04	0.04	57.38	%
							Notes

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
Analysis by: Analytical Resources, LLC		
Wet Chemistry - Quality Control		

Batch BNC0728 - Plumb 1981, Combustion IR in Solid
Instrument: TOC Cube Analyst: ARR

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BNC0728-BLK1)	ND	0.02	0.02	%			Prepared: 28-Mar-2025 Analyzed: 31-Mar-2025 11:51			U
Total Organic Carbon										
LCS (BNC0728-BS1)	45.4	0.02	0.02	%	44.4	102	80-120			
Total Organic Carbon										
Duplicate (BNC0728-DUP3)	0.32	0.02	0.02	%	0.35	8.70	20			
Total Organic Carbon										
Duplicate (BNC0728-DUP4)	0.32	0.02	0.02	%	0.35	8.70	20			
Total Organic Carbon										
Matrix Spike (BNC0728-MS2)	2.95	0.02	0.02	%	2.70	0.35	96.4	75-125		
Total Organic Carbon										

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
Analysis by: Analytical Resources, LLC		
Wet Chemistry - Quality Control		

Batch BNC0321 - SM 2540 G-11 in Solid
Instrument: BAL2 Analyst: AG

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BNC0321-BLK1)	ND	0.04	0.04	%			Prepared: 13-Mar-2025 Analyzed: 13-Mar-2025 15:04			U
! Total Solids										
Duplicate (BNC0321-DUP1)	52.82	0.04	0.04	%			Prepared: 13-Mar-2025 Analyzed: 13-Mar-2025 15:04			
! Total Solids								2.07	20	

! Indicates that ARL is NOT ACCREDITED for this parameter in this analysis and matrix.

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:30
Uncertified Analytes included in this Report		
Analysis Matrix & Analyte		
SM 2540 G-11 in Solid		
# Total Solids		
# Indicates that ARL is NOT ACCREDITED for this parameter in this matrix.		

Certified Analyses included in this Report

Analysis Matrix & Analyte	Certification Codes
Plumb 1981, Combustion IR in Solid	
Total Organic Carbon	DoD-ELAP

Certifications

Code	Description	Number	Expires
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	01/31/2026

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:30

Notes and Definitions

U This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
[2C] Indicates this result was quantified on the second column on a dual column analysis.
! Indicates that ARL is NOT ACCREDITED for this parameter in this analysis and matrix.
Indicates that ARL is NOT ACCREDITED for this parameter in samples logged as 'Drinking Water'

14 April 2025

Ted Donn
Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette, CA 94549

RE: Gulf of Thailand (T779.27)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
25C0166

Associated SDG ID(s)
N/A

Susan
Dunniho

Digitally signed by
Susan Dunniho
Date: 2025.04.14
12:42:38 -07'00'

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclosure Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Susan Dunniho
Susan Dunniho, Director, Client Services



25C0166 ARISample FINAL 14 Apr 2025 1230 - Page 31 of 31

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25C0166 ARISample FINAL 14 Apr 2025 1239 - Page 1 of 50

Ship To:
Sue Dunniho
Analytical Resources LLC
4611 South 134 Place
Tukwila, WA
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	TOC	Dry Weight
T779.27	NPWB-4C2	2/14/2025	19:52	SED	Frozen	1	1
T779.27	NPWG-1B2X	2/17/2025	10:17	SED	Frozen	1	1
T779.27	NPWG-1B2X-FD	2/17/2025	10:42	SED	Frozen	1	1
T779.27	NPWG-1C2	2/17/2025	5:05	SED	Frozen	1	1
T779.27	NPWG-1CP2	2/17/2025	3:37	SED	Frozen	1	1
T779.27	NPWG-1D2	2/17/2025	4:14	SED	Frozen	1	1
T779.27	NPWG-2B2X	2/16/2025	22:45	SED	Frozen	1	1
T779.27	NPWG-2C2	2/16/2025	22:06	SED	Frozen	1	1
T779.27	NPWG-3B2X	2/17/2025	15:36	SED	Frozen	1	1
T779.27	NPWG-3C2	2/17/2025	14:17	SED	Frozen	1	1
T779.27	NPWG-3CP2	2/16/2025	16:47	SED	Frozen	1	1
T779.27	NPWG-3D2	2/16/2025	17:16	SED	Frozen	1	1
T779.27	NPWG-4B2X	2/17/2025	16:05	SED	Frozen	1	1
T779.27	NPWG-4C2	2/17/2025	16:50	SED	Frozen	1	1
T779.27	PACPP-1C1	2/19/2025	0:48	SED	Frozen	1	1
T779.27	PACPP-1C2X	2/17/2025	22:46	SED	Frozen	1	1
T779.27	PACPP-1C3X	2/19/2025	1:32	SED	Frozen	1	1
T779.27	PACPP-1CP1	2/18/2025	10:41	SED	Frozen	1	1
T779.27	PACPP-1CP2X	2/17/2025	23:19	SED	Frozen	1	1
T779.27	PACPP-1CP3	2/18/2025	11:23	SED	Frozen	1	1
T779.27	PACPP-1D2	2/18/2025	21:28	SED	Frozen	1	1
T779.27	PACPP-1E2	2/18/2025	20:52	SED	Frozen	1	1
T779.27	PACPP-1F2	2/18/2025	20:16	SED	Frozen	1	1
T779.27	PACPP-1G2	2/18/2025	19:39	SED	Frozen	1	1
T779.27	PACPP-2C2	2/19/2025	2:15	SED	Frozen	1	1
T779.27	PACPP-2CP2	2/18/2025	23:14	SED	Frozen	1	1
T779.27	PACPP-2D2	2/18/2025	22:32	SED	Frozen	1	1
T779.27	PACPP-3C1	2/19/2025	10:36	SED	Frozen	1	1
T779.27	PACPP-3C2V	2/19/2025	9:49	SED	Frozen	1	1
T779.27	PACPP-3C3	2/19/2025	9:15	SED	Frozen	1	1
T779.27	PACPP-3CP1X	2/19/2025	3:00	SED	Frozen	1	1
T779.27	PACPP-3CP2	2/19/2025	4:09	SED	Frozen	1	1
T779.27	PACPP-3CP3	2/19/2025	4:44	SED	Frozen	1	1
T779.27	PACPP-3D2X	2/19/2025	5:27	SED	Frozen	1	1
T779.27	PACPP-3E2X	2/19/2025	11:22	SED	Frozen	1	1
T779.27	PACPP-3F2X	2/19/2025	12:46	SED	Frozen	1	1
T779.27	PACPP-3G2	2/19/2025	13:35	SED	Frozen	1	1
T779.27	PACPP-4C2X	2/18/2025	3:59	SED	Frozen	1	1
T779.27	PACPP-4C2X-FD	2/18/2025	4:22	SED	Frozen	1	1
T779.27	PACPP-4CP2X	2/18/2025	4:56	SED	Frozen	1	1
T779.27	PACPP-4D2X	2/18/2025	6:49	SED	Frozen	1	1
T779.27	PAREF-A	2/13/2025	19:06	SED	Frozen	1	1
T779.27	PAREF-B	2/13/2025	19:38	SED	Frozen	1	1
T779.27	PAREF-C	2/13/2025	19:59	SED	Frozen	1	1
T779.27	PAWB-1C2	2/20/2025	23:07	SED	Frozen	1	1
T779.27	PAWB-1CP2	2/20/2025	22:25	SED	Frozen	1	1
T779.27	PAWB-1D2	2/20/2025	21:40	SED	Frozen	1	1
T779.27	PAWB-2B1X	2/21/2025	16:23	SED	Frozen	1	1
T779.27	PAWB-2C2	2/21/2025	16:59	SED	Frozen	1	1

Relinquished by: Christopher Williams

Relinquished by:

Received by: Anthony G 3/10/25

Received by:

25C0166 ARISample FINAL 14 Apr 2025 1239 - Page 2 of 50

Ship To:
Sue Dunniho
Analytical Resources LLC
4611 South 134 Place
Tukwila, WA
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	TOC	Dry Weight
T779.27	PAWB-3B2	2/21/2025	14:36	SED	Frozen	1	1
T779.27	PAWB-3C2	2/21/2025	5:48	SED	Frozen	1	1
T779.27	PAWB-3CP2	2/21/2025	4:55	SED	Frozen	1	1
T779.27	PAWB-3D2	2/21/2025	4:19	SED	Frozen	1	1
T779.27	PAWB-4B2X	2/21/2025	15:54	SED	Frozen	1	1
T779.27	PAWB-4C2	2/21/2025	19:24	SED	Frozen	1	1
T779.27	PAWE-1B1	2/20/2025	17:12	SED	Frozen	1	1
T779.27	PAWE-1CP2	2/20/2025	1:48	SED	Frozen	1	1
T779.27	PAWE-1D2	2/20/2025	2:23	SED	Frozen	1	1
T779.27	PAWE-1E2	2/20/2025	3:08	SED	Frozen	1	1
T779.27	PAWE-2B3	2/20/2025	17:56	SED	Frozen	1	1
T779.27	PAWE-2C2	2/20/2025	4:25	SED	Frozen	1	1
T779.27	PAWE-3B3	2/20/2025	15:43	SED	Frozen	1	1
T779.27	PAWE-3C2	2/20/2025	17:13	SED	Frozen	1	1
T779.27	PAWE-3CP2	2/20/2025	16:47	SED	Frozen	1	1
T779.27	PAWE-3D2	2/20/2025	19:49	SED	Frozen	1	1
T779.27	PAWE-4B2	2/20/2025	16:25	SED	Frozen	1	1
T779.27	PAWE-4C2	2/20/2025	1:09	SED	Frozen	1	1
T779.30	G443REF-A	2/10/2025	2:08	SED	Frozen	1	1
T779.31-B	BAPLH-M1	2/22/2025	2:03	SED	Frozen	1	1
T779.31-B	BAPLH-M2	2/22/2025	2:36	SED	Frozen	1	1
T779.31-B	BAPLH-M3	2/22/2025	4:45	SED	Frozen	1	1
T779.31-B	BAPLH-M4	2/22/2025	6:33	SED	Frozen	1	1
T779.31-B	BAPLH-M5	2/22/2025	8:09	SED	Frozen	1	1
T779.31-B	BAPLH-M6	2/22/2025	8:35	SED	Frozen	1	1
T779.31-B	BAPLH-M1	2/22/2025	9:18	SED	Frozen	1	1
T779.31-B	BAPLH-M2	2/22/2025	9:50	SED	Frozen	1	1
T779.31-B	BAPLH-M3	2/22/2025	9:42	SED	Frozen	1	1
T779.31-B	BAPLH-S2	2/22/2025	1:18	SED	Frozen	1	1
T779.31-B	PDPLB-M1	2/11/2025	22:54	SED	Frozen	1	1
T779.31-B	PDPLB-M2	2/11/2025	22:41	SED	Frozen	1	1
T779.31-B	PDPLB-M3	2/11/2025	20:17	SED	Frozen	1	1
T779.31-B	PDPLB-M4	2/11/2025	20:36	SED	Frozen	1	1
T779.31-B	PDPLB-M1	2/11/2025	17:17	SED	Frozen	1	1
T779.31-B	PDPLB-M2	2/11/2025	17:36	SED	Frozen	1	1
T779.31-B	PDPLB-S1	2/12/2025	2:10	SED	Frozen	1	1
T779.31-B	PDPLB-S2	2/12/2025	1:53	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-C1	2/10/2025	22:26	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-C2	2/10/2025	22:35	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-C3	2/10/2025	22:43	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-X-(0-5)	2/11/2025	8:41	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-X-(10-15)	2/11/2025	8:41	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-X-(15-20)	2/11/2025	8:41	SED	Frozen	1	1
T779.31-B	PMWH-1B2X-X-(5-10)	2/11/2025	8:41	SED	Frozen	1	1
T779.31-B	PMWH-1C2-C1	2/10/2025	21:54	SED	Frozen	1	1
T779.31-B	PMWH-1C2-C2	2/10/2025	22:02	SED	Frozen	1	1
T779.31-B	PMWH-1C2-C3	2/10/2025	22:11	SED	Frozen	1	1

Relinquished by: Christopher Williams

Relinquished by:

Received by: Anthony G 3/10/25

Received by:

25C0166 ARISample FINAL 14 Apr 2025 1239 - Page 3 of 50

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PACPP-4C2X	25C0166-01	Solid	18-Feb-2025 03:59	06-Mar-2025 12:19
PACPP-4C2X-FD	25C0166-02	Solid	18-Feb-2025 04:22	06-Mar-2025 12:19
PACPP-4CP2X	25C0166-03	Solid	18-Feb-2025 04:56	06-Mar-2025 12:19
PACPP-4D2X	25C0166-04	Solid	18-Feb-2025 08:49	06-Mar-2025 12:19
PAEF-A	25C0166-05	Solid	13-Feb-2025 19:06	06-Mar-2025 12:19
PAEF-B	25C0166-06	Solid	13-Feb-2025 19:38	06-Mar-2025 12:19
PAEF-C	25C0166-07	Solid	13-Feb-2025 19:59	06-Mar-2025 12:19
PAWB-1C2	25C0166-08	Solid	20-Feb-2025 23:07	06-Mar-2025 12:19
PAWB-1CP2	25C0166-09	Solid	20-Feb-2025 22:25	06-Mar-2025 12:19
PAWB-1D2	25C0166-10	Solid	20-Feb-2025 21:40	06-Mar-2025 12:19
PAWB-2B1X	25C0166-11	Solid	21-Feb-2025 16:23	06-Mar-2025 12:19
PAWB-2C2	25C0166-12	Solid	21-Feb-2025 16:59	06-Mar-2025 12:19
PAWB-3B2	25C0166-13	Solid	21-Feb-2025 14:36	06-Mar-2025 12:19
PAWB-3C2	25C0166-14	Solid	21-Feb-2025 05:40	06-Mar-2025 12:19
PAWB-3CP2	25C0166-15	Solid	21-Feb-2025 04:55	06-Mar-2025 12:19
PAWB-3D2	25C0166-16	Solid	21-Feb-2025 04:19	06-Mar-2025 12:19
PAWB-4B2X	25C0166-17	Solid	21-Feb-2025 15:54	06-Mar-2025 12:19
PAWB-4C2	25C0166-18	Solid	21-Feb-2025 19:24	06-Mar-2025 12:19
PAWE-1B1	25C0166-19	Solid	20-Feb-2025 17:12	06-Mar-2025 12:19
PAWE-1C2	25C0166-20	Solid	20-Feb-2025 01:48	06-Mar-2025 12:19

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:39

Work Order Case Narrative

Client: Tetra Tech, Inc. (Lafayette)
Project: Gulf of Thailand
Project Number: T779.27
Work Order: 25C0166

Sample receipt

The sample(s) as listed on the preceding page were received 06-Mar-2025 12:19 under ARI work order 25C0166. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times for samples stored frozen.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the replicate (DUP1, DUP2) relative percent differences (RPD) were within advisory control limits.

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25C0166 ARISample FINAL 14 Apr 2025 1239 - Page 4 of 50

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25C0166 ARISample FINAL 14 Apr 2025 1239 - Page 5 of 50

Cooler Receipt Form

ARI Client: Tetra Tech Project Name: Gulf of Thailand
COC No(s): 25C0166 Delivered by: FedEx UPS Courier Hand Delivered Other
Assigned ARI Job No.: 25C0166 Tracking No.: 9201 77234810 2121
Preliminary Examination Phase: SA
Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO
Were custody papers included with the cooler? YES NO
Were custody papers properly filled out (ink, signed, etc.)? YES NO
Temperature of Cooler(s) (°C) Time: 12:17 -8.3 Temp Gun ID#: 704 9908
Was a temperature blank included in the cooler? YES NO
Were coolers received between 0°-6° (°C)? YES NO
Was sufficient ice used (if appropriate)? NA YES NO
Cooler Accepted by: PSB Date: 03/06/25 Time: 12:17

Complete custody forms and attach all shipping documents

Log-In Phase:
What kind of packing material was used? Bubble Wrap Wet Gel Packs Baggies Foam Block N/A Other
Are any samples that went out of temperature compliance documented in LIMS? YES NO
How were bottles sealed in plastic bags? Individually Not
Did all bottles arrive in good condition (unbroken)? YES NO
Were all bottle labels complete and legible? YES NO
Did the number of containers listed on COC match with the number of containers received? YES NO
Did all bottle labels and tags agree with custody papers? YES NO
Were all bottles used correct for the requested analyses? YES NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) NA YES NO
Were all VOC vials free of air bubbles? NA YES NO
Was sufficient amount of sample sent in each bottle? YES NO
Date VOC Trip Blank was made at ARI: NA
Were the sample(s) split by ARI? NA YES Date/Time: 3/10/25 SA 16:31 Equipment: 16131 Split by: SA A6
Samples Logged by: SA A6 Date: 3/10/25 Time: 13:53 Labels checked by: SA A6
Notify Project Manager of discrepancies or concerns: 3/10/25 3:00 PM

Additional Notes, Discrepancies, & Resolutions:
① samples were shipped with dry ice and were received frozen per the project requirements - PSB 03/06/25
② Extra sample not on COC - "PAWE-2C2-FD"
③ Multiple samples received with discrepant times between the COC and labels. Samples will be logged based on the COC
By: SA A6 Date: 3/6/25

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:39

PACPP-4C2X
25C0166-01 (Solid)

Wet Chemistry

Method: Flamb 1981, Combustion IR Sampled: 02/18/2025 03:59
Instrument: TOC Cube Analyst: ARR Analyzed: 03/31/2025 20:25

Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0729 Sample Size: 0.2165 g (wet) Extract ID: 25C0166-01 A
Prepared: 03/28/2025 Final Volume: 0.2165 mL Dry Weight: 0.13 g % Solids: 60.31

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.24	%	

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25C0166 ARISample FINAL 14 Apr 2025 1239 - Page 7 of 50

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PACPP-4C2X 25C0166-01 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/18/2025 03:59				
Instrument: BAL2 Analyst: AG				Analyzed: 03/11/2025 11:13				
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0166-01		
		Preparation Batch: BNC0224						
		Prepared: 03/11/2025						
		Final Volume: 5 mL		% Solids: 60.31				
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	60.31	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PACPP-4C2X-FD 25C0166-02 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR			Sampled: 02/18/2025 04:22				
Instrument: TOC Cube Analyst: ARR			Analyzed: 04/04/2025 10:55				
Sample Preparation:	Preparation Method: No Prep Wet Chem		Extract ID: 25C0166-02 A				
	Preparation Batch: BNC0729		Dry Weight: 0.14 g				
	Prepared: 03/28/2025		% Solids: 61.18				
Sample Size: 0.2251 g (wet)							
Final Volume: 0.2251 mL							
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.26	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
PACPP-4C2X-FD 25C0166-02 (Solid)			

Wet Chemistry

Method: SM 2540 G-11						Sampled: 02/18/2025 04:22	
Instrument: BAL2 Analyst: AG						Analyzed: 03/11/2025 11:13	
Sample Preparation:		Preparation Method: No Prep Wet Chem				Extract ID: 25C0166-02	
		Preparation Batch: BNC0224					
		Prepared: 03/11/2025					
		Sample Size: 5 g (wet)				% Solids: 61.18	
		Final Volume: 5 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	61.18	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PACPP-4CP2X 25C0166-03 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/18/2025 04:56			
Instrument: TOC Cube Analyst: ARR				Analyzed: 04/04/2025 11:25			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 0.2834 g (wet)		Extract ID: 25C0166-03 A	
		Preparation Batch: BNC0729					
		Prepared: 03/28/2025					
		Final Volume: 0.2834 mL				Dry Weight: 0.16 g	
						% Solids: 57.55	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.23	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PACPP-4CP2X 25C0166-03 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/18/2025 04:56				
Instrument: BAL2 Analyst: AG				Analyzed: 03/11/2025 11:13				
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0166-03		
		Preparation Batch: BNC0224						
		Prepared: 03/11/2025						
		Final Volume: 5 mL		% Solids: 57.55				
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	57.55	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PACPP-4D2X 25C0166-04 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR			Sampled: 02/18/2025 08:49				
Instrument: TOC Cube Analyst: ARR			Analyzed: 04/04/2025 11:56				
Sample Preparation:	Preparation Method: No Prep Wet Chem		Extract ID: 25C0166-04 A				
	Preparation Batch: BNC0729		Dry Weight: 0.11 g				
	Prepared: 03/28/2025		% Solids: 57.43				
		Sample Size: 0.2002 g (wet)					
		Final Volume: 0.2002 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.27	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PACPP-4D2X 25C0166-04 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/18/2025 08:49	
Instrument: BAL2 Analyst: AG					Analyzed: 03/11/2025 11:13	
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0166-04	
		Preparation Batch: BNC0224				
		Prepared: 03/11/2025				
		Sample Size: 5 g (wet)			% Solids: 57.43	
		Final Volume: 5 mL				
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units Notes
Total Solids		1	0.04	0.04	57.43	%

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27		
Lafayette CA, 94549	Project Manager: Ted Donn		
PAREF-A 25C0166-05 (Solid)			

Wet Chemistry

Method: Plumb 02/131, Combustion IR					Sampled: 02/13/2025 19:06		
Instrument: TOC Cube Analyst: ARR					Analyzed: 04/04/2025 12:26		
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0166-05 A		
		Preparation Batch: BNC0729					
		Prepared: 03/28/2025					
		Sample Size: 0.293 g (wet)			Dry Weight: 0.14 g		
		Final Volume: 0.293 mL			% Solids: 49.13		
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.40	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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PAREF-A
25C0166-05 (Solid)

Wet Chemistry

Method: SM 2540 G-11		Sampled: 02/13/2025 19:06
Instrument: BAL2 Analyst: AG		Analyzed: 03/11/2025 11:13
Sample Preparation:	Preparation Method: No Prep Wet Chem	Extract ID: 25C0166-05
	Preparation Batch: BNC0224	
	Sample Size: 5 g (wet)	
	Prepared: 03/11/2025	
	Final Volume: 5 mL	% Solids: 49.13

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	49.13	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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PAREF-B
25C0166-06 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR		Sampled: 02/13/2025 19:38
Instrument: TOC Cube Analyst: ARR		Analyzed: 04/04/2025 12:56
Sample Preparation:	Preparation Method: No Prep Wet Chem	Extract ID: 25C0166-06 A
	Preparation Batch: BNC0729	Dry Weight: 0.12 g
	Prepared: 03/28/2025	% Solids: 49.22
	Sample Size: 0.2362 g (wet)	
	Final Volume: 0.2362 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.31	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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PAREF-B
25C0166-06 (Solid)

Wet Chemistry

Method: SM 2540 G-11		Sampled: 02/13/2025 19:38
Instrument: BAL2 Analyst: AG		Analyzed: 03/11/2025 11:13
Sample Preparation:	Preparation Method: No Prep Wet Chem	Extract ID: 25C0166-06
	Preparation Batch: BNC0224	
	Prepared: 03/11/2025	
	Sample Size: 5 g (wet)	
	Final Volume: 5 mL	% Solids: 49.22

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	49.22	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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PAREF-C
25C0166-07 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR		Sampled: 02/13/2025 19:59
Instrument: TOC Cube Analyst: ARR		Analyzed: 04/04/2025 13:27
Sample Preparation:	Preparation Method: No Prep Wet Chem Preparation Batch: BNC0729 Prepared: 03/28/2025	Extract ID: 25C0166-07 A Dry Weight: 0.12 g % Solids: 54.17
	Sample Size: 0.213 g (wet) Final Volume: 0.213 mL	

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.28	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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PAREF-C
25C0166-07 (Solid)

Wet Chemistry

Method: SM 2540 G-11	Sampled: 02/13/2025 19:59
Instrument: BAL2 Analyst: AG	Analyzed: 03/11/2025 11:13
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0224 Prepared: 03/11/2025	Extract ID: 25C0166-07 Sample Size: 5 g (wet) Final Volume: 5 mL % Solids: 54.17

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	54.17	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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PAWB-1C2
25C0166-08 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR	Sampled: 02/20/2025 23:07
Instrument: TOC Cube Analyst: ARR	Analyzed: 04/04/2025 14:58
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0729 Prepared: 03/28/2025	Extract ID: 25C0166-08 A Sample Size: 0.2798 g (wet) Final Volume: 0.2798 mL Dry Weight: 0.15 g % Solids: 53.00

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.40	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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PAWB-1C2
25C0166-08 (Solid)

Wet Chemistry

Method: SM 2540 G-11	Sampled: 02/20/2025 23:07
Instrument: BAL2 Analyst: AG	Analyzed: 03/11/2025 11:13
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0224 Prepared: 03/11/2025	Extract ID: 25C0166-08 Sample Size: 5 g (wet) Final Volume: 5 mL % Solids: 53.00

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	53.00	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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PAWB-1CP2
25C0166-09 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR	Sampled: 02/20/2025 22:25
Instrument: TOC Cube Analyst: ARR	Analyzed: 04/04/2025 15:28
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0729 Prepared: 03/28/2025	Extract ID: 25C0166-09 A Sample Size: 0.2493 g (wet) Final Volume: 0.2493 mL Dry Weight: 0.13 g % Solids: 52.86

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.32	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-1CP2 25C0166-09 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/20/2025 22:25				
Instrument: BAL2 Analyst: AG				Analyzed: 03/11/2025 11:13				
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0166-09		
		Preparation Batch: BNC0224						
		Prepared: 03/11/2025						
		Final Volume: 5 mL		% Solids: 52.86				
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	52.86	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
PAWB-ID2 25C0166-10 (Solid)			

Wet Chemistry

Method: Plumb 1981, Combustion IR			Sampled: 02/20/2025 21:40				
Instrument: TOC Cube Analyst: ARR			Analyzed: 04/04/2025 15:58				
Sample Preparation:	Preparation Method: No Prep Wet Chem		Extract ID: 25C0166-10 A				
	Preparation Batch: BNC0729		Dry Weight: 0.14 g				
	Prepared: 03/28/2025		% Solids: 52.85				
Sample Size: 0.2615 g (wet)							
Final Volume: 0.2615 mL							
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.32	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-ID2 25C0166-10 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/20/2025 21:40	
Instrument: BAL2 Analyst: AG					Analyzed: 03/11/2025 11:13	
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0166-10	
		Preparation Batch: BNC0224				
		Prepared: 03/11/2025				
		Sample Size: 5 g (wet)				
		Final Volume: 5 mL			% Solids: 52.85	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units
Total Solids		1	0.04	0.04	52.85	%
						Notes

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported: 14-Apr-2025 12:39
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	
Lafayette CA, 94549	Project Manager: Ted Donn	
PAWB-2BIX 25C0166-11 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/21/2025 16:23	
Instrument: TOC Cube Analyst: ARR					Analyzed: 04/04/2025 16:29	
Sample Preparation:	Preparation Method: No Prep Wet Chem				Extract ID: 25C0166-11 A	
	Preparation Batch: BNC0729					
	Prepared: 03/28/2025					
	Sample Size: 0.2609 g (wet)				Dry Weight: 0.14 g	
	Final Volume: 0.2609 mL				% Solids: 52.17	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units Notes
Total Organic Carbon		1	0.02	0.02	0.43	%

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-2B1X 25C0166-11 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/21/2025 16:23				
Instrument: BAL2 Analyst: AG				Analyzed: 03/11/2025 11:13				
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0166-11		
		Preparation Batch: BNC0224						
		Prepared: 03/11/2025						
				Final Volume: 5 mL		% Solids: 52.17		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
PAWB-2C2 25C0166-12 (Solid)			

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/21/2025 16:59			
Instrument: TOC Cube Analyst: ARR				Analyzed: 04/04/2025 16:59			
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0166-12 A		
		Preparation Batch: BNC0729					
		Prepared: 03/28/2025					
		Sample Size: 0.2716 g (wet)			Dry Weight: 0.15 g % Solids: 55.01		
		Final Volume: 0.2716 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.32	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-2C2 25C0166-12 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/21/2025 16:59			
Instrument: BAL2 Analyst: AG					Analyzed: 03/11/2025 11:13			
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0166-12			
		Preparation Batch: BNC0224						
		Prepared: 03/11/2025						
		Sample Size: 5 g (wet)			% Solids: 55.01			
		Final Volume: 5 mL						
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	55.01	%	

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported: 14-Apr-2025 12:39
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	
Lafayette CA, 94549	Project Manager: Ted Donn	
PAWB-3B2 25C0166-13 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/21/2025 14:36		
Instrument: TOC Cube Analyst: ARR					Analyzed: 04/04/2025 17:29		
Sample Preparation:	Preparation Method: No Prep Wet Chem				Extract ID: 25C0166-13 A		
	Preparation Batch: BNC0729						
	Prepared: 03/28/2025						
	Sample Size: 0.2136 g (wet)				Dry Weight: 0.13 g % Solids: 59.59		
	Final Volume: 0.2136 mL						
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.80	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-3B2 25C0166-13 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/21/2025 14:36				
Instrument: BAL2 Analyst: AG				Analyzed: 03/11/2025 11:13				
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0166-13		
		Preparation Batch: BNC0224						
		Prepared: 03/11/2025						
		Final Volume: 5 mL		% Solids: 59.59				
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	59.59	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
PAWB-3C2 25C0166-14 (Solid)			

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/21/2025 05:40			
Instrument: TOC Cube Analyst: ARR				Analyzed: 04/04/2025 18:00			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 0.2081 g (wet)		Extract ID: 25C0166-14 A	
		Preparation Batch: BNC0729					
		Prepared: 03/28/2025					
		Final Volume: 0.2081 mL		Dry Weight: 0.11 g		% Solids: 54.04	
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.34	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-3C2 25C0166-14 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/21/2025 05:40		
Instrument: BAL2 Analyst: AG					Analyzed: 03/11/2025 11:13		
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0166-14		
		Preparation Batch: BNC0224					
		Prepared: 03/11/2025					
		Sample Size: 5 g (wet)			% Solids: 54.04		
		Final Volume: 5 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	54.04	%	

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27		
Lafayette CA, 94549	Project Manager: Ted Donn		
PAWB-3CP2 25C0166-15 (Solid)			

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/21/2025 04:55			
Instrument: TOC Cube Analyst: ARR				Analyzed: 04/04/2025 18:30			
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0166-15 A		
		Preparation Batch: BNC0729					
		Prepared: 03/28/2025					
		Sample Size: 0.2867 g (wet)			Dry Weight: 0.15 g		
		Final Volume: 0.2867 mL			% Solids: 52.44		
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.33	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-3CP2 25C0166-15 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/21/2025 04:55				
Instrument: BAL2 Analyst: AG				Analyzed: 03/11/2025 11:13				
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0166-15		
		Preparation Batch: BNC0224						
		Prepared: 03/11/2025						
				Final Volume: 5 mL		% Solids: 52.44		
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-3D2 25C0166-16 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/21/2025 04:19			
Instrument: BAL2 Analyst: AG					Analyzed: 03/11/2025 11:13			
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0166-16			
		Preparation Batch: BNC0224						
		Prepared: 03/11/2025						
		Sample Size: 5 g (wet)			% Solids: 52.07			
		Final Volume: 5 mL						
Analyte		CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids			1	0.04	0.04	52.07	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-3D2 25C0166-16 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/21/2025 04:19			
Instrument: TOC Cube Analyst: ARR				Analyzed: 04/04/2025 19:01			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Extract ID: 25C0166-16 A			
		Preparation Batch: BNC0729					
		Prepared: 03/28/2025					
		Sample Size: 0.2693 g (wet)		Dry Weight: 0.14 g % Solids: 52.07			
		Final Volume: 0.2693 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.35	%	

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported: 14-Apr-2025 12:39
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	
Lafayette CA, 94549	Project Manager: Ted Donn	
PAWB-4B2X 25C0166-17 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR					Sampled: 02/21/2025 15:54		
Instrument: TOC Cube Analyst: ARR					Analyzed: 04/04/2025 19:31		
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0166-17 A		
		Preparation Batch: BNC0729					
		Prepared: 03/28/2025					
		Sample Size: 0.2225 g (wet)			Dry Weight: 0.13 g % Solids: 57.05		
		Final Volume: 0.2225 mL					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.57	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-4B2X 25C0166-17 (Solid)		

Wet Chemistry

Method: SM 2540 G-11				Sampled: 02/21/2025 15:54			
Instrument: BAL2 Analyst: AG				Analyzed: 03/11/2025 11:13			
Sample Preparation:		Preparation Method: No Prep Wet Chem		Sample Size: 5 g (wet)		Extract ID: 25C0166-17	
		Preparation Batch: BNC0224		Final Volume: 5 mL		% Solids: 57.05	
		Prepared: 03/11/2025					
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	57.05	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-4C2 25C0166-18 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR			Sampled: 02/21/2025 19:24				
Instrument: TOC Cube Analyst: ARR			Analyzed: 04/09/2025 13:28				
Sample Preparation:	Preparation Method: No Prep Wet Chem		Extract ID: 25C0166-18 A				
	Preparation Batch: BNC0729						
	Prepared: 03/28/2025						
	Sample Size: 0.2367 g (wet)		Dry Weight: 0.13 g				
	Final Volume: 0.2367 mL		% Solids: 54.74				
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.31	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand		Reported: 14-Apr-2025 12:39
	Project Number: T779.27		
	Project Manager: Ted Donn		
	PAWB-4C2 25C0166-18 (Solid)		

Wet Chemistry

Method: SM 2540 G-11					Sampled: 02/21/2025 19:24		
Instrument: BAL2 Analyst: AG					Analyzed: 03/11/2025 11:13		
Sample Preparation:		Preparation Method: No Prep Wet Chem			Extract ID: 25C0166-18		
		Preparation Batch: BNC0224					
		Prepared: 03/11/2025					
		Sample Size: 5 g (wet)					
		Final Volume: 5 mL			% Solids: 54.74		
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	54.74	%	

Tetra Tech, Inc. (Lafayette)	Project: Gulf of Thailand	Reported: 14-Apr-2025 12:39
3697 Mt Diablo Blvd, Suite 150	Project Number: T779.27	
Lafayette CA, 94549	Project Manager: Ted Donn	
PAWE-1B1 25C0166-19 (Solid)		

Wet Chemistry

Method: Plumb 1981, Combustion IR				Sampled: 02/20/2025 17:12			
Instrument: TOC Cube Analyst: ARR				Analyzed: 04/09/2025 13:59			
Sample Preparation:	Preparation Method: No Prep Wet Chem			Sample Size: 0.2578 g (wet)		Extract ID: 25C0166-19 A	
	Preparation Batch: BNC0729						
	Prepared: 03/28/2025						
			Final Volume: 0.2578 mL		Dry Weight: 0.15 g		% Solids: 58.91
Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.36	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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PAWE-1B1
25C0166-19 (Solid)

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG	Sampled: 02/20/2025 17:12 Analyzed: 03/11/2025 11:13
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0224 Prepared: 03/11/2025	Sample Size: 5 g (wet) Final Volume: 5 mL Extract ID: 25C0166-19 % Solids: 58.91

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	58.91	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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PAWE-1C2
25C0166-20 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR Instrument: TOC Cube Analyst: ARR	Sampled: 02/20/2025 01:48 Analyzed: 04/09/2025 14:29
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0729 Prepared: 03/28/2025	Sample Size: 0.2843 g (wet) Final Volume: 0.2843 mL Extract ID: 25C0166-20 A Dry Weight: 0.16 g % Solids: 55.25

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.30	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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PAWE-1C2
25C0166-20 (Solid)

Wet Chemistry

Method: SM 2540 G-11 Instrument: BAL2 Analyst: AG	Sampled: 02/20/2025 01:48 Analyzed: 03/11/2025 11:13
Sample Preparation: Preparation Method: No Prep Wet Chem Preparation Batch: BNC0224 Prepared: 03/11/2025	Sample Size: 5 g (wet) Final Volume: 5 mL Extract ID: 25C0166-20 % Solids: 55.25

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	55.25	%	

Tetra Tech, Inc. (Lafayette) 3697 Mt Diablo Blvd, Suite 150 Lafayette CA, 94549	Project: Gulf of Thailand Project Number: T779.27 Project Manager: Ted Donn	Reported: 14-Apr-2025 12:39
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Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BNC0224 - SM 2540 G-11 in Solid

Instrument: BAL2 Analyst: AG

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BNC0224-BLK1) Prepared: 11-Mar-2025 Analyzed: 11-Mar-2025 11:13											
! Total Solids	ND	0.04	0.04	%							U
Duplicate (BNC0224-DUP1) Source: 25C0166-01 Prepared: 11-Mar-2025 Analyzed: 11-Mar-2025 11:13											
! Total Solids	59.70	0.04	0.04	%		60.31			1.02	20	

! Indicates that ARL is NOT ACCREDITED for this parameter in this analysis and matrix.

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:39

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BNC0729 - Plumb 1981, Combustion IR in Solid

Instrument: TOC Cube Analyst: ARR

QC Sample/Analyte	Detection Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BNC0729-BLK1)									
Prepared: 28-Mar-2025 Analyzed: 31-Mar-2025 12:21									
Total Organic Carbon	ND	0.02	0.02	%					U
LCS (BNC0729-BS1)									
Prepared: 28-Mar-2025 Analyzed: 31-Mar-2025 13:52									
Total Organic Carbon	46.8	0.02	0.02	%	44.4	105	80-120		
Duplicate (BNC0729-DUP1)									
Source: 25C0166-01 Prepared: 28-Mar-2025 Analyzed: 31-Mar-2025 20:55									
Total Organic Carbon	0.25	0.02	0.02	%	0.24		5.41	20	
Duplicate (BNC0729-DUP2)									
Source: 25C0166-01 Prepared: 28-Mar-2025 Analyzed: 31-Mar-2025 21:25									
Total Organic Carbon	0.27	0.02	0.02	%	0.24		13.00	20	
Matrix Spike (BNC0729-MS1)									
Source: 25C0166-01 Prepared: 28-Mar-2025 Analyzed: 31-Mar-2025 21:56									
Total Organic Carbon	2.36	0.02	0.02	%	2.25	0.24	94.4	75-125	

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

4611 S. 134th Place, Suite 100 • Tukwila, WA 98168 • Ph: (206) 695-6200 • Fax: (206) 695-6202

25C0166 ARISample FINAL 14 Apr 2025 1239 - Page 48 of 50

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:39

Notes and Definitions

U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.
!	Indicates that ARL is NOT ACCREDITED for this parameter in this analysis and matrix.
#	Indicates that ARL is NOT ACCREDITED for this parameter in samples logged as 'Drinking Water'

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:39

Uncertified Analytes included in this Report

Analysis Matrix & Analyte

SM 2540 G-11 in Solid

Total Solids

Indicates that ARL is NOT ACCREDITED for this parameter in this matrix.

Certified Analyses included in this Report

Analysis Matrix & Analyte

Certification Codes

Plumb 1981, Combustion IR in Solid

Total Organic Carbon DoD-ELAP

Certifications

Code	Description	Number	Expires
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	01/31/2026

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25C0166 ARISample FINAL 14 Apr 2025 1239 - Page 49 of 50

Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.27
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:39

Notes and Definitions

U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.
!	Indicates that ARL is NOT ACCREDITED for this parameter in this analysis and matrix.
#	Indicates that ARL is NOT ACCREDITED for this parameter in samples logged as 'Drinking Water'



Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number : 527290
Report Level : II
Report Date : 03/14/2025

Analytical Report prepared for:

Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549

Project: COTL - T779.27 - Gulf of Thailand

Authorized for release by:

Miguel Gamboa, Project Manager
miguel.gamboa@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105, ORELAP# 4197

Sample Summary

Ted Donn Tetra Tech, Inc. 3697 Mt. Diablo Blvd. Suite 150 Lafayette, CA 94549	Lab Job #: 527290 Project No: COTL Location: T779.27 - Gulf of Thailand Date Received: 03/06/25
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Sample ID	Lab ID	Collected	Matrix
NPCPP-1C1	527290-001	02/16/25 03:55	Soil
NPCPP-1C1-FD	527290-002	02/16/25 04:14	Soil
NPCPP-1C2X	527290-003	02/16/25 02:53	Soil
NPCPP-1CP1	527290-004	02/16/25 08:12	Soil
NPCPP-1CP2	527290-005	02/16/25 07:36	Soil
NPCPP-1CP3X	527290-006	02/16/25 05:55	Soil
NPCPP-1D2	527290-007	02/15/25 01:46	Soil
NPCPP-1E2	527290-008	02/15/25 01:05	Soil
NPCPP-1F2	527290-009	02/15/25 00:22	Soil
NPCPP-1G2	527290-010	02/14/25 22:53	Soil
NPCPP-2C1X	527290-011	02/16/25 04:54	Soil
NPCPP-2C2	527290-012	02/16/25 05:22	Soil
NPCPP-2CP2	527290-013	02/15/25 05:42	Soil
NPCPP-2D2	527290-014	02/15/25 06:22	Soil
NPCPP-3C1	527290-015	02/16/25 08:56	Soil
NPCPP-3C2	527290-016	02/15/25 22:58	Soil
NPCPP-3C3X	527290-017	02/15/25 20:36	Soil
NPCPP-3C3X-FD	527290-018	02/15/25 20:54	Soil
NPCPP-3CP1	527290-019	02/15/25 17:01	Soil
NPCPP-3CP2	527290-020	02/15/25 11:07	Soil

Case Narrative

Tetra Tech, Inc. Lab Job Number: 527290
3697 Mt. Diablo Blvd. Project No: COTL
Suite 150 Location: T779.27 - Gulf of
Lafayette, CA 94549 Thailand
Ted Donn Date Received: 03/06/25

This data package contains sample and QC results for twenty soil samples, requested for the above referenced project on 03/06/25. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015M):

- High response was observed for diesel C10-C28 in the CCV analyzed 03/13/25 04:16; affected data was qualified with "b".
- No other analytical problems were encountered.

Moisture (ASTM D2216):

No analytical problems were encountered.

Ship To:
Miguel Gamboa
Enthalpy Analytical
951 West Barkley Ave
Orange, CA 92668

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

CHAIN OF CUSTODY

General Notes:
Please report all results to the MOL, J-flag results between MOL and RL.
Report all sediment results as Dry Weight.
Please report results and invoices separately for each Project ID.
Please report results in pdf format with Excel EDD deliverable.

Project	Sample ID	Date	Time	Medium	Preserve	TPH	Dry Weight
T779.27	NPCPP-1C1	2/16/2025	3:55	SED	Frozen	1	1
T779.27	NPCPP-1C1-FD	2/16/2025	4:14	SED	Frozen	1	1
T779.27	NPCPP-1C2X	2/16/2025	2:53	SED	Frozen	1	1
T779.27	NPCPP-1CP1	2/16/2025	8:12	SED	Frozen	1	1
T779.27	NPCPP-1CP2	2/16/2025	7:36	SED	Frozen	1	1
T779.27	NPCPP-1CP3X	2/16/2025	5:55	SED	Frozen	1	1
T779.27	NPCPP-1D2	2/15/2025	1:46	SED	Frozen	1	1
T779.27	NPCPP-1E2	2/15/2025	1:05	SED	Frozen	1	1
T779.27	NPCPP-1F2	2/15/2025	0:22	SED	Frozen	1	1
T779.27	NPCPP-1G2	2/14/2025	22:53	SED	Frozen	1	1
T779.27	NPCPP-2C1X	2/16/2025	4:54	SED	Frozen	1	1
T779.27	NPCPP-2C2	2/16/2025	5:22	SED	Frozen	1	1
T779.27	NPCPP-2CP2	2/15/2025	5:42	SED	Frozen	1	1
T779.27	NPCPP-2D2	2/15/2025	6:22	SED	Frozen	1	1
T779.27	NPCPP-3C1	2/16/2025	8:56	SED	Frozen	1	1
T779.27	NPCPP-3C2	2/15/2025	22:58	SED	Frozen	1	1
T779.27	NPCPP-3C3X	2/15/2025	20:36	SED	Frozen	1	1
T779.27	NPCPP-3C3X-FD	2/15/2025	20:54	SED	Frozen	1	1
T779.27	NPCPP-3CP1	2/15/2025	17:01	SED	Frozen	1	1
T779.27	NPCPP-3CP2	2/15/2025	11:07	SED	Frozen	1	1
T779.27	NPCPP-3CP3X	2/16/2025	9:50	SED	Frozen	1	1
T779.27	NPCPP-3D2	2/16/2025	10:28	SED	Frozen	1	1
T779.27	NPCPP-3F2X	2/16/2025	11:05	SED	Frozen	1	1
T779.27	NPCPP-3G2	2/16/2025	13:04	SED	Frozen	1	1
T779.27	NPCPP-4C2	2/15/2025	19:59	SED	Frozen	1	1
T779.27	NPCPP-4CP2	2/15/2025	19:27	SED	Frozen	1	1
T779.27	NPCPP-4D2	2/15/2025	18:54	SED	Frozen	1	1
T779.27	NPREF-A	2/12/2025	21:54	SED	Frozen	1	1
T779.27	NPREF-B	2/12/2025	22:27	SED	Frozen	1	1
T779.27	NPREF-B-FD	2/12/2025	22:47	SED	Frozen	1	1
T779.27	NPREF-C	2/12/2025	23:16	SED	Frozen	1	1
T779.27	NPWB-1C2	2/14/2025	4:51	SED	Frozen	1	1
T779.27	NPWB-1C2-FD	2/14/2025	5:13	SED	Frozen	1	1
T779.27	NPWB-1CP2	2/14/2025	3:00	SED	Frozen	1	1
T779.27	NPWB-1D2	2/14/2025	4:06	SED	Frozen	1	1
T779.27	NPWB-2B3	2/14/2025	18:54	SED	Frozen	1	1
T779.27	NPWB-2C2X	2/14/2025	5:33	SED	Frozen	1	1
T779.27	NPWB-3B2	2/14/2025	18:29	SED	Frozen	1	1
T779.27	NPWB-3C2	2/14/2025	20:22	SED	Frozen	1	1
T779.27	NPWB-3CP2	2/14/2025	21:24	SED	Frozen	1	1
T779.27	NPWB-3D2	2/14/2025	21:55	SED	Frozen	1	1
T779.27	NPWB-3F2X	2/14/2025	19:19	SED	Frozen	1	1

SAMPLE RECEIPT CHECKLIST

Section 1: General Info
Date Received: 5/6/25 Wdr 527290 Client: Tetra Tech Limited

Section 2: Shipping / Custody
Custody seals intact on arrival? ☐ Yes ☐ No ☐ On cooler / box ☐ On samples
☐ Courier ☐ Walk-in ☐ Field Sampling ☒ Shipping info: FedEx

Section 3a: Condition / Packaging
Date Opened: 5/6/25 By (Initials): GCK Outside 0.0 - 6.0°C (0.0 - 10.0°C for microbiology) (PM notified)
Type of ice used: ☐ Wet ☐ Blue/Gel ☐ None
☐ Samples received on ice directly from the field; cooling process had begun. (if checked, skip temperatures)
☐ Sample matrix doesn't require cooling (e.g. air, bulk PCB). (if checked, skip temperatures)
If no cooler: Observed/Adjusted Temp (°C) _____ Thermometer/IR Gun, IR11 _____ CF: +0.1
Cooler Temp (°C) #1: -8.1 #2: -7.8 #3: -0.1 #4: _____ #5: _____ #6: _____

Section 3b: Microbiology Samples
☐ No microbiology samples submitted (skip 3b)
☐ Within temp range 0.0 - 10.0°C or received on ice directly from field.
☐ Adequate headspace for microbiology analysis.

Section 3c: Air Samples
☐ No air samples submitted (skip 3c)
☐ 1.4L Canisters ☐ 6L Canisters ☐ Tedlar Bags ☐ MCE Cassettes ☐ Sorbent Tubes ☐ Other: _____

Section 4: Containers / Labels / Samples

	YES	NO	N/A
1) Were custody papers present, filled properly, and legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Is the sampler's name present on the CoC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Were containers received in good condition (unbroken / unopened / uncompromised)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Were the samples bagged? (required for microbiology samples; recommended for soil samples)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Were all of, and only, the correct samples received?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Are sample labels present, legible, and in agreement with the CoC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Does the container count match the CoC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8) Was sufficient sample volume / mass received for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Were samples received in proper containers for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Were samples received with > 1/2 holding time remaining?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) Are samples properly preserved as indicated by CoC / labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12) Unpreserved VGAs received - If necessary, was the hold time changed in LIMS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13) Are VOA vials free from headspace/bubbles > 6mm?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 5: Explanations / Comments
(If no comments are made, then no discrepancies noted.)
3a) cooling media is dry ice

☐ No additional discrepancies

Date Logged: 2/24/25 By (print): Berkley (sign)
Date Labeled: 3/6/25 By (print): Change (sign)



6 of 25

7 of 25



Extractable Carbon Chain

Lab #: 527290 Project#: COTL
Client: Tetra Tech, Inc. Location: T779.27 - Gulf of Thailand

Field ID: NPCPP-1C1 Moisture: 44% Prepared: 03/09/25
Type: SAMPLE DF: 0.9995 Analyzed: 03/12/25
Lab ID: 527290-001 Batch#: 365336 Prep: EPA 3580M
Matrix: Soil Sampled: 02/16/25 Analysis: EPA 8015M
Basis: dry Received: 03/06/25 Analyst: DIB

527290-001 Analyte	Result	RL	MDL	Units
TPH (C10-C14)	ND	18	6.3	mg/Kg
TPH (C14-C24)	ND	18	6.3	mg/Kg
ORO C28-C44	ND	36	6.3	mg/Kg
527290-001 Surrogate	%REC		Limits	
n-Triacontane	93		70-130	

Field ID: NPCPP-1C1-FD Moisture: 41% Prepared: 03/09/25
Type: SAMPLE DF: 0.9975 Analyzed: 03/12/25
Lab ID: 527290-002 Batch#: 365336 Prep: EPA 3580M
Matrix: Soil Sampled: 02/16/25 Analysis: EPA 8015M
Basis: dry Received: 03/06/25 Analyst: DIB

527290-002 Analyte	Result	RL	MDL	Units
TPH (C10-C14)	ND	17	6.0	mg/Kg
TPH (C14-C24)	ND	17	6.0	mg/Kg
ORO C28-C44	ND	34	6.0	mg/Kg
527290-002 Surrogate	%REC		Limits	
n-Triacontane	96		70-130	

Field ID: NPCPP-1C2X Moisture: 41% Prepared: 03/09/25
Type: SAMPLE DF: 0.9980 Analyzed: 03/12/25
Lab ID: 527290-003 Batch#: 365336 Prep: EPA 3580M
Matrix: Soil Sampled: 02/16/25 Analysis: EPA 8015M
Basis: dry Received: 03/06/25 Analyst: DIB

527290-003 Analyte	Result	RL	MDL	Units
TPH (C10-C14)	ND	17	6.0	mg/Kg
TPH (C14-C24)	ND	17	6.0	mg/Kg
ORO C28-C44	ND	34	6.0	mg/Kg
527290-003 Surrogate	%REC		Limits	
n-Triacontane	99		70-130	



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Extractable Carbon Chain

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-1CP1	Moisture: 45%	Prepared: 03/09/25	
Type: SAMPLE	DF: 0.9965	Analyzed: 03/12/25	
Lab ID: 527290-004	Batch#: 365336	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/16/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
527290-004 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.4 mg/Kg
TPH (C14-C24)		ND	18 6.4 mg/Kg
ORO C28-C44		ND	36 6.4 mg/Kg
527290-004 Surrogate		%REC	Limits
n-Triacontane		88	70-130
Field ID: NPCPP-1CP2		Moisture: 46%	Prepared: 03/09/25
Type: SAMPLE		DF: 0.9980	Analyzed: 03/12/25
Lab ID: 527290-005		Batch#: 365336	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/16/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: DIB
527290-005 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.5 mg/Kg
TPH (C14-C24)		ND	18 6.6 mg/Kg
ORO C28-C44		ND	37 6.6 mg/Kg
527290-005 Surrogate		%REC	Limits
n-Triacontane		93	70-130
Field ID: NPCPP-1CP3X		Moisture: 43%	Prepared: 03/09/25
Type: SAMPLE		DF: 0.9985	Analyzed: 03/12/25
Lab ID: 527290-006		Batch#: 365336	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/16/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: DIB
527290-006 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.2 mg/Kg
TPH (C14-C24)		ND	18 6.2 mg/Kg
ORO C28-C44		ND	35 6.2 mg/Kg
527290-006 Surrogate		%REC	Limits
n-Triacontane		92	70-130

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Extractable Carbon Chain

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-1D2	Moisture: 44%	Prepared: 03/09/25	
Type: SAMPLE	DF: 0.9950	Analyzed: 03/12/25	
Lab ID: 527290-007	Batch#: 365336	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/15/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
527290-007 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.3 mg/Kg
TPH (C14-C24)		ND	18 6.3 mg/Kg
ORO C28-C44		ND	36 6.3 mg/Kg
527290-007 Surrogate		%REC	Limits
n-Triacontane		89	70-130
Field ID: NPCPP-1E2		Moisture: 49%	Prepared: 03/09/25
Type: SAMPLE		DF: 0.9990	Analyzed: 03/12/25
Lab ID: 527290-008		Batch#: 365336	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/15/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: DIB
527290-008 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	20 7.0 mg/Kg
TPH (C14-C24)		ND	20 7.0 mg/Kg
ORO C28-C44		ND	39 7.0 mg/Kg
527290-008 Surrogate		%REC	Limits
n-Triacontane		91	70-130
Field ID: NPCPP-1F2		Moisture: 51%	Prepared: 03/09/25
Type: SAMPLE		DF: 1.000	Analyzed: 03/12/25
Lab ID: 527290-009		Batch#: 365336	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/15/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527290-009 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	20 7.2 mg/Kg
TPH (C14-C24)		ND	20 7.2 mg/Kg
ORO C28-C44		ND	41 7.2 mg/Kg
527290-009 Surrogate		%REC	Limits
n-Triacontane		93	70-130

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Extractable Carbon Chain

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-1G2	Moisture: 53%	Prepared: 03/09/25	
Type: SAMPLE	DF: 0.9995	Analyzed: 03/12/25	
Lab ID: 527290-010	Batch#: 365336	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/14/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527290-010 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	21 7.6 mg/Kg
TPH (C14-C24)		ND	21 7.6 mg/Kg
ORO C28-C44		ND	43 7.6 mg/Kg
527290-010 Surrogate		%REC	Limits
n-Triacontane		89	70-130
Field ID: NPCPP-2C1X		Moisture: 47%	Prepared: 03/09/25
Type: SAMPLE		DF: 0.9916	Analyzed: 03/12/25
Lab ID: 527290-011		Batch#: 365336	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/16/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527290-011 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 6.6 mg/Kg
TPH (C14-C24)		ND	19 6.6 mg/Kg
ORO C28-C44		ND	37 6.6 mg/Kg
527290-011 Surrogate		%REC	Limits
n-Triacontane		89	70-130
Field ID: NPCPP-2C2		Moisture: 45%	Prepared: 03/13/25
Type: SAMPLE		DF: 0.9995	Analyzed: 03/13/25
Lab ID: 527290-012		Batch#: 365724	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/16/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: DIB
527290-012 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.5 mg/Kg
TPH (C14-C24)		ND	18 6.5 mg/Kg
ORO C28-C44		ND	36 6.5 mg/Kg
527290-012 Surrogate		%REC	Limits
n-Triacontane		91	70-130

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Extractable Carbon Chain

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-2CP2	Moisture: 55%	Prepared: 03/09/25	
Type: SAMPLE	DF: 0.9960	Analyzed: 03/13/25	
Lab ID: 527290-013	Batch#: 365336	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/15/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527290-013 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	22 7.9 mg/Kg
TPH (C14-C24)		ND	22 7.9 mg/Kg
ORO C28-C44		ND	44 7.9 mg/Kg
527290-013 Surrogate		%REC	Limits
n-Triacontane		89	70-130
Field ID: NPCPP-2D2		Moisture: 49%	Prepared: 03/09/25
Type: SAMPLE		DF: 0.9975	Analyzed: 03/13/25
Lab ID: 527290-014		Batch#: 365336	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/15/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527290-014 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	20 6.9 mg/Kg
TPH (C14-C24)		ND	20 6.9 mg/Kg
ORO C28-C44		ND	39 6.9 mg/Kg
527290-014 Surrogate		%REC	Limits
n-Triacontane		84	70-130
Field ID: NPCPP-3C1		Moisture: 44%	Prepared: 03/09/25
Type: SAMPLE		DF: 0.9960	Analyzed: 03/13/25
Lab ID: 527290-015		Batch#: 365336	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/16/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527290-015 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.3 mg/Kg
TPH (C14-C24)		ND	18 6.3 mg/Kg
ORO C28-C44		ND	36 6.3 mg/Kg
527290-015 Surrogate		%REC	Limits
n-Triacontane		88	70-130

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Extractable Carbon Chain

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-3C2	Moisture: 39%	Prepared: 03/09/25	
Type: SAMPLE	DF: 0.9995	Analyzed: 03/13/25	
Lab ID: 527290-016	Batch#: 365336	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/15/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527290-016 Analyte		Result	MDL
TPH (C10-C14)	ND	16	5.8 mg/Kg
TPH (C14-C24)	ND	16	5.8 mg/Kg
ORO C28-C44	ND	33	5.8 mg/Kg
527290-016 Surrogate		%REC	Limits
n-Triacontane		91	70-130
Field ID: NPCPP-3C3X		Moisture: 42%	Prepared: 03/09/25
Type: SAMPLE		DF: 0.9930	Analyzed: 03/13/25
Lab ID: 527290-017		Batch#: 365336	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/15/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527290-017 Analyte		Result	MDL
TPH (C10-C14)	ND	17	6.1 mg/Kg
TPH (C14-C24)	ND	17	6.1 mg/Kg
ORO C28-C44	ND	34	6.1 mg/Kg
527290-017 Surrogate		%REC	Limits
n-Triacontane		89	70-130
Field ID: NPCPP-3C3X-FD		Moisture: 45%	Prepared: 03/09/25
Type: SAMPLE		DF: 0.9960	Analyzed: 03/13/25
Lab ID: 527290-018		Batch#: 365336	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/15/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527290-018 Analyte		Result	MDL
TPH (C10-C14)	ND	18	6.4 mg/Kg
TPH (C14-C24)	ND	18	6.4 mg/Kg
ORO C28-C44	ND	36	6.4 mg/Kg
527290-018 Surrogate		%REC	Limits
n-Triacontane		82	70-130

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Extractable Carbon Chain

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-3CP1	Moisture: 48%	Prepared: 03/09/25	
Type: SAMPLE	DF: 0.9930	Analyzed: 03/13/25	
Lab ID: 527290-019	Batch#: 365336	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/15/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527290-019 Analyte		Result	MDL
TPH (C10-C14)	ND	19	6.8 mg/Kg
TPH (C14-C24)	ND	19	6.8 mg/Kg
ORO C28-C44	ND	38	6.8 mg/Kg
527290-019 Surrogate		%REC	Limits
n-Triacontane		88	70-130
Field ID: NPCPP-3CP2		Moisture: 46%	Prepared: 03/09/25
Type: SAMPLE		DF: 0.9940	Analyzed: 03/13/25
Lab ID: 527290-020		Batch#: 365336	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/15/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527290-020 Analyte		Result	MDL
TPH (C10-C14)	ND	18	6.5 mg/Kg
TPH (C14-C24)	ND	18	6.5 mg/Kg
ORO C28-C44	ND	37	6.5 mg/Kg
527290-020 Surrogate		%REC	Limits
n-Triacontane		86	70-130
Type: BLANK		Batch#: 365336	Analysis: EPA 8015M
Lab ID: QC1237042		Prepared: 03/09/25	Analyst: DIB
Matrix: Soil		Analyzed: 03/12/25	
DF: 0.9916		Prep: EPA 3580M	
QC1237042 Analyte		Result	MDL
TPH (C10-C14)	ND	9.9	3.5 mg/Kg
TPH (C14-C24)	ND	9.9	3.5 mg/Kg
ORO C28-C44	ND	20	3.5 mg/Kg
QC1237042 Surrogate		%REC	Limits
n-Triacontane		107	70-130
Type: BLANK		Batch#: 365724	Analysis: EPA 8015M
Lab ID: QC1238300		Prepared: 03/12/25	Analyst: KMB
Matrix: Soil		Analyzed: 03/13/25	
DF: 1.001		Prep: EPA 3580M	
QC1238300 Analyte		Result	MDL
TPH (C10-C14)	ND	10	3.6 mg/Kg
TPH (C14-C24)	ND	10	3.6 mg/Kg
ORO C28-C44	ND	20	3.6 mg/Kg
QC1238300 Surrogate		%REC	Limits
n-Triacontane		94	70-130

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Extractable Carbon Chain

Lab #: 527290	Project#: COTL
Client: Tetra Tech, Inc.	Location: T779.27 - Gulf of Thailand
<div>Legend</div> <div>MDL: Method Detection Limit</div> <div>ND: Not Detected at or above MDL</div> <div>RL: Reporting Limit</div>	

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Extractable Carbon Chain: Batch QC

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Type: LCS	Batch#: 365336	Analysis: EPA 8015M	
Lab ID: QC1237043	Prepared: 03/09/25	Analyst: DIB	
Matrix: Soil	Analyzed: 03/12/25		
DF: 0.9980	Prep: EPA 3580M		
QC1237043 Analyte		Spiked	Result
Diesel C10-C28		249.5	231.2
QC1237043 Surrogate		%REC	Limits
n-Triacontane		98	70-130

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Extractable Carbon Chain: Batch QC

Lab #: 527290		Project#: COTL			
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand			
Field ID: NPCPP-1C1	Matrix: Soil	Batch#: 365336	Analized: 03/12/25		
Type: MS	Basis: dry	Sampled: 02/16/25	Prep: EPA 3580M		
MSS Lab ID: 527290-001	Moisture: 44%	Received: 03/06/25	Analysis: EPA 8015M		
Lab ID: QC1237044	DF: 0.9940	Prepared: 03/09/25	Analyst: DIB		
QC1237044 Analyte		MSS Result	Spiked	Result	%REC Limits Units
Diesel C10-C28		<6.337	443.8	401.1	90 62-126 mg/Kg
QC1237044 Surrogate					%REC Limits
n-Triacontane					101 70-130
Field ID: NPCPP-1C1	Matrix: Soil	Batch#: 365336	Analized: 03/12/25		
Type: MSD	Basis: dry	Sampled: 02/16/25	Prep: EPA 3580M		
MSS Lab ID: 527290-001	Moisture: 44%	Received: 03/06/25	Analysis: EPA 8015M		
Lab ID: QC1237045	DF: 0.9945	Prepared: 03/09/25	Analyst: DIB		
QC1237045 Analyte		Spiked	Result	%REC	Limits Units RPD Lim
Diesel C10-C28		444.0	407.3	92 62-126	mg/Kg 1 35
QC1237045 Surrogate				%REC	Limits
n-Triacontane					95 70-130
Legend					
RPD: Relative Percent Difference					

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Extractable Carbon Chain: Batch QC

Lab #: 5PEP-Q		Project#: COTL	
Client: Tetra Tech, Inc.		Location: TEE IPE1-Gulf of Thailand	
Type: LCS	Batch#: 365EPA	Analysis: 801M257	
Lab ID: 4 C2P3M6Q2	Prepared: 03/23/15	Analyst: 9 D	
Matrix: SBa	Analized: 03/23/15		
DF: 1.005	Prep: 8015M2		
QC1238301 Analyte		Spiked Result	%REC Limits Units
Diesel C10-C28		PA 1. PCB5	M6 E6-2PP mg/Kg
QC1238301 Surrogate		%REC Limits	
n-Triacontane		M6 E6-2PP mg/Kg	

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Extractable Carbon Chain: Batch QC

Lab #: 527290		Project#: COTL							
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand							
Field ID: ZZZZZZZZZZ		Basis: as received		Prepared: 03/12/25					
Type: MS		DF: 0.9916		Analized: 03/13/25					
MSS Lab ID: 528502-001		Batch#: 365724		Prep: EPA 3580M					
Lab ID: QC1238302		Sampled: 03/06/25		Analysis: EPA 8015M					
Matrix: Soil		Received: 03/11/25		Analyst: KMB					
QC1238302 Analyte		MSS Result	Spiked	Result	%REC	Limits	Units	Qual	
Diesel C10-C28		84.66	247.9	376.4	118	62-126	mg/Kg	b	
QC1238302 Surrogate						%REC	Limits		
n-Triacontane						80	70-130		
Field ID: ZZZZZZZZZZ		Basis: as received		Prepared: 03/12/25					
Type: MSD		DF: 0.9950		Analized: 03/13/25					
MSS Lab ID: 528502-001		Batch#: 365724		Prep: EPA 3580M					
Lab ID: QC1238303		Sampled: 03/06/25		Analysis: EPA 8015M					
Matrix: Soil		Received: 03/11/25		Analyst: KMB					
QC1238303 Analyte		Spiked	Result	%REC	Limits	Units	RPD	Lim	Qual
Diesel C10-C28		248.8	318.0	94	62-126	mg/Kg	17	35	b
QC1238303 Surrogate						%REC	Limits		
n-Triacontane						79	70-130		
Legend									
RPD: Relative Percent Difference									
b: See narrative									

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Moisture

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-1C1	Batch#: 365442	Analized: 03/11/25	
Lab ID: 527290-001	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-001 Analyte		Result	RL Units
Moisture, Percent		44	1 %
Field ID: NPCPP-1C1-FD	Batch#: 365442	Analized: 03/11/25	
Lab ID: 527290-002	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-002 Analyte		Result	RL Units
Moisture, Percent		41	1 %
Field ID: NPCPP-1C2X	Batch#: 365442	Analized: 03/11/25	
Lab ID: 527290-003	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-003 Analyte		Result	RL Units
Moisture, Percent		41	1 %
Field ID: NPCPP-1CP1	Batch#: 365442	Analized: 03/11/25	
Lab ID: 527290-004	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-004 Analyte		Result	RL Units
Moisture, Percent		45	1 %
Field ID: NPCPP-1CP2	Batch#: 365442	Analized: 03/11/25	
Lab ID: 527290-005	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-005 Analyte		Result	RL Units
Moisture, Percent		46	1 %
Field ID: NPCPP-1CP3X	Batch#: 365442	Analized: 03/11/25	
Lab ID: 527290-006	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-006 Analyte		Result	RL Units
Moisture, Percent		43	1 %

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Moisture

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-1D2	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-007	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-007 Analyte		Result	RL Units
Moisture, Percent		44	1 %
Field ID: NPCPP-1E2	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-008	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-008 Analyte		Result	RL Units
Moisture, Percent		49	1 %
Field ID: NPCPP-1F2	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-009	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-009 Analyte		Result	RL Units
Moisture, Percent		51	1 %
Field ID: NPCPP-1G2	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-010	Sampled: 02/14/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-010 Analyte		Result	RL Units
Moisture, Percent		53	1 %
Field ID: NPCPP-2C1X	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-011	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-011 Analyte		Result	RL Units
Moisture, Percent		47	1 %
Field ID: NPCPP-2C2	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-012	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-012 Analyte		Result	RL Units
Moisture, Percent		45	1 %

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Moisture

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-2CP2	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-013	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-013 Analyte		Result	RL Units
Moisture, Percent		55	1 %
Field ID: NPCPP-2D2	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-014	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-014 Analyte		Result	RL Units
Moisture, Percent		49	1 %
Field ID: NPCPP-3C1	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-015	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-015 Analyte		Result	RL Units
Moisture, Percent		44	1 %
Field ID: NPCPP-3C2	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-016	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-016 Analyte		Result	RL Units
Moisture, Percent		39	1 %
Field ID: NPCPP-3C3X	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-017	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-017 Analyte		Result	RL Units
Moisture, Percent		42	1 %
Field ID: NPCPP-3C3X-FD	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-018	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-018 Analyte		Result	RL Units
Moisture, Percent		45	1 %

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Moisture

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-3CP1	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-019	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-019 Analyte		Result	RL Units
Moisture, Percent		48	1 %
Field ID: NPCPP-3CP2	Batch#: 365442	Analyzed: 03/11/25	
Lab ID: 527290-020	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-020 Analyte		Result	RL Units
Moisture, Percent		46	1 %

Legend
RL: Reporting Limit

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Moisture: Batch QC

Lab #: 527290		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-1C1	DF: 1.000	Analyzed: 03/11/25	
Type: SDUP	Batch#: 365442	Prep: METHOD	
MSS Lab ID: 527290-001	Sampled: 02/16/25	Analysis: ASTM D2216	
Lab ID: QC1237417	Received: 03/06/25	Analyst: CDR	
Matrix: Soil	Prepared: 03/10/25		
QC1237417 Analyte		MSS Result	Result RL Units RPD Lim
Moisture, Percent		44.07	43.85 1.000 % 1 20

Legend
RL: Reporting Limit
RPD: Relative Percent Difference

1 of 1

25 of 25



Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92668
(714) 771-6900

enthalpy.com

Lab Job Number : 527291
Report Level : II
Report Date : 03/14/2025

Analytical Report prepared for:

Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549

Project: COTL - T779.27 - Gulf of Thailand

Authorized for release by:

Miguel Gamboa, Project Manager
miguel.gamboa@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105, ORELAP# 4197



Sample Summary

Ted Donn	Lab Job #:	527291
Tetra Tech, Inc.	Project No:	COTL
3697 Mt. Diablo Blvd.	Location:	T779.27 - Gulf of Thailand
Suite 150	Date Received:	03/06/25
Lafayette, CA 94549		

Sample ID	Lab ID	Collected	Matrix
NPCPP-3CP3X	527291-001	02/15/25 16:23	Soil
NPCPP-3D2	527291-002	02/16/25 09:50	Soil
NPCPP-3E2	527291-003	02/16/25 10:28	Soil
NPCPP-3F2X	527291-004	02/16/25 11:05	Soil
NPCPP-3G2	527291-005	02/16/25 13:04	Soil
NPCPP-4C2	527291-006	02/15/25 19:59	Soil
NPCPP-4CP2	527291-007	02/15/25 19:27	Soil
NPCPP-4D2	527291-008	02/15/25 18:54	Soil
NPREF-A	527291-009	02/12/25 21:54	Soil
NPREF-B	527291-010	02/12/25 22:27	Soil
NPREF-B-FD	527291-011	02/12/25 22:47	Soil
NPREF-C	527291-012	02/12/25 23:16	Soil
NPWB-1C2	527291-013	02/14/25 04:51	Soil
NPWB-1C2-FD	527291-014	02/14/25 05:13	Soil
NPWB-1CP2	527291-015	02/14/25 03:00	Soil
NPWB-1D2	527291-016	02/14/25 04:06	Soil
NPWB-2B3	527291-017	02/14/25 18:54	Soil
NPWB-2C2X	527291-018	02/14/25 05:33	Soil
NPWB-3B2	527291-019	02/14/25 18:29	Soil
NPWB-3C2	527291-020	02/14/25 20:22	Soil

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Case Narrative

Tetra Tech, Inc.	Lab Job Number: 527291
3697 Mt. Diablo Blvd.	Project No: COTL
Suite 150	Location: T779.27 - Gulf of Thailand
Lafayette, CA 94549	
Ted Donn	Date Received: 03/06/25

This data package contains sample and QC results for twenty soil samples, requested for the above referenced project on 03/06/25. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015M):
No analytical problems were encountered.

Moisture (ASTM D2216):
No analytical problems were encountered.

Ship To: Miguel Gamboa Enthalpy Analytical 931 West Barkley Ave Orange, CA 92668	CHAIN of CUSTODY 	Report to: Dr. Ted Donn Tetra Tech Inc. Lafayette, CA ted.donn@tetratech.com																																																																																																																																																																																																																																																																																																																																																																
General Notes: Please report all results to the MDL, J-flag results between MDL and RL. Report all sediment results as Dry Weight. Please report results and invoice separately for each Project ID. Please report results in pdf format with Excel EDD deliverable.																																																																																																																																																																																																																																																																																																																																																																		
<table><thead><tr><th>Project</th><th>Sample ID</th><th>Date</th><th>Time</th><th>Medium</th><th>Preserv</th><th>TPH</th><th>Dry Weight</th></tr></thead><tbody><tr><td>T779.27</td><td>NPCPP-1C1</td><td>2/16/2025</td><td>3:55</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-1C1-FD</td><td>2/16/2025</td><td>4:14</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-1C2X</td><td>2/16/2025</td><td>2:53</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-1CP1</td><td>2/16/2025</td><td>8:12</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-1CP2</td><td>2/16/2025</td><td>7:36</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-1CP3X</td><td>2/16/2025</td><td>5:55</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-1D2</td><td>2/15/2025</td><td>1:46</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-1E2</td><td>2/15/2025</td><td>1:05</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-1F2</td><td>2/15/2025</td><td>0:22</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-1G2</td><td>2/14/2025</td><td>22:53</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-2C1X</td><td>2/16/2025</td><td>4:54</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-2C2</td><td>2/16/2025</td><td>5:22</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-2CP2</td><td>2/15/2025</td><td>6:42</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-2D2</td><td>2/15/2025</td><td>6:22</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-3C1</td><td>2/16/2025</td><td>8:56</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-3C2</td><td>2/15/2025</td><td>22:58</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-3C3X</td><td>2/15/2025</td><td>20:36</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-3C3X-FD</td><td>2/15/2025</td><td>20:54</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-3CP1</td><td>2/15/2025</td><td>17:61</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-3CP2</td><td>2/15/2025</td><td>11:07</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-3CP3X</td><td>2/15/2025</td><td>16:23</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-3D2</td><td>2/16/2025</td><td>9:50</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-3E2</td><td>2/16/2025</td><td>10:28</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-3F2X</td><td>2/16/2025</td><td>11:05</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-3G2</td><td>2/16/2025</td><td>13:04</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-4C2</td><td>2/15/2025</td><td>19:59</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-4CP2</td><td>2/15/2025</td><td>19:27</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPCPP-4D2</td><td>2/15/2025</td><td>18:54</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPREF-A</td><td>2/12/2025</td><td>21:54</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPREF-B</td><td>2/12/2025</td><td>22:27</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPREF-B-FD</td><td>2/12/2025</td><td>22:47</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPREF-C</td><td>2/12/2025</td><td>23:16</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPWB-1C2</td><td>2/14/2025</td><td>4:51</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPWB-1C2-FD</td><td>2/14/2025</td><td>5:13</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPWB-1CP2</td><td>2/14/2025</td><td>3:00</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPWB-1D2</td><td>2/14/2025</td><td>4:06</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPWB-2B3</td><td>2/14/2025</td><td>18:54</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPWB-2C2X</td><td>2/14/2025</td><td>5:33</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPWB-3B2</td><td>2/14/2025</td><td>18:29</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPWB-3CP2</td><td>2/14/2025</td><td>20:22</td><td>SED</td><td>Frozen</td><td>1</td><td>1</td></tr><tr><td>T779.27</td><td>NPWB-3D2</td><td>2/14/2025</td><td>21:34</td><td>SED</td><td>Frozen</td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<p>Relinquished by: 26 FEB 2025 Received by: 26 FEB 2025</p>			Project	Sample ID	Date	Time	Medium	Preserv	TPH	Dry 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SAMPLE RECEIPT CHECKLIST

Section 1: General Info
 Date Received: 5/8/25 WO# 52727 Client: Tetra Tech Limited

Section 2: Shipping / Custody
 Custody seals intact on arrival? ☐ N/A ☐ Yes ☐ No ☐ On cooler / box ☐ On samples
☐ Cooler ☐ Walk-In ☐ Field Sampling ☒ Shipping Info: PROEs

Section 3a: Condition / Packaging
 Date Opened: 5/8/25 By (Initials): OCK Outside 0.0 - 6.0°C (0.0 - 10.0°C for microbiology) (PM notified)
 Type of ice used: ☐ Wet ☐ Blue/Gel ☐ None
☐ Samples received on ice directly from the field; cooling process had begun. (If checked, skip temperatures)
☐ Sample matrix doesn't require cooling (e.g. air, bulk PCB). (If checked, skip temperatures)
 If no cooler: Observed/Adjusted Temp (°C) / Thermometer/IR Gun: IR11 CF: +0.1
 Cooler Temp (°C) #1: -8.1 / -8.0 #2: -7.8 / -7.7 #3: -0.1 / 0 #4: / #5: / #6: /

Section 3b: Microbiology Samples
☐ Within temp range 0.0 - 10.0°C or received on ice directly from field.
☐ Adequate headspace for microbiology analysis. ☐ No microbiology samples submitted (skip 3b)

Section 3c: Air Samples
☐ No air samples submitted (skip 3c)
☐ 1-L Canisters ☐ 6-L Canisters ☐ Tedlar Bags ☐ MCE Cassettes ☐ Sorbent Tubers ☐ Other

Section 4: Containers / Labels / Samples

	YES	NO	N/A
1) Were custody papers present, filled properly, and legible?	x		
2) Is the sampler's name present on the CoC?	x		
3) Were containers received in good condition (unbroken / unopened / uncompromised)?	x		
4) Were the samples bagged? (required for microbiology samples; recommended for soil samples)	x		
5) Were all of, and only, the correct samples received?	x		
6) Are sample labels present, legible, and in agreement with the CoC?	x		
7) Does the container count match the CoC?	x		
8) Was sufficient sample volume / mass received for the analyses requested?	x		
9) Were samples received in proper containers for the analyses requested?	x		
10) Were samples received with > 1/2 holding time remaining?	x		
11) Are samples properly preserved as indicated by CoC / labels?	x		
12) Unpreserved VOAs received - If necessary, was the hold time changed in LIMS?		x	
13) Are VOA vials free from headspace/bubbles > 6mm?		x	

Section 5: Explanations / Comments
 (If no comments are made, then no discrepancies noted)
 3a) cooling media is dry ice

☐ No additional discrepancies

Date Logged 2/24/25 By (print) Ben Kelly (sign)
 Date Labeled 3/6/25 By (print) Orange (sign)

Integrity Analyst

1-0006 Rev 7/ Form Version 18-5-030421

ORIGIN: DCCOM (800) 854-9771
 BARBARA MAGDOON
 TETRA TECH, INC.
 931 W. BARKLEY AVE
 LAFAYETTE, CA 94504
 UNITED STATES

SHIP DATE: 03/05/2025
 ACTIVITY: 43.01.0
 CAC: 20010020250305
 CAC: 20010020250305
 CAC: 20010020250305
 CAC: 20010020250305

TO: SAMPLE CONTROL
 ENTHALPY ANALYTICAL
 931 W. BARKLEY AVE.
 ORANGE CA 92868
 TEL: 714-980-1100 REF: TSD-1437932104

3 of 4 WED - 05 MAR 10:30A
 7723 4802 8324 PRIORITY OVERNIGHT
 7723 4802 8302 ICE
 92 APVA 92868
 CA-US SNA

-8-1
 -8-0
 IR11

5 of 22

6 of 22

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 ORANGE CA 92868
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2 of 4 WED - 05 MAR 10:30A
 7723 4802 8313 PRIORITY OVERNIGHT
 7723 4802 8302 ICE
 92 APVA 92868
 CA-US SNA

-8-1
 -8-0
 IR11

7 of 22

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 CA-US SNA

-8-1
 -8-0
 IR11

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Extractable Carbon Chain

Lab #: 527291		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-3CP3X	Moisture: 49%	Prepared: 03/10/25	
Type: SAMPLE	DF: 0.9950	Analyzed: 03/13/25	
Lab ID: 527291-001	Batch#: 365470	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/15/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527291-001 Analyte		Result	MDL Units
TPH (C10-C14)		ND 20	7.3 mg/Kg
TPH (C14-C24)		ND 20	7.3 mg/Kg
ORO C28-C44		ND 39	7.3 mg/Kg
527291-001 Surrogate		%REC	Limits
n-Triacontane		77	70-130
Field ID: NPCPP-3D2		Moisture: 56%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9906	Analyzed: 03/13/25
Lab ID: 527291-002		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/16/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527291-002 Analyte		Result	MDL Units
TPH (C10-C14)		ND 23	8.4 mg/Kg
TPH (C14-C24)		ND 23	8.4 mg/Kg
ORO C28-C44		ND 45	8.4 mg/Kg
527291-002 Surrogate		%REC	Limits
n-Triacontane		78	70-130
Field ID: NPCPP-3E2		Moisture: 48%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9906	Analyzed: 03/13/25
Lab ID: 527291-003		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/16/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527291-003 Analyte		Result	MDL Units
TPH (C10-C14)		ND 19	7.1 mg/Kg
TPH (C14-C24)		ND 19	7.1 mg/Kg
ORO C28-C44		ND 38	7.1 mg/Kg
527291-003 Surrogate		%REC	Limits
n-Triacontane		77	70-130

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Extractable Carbon Chain

Lab #: 527291		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-3F2X	Moisture: 53%	Prepared: 03/10/25	
Type: SAMPLE	DF: 0.9950	Analyzed: 03/13/25	
Lab ID: 527291-004	Batch#: 365470	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/16/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527291-004 Analyte		Result	MDL Units
TPH (C10-C14)		ND 21	7.9 mg/Kg
TPH (C14-C24)		ND 21	7.9 mg/Kg
ORO C28-C44		ND 42	7.9 mg/Kg
527291-004 Surrogate		%REC	Limits
n-Triacontane		76	70-130
Field ID: NPCPP-3G2		Moisture: 48%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9995	Analyzed: 03/13/25
Lab ID: 527291-005		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/16/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527291-005 Analyte		Result	MDL Units
TPH (C10-C14)		ND 19	7.2 mg/Kg
TPH (C14-C24)		ND 19	7.2 mg/Kg
ORO C28-C44		ND 38	7.2 mg/Kg
527291-005 Surrogate		%REC	Limits
n-Triacontane		78	70-130
Field ID: NPCPP-4C2		Moisture: 44%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9926	Analyzed: 03/13/25
Lab ID: 527291-006		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/15/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527291-006 Analyte		Result	MDL Units
TPH (C10-C14)		ND 18	6.6 mg/Kg
TPH (C14-C24)		ND 18	6.6 mg/Kg
ORO C28-C44		ND 35	6.6 mg/Kg
527291-006 Surrogate		%REC	Limits
n-Triacontane		77	70-130

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Extractable Carbon Chain

Lab #: 527291		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-4CP2	Moisture: 45%	Prepared: 03/10/25	
Type: SAMPLE	DF: 0.9921	Analyzed: 03/13/25	
Lab ID: 527291-007	Batch#: 365470	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/15/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527291-007 Analyte		Result	MDL Units
TPH (C10-C14)		ND 18	6.7 mg/Kg
TPH (C14-C24)		ND 18	6.7 mg/Kg
ORO C28-C44		ND 36	6.7 mg/Kg
527291-007 Surrogate		%REC	Limits
n-Triacontane		75	70-130
Field ID: NPCPP-4D2		Moisture: 50%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9985	Analyzed: 03/13/25
Lab ID: 527291-008		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/15/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527291-008 Analyte		Result	MDL Units
TPH (C10-C14)		ND 20	7.4 mg/Kg
TPH (C14-C24)		ND 20	7.4 mg/Kg
ORO C28-C44		ND 40	7.4 mg/Kg
527291-008 Surrogate		%REC	Limits
n-Triacontane		74	70-130
Field ID: NPREF-A		Moisture: 52%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9921	Analyzed: 03/13/25
Lab ID: 527291-009		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/12/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527291-009 Analyte		Result	MDL Units
TPH (C10-C14)		ND 21	7.7 mg/Kg
TPH (C14-C24)		ND 21	7.7 mg/Kg
ORO C28-C44		ND 41	7.7 mg/Kg
527291-009 Surrogate		%REC	Limits
n-Triacontane		79	70-130

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Extractable Carbon Chain

Lab #: 527291		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPREF-B	Moisture: 52%	Prepared: 03/10/25	
Type: SAMPLE	DF: 0.9945	Analyzed: 03/13/25	
Lab ID: 527291-010	Batch#: 365470	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/12/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527291-010 Analyte		Result	MDL Units
TPH (C10-C14)		ND 21	7.7 mg/Kg
TPH (C14-C24)		ND 21	7.7 mg/Kg
ORO C28-C44		ND 41	7.7 mg/Kg
527291-010 Surrogate		%REC	Limits
n-Triacontane		75	70-130
Field ID: NPREF-B-FD		Moisture: 53%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9935	Analyzed: 03/13/25
Lab ID: 527291-011		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/12/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527291-011 Analyte		Result	MDL Units
TPH (C10-C14)		ND 21	7.9 mg/Kg
TPH (C14-C24)		ND 21	7.9 mg/Kg
ORO C28-C44		ND 42	7.9 mg/Kg
527291-011 Surrogate		%REC	Limits
n-Triacontane		70	70-130
Field ID: NPREF-C		Moisture: 52%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9950	Analyzed: 03/13/25
Lab ID: 527291-012		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/12/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527291-012 Analyte		Result	MDL Units
TPH (C10-C14)		ND 21	7.7 mg/Kg
TPH (C14-C24)		ND 21	7.7 mg/Kg
ORO C28-C44		ND 41	7.7 mg/Kg
527291-012 Surrogate		%REC	Limits
n-Triacontane		71	70-130

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Extractable Carbon Chain

Lab #: 527291		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWB-1C2	Moisture: 53%	Prepared: 03/10/25	
Type: SAMPLE	DF: 0.9970	Analyzed: 03/13/25	
Lab ID: 527291-013	Batch#: 365470	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/14/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527291-013 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	21 7.9 mg/Kg
TPH (C14-C24)		8.2 J	21 7.9 mg/Kg
ORO C28-C44		ND	42 7.9 mg/Kg
527291-013 Surrogate		%REC	Limits
n-Triacontane		71	70-130
Field ID: NPWB-1C2-FD		Moisture: 51%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9980	Analyzed: 03/13/25
Lab ID: 527291-014		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/14/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: DIB
527291-014 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	20 7.2 mg/Kg
TPH (C14-C24)		9.8 J	20 7.2 mg/Kg
ORO C28-C44		ND	41 7.2 mg/Kg
527291-014 Surrogate		%REC	Limits
n-Triacontane		91	70-130
Field ID: NPWB-1CP2		Moisture: 52%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9935	Analyzed: 03/13/25
Lab ID: 527291-015		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/14/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527291-015 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	21 7.7 mg/Kg
TPH (C14-C24)		ND	21 7.7 mg/Kg
ORO C28-C44		ND	41 7.7 mg/Kg
527291-015 Surrogate		%REC	Limits
n-Triacontane		71	70-130

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Extractable Carbon Chain

Lab #: 527291		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWB-1D2	Moisture: 52%	Prepared: 03/10/25	
Type: SAMPLE	DF: 0.9916	Analyzed: 03/13/25	
Lab ID: 527291-016	Batch#: 365470	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/14/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
527291-016 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	21 7.7 mg/Kg
TPH (C14-C24)		ND	21 7.7 mg/Kg
ORO C28-C44		ND	41 7.7 mg/Kg
527291-016 Surrogate		%REC	Limits
n-Triacontane		88	70-130
Field ID: NPWB-2B3		Moisture: 45%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9945	Analyzed: 03/13/25
Lab ID: 527291-017		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/14/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: DIB
527291-017 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.7 mg/Kg
TPH (C14-C24)		ND	18 6.7 mg/Kg
ORO C28-C44		ND	36 6.7 mg/Kg
527291-017 Surrogate		%REC	Limits
n-Triacontane		108	70-130
Field ID: NPWB-2C2X		Moisture: 50%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9965	Analyzed: 03/13/25
Lab ID: 527291-018		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/14/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: DIB
527291-018 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	20 7.4 mg/Kg
TPH (C14-C24)		ND	20 7.4 mg/Kg
ORO C28-C44		ND	40 7.4 mg/Kg
527291-018 Surrogate		%REC	Limits
n-Triacontane		94	70-130

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Extractable Carbon Chain

Lab #: 527291		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWB-3B2	Moisture: 49%	Prepared: 03/10/25	
Type: SAMPLE	DF: 0.9985	Analyzed: 03/13/25	
Lab ID: 527291-019	Batch#: 365470	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/14/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
527291-019 Analyte		Result	RL MDL Units
TPH (C10-C14)		11 J	20 7.3 mg/Kg
TPH (C14-C24)		48	20 7.3 mg/Kg
ORO C28-C44		9.4 J	39 7.3 mg/Kg
527291-019 Surrogate		%REC	Limits
n-Triacontane		108	70-130
Field ID: NPWB-3C2		Moisture: 50%	Prepared: 03/10/25
Type: SAMPLE		DF: 0.9975	Analyzed: 03/13/25
Lab ID: 527291-020		Batch#: 365470	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/14/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: DIB
527291-020 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	20 7.4 mg/Kg
TPH (C14-C24)		ND	20 7.4 mg/Kg
ORO C28-C44		ND	40 7.4 mg/Kg
527291-020 Surrogate		%REC	Limits
n-Triacontane		101	70-130
Type: BLANK		Batch#: 365470	Analysis: EPA 8015M
Lab ID: QC1237480		Prepared: 03/10/25	Analyst: KMB
Matrix: Soil		Analized: 03/12/25	
DF: 1.001		Prep: EPA 3580M	
QC1237480 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	10 3.7 mg/Kg
TPH (C14-C24)		ND	10 3.7 mg/Kg
ORO C28-C44		ND	20 3.7 mg/Kg
QC1237480 Surrogate		%REC	Limits
n-Triacontane		79	70-130

Legend
J: Estimated value
MDL: Method Detection Limit
ND: Not Detected at or above MDL
RL: Reporting Limit

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Extractable Carbon Chain: Batch QC

Lab #: 54P4/ Q		Project#: Ct nL	
Client: necr' heaQt1,Kal		Location: nPP/ l4P1-IGuif B'f'nQ dr Kd	
Type: LCS	Batch#: 365EPA	Analysis: 801MCE2	
Lab ID: 7 CQ43PEP/	Prepared: A3QDA965	Analyst: D2 I	
Matrix: SBa	Analized: A3QD3965		
DF: A/ / / 5	Prep: 80 B5M2		
QC1237479 Analyte		Spiked	Result %REC Limits Units
. asei COA-C4M		4E/ l/	Q/ 13 MA P6-C44 mg/dg
QC1237479 Surrogate		%REC	Limits
K'n'6 aB'Gz Ke		MA	PA-CBA

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Extractable Carbon Chain: Batch QC

Lab #: 527291		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-3CP3X	Matrix: Soil	Batch#: 365470	Analyzed: 03/13/25
Type: MS	Basis: dry	Sampled: 02/15/25	Prep: EPA 3580M
MSS Lab ID: 527291-001	Moisture: 49%	Received: 03/06/25	Analysis: EPA 8015M
Lab ID: QC1237481	DF: 0.9965	Prepared: 03/10/25	Analyst: KMB
QC1237481 Analyte		Spiked	Result
Diesel C10-C28		<7.264	488.5
QC1237481 Surrogate		%REC	Limits
n-Triacontane		79	70-130
Field ID: NPCPP-3CP3X	Matrix: Soil	Batch#: 365470	Analyzed: 03/13/25
Type: MSD	Basis: dry	Sampled: 02/15/25	Prep: EPA 3580M
MSS Lab ID: 527291-001	Moisture: 49%	Received: 03/06/25	Analysis: EPA 8015M
Lab ID: QC1237482	DF: 0.9965	Prepared: 03/10/25	Analyst: KMB
QC1237482 Analyte		Spiked	Result
Diesel C10-C28		488.5	378.5
QC1237482 Surrogate		%REC	Limits
n-Triacontane		76	70-130

Legend
RPD: Relative Percent Difference

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Moisture

Lab #: 527291		Pro@ct#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-3CP3X	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-001	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-110 Analyte		Result	RL
Moisture, Percent		49	1 %
Field ID: NPCPP-3D2	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-002	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-112 Analyte		Result	RL
Moisture, Percent		53	1 %
Field ID: NPCPP-3E2	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-003	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-116 Analyte		Result	RL
Moisture, Percent		4j	1 %
Field ID: NPCPP-3F2X	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-004	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-114 Analyte		Result	RL
Moisture, Percent		56	1 %
Field ID: NPCPP-3G2	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-005	Sampled: 02/16/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-115 Analyte		Result	RL
Moisture, Percent		4j	1 %
Field ID: NPCPP-4C2	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-006	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-113 Analyte		Result	RL
Moisture, Percent		44	1 %

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Moisture

Lab #: 527291		Pro@ct#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-4CP2	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-007	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-117 Analyte		Result	RL
Moisture, Percent		45	1 %
Field ID: NPCPP-4D2	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-008	Sampled: 02/15/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-11j Analyte		Result	RL
Moisture, Percent		51	1 %
Field ID: NPREF-A	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-009	Sampled: 02/12/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-119 Analyte		Result	RL
Moisture, Percent		52	1 %
Field ID: NPREF-B	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-010	Sampled: 02/12/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-10i Analyte		Result	RL
Moisture, Percent		52	1 %
Field ID: NPREF-B-FD	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-011	Sampled: 02/12/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-100 Analyte		Result	RL
Moisture, Percent		56	1 %
Field ID: NPREF-C	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-012	Sampled: 02/12/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-102 Analyte		Result	RL
Moisture, Percent		52	1 %

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Moisture

Lab #: 527291		Pro@ct#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWB-1C2	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-013	Sampled: 02/14/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-106 Analyte		Result	RL
Moisture, Percent		56	1 %
Field ID: NPWB-1C2-FD	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-014	Sampled: 02/14/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-104 Analyte		Result	RL
Moisture, Percent		50	1 %
Field ID: NPWB-1CP2	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-015	Sampled: 02/14/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-105 Analyte		Result	RL
Moisture, Percent		52	1 %
Field ID: NPWB-1D2	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-016	Sampled: 02/14/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-103 Analyte		Result	RL
Moisture, Percent		52	1 %
Field ID: NPWB-2B3	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-017	Sampled: 02/14/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-107 Analyte		Result	RL
Moisture, Percent		45	1 %
Field ID: NPWB-2C2X	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-018	Sampled: 02/14/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-10j Analyte		Result	RL
Moisture, Percent		51	1 %

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Moisture

Lab #: 527291		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWB-3B2	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-019	Sampled: 02/14/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-109 Analyte		Result	RL Units
Moisture, Percent		49	1 %
Field ID: NPWB-3C2	Batch#: 365457	Analyzed: 03/11/25	
Lab ID: 527291-020	Sampled: 02/14/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/10/25	Analyst: CDR	
527290-121 Analyte		Result	RL Units
Moisture, Percent		51	1 %

Legend
RL: Reporting Limit

Moisture: Batch QC

Lab #: 527291		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPCPP-3CP3X	DF: 1.000	Analyzed: 03/11/25	
Type: SDUP	Batch#: 365457	Prep: METHOD	
MSS Lab ID: 527291-001	Sampled: 02/15/25	Analysis: ASTM D2216	
Lab ID: QC1237440	Received: 03/06/25	Analyst: CDR	
Matrix: Soil	Prepared: 03/10/25		
QC1237440 Analyte		MSS Result	Result RL Units RPD Lim
Moisture, Percent		48.66	45.82 1.000 % 6 20

Legend
RL: Reporting Limit
RPD: Relative Percent Difference

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Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com


Lab Job Number : 527292
Report Level : II
Report Date : 03/20/2025

Analytical Report prepared for:

Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549

Project: COTL - T779.27 - Gulf of Thailand

Authorized for release by:


Miguel Gamboa, Project Manager
miguel.gamboa@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105, ORELAP# 4197



Sample Summary

Ted Donn	Lab Job #:	527292
Tetra Tech, Inc.	Project No:	COTL
3697 Mt. Diablo Blvd.	Location:	T779.27 - Gulf of Thailand
Suite 150	Date Received:	03/06/25
Lafayette, CA 94549		

Sample ID	Lab ID	Collected	Matrix
NPWB-3CP2	527292-001	02/14/25 21:24	Soil
NPWB-3D2	527292-002	02/14/25 21:55	Soil
NPWB-4B3X	527292-003	02/14/25 19:19	Soil
NPWB-4C2	527292-004	02/14/25 19:52	Soil
NPWG-1B2X	527292-005	02/17/25 10:17	Soil
NPWG-1B2X-FD	527292-006	02/17/25 10:42	Soil
NPWG-1C2	527292-007	02/17/25 05:05	Soil
NPWG-1CP2	527292-008	02/17/25 03:37	Soil
NPWG-1D2	527292-009	02/17/25 04:14	Soil
NPWG-2B2X	527292-010	02/16/25 22:45	Soil
NPWG-2C2	527292-011	02/16/25 22:06	Soil
NPWG-3B2X	527292-012	02/17/25 15:36	Soil
NPWG-3C2	527292-013	02/17/25 14:17	Soil
NPWG-3CP2	527292-014	02/16/25 16:47	Soil
NPWG-3D2	527292-015	02/16/25 17:16	Soil
NPWG-4B2X	527292-016	02/17/25 16:05	Soil
NPWG-4C2	527292-017	02/17/25 16:50	Soil
PACPP-1C1	527292-018	02/19/25 00:48	Soil
PACPP-1C2X	527292-019	02/17/25 22:46	Soil
PACPP-1C3X	527292-020	02/19/25 01:32	Soil

Case Narrative

Tetra Tech, Inc. Lab Job Number: 527292
3697 Mt. Diablo Blvd. Project No: COTL
Suite 150 Location: T779.27 - Gulf of
Lafayette, CA 94549 Thailand
Ted Donn Date Received: 03/06/25

This data package contains sample and QC results for twenty soil samples, requested for the above referenced project on 03/06/25. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015M):
No analytical problems were encountered.

Moisture (ASTM D2216):
No analytical problems were encountered.

Ship To:
Miguel Gamboa
Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92668

CHAIN of CUSTODY



Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

General Notes:

Please report all results to the MDL, J-flag results between MDL and RL.
Report all sediment results as Dry Weight
Please report results and invoice separately for each Project ID
Please report results in pdf format with Excel EOD deliverable

Project	Sample ID	Date	Time	Medium	Preserve	TPH	Dry Weight
T779.27	NPCPP-1C1	2/16/2025	3:55	SED	Frozen	1	1
T779.27	NPCPP-1C1-FD	2/16/2025	4:14	SED	Frozen	1	1
T779.27	NPCPP-1C2X	2/16/2025	2:53	SED	Frozen	1	1
T779.27	NPCPP-1CP1	2/16/2025	8:12	SED	Frozen	1	1
T779.27	NPCPP-1CP2	2/16/2025	7:39	SED	Frozen	1	1
T779.27	NPCPP-1CP3X	2/16/2025	5:55	SED	Frozen	1	1
T779.27	NPCPP-1D2	2/16/2025	1:46	SED	Frozen	1	1
T779.27	NPCPP-1E2	2/16/2025	1:05	SED	Frozen	1	1
T779.27	NPCPP-1F2	2/16/2025	0:22	SED	Frozen	1	1
T779.27	NPCPP-1G2	2/16/2025	22:53	SED	Frozen	1	1
T779.27	NPCPP-2C1X	2/16/2025	4:54	SED	Frozen	1	1
T779.27	NPCPP-2C2	2/16/2025	5:22	SED	Frozen	1	1
T779.27	NPCPP-2CP2	2/16/2025	5:42	SED	Frozen	1	1
T779.27	NPCPP-2D2	2/16/2025	6:22	SED	Frozen	1	1
T779.27	NPCPP-3C1	2/16/2025	9:56	SED	Frozen	1	1
T779.27	NPCPP-3C2	2/16/2025	22:58	SED	Frozen	1	1
T779.27	NPCPP-3C3X	2/16/2025	20:38	SED	Frozen	1	1
T779.27	NPCPP-3C3X-FD	2/16/2025	20:54	SED	Frozen	1	1
T779.27	NPCPP-3CP1	2/16/2025	17:01	SED	Frozen	1	1
T779.27	NPCPP-3CP2	2/16/2025	11:07	SED	Frozen	1	1
T779.27	NPCPP-3CP3X	2/16/2025	16:23	SED	Frozen	1	1
T779.27	NPCPP-3D2	2/16/2025	9:50	SED	Frozen	1	1
T779.27	NPCPP-3E2	2/16/2025	10:28	SED	Frozen	1	1
T779.27	NPCPP-3F2X	2/16/2025	11:05	SED	Frozen	1	1
T779.27	NPCPP-3G2	2/16/2025	13:04	SED	Frozen	1	1
T779.27	NPCPP-4C2	2/16/2025	19:59	SED	Frozen	1	1
T779.27	NPCPP-4CP2	2/16/2025	19:27	SED	Frozen	1	1
T779.27	NPCPP-4D2	2/16/2025	18:54	SED	Frozen	1	1
T779.27	NPCPP-4E2	2/16/2025	21:54	SED	Frozen	1	1
T779.27	NPREF-A	2/12/2025	22:37	SED	Frozen	1	1
T779.27	NPREF-B	2/12/2025	22:47	SED	Frozen	1	1
T779.27	NPREF-B-FD	2/12/2025	23:16	SED	Frozen	1	1
T779.27	NPREF-C	2/12/2025	4:51	SED	Frozen	1	1
T779.27	NPWB-1C2	2/14/2025	5:13	SED	Frozen	1	1
T779.27	NPWB-1C2-FD	2/14/2025	3:00	SED	Frozen	1	1
T779.27	NPWB-1CP2	2/14/2025	4:06	SED	Frozen	1	1
T779.27	NPWB-2B3	2/14/2025	18:54	SED	Frozen	1	1
T779.27	NPWB-2C2X	2/14/2025	5:33	SED	Frozen	1	1
T779.27	NPWB-3B2	2/14/2025	18:29	SED	Frozen	1	1
T779.27	NPWB-3C3	2/14/2025	20:22	SED	Frozen	1	1
T779.27	NPWB-3CP2	2/14/2025	21:24	SED	Frozen	1	1
T779.27	NPWB-3G2	2/14/2025	21:56	SED	Frozen	1	1
T779.27	NPWB-4B3X	2/14/2025	19:19	SED	Frozen	1	1

Relinquished by:

Relinquished by:

Received by:

Received by:

3 of 22

4 of 22

Ship To:
Miguel Gamboa
Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92668

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	TPH	Dry Weight
T779.27	NPWB-4C2	2/14/2025	19:52	SED	Frozen	1	1
T779.27	NPWB-1B2X	2/17/2025	10:17	SED	Frozen	1	1
T779.27	NPWB-1B2X-FD	2/17/2025	10:42	SED	Frozen	1	1
T779.27	NPWB-1C2	2/17/2025	5:05	SED	Frozen	1	1
T779.27	NPWB-1CP2	2/17/2025	3:37	SED	Frozen	1	1
T779.27	NPWB-1D2	2/17/2025	4:14	SED	Frozen	1	1
T779.27	NPWB-2D2X	2/16/2025	22:45	SED	Frozen	1	1
T779.27	NPWB-2C2	2/16/2025	22:04	SED	Frozen	1	1
T779.27	NPWB-3B2X	2/17/2025	15:38	SED	Frozen	1	1
T779.27	NPWB-3C2	2/17/2025	14:17	SED	Frozen	1	1
T779.27	NPWB-3CP2	2/18/2025	16:47	SED	Frozen	1	1
T779.27	NPWB-3D2	2/16/2025	17:16	SED	Frozen	1	1
T779.27	NPWB-4B2X	2/17/2025	16:05	SED	Frozen	1	1
T779.27	NPWB-4C2	2/17/2025	16:50	SED	Frozen	1	1
T779.27	PACPP-1C1	2/19/2025	0:48	SED	Frozen	1	1
T779.27	PACPP-1C2X	2/17/2025	22:46	SED	Frozen	1	1
T779.27	PACPP-1C3X	2/19/2025	1:32	SED	Frozen	1	1
T779.27	PACPP-1CP1	2/16/2025	10:41	SED	Frozen	1	1
T779.27	PACPP-1CP2X	2/17/2025	23:19	SED	Frozen	1	1
T779.27	PACPP-1CP3	2/18/2025	11:23	SED	Frozen	1	1
T779.27	PACPP-1D2	2/18/2025	21:28	SED	Frozen	1	1
T779.27	PACPP-1E2	2/18/2025	20:52	SED	Frozen	1	1
T779.27	PACPP-1F2	2/18/2025	20:16	SED	Frozen	1	1
T779.27	PACPP-1G2	2/18/2025	19:39	SED	Frozen	1	1
T779.27	PACPP-2C2	2/18/2025	2:15	SED	Frozen	1	1
T779.27	PACPP-2CP2	2/18/2025	23:14	SED	Frozen	1	1
T779.27	PACPP-2D2	2/18/2025	22:32	SED	Frozen	1	1
T779.27	PACPP-3C1	2/18/2025	10:36	SED	Frozen	1	1
T779.27	PACPP-3C2Y	2/18/2025	9:49	SED	Frozen	1	1
T779.27	PACPP-3C3X	2/18/2025	9:15	SED	Frozen	1	1
T779.27	PACPP-3CP1X	2/19/2025	3:00	SED	Frozen	1	1
T779.27	PACPP-3CP2	2/18/2025	4:59	SED	Frozen	1	1
T779.27	PACPP-3CP3	2/18/2025	4:44	SED	Frozen	1	1
T779.27	PACPP-4D2X	2/19/2025	5:27	SED	Frozen	1	1
T779.27	PACPP-3E2X	2/19/2025	11:22	SED	Frozen	1	1
T779.27	PACPP-3F2X	2/19/2025	12:48	SED	Frozen	1	1
T779.27	PACPP-3G2	2/19/2025	13:35	SED	Frozen	1	1
T779.27	PACPP-4C2X	2/18/2025	3:59	SED	Frozen	1	1
T779.27	PACPP-4C2X-FD	2/18/2025	4:22	SED	Frozen	1	1
T779.27	PACPP-4CP2X	2/18/2025	4:56	SED	Frozen	1	1
T779.27	PACPP-4D2X	2/18/2025	8:49	SED	Frozen	1	1
T779.27	PARER-A	2/13/2025	19:06	SED	Frozen	1	1
T779.27	PARER-B	2/13/2025	19:38	SED	Frozen	1	1
T779.27	PARER-C	2/13/2025	19:59	SED	Frozen	1	1
T779.27	PAWB-1C2	2/20/2025	23:07	SED	Frozen	1	1
T779.27	PAWB-1CP2	2/20/2025	22:25	SED	Frozen	1	1
T779.27	PAWB-1D2	2/20/2025	21:40	SED	Frozen	1	1
T779.27	PAWB-1B1X	2/21/2025	16:23	SED	Frozen	1	1

Relinquished by:

Relinquished by:

Received by:

Received by:

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SAMPLE RECEIPT CHECKLIST

Section 1: General Info
Date Received: 5/6/25 W08 52721V Client: Tetra Tech Limited

Section 2: Shipping / Custody
Custody seals intact on arrival? ☐ N/A ☐ Yes ☐ No ☐ On cooler / box ☐ On samples
☐ Courier ☐ Walk-in ☐ Field Sampling ☒ Shipping info: FedEx

Section 3a: Condition / Packaging
Date Opened: 5/6/25 By (Initials): GCK Type of ice used: ☐ Wet ☐ Blue/Gel ☐ None
☐ Samples received on ice directly from the field; cooling process had begun. (if checked, skip temperatures)
☐ Sample matrix doesn't require cooling (e.g. air, bulk PCB). (if checked, skip temperatures)
If no cooler: Observed/Adjusted Temp (°C): / Thermometer/IR Gun: IR11 ☐ ± 0.1
Cooler Temp (°C): #1: -8.1 #2: -7.8 #3: -7.7 #4: / #5: / #6: /

Section 3b: Microbiology Samples
☐ Within temp range 0.0 - 10.0°C or received on ice directly from field.
☐ Adequate headspace for microbiology analysis.

Section 3c: Air Samples
☐ 1.4L Canisters ☐ 6L Canisters ☐ Tedlar Bags ☐ MCE Cassettes ☐ Sorbent Tubes ☐ Other

Section 4: Containers / Labels / Samples

	YES	NO	N/A
1) Were custody papers present, filled properly, and legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Is the sampler's name present on the CoC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Were containers received in good condition (unbroken / unopened / uncompromised)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Were the samples bagged? (required for microbiology samples; recommended for soil samples)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Were all of, and only, the correct samples received?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Are sample labels present, legible, and in agreement with the CoC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Does the container count match the CoC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8) Was sufficient sample volume / mass received for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Were samples received in proper containers for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Were samples received with a 1/2 holding time remaining?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) Are samples properly preserved as indicated by CoC / labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12) Unpreserved VDAs received - if necessary, was the hold time changed in LIMS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13) Are VDA bags free from headspace/bubbles > 6mm?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 5: Explanations / Comments
(if no comments are made, then no discrepancies noted)

3a) cooling media is dry ice

☐ No additional discrepancies

Date Logged: 2/24/25 By (print): Berkeley (sign)
Date Labeled: 3/6/25 By (print): Change (sign)

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Extractable Carbon Chain

Lab #: 527292		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWB-3CP2	Moisture: 49%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9990	Analyzed: 03/19/25	
Lab ID: 527292-001	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/14/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 - 1 Analyte		Result	MDL Units
TPH (C10-C14)		ND 20	7.2 mg/Kg
TPH (C14-C24)		ND 20	7.2 mg/Kg
ORO C28-C44		ND 39	7.2 mg/Kg
5272920 - 1 Surrogate		%REC	Limits
n-Triacontane		88	70-130
Field ID: NPWB-3D2	Moisture: 48%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9935	Analyzed: 03/19/25	
Lab ID: 527292-002	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/14/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 - 2 Analyte		Result	MDL Units
TPH (C10-C14)		ND 19	7.0 mg/Kg
TPH (C14-C24)		ND 19	7.0 mg/Kg
ORO C28-C44		ND 38	7.0 mg/Kg
5272920 - 2 Surrogate		%REC	Limits
n-Triacontane		89	70-130
Field ID: NPWB-4B3X	Moisture: 47%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9906	Analyzed: 03/19/25	
Lab ID: 527292-003	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/14/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 - 3 Analyte		Result	MDL Units
TPH (C10-C14)		ND 19	6.9 mg/Kg
TPH (C14-C24)		ND 19	6.9 mg/Kg
ORO C28-C44		ND 37	6.9 mg/Kg
5272920 - 3 Surrogate		%REC	Limits
n-Triacontane		90	70-130



Extractable Carbon Chain

Lab #: 527292		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWB-4C2	Moisture: 48%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9921	Analyzed: 03/19/25	
Lab ID: 527292-004	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/14/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 - 4 Analyte		Result	MDL Units
TPH (C10-C14)		ND 19	7.0 mg/Kg
TPH (C14-C24)		ND 19	7.0 mg/Kg
ORO C28-C44		ND 38	7.0 mg/Kg
5272920 - 4 Surrogate		%REC	Limits
n-Triacontane		91	70-130
Field ID: NPWG-1B2X	Moisture: 42%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9906	Analyzed: 03/19/25	
Lab ID: 527292-005	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/17/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 - 5 Analyte		Result	MDL Units
TPH (C10-C14)		ND 17	6.3 mg/Kg
TPH (C14-C24)		ND 17	6.3 mg/Kg
ORO C28-C44		ND 34	6.3 mg/Kg
5272920 - 5 Surrogate		%REC	Limits
n-Triacontane		91	70-130
Field ID: NPWG-1B2X-FD	Moisture: 41%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9945	Analyzed: 03/19/25	
Lab ID: 527292-006	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/17/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 - 6 Analyte		Result	MDL Units
TPH (C10-C14)		ND 17	6.2 mg/Kg
TPH (C14-C24)		ND 17	6.2 mg/Kg
ORO C28-C44		ND 34	6.2 mg/Kg
5272920 - 6 Surrogate		%REC	Limits
n-Triacontane		93	70-130

Extractable Carbon Chain

Lab #: 527292		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWG-1C2	Moisture: 47%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9906	Analyzed: 03/19/25	
Lab ID: 527292-007	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/17/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 - 7 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 6.9 mg/Kg
TPH (C14-C24)		ND	19 6.9 mg/Kg
ORO C28-C44		ND	37 6.9 mg/Kg
5272920 - 7 Surrogate		%REC	Limits
n-Triacontane		90	70-130
Field ID: NPWG-1CP2	Moisture: 51%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9975	Analyzed: 03/19/25	
Lab ID: 527292-008	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/17/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 - 8 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	20 7.5 mg/Kg
TPH (C14-C24)		ND	20 7.5 mg/Kg
ORO C28-C44		ND	41 7.5 mg/Kg
5272920 - 8 Surrogate		%REC	Limits
n-Triacontane		94	70-130
Field ID: NPWG-1D2	Moisture: 47%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9990	Analyzed: 03/20/25	
Lab ID: 527292-009	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/17/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 - 9 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 6.9 mg/Kg
TPH (C14-C24)		ND	19 6.9 mg/Kg
ORO C28-C44		ND	38 6.9 mg/Kg
5272920 - 9 Surrogate		%REC	Limits
n-Triacontane		88	70-130

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Extractable Carbon Chain

Lab #: 527292		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWG-2B2X	Moisture: 48%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9935	Analyzed: 03/20/25	
Lab ID: 527292-010	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/16/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 1- Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.0 mg/Kg
TPH (C14-C24)		ND	19 7.0 mg/Kg
ORO C28-C44		ND	38 7.0 mg/Kg
5272920 1- Surrogate		%REC	Limits
n-Triacontane		87	70-130
Field ID: NPWG-2C2	Moisture: 47%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9926	Analyzed: 03/20/25	
Lab ID: 527292-011	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/16/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 11 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 6.9 mg/Kg
TPH (C14-C24)		ND	19 6.9 mg/Kg
ORO C28-C44		ND	37 6.9 mg/Kg
5272920 12 Surrogate		%REC	Limits
n-Triacontane		93	70-130
Field ID: NPWG-3B2X	Moisture: 43%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9911	Analyzed: 03/20/25	
Lab ID: 527292-012	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/17/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 12 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	17 6.4 mg/Kg
TPH (C14-C24)		ND	17 6.4 mg/Kg
ORO C28-C44		ND	35 6.4 mg/Kg
5272920 12 Surrogate		%REC	Limits
n-Triacontane		92	70-130

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Extractable Carbon Chain

Lab #: 527292		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWG-3C2	Moisture: 45%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9930	Analyzed: 03/20/25	
Lab ID: 527292-013	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/17/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 13 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.6 mg/Kg
TPH (C14-C24)		ND	18 6.6 mg/Kg
ORO C28-C44		ND	36 6.6 mg/Kg
5272920 13 Surrogate		%REC	Limits
n-Triacontane		84	70-130
Field ID: NPWG-3CP2	Moisture: 48%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9980	Analyzed: 03/20/25	
Lab ID: 527292-014	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/16/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 14 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.1 mg/Kg
TPH (C14-C24)		ND	19 7.1 mg/Kg
ORO C28-C44		ND	38 7.1 mg/Kg
5272920 14 Surrogate		%REC	Limits
n-Triacontane		92	70-130
Field ID: NPWG-3D2	Moisture: 49%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9935	Analyzed: 03/20/25	
Lab ID: 527292-015	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/16/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 15 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.2 mg/Kg
TPH (C14-C24)		ND	19 7.2 mg/Kg
ORO C28-C44		ND	39 7.2 mg/Kg
5272920 15 Surrogate		%REC	Limits
n-Triacontane		86	70-130

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Extractable Carbon Chain

Lab #: 527292		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWG-4B2X	Moisture: 44%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9970	Analyzed: 03/20/25	
Lab ID: 527292-016	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/17/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 16 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.5 mg/Kg
TPH (C14-C24)		ND	18 6.5 mg/Kg
ORO C28-C44		ND	36 6.5 mg/Kg
5272920 16 Surrogate		%REC	Limits
n-Triacontane		90	70-130
Field ID: NPWG-4C2	Moisture: 50%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9926	Analyzed: 03/20/25	
Lab ID: 527292-017	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/17/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 17 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	20 7.3 mg/Kg
TPH (C14-C24)		ND	20 7.3 mg/Kg
ORO C28-C44		ND	40 7.3 mg/Kg
5272920 17 Surrogate		%REC	Limits
n-Triacontane		92	70-130
Field ID: PACPP-1C1	Moisture: 42%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9990	Analyzed: 03/20/25	
Lab ID: 527292-018	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/19/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920 18 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	17 6.3 mg/Kg
TPH (C14-C24)		ND	17 6.3 mg/Kg
ORO C28-C44		ND	34 6.3 mg/Kg
5272920 18 Surrogate		%REC	Limits
n-Triacontane		93	70-130

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Extractable Carbon Chain

Lab #: 527292		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-1C2X	Moisture: 45%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9980	Analyzed: 03/20/25	
Lab ID: 527292-019	Batch#: 366002	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/17/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: DIB	
5272920-19 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.7 mg/Kg
TPH (C14-C24)		ND	18 6.7 mg/Kg
ORO C28-C44		ND	36 6.7 mg/Kg
5272920-19 Surrogate		%REC	Limits
n-Triacontane		85	70-130
Field ID: PACPP-1C3X		Moisture: 44%	Prepared: 03/14/25
Type: SAMPLE		DF: 0.9906	Analyzed: 03/20/25
Lab ID: 527292-020		Batch#: 366002	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/19/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: DIB
5272920-2- Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.5 mg/Kg
TPH (C14-C24)		ND	18 6.5 mg/Kg
ORO C28-C44		ND	35 6.5 mg/Kg
5272920-2- Surrogate		%REC	Limits
n-Triacontane		88	70-130
Type: BLANK		Batch#: 366002	Analysis: EPA 8015M
Lab ID: QC1239188		Prepared: 03/14/25	Analyst: DIB
Matrix: Soil		Analyzed: 03/19/25	
DF: 0.9970		Prep: EPA 3580M	
QC1239188 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	10 3.7 mg/Kg
TPH (C14-C24)		ND	10 3.7 mg/Kg
ORO C28-C44		ND	20 3.7 mg/Kg
QC1239188 Surrogate		%REC	Limits
n-Triacontane		90	70-130
Legend			
MDL: Method Detection Limit			
ND: Not Detected at or above MDL			
RL: Reporting Limit			

Extractable Carbon Chain: Batch QC

Lab #: ME-E7E		Project#: COTL	
Client: T. tra87. ch.8dcl		Location: T. - - 71E- 88Guif88Thadand	
Type: LCS	Batch#: 36655E	Analysis: PA 8051M	
Lab ID: 2C1E37107	Prepared: 534/ 4M	Analyst: 9D	
Matrix: SBa	Analyzed: 534/74M		
DF: 5177MM	Prep: PA 80M5Q		
QC1239189 Analyte		Spiked	Result %REC Limits Units
9 o e. i8C15dCE0		E/ 017	E3ME 7M - 6s1EE mg/Kg
QC1239189 Surrogate		%REC	Limits
nsTracBntan.		75	- 5s135

Extractable Carbon Chain: Batch QC

Lab #: 527292		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: NPWB-3CP2	Matrix: Soil	Batch#: 366002	Analyzed: 03/19/25
Type: MS	Basis: dry	Sampled: 02/14/25	Prep: EPA 3580M
MSS Lab ID: 527292-001	Moisture: 49%	Received: 03/06/25	Analysis: EPA 8015M
Lab ID: QC1239190	DF: 0.9970	Prepared: 03/14/25	Analyst: DIB
QC1239190 Analyte		MSS Result	Spiked Result %REC Limits Units
Diesel C10-C28		<7.200	488.7 455.0 93 62-126 mg/Kg
QC1239190 Surrogate		%REC	Limits
n-Triacontane		87	70-130
Field ID: NPWB-3CP2		Matrix: Soil	Batch#: 366002
Type: MSD		Basis: dry	Sampled: 02/14/25
MSS Lab ID: 527292-001		Moisture: 49%	Received: 03/06/25
Lab ID: QC1239191		DF: 0.9921	Prepared: 03/14/25
QC1239191 Analyte		Spiked	Result %REC Limits Units RPD Lim
Diesel C10-C28		486.3	460.0 95 62-126 mg/Kg 2 35
QC1239191 Surrogate		%REC	Limits
n-Triacontane		85	70-130
Legend			
RPD: Relative Percent Difference			

Moisture

Lab #: 05M5/ 5		Project#: 6 SQ	
Client: Cadh Rdal n8dcl %		Location: CMM %M98 8 QR 8Dn, A dW	
Field ID: NPC - 36 P5	Batch#: X4470/	Analyzed: 1X27920	
Lab ID: 05M5/ 531 17	Sampled: 1527E20	Prep: T HODSo	
Matrix: i l l A	Received: 1X21420	Analysis: . i OT 8 5574	
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F	
5272920 - 1 Analyte		Result	RL Units
Moisture, Percent		49	7 G
Field ID: NPC - 36o 5		Batch#: X4470/	Analyzed: 1X27920
Lab ID: 05M5/ 531 15		Sampled: 1527E20	Prep: T HODSo
Matrix: i l l A		Received: 1X21420	Analysis: . i OT 8 5574
DF: 7%11		Prepared: 1X27M50	Analyst: 6 o F
5272920 - 2 Analyte		Result	RL Units
Moisture, Percent		43	7 G
Field ID: NPC - 3E- XL		Batch#: X4470/	Analyzed: 1X27920
Lab ID: 05M5/ 531 1X		Sampled: 1527E20	Prep: T HODSo
Matrix: i l l A		Received: 1X21420	Analysis: . i OT 8 5574
DF: 7%11		Prepared: 1X27M50	Analyst: 6 o F
5272920 - 6 Analyte		Result	RL Units
Moisture, Percent		47	7 G
Field ID: NPC - 3E6 5		Batch#: X4470/	Analyzed: 1X27920
Lab ID: 05M5/ 531 1E		Sampled: 1527E20	Prep: T HODSo
Matrix: i l l A		Received: 1X21420	Analysis: . i OT 8 5574
DF: 7%11		Prepared: 1X27M50	Analyst: 6 o F
5272920 - 4 Analyte		Result	RL Units
Moisture, Percent		43	7 G
Field ID: NPC e 37- 5L		Batch#: X4470/	Analyzed: 1X27920
Lab ID: 05M5/ 531 10		Sampled: 1527M50	Prep: T HODSo
Matrix: i l l A		Received: 1X21420	Analysis: . i OT 8 5574
DF: 7%11		Prepared: 1X27M50	Analyst: 6 o F
5272920 - 5 Analyte		Result	RL Units
Moisture, Percent		42	7 G
Field ID: NPC e 37- 5L3 o		Batch#: X4470/	Analyzed: 1X27920
Lab ID: 05M5/ 531 14		Sampled: 1527M50	Prep: T HODSo
Matrix: i l l A		Received: 1X21420	Analysis: . i OT 8 5574
DF: 7%11		Prepared: 1X27M50	Analyst: 6 o F
5272920 - j Analyte		Result	RL Units
Moisture, Percent		41	7 G

Moisture

Lab #: 05M5/ 5			Project#: 6 SQ		
Client: Cad Ral nuil %			Location: CMM 5M5 8 BR 50n, A dW		
Field ID: NPC e 36 5	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 531M	Sampled: 1527M50	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 -7 Analyte			Result	RL	Units
Moisture, Percent			47	7	G
Field ID: NPC e 36 P5	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 53119	Sampled: 1527M50	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 -3 Analyte			Result	RL	Units
Moisture, Percent			51	7	G
Field ID: NPC e 3o 5	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 5311/	Sampled: 1527M50	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 -9 Analyte			Result	RL	Units
Moisture, Percent			47	7	G
Field ID: NPC e 3E- 5L	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 53171	Sampled: 1527420	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 1- Analyte			Result	RL	Units
Moisture, Percent			43	7	G
Field ID: NPC e 36 5	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 53177	Sampled: 1527420	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 11 Analyte			Result	RL	Units
Moisture, Percent			47	7	G
Field ID: NPC e 3K- 5L	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 53175	Sampled: 1527M50	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 12 Analyte			Result	RL	Units
Moisture, Percent			46	7	G

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Moisture

Lab #: 05M5/ 5			Project#: 6 SQ		
Client: Cad Ral nuil %			Location: CMM 5M5 8 BR 50n, A dW		
Field ID: NPC e 36 5	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 5317X	Sampled: 1527M50	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 16 Analyte			Result	RL	Units
Moisture, Percent			45	7	G
Field ID: NPC e 36 P5	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 5317E	Sampled: 1527420	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 14 Analyte			Result	RL	Units
Moisture, Percent			43	7	G
Field ID: NPC e 3o 5	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 53170	Sampled: 1527420	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 15 Analyte			Result	RL	Units
Moisture, Percent			49	7	G
Field ID: NPC e 3E- 5L	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 53174	Sampled: 1527M50	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 1j Analyte			Result	RL	Units
Moisture, Percent			44	7	G
Field ID: NPC e 36 5	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 5317M	Sampled: 1527M50	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 17 Analyte			Result	RL	Units
Moisture, Percent			5-	7	G
Field ID: P. 6 PP36 7	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 53179	Sampled: 1527/ 20	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 13 Analyte			Result	RL	Units
Moisture, Percent			42	7	G

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Moisture

Lab #: 05M5/ 5			Project#: 6 SQ		
Client: Cad Ral nuil %			Location: CMM 5M5 8 BR 50n, A dW		
Field ID: P. 6 PP36 5L	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 5317/	Sampled: 1527M50	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 19 Analyte			Result	RL	Units
Moisture, Percent			45	7	G
Field ID: P. 6 PP36 5L	Batch#: X4470/	Analyzed: 1X2920			
Lab ID: 05M5/ 53151	Sampled: 1527/ 20	Prep: T HODSo			
Matrix: i l A	Received: 1X2420	Analysis: . i OT 5574			
DF: 7%11	Prepared: 1X27M50	Analyst: 6 o F			
5272920 2- Analyte			Result	RL	Units
Moisture, Percent			44	7	G

r agadW
RL: F apt 100g/5.0n

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Moisture: Batch QC

Lab #: 527292			Project#: COTL		
Client: Tetra Tech, Inc.			Location: T779.27 - Gulf of Thailand		
Field ID: NPWB-3CP2	DF: 1.000	Analyzed: 03/18/25			
Type: SDUP	Batch#: 366159	Prep: METHOD			
MSS Lab ID: 527292-001	Sampled: 02/14/25	Analysis: ASTM D2216			
Lab ID: QC1239797	Received: 03/06/25	Analyst: CDR			
Matrix: Soil	Prepared: 03/17/25				
QC1239797 Analyte			MSS Result	Result	RL Units RPD Lim
Moisture, Percent			49.08	48.35	1.000 % 1 20

Legend
RL: Reporting Limit
RPD: Relative Percent Difference

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Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92668
(714) 771-6900

enthalpy.com


Lab Job Number : 527293
Report Level : II
Report Date : 03/20/2025

Analytical Report prepared for:

Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549

Project: COTL - T779.27 - Gulf of Thailand

Authorized for release by:



Miguel Gamboa, Project Manager
miguel.gamboa@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105, ORELAP# 4197



Sample Summary

Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549

Lab Job #: 527293
Project No: COTL
Location: T779.27 - Gulf of Thailand
Date Received: 03/06/25

Sample ID	Lab ID	Collected	Matrix
PACPP-1CP1	527293-001	02/18/25 10:41	Soil
PACPP-1CP2X	527293-002	02/17/25 23:19	Soil
PACPP-1CP3	527293-003	02/18/25 11:23	Soil
PACPP-1D2	527293-004	02/18/25 21:28	Soil
PACPP-1E2	527293-005	02/18/25 20:52	Soil
PACPP-1F2	527293-006	02/18/25 20:16	Soil
PACPP-1G2	527293-007	02/18/25 19:39	Soil
PACPP-2C2	527293-008	02/19/25 02:15	Soil
PACPP-2CP2	527293-009	02/18/25 23:14	Soil
PACPP-2D2	527293-010	02/18/25 22:32	Soil
PACPP-3C1	527293-011	02/19/25 10:36	Soil
PACPP-3C2Y	527293-012	02/19/25 09:49	Soil
PACPP-3C3X	527293-013	02/19/25 09:15	Soil
PACPP-3CP1X	527293-014	02/19/25 03:00	Soil
PACPP-3CP2	527293-015	02/19/25 04:09	Soil
PACPP-3CP3	527293-016	02/19/25 04:44	Soil
PACPP-3D2X	527293-017	02/19/25 05:27	Soil
PACPP-3E2X	527293-018	02/19/25 11:22	Soil
PACPP-3F2X	527293-019	02/19/25 12:46	Soil
PACPP-3G2	527293-020	02/19/25 13:35	Soil

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Case Narrative

Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549
Ted Donn

Lab Job Number: 527293
Project No: COTL
Location: T779.27 - Gulf of Thailand
Thailand
Date Received: 03/06/25

This data package contains sample and QC results for twenty soil samples, requested for the above referenced project on 03/06/25. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015M):

No analytical problems were encountered.

Moisture (ASTM D2216):

No analytical problems were encountered.

Ship To:
Miguel Gamboa
Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92668

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	TPH	Dry Weight
T779.27	NPWG-4C2	2/14/2025	19:52	SED	Frozen	1	1
T779.27	NPWG-1B2X	2/17/2025	10:17	SED	Frozen	1	1
T779.27	NPWG-1B2X-FD	2/17/2025	10:42	SED	Frozen	1	1
T779.27	NPWG-1C2	2/17/2025	5:05	SED	Frozen	1	1
T779.27	NPWG-1CP2	2/17/2025	3:37	SED	Frozen	1	1
T779.27	NPWG-1D2	2/17/2025	4:14	SED	Frozen	1	1
T779.27	NPWG-2B2X	2/16/2025	22:45	SED	Frozen	1	1
T779.27	NPWG-2C2	2/16/2025	22:06	SED	Frozen	1	1
T779.27	NPWG-3B2X	2/17/2025	15:36	SED	Frozen	1	1
T779.27	NPWG-3C2	2/17/2025	14:17	SED	Frozen	1	1
T779.27	NPWG-3CP2	2/16/2025	16:47	SED	Frozen	1	1
T779.27	NPWG-3D2	2/16/2025	17:16	SED	Frozen	1	1
T779.27	NPWG-4B2X	2/17/2025	16:05	SED	Frozen	1	1
T779.27	NPWG-4C2	2/17/2025	16:50	SED	Frozen	1	1
T779.27	PACPP-1C1	2/19/2025	0:48	SED	Frozen	1	1
T779.27	PACPP-1C2X	2/17/2025	22:46	SED	Frozen	1	1
T779.27	PACPP-1C3X	2/19/2025	1:32	SED	Frozen	1	1
T779.27	PACPP-1C3R1	2/18/2025	10:41	SED	Frozen	1	1
T779.27	PACPP-1CP2X	2/17/2025	23:19	SED	Frozen	1	1
T779.27	PACPP-1CP3	2/18/2025	11:23	SED	Frozen	1	1
T779.27	PACPP-1D2	2/18/2025	21:28	SED	Frozen	1	1
T779.27	PACPP-1E2	2/18/2025	20:52	SED	Frozen	1	1
T779.27	PACPP-1F2	2/18/2025	20:16	SED	Frozen	1	1
T779.27	PACPP-1G2	2/18/2025	19:39	SED	Frozen	1	1
T779.27	PACPP-2C2	2/19/2025	2:15	SED	Frozen	1	1
T779.27	PACPP-2CP2	2/18/2025	23:14	SED	Frozen	1	1
T779.27	PACPP-2D2	2/18/2025	22:32	SED	Frozen	1	1
T779.27	PACPP-3C1	2/18/2025	10:36	SED	Frozen	1	1
T779.27	PACPP-3C2Y	2/19/2025	9:49	SED	Frozen	1	1
T779.27	PACPP-3C3X	2/19/2025	9:15	SED	Frozen	1	1
T779.27	PACPP-3CP1X	2/19/2025	3:00	SED	Frozen	1	1
T779.27	PACPP-3CP2	2/19/2025	4:09	SED	Frozen	1	1
T779.27	PACPP-3CP3	2/19/2025	4:44	SED	Frozen	1	1
T779.27	PACPP-3D2X	2/19/2025	5:27	SED	Frozen	1	1
T779.27	PACPP-3E2X	2/19/2025	11:22	SED	Frozen	1	1
T779.27	PACPP-3F2X	2/19/2025	12:46	SED	Frozen	1	1
T779.27	PACPP-3G2	2/19/2025	13:35	SED	Frozen	1	1
T779.27	PACPP-4C2X	2/18/2025	3:59	SED	Frozen	1	1
T779.27	PACPP-4C2X-FD	2/18/2025	4:22	SED	Frozen	1	1
T779.27	PACPP-4CP2X	2/18/2025	4:56	SED	Frozen	1	1
T779.27	PACPP-4D2X	2/18/2025	8:49	SED	Frozen	1	1
T779.27	PARF-A	2/13/2025	19:06	SED	Frozen	1	1
T779.27	PARF-B	2/13/2025	19:38	SED	Frozen	1	1
T779.27	PARF-C	2/13/2025	19:59	SED	Frozen	1	1
T779.27	PAWB-1C2	2/20/2025	23:07	SED	Frozen	1	1
T779.27	PAWB-1CP2	2/20/2025	22:25	SED	Frozen	1	1
T779.27	PAWB-1D2	2/20/2025	21:40	SED	Frozen	1	1
T779.27	PAWB-2B1X	2/21/2025	16:23	SED	Frozen	1	1

Relinquished by:

Relinquished by:

Received by:

Received by:

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Extractable Carbon Chain

Lab #: 527293		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-1CP1	Moisture: 50%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9930	Analyzed: 03/19/25	
Lab ID: 527293-001	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/18/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-001 Analyte		Result	MDL Units
TPH (C10-C14)		ND 20	7.4 mg/Kg
TPH (C14-C24)		ND 20	7.4 mg/Kg
ORO C28-C44		ND 40	7.4 mg/Kg
527293-001 Surrogate		%REC	Limits
n-Triacontane		97	70-130
Field ID: PACPP-1CP2X	Moisture: 49%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9921	Analyzed: 03/19/25	
Lab ID: 527293-002	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/17/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-002 Analyte		Result	MDL Units
TPH (C10-C14)		ND 19	7.2 mg/Kg
TPH (C14-C24)		ND 19	7.2 mg/Kg
ORO C28-C44		ND 39	7.2 mg/Kg
527293-002 Surrogate		%REC	Limits
n-Triacontane		90	70-130
Field ID: PACPP-1CP3	Moisture: 50%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9940	Analyzed: 03/19/25	
Lab ID: 527293-003	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/18/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-003 Analyte		Result	MDL Units
TPH (C10-C14)		ND 20	7.4 mg/Kg
TPH (C14-C24)		ND 20	7.4 mg/Kg
ORO C28-C44		ND 40	7.4 mg/Kg
527293-003 Surrogate		%REC	Limits
n-Triacontane		90	70-130

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Extractable Carbon Chain

Lab #: 527293		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-1D2	Moisture: 49%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9980	Analyzed: 03/19/25	
Lab ID: 527293-004	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/18/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-004 Analyte		Result	MDL Units
TPH (C10-C14)		ND 20	7.3 mg/Kg
TPH (C14-C24)		ND 20	7.3 mg/Kg
ORO C28-C44		ND 39	7.3 mg/Kg
527293-004 Surrogate		%REC	Limits
n-Triacontane		88	70-130
Field ID: PACPP-1E2	Moisture: 48%	Prepared: 03/14/25	
Type: SAMPLE	DF: 1.000	Analyzed: 03/19/25	
Lab ID: 527293-005	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/18/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-005 Analyte		Result	MDL Units
TPH (C10-C14)		ND 19	7.2 mg/Kg
TPH (C14-C24)		ND 19	7.2 mg/Kg
ORO C28-C44		ND 38	7.2 mg/Kg
527293-005 Surrogate		%REC	Limits
n-Triacontane		102	70-130
Field ID: PACPP-1F2	Moisture: 51%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9955	Analyzed: 03/19/25	
Lab ID: 527293-006	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/18/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-006 Analyte		Result	MDL Units
TPH (C10-C14)		ND 20	7.6 mg/Kg
TPH (C14-C24)		ND 20	7.6 mg/Kg
ORO C28-C44		ND 41	7.6 mg/Kg
527293-006 Surrogate		%REC	Limits
n-Triacontane		91	70-130

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Extractable Carbon Chain

Lab #: 527293		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-1G2	Moisture: 50%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9940	Analyzed: 03/19/25	
Lab ID: 527293-007	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/18/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-007 Analyte		Result	MDL Units
TPH (C10-C14)		ND 20	7.4 mg/Kg
TPH (C14-C24)		ND 20	7.4 mg/Kg
ORO C28-C44		ND 40	7.4 mg/Kg
527293-007 Surrogate		%REC	Limits
n-Triacontane		94	70-130
Field ID: PACPP-2C2	Moisture: 42%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9960	Analyzed: 03/19/25	
Lab ID: 527293-008	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/19/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-008 Analyte		Result	MDL Units
TPH (C10-C14)		ND 17	6.4 mg/Kg
TPH (C14-C24)		ND 17	6.4 mg/Kg
ORO C28-C44		ND 34	6.4 mg/Kg
527293-008 Surrogate		%REC	Limits
n-Triacontane		93	70-130
Field ID: PACPP-2CP2	Moisture: 50%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9916	Analyzed: 03/20/25	
Lab ID: 527293-009	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/18/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-009 Analyte		Result	MDL Units
TPH (C10-C14)		ND 20	7.4 mg/Kg
TPH (C14-C24)		ND 20	7.4 mg/Kg
ORO C28-C44		ND 40	7.4 mg/Kg
527293-009 Surrogate		%REC	Limits
n-Triacontane		93	70-130

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Extractable Carbon Chain

Lab #: 527293		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-2D2	Moisture: 50%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9990	Analyzed: 03/20/25	
Lab ID: 527293-010	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/18/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-010 Analyte		Result	MDL Units
TPH (C10-C14)		ND 20	7.4 mg/Kg
TPH (C14-C24)		ND 20	7.4 mg/Kg
ORO C28-C44		ND 40	7.4 mg/Kg
527293-010 Surrogate		%REC	Limits
n-Triacontane		95	70-130
Field ID: PACPP-3C1	Moisture: 46%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9950	Analyzed: 03/20/25	
Lab ID: 527293-011	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/19/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-011 Analyte		Result	MDL Units
TPH (C10-C14)		ND 18	6.9 mg/Kg
TPH (C14-C24)		ND 18	6.9 mg/Kg
ORO C28-C44		ND 37	6.9 mg/Kg
527293-011 Surrogate		%REC	Limits
n-Triacontane		95	70-130
Field ID: PACPP-3C2Y	Moisture: 46%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9980	Analyzed: 03/20/25	
Lab ID: 527293-012	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/19/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-012 Analyte		Result	MDL Units
TPH (C10-C14)		ND 18	6.9 mg/Kg
TPH (C14-C24)		ND 18	6.9 mg/Kg
ORO C28-C44		ND 37	6.9 mg/Kg
527293-012 Surrogate		%REC	Limits
n-Triacontane		93	70-130

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Extractable Carbon Chain

Lab #: 527293		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-3C3X	Moisture: 43%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9945	Analyzed: 03/20/25	
Lab ID: 527293-013	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/19/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-013 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	17 6.5 mg/Kg
TPH (C14-C24)		ND	17 6.5 mg/Kg
ORO C28-C44		ND	35 6.5 mg/Kg
527293-013 Surrogate		%REC	Limits
n-Triacontane		95	70-130
Field ID: PACPP-3CP1X		Prepared: 03/14/25	
Type: SAMPLE		Analyzed: 03/20/25	
Lab ID: 527293-014		Prep: EPA 3580M	
Matrix: Soil		Analysis: EPA 8015M	
Basis: dry		Analyst: KMB	
527293-014 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.1 mg/Kg
TPH (C14-C24)		ND	19 7.1 mg/Kg
ORO C28-C44		ND	38 7.1 mg/Kg
527293-014 Surrogate		%REC	Limits
n-Triacontane		91	70-130
Field ID: PACPP-3CP2		Prepared: 03/14/25	
Type: SAMPLE		Analyzed: 03/20/25	
Lab ID: 527293-015		Prep: EPA 3580M	
Matrix: Soil		Analysis: EPA 8015M	
Basis: dry		Analyst: KMB	
527293-015 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.0 mg/Kg
TPH (C14-C24)		ND	19 7.0 mg/Kg
ORO C28-C44		ND	38 7.0 mg/Kg
527293-015 Surrogate		%REC	Limits
n-Triacontane		96	70-130

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Extractable Carbon Chain

Lab #: 527293		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-3CP3	Moisture: 48%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9911	Analyzed: 03/20/25	
Lab ID: 527293-016	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/19/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-016 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.1 mg/Kg
TPH (C14-C24)		ND	19 7.1 mg/Kg
ORO C28-C44		ND	38 7.1 mg/Kg
527293-016 Surrogate		%REC	Limits
n-Triacontane		92	70-130
Field ID: PACPP-3D2X		Prepared: 03/14/25	
Type: SAMPLE		Analyzed: 03/20/25	
Lab ID: 527293-017		Prep: EPA 3580M	
Matrix: Soil		Analysis: EPA 8015M	
Basis: dry		Analyst: KMB	
527293-017 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	20 7.3 mg/Kg
TPH (C14-C24)		ND	20 7.3 mg/Kg
ORO C28-C44		ND	39 7.3 mg/Kg
527293-017 Surrogate		%REC	Limits
n-Triacontane		114	70-130
Field ID: PACPP-3E2X		Prepared: 03/14/25	
Type: SAMPLE		Analyzed: 03/20/25	
Lab ID: 527293-018		Prep: EPA 3580M	
Matrix: Soil		Analysis: EPA 8015M	
Basis: dry		Analyst: KMB	
527293-018 Analyte		Result	RL MDL Units
TPH (C10-C14)		23	20 7.3 mg/Kg
TPH (C14-C24)		34	20 7.3 mg/Kg
ORO C28-C44		ND	39 7.3 mg/Kg
527293-018 Surrogate		%REC	Limits
n-Triacontane		94	70-130

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Extractable Carbon Chain

Lab #: 527293		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-3F2X	Moisture: 52%	Prepared: 03/14/25	
Type: SAMPLE	DF: 0.9970	Analyzed: 03/20/25	
Lab ID: 527293-019	Batch#: 366021	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/19/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527293-019 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	21 7.7 mg/Kg
TPH (C14-C24)		ND	21 7.7 mg/Kg
ORO C28-C44		ND	42 7.7 mg/Kg
527293-019 Surrogate		%REC	Limits
n-Triacontane		94	70-130
Field ID: PACPP-3G2		Prepared: 03/14/25	
Type: SAMPLE		Analyzed: 03/20/25	
Lab ID: 527293-020		Prep: EPA 3580M	
Matrix: Soil		Analysis: EPA 8015M	
Basis: dry		Analyst: KMB	
527293-020 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.0 mg/Kg
TPH (C14-C24)		ND	19 7.0 mg/Kg
ORO C28-C44		ND	37 7.0 mg/Kg
527293-020 Surrogate		%REC	Limits
n-Triacontane		92	70-130
Type: BLANK		Analysis: EPA 8015M	
Lab ID: QC1239237		Analyst: KMB	
Matrix: Soil		Batch#: 366021	
DF: 1.000		Prepared: 03/14/25	
QC1239237 Analyte		Analysis: EPA 3580M	
QC1239237 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	10 3.7 mg/Kg
TPH (C14-C24)		ND	10 3.7 mg/Kg
ORO C28-C44		ND	20 3.7 mg/Kg
QC1239237 Surrogate		%REC	Limits
n-Triacontane		88	70-130

Legend
MDL: Method Detection Limit
ND: Not Detected at or above MDL
RL: Reporting Limit

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Extractable Carbon Chain: Batch QC

Lab #: ME-E73		Project#: Ct nL	
Client: n. cř Ń. aQŃKai		Location: n - - 7IE- űGudŃ fŃŃŃ Ń Kd	
Type: LCS	Batch#: 3665EP	Analysis: A 8015PMQ	
Lab ID: 2 CPE37E31	Prepared: 53474EM	Analyst: 9QD	
Matrix: SI ű	Analyzed: 53474EM		
DF: 517775	Prep: A 8ŃM5Q		
QC1239238 Analyte	Spiked	Result	%REC Limits Units
1 B.e. aCP5aCE1	E/ 711	E5313	1P - 69PEE mg/g
QC1239238 Surrogate		%REC	Limits
KŃŃŃ al KŃ K		11	- 59P35

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Extractable Carbon Chain: Batch QC

Lab #: 527293		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-1CP1	Matrix: Soil	Batch#: 366021	Analyzed: 03/19/25
Type: MS	Basis: dry	Sampled: 02/18/25	Prep: EPA 3580M
MSS Lab ID: 527293-001	Moisture: 50%	Received: 03/06/25	Analysis: EPA 8015M
Lab ID: QC1239239	DF: 0.9901	Prepared: 03/14/25	Analyst: KMB
QC1239239 Analyte		MSS Result	Spiked Result
Diesel C10-C28		<7.395	495.0
QC1239239 Surrogate		%REC	Limits
n-Triacontane		96	70-130
Field ID: PACPP-1CP1	Matrix: Soil	Batch#: 366021	Analyzed: 03/19/25
Type: MSD	Basis: dry	Sampled: 02/18/25	Prep: EPA 3580M
MSS Lab ID: 527293-001	Moisture: 50%	Received: 03/06/25	Analysis: EPA 8015M
Lab ID: QC1239240	DF: 0.9930	Prepared: 03/14/25	Analyst: KMB
QC1239240 Analyte		Spiked Result	%REC
Diesel C10-C28		496.5	427.5
QC1239240 Surrogate		%REC	Limits
n-Triacontane		94	70-130

Legend
RPD: Relative Percent Difference

M, istUre

Lab #: 527293		Pr, @ct#: COTL	
Client: Tetra Tech, Inc.		L, cati, n: T779.27 - Gulf of Thailand	
Field ID: PACPP-1CP1	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-001	Sampled: 02/18/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-11u Analyte		ResUlt	RL
M, istUre4Percent		51	1
Field ID: PACPP-1CP2X	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-002	Sampled: 02/17/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-112 Analyte		ResUlt	RL
M, istUre4Percent		39	1
Field ID: PACPP-1CP3	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-003	Sampled: 02/18/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-110 Analyte		ResUlt	RL
M, istUre4Percent		51	1
Field ID: PACPP-1D2	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-004	Sampled: 02/18/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-113 Analyte		ResUlt	RL
M, istUre4Percent		39	1
Field ID: PACPP-1E2	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-005	Sampled: 02/18/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-115 Analyte		ResUlt	RL
M, istUre4Percent		36	1
Field ID: PACPP-1F2	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-006	Sampled: 02/18/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-11j Analyte		ResUlt	RL
M, istUre4Percent		5u	1

M, istUre

Lab #: 527293		Pr, @ct#: COTL	
Client: Tetra Tech, Inc.		L, cati, n: T779.27 - Gulf of Thailand	
Field ID: PACPP-1G2	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-007	Sampled: 02/18/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-117 Analyte		ResUlt	RL
M, istUre4Percent		51	1
Field ID: PACPP-2C2	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-008	Sampled: 02/19/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-116 Analyte		ResUlt	RL
M, istUre4Percent		32	1
Field ID: PACPP-2CP2	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-009	Sampled: 02/18/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-119 Analyte		ResUlt	RL
M, istUre4Percent		51	1
Field ID: PACPP-2D2	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-010	Sampled: 02/18/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-1u1 Analyte		ResUlt	RL
M, istUre4Percent		51	1
Field ID: PACPP-3C1	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-011	Sampled: 02/19/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-1u1 Analyte		ResUlt	RL
M, istUre4Percent		3j	1
Field ID: PACPP-3C2Y	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-012	Sampled: 02/19/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-1u2 Analyte		ResUlt	RL
M, istUre4Percent		3j	1

M, istUre

Lab #: 527293		Pr, @ct#: COTL	
Client: Tetra Tech, Inc.		L, cati, n: T779.27 - Gulf of Thailand	
Field ID: PACPP-3C3X	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-013	Sampled: 02/19/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-1u0 Analyte		ResUlt	RL
M, istUre4Percent		30	1
Field ID: PACPP-3CP1X	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-014	Sampled: 02/19/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-1u3 Analyte		ResUlt	RL
M, istUre4Percent		36	1
Field ID: PACPP-3CP2	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-015	Sampled: 02/19/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-1u5 Analyte		ResUlt	RL
M, istUre4Percent		37	1
Field ID: PACPP-3CP3	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-016	Sampled: 02/19/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-1uj Analyte		ResUlt	RL
M, istUre4Percent		36	1
Field ID: PACPP-3D2X	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-017	Sampled: 02/19/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-1u7 Analyte		ResUlt	RL
M, istUre4Percent		39	1
Field ID: PACPP-3E2X	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-018	Sampled: 02/19/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-1u6 Analyte		ResUlt	RL
M, istUre4Percent		39	1

M, istUre

Lab #: 527293		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-3F2X	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-019	Sampled: 02/19/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-1u9 Analyte		ResUlt	RL
M, istUre4Percent		52	1
		%	
Field ID: PACPP-3G2	Batch#: 366160	Analyzed: 03/18/25	
Lab ID: 527293-020	Sampled: 02/19/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/17/25	Analyst: CDR	
527290-121 Analyte		ResUlt	RL
M, istUre4Percent		37	1
		%	

Legend
RL: Reporting Limit

Moisture: Batch QC

Lab #: 527293		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-1CP1	Batch#: 366160	Analyzed: 03/18/25	
Type: SDUP	Sampled: 02/18/25	Prep: METHOD	
MSS Lab ID: 527293-001	Received: 03/06/25	Analysis: ASTM D2216	
Lab ID: QC1239859	Prepared: 03/17/25	Analyst: CDR	
Matrix: Soil			
QC1239859 Analyte		MSS Result	Result
Moisture, Percent		49.93	50.02
		1.000	%
		0	
		20	

Legend
RL: Reporting Limit
RPD: Relative Percent Difference

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Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com


Lab Job Number : 527294
Report Level : II
Report Date : 03/27/2025

Analytical Report prepared for:

Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549

Project: COTL - T779.27 - Gulf of Thailand

Authorized for release by:


Miguel Gamboa, Project Manager
miguel.gamboa@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105, ORELAP# 4197



Sample Summary

Ted Donn	Lab Job #:	527294
Tetra Tech, Inc.	Project No:	COTL
3697 Mt. Diablo Blvd.	Location:	T779.27 - Gulf of Thailand
Suite 150	Date Received:	03/06/25
Lafayette, CA 94549		

Sample ID	Lab ID	Collected	Matrix
PACPP-4C2X	527294-001	02/18/25 03:59	Soil
PACPP-4C2X-FD	527294-002	02/18/25 04:22	Soil
PACPP-4CP2X	527294-003	02/18/25 04:56	Soil
PACPP-4D2X	527294-004	02/18/25 08:49	Soil
PAREF-A	527294-005	02/13/25 19:06	Soil
PAREF-B	527294-006	02/13/25 19:38	Soil
PAREF-C	527294-007	02/13/25 19:59	Soil
PAWB-1C2	527294-008	02/20/25 23:07	Soil
PAWB-1CP2	527294-009	02/20/25 22:25	Soil
PAWB-1D2	527294-010	02/20/25 21:40	Soil
PAWB-2B1X	527294-011	02/21/25 16:23	Soil
PAWB-2C2	527294-012	02/21/25 16:59	Soil
PAWB-3B2	527294-013	02/21/25 14:36	Soil
PAWB-3C2	527294-014	02/21/25 05:40	Soil
PAWB-3CP2	527294-015	02/21/25 04:55	Soil
PAWB-3D2	527294-016	02/21/25 04:19	Soil
PAWB-4B2X	527294-017	02/21/25 15:54	Soil
PAWB-4C2	527294-018	02/21/25 19:24	Soil
PAWE-1B1	527294-019	02/20/25 17:12	Soil
PAWE-1C2	527294-020	02/20/25 01:48	Soil

Case Narrative

Tetra Tech, Inc. Lab Job Number: 527294
3697 Mt. Diablo Blvd. Project No: COTL
Suite 150 Location: T779.27 - Gulf of
Lafayette, CA 94549 Thailand
Ted Donn Date Received: 03/06/25

This data package contains sample and QC results for twenty soil samples, requested for the above referenced project on 03/06/25. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015M):
No analytical problems were encountered.

Moisture (ASTM D2216):
No analytical problems were encountered.

Ship To:
Miguel Gamboa
Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92668

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	TPH	Dry Weight
T779.27	NPWG-4C3	2/14/2025	19:52	SED	Frozen	1	1
T779.27	NPWG-1B2X	2/17/2025	10:17	SED	Frozen	1	1
T779.27	NPWG-1B2X-FD	2/17/2025	10:42	SED	Frozen	1	1
T779.27	NPWG-1C2	2/17/2025	5:05	SED	Frozen	1	1
T779.27	NPWG-1CP2	2/17/2025	3:37	SED	Frozen	1	1
T779.27	NPWG-1D2	2/17/2025	4:14	SED	Frozen	1	1
T779.27	NPWG-2B2X	2/16/2025	22:45	SED	Frozen	1	1
T779.27	NPWG-2C2	2/16/2025	22:06	SED	Frozen	1	1
T779.27	NPWG-3B2X	2/17/2025	15:36	SED	Frozen	1	1
T779.27	NPWG-3C2	2/17/2025	14:17	SED	Frozen	1	1
T779.27	NPWG-3CP2	2/16/2025	16:47	SED	Frozen	1	1
T779.27	NPWG-3D2	2/16/2025	17:16	SED	Frozen	1	1
T779.27	NPWG-4B2X	2/17/2025	16:05	SED	Frozen	1	1
T779.27	NPWG-4C2	2/17/2025	16:50	SED	Frozen	1	1
T779.27	PACPP-1C1	2/19/2025	0:48	SED	Frozen	1	1
T779.27	PACPP-1C2X	2/17/2025	22:46	SED	Frozen	1	1
T779.27	PACPP-1C3X	2/19/2025	1:32	SED	Frozen	1	1
T779.27	PACPP-1CP1	2/19/2025	16:41	SED	Frozen	1	1
T779.27	PACPP-1CP2X	2/17/2025	23:19	SED	Frozen	1	1
T779.27	PACPP-1CP3	2/18/2025	11:23	SED	Frozen	1	1
T779.27	PACPP-1D2	2/18/2025	21:28	SED	Frozen	1	1
T779.27	PACPP-1E2	2/18/2025	20:52	SED	Frozen	1	1
T779.27	PACPP-1F2	2/18/2025	20:16	SED	Frozen	1	1
T779.27	PACPP-1G2	2/18/2025	19:39	SED	Frozen	1	1
T779.27	PACPP-2C2	2/19/2025	2:15	SED	Frozen	1	1
T779.27	PACPP-2CP2	2/18/2025	23:14	SED	Frozen	1	1
T779.27	PACPP-3C2X	2/18/2025	22:32	SED	Frozen	1	1
T779.27	PACPP-3C1	2/19/2025	10:36	SED	Frozen	1	1
T779.27	PACPP-3C2Y	2/19/2025	9:49	SED	Frozen	1	1
T779.27	PACPP-3C3X	2/19/2025	9:15	SED	Frozen	1	1
T779.27	PACPP-3CP1X	2/19/2025	3:00	SED	Frozen	1	1
T779.27	PACPP-3CP2	2/19/2025	4:09	SED	Frozen	1	1
T779.27	PACPP-3CP3	2/19/2025	4:44	SED	Frozen	1	1
T779.27	PACPP-3D2X	2/19/2025	5:27	SED	Frozen	1	1
T779.27	PACPP-3F2X	2/19/2025	11:22	SED	Frozen	1	1
T779.27	PACPP-3F2X	2/19/2025	12:46	SED	Frozen	1	1
T779.27	PACPP-3G2	2/19/2025	13:35	SED	Frozen	1	1
T779.27	PACPP-4C2X	2/18/2025	3:59	SED	Frozen	1	1
T779.27	PACPP-4C2X-FD	2/18/2025	4:22	SED	Frozen	1	1
T779.27	PACPP-4CP2X	2/18/2025	4:56	SED	Frozen	1	1
T779.27	PACPP-4D2X	2/18/2025	8:49	SED	Frozen	1	1
T779.27	PAREF-A	2/13/2025	19:06	SED	Frozen	1	1
T779.27	PAREF-B	2/13/2025	19:38	SED	Frozen	1	1
T779.27	PAREF-C	2/13/2025	19:59	SED	Frozen	1	1
T779.27	PAWB-1C2	2/20/2025	23:07	SED	Frozen	1	1
T779.27	PAWB-1CP2	2/20/2025	22:26	SED	Frozen	1	1
T779.27	PAWB-1D2	2/20/2025	21:40	SED	Frozen	1	1
T779.27	PAWB-2B1A	2/21/2025	16:23	SED	Frozen	1	1

Relinquished by:

Relinquished by:

Received by:

Received by:

Ship To:
Miguel Gamboa
Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92668

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	TPH	Dry Weight
T779.27	PAWB-2C2	2/21/2025	16:59	SED	Frozen	1	1
T779.27	PAWB-3B2	2/21/2025	14:36	SED	Frozen	1	1
T779.27	PAWB-3C2	2/21/2025	5:40	SED	Frozen	1	1
T779.27	PAWB-3CP2	2/21/2025	4:55	SED	Frozen	1	1
T779.27	PAWB-3D2	2/21/2025	4:19	SED	Frozen	1	1
T779.27	PAWB-4B2X	2/21/2025	15:54	SED	Frozen	1	1
T779.27	PAWB-4C2	2/21/2025	19:24	SED	Frozen	1	1
T779.27	PAWB-1B1	2/20/2025	17:12	SED	Frozen	1	1
T779.27	PAWB-1C2	2/20/2025	1:48	SED	Frozen	1	1
T779.27	PAWB-1CP2	2/20/2025	2:23	SED	Frozen	1	1
T779.27	PAWB-1D2	2/20/2025	3:08	SED	Frozen	1	1
T779.27	PAWB-2B3	2/20/2025	17:56	SED	Frozen	1	1
T779.27	PAWB-2C2	2/20/2025	4:25	SED	Frozen	1	1
T779.27	PAWB-2C2-FD	2/20/2025	4:56	SED	Frozen	1	1
T779.27	PAWB-3B3	2/20/2025	15:43	SED	Frozen	1	1
T779.27	PAWB-3C2	2/20/2025	17:13	SED	Frozen	1	1
T779.27	PAWB-3CP2	2/20/2025	16:47	SED	Frozen	1	1
T779.27	PAWB-3D2	2/20/2025	19:49	SED	Frozen	1	1
T779.27	PAWB-4B2	2/20/2025	16:25	SED	Frozen	1	1
T779.27	PAWB-4C2	2/20/2025	1:09	SED	Frozen	1	1
T779.28	MGWA-1B2Y	2/4/2025	13:36	SED	Frozen	1	1
T779.28	MGWA-1C3	2/4/2025	5:24	SED	Frozen	1	1
T779.28	MGWA-1CP2	2/4/2025	3:52	SED	Frozen	1	1
T779.28	MGWA-1D2	2/4/2025	4:31	SED	Frozen	1	1
T779.28	MGWA-2B2X	2/4/2025	14:19	SED	Frozen	1	1
T779.28	MGWA-2B2X-FD	2/4/2025	16:38	SED	Frozen	1	1
T779.28	MGWA-2C2	2/4/2025	16:06	SED	Frozen	1	1
T779.28	MGWA-2B2X	2/3/2025	20:31	SED	Frozen	1	1
T779.28	MGWA-3C2	2/3/2025	21:24	SED	Frozen	1	1
T779.28	MGWA-3CP2	2/3/2025	22:10	SED	Frozen	1	1
T779.28	MGWA-3D2	2/3/2025	22:49	SED	Frozen	1	1
T779.28	MGWA-4B2X	2/4/2025	12:44	SED	Frozen	1	1
T779.28	MGWA-4C2	2/3/2025	23:24	SED	Frozen	1	1
T779.32	ERPLQERXLG-M1	2/12/2025	10:43	SED	Frozen	1	1
T779.32	ERPLQERXLG-M2	2/12/2025	10:23	SED	Frozen	1	1
T779.32	ERPLQERXLG-N1	2/12/2025	8:21	SED	Frozen	1	1
T779.32	ERPLQERXLG-N1-FD	2/12/2025	8:30	SED	Frozen	1	1
T779.32	ERPLQERXLG-N2	2/12/2025	8:03	SED	Frozen	1	1
T779.32	ERPLQERXLG-S1	2/12/2025	11:23	SED	Frozen	1	1
T779.32	ERPLQERXLG-S2	2/12/2025	13:22	SED	Frozen	1	1
T779.32	ERREF-2A	2/12/2025	17:20	SED	Frozen	1	1
T779.32	ERREF-2B	2/12/2025	17:37	SED	Frozen	1	1
T779.32	ERREF-2C	2/12/2025	17:59	SED	Frozen	1	1
T779.32	JKPLG1-E1	2/22/2025	22:20	SED	Frozen	1	1
T779.32	JKPLG1-E2	2/22/2025	22:06	SED	Frozen	1	1
T779.32	JKPLG1-M1	2/22/2025	16:10	SED	Frozen	1	1

Relinquished by:

Relinquished by:

Received by:

Received by:

SAMPLE RECEIPT CHECKLIST

Section 1: General Info
Date Received: 5/6/25 WOE 5272-1V Client: Tetra Tech Limited

Section 2: Shipping / Custody
Are custody seals present? ☒ Yes ☐ No
☐ Courier ☐ Walk-in ☐ Field Sampling ☒ Shipping info: FedEx
☐ On cooler / box ☐ On samples

Section 3a: Condition / Packaging
Date Opened: 5/6/25 By (initials): GCK Type of ice used: ☐ Wet ☐ Blue/Gel ☐ None
☐ Samples received on ice directly from the field; cooling process had begun. (If checked, skip temperatures)
☐ Sample matrix doesn't require cooling (e.g. air, bulk PCB). (If checked, skip temperatures)
If no cooler: Observed/Adjusted Temp (°C) Thermometer/IR Gun: IR11 ☐ +0.1
Cooler Temp (°C) #1: -8.1 #2: -8.0 #3: -7.7 #4: -7.7 #5: -7.7 #6: -7.7

Section 3b: Microbiology Samples
☐ Within temp range 0.0 - 10.0°C or received on ice directly from field. ☐ No microbiology samples submitted (skip 3b)
☐ Adequate headspace for microbiology analysis.

Section 3c: Air Samples
☐ No air samples submitted (skip 3c)
☐ 1L Canisters ☐ 6L Canisters ☐ Tedlar Bags ☐ MCE Cassettes ☐ Sorbent Tubes ☐ Other

Section 4: Containers / Labels / Samples

	YES	NO	N/A
1) Were custody papers present, filled properly, and legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Is the sampler's name present on the CoC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Were containers received in good condition (unbroken / unopened / uncompromised)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Were the samples bagged? (required for microbiology samples; recommended for soil samples)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Were all of, and only, the correct samples received?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Are sample labels present, legible, and in agreement with the CoC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Does the container count match the CoC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8) Was sufficient sample volume / mass received for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Were samples received in proper containers for the analyses requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Were samples received with > 1/2 holding time remaining?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) Are samples properly preserved as indicated by CoC / labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12) Unpreserved VOA's received - If necessary, was the hold time changed in LIMS?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13) Are VOA vials free from headspace/bubbles > 5mm?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 5: Explanations / Comments
(If no comments are made, then no discrepancies noted.)
3a) cooling media is dry ice

☐ No additional discrepancies

Date Logged: 2/4/25 By (print): Bensley (sign):
Date Labeled: 3/6/25 By (print): Orange (sign):



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Extractable Carbon Chain

Lab #: 2313E- Client: Dt d nDt aX6PaL		Project#: WKDA Location: D11EL31Gud6 fDxN8Rf	
Field ID: NPWNNB W6C Type: 5PS NAM Lab ID: 2313E-B9/ Matrix: 5 @ Basis: i ld	Moisture: - 24 DF: 9IEE- 9 Batch#: % / 17 Sampled: 930 702 Received: 900. 02	Prepared: 900 102 Analyzed: 900202 Prep: MNP0279S Analysis: MNP09/ 2S Analyst: r Sy	
527293-001 Analyte	Result	RL	MDL Units
DNI 6W 9BW - H	()	/ 7	. 0 mg0 g
DNI 6W - BW- H	()	/ 7	. 0 mg0 g
KOK 6W67BW -	()	%	. 0 mg0 g
527293-001 Surrogate	%REC		Limits
FBI 8a PnR	7.		198 %
Field ID: NPWNNB W6C Type: 5PS NAM Lab ID: 2313E-B93 Matrix: 5 @ Basis: i ld	Moisture: - - 4 DF: 9IEE2 Batch#: % / 17 Sampled: 930 702 Received: 900. 02	Prepared: 900 102 Analyzed: 900202 Prep: MNP0279S Analysis: MNP09/ 2S Analyst: r Sy	
527293-002 Analyte	Result	RL	MDL Units
DNI 6W 9BW - H	()	/ 7	. L mg0 g
DNI 6W - BW- H	()	/ 7	. L mg0 g
KOK 6W67BW -	()	%	. L mg0 g
527293-002 Surrogate	%REC		Limits
FBI 8a PnR	7E		198 %
Field ID: NPWNNB W3C Type: 5PS NAM Lab ID: 2313E-B99 Matrix: 5 @ Basis: i ld	Moisture: - - 4 DF: 9IEE9 Batch#: % / 17 Sampled: 930 702 Received: 900. 02	Prepared: 900 102 Analyzed: 900202 Prep: MNP0279S Analysis: MNP09/ 2S Analyst: r Sy	
527293-003 Analyte	Result	RL	MDL Units
DNI 6W 9BW - H	()	/ 7	. 02 mg0 g
DNI 6W - BW- H	()	/ 7	. 02 mg0 g
KOK 6W67BW -	()	%	. 02 mg0 g
527293-003 Surrogate	%REC		Limits
FBI 8a PnR	7.		198 %



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Extractable Carbon Chain

Lab #: 2313E-		Project#: WK DA	
Client: Dt dnDt aX6PaL		Location: D11EL31Gud6 fDXnR	
Field ID: NPWNB) 3C	Moisture: - %4	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE22	Analyzed: 9%0202	
Lab ID: 2313E-B9-	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930 702	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-003 Analyte		Result	RL MDL Units
DNI 0W 9BW - H		()	/ 1 . L mg0 g
DNI 0W - BW- H		()	/ 1 . L mg0 g
KOK 0W67BW -		()	%2 . L mg0 g
527293-003 Surrogate		%REC	Limits
FBI 0a RnR		E3	198 %0
Field ID: NPOMeP	Moisture: 234	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE 9	Analyzed: 9%0202	
Lab ID: 2313E-B92	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930 %02	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-005 Analyte		Result	RL MDL Units
DNI 0W 9BW - H		()	3/ 1L mg0 g
DNI 0W - BW- H		()	3/ 1L mg0 g
KOK 0W67BW -		()	-3 1L mg0 g
527293-005 Surrogate		%REC	Limits
FBI 0a RnR		E9	198 %0
Field ID: NPOMeP	Moisture: 234	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE /	Analyzed: 9%0202	
Lab ID: 2313E-B9.	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930 %02	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-006 Analyte		Result	RL MDL Units
DNI 0W 9BW - H		()	3/ 1L mg0 g
DNI 0W - BW- H		()	3/ 1L mg0 g
KOK 0W67BW -		()	-/ 1L mg0 g
527293-006 Surrogate		%REC	Limits
FBI 0a RnR		E9	198 %0

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Extractable Carbon Chain

Lab #: 2313E-		Project#: WK DA	
Client: Dt dnDt aX6PaL		Location: D11EL31Gud6 fDXnR	
Field ID: NPOMeBV	Moisture: 234	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE 9	Analyzed: 9%0202	
Lab ID: 2313E-B91	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930 %02	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-007 Analyte		Result	RL MDL Units
DNI 0W 9BW - H		()	3/ 1L mg0 g
DNI 0W - BW- H		()	3/ 1L mg0 g
KOK 0W67BW -		()	-3 1L mg0 g
527293-007 Surrogate		%REC	Limits
FBI 0a RnR		E2	198 %0
Field ID: NPF yB W6	Moisture: - 14	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE3.	Analyzed: 9%0202	
Lab ID: 2313E-B97	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930902	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-008 Analyte		Result	RL MDL Units
TPH (C10-C13)		25	/ E . IE mg0 g
TPH (C13-C23)		33	/ E . IE mg0 g
KOK 0W67BW -		()	%0 . IE mg0 g
527293-008 Surrogate		%REC	Limits
FBI 0a RnR		E%	198 %0
Field ID: NPF yB W3	Moisture: - E4	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE/ /	Analyzed: 9%0202	
Lab ID: 2313E-B9E	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930902	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-009 Analyte		Result	RL MDL Units
DNI 0W 9BW - H		()	/ E 113 mg0 g
DNI 0W - BW- H		()	/ E 113 mg0 g
KOK 0W67BW -		()	%E 113 mg0 g
527293-009 Surrogate		%REC	Limits
FBI 0a RnR		E/	198 %0

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Extractable Carbon Chain

Lab #: 2313E-		Project#: WK DA	
Client: Dt dnDt aX6PaL		Location: D11EL31Gud6 fDXnR	
Field ID: NPF yB) 3	Moisture: 294	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE19	Analyzed: 9%0202	
Lab ID: 2313E-B/ 9	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930902	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-010 Analyte		Result	RL MDL Units
DNI 0W 9BW - H		()	39 11% mg0 g
DNI 0W - BW- H		()	39 11% mg0 g
KOK 0W67BW -		()	-9 11% mg0 g
527293-010 Surrogate		%REC	Limits
FBI 0a RnR		E3	198 %0
Field ID: NPF yB) / C	Moisture: - 74	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE72	Analyzed: 9%0202	
Lab ID: 2313E-B/ /	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930/ 02	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-011 Analyte		Result	RL MDL Units
TPH (C10-C13)		20	/ E 1L mg0 g
TPH (C13-C23)		17	/ E 1L mg0 g
KOK 0W67BW -		()	%0 1L mg0 g
527293-011 Surrogate		%REC	Limits
FBI 0a RnR		E/	198 %0
Field ID: NPF yBW6	Moisture: - 74	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE 9	Analyzed: 9%0. 02	
Lab ID: 2313E-B/ 3	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930/ 02	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-012 Analyte		Result	RL MDL Units
DNI 0W 9BW - H		()	/ E 119 mg0 g
DNI 0W - BW- H		()	/ E 119 mg0 g
KOK 0W67BW -		()	%0 119 mg0 g
527293-012 Surrogate		%REC	Limits
FBI 0a RnR		E/	198 %0

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Extractable Carbon Chain

Lab #: 2313E-		Project#: WK DA	
Client: Dt dnDt aX6PaL		Location: D11EL31Gud6 fDXnR	
Field ID: NPF yB) 3	Moisture: - - 4	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE12	Analyzed: 9%0. 02	
Lab ID: 2313E-B/ %	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930/ 02	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-011 Analyte		Result	RL MDL Units
TPH (C10-C13)		150	/ 7 . L mg0 g
TPH (C13-C23)		230	/ 7 . L mg0 g
KOK 0W67BW -		()	% . L mg0 g
527293-011 Surrogate		%REC	Limits
FBI 0a RnR		E/	198 %0
Field ID: NPF yBW6	Moisture: - - 4	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE22	Analyzed: 9%0. 02	
Lab ID: 2313E-B/ -	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930/ 02	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-013 Analyte		Result	RL MDL Units
DNI 0W 9BW - H		()	/ 7 . L mg0 g
DNI 0W - BW- H		()	/ 7 . L mg0 g
KOK 0W67BW -		()	%0 . L mg0 g
527293-013 Surrogate		%REC	Limits
FBI 0a RnR		E%	198 %0
Field ID: NPF yBW3	Moisture: - E4	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE 2	Analyzed: 9%0. 02	
Lab ID: 2313E-B/ 2	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930/ 02	Analysis: MNP09/ 2S	
Basis: iId	Received: 9%0. 02	Analyst: r Sy	
527293-015 Analyte		Result	RL MDL Units
DNI 0W 9BW - H		()	39 113 mg0 g
DNI 0W - BW- H		()	39 113 mg0 g
KOK 0W67BW -		()	%E 113 mg0 g
527293-015 Surrogate		%REC	Limits
FBI 0a RnR		E3	198 %0

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Extractable Carbon Chain

Lab #: 2313E-	Project#: WK DA	
Client: Dt dnDt aXt6PaL	Location: D11EL31Gd6 fDxNmR	
Field ID: NPF yBj 3	Moisture: - 14	Prepared: 9%0 102
Type: 5PS NAM	DF: 9IEE29	Analyzed: 9%0. 02
Lab ID: 2313E-B/ .	Batch#: %./ 17	Prep: MNP0279S
Matrix: 5 0	Sampled: 930/ 02	Analysis: MNP09/ 2S
Basis: i ld	Received: 9%0. 02	Analyst: r Sy

527293-016 Analyte	Result	RL	MDL	Units
DNI 0W 9BW - H	()	/ E	. IE	mg0 g
DNI 0W - BW- H	()	/ E	. IE	mg0 g
KOK 0W67BW -	()	%	. IE	mg0 g
527293-016 Surrogate	%REC		Limits	
FBI 0ha RnR	E-		198 %0	

Field ID: NPF yBj3C	Moisture: - %	Prepared: 9%0 102
Type: 5PS NAM	DF: 9IEE29	Analyzed: 9%0. 02
Lab ID: 2313E-B/ 1	Batch#: %./ 17	Prep: MNP0279S
Matrix: 5 0	Sampled: 930/ 02	Analysis: MNP09/ 2S
Basis: i ld	Received: 9%0. 02	Analyst: r Sy

527293-017 Analyte	Result	RL	MDL	Units
TPH (C10-C13)	15	/ 1	. L	mg0 g
TPH (C13-C23)	62	/ 1	. L	mg0 g
KOK 0W67BW -	()	%2	. L	mg0 g
527293-017 Surrogate	%REC		Limits	
FBI 0ha RnR	E-		198 %0	

Field ID: NPF yB W8	Moisture: - . 4	Prepared: 9%0 102
Type: 5PS NAM	DF: 9IEE29	Analyzed: 9%0. 02
Lab ID: 2313E-B/ 7	Batch#: %./ 17	Prep: MNP0279S
Matrix: 5 0	Sampled: 930/ 02	Analysis: MNP09/ 2S
Basis: i ld	Received: 9%0. 02	Analyst: r Sy

527293-018 Analyte	Result	RL	MDL	Units
DNI 0W 9BW - H	()	/ 7	. L7	mg0 g
DNI 0W - BW- H	()	/ 7	. L7	mg0 g
KOK 0W67BW -	()	%	. L7	mg0 g
527293-018 Surrogate	%REC		Limits	
FBI 0ha RnR	E/		198 %0	

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Extractable Carbon Chain

Lab #: 2313E-		Project#: WK DA	
Client: Dt dnDt aXt6PaL		Location: D11EL31Gd6 fDxNmR	
Field ID: NPF MB y/	Moisture: - %	Prepared: 9%0 102	
Type: 5PS NAM	DF: 9IEE22	Analyzed: 9%0. 02	
Lab ID: 2313E-B/ E	Batch#: %./ 17	Prep: MNP0279S	
Matrix: 5 0	Sampled: 930902	Analysis: MNP09/ 2S	
Basis: i ld	Received: 9%0. 02	Analyst: r Sy	

527293-019 Analyte	Result	RL	MDL	Units
DNI 0W 9BW - H	()	/ 1	. L	mg0 g
DNI 0W - BW- H	()	/ 1	. L	mg0 g
KOK 0W67BW -	()	%2	. L	mg0 g
527293-019 Surrogate	%REC		Limits	
FBI 0ha RnR	E%		198 %0	

Field ID: NPF MB W8	Moisture: - 14	Prepared: 9%0 102
Type: 5PS NAM	DF: 9IEE3/	Analyzed: 9%0. 02
Lab ID: 2313E-B/39	Batch#: %./ 17	Prep: MNP0279S
Matrix: 5 0	Sampled: 930902	Analysis: MNP09/ 2S
Basis: i ld	Received: 9%0. 02	Analyst: r Sy

527293-020 Analyte	Result	RL	MDL	Units
DNI 0W 9BW - H	()	/ E	. IE	mg0 g
DNI 0W - BW- H	()	/ E	. IE	mg0 g
KOK 0W67BW -	()	%	. IE	mg0 g
527293-020 Surrogate	%REC		Limits	
FBI 0ha RnR	E3		198 %0	

Type: yAP(r	Batch#: %./ 17	Analysis: MNP09/ 2S
Lab ID: QW 3%E7%	Prepared: 9%0 102	Analyst: r Sy
Matrix: 5 0	Analyzed: 9%0202	
DF: 9IEEE2	Prep: MNP0279S	

QC12j 90j 8 Analyte	Result	RL	MDL	Units
DNI 0W 9BW - H	()	/ 9	%J	mg0 g
DNI 0W - BW- H	()	/ 9	%J	mg0 g
KOK 0W67BW -	()	39	%J	mg0 g
QC12j 90j 8 Surrogate	%REC		Limits	
FBI 0ha RnR	77		198 %0	

A g R
MDL: 510K 10 1000 R0000
MD: () 0 1000 1000 1000 1000 A
RL: 0 p 1000000

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Extractable Carbon Chain: Batch QC

Lab #: M/E74-	Project#: Ct nL	
Client: n. 0f 0n. aQ0Kai	Location: nEE4i7E0Gud0 f0hQ 0 Kd	
Type: LCS	Batch#: 3665EP	Analysis: A 80P15M0
Lab ID: 2C5734P3E	Prepared: 13/5E7M	Analyst: 9QD
Matrix: SI 0	Analyzed: 13/7M7M	
DF: SI115	Prep: A 80MP1Q	

QC1239837 Analyte	Spiked	Result	%REC	Limits	Units
T Be. 0C5107P	7MI5	77-11	41	E6077	mg/gg
QC1239837 Surrogate	%REC		Limits		
Kon 0al K0 K	PM		E10531		

1 of 1

Extractable Carbon Chain: Batch QC

Lab #: 527294		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PACPP-4C2X	Matrix: Soil	Batch#: 366178	Analyzed: 03/25/25
Type: MS	Basis: dry	Sampled: 02/18/25	Prep: EPA 3580M
MSS Lab ID: 527294-001	Moisture: 45%	Received: 03/06/25	Analysis: EPA 8015M
Lab ID: QC1239839	DF: 0.9980	Prepared: 03/17/25	Analyst: KMB

QC1239839 Analyte	MSS Result	Spiked	Result	%REC	Limits	Units
Diesel C10-C28	<6.651	453.6	397.0	88	62-126	mg/Kg
QC1239839 Surrogate				%REC	Limits	
n-Triacontane				83	70-130	

Field ID: PACPP-4C2X	Matrix: Soil	Batch#: 366178	Analyzed: 03/25/25
Type: MSD	Basis: dry	Sampled: 02/18/25	Prep: EPA 3580M
MSS Lab ID: 527294-001	Moisture: 45%	Received: 03/06/25	Analysis: EPA 8015M
Lab ID: QC1239840	DF: 0.9975	Prepared: 03/17/25	Analyst: KMB

QC1239840 Analyte	Spiked	Result	%REC	Limits	Units	RPD	Lim
Diesel C10-C28	453.4	418.4	92	62-126	mg/Kg	5	35
QC1239840 Surrogate	%REC		Limits				
n-Triacontane	70		70-130				

Legend
RPD: Relative Percent
Difference

1 of 1

M, istUre

Lab #: 527294			Pr, ject#: COTL		
Client: Tetra Tech, Inc.			L, cati, n: T779.27 - Gulf of Thailand		
Field ID: PACPP-4C2X	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-001	Sampled: 02/18/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-11u Analyte			ResUlt	RL	onits
M, istUre4Percent			05	1	%
Field ID: PACPP-4C2X-FD	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-002	Sampled: 02/18/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-112 Analyte			ResUlt	RL	onits
M, istUre4Percent			00	1	%
Field ID: PACPP-4CP2X	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-003	Sampled: 02/18/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-113 Analyte			ResUlt	RL	onits
M, istUre4Percent			00	1	%
Field ID: PACPP-4D2X	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-004	Sampled: 02/18/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-110 Analyte			ResUlt	RL	onits
M, istUre4Percent			03	1	%
Field ID: PAREF-A	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-005	Sampled: 02/13/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-115 Analyte			ResUlt	RL	onits
M, istUre4Percent			52	1	%
Field ID: PAREF-B	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-006	Sampled: 02/13/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-116 Analyte			ResUlt	RL	onits
M, istUre4Percent			52	1	%

1 of 4

M, istUre

Lab #: 527294			Pr, ject#: COTL		
Client: Tetra Tech, Inc.			L, cati, n: T779.27 - Gulf of Thailand		
Field ID: PAREF-C	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-007	Sampled: 02/13/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-117 Analyte			ResUlt	RL	onits
M, istUre4Percent			52	1	%
Field ID: PAWB-1C2	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-008	Sampled: 02/20/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-118 Analyte			ResUlt	RL	onits
M, istUre4Percent			07	1	%
Field ID: PAWB-1CP2	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-009	Sampled: 02/20/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-119 Analyte			ResUlt	RL	onits
M, istUre4Percent			09	1	%
Field ID: PAWB-1D2	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-010	Sampled: 02/20/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-1u1 Analyte			ResUlt	RL	onits
M, istUre4Percent			51	1	%
Field ID: PAWB-2B1X	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-011	Sampled: 02/21/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-1u1 Analyte			ResUlt	RL	onits
M, istUre4Percent			08	1	%
Field ID: PAWB-2C2	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-012	Sampled: 02/21/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-1u2 Analyte			ResUlt	RL	onits
M, istUre4Percent			08	1	%

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M, istUre

Lab #: 527294			Pr, ject#: COTL		
Client: Tetra Tech, Inc.			L, cati, n: T779.27 - Gulf of Thailand		
Field ID: PAWB-3B2	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-013	Sampled: 02/21/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-1u3 Analyte			ResUlt	RL	onits
M, istUre4Percent			00	1	%
Field ID: PAWB-3C2	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-014	Sampled: 02/21/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-1u0 Analyte			ResUlt	RL	onits
M, istUre4Percent			06	1	%
Field ID: PAWB-3CP2	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-015	Sampled: 02/21/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-1u5 Analyte			ResUlt	RL	onits
M, istUre4Percent			09	1	%
Field ID: PAWB-3D2	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-016	Sampled: 02/21/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-1u6 Analyte			ResUlt	RL	onits
M, istUre4Percent			07	1	%
Field ID: PAWB-4B2X	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-017	Sampled: 02/21/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-1u7 Analyte			ResUlt	RL	onits
M, istUre4Percent			03	1	%
Field ID: PAWB-4C2	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-018	Sampled: 02/21/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-1u8 Analyte			ResUlt	RL	onits
M, istUre4Percent			06	1	%

3 of 4

M, istUre

Lab #: 527294			Pr, ject#: COTL		
Client: Tetra Tech, Inc.			L, cati, n: T779.27 - Gulf of Thailand		
Field ID: PAWE-1B1	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-019	Sampled: 02/20/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-1u9 Analyte			ResUlt	RL	onits
M, istUre4Percent			03	1	%
Field ID: PAWE-1C2	Batch#: 366787	Analyzed: 03/24/25			
Lab ID: 527294-020	Sampled: 02/20/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
527290-1u9 Analyte			ResUlt	RL	onits
M, istUre4Percent			07	1	%

Legend
RL: Reporting Limit

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Moisture: Batch QC

Lab #: 527294		Project#: COTL					
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand					
Field ID: PAREF-B	DF: 1.000	Analyzed: 03/24/25					
Type: SDUP	Batch#: 366787	Prep: METHOD					
MSS Lab ID: 527294-006	Sampled: 02/13/25	Analysis: ASTM D2216					
Lab ID: QC1241900	Received: 03/06/25	Analyst: CDR					
Matrix: Soil	Prepared: 03/23/25						
QC1241900 Analyte		MSS Result	Result	RL	Units	RPD	Lim
Moisture, Percent		52.05	53.87	1.000	%	3	20
Legend							
RL: Reporting Limit							
RPD: Relative Percent Precision							

Legend
RL: Reporting Limit
RPD: Relative Percent Difference



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
Lab Job Number : 527295
Report Level : II
Report Date : 03/27/2025

Analytical Report prepared for:

Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549

Project: COTL - T779.27 - Gulf of Thailand

Authorized for release by:


Miguel Gamboa, Project Manager
miguel.gamboa@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105, ORELAP# 4197

Sample Summary

Ted Donn Tetra Tech, Inc. 3697 Mt. Diablo Blvd. Suite 150 Lafayette, CA 94549		Lab Job #: 527295 Project No: COTL Location: T779.27 - Gulf of Thailand Date Received: 03/06/25
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Sample ID	Lab ID	Collected	Matrix
PAWE-1CP2	527295-001	02/20/25 02:23	Soil
PAWE-1D2	527295-002	02/20/25 03:08	Soil
PAWE-2B3	527295-003	02/20/25 17:56	Soil
PAWE-2C2	527295-004	02/20/25 04:25	Soil
PAWE-2C2-FD	527295-005	02/20/25 04:56	Soil
PAWE-3B3	527295-006	02/20/25 15:43	Soil
PAWE-3C2	527295-007	02/20/25 17:13	Soil
PAWE-3CP2	527295-008	02/20/25 16:47	Soil
PAWE-3D2	527295-009	02/20/25 19:49	Soil
PAWE-4B2	527295-010	02/20/25 16:25	Soil
PAWE-4C2	527295-011	02/20/25 01:09	Soil

Case Narrative

Tetra Tech, Inc. 3697 Mt. Diablo Blvd. Suite 150 Lafayette, CA 94549 Ted Donn	Lab Job Number: 527295 Project No: COTL Location: T779.27 - Gulf of Thailand Date Received: 03/06/25
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This data package contains sample and QC results for eleven soil samples, requested for the above referenced project on 03/06/25. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015M):

- TPH (C14-C24) was detected between the MDL and the RL in the method blank for batch 366316; this analyte was not detected in samples at or above the RL.
- No other analytical problems were encountered.

Moisture (ASTM D2216):

No analytical problems were encountered.

Project	Sample ID	Date	Time	Medium	Preserve	TPH	Dry Weight
1779.27	PAWB-2C2	2/21/2025	16:59	SED	Frozen	1	1
1779.27	PAWB-3B2	2/21/2025	14:38	SED	Frozen	1	1
1779.27	PAWB-3C2	2/21/2025	5:40	SED	Frozen	1	1
1779.27	PAWB-3CP2	2/21/2025	4:55	SED	Frozen	1	1
1779.27	PAWB-3D2	2/21/2025	4:19	SED	Frozen	1	1
1779.27	PAWB-4B2X	2/21/2025	15:54	SED	Frozen	1	1
1779.27	PAWB-4C3	2/21/2025	19:24	SED	Frozen	1	1
1779.27	PAWE-1B1	2/20/2025	17:22	SED	Frozen	1	1
1779.27	PAWE-1C2	2/20/2025	1:48	SED	Frozen	1	1
1779.27	PAWE-1CP2	2/20/2025	2:23	SED	Frozen	1	1
1779.27	PAWE-1D2	2/20/2025	3:08	SED	Frozen	1	1
1779.27	PAWE-2B3	2/20/2025	17:56	SED	Frozen	1	1
1779.27	PAWE-2C2	2/20/2025	4:25	SED	Frozen	1	1
1779.27	PAWE-2C2-FD	2/20/2025	4:56	SED	Frozen	1	1
1779.27	PAWE-3B3	2/20/2025	18:43	SED	Frozen	1	1
1779.27	PAWE-3C2	2/20/2025	17:13	SED	Frozen	1	1
1779.27	PAWE-3CP2	2/20/2025	16:47	SED	Frozen	1	1
1779.27	PAWE-3D2	2/20/2025	19:49	SED	Frozen	1	1
1779.27	PAWE-4B2	2/20/2025	16:35	SED	Frozen	1	1
1779.27	PAWE-4C2	2/20/2025	1:09	SED	Frozen	1	1
1779.28	MGWA-1B2Y	2/4/2025	13:36	SED	Frozen	1	1
	MGWA-1C2	2/4/2025	5:24	SED	Frozen	1	1
	MGWA-1CP2	2/4/2025	3:52	SED	Frozen	1	1
	MGWA-1D2	2/4/2025	4:31	SED	Frozen	1	1
	MGWA-2B2X	2/4/2025	14:19	SED	Frozen	1	1
	MGWA-2B2X-FD	2/4/2025	14:38	SED	Frozen	1	1
	MGWA-2C2	2/4/2025	15:06	SED	Frozen	1	1
	MGWA-2B2X	2/3/2025	20:31	SED	Frozen	1	1
	MGWA-3C2	2/3/2025	21:24	SED	Frozen	1	1
	MGWA-3CP2	2/3/2025	22:10	SED	Frozen	1	1
	MGWA-3D2	2/3/2025	22:49	SED	Frozen	1	1
	MGWA-4B2X	2/4/2025	12:44	SED	Frozen	1	1
	MGWA-4C2	2/3/2025	23:24	SED	Frozen	1	1
1779.32	ERPLGERLGM-1	2/12/2025	10:43	SED	Frozen	1	1
1779.32	ERPLGERLGM-2	2/12/2025	10:23	SED	Frozen	1	1
1779.32	ERPLGERLGM-3	2/12/2025	8:21	SED	Frozen	1	1
1779.32	ERPLGERLGM-1-FD	2/12/2025	8:30	SED	Frozen	1	1
1779.32	ERPLGERLGM-2	2/12/2025	8:53	SED	Frozen	1	1
1779.32	ERPLGERLGM-3	2/12/2025	11:23	SED	Frozen	1	1
1779.32	ERPLGERLGM-S1	2/12/2025	13:22	SED	Frozen	1	1
1779.32	ERPLGERLGM-S2	2/12/2025	13:22	SED	Frozen	1	1
1779.32	ERREF-2-A	2/12/2025	17:20	SED	Frozen	1	1
1779.32	ERREF-2-B	2/12/2025	17:37	SED	Frozen	1	1
1779.32	ERREF-2-C	2/12/2025	17:59	SED	Frozen	1	1
1779.32	JKPLC1-E1	2/22/2025	22:20	SED	Frozen	1	1
1779.32	JKPLC1-E2	2/22/2025	22:06	SED	Frozen	1	1
1779.32	JKPLC1-M1	2/22/2025	18:10	SED	Frozen	1	1

Relinquished by:

Received by:

Section 1: General Info
 Date Received: 5/6/25 WOI# 5272/V Client: Tetra Tech Limited



Section 2: Shipping / Custody
 Custody seals intact on arrival? ☐ N/A ☐ Yes ☐ No ☐ On cooler / box ☐ No samples
☐ Courier ☐ Walk-in ☐ Field Sampling ☒ Shipping info: FedEx

Are custody seals present? ☐ Yes ☐ No

Section 3a: Condition / Packaging **Outside 0.0 - 6.0°C (0.0 - 10.0°C for microbiology) (PM notified)**

Date Opened: 5/6/25 By (initials): OCK Type of ice used: ☐ Wet ☐ Blue/Gel ☐ None

☐ Samples received on ice directly from the cooling process had begun. (if checked, skip temperatures)
☐ Sample matrix doesn't require cooling (e.g. air, bulk PCB). (if checked, skip temperatures)

If no cooler: Observed/Adjusted Temp (°C): Thermometer(s) IR11 CF +0.1

Cooler Temp (°C) #1: -9.1 #2: -8.0 #3: -7.8 #4: -0.1 #5: #6: #7: #8: #9: #10: #11: #12: #13: #14: #15: #16: #17: #18: #19: #20: #21: #22: #23: #24: #25: #26: #27: #28: #29: #30: #31: #32: #33: #34: #35: #36: #37: #38: #39: #40: #41: #42: #43: #44: #45: #46: #47: #48: #49: #50: #51: #52: #53: #54: #55: #56: #57: #58: #59: #60: #61: #62: #63: #64: #65: #66: #67: #68: #69: #70: #71: #72: #73: #74: #75: #76: #77: #78: #79: #80: #81: #82: #83: #84: #85: #86: #87: #88: #89: #90: #91: #92: #93: #94: #95: #96: #97: #98: #99: #100: #101: #102: #103: #104: #105: #106: #107: #108: #109: #110: #111: #112: #113: #114: #115: #116: #117: #118: #119: #120: #121: #122: #123: #124: #125: #126: #127: #128: #129: #130: #131: #132: #133: #134: #135: #136: #137: #138: #139: #140: #141: #142: #143: #144: #145: #146: #147: #148: #149: #150: #151: #152: #153: #154: #155: #156: #157: #158: #159: #160: #161: #162: #163: #164: #165: #166: #167: #168: #169: #170: #171: #172: #173: #174: #175: #176: #177: #178: #179: #180: #181: #182: #183: #184: #185: #186: #187: #188: #189: #190: #191: #192: #193: #194: #195: #196: #197: #198: #199: #200: #201: #202: #203: #204: #205: #206: #207: #208: #209: #210: #211: #212: #213: #214: #215: #216: #217: #218: #219: #220: #221: #222: #223: #224: #225: #226: #227: #228: #229: #230: #231: #232: #233: #234: #235: #236: #237: #238: #239: #240: #241: #242: #243: #244: #245: #246: #247: #248: #249: #250: #251: #252: #253: #254: #255: #256: #257: #258: #259: #260: #261: #262: #263: #264: #265: #266: #267: #268: #269: #270: #271: #272: #273: #274: #275: #276: #277: #278: #279: #280: #281: #282: #283: #284: #285: #286: #287: #288: #289: #290: #291: #292: #293: #294: #295: #296: #297: #298: #299: #300: #301: #302: #303: #304: #305: #306: #307: #308: #309: #310: #311: #312: #313: #314: #315: #316: #317: #318: #319: #320: #321: #322: #323: #324: #325: #326: #327: #328: #329: #330: #331: #332: #333: #334: #335: #336: #337: #338: #339: #340: #341: #342: #343: #344: #345: #346: #347: #348: #349: #350: #351: #352: #353: #354: #355: #356: #357: #358: #359: #360: #361: #362: #363: #364: #365: #366: #367: #368: #369: #370: #371: #372: #373: #374: #375: #376: #377: #378: #379: #380: #381: #382: #383: #384: #385: #386: #387: #388: #389: #390: #391: #392: #393: #394: #395: #396: #397: #398: #399: #400: #401: #402: #403: #404: #405: #406: #407: #408: #409: #410: #411: #412: #413: #414: #415: #416: #417: #418: #419: #420: #421: #422: #423: #424: #425: #426: #427: #428: #429: #430: #431: #432: #433: #434: #435: #436: #437: #438: #439: #440: #441: #442: #443: #444: #445: #446: #447: #448: #449: #450: #451: #452: #453: #454: #455: #456: #457: #458: #459: #460: #461: #462: #463: #464: #465: #466: #467: #468: #469: #470: #471: #472: #473: #474: #475: #476: #477: #478: #479: #480: #481: #482: #483: #484: #485: #486: #487: #488: #489: #490: #491: #492: #493: #494: #495: #496: #497: #498: #499: #500: #501: #502: #503: #504: #505: #506: #507: #508: #509: #510: #511: #512: #513: #514: #515: #516: #517: #518: #519: #520

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ORIGIN: CIGOSA BARBARA MARCON 15700 N. 150 3807 MT. GARIBO BLVD #110 LAKEVILLE, CA 94551 (916) 452-0000	(916) 452-8777 FAX: (916) 452-8777 FAX: (916) 452-8777	SHIP DATE: 04/04/95 ACTIVITY: 01/01/95 CAC: 01/01/95 CAC: 01/01/95 CAC: 01/01/95 CAC: 01/01/95
SAMPLE CONTROL ENTHALPY ANALYTICAL 931 W. BARKLEY AVE. ORANGE CA 92668		
ITN: 771-4590 IN:	927 752-7479/2734 927	927 752-7479/2734 927
		

3 of 4
WED - 05 MAR 10:30A
PRIORITY OVERNIGHT
ICE
92868
CA-US SNA
92 APVA
7723 4802 8324
7723 4802 8302

ORIGIN: CUS254 MARIANA MAGGION TETA TECH INC 3801 W. DAVIS ST BLDG 410 LAFAYETTE, CA 94501 770 771-8806	(800) 765-5771	SHIP DATE: 5/28/05 ACTIVITY: 6/16/05 CALL: 5/28/05 10:28 AM CNSL: JANTZEN, J BILLY: 5/28/05
SAMPLE CONTROL ENTHALPY ANALYTICAL 931 W. BARKLEY AVE. ORANGE CA 92668 771 771-8806 800-765-5771		

100% RECYCLED PAPER WITH 10% POST CONSUMER WASTE

FedEx

Express

1 DAY

SM

5/28/05

10:28 AM

10:28 AM

10:28 AM

WED - 05 MAR 10:30A
PRIORITY OVERNIGHT
ICE
92868
CA-US SNA

Extractable Carbon Chain

Lab #: 527295		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PAWE-1CP2	Moisture: 48%	Prepared: 03/18/25	
Type: SAMPLE	DF: 0.9950	Analyzed: 03/27/25	
Lab ID: 527295-001	Batch#: 366316	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/20/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527295-001 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.1 mg/Kg
TPH (C14-C24)		ND	19 7.1 mg/Kg
ORO C28-C44		ND	38 7.1 mg/Kg
527295-001 Surrogate		%REC	Limits
n-Triacontane		116	70-130
Field ID: PAWE-1D2		Moisture: 48%	
Type: SAMPLE		DF: 0.9980	
Lab ID: 527295-002		Batch#: 366316	
Matrix: Soil		Sampled: 02/20/25	
Basis: dry		Received: 03/06/25	
527295-002 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.1 mg/Kg
TPH (C14-C24)		ND	19 7.1 mg/Kg
ORO C28-C44		ND	38 7.1 mg/Kg
527295-002 Surrogate		%REC	Limits
n-Triacontane		96	70-130
Field ID: PAWE-2B3		Moisture: 43%	
Type: SAMPLE		DF: 0.9960	
Lab ID: 527295-003		Batch#: 366316	
Matrix: Soil		Sampled: 02/20/25	
Basis: dry		Received: 03/06/25	
527295-003 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	17 6.5 mg/Kg
TPH (C14-C24)		ND	17 6.5 mg/Kg
ORO C28-C44		ND	35 6.5 mg/Kg
527295-003 Surrogate		%REC	Limits
n-Triacontane		112	70-130



Extractable Carbon Chain

Lab #: 527295		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PAWE-2C2	Moisture: 46%	Prepared: 03/18/25	
Type: SAMPLE	DF: 0.9906	Analyzed: 03/27/25	
Lab ID: 527295-004	Batch#: 366316	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/20/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527295-004 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.8 mg/Kg
TPH (C14-C24)		ND	18 6.8 mg/Kg
ORO C28-C44		ND	37 6.8 mg/Kg
527295-004 Surrogate		%REC	Limits
n-Triacontane		116	70-130
Field ID: PAWE-2C2-FD		Moisture: 44%	
Type: SAMPLE		DF: 1.000	
Lab ID: 527295-005		Batch#: 366316	
Matrix: Soil		Sampled: 02/20/25	
Basis: dry		Received: 03/06/25	
527295-005 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.6 mg/Kg
TPH (C14-C24)		ND	18 6.6 mg/Kg
ORO C28-C44		ND	36 6.6 mg/Kg
527295-005 Surrogate		%REC	Limits
n-Triacontane		113	70-130
Field ID: PAWE-3B3		Moisture: 45%	
Type: SAMPLE		DF: 0.9995	
Lab ID: 527295-006		Batch#: 366316	
Matrix: Soil		Sampled: 02/20/25	
Basis: dry		Received: 03/06/25	
527295-006 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.8 mg/Kg
TPH (C14-C24)		ND	18 6.8 mg/Kg
ORO C28-C44		ND	36 6.8 mg/Kg
527295-006 Surrogate		%REC	Limits
n-Triacontane		110	70-130

Extractable Carbon Chain

Lab #: 527295		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PAWE-3C2	Moisture: 48%	Prepared: 03/18/25	
Type: SAMPLE	DF: 0.9990	Analyzed: 03/27/25	
Lab ID: 527295-007	Batch#: 366316	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/20/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527295-007 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.2 mg/Kg
TPH (C14-C24)		ND	19 7.2 mg/Kg
ORO C28-C44		ND	38 7.2 mg/Kg
527295-007 Surrogate		%REC	Limits
n-Triacontane		108	70-130
Field ID: PAWE-3CP2		Moisture: 47%	
Type: SAMPLE		DF: 0.9975	
Lab ID: 527295-008		Batch#: 366316	
Matrix: Soil		Sampled: 02/20/25	
Basis: dry		Received: 03/06/25	
527295-008 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.0 mg/Kg
TPH (C14-C24)		ND	19 7.0 mg/Kg
ORO C28-C44		ND	38 7.0 mg/Kg
527295-008 Surrogate		%REC	Limits
n-Triacontane		106	70-130
Field ID: PAWE-3D2		Moisture: 47%	
Type: SAMPLE		DF: 0.9975	
Lab ID: 527295-009		Batch#: 366316	
Matrix: Soil		Sampled: 02/20/25	
Basis: dry		Received: 03/06/25	
527295-009 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.0 mg/Kg
TPH (C14-C24)		ND	19 7.0 mg/Kg
ORO C28-C44		ND	38 7.0 mg/Kg
527295-009 Surrogate		%REC	Limits
n-Triacontane		108	70-130

Extractable Carbon Chain

Lab #: 527295		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PAWE-4B2	Moisture: 44%	Prepared: 03/18/25	
Type: SAMPLE	DF: 0.9935	Analyzed: 03/27/25	
Lab ID: 527295-010	Batch#: 366316	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/20/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
527295-010 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	18 6.6 mg/Kg
TPH (C14-C24)		ND	18 6.6 mg/Kg
ORO C28-C44		ND	35 6.6 mg/Kg
527295-010 Surrogate		%REC	Limits
n-Triacontane		105	70-130
Field ID: PAWE-4C2		Moisture: 47%	Prepared: 03/18/25
Type: SAMPLE		DF: 0.9965	Analyzed: 03/27/25
Lab ID: 527295-011		Batch#: 366316	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/20/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
527295-011 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	19 7.0 mg/Kg
TPH (C14-C24)		ND	19 7.0 mg/Kg
ORO C28-C44		ND	38 7.0 mg/Kg
527295-011 Surrogate		%REC	Limits
n-Triacontane		105	70-130
Type: BLANK		Batch#: 366316	Analysis: EPA 8015M
Lab ID: QC1240313		Prepared: 03/18/25	Analyst: KMB
Matrix: Soil		Analyzed: 03/18/25	
DF: 1.000		Prep: EPA 3580M	
QC1240313 Analyte		Result	RL MDL Units
TPH (C10-C14)		ND	10 3.7 mg/Kg
TPH (C14-C24)		3.8 J	10 3.7 mg/Kg
ORO C28-C44		ND	20 3.7 mg/Kg
QC1240313 Surrogate		%REC	Limits
n-Triacontane		110	70-130
Legend			
J: Estimated value			
MDL: Method Detection Limit			
ND: Not Detected at or above MDL			
RL: Reporting Limit			

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Extractable Carbon Chain: Batch QC

Lab #: 12- 2o1		Project#: Ct nL	
Client: n. cī n. aCh, Kai		Location: n- - oi2- sGuB Dī nOī lB Kd	
Type: LCS	Batch#: 366356	Analysis: EPA 8051M	
Lab ID: QC5270357	Prepared: 03-68-41	Analyst: / M9	
Matrix: SDB	Analyzed: 03-6o-41		
DF: 5i005	Prep: EPA 3180M		
QC1240314 Analyte		Spiked	Result
I L e. BC5o4C28		210i5	25oi6
QC1240314 Surrogate		%REC	Limits
KenTīr aDīK K		o-	- 0s530

1 of 1

Extractable Carbon Chain: Batch QC

Lab #: 527295		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: ZZZZZZZZZZ	Basis: as received	Prepared: 03/18/25	
Type: MS	DF: 0.9960	Analyzed: 03/19/25	
MSS Lab ID: 528964-001	Batch#: 366316	Prep: EPA 3580M	
Lab ID: QC1240315	Sampled: 03/17/25	Analysis: EPA 8015M	
Matrix: Soil	Received: 03/17/25	Analyst: KMB	
QC1240315 Analyte		MSS Result	Spiked
Diesel C10-C28		4.324	249.0
QC1240315 Surrogate		%REC	Limits
n-Triacontane		94	70-130
Field ID: ZZZZZZZZZZ		Basis: as received	Prepared: 03/18/25
Type: MSD		DF: 0.9990	Analyzed: 03/19/25
MSS Lab ID: 528964-001		Batch#: 366316	Prep: EPA 3580M
Lab ID: QC1240316		Sampled: 03/17/25	Analysis: EPA 8015M
Matrix: Soil		Received: 03/17/25	Analyst: KMB
QC1240316 Analyte		Spiked	Result
Diesel C10-C28		249.8	214.2
QC1240316 Surrogate		%REC	Limits
n-Triacontane		90	70-130
Legend			
RPD: Relative Percent Difference			

1 of 1

Moisture

Lab #: 527295		Pro@ct#: COTL	
8lient: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand	
Field ID: PAWE-1CP2	Batch#: 366788	Analyzed: 03/24/25	
Lab ID: 527295-001	Sampled: 02/20/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/23/25	Analyst: CDR	
5272950 - 1 Analyte		Result	RL
Moisture, Percent		43	1
Field ID: PAWE-1D2		Batch#: 366788	Analyzed: 03/24/25
Lab ID: 527295-002		Sampled: 02/20/25	Prep: METHOD
Matrix: Soil		Received: 03/06/25	Analysis: ASTM D2216
DF: 1.000		Prepared: 03/23/25	Analyst: CDR
5272950 - 2 Analyte		Result	RL
Moisture, Percent		43	1
Field ID: PAWE-2B3		Batch#: 366788	Analyzed: 03/24/25
Lab ID: 527295-003		Sampled: 02/20/25	Prep: METHOD
Matrix: Soil		Received: 03/06/25	Analysis: ASTM D2216
DF: 1.000		Prepared: 03/23/25	Analyst: CDR
5272950 - 6 Analyte		Result	RL
Moisture, Percent		46	1
Field ID: PAWE-2C2		Batch#: 366788	Analyzed: 03/24/25
Lab ID: 527295-004		Sampled: 02/20/25	Prep: METHOD
Matrix: Soil		Received: 03/06/25	Analysis: ASTM D2216
DF: 1.000		Prepared: 03/23/25	Analyst: CDR
5272950 - 4 Analyte		Result	RL
Moisture, Percent		4j	1
Field ID: PAWE-2C2-FD		Batch#: 366788	Analyzed: 03/24/25
Lab ID: 527295-005		Sampled: 02/20/25	Prep: METHOD
Matrix: Soil		Received: 03/06/25	Analysis: ASTM D2216
DF: 1.000		Prepared: 03/23/25	Analyst: CDR
5272950 - 5 Analyte		Result	RL
Moisture, Percent		44	1
Field ID: PAWE-3B3		Batch#: 366788	Analyzed: 03/24/25
Lab ID: 527295-006		Sampled: 02/20/25	Prep: METHOD
Matrix: Soil		Received: 03/06/25	Analysis: ASTM D2216
DF: 1.000		Prepared: 03/23/25	Analyst: CDR
5272950 - j Analyte		Result	RL
Moisture, Percent		45	1

1 of 2

Moisture

Lab #: 527295			Project#: COTL		
Client: Tetra Tech, Inc.			Location: T779.27 - Gulf of Thailand		
Field ID: PAWE-3C2	Batch#: 366788	Analyzed: 03/24/25			
Lab ID: 527295-007	Sampled: 02/20/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
5272950 - 7 Analyte			Result	RL	Units
Moisture, Percent			43	1	%
Field ID: PAWE-3CP2	Batch#: 366788	Analyzed: 03/24/25			
Lab ID: 527295-008	Sampled: 02/20/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
5272950 - 3 Analyte			Result	RL	Units
Moisture, Percent			47	1	%
Field ID: PAWE-3D2	Batch#: 366788	Analyzed: 03/24/25			
Lab ID: 527295-009	Sampled: 02/20/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
5272950 - 9 Analyte			Result	RL	Units
Moisture, Percent			47	1	%
Field ID: PAWE-4B2	Batch#: 366788	Analyzed: 03/24/25			
Lab ID: 527295-010	Sampled: 02/20/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
5272950 - 1 Analyte			Result	RL	Units
Moisture, Percent			44	1	%
Field ID: PAWE-4C2	Batch#: 366788	Analyzed: 03/24/25			
Lab ID: 527295-011	Sampled: 02/20/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/23/25	Analyst: CDR			
5272950 - 11 Analyte			Result	RL	Units
Moisture, Percent			47	1	%

Legend
RL: Reporting Limit

Moisture: Batch QC

Lab #: 527295		Project#: COTL			
Client: Tetra Tech, Inc.		Location: T779.27 - Gulf of Thailand			
Field ID: PAWE-1CP2		DF: 1.000		Analyzed: 03/24/25	
Type: SDUP		Batch#: 366788		Prep: METHOD	
MSS Lab ID: 527295-001		Sampled: 02/20/25		Analysis: ASTM D2216	
Lab ID: QC1241896		Received: 03/06/25		Analyst: CDR	
Matrix: Soil		Prepared: 03/23/25			
QC1241896 Analyte		MSS Result	Result	RL	Units
Moisture, Percent		47.72	47.45	1.000	%
Legend					
RL: Reporting Limit					
RPD: Relative Percent Difference					

Legend
RL: Reporting Limit
RPD: Relative Percent Difference



Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
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enthalpy.com


Lab Job Number : 527296
Report Level : II
Report Date : 04/03/2025

Analytical Report prepared for:

Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549

Project: COTL - T779.28 - Gulf of Thailand

Authorized for release by:


Miguel Gamboa, Project Manager
miguel.gamboa@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105, ORELAP# 4197



Sample Summary

Ted Donn	Lab Job #:	527296
Tetra Tech, Inc.	Project No:	COTL
3697 Mt. Diablo Blvd.	Location:	T779.28 - Gulf of Thailand
Suite 150	Date Received:	03/06/25
Lafayette, CA 94549		

Sample ID	Lab ID	Collected	Matrix
MGWA-1B2X	527296-001	02/04/25 13:36	Soil
MGWA-1C2	527296-002	02/04/25 05:24	Soil
MGWA-1CP2	527296-003	02/04/25 03:52	Soil
MGWA-1D2	527296-004	02/04/25 04:31	Soil
MGWA-2B2Y	527296-005	02/04/25 14:19	Soil
MGWA-2B2Y-FD	527296-006	02/04/25 14:38	Soil
MGWA-2C2	527296-007	02/04/25 15:06	Soil
MGWA-3B2Y	527296-008	02/03/25 20:31	Soil
MGWA-3C2	527296-009	02/03/25 21:24	Soil
MGWA-3CP2	527296-010	02/03/25 22:10	Soil
MGWA-3D2	527296-011	02/03/25 22:49	Soil
MGWA-4B2Y	527296-012	02/04/25 12:44	Soil
MGWA-4C2	527296-013	02/03/25 23:24	Soil

Case Narrative

Tetra Tech, Inc. Lab Job Number: 527296
3697 Mt. Diablo Blvd. Project No: COTL
Suite 150 Location: T779.28 - Gulf of
Lafayette, CA 94549 Thailand
Ted Donn Date Received: 03/06/25

This data package contains sample and QC results for thirteen soil samples, requested for the above referenced project on 03/06/25. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015M):

- Low surrogate recoveries were observed for n-triacontane in the MS/MSD for batch 366762; the parent sample was not a project sample.
- TPH (C10-C14) and TPH (C14-C24) were detected between the MDL and the RL in the method blank for batch 366762; these analytes were not detected in samples at or above the RL.
- No other analytical problems were encountered.

Moisture (ASTM D2216):

No analytical problems were encountered.

Ship To:
Miguel Gumbao
Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92668

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	TPH	Dry Weight
1779.27	PAWB-2C2	2/21/2025	16:59	SED	Frozen	1	1
1779.27	PAWB-3B2	2/21/2025	14:36	SED	Frozen	1	1
1779.27	PAWB-3C2	2/21/2025	5:40	SED	Frozen	1	1
1779.27	PAWB-3CP2	2/21/2025	4:55	SED	Frozen	1	1
1779.27	PAWB-3Q2	2/21/2025	4:19	SED	Frozen	1	1
1779.27	PAWB-4B2X	2/21/2025	15:54	SED	Frozen	1	1
1779.27	PAWB-4C2	2/21/2025	19:24	SED	Frozen	1	1
1779.27	PAWE-1B1	2/20/2025	17:12	SED	Frozen	1	1
1779.27	PAWE-1C2	2/20/2025	1:48	SED	Frozen	1	1
1779.27	PAWE-1CP2	2/20/2025	2:23	SED	Frozen	1	1
1779.27	PAWE-1D2	2/20/2025	3:08	SED	Frozen	1	1
1779.27	PAWE-2B1	2/20/2025	17:56	SED	Frozen	1	1
1779.27	PAWE-2C2	2/20/2025	4:25	SED	Frozen	1	1
1779.27	PAWE-2C2-FD	2/20/2025	4:56	SED	Frozen	1	1
1779.27	PAWE-3B1	2/20/2025	16:43	SED	Frozen	1	1
1779.27	PAWE-3C2	2/20/2025	17:13	SED	Frozen	1	1
1779.27	PAWE-3CP2	2/20/2025	16:47	SED	Frozen	1	1
1779.27	PAWE-3D2	2/20/2025	19:49	SED	Frozen	1	1
1779.27	PAWE-4B2	2/20/2025	16:25	SED	Frozen	1	1
1779.27	PAWE-4C2	2/20/2025	1:09	SED	Frozen	1	1
1779.28	MGWA-1B2Y	2/4/2025	13:36	SED	Frozen	1	1
1779.28	MGWA-1C2	2/4/2025	5:24	SED	Frozen	1	1
1779.28	MGWA-1CP2	2/4/2025	3:52	SED	Frozen	1	1
1779.28	MGWA-1D2	2/4/2025	4:31	SED	Frozen	1	1
1779.28	MGWA-2B2X	2/4/2025	14:19	SED	Frozen	1	1
1779.28	MGWA-2B2X-FD	2/4/2025	14:38	SED	Frozen	1	1
1779.28	MGWA-2C2	2/4/2025	15:06	SED	Frozen	1	1
1779.28	MGWA-3B2X	2/3/2025	20:31	SED	Frozen	1	1
1779.28	MGWA-3C2	2/3/2025	21:24	SED	Frozen	1	1
1779.28	MGWA-3CP2	2/3/2025	22:10	SED	Frozen	1	1
1779.28	MGWA-3D2	2/3/2025	22:49	SED	Frozen	1	1
1779.28	MGWA-4B2X	2/4/2025	12:44	SED	Frozen	1	1
1779.28	MGWA-4C2	2/3/2025	23:24	SED	Frozen	1	1
1779.32	ERPLGERXLG-M1	2/12/2025	10:43	SED	Frozen	1	1
1779.32	ERPLGERXLG-M2	2/12/2025	10:23	SED	Frozen	1	1
1779.32	ERPLGERXLG-N1	2/12/2025	8:21	SED	Frozen	1	1
1779.32	ERPLGERXLG-N1-FD	2/12/2025	8:30	SED	Frozen	1	1
1779.32	ERPLGERXLG-N2	2/12/2025	8:03	SED	Frozen	1	1
1779.32	ERPLGERXLG-S1	2/12/2025	11:23	SED	Frozen	1	1
1779.32	ERPLGERXLG-S2	2/12/2025	13:22	SED	Frozen	1	1
1779.32	ERREF-2-A	2/12/2025	17:20	SED	Frozen	1	1
1779.32	ERREF-2-B	2/12/2025	17:37	SED	Frozen	1	1
1779.32	ERREF-2-C	2/12/2025	17:59	SED	Frozen	1	1
1779.32	JKPLC1-E1	2/22/2025	22:20	SED	Frozen	1	1
1779.32	JKPLC1-E2	2/22/2025	22:06	SED	Frozen	1	1
1779.32	JKPLC1-M1	2/22/2025	16:10	SED	Frozen	1	1

Relinquished by:

Relinquished by:

Received by:

Received by:

3 of 4

3 of 21

4 of 21

SAMPLE RECEIPT CHECKLIST

Section 1: General Info
Date Received: 5/8/25 WDM 527296 Client: Tetra Tech Limited

Section 2: Shipping / Custody
Are custody seals present? ☐ Yes ☐ No
Custody seals intact on arrival? ☐ N/A ☐ Yes ☐ No
☐ Courier ☐ Walk-in ☐ Field Sampling ☒ Shipping Info FedEx

Section 3a: Condition / Packaging
Date Opened: 5/8/25 By (Initials): GCK Type of ice used: ☐ Wet ☐ Blue/Gel ☐ None
☐ Samples received on ice directly from the field; cooling process had begun. (If checked, skip temperatures)
☐ Sample matrix doesn't require cooling (e.g. air, bulk PCBs). (If checked, skip temperatures)
If no cooler: Observed/Adjusted Temp (°C) / Thermometer/IR Gun: IR11 CR +0.1
Cooler Temp (°C) #1: -8.1 / #2: -7.8 / #3: -0.1 / #4: / #5: / #6: /

Section 3b: Microbiology Samples
☐ Within temp range 0.0 - 10.0°C or received on ice directly from field.
☐ Adequate headspace for microbiology analysis.

Section 3c: Air Samples
☐ No air samples submitted (skip 3c)
☐ 1 AL Canisters ☐ 6L Canisters ☐ Tedlar Bags ☐ MCE Cassettes ☐ Sorbent Tubes ☐ Other

Section 4: Containers / Labels / Samples
YES NO N/A
1) Were custody papers present, filled properly, and legible? X
2) Is the sampler's name present on the CoC? X
3) Were containers received in good condition (unbroken / unopened / uncompromised)? X
4) Were the samples bagged? (required for microbiology samples; recommended for soil samples) X
5) Were all of, and only, the correct samples received? X
6) Are sample labels present, legible, and in agreement with the CoC? X
7) Does the container count match the CoC? X
8) Was sufficient sample volume / mass received for the analyses requested? X
9) Were samples received in proper containers for the analyses requested? X
10) Were samples received with > 1/2 holding time remaining? X
11) Are samples properly preserved as indicated by CoC / labels? X
12) Unpreserved VOA's received - If necessary, was the hold time changed in LIMS? X
13) Are VOA valid free from headspace/bubbles > 6mm? X

Section 5: Explanations / Comments
(If no comments are made, then no discrepancies noted)
3a) cooling media is dry ice

☐ No additional discrepancies

Date Logged: 2/24/25 By (print): Berkeley (sign)
Date Labeled: 3/6/25 By (print): Orange (sign)

ORIGIN: COTL
BARBARA MACDON
TETRA TECH INC
3697 MT. DIABLO BLVD #150
LAFAYETTE, CA 94549
UNITED STATES OF AMERICA

SHIP DATE: 03/06/25
SHIP TIME: 08:00
SHIP METHOD: AIR
SHIP TO: TETRA TECH

NO SAMPLE CONTROL
ENTHALPY ANALYTICAL
931 W. BARKLEY AVE.
ORANGE CA 92668
(714) 771-4800 REF: TET-527296-25

7723 4802 8324
WED - 05 MAR 10:30A
PRIORITY OVERNIGHT
ICE
92868
CA-US SNA
92 APVA

3 of 4
7723 4802 8324
WED - 05 MAR 10:30A
PRIORITY OVERNIGHT
ICE
92868
CA-US SNA

8-8
8-8
JK11

5 of 21

6 of 21



7 of 21

8 of 21



Extractable 3arbon 3hain

Lab #: 527296		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.28 - Gulf of Thailand	
Field ID: MGWA-1B2Y	Moisture: 50%	Prepared: 03/23/25	
Type: SAMPLE	DF: 0.9970	Analyzed: 03/27/25	
Lab ID: 527296-001	Batch#: 366762	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/04/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
52729-0110 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND 20	7.3 mg/Kg
TPH (C14-C24)		ND 20	7.3 mg/Kg
ORO C28-C44		ND 40	7.3 mg/Kg
52729-0110 Surrogate		E RC3	Limits
n-Triacontane		79	70-130
Field ID: MGWA-1C2		Moisture: 51%	Prepared: 03/23/25
Type: SAMPLE		DF: 0.9995	Analyzed: 03/27/25
Lab ID: 527296-002		Batch#: 366762	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/04/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
52729-0112 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND 20	7.5 mg/Kg
TPH (C14-C24)		ND 20	7.5 mg/Kg
ORO C28-C44		ND 41	7.5 mg/Kg
52729-0112 Surrogate		E RC3	Limits
n-Triacontane		78	70-130
Field ID: MGWA-1CP2		Moisture: 52%	Prepared: 03/23/25
Type: SAMPLE		DF: 0.9916	Analyzed: 03/27/25
Lab ID: 527296-003		Batch#: 366762	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/04/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
52729-0113 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND 21	7.6 mg/Kg
TPH (C14-C24)		ND 21	7.6 mg/Kg
ORO C28-C44		ND 41	7.6 mg/Kg
52729-0113 Surrogate		E RC3	Limits
n-Triacontane		79	70-130



Extractable 3arbon 3hain

Lab #: 527296		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.28 - Gulf of Thailand	
Field ID: MGWA-1D2	Moisture: 53%	Prepared: 03/23/25	
Type: SAMPLE	DF: 0.9955	Analyzed: 03/27/25	
Lab ID: 527296-004	Batch#: 366762	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/04/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
52729-0116 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND 21	7.8 mg/Kg
TPH (C14-C24)		ND 21	7.8 mg/Kg
ORO C28-C44		ND 42	7.8 mg/Kg
52729-0116 Surrogate		E RC3	Limits
n-Triacontane		78	70-130
Field ID: MGWA-2B2X		Moisture: 49%	Prepared: 03/23/25
Type: SAMPLE		DF: 0.9921	Analyzed: 03/27/25
Lab ID: 527296-005		Batch#: 366762	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/04/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
52729-0115 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND 19	7.2 mg/Kg
TPH (C14-C24)		ND 19	7.2 mg/Kg
ORO C28-C44		ND 39	7.2 mg/Kg
52729-0115 Surrogate		E RC3	Limits
n-Triacontane		76	70-130
Field ID: MGWA-2B2X-FD		Moisture: 50%	Prepared: 03/23/25
Type: SAMPLE		DF: 0.9945	Analyzed: 03/27/25
Lab ID: 527296-006		Batch#: 366762	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/04/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
52729-0114 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND 20	7.3 mg/Kg
TPH (C14-C24)		ND 20	7.3 mg/Kg
ORO C28-C44		ND 40	7.3 mg/Kg
52729-0114 Surrogate		E RC3	Limits
n-Triacontane		72	70-130

Extractable 3arbon 3 hain

Lab #: 527296		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.28 - Gulf of Thailand	
Field ID: MGWA-2C2	Moisture: 52%	Prepared: 03/23/25	
Type: SAMPLE	DF: 0.9926	Analyzed: 03/27/25	
Lab ID: 527296-007	Batch#: 366762	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/04/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
52729-0117 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND	21 7.6 mg/Kg
TPH (C14-C24)		ND	21 7.6 mg/Kg
ORO C28-C44		ND	41 7.6 mg/Kg
52729-0117 Surrogate		E RC3	Limits
n-Triacontane		72	70-130
Field ID: MGWA-3B2X		Moisture: 50%	Prepared: 03/23/25
Type: SAMPLE		DF: 0.9901	Analyzed: 03/27/25
Lab ID: 527296-008		Batch#: 366762	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/03/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
52729-0118 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND	20 7.3 mg/Kg
TPH (C14-C24)		ND	20 7.3 mg/Kg
ORO C28-C44		ND	40 7.3 mg/Kg
52729-0118 Surrogate		E RC3	Limits
n-Triacontane		77	70-130
Field ID: MGWA-3C2		Moisture: 51%	Prepared: 03/23/25
Type: SAMPLE		DF: 0.9940	Analyzed: 03/27/25
Lab ID: 527296-009		Batch#: 366762	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/03/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
52729-0119 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND	20 7.5 mg/Kg
TPH (C14-C24)		ND	20 7.5 mg/Kg
ORO C28-C44		ND	41 7.5 mg/Kg
52729-0119 Surrogate		E RC3	Limits
n-Triacontane		71	70-130

Extractable 3arbon 3 hain

Lab #: 527296		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.28 - Gulf of Thailand	
Field ID: MGWA-3CP2	Moisture: 51%	Prepared: 03/23/25	
Type: SAMPLE	DF: 0.9935	Analyzed: 03/27/25	
Lab ID: 527296-010	Batch#: 366762	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/03/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
52729-0117 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND	20 7.5 mg/Kg
TPH (C14-C24)		ND	20 7.5 mg/Kg
ORO C28-C44		ND	41 7.5 mg/Kg
52729-0117 Surrogate		E RC3	Limits
n-Triacontane		72	70-130
Field ID: MGWA-3D2		Moisture: 53%	Prepared: 03/24/25
Type: SAMPLE		DF: 0.9970	Analyzed: 03/26/25
Lab ID: 527296-011		Batch#: 366896	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/03/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
52729-0118 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND	21 7.9 mg/Kg
TPH (C14-C24)		ND	21 7.9 mg/Kg
ORO C28-C44		ND	42 7.9 mg/Kg
52729-0118 Surrogate		E RC3	Limits
n-Triacontane		117	70-130
Field ID: MGWA-4B2X		Moisture: 50%	Prepared: 03/24/25
Type: SAMPLE		DF: 0.9916	Analyzed: 03/26/25
Lab ID: 527296-012		Batch#: 366896	Prep: EPA 3580M
Matrix: Soil		Sampled: 02/04/25	Analysis: EPA 8015M
Basis: dry		Received: 03/06/25	Analyst: KMB
52729-0119 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND	20 7.4 mg/Kg
TPH (C14-C24)		ND	20 7.4 mg/Kg
ORO C28-C44		ND	40 7.4 mg/Kg
52729-0119 Surrogate		E RC3	Limits
n-Triacontane		114	70-130

Extractable 3arbon 3 hain

Lab #: 527296		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.28 - Gulf of Thailand	
Field ID: MGWA-4C2	Moisture: 51%	Prepared: 03/24/25	
Type: SAMPLE	DF: 0.9960	Analyzed: 03/26/25	
Lab ID: 527296-013	Batch#: 366896	Prep: EPA 3580M	
Matrix: Soil	Sampled: 02/03/25	Analysis: EPA 8015M	
Basis: dry	Received: 03/06/25	Analyst: KMB	
52729-0117 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND	20 7.6 mg/Kg
TPH (C14-C24)		ND	20 7.6 mg/Kg
ORO C28-C44		ND	41 7.6 mg/Kg
52729-0117 Surrogate		E RC3	Limits
n-Triacontane		114	70-130
Type: BLANK		Batch#: 366762	Analysis: EPA 8015M
Lab ID: QC1241791		Prepared: 03/23/25	Analyst: KMB
Matrix: Soil		Analyzed: 03/27/25	
DF: 1.002		Prep: EPA 3580M	
Q3 U622-1 Analyte		Result	RL MDL gnits
TPH (3 U622-1)		6.9 J	10 3.7 mg/Kg
TPH (3 U622-2)		6.9 J	10 3.7 mg/Kg
ORO C28-C44		ND	20 3.7 mg/Kg
Q3 U622-1 Surrogate		E RC3	Limits
n-Triacontane		107	70-130
Type: BLANK		Batch#: 366896	Analysis: EPA 8015M
Lab ID: QC1242260		Prepared: 03/24/25	Analyst: KMB
Matrix: Soil		Analyzed: 03/25/25	
DF: 1.001		Prep: EPA 3580M	
Q3 U622-1 Analyte		Result	RL MDL gnits
TPH (C10-C14)		ND	10 3.7 mg/Kg
TPH (C14-C24)		ND	10 3.7 mg/Kg
ORO C28-C44		ND	20 3.7 mg/Kg
Q3 U622-1 Surrogate		E RC3	Limits
n-Triacontane		114	70-130

Legend
J: Estimated value
MDL: Method Detection Limit
ND: Not Detected at or above MDL
RL: Reporting Limit

Extractable Carbon Chain: Batch QC

Lab #: Q5E/ 6		Project#: Ct nL	
Client: neaQ8K		Location: n55/ 1E083Guif8BhQ dr Kd	
Type: LCS	Batch#: 36656E	Analysis: PA 801M2	
Lab ID: 7 CM4M/ E	Prepared: 13E39EQ	Analyst: D2 I	
Matrix: SBa	Analyzed: 13E39EQ		
DF: 11/ / EM	Prep: PA 80Q12		
QC1241792 Analyte	Spiked	Result	%REC Limits Units
aseiCM-CE0	E40f1	E3M3	/ 3 56-MEE mg/dg
QC1241792 Surrogate	%REC Limits		
Kn to aBgr Ke	M/ 51-M61		

Extractable Carbon Chain: Batch QC

Lab #: 527296		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.28 - Gulf of Thailand	
Field ID: ZZZZZZZZZ	Basis: as received	Prepared: 03/23/25	
Type: MS	DF: 0.9911	Analyzed: 03/26/25	
MSS Lab ID: 529190-001	Batch#: 366762	Prep: EPA 3580M	
Lab ID: QC1241793	Sampled: 03/18/25	Analysis: EPA 8015M	
Matrix: Soil	Received: 03/19/25	Analyst: KMB	
QC1241793 Analyte		MSS Result	Spiked Result
Diesel C10-C28		<3.647	247.8
QC1241793 Surrogate		%REC	Limits
n-Triacontane		69 *	70-130
Field ID: ZZZZZZZZZ		Basis: as received	Prepared: 03/23/25
Type: MSD		DF: 0.9990	Analyzed: 03/26/25
MSS Lab ID: 529190-001		Batch#: 366762	Prep: EPA 3580M
Lab ID: QC1241794		Sampled: 03/18/25	Analysis: EPA 8015M
Matrix: Soil		Received: 03/19/25	Analyst: KMB
QC1241794 Analyte		Spiked Result	%REC Limits
Diesel C10-C28		249.8	227.3
QC1241794 Surrogate		%REC	Limits
n-Triacontane		66 *	70-130

Legend
*: Value is outside QC limits
RPD: Relative Percent Difference

Extractable Carbon Chain: Batch QC

Lab #: M7-7E6		Project#: Ct nL	
Client: n. cř 8. aQ8Kai		Location: n - - B7588Guð f8hQ B Kd	
Type: LCS	Batch#: 3665E6	Analysis: PA 801M	
Lab ID: 2 C1747761	Prepared: 03/74/7M	Analyst: 9QD	
Matrix: SI B	Analyzed: 03/76/7M		
DF: 0IEEM	Prep: PA 8M50Q		
QC1242261 Analyte		Spiked	Result
I Be. 6C108C75		74EE	77117
QC1242261 Surrogate		%REC	Limits
Ken B al Kgr K		10M	- 0st30

Extractable Carbon Chain: Batch QC

Lab #: 21D169		Project#: COTL	
Client: Tetra Tech, Inc.		Location: TDD6.1- 4Guð 7f Thailand	
Field ID: ZZZZZZZZZ	Basis: as received	Prepared: 03/18/12	
Type: 5 M	DF: S.000	Analyzed: 03/19/12	
MSS Lab ID: 2163024003	Batch#: 399- 69	Prep: EPA 32- 05	
Lab ID: QCS181191	Sampled: 03/10/12	Analysis: EPA - 0S25	
Matrix: M7io	Received: 03/10/12	Analyst: I 5 K	
QC1242262 Analyte		MSS Result	Spiked Result
BieseocS04C1-		31.3-	120.0
QC1242262 Surrogate		%REC	Limits
n4frac7ntane		SSS	DD430
Field ID: ZZZZZZZZZ		Basis: as received	Prepared: 03/18/12
Type: 5 MB		DF: 0.66- 0	Analyzed: 03/19/12
MSS Lab ID: 2163024003		Batch#: 399- 69	Prep: EPA 32- 05
Lab ID: QCS181193		Sampled: 03/10/12	Analysis: EPA - 0S25
Matrix: M7io		Received: 03/10/12	Analyst: I 5 K
QC1242263 Analyte		Spiked Result	%REC Limits
BieseocS04C1-		186.2	130.6
QC1242263 Surrogate		%REC	Limits
n4frac7ntane		SSS	DD430

Legend
RPD: Relative Percent Difference

M, istUre

Lab #: 527296		Pr, ject#: COTL	
Client: Tetra Tech, Inc.		L, cati, n: T779.28 - Gulf of Thailand	
Field ID: MGWA-1B2Y	Batch#: 366980	Analyzed: 03/26/25	
Lab ID: 527296-001	Sampled: 02/04/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/25/25	Analyst: TRR	
527290-11u Analyte		ResUlt	RL
M, istUre4Percent		51	1
Field ID: MGWA-1C2		Batch#: 366980	Analyzed: 03/26/25
Lab ID: 527296-002	Sampled: 02/04/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/25/25	Analyst: TRR	
527290-112 Analyte		ResUlt	RL
M, istUre4Percent		5u	1
Field ID: MGWA-1CP2		Batch#: 366980	Analyzed: 03/26/25
Lab ID: 527296-003	Sampled: 02/04/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/25/25	Analyst: TRR	
527290-113 Analyte		ResUlt	RL
M, istUre4Percent		52	1
Field ID: MGWA-1D2		Batch#: 366980	Analyzed: 03/26/25
Lab ID: 527296-004	Sampled: 02/04/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/25/25	Analyst: TRR	
527290-116 Analyte		ResUlt	RL
M, istUre4Percent		53	1
Field ID: MGWA-2B2X		Batch#: 366980	Analyzed: 03/26/25
Lab ID: 527296-005	Sampled: 02/04/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/25/25	Analyst: TRR	
527290-115 Analyte		ResUlt	RL
M, istUre4Percent		69	1
Field ID: MGWA-2B2X-FD		Batch#: 366980	Analyzed: 03/26/25
Lab ID: 527296-006	Sampled: 02/04/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/25/25	Analyst: TRR	
527290-110 Analyte		ResUlt	RL
M, istUre4Percent		51	1

Moisture

Lab #: 527296			Project#: COTL		
Client: Tetra Tech, Inc.			Location: T779.28 - Gulf of Thailand		
Field ID: MGWA-2C2	Batch#: 366980	Analysed: 03/26/25			
Lab ID: 527296-007	Sampled: 02/04/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/25/25	Analyst: TRR			
527290-117 Analyte			ResUlt	RL	Units
M, istUre4Percent			52	1	%
Field ID: MGWA-3B2X	Batch#: 366980	Analysed: 03/26/25			
Lab ID: 527296-008	Sampled: 02/03/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/25/25	Analyst: TRR			
527290-118 Analyte			ResUlt	RL	Units
M, istUre4Percent			51	1	%
Field ID: MGWA-3C2	Batch#: 366980	Analysed: 03/26/25			
Lab ID: 527296-009	Sampled: 02/03/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/25/25	Analyst: TRR			
527290-119 Analyte			ResUlt	RL	Units
M, istUre4Percent			5u	1	%
Field ID: MGWA-3CP2	Batch#: 366980	Analysed: 03/26/25			
Lab ID: 527296-010	Sampled: 02/03/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/25/25	Analyst: TRR			
527290-1u1 Analyte			ResUlt	RL	Units
M, istUre4Percent			5u	1	%
Field ID: MGWA-3D2	Batch#: 366980	Analysed: 03/26/25			
Lab ID: 527296-011	Sampled: 02/03/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/25/25	Analyst: TRR			
527290-1u1 Analyte			ResUlt	RL	Units
M, istUre4Percent			53	1	%
Field ID: MGWA-4B2X	Batch#: 366980	Analysed: 03/26/25			
Lab ID: 527296-012	Sampled: 02/04/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/25/25	Analyst: TRR			
527290-1u2 Analyte			ResUlt	RL	Units
M, istUre4Percent			51	1	%

Moisture

Lab #: 527296			Project#: COTL		
Client: Tetra Tech, Inc.			Location: T779.28 - Gulf of Thailand		
Field ID: MGWA-4C2	Batch#: 366980	Analysed: 03/26/25			
Lab ID: 527296-013	Sampled: 02/03/25	Prep: METHOD			
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216			
DF: 1.000	Prepared: 03/25/25	Analyst: TRR			
527290-1u3 Analyte			ResUlt	RL	Units
M, istUre4Percent			5u	1	%

Legend
RL: Reporting Limit

Moisture Batch QC

Lab #: 527296			Project#: COTL		
Client: Tetra Tech, Inc.			Location: T779.28 - Gulf of Thailand		
Field ID: MGWA-1B2Y	DF: 1.000	Analysed: 03/26/25			
Type: SDUP	Batch#: 366980	Prep: METHOD			
MSS Lab ID: 527296-001	Sampled: 02/04/25	Analysis: ASTM D2216			
Lab ID: QC1242527	Received: 03/06/25	Analyst: TRR			
Matrix: Soil	Prepared: 03/25/25				
QC1242527 Analyte			MSS Result	Result	RL Units RPD Lim
Moisture, Percent			49.86	49.52	1.000 % 1 20
Legend					
RL: Reporting Limit					
RPD: Relative Percent Difference					

ANALYTICAL REPORT

PREPARED FOR

Attn: Ted Donn
Tetra Tech Inc
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, California 94549
Generated 5/23/2025 7:46:34 AM

JOB DESCRIPTION

Gulf of Thailand - 2025

JOB NUMBER

350-1619-1

Eurofins Seattle Specialty Metals

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

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Definitions/Glossary	
Client: Tetra Tech Inc Project/Site: Gulf of Thailand - 2025	
Job ID: 350-1619-1	
Qualifiers	
Qualifier	Qualifier Description
MS	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊖	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
DI Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MLQ	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Laboratory Job ID: 350-1619-1

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Case Narrative	
Client: Tetra Tech Inc Project: Gulf of Thailand - 2025	
Job ID: 350-1619-1	
Eurofins Seattle Specialty Metals	
Job Narrative 350-1619-1	
Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.	
<ul style="list-style-type: none">Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.	
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.	
Receipt The samples were received on 3/6/2025 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 15 coolers at receipt time were -16.2°C, -16.4°C, -15.2°C, -15.2°C, -12.4°C, -12.2°C, -12.2°C, -12.0°C, -7.8°C, -6.8°C, -6.7°C, -6.6°C, -6.4°C, -5.9°C and -1.3°C.	
Receipt Exceptions multiple sample(s) did not match the information listed on the Chain-of-Custody (COC). Most discrepancies were noted in the sampling times. The client was contacted, to update them accordingly. All samples were updated in TALS. Please see email attachments for details.	
Metals Method 1631B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-5840 and analytical batch 350-6250 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.	
Method 1631E: The continuing calibration blank (CCB) for analytical batch 350-6430 contained Mercury above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.	
Method 1631E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 350-6479 were outside control limits: (350-1619-B-200 MSD), (350-1619-B-201 MSD), (350-1619-B-220 MSD), (350-1619-B-221 MS), (350-1619-B-221 MSD) and (350-1619-B-364 MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.	
Method 1631E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 350-6479 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.	
Method 1638: The continuing calibration blank (CCB) for analytical batch 350-6050 contained Manganese above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.	
Method 1638: The method blank for preparation batch 350-5891 and analytical batch 350-6050 contained Chromium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.	
Method 1638: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-5845 and 350-5891 and analytical batch 350-6050 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.	
Method 1638: The continuing calibration blank (CCB) for analytical batch 350-6050 contained Iron above the reporting limit (RL). All reported samples associated with this CCB contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.	

Client: Tetra Tech Inc
Project: Gulf of Thailand - 2025

Case Narrative

Job ID: 350-1619-1

Job ID: 350-1619-1 (Continued)

Eurofins Seattle Specialty Metals

Method 1638: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 350-5727, 350-5927, 350-6026 and 350-6097 and analytical batch 350-6893 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 1638: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 350-5927 and 350-6047 and analytical batch 350-6893 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 1638: The method blank for preparation batch 350-6026 and analytical batch 350-6893 contained Manganese above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 1638: The method blank for preparation batch 350-6026 and 350-6047 and analytical batch 350-6893 contained Chromium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 1638: The method blank for preparation batch 350-5927 and analytical batch 350-6893 contained Copper above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6146 and analytical batch 350-6254 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6145 and analytical batch 350-6254 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6089, 350-6090 and 350-6110 and analytical batch 350-6254 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6090 and 350-6111 and analytical batch 350-6254 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6090, 350-6110, 350-6111, 350-6145, 350-6146, 350-6155 and 350-6156 and analytical batch 350-6206 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6521 and analytical batch 350-6591 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The continuing calibration blank (CCB) for analytical batch 350-6591 contained Manganese above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6521 and analytical batch 350-6591 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 350-6877 and analytical batch 350-6963 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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Case Narrative

Client: Tetra Tech Inc
Project: Gulf of Thailand - 2025

Job ID: 350-1619-1

Job ID: 350-1619-1 (Continued)

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No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Detection Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPCPP-1C1

Lab Sample ID: 350-1619-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	120	F1 F2	2.9	1.4	ng/g	30	□	1631B	Total/NA	Total/NA
Arsenic	3.6		0.36	0.11	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	360	B	36	0.072	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.054		0.036	0.0036	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	31		0.36	0.36	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	8.6	B	0.18	0.022	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	14000	F1	36	7.2	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	450	B *2	0.18	0.018	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	15	B	0.72	0.029	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	15	B	0.14	0.014	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	31		3.6	1.8	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1C1-FD

Lab Sample ID: 350-1619-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	1300		20	9.9	ng/g	200	□	1631B	Total/NA	Total/NA
Arsenic	5.0		0.37	0.11	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	400	B	37	0.075	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.079		0.037	0.0037	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	48		0.37	0.37	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	12	B	0.19	0.022	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	21000		37	7.5	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	560	B *2	0.19	0.019	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	23	B	0.75	0.030	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	20	B	0.15	0.015	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	44		3.7	1.9	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1C2X

Lab Sample ID: 350-1619-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	570		20	9.9	ng/g	200	□	1631B	Total/NA	Total/NA
Arsenic	3.7		0.33	0.10	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	310	B	33	0.067	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.066		0.033	0.0033	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	29		0.33	0.33	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	8.5	B	0.17	0.020	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	14000		33	6.7	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	460	B *2	0.17	0.017	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	14	B	0.67	0.027	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	15	B	0.13	0.013	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	30		3.3	1.7	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1CP1

Lab Sample ID: 350-1619-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	59		3.3	1.6	ng/g	30	□	1631B	Total/NA	Total/NA
Arsenic	3.7		0.37	0.11	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	380	B	37	0.075	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.047		0.037	0.0037	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	36		0.37	0.37	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	8.9	B	0.19	0.022	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	16000		37	7.5	mg/Kg	1	□	1638	Total/NA	Total/NA

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPCPP-1CP1 (Continued)

Lab Sample ID: 350-1619-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Manganese	380	B *2	0.19	0.019	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	17	B	0.75	0.030	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	15	B	0.15	0.015	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	34		3.7	1.9	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1CP2

Lab Sample ID: 350-1619-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	130		3.4	1.6	ng/g	30	□	1631B	Total/NA	Total/NA
Arsenic	4.1		0.39	0.12	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	430	B	39	0.078	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.057		0.039	0.0039	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	39		0.39	0.39	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	10	B	0.20	0.023	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	16000		39	7.8	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	460	B *2	0.20	0.020	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	18	B	0.78	0.031	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	16	B	0.16	0.016	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	37		3.9	2.0	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1CP3X

Lab Sample ID: 350-1619-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	68		3.4	1.6	ng/g	30	□	1631B	Total/NA	Total/NA
Arsenic	4.2		0.36	0.11	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	540	B	36	0.071	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.047		0.036	0.0036	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	37		0.36	0.36	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	9.9	B	0.18	0.021	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	16000		36	7.1	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	510	B *2	0.18	0.018	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	18	B	0.71	0.028	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	16	B	0.14	0.014	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	35		3.6	1.8	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1D2

Lab Sample ID: 350-1619-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	96		3.3	1.6	ng/g	30	□	1631B	Total/NA	Total/NA
Arsenic	4.4		0.40	0.12	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	580	B	40	0.081	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.050		0.040	0.0040	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	45		0.40	0.40	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	11	B	0.20	0.024	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	18000		40	8.1	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	510	B *2	0.20	0.020	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	22	B	0.81	0.032	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	17	B	0.16	0.016	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	43		4.0	2.0	mg/Kg	1	□	1638	Total/NA	Total/NA

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-1E2					Lab Sample ID: 350-1619-8				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	190		3.4	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	600	B	37	0.074 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	47		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.18	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	19000		37	7.4 mg/Kg	1	□	1638	Total/NA	
Manganese	530	B *2	0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	23	B	0.74	0.029 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	44		3.7	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-1F2									
Lab Sample ID: 350-1619-9									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	49		3.4	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	590	B	38	0.078 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.047		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	51		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	20000		38	7.6 mg/Kg	1	□	1638	Total/NA	
Manganese	570	B *2	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	31	B	0.76	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	46		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-1G2									
Lab Sample ID: 350-1619-10									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	64		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.7		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	510	B	37	0.075 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.054		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	50		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	13	B	0.19	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	20000		37	7.5 mg/Kg	1	□	1638	Total/NA	
Manganese	500	B *2	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	25	B	0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	19	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	48		3.7	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-2C1X									
Lab Sample ID: 350-1619-11									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	110		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	3.8		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	400	B	37	0.074 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	34		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	9.1	B	0.18	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	15000		37	7.4 mg/Kg	1	□	1638	Total/NA	

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-2C1X (Continued)					Lab Sample ID: 350-1619-11				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Manganese	470	B *2	0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	16	B	0.74	0.029 mg/Kg	1	□	1638	Total/NA	
Lead	15	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	41		3.7	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-2C2									
Lab Sample ID: 350-1619-12									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	47		3.1	1.5 ng/g	30	□	1631B	Total/NA	
Arsenic	3.0		0.36	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	530	B	36	0.073 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.052		0.036	0.0036 mg/Kg	1	□	1638	Total/NA	
Chromium	32		0.36	0.36 mg/Kg	1	□	1638	Total/NA	
Copper	8.7	B	0.18	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	14000		36	7.3 mg/Kg	1	□	1638	Total/NA	
Manganese	480	B *2	0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	15	B	0.73	0.029 mg/Kg	1	□	1638	Total/NA	
Lead	15	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	30		3.6	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-2CP2									
Lab Sample ID: 350-1619-13									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	42		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.3		0.39	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	560	B	39	0.078 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.039	0.0039 mg/Kg	1	□	1638	Total/NA	
Chromium	43		0.39	0.39 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	18000		39	7.8 mg/Kg	1	□	1638	Total/NA	
Manganese	480	B *2	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	21	B	0.78	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	41		3.9	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-2D2									
Lab Sample ID: 350-1619-14									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	38		3.6	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.8		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	550	B	38	0.076 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	48		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	20000		38	7.6 mg/Kg	1	□	1638	Total/NA	
Manganese	510	B *2	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	24	B	0.76	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	46		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-3C1					Lab Sample ID: 350-1619-15				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	70		3.0	1.5 ng/g	30	□	1631B	Total/NA	
Arsenic	3.9		0.34	0.10 mg/Kg	1	□	1638	Total/NA	
Barium	390	B	34	0.068 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.063		0.034	0.0034 mg/Kg	1	□	1638	Total/NA	
Chromium	32		0.34	0.34 mg/Kg	1	□	1638	Total/NA	
Copper	9.2	B	0.17	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	15000		34	6.8 mg/Kg	1	□	1638	Total/NA	
Manganese	470	B *2	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Nickel	16	B	0.68	0.027 mg/Kg	1	□	1638	Total/NA	
Lead	15	B	0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	32		3.4	1.7 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-3C2									
Lab Sample ID: 350-1619-16									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	540		10	4.9 ng/g	100	□	1631B	Total/NA	
Arsenic	3.6		0.35	0.10 mg/Kg	1	□	1638	Total/NA	
Barium	500	B	35	0.069 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.053		0.035	0.0035 mg/Kg	1	□	1638	Total/NA	
Chromium	31		0.35	0.35 mg/Kg	1	□	1638	Total/NA	
Copper	8.3	B	0.17	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	14000		35	6.9 mg/Kg	1	□	1638	Total/NA	
Manganese	500	B *2	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Nickel	14	B	0.69	0.028 mg/Kg	1	□	1638	Total/NA	
Lead	14	B	0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	28		3.5	1.7 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-3C3X					Lab Sample ID: 350-1619-17				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	340		10	5.0 ng/g	100	□	1631B	Total/NA	
Arsenic	4.1		0.35	0.10 mg/Kg	1	□	1638	Total/NA	
Barium	470	B	35	0.070 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.054		0.035	0.0035 mg/Kg	1	□	1638	Total/NA	
Chromium	35		0.35	0.35 mg/Kg	1	□	1638	Total/NA	
Copper	9.3	B	0.17	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	16000		35	7.0 mg/Kg	1	□	1638	Total/NA	
Manganese	500	B *2	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Nickel	18	B	0.70	0.028 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	33		3.5	1.7 mg/Kg	1	□	1638	Total/NA	

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-3D2					Lab Sample ID: 350-1619-22				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	54		3.6	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	640 B		43	0.086 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.075		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	49 B		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.21	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	20000		43	8.6 mg/Kg	1	□	1638	Total/NA	
Manganese	530 B *2		0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	24 B		0.86	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	47		4.3	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-3E2									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	65		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	610 B		42	0.084 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	47 B		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	19000		42	8.4 mg/Kg	1	□	1638	Total/NA	
Manganese	520 B *2		0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	23 B		0.84	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	17 B		0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	44		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-3F2X									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	65		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	590 B		41	0.082 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.051		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	44 B		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	11 B		0.20	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	19000		41	8.2 mg/Kg	1	□	1638	Total/NA	
Manganese	560 B *2		0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	21 B		0.82	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	42		4.1	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-3G2									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	39		3.6	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	590 B		43	0.086 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	50 B		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.22	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	21000		43	8.6 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-3G2 (Continued)					Lab Sample ID: 350-1619-25				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Manganese	590 B *2		0.22	0.022 mg/Kg	1	□	1638	Total/NA	
Nickel	25 B		0.86	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	48		4.3	2.2 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-4C2									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	120		3.0	1.4 ng/g	30	□	1631B	Total/NA	
Arsenic	4.4		0.34	0.10 mg/Kg	1	□	1638	Total/NA	
Barium	590 B		34	0.068 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.051		0.034	0.0034 mg/Kg	1	□	1638	Total/NA	
Chromium	34 B		0.34	0.34 mg/Kg	1	□	1638	Total/NA	
Copper	9.0 B		0.17	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	15000		34	6.8 mg/Kg	1	□	1638	Total/NA	
Manganese	490 B *2		0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Nickel	16 B		0.68	0.027 mg/Kg	1	□	1638	Total/NA	
Lead	15 B		0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	32		3.4	1.7 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-4CP2									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	64		3.4	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.4		0.35	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	540 B		35	0.070 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.035	0.0035 mg/Kg	1	□	1638	Total/NA	
Chromium	42 B		0.35	0.35 mg/Kg	1	□	1638	Total/NA	
Copper	11 B		0.18	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	18000		35	7.0 mg/Kg	1	□	1638	Total/NA	
Manganese	510 B *2		0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	20 B		0.70	0.028 mg/Kg	1	□	1638	Total/NA	
Lead	17 B		0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	39		3.5	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-4D2									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	38		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.1		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	540 B		37	0.074 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.050		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	44 B		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	11 B		0.18	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	18000		37	7.4 mg/Kg	1	□	1638	Total/NA	
Manganese	490 B *2		0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	21 B		0.74	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	16 B		0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	40		3.7	1.8 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPREF-A					Lab Sample ID: 350-1619-29				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	32		3.9	1.9 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.49	0.15 mg/Kg	1	□	1638	Total/NA	
Barium	320 B		49	0.099 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.070		0.049	0.0049 mg/Kg	1	□	1638	Total/NA	
Chromium	67 B		0.49	0.49 mg/Kg	1	□	1638	Total/NA	
Copper	15 B		0.25	0.030 mg/Kg	1	□	1638	Total/NA	
Iron	26000		49	9.9 mg/Kg	1	□	1638	Total/NA	
Manganese	570 B *2		0.25	0.025 mg/Kg	1	□	1638	Total/NA	
Nickel	30 B		0.99	0.039 mg/Kg	1	□	1638	Total/NA	
Lead	23 B		0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Zinc	60		4.9	2.5 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPREF-B									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	27		3.8	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	4.1		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	260 B		42	0.084 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	54 B		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	13 B		0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	22000		42	8.4 mg/Kg	1	□	1638	Total/NA	
Manganese	460 B *2		0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	29 B		0.84	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	50		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPREF-B-FD									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	24		4.2	2.0 ng/g	30	□	1631B	Total/NA	
Arsenic	4.5		0.46	0.14 mg/Kg	1	□	1638	Total/NA	
Barium	280 B		46	0.093 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.060		0.046	0.0046 mg/Kg	1	□	1638	Total/NA	
Chromium	56 B		0.46	0.46 mg/Kg	1	□	1638	Total/NA	
Copper	13 B		0.23	0.028 mg/Kg	1	□	1638	Total/NA	
Iron	24000		46	9.3 mg/Kg	1	□	1638	Total/NA	
Manganese	470 B *2		0.23	0.023 mg/Kg	1	□	1638	Total/NA	
Nickel	29 B		0.93	0.037 mg/Kg	1	□	1638	Total/NA	
Lead	19 B		0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Zinc	53		4.6	2.3 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPREF-C					Lab Sample ID: 350-1619-32				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	27		3.9	1.9 mg/Kg	30	1	1631B	Total/NA	
Arsenic	4.2		0.46	0.14 mg/Kg	1	1	1638	Total/NA	
Barium	270 B		46	0.092 mg/Kg	1	1	1638	Total/NA	
Cadmium	0.057		0.46	0.0046 mg/Kg	1	1	1638	Total/NA	
Chromium	54		0.46	0.45 mg/Kg	1	1	1638	Total/NA	
Copper	13 B		23	0.028 mg/Kg	1	1	1638	Total/NA	
Iron	22000		46	9.2 mg/Kg	1	1	1638	Total/NA	

Detection Summary

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPWB-1D2

Lab Sample ID: 350-1619-36

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	31		3.4	1.6 ng/g	30	☐	1631B	Total/NA
Arsenic	5.2		0.38	0.11 mg/Kg	1	☐	1638	Total/NA
Barium	800	B	38	0.076 mg/Kg	1	☐	1638	Total/NA
Cadmium	0.055		0.038	0.0038 mg/Kg	1	☐	1638	Total/NA
Chromium	48	B	0.38	0.38 mg/Kg	1	☐	1638	Total/NA
Copper	11	B	0.19	0.023 mg/Kg	1	☐	1638	Total/NA
Iron	22000		38	7.6 mg/Kg	1	☐	1638	Total/NA
Manganese	600	B *2	0.19	0.019 mg/Kg	1	☐	1638	Total/NA
Nickel	23	B	0.76	0.030 mg/Kg	1	☐	1638	Total/NA
Lead	19	B	0.15	0.015 mg/Kg	1	☐	1638	Total/NA
Zinc	44		3.8	1.9 mg/Kg	1	☐	1638	Total/NA

Client Sample ID: NPWB-2B3									
Lab Sample ID: 350-1619-37									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	21		3.2	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.4		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1600	B	40	0.079 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.057		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	41	B	0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	10	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	18000		40	7.9 mg/Kg	1	□	1638	Total/NA	
Manganese	470	B F1 *2	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	20	B	0.79	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	39		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWB-2C2X									
Lab Sample ID: 350-1619-38									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	38		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.4		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	990	B	41	0.082 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	45		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.20	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	19000		41	8.2 mg/Kg	1	□	1638	Total/NA	
Manganese	460	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	22	B	0.82	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	42		4.1	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWB-3B2									
Lab Sample ID: 350-1619-39									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	36		3.9	1.9 ng/g	30	□	1631B	Total/NA	
Arsenic	5.2		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	5100	F2 B	42	0.084 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.069		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	40		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	18000	F1	42	8.4 mg/Kg	1	□	1638	Total/NA	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPWB-3B2 (Continued)

Lab Sample ID: 350-1619-39

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Manganese	380	F1 B	0.21	0.021 mg/Kg	1	□	1638	Total/NA
Nickel	19	B	0.84	0.034 mg/Kg	1	□	1638	Total/NA
Lead	16	F1 F2 B	0.17	0.017 mg/Kg	1	□	1638	Total/NA
Zinc	42		4.2	2.1 mg/Kg	1	□	1638	Total/NA

Client Sample ID: NPWB-3C2									
Lab Sample ID: 350-1619-40									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury			3.2	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.8		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1800	B	40	0.079 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.044		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	40		0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	17000		40	7.9 mg/Kg	1	□	1638	Total/NA	
Manganese	420	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	20	B	0.79	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	39		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWB-3CP2									
Lab Sample ID: 350-1619-41									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	25	B	3.6	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.5		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	1100	B	37	0.075 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.043		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	42		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	10	B	0.19	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	18000		37	7.5 mg/Kg	1	□	1638	Total/NA	
Manganese	500	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	20		0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	38		3.7	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWB-3D2									
Lab Sample ID: 350-1619-42									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	34	B	3.8	1.9 ng/g	30	□	1631B	Total/NA	
Arsenic	5.3		0.39	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	900	B	39	0.079 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.049		0.039	0.0039 mg/Kg	1	□	1638	Total/NA	
Chromium	50		0.39	0.39 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	20000		39	7.9 mg/Kg	1	□	1638	Total/NA	
Manganese	480	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	23		0.79	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	43		3.9	2.0 mg/Kg	1	□	1638	Total/NA	

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Detection Summary

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPWB-4B3X

Lab Sample ID: 350-1619-43

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	25	B	3.4	1.6 mg/g	30	□	1631B	Total/NA
Arsenic	4.0		0.36	0.11 mg/Kg	1	□	1638	Total/NA
Barium	1800	B	36	0.073 mg/Kg	1	□	1638	Total/NA
Cadmium	0.042		0.036	0.0036 mg/Kg	1	□	1638	Total/NA
Chromium	36		0.36	0.36 mg/Kg	1	□	1638	Total/NA
Copper	9.0	B	0.18	0.022 mg/Kg	1	□	1638	Total/NA
Iron	15000		36	7.3 mg/Kg	1	□	1638	Total/NA
Manganese	400	B	0.18	0.018 mg/Kg	1	□	1638	Total/NA
Nickel	17		0.73	0.029 mg/Kg	1	□	1638	Total/NA
Lead	14	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA
Zinc	33		3.6	1.8 mg/Kg	1	□	1638	Total/NA

Client Sample ID: NPWB-4C2									
Lab Sample ID: 350-1619-44									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	34	B	4.1	2.0 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1100	B	41	0.083 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.047		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	44		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	19000		41	8.3 mg/Kg	1	□	1638	Total/NA	
Manganese	510	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	22		0.83	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	40		4.1	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-1B2X					Lab Sample ID: 350-1619-45				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	170	B	3.8	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	8.2		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	36000	F2 B	38	0.075 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.11		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	39		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	15	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	19000	F1	38	7.5 mg/Kg	1	□	1638	Total/NA	
Manganese	44	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	19		0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	40	B E	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	69		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPWG-2B2X					Lab Sample ID: 350-1619-50				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	40	B	3.4	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.9		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	8800	B	37	0.075 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.060		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	44		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.19	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	19000		37	7.5 mg/Kg	1	□	1638	Total/NA	
Manganese	480	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	20		0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	43		3.7	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-2C2									
Lab Sample ID: 350-1619-51									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	27	B	3.7	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	5.4		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1500	B	40	0.081 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.047		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	46		0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	20000		40	8.1 mg/Kg	1	□	1638	Total/NA	
Manganese	600	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	23		0.81	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	43		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-3B2X									
Lab Sample ID: 350-1619-52									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	47	B	3.4	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	6.6		0.38	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	12000	B	38	0.077 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	39		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	9.6	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	17000		38	7.7 mg/Kg	1	□	1638	Total/NA	
Manganese	420	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	18		0.77	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	45		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-3C2									
Lab Sample ID: 350-1619-53									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	33	B	3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.0		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	4900	B	43	0.085 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.043		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	43		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.21	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	19000		43	8.5 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPWG-3C2 (Continued)					Lab Sample ID: 350-1619-53				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Manganese	460	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	21		0.85	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	42		4.3	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-3CP2									
Lab Sample ID: 350-1619-54									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	35	B	3.7	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	2500	B	40	0.081 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.041		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	45		0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	19000		40	8.1 mg/Kg	1	□	1638	Total/NA	
Manganese	480	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	22		0.81	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	41		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-3D2									
Lab Sample ID: 350-1619-55									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	31	B	3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.4		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	910	B	43	0.085 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.050		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	44		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.21	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	20000		43	8.5 mg/Kg	1	□	1638	Total/NA	
Manganese	510	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	22		0.85	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	40		4.3	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-4B2X									
Lab Sample ID: 350-1619-56									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	49	B	3.4	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.3		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	13000	B	38	0.076 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.049		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	45		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	19000		38	7.6 mg/Kg	1	□	1638	Total/NA	
Manganese	420	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	22		0.76	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	19	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	48		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPWG-4C2					Lab Sample ID: 350-1619-57				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	27	B	3.6	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.7		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	1600	B	43	0.086 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.045		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	47		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.22	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	19000		43	8.6 mg/Kg	1	□	1638	Total/NA	
Manganese	490	B	0.22	0.022 mg/Kg	1	□	1638	Total/NA	
Nickel	23		0.86	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	41		4.3	2.2 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-1C1									
Lab Sample ID: 350-1619-58									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	2000	B	20	9.8 ng/g	200	□	1631B	Total/NA	
Arsenic	14		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	26000	B	37	0.075 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.61		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	40		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	14	B	0.19	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	27000		37	7.5 mg/Kg	1	□	1638	Total/NA	
Manganese	620	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	18		0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	26	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	130		3.7	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-1C2X									
Lab Sample ID: 350-1619-59									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	5200	B	120	56 ng/g	1000	□	1631B	Total/NA	
Arsenic	7.3		0.36	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	3800	B	36	0.072 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.12		0.036	0.0036 mg/Kg	1	□	1638	Total/NA	
Chromium	68		0.36	0.36 mg/Kg	1	□	1638	Total/NA	

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-1E2					Lab Sample ID: 350-1619-64				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	250		12	5.7 ng/g	100	1631B	Total/NA		
Arsenic	6.8		0.39	0.12 mg/kg	1	1638	Total/NA		
Barium	1500 B		39	0.077 mg/kg	1	1638	Total/NA		
Cadmium	0.11		0.039	0.0039 mg/kg	1	1638	Total/NA		
Chromium	47 B		0.39	0.39 mg/kg	1	1638	Total/NA		
Copper	12 B		0.19	0.023 mg/kg	1	1638	Total/NA		
Iron	22000 B		39	7.7 mg/kg	1	1638	Total/NA		
Manganese	630 B		0.19	0.019 mg/kg	1	1638	Total/NA		
Nickel	24		0.85	0.034 mg/kg	1	1638	Total/NA		
Lead	19		0.15	0.015 mg/kg	1	1638	Total/NA		
Zinc	50		3.9	1.9 mg/kg	1	1638	Total/NA		

Client Sample ID: PACPP-1E2									
					Lab Sample ID: 350-1619-65				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	310		3.8	1.8 ng/g	30	1631B	Total/NA		
Arsenic	5.4		0.43	0.13 mg/kg	1	1638	Total/NA		
Barium	1000 B		43	0.086 mg/kg	1	1638	Total/NA		
Cadmium	0.054		0.043	0.0043 mg/kg	1	1638	Total/NA		
Chromium	45 B		0.43	0.43 mg/kg	1	1638	Total/NA		
Copper	12 B		0.22	0.026 mg/kg	1	1638	Total/NA		
Iron	20000 B		43	8.6 mg/kg	1	1638	Total/NA		
Manganese	490 B		0.22	0.022 mg/kg	1	1638	Total/NA		
Nickel	26		0.79	0.032 mg/kg	1	1638	Total/NA		
Lead	18		0.17	0.017 mg/kg	1	1638	Total/NA		
Zinc	43		4.3	2.2 mg/kg	1	1638	Total/NA		

Client Sample ID: PACPP-1F2									
					Lab Sample ID: 350-1619-66				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	240		3.7	1.8 ng/g	30	1631B	Total/NA		
Arsenic	5.0		0.39	0.12 mg/kg	1	1638	Total/NA		
Barium	940 B		39	0.078 mg/kg	1	1638	Total/NA		
Cadmium	0.050		0.039	0.0039 mg/kg	1	1638	Total/NA		
Chromium	46 B		0.39	0.39 mg/kg	1	1638	Total/NA		
Copper	11 B		0.19	0.023 mg/kg	1	1638	Total/NA		
Iron	19000 B		39	7.8 mg/kg	1	1638	Total/NA		
Manganese	480 B		0.19	0.019 mg/kg	1	1638	Total/NA		
Nickel	23		0.82	0.033 mg/kg	1	1638	Total/NA		
Lead	17		0.16	0.016 mg/kg	1	1638	Total/NA		
Zinc	41		3.9	1.9 mg/kg	1	1638	Total/NA		

Client Sample ID: PACPP-1G2									
					Lab Sample ID: 350-1619-67				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	220		3.6	1.7 ng/g	30	1631B	Total/NA		
Arsenic	4.9		0.41	0.12 mg/kg	1	1638	Total/NA		
Barium	840 B		41	0.081 mg/kg	1	1638	Total/NA		
Cadmium	0.053		0.041	0.0041 mg/kg	1	1638	Total/NA		
Chromium	40 B		0.41	0.41 mg/kg	1	1638	Total/NA		
Copper	9.8 B		0.20	0.024 mg/kg	1	1638	Total/NA		
Iron	18000 B		41	8.1 mg/kg	1	1638	Total/NA		

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-1G2 (Continued)					Lab Sample ID: 350-1619-67				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Manganese	550 B		0.20	0.020 mg/kg	1	1638	Total/NA		
Nickel	23		0.85	0.034 mg/kg	1	1638	Total/NA		
Lead	16		0.16	0.016 mg/kg	1	1638	Total/NA		
Zinc	36		4.1	2.0 mg/kg	1	1638	Total/NA		

Client Sample ID: PACPP-2C2									
					Lab Sample ID: 350-1619-68				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	1500		21	10 ng/g	200	1631B	Total/NA		
Arsenic	5.8		0.36	0.11 mg/kg	1	1638	Total/NA		
Barium	660 B		36	0.072 mg/kg	1	1638	Total/NA		
Cadmium	0.074		0.036	0.0036 mg/kg	1	1638	Total/NA		
Chromium	37 B		0.36	0.36 mg/kg	1	1638	Total/NA		
Copper	12 B		0.18	0.021 mg/kg	1	1638	Total/NA		
Iron	18000 B		36	7.2 mg/kg	1	1638	Total/NA		
Manganese	610 B		0.18	0.018 mg/kg	1	1638	Total/NA		
Nickel	18		0.74	0.030 mg/kg	1	1638	Total/NA		
Lead	18		0.14	0.014 mg/kg	1	1638	Total/NA		
Zinc	36		3.6	1.8 mg/kg	1	1638	Total/NA		

Client Sample ID: PACPP-2CP2									
					Lab Sample ID: 350-1619-69				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	290		3.6	1.8 ng/g	30	1631B	Total/NA		
Arsenic	6.3		0.38	0.11 mg/kg	1	1638	Total/NA		
Barium	800 F1 B		38	0.076 mg/kg	1	1638	Total/NA		
Cadmium	0.066		0.038	0.0038 mg/kg	1	1638	Total/NA		
Chromium	49 B		0.38	0.38 mg/kg	1	1638	Total/NA		
Copper	13 B		0.19	0.023 mg/kg	1	1638	Total/NA		
Iron	21000 B		38	7.6 mg/kg	1	1638	Total/NA		
Manganese	640 F1 B		0.19	0.019 mg/kg	1	1638	Total/NA		
Nickel	23		0.78	0.031 mg/kg	1	1638	Total/NA		
Lead	20		0.15	0.015 mg/kg	1	1638	Total/NA		
Zinc	44		3.8	1.9 mg/kg	1	1638	Total/NA		

Client Sample ID: PACPP-2D2									
					Lab Sample ID: 350-1619-70				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	310		3.7	1.8 ng/g	30	1631B	Total/NA		
Arsenic	5.1		0.42	0.13 mg/kg	1	1638	Total/NA		
Barium	740 B		42	0.084 mg/kg	1	1638	Total/NA		
Cadmium	0.053		0.042	0.0042 mg/kg	1	1638	Total/NA		
Chromium	46 B		0.42	0.42 mg/kg	1	1638	Total/NA		
Copper	12 B		0.21	0.025 mg/kg	1	1638	Total/NA		
Iron	20000 B		42	8.4 mg/kg	1	1638	Total/NA		
Manganese	520 B		0.21	0.021 mg/kg	1	1638	Total/NA		
Nickel	22		0.80	0.032 mg/kg	1	1638	Total/NA		
Lead	18		0.17	0.017 mg/kg	1	1638	Total/NA		
Zinc	41		4.2	2.1 mg/kg	1	1638	Total/NA		

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-3C1					Lab Sample ID: 350-1619-71				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	1700		23	11 ng/g	200	1631B	Total/NA		
Arsenic	5.9		0.35	0.11 mg/kg	1	1638	Total/NA		
Barium	410 B		35	0.070 mg/kg	1	1638	Total/NA		
Cadmium	0.092		0.035	0.0035 mg/kg	1	1638	Total/NA		
Chromium	28 B		0.35	0.35 mg/kg	1	1638	Total/NA		
Copper	9.5 B		0.18	0.021 mg/kg	1	1638	Total/NA		
Iron	16000 B		35	7.0 mg/kg	1	1638	Total/NA		
Manganese	680 B		0.18	0.018 mg/kg	1	1638	Total/NA		
Nickel	15		0.72	0.029 mg/kg	1	1638	Total/NA		
Lead	17		0.14	0.014 mg/kg	1	1638	Total/NA		
Zinc	27		3.5	1.8 mg/kg	1	1638	Total/NA		

Client Sample ID: PACPP-3C2Y					Lab Sample ID: 350-1619-72			
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type	
Mercury	2800		110	53 ng/g	1000	1631B	Total/NA	
Arsenic	6.9		0.37	0.11 mg/Kg	1	1638	Total/NA	
Barium	770 B		37	0.074 mg/Kg	1	1638	Total/NA	
Cadmium	0.058		0.037	0.0037 mg/Kg	1	1638	Total/NA	
Chromium	40 B		0.37	0.37 mg/Kg	1	1638	Total/NA	
Copper	10 B		0.18	0.022 mg/Kg	1	1638	Total/NA	
Iron	22000 B		37	7.4 mg/Kg	1	1638	Total/NA	
Manganese	620 B		0.18	0.018 mg/Kg	1	1638	Total/NA	
Nickel	20		0.79	0.032 mg/Kg	1	1638	Total/NA	
Lead	19		0.15	0.015 mg/Kg	1	1638	Total/NA	
Zinc	36		3.7	1.8 mg/Kg	1	1638	Total/NA	

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-3E2X					Lab Sample ID: 350-1619-78				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	190		3.4	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.7		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	630 B		41	0.083 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.057		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	44 B		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	20000 B		41	8.3 mg/Kg	1	□	1638	Total/NA	
Manganese	560 B		0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	23		0.77	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	18		0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	41		4.1	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-3F2X									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	130		5.0	2.4 ng/g	40	□	1631B	Total/NA	
Arsenic	6.1		0.45	0.14 mg/Kg	1	□	1638	Total/NA	
Barium	780 B		45	0.090 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.045	0.0045 mg/Kg	1	□	1638	Total/NA	
Chromium	48 B		0.45	0.45 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.23	0.027 mg/Kg	1	□	1638	Total/NA	
Iron	22000 B		45	9.0 mg/Kg	1	□	1638	Total/NA	
Manganese	630 B		0.23	0.023 mg/Kg	1	□	1638	Total/NA	
Nickel	24		0.88	0.035 mg/Kg	1	□	1638	Total/NA	
Lead	19		0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Zinc	44		4.5	2.3 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-3G2									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	99		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.4		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	560 B		40	0.080 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.051		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	46 B		0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	11 B		0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	20000 B		40	8.0 mg/Kg	1	□	1638	Total/NA	
Manganese	490 B		0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	24		0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	17		0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	40		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-4C2X									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	750		20	9.8 ng/g	200	□	1631B	Total/NA	
Arsenic	7.0		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	5500 B		41	0.081 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.13		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	37 B		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	9.8 B		0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	23000		41	8.1 mg/Kg	1	□	1638	Total/NA	

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-4C2X (Continued)					Lab Sample ID: 350-1619-81				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Manganese	890 B		0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	19 B		0.81	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	20 F1 B		0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	49		4.1	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-4C2X-FD									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	2400 B		100	49 ng/g	1000	□	1631B	Total/NA	
Arsenic	8.0		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	8200 B		37	0.073 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.12		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	38 B		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	9.6 B		0.18	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	24000		37	7.3 mg/Kg	1	□	1638	Total/NA	
Manganese	710 B		0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	18 B		0.73	0.029 mg/Kg	1	□	1638	Total/NA	
Lead	20 B		0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	48		3.7	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-4CP2X									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	150 B		3.1	1.5 ng/g	30	□	1631B	Total/NA	
Arsenic	5.4		0.39	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	760 B		39	0.079 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.059		0.039	0.0039 mg/Kg	1	□	1638	Total/NA	
Chromium	40 B		0.39	0.39 mg/Kg	1	□	1638	Total/NA	
Copper	10 B		0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	19000		39	7.9 mg/Kg	1	□	1638	Total/NA	
Manganese	550 B		0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	20 B		0.79	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	37		3.9	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-4D2X									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	470		11	5.4 ng/g	100	□	1631B	Total/NA	
Arsenic	5.3		0.38	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	510 B		38	0.077 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.053		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	43 B		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	11 B		0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	19000		38	7.7 mg/Kg	1	□	1638	Total/NA	
Manganese	530 B		0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	20 B		0.77	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	37		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PAREF-A					Lab Sample ID: 350-1619-85				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	23		2.4	1.2 ng/g	20	□	1631B	Total/NA	
Arsenic	5.1		0.39	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	230 B		39	0.078 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.041		0.039	0.0039 mg/Kg	1	□	1638	Total/NA	
Chromium	54 B		0.39	0.39 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	22000		39	7.8 mg/Kg	1	□	1638	Total/NA	
Manganese	400 B		0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	26 B		0.78	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	47		3.9	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PAREF-B									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	20		2.2	1.1 ng/g	20	□	1631B	Total/NA	
Arsenic	6.1		0.42	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	180 B		42	0.083 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.034 J		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	45 B		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	10 B		0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	22000		42	8.3 mg/Kg	1	□	1638	Total/NA	
Manganese	450 B		0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	22 B		0.83	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	17 B		0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	40		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PAREF-C									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	21		2.3	1.1 ng/g	20	□	1631B	Total/NA	
Arsenic	11		0.35	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	210 B		35	0.070 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.035	0.0035 mg/Kg	1	□	1638	Total/NA	
Chromium	57 B		0.35	0.35 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.18	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	34000		35	7.0 mg/Kg	1	□	1638	Total/NA	
Manganese	550 B		0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	28 B		0.70	0.028 mg/Kg	1	□	1638	Total/NA	
Lead	24 B		0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	50		3.5	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PAWB-1C2					Lab Sample ID: 350-1619-88				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	94		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	5.0		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	8600 B		38	0.076 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.085		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	45 B		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	13 B		0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	20000		38	7.6 mg/Kg	1	□	1638	Total/NA	

Detection Summary

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PAWB-2C2

Lab Sample ID: 350-1619-92

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	52		3.6	1.7 ng/g	30	□	1631B	Total/NA
Arsenic	5.3		0.37	0.11 mg/Kg	1	□	1638	Total/NA
Barium	1500 B		37	0.075 mg/Kg	1	□	1638	Total/NA
Cadmium	0.054		0.037	0.0037 mg/Kg	1	□	1638	Total/NA
Chromium	44 B		0.37	0.37 mg/Kg	1	□	1638	Total/NA
Copper	11 B		0.19	0.022 mg/Kg	1	□	1638	Total/NA
Iron	20000		37	7.5 mg/Kg	1	□	1638	Total/NA
Manganese	540 B		0.19	0.019 mg/Kg	1	□	1638	Total/NA
Nickel	21 B		0.75	0.030 mg/Kg	1	□	1638	Total/NA
Lead	18 B		0.15	0.015 mg/Kg	1	□	1638	Total/NA
Zinc	43		3.7	1.9 mg/Kg	1	□	1638	Total/NA

Client Sample ID: PAWB-3B2									
Lab Sample ID: 350-1619-93									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	180		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	9.6		0.39	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1800 B		39	0.078 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.13		0.039	0.0039 mg/Kg	1	□	1638	Total/NA	
Chromium	42 B		0.39	0.39 mg/Kg	1	□	1638	Total/NA	
Copper	16 B		0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	20000		39	7.8 mg/Kg	1	□	1638	Total/NA	
Manganese	420 B		0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	20 B		0.78	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	16 B		0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	61		3.9	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PAWB-3C2									
Lab Sample ID: 350-1619-94									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	48		3.6	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.6		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	4700 B		41	0.082 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.053		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	44 B		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	20000		41	8.2 mg/Kg	1	□	1638	Total/NA	
Manganese	450 B		0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	22 B		0.82	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	44		4.1	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PAWB-3CP2									
Lab Sample ID: 350-1619-95									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	50		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.5		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1800 B		40	0.081 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.052		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	46 B		0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	21000		40	8.1 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Detection Summary

Client Sample ID: PAWB-3CP2 (Continued)

Lab Sample ID: 350-1619-95

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Manganese	570 B		0.20	0.020 mg/Kg	1	☐	1638	Total/NA
Nickel	23 B		0.81	0.032 mg/Kg	1	☐	1638	Total/NA
Lead	18 B		0.16	0.016 mg/Kg	1	☐	1638	Total/NA
Zinc	43		4.0	2.0 mg/Kg	1	☐	1638	Total/NA

Client Sample ID: PAWB-3D2									
Lab Sample ID: 350-1619-96									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	43		3.7	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	6.1		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	860 B		43	0.086 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.063		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	51 B		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	11 B		0.22	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	22000		43	8.6 mg/Kg	1	□	1638	Total/NA	
Manganese	560 B		0.22	0.022 mg/Kg	1	□	1638	Total/NA	
Nickel	40 B		0.86	0.035 mg/Kg	1	□	1638	Total/NA	
Lead	19 B		0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	44		4.3	2.2 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PAWB-4B2X									
Lab Sample ID: 350-1619-97									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	50		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	5.2		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	14000 B		43	0.085 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.096		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	41 B		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	13 B		0.21	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	19000		43	8.5 mg/Kg	1	□	1638	Total/NA	
Manganese	400 B		0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	21 B		0.85	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	56		4.3	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PAWB-4C2									
Lab Sample ID: 350-1619-98									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	52		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.9		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	2500 B		38	0.076 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.068		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	49 B		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	22000		38	7.6 mg/Kg	1	□	1638	Total/NA	
Manganese	560 B		0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	24 B		0.76	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	20 B		0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	45		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PAWE-1B1

Lab Sample ID: 350-1619-99

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	65		3.3	1.6 mg/g	30	0	1631B	Total/NA
Arsenic	5.7		0.39	0.12 mg/Kg	1	0	1638	Total/NA
Barium	6600 B		39	0.077 mg/Kg	1	0	1638	Total/NA
Cadmium	0.089		0.039	0.0039 mg/Kg	1	0	1638	Total/NA
Chromium	40 B		0.39	0.39 mg/Kg	1	0	1638	Total/NA
Copper	11 B		0.19	0.023 mg/Kg	1	0	1638	Total/NA
Iron	18000 F1		39	7.7 mg/Kg	1	0	1638	Total/NA
Manganese	550 B		0.19	0.019 mg/Kg	1	0	1638	Total/NA
Nickel	19 B		0.77	0.031 mg/Kg	1	0	1638	Total/NA
Lead	17 B		0.15	0.015 mg/Kg	1	0	1638	Total/NA
Zinc	46		3.9	1.9 mg/Kg	1	0	1638	Total/NA

Client Sample ID: PAWE-1C2									
Lab Sample ID: 350-1619-100									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	46		3.4	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	6.0		0.35	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	2200 B		35	0.071 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.093		0.035	0.0035 mg/Kg	1	□	1638	Total/NA	
Chromium	41 B		0.35	0.35 mg/Kg	1	□	1638	Total/NA	
Copper	11 B		0.18	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	19000		35	7.1 mg/Kg	1	□	1638	Total/NA	
Manganese	760 B		0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	20 B		0.71	0.028 mg/Kg	1	□	1638	Total/NA	
Lead	17 B		0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	45		3.5	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PAWE-1CP2					Lab Sample ID: 350-1619-101				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	41		3.3	1.6 mg/g	30	□	1631B	Total/NA	
Arsenic	5.0		0.36	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	680 B		36	0.072 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.051		0.036	0.0036 mg/Kg	1	□	1638	Total/NA	
Chromium	46		0.36	0.36 mg/Kg	1	□	1638	Total/NA	
Copper	11 B		0.18	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	19000		36	7.2 mg/Kg	1	□	1638	Total/NA	
Manganese	430 B		0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	21 B		0.72	0.029 mg/Kg	1	□	1638	Total/NA	
Lead	17 B		0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	40		3.6	1.8 mg/Kg	1	□	1638	Total/NA	

Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWE-3B3					Lab Sample ID: 350-1619-106					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Mercury	98		3.4	1.7 ng/g	30	□	1631B	Total/NA		6
Arsenic	6.1		0.39	0.12 mg/Kg	1	□	1638	Total/NA		7
Barium	4900	B	39	0.078 mg/Kg	1	□	1638	Total/NA		8
Cadmium	0.075		0.039	0.0039 mg/Kg	1	□	1638	Total/NA		9
Chromium	42		0.39	0.39 mg/Kg	1	□	1638	Total/NA		10
Copper	11	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA		11
Iron	19000		39	7.8 mg/Kg	1	□	1638	Total/NA		12
Manganese	500	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA		13
Nickel	19	B	0.78	0.031 mg/Kg	1	□	1638	Total/NA		14
Lead	18	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA		15
Zinc	46		3.9	1.9 mg/Kg	1	□	1638	Total/NA		
Client Sample ID: PAWE-3C2										
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	48		3.3	1.6 ng/g	30	□	1631B	Total/NA		
Arsenic	5.1		0.40	0.12 mg/Kg	1	□	1638	Total/NA		
Barium	980	B	40	0.080 mg/Kg	1	□	1638	Total/NA		
Cadmium	0.049		0.040	0.0040 mg/Kg	1	□	1638	Total/NA		
Chromium	43		0.40	0.40 mg/Kg	1	□	1638	Total/NA		
Copper	11	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA		
Iron	18000		40	8.0 mg/Kg	1	□	1638	Total/NA		
Manganese	460	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA		
Nickel	20	B	0.80	0.032 mg/Kg	1	□	1638	Total/NA		
Lead	17	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA		
Zinc	39		4.0	2.0 mg/Kg	1	□	1638	Total/NA		
Client Sample ID: PAWE-3CP2										
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	40		3.8	1.8 ng/g	30	□	1631B	Total/NA		
Arsenic	5.5		0.41	0.12 mg/Kg	1	□	1638	Total/NA		
Barium	560	B	41	0.083 mg/Kg	1	□	1638	Total/NA		
Cadmium	0.043		0.041	0.0041 mg/Kg	1	□	1638	Total/NA		
Chromium	43		0.41	0.41 mg/Kg	1	□	1638	Total/NA		
Copper	10	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA		
Iron	18000		41	8.3 mg/Kg	1	□	1638	Total/NA		
Manganese	470	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA		
Nickel	20	B	0.83	0.033 mg/Kg	1	□	1638	Total/NA		
Lead	16	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA		
Zinc	38		4.1	2.1 mg/Kg	1	□	1638	Total/NA		
Client Sample ID: PAWE-3D2										
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	38		3.2	1.5 ng/g	30	□	1631B	Total/NA		
Arsenic	4.9		0.38	0.11 mg/Kg	1	□	1638	Total/NA		
Barium	400	B	38	0.076 mg/Kg	1	□	1638	Total/NA		
Cadmium	0.044		0.038	0.0038 mg/Kg	1	□	1638	Total/NA		
Chromium	39		0.38	0.38 mg/Kg	1	□	1638	Total/NA		
Copper	9.8	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA		
Iron	17000		38	7.6 mg/Kg	1	□	1638	Total/NA		
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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWE-3D2 (Continued)					Lab Sample ID: 350-1619-109					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Manganese	440	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA		6
Nickel	19	B	0.76	0.030 mg/Kg	1	□	1638	Total/NA		7
Lead	15	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA		8
Zinc	35		3.8	1.9 mg/Kg	1	□	1638	Total/NA		9
Client Sample ID: PAWE-4B2										10
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		11
Mercury	42		3.2	1.6 ng/g	30	□	1631B	Total/NA		12
Arsenic	5.2		0.35	0.11 mg/Kg	1	□	1638	Total/NA		13
Barium	2100	B	35	0.071 mg/Kg	1	□	1638	Total/NA		14
Cadmium	0.069		0.035	0.0035 mg/Kg	1	□	1638	Total/NA		15
Chromium	39		0.35	0.35 mg/Kg	1	□	1638	Total/NA		
Copper	9.3	B	0.18	0.021 mg/Kg	1	□	1638	Total/NA		
Iron	17000		35	7.1 mg/Kg	1	□	1638	Total/NA		
Manganese	490	B	0.18	0.018 mg/Kg	1	□	1638	Total/NA		
Nickel	18	B	0.71	0.028 mg/Kg	1	□	1638	Total/NA		
Lead	16	B	0.14	0.014 mg/Kg	1	□	1638	Total/NA		
Zinc	38		3.5	1.8 mg/Kg	1	□	1638	Total/NA		
Client Sample ID: PAWE-4C2										
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	40		3.5	1.7 ng/g	30	□	1631B	Total/NA		
Arsenic	4		0.40	0.12 mg/Kg	1	□	1638	Total/NA		
Barium	560	F1 B	40	0.081 mg/Kg	1	□	1638	Total/NA		
Cadmium	0.054		0.040	0.0040 mg/Kg	1	□	1638	Total/NA		
Chromium	42		0.40	0.40 mg/Kg	1	□	1638	Total/NA		
Copper	10	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA		
Iron	18000	F1	40	8.1 mg/Kg	1	□	1638	Total/NA		
Manganese	410	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA		
Nickel	20	B	0.81	0.032 mg/Kg	1	□	1638	Total/NA		
Lead	16	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA		
Zinc	37		4.0	2.0 mg/Kg	1	□	1638	Total/NA		
Client Sample ID: NPCPP-1C2X-SW-1										
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.56		0.50	0.20 ng/L	1	□	1631E	Total/NA		
Arsenic	1.3		0.70	0.63 ug/L	1	□	1640	Total/NA		
Chromium	1.1		1.0	0.11 ug/L	1	□	1640	Total/NA		
Lead	1.7	B	0.050	0.023 ug/L	1	□	1640	Total/NA		
Nickel	0.18	J	0.50	0.15 ug/L	1	□	1640	Total/NA		
Barium	12		0.50	0.088 ug/L	1	□	1640	Total/NA		
Iron	4.1	J B	5.0	0.81 ug/L	1	□	1640	Total/NA		
Manganese	0.93		0.050	0.030 ug/L	1	□	1640	Total/NA		
Client Sample ID: NPCPP-1C2X-SW-20										
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.56		0.50	0.20 ng/L	1	□	1631E	Total/NA		
Arsenic	1.2		0.70	0.63 ug/L	1	□	1640	Total/NA		
Chromium	1.3		1.0	0.11 ug/L	1	□	1640	Total/NA		
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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPCPP-1C2X-SW-20 (Continued)					Lab Sample ID: 350-1619-113					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Nickel	0.19	J	0.50	0.15 ug/L	1	□	1640	Total/NA		6
Barium	12		0.50	0.088 ug/L	1	□	1640	Total/NA		7
Iron	2.1	J B	5.0	0.81 ug/L	1	□	1640	Total/NA		8
Manganese	0.83		0.050	0.030 ug/L	1	□	1640	Total/NA		9
Client Sample ID: NPCPP-1C2X-SW-40					Lab Sample ID: 350-1619-114					10
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		11
Mercury	0.56		0.50	0.20 ng/L	1	□	1631E	Total/NA		12
Arsenic	1.2		0.70	0.63 ug/L	1	□	1640	Total/NA		13
Chromium	1.2		1.0	0.11 ug/L	1	□	1640	Total/NA		14
Nickel	0.20	J	0.50	0.15 ug/L	1	□	1640	Total/NA		15
Barium	12		0.50	0.088 ug/L	1	□	1640	Total/NA		16
Iron	13	B	5.0	0.81 ug/L	1	□	1640	Total/NA		17
Manganese	1.5		0.050	0.030 ug/L	1	□	1640	Total/NA		18
Client Sample ID: NPCPP-1C2X-SW-B					Lab Sample ID: 350-1619-115					19
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		20
Mercury	0.80		0.50	0.20 ng/L	1	□	1631E	Total/NA		21
Arsenic	1.3		0.70	0.63 ug/L	1	□	1640	Total/NA		22
Chromium	1.2		1.0	0.11 ug/L	1	□	1640	Total/NA		23
Lead	0.035	J B	0.050	0.023 ug/L	1	□	1640	Total/NA		24
Nickel	0.22	J	0.50	0.15 ug/L	1	□	1640	Total/NA		25
Barium	12		0.50	0.088 ug/L	1	□	1640	Total/NA		26
Iron	39	B	5.0	0.81 ug/L	1	□	1640	Total/NA		27
Manganese	2.9		0.050	0.030 ug/L	1	□	1640	Total/NA		28
Client Sample ID: NPCPP-1CP2-SW-1					Lab Sample ID: 350-1619-116					29
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		30
Mercury	0.68		0.50	0.20 ng/L	1	□	1631E	Total/NA		31
Arsenic	1.2		0.70	0.63 ug/L	1	□	1640	Total/NA		32
Chromium	1.2		1.0	0.11 ug/L	1	□	1640	Total/NA		33
Nickel	0.20	J	0.50	0.15 ug/L	1	□	1640	Total/NA		34
Barium	12		0.50	0.088 ug/L	1	□	1640	Total/NA		35
Iron	5.8	B	5.0	0.81 ug/L	1	□	1640	Total/NA		36
Manganese	0.92		0.050	0.030 ug/L	1	□	1640	Total/NA		37
Client Sample ID: NPCPP-1CP2-SW-20					Lab Sample ID: 350-1619-117					38
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		39
Mercury	0.37	J	0.50	0.20 ng/L	1	□	1631E	Total/NA		40
Arsenic	1.3		0.70	0.63 ug/L	1	□	1640	Total/NA		41
Chromium	1.2		1.0	0.11 ug/L	1	□	1640	Total/NA		42
Nickel	0.23	J	0.50	0.15 ug/L	1	□	1640	Total/NA		43
Barium	12		0.50	0.088 ug/L	1	□	1640	Total/NA		44
Iron	5.1	B	5.0	0.81 ug/L	1	□	1640	Total/NA		45
Manganese	1.0		0.050	0.030 ug/L	1	□	1640	Total/NA		46

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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPCPP-2C2-SW-40-FD (Continued)					Lab Sample ID: 350-1619-123					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Manganese	1.8		0.050	0.030 ug/L	1		1640	Total/NA		6
Client Sample ID: NPCPP-2C2-SW-B					Lab Sample ID: 350-1619-124					7
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		8
Mercury	0.35	J	0.50	0.20 ng/L	1		1631E	Total/NA		9
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA		10
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA		11
Lead	0.031	J B	0.050	0.023 ug/L	1		1640	Total/NA		12
Nickel	0.21	J	0.50	0.15 ug/L	1		1640	Total/NA		13
Barium	13		0.50	0.088 ug/L	1		1640	Total/NA		14
Iron	33	B	5.0	0.81 ug/L	1		1640	Total/NA		15
Manganese	2.8		0.050	0.030 ug/L	1		1640	Total/NA		16
Client Sample ID: NPCPP-3C2-SW-1					Lab Sample ID: 350-1619-125					17
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		18
Mercury	2.7		0.50	0.20 ng/L	1		1631E	Total/NA		19
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA		20
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		21
Nickel	0.23	J	0.50	0.15 ug/L	1		1640	Total/NA		22
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA		23
Iron	3.6	J B	5.0	0.81 ug/L	1		1640	Total/NA		24
Manganese	0.88		0.050	0.030 ug/L	1		1640	Total/NA		25
Client Sample ID: NPCPP-3C2-SW-20					Lab Sample ID: 350-1619-126					26
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		27
Mercury	2.3		0.50	0.20 ng/L	1		1631E	Total/NA		28
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA		29
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA		30
Nickel	0.17	J	0.50	0.15 ug/L	1		1640	Total/NA		31
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		32
Iron	1.3	J B	5.0	0.81 ug/L	1		1640	Total/NA		33
Manganese	0.68		0.050	0.030 ug/L	1		1640	Total/NA		34
Client Sample ID: NPCPP-3C2-SW-40					Lab Sample ID: 350-1619-127					35
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		36
Mercury	0.36	J	0.50	0.20 ng/L	1		1631E	Total/NA		37
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA		38
Chromium	1.0		1.0	0.11 ug/L	1		1640	Total/NA		39
Nickel	0.18	J	0.50	0.15 ug/L	1		1640	Total/NA		40
Barium	10		0.50	0.088 ug/L	1		1640	Total/NA		41
Iron	20	B	5.0	0.81 ug/L	1		1640	Total/NA		42
Manganese	1.9		0.050	0.030 ug/L	1		1640	Total/NA		43
Client Sample ID: NPCPP-3C2-SW-B					Lab Sample ID: 350-1619-128					44
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		45
Mercury	0.36	J	0.50	0.20 ng/L	1		1631E	Total/NA		46
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA		47
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		48
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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPCPP-3C2-SW-B (Continued)					Lab Sample ID: 350-1619-128					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Lead	0.037	J B	0.050	0.023 ug/L	1		1640	Total/NA		6
Nickel	0.23	J	0.50	0.15 ug/L	1		1640	Total/NA		7
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA		8
Iron	39	B	5.0	0.81 ug/L	1		1640	Total/NA		9
Manganese	2.9		0.050	0.030 ug/L	1		1640	Total/NA		10
Client Sample ID: NPCPP-3CP2-SW-1					Lab Sample ID: 350-1619-129					11
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		12
Mercury	0.35	J	0.50	0.20 ng/L	1		1631E	Total/NA		13
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA		14
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		15
Nickel	0.18	J	0.50	0.15 ug/L	1		1640	Total/NA		16
Barium	12	F 1	0.50	0.088 ug/L	1		1640	Total/NA		17
Iron	2.4	J	5.0	0.81 ug/L	1		1640	Total/NA		18
Manganese	0.79	F 1	0.050	0.030 ug/L	1		1640	Total/NA		19
Client Sample ID: NPCPP-3CP2-SW-20					Lab Sample ID: 350-1619-130					20
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		21
Mercury	0.33	J	0.50	0.20 ng/L	1		1631E	Total/NA		22
Arsenic	1.0		0.70	0.63 ug/L	1		1640	Total/NA		23
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA		24
Nickel	0.16	J	0.50	0.15 ug/L	1		1640	Total/NA		25
Barium	8.6	F 1	0.50	0.088 ug/L	1		1640	Total/NA		26
Iron	3.0	J	5.0	0.81 ug/L	1		1640	Total/NA		27
Manganese	0.64		0.050	0.030 ug/L	1		1640	Total/NA		28
Client Sample ID: NPCPP-3CP2-SW-40					Lab Sample ID: 350-1619-131					29
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		30
Mercury	0.30	J	0.50	0.20 ng/L	1		1631E	Total/NA		31
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA		32
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		33
Lead	0.025	J	0.050	0.023 ug/L	1		1640	Total/NA		34
Nickel	0.23	J	0.50	0.15 ug/L	1		1640	Total/NA		35
Barium	13		0.50	0.088 ug/L	1		1640	Total/NA		36
Iron	18		5.0	0.81 ug/L	1		1640	Total/NA		37
Manganese	1.6		0.050	0.030 ug/L	1		1640	Total/NA		38
Client Sample ID: NPCPP-3CP2-SW-B					Lab Sample ID: 350-1619-132					39
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		40
Mercury	0.30	J	0.50	0.20 ng/L	1		1631E	Total/NA		41
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA		42
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		43
Lead	0.030	J	0.050	0.023 ug/L	1		1640	Total/NA		44
Nickel	0.24	J	0.50	0.15 ug/L	1		1640	Total/NA		45
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA		46
Iron	33		5.0	0.81 ug/L	1		1640	Total/NA		47
Manganese	2.5		0.050	0.030 ug/L	1		1640	Total/NA		48
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPCPP-4C2-SW-1										Lab Sample ID: 350-1619-133		
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type			
Mercury	0.28	J	0.50	0.20	ng/L	1		1631E	Total/NA			
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA			
Chromium	1.5		1.0	0.11	ug/L	1		1640	Total/NA			
Nickel	0.29	J	0.50	0.15	ug/L	1		1640	Total/NA			
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA			
Iron	3.8	J	5.0	0.81	ug/L	1		1640	Total/NA			
Manganese	0.83		0.050	0.030	ug/L	1		1640	Total/NA			

Client Sample ID: NPCPP-4C2-SW-20										Lab Sample ID: 350-1619-134		
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type			
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA			
Chromium	1.2		1.0	0.11	ug/L	1		1640	Total/NA			
Nickel	0.20	J	0.50	0.15	ug/L	1		1640	Total/NA			
Barium	13		0.50	0.088	ug/L	1		1640	Total/NA			
Iron	3.9	J B	5.0	0.81	ug/L	1		1640	Total/NA			
Manganese	0.99		0.050	0.030	ug/L	1		1640	Total/NA			

Client Sample ID: NPCPP-4C2-SW-40										Lab Sample ID: 350-1619-135		
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type			
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA			
Chromium	1.3		1.0	0.11	ug/L	1		1640	Total/NA			
Lead	0.024	J	0.050	0.023	ug/L	1		1640	Total/NA			
Nickel	0.21	J	0.50	0.15	ug/L	1		1640	Total/NA			
Barium	13		0.50	0.088	ug/L	1		1640	Total/NA			
Iron	17	B	5.0	0.81	ug/L	1		1640	Total/NA			
Manganese	1.7		0.050	0.030	ug/L	1		1640	Total/NA			

Client Sample ID: NPCPP-4C2-SW-B										Lab Sample ID: 350-1619-136		
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type			
Mercury	0.24	J	0.50	0.20	ng/L	1		1631E	Total/NA			
Arsenic	1.2		0.70	0.63	ug/L	1		1640	Total/NA			
Chromium	1.3		1.0	0.11	ug/L	1		1640	Total/NA			
Lead	0.033	J	0.050	0.023	ug/L	1		1640	Total/NA			
Nickel	0.28	J	0.50	0.15	ug/L	1		1640	Total/NA			
Barium	13		0.50	0.088	ug/L	1		1640	Total/NA			
Iron	37	B	5.0	0.81	ug/L	1		1640	Total/NA			
Manganese	2.8		0.050	0.030	ug/L	1		1640	Total/NA			

Client Sample ID: NPCPP-EQ										Lab Sample ID: 350-1619-137		
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type			
Mercury	0.27	J	0.50	0.20	ng/L	1		1631E	Total/NA			
Manganese	0.12		0.050	0.030	ug/L	1		1640	Total/NA			

Client Sample ID: NPCPP-WB										Lab Sample ID: 350-1619-138		
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type			
Mercury	0.28	J	0.50	0.20	ng/L	1		1631E	Total/NA			
Manganese	0.11		0.050	0.030	ug/L	1		1640	Total/NA			

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Client Sample ID: NPREF-EQ

Lab Sample ID: 350-1619-144

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	1.9		0.50	0.20	ng/L	1			1631E	Total/NA
Chromium	0.11	J	1.0	0.11	ug/L	1			1640	Total/NA
Manganese	0.20		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPREF-WB

Lab Sample ID: 350-1619-145

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	2.1		0.50	0.20	ng/L	1			1631E	Total/NA
Chromium	0.13	J	1.0	0.11	ug/L	1			1640	Total/NA
Manganese	0.20		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1C2-SW-1

Lab Sample ID: 350-1619-146

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.22	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.2		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2		1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.20	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	1.5	J B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.86		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1C2-SW-20

Lab Sample ID: 350-1619-147

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.32	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2		1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.18	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	1.1	J B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.82		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1C2-SW-40

Lab Sample ID: 350-1619-148

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.25	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.2		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.3		1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.19	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	5.7	B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	1.1		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1C2-SW-B

Lab Sample ID: 350-1619-149

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.33	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.1	B	1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.034	J	0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	13	F1	0.50	0.088	ug/L	1			1640	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Client Sample ID: NPWB-3B2-SW-1 (Continued)

Lab Sample ID: 350-1619-154

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.17	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	10		0.50	0.088	ug/L	1			1640	Total/NA
Iron	3.2	J	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.88		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-3B2-SW-20

Lab Sample ID: 350-1619-155

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	7.1		0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.2		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.3	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.21	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	13		0.50	0.088	ug/L	1			1640	Total/NA
Iron	4.5	J	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.90		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-3B2-SW-40

Lab Sample ID: 350-1619-156

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.33	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	0.98		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.1	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.15	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	8.5		0.50	0.088	ug/L	1			1640	Total/NA
Iron	20		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	1.9		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-3B2-SW-B

Lab Sample ID: 350-1619-157

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.32	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.033	J	0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	13		0.50	0.088	ug/L	1			1640	Total/NA
Iron	35		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	2.8		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-3CP2-SW-1

Lab Sample ID: 350-1619-158

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	1.0		0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.2		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.16		0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.19	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	3.8	J	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.94		0.050	0.030	ug/L	1			1640	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample ID: NPWB-1C2-SW-B (Continued)

Lab Sample ID: 350-1619-149

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Iron	33		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	2.8	F1	0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1CP2-SW-1

Lab Sample ID: 350-1619-150

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.29	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.23	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12	F1	0.50	0.088	ug/L	1			1640	Total/NA
Iron	7.8		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.86	F1	0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1CP2-SW-20

Lab Sample ID: 350-1619-151

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.36	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	2.4	J	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.84		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1CP2-SW-40

Lab Sample ID: 350-1619-152

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.49	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	13		0.50	0.088	ug/L	1			1640	Total/NA
Iron	13		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	1.5		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1CP2-SW-B

Lab Sample ID: 350-1619-153

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.36	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.030	J	0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	13		0.50	0.088	ug/L	1			1640	Total/NA
Iron	33		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	2.8		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-3B2-SW-1

Lab Sample ID: 350-1619-154

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.48	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.1		0.70	0.63	ug/L	1			1640	Total/NA

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Client Sample ID: NPWB-3CP2-SW-20

Lab Sample ID: 350-1619-159

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.27	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	0.84		0.70	0.63	ug/L	1		1640		Total/NA
Chromium	0.97	J B	1.0	0.11	ug/L	1		1640		Total/NA
Barium	8.0		0.50	0.088	ug/L	1		1640		Total/NA
Iron	4.6	J	5.0	0.81	ug/L	1		1640		Total/NA
Manganese	0.93		0.050	0.030	ug/L	1		1640		Total/NA

Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWG-1B2X-SW-1					Lab Sample ID: 350-1619-165					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Mercury	0.78		0.50	0.20 ng/L	1	1631E	Total/NA			6
Arsenic	1.1		0.70	0.63 ug/L	1	1640	Total/NA			7
Chromium	1.4 B		1.0	0.11 ug/L	1	1640	Total/NA			8
Copper	0.93		0.50	0.43 ug/L	1	1640	Total/NA			9
Lead	0.060		0.050	0.023 ug/L	1	1640	Total/NA			10
Nickel	0.22 J		0.50	0.15 ug/L	1	1640	Total/NA			11
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			12
Iron	2.3 J		5.0	0.81 ug/L	1	1640	Total/NA			13
Manganese	0.78		0.050	0.030 ug/L	1	1640	Total/NA			14
Client Sample ID: NPWG-1B2X-SW-20					Lab Sample ID: 350-1619-166					15
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.44 J ^2		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.7		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.015 J		0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	1.2 B		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.19 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	1.8 J		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.80		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-1B2X-SW-40					Lab Sample ID: 350-1619-167					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.41 J ^2		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.4 B		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.028 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.21 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	13		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	21		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.8		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-1B2X-SW-B					Lab Sample ID: 350-1619-168					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.48 J ^2		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.3 B		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.034 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.23 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	13		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	34		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	2.6		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-1CP2-SW-1					Lab Sample ID: 350-1619-169					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.42 J ^2		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.1		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.1		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.025 J		0.050	0.023 ug/L	1	1640	Total/NA			

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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWG-1CP2-SW-1 (Continued)					Lab Sample ID: 350-1619-169					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Nickel	0.22 J		0.50	0.15 ug/L	1	1640	Total/NA			6
Barium	13 F1		0.50	0.088 ug/L	1	1640	Total/NA			7
Iron	3.6 J		5.0	0.81 ug/L	1	1640	Total/NA			8
Manganese	0.78 F1		0.050	0.030 ug/L	1	1640	Total/NA			9
Client Sample ID: NPWG-1CP2-SW-20					Lab Sample ID: 350-1619-170					10
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		11
Mercury	0.50		0.50	0.20 ng/L	1	1631E	Total/NA			12
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			13
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			14
Nickel	0.21 J		0.50	0.15 ug/L	1	1640	Total/NA			15
Barium	12 F1		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	2.2 J		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.71 F1		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-1CP2-SW-40					Lab Sample ID: 350-1619-171					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.53		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.023 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.24 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	21		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.8		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-1CP2-SW-B					Lab Sample ID: 350-1619-172					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.43 J ^2		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.026 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.22 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	24		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	2.1		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-3B2X-SW-1					Lab Sample ID: 350-1619-173					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.4		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.18 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	1.3 J		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.75		0.050	0.030 ug/L	1	1640	Total/NA			

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Detection Summary										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPWG-3B2X-SW-20					Lab Sample ID: 350-1619-174					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.9		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	0.80		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	0.97 J		1.0	0.11 ug/L	1		1640	Total/NA		
Barium	8.1		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	1.4 J		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.79		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPWG-3B2X-SW-40					Lab Sample ID: 350-1619-175					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.1		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.19 J		0.50	0.15 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	19		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	1.8		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPWG-3B2X-SW-B					Lab Sample ID: 350-1619-176					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.4		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.0		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	0.99 J		1.0	0.11 ug/L	1		1640	Total/NA		
Lead	0.028 J		0.050	0.023 ug/L	1		1640	Total/NA		
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA		
Barium	10		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	25		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	2.1		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPWG-3B2X-SW-B-FD					Lab Sample ID: 350-1619-177					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.4		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.0		1.0	0.11 ug/L	1		1640	Total/NA		
Lead	0.025 J		0.050	0.023 ug/L	1		1640	Total/NA		
Nickel	0.18 J		0.50	0.15 ug/L	1		1640	Total/NA		
Barium	10		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	27		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	2.1		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPWG-3CP2-SW-1					Lab Sample ID: 350-1619-178					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.1		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.0		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.0		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.15 J		0.50	0.15 ug/L	1		1640	Total/NA		
Barium	9.5		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	1.4 J		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.60		0.050	0.030 ug/L	1		1640	Total/NA		

Detection Summary

Client Sample ID: PACPP-1C2X-SW-1 (Continued)

Lab Sample ID: 350-1619-184

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Nickel	0.18	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	2.4	J	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.76		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1C2X-SW-20

Lab Sample ID: 350-1619-185

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.61		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11	ug/L	1		1640	Total/NA	
Copper	0.51		0.50	0.43	ug/L	1		1640	Total/NA	
Nickel	0.18	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	11		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	1.8	J	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.71		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1C2X-SW-40

Lab Sample ID: 350-1619-186

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	4.7		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11	ug/L	1		1640	Total/NA	
Nickel	0.19	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	9.1		5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	1.0		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1C2X-SW-B

Lab Sample ID: 350-1619-187

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	2.0		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.033	J	0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.21	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	36		5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	2.8		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1CP2X-SW-1

Lab Sample ID: 350-1619-188

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.35	J	0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.058		0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.17	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	2.3	J	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.69		0.050	0.030	ug/L	1		1640	Total/NA	

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Detection Summary

Client Sample ID: PACPP-1CP2X-SW-20

Lab Sample ID: 350-1619-189

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	1.4		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.030	J	0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.16	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	11	F1	0.50	0.088	ug/L	1		1640	Total/NA	
Iron	1.3	J B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.65	F1	0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1CP2X-SW-40

Lab Sample ID: 350-1619-190

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.37	J	0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11	ug/L	1		1640	Total/NA	
Nickel	0.23	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12	F1	0.50	0.088	ug/L	1		1640	Total/NA	
Iron	12	B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	1.1		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1CP2X-SW-B

Lab Sample ID: 350-1619-191

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.64		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.034	J	0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.24	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	34	B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	2.6		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-2C2-SW-1

Lab Sample ID: 350-1619-192

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.31	J	0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63	ug/L	1		1640	Total/NA	
Cadmium	0.015	J	0.020	0.013	ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.085		0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.20	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	4.7	J B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.73		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-2C2-SW-20

Lab Sample ID: 350-1619-193

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.24	J	0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Cadmium	0.013	J	0.020	0.013	ug/L	1		1640	Total/NA	
Chromium	16		1.0	0.11	ug/L	1		1640	Total/NA	
Copper	4.9		0.50	0.43	ug/L	1		1640	Total/NA	

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Detection Summary

Client Sample ID: PACPP-2C2-SW-20 (Continued)

Lab Sample ID: 350-1619-193

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Nickel	5.6		0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	14	J B	50	8.1	ug/L	10		1640	Total/NA	
Manganese	9.9		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-2C2-SW-40

Lab Sample ID: 350-1619-194

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.29	J	0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63	ug/L	1		1640	Total/NA	
Cadmium	0.016	J	0.020	0.013	ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11	ug/L	1		1640	Total/NA	
Nickel	0.19	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	8.9	B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.58		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-2C2-SW-B

Lab Sample ID: 350-1619-195

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.59		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Cadmium	0.021		0.020	0.013	ug/L	1		1640	Total/NA	
Chromium	1.4		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.030	J	0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.21	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	13		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	35	B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	2.6		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-3C2Y-SW-1

Lab Sample ID: 350-1619-196

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11	ug/L	1		1640	Total/NA	
Nickel	0.18	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	3.2	J B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.78		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-3C2Y-SW-20

Lab Sample ID: 350-1619-197

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11	ug/L	1		1640	Total/NA	
Nickel	0.19	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	2.1	J B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.80		0.050	0.030	ug/L	1		1640	Total/NA	

This Detection Summary does not include radiochemical test results.

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Detection Summary

Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-3CP2-SW-40 (Continued)					Lab Sample ID: 350-1619-202					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			6
Iron	12	B	5.0	0.81 ug/L	1	1640	Total/NA			7
Manganese	1.2		0.050	0.030 ug/L	1	1640	Total/NA			8
Client Sample ID: PACPP-3CP2-SW-B					Lab Sample ID: 350-1619-203					9
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		10
Mercury	0.84		0.50	0.20 ng/L	1	1631E	Total/NA			11
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			12
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			13
Lead	0.034	J	0.050	0.023 ug/L	1	1640	Total/NA			14
Nickel	0.21	J	0.50	0.15 ug/L	1	1640	Total/NA			15
Barium	13		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	38	B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	3.2		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PACPP-4C2-SW-1					Lab Sample ID: 350-1619-204					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.51		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.19	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	2.7	J B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.65		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PACPP-4C2-SW-1-FD					Lab Sample ID: 350-1619-205					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.56		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.015	J	0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.024	J	0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.17	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	2.3	J B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.64		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PACPP-4C2-SW-20					Lab Sample ID: 350-1619-206					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.48	J	0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.022		0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	1.1		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.17	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	2.1	J B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.63		0.050	0.030 ug/L	1	1640	Total/NA			
This Detection Summary does not include radiochemical test results.										
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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-4C2-SW-40					Lab Sample ID: 350-1619-207					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Mercury	0.39	J	0.50	0.20 ng/L	1	1631E	Total/NA			6
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			7
Cadmium	0.014	J	0.020	0.013 ug/L	1	1640	Total/NA			8
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			9
Nickel	0.19	J	0.50	0.15 ug/L	1	1640	Total/NA			10
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			11
Iron	4.8	J B	5.0	0.81 ug/L	1	1640	Total/NA			12
Manganese	0.70		0.050	0.030 ug/L	1	1640	Total/NA			13
Client Sample ID: PACPP-4C2-SW-B					Lab Sample ID: 350-1619-208					14
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		15
Mercury	0.68		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.019	J	0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	1.3		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.029	J	0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.20	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	13		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	32	B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	2.5		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PACPP-EQ					Lab Sample ID: 350-1619-209					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.48	J	0.50	0.20 ng/L	1	1631E	Total/NA			
Manganese	0.15		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PACPP-WB					Lab Sample ID: 350-1619-210					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.0		0.50	0.20 ng/L	1	1631E	Total/NA			
Chromium	1.0		1.0	0.11 ug/L	1	1640	Total/NA			
Barium	0.27	J	0.50	0.088 ug/L	1	1640	Total/NA			
Iron	1.3	J B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.18	B	0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAREF-A-SW-1					Lab Sample ID: 350-1619-211					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.5		1.0	0.11 ug/L	1	1640	Total/NA			
Copper	0.51		0.50	0.43 ug/L	1	1640	Total/NA			
Nickel	0.29	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	5.2		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	6.8	B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.0	B *2	0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAREF-A-SW-20					Lab Sample ID: 350-1619-212					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.0		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.9		0.70	0.63 ug/L	1	1640	Total/NA			
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Detection Summary										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PAREF-A-SW-20 (Continued)					Lab Sample ID: 350-1619-212					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Cadmium	0.018	J	0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	2.2		1.0	0.11 ug/L	1	1640	Total/NA			
Copper	0.72		0.50	0.43 ug/L	1	1640	Total/NA			
Lead	0.040	J	0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.44	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	8.0		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	14	B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.6	B *2	0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAREF-A-SW-40					Lab Sample ID: 350-1619-213					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.66		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.1		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.027	J	0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.22	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12	F1	0.50	0.088 ug/L	1	1640	Total/NA			
Iron	19		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.1		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAREF-A-SW-B					Lab Sample ID: 350-1619-214					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	0.96	J	1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.036	J	0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.22	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	11	F1	0.50	0.088 ug/L	1	1640	Total/NA			
Iron	44		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	2.4	F1 F2	0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAWB-1CP2-SW-1					Lab Sample ID: 350-1619-215					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.42	J	0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.1		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.22	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	2.9	J	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.4	B *2	0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAWB-1CP2-SW-20					Lab Sample ID: 350-1619-216					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.34	J	0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.3		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.25	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	11		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	5.1		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.1	B *2	0.050	0.030 ug/L	1	1640	Total/NA			
This Detection Summary does not include radiochemical test results.										

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PAWB-3B2-SW-B					Lab Sample ID: 350-1619-222				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.61		0.50	0.20 ug/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Lead	0.029 J		0.050	0.023 ug/L	1		1640	Total/NA	
Nickel	0.19 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	33		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	4.4 F2 F1		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWB-3CP2-SW-1					Lab Sample ID: 350-1619-223				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	1.5 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.3		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWB-3CP2-SW-20					Lab Sample ID: 350-1619-224				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	1.1 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.3		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWB-3CP2-SW-40					Lab Sample ID: 350-1619-225				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	2.2 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.4		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWB-3CP2-SW-B					Lab Sample ID: 350-1619-226				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA	
Lead	0.032 J		0.050	0.023 ug/L	1		1640	Total/NA	
Nickel	0.21 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	31		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	4.7		0.050	0.030 ug/L	1		1640	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PAWE-1CP2-SW-20					Lab Sample ID: 350-1619-232				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.49 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	8.3		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.0		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1CP2-SW-40					Lab Sample ID: 350-1619-233				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.26 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.19 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	10 F1		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	3.5 J B		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.2		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1CP2-SW-B					Lab Sample ID: 350-1619-234				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.49 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA	
Cadmium	0.013 J		0.020	0.013 ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA	
Lead	0.035 J		0.050	0.023 ug/L	1		1640	Total/NA	
Nickel	0.23 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	14 F1		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	41 B		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	5.3		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-3B3-SW-1					Lab Sample ID: 350-1619-235				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.19 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	3.0 J B		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.1		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-3B3-SW-20					Lab Sample ID: 350-1619-236				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.43 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.18 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	1.7 J B		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.2		0.050	0.030 ug/L	1		1640	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PAWE-1B1-SW-1					Lab Sample ID: 350-1619-227				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.61		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Lead	0.057		0.050	0.023 ug/L	1		1640	Total/NA	
Nickel	0.21 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	2.2 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.1		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1B1-SW-20					Lab Sample ID: 350-1619-228				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.36 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	1.3 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.2		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1B1-SW-40					Lab Sample ID: 350-1619-229				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.76		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	0.76		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	0.95 J		1.0	0.11 ug/L	1		1640	Total/NA	
Barium	7.3		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	2.7 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.0		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1B1-SW-B					Lab Sample ID: 350-1619-230				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.51		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	0.91		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	0.88 J		1.0	0.11 ug/L	1		1640	Total/NA	
Lead	0.028 J		0.050	0.023 ug/L	1		1640	Total/NA	
Nickel	0.15 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	8.4		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	36		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	5.1		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1CP2-SW-1					Lab Sample ID: 350-1619-231				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.32 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	1.9 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.3		0.050	0.030 ug/L	1		1640	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PAWE-3B3-SW-40					Lab Sample ID: 350-1619-237					
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.25	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.9		0.70	0.63	ug/L	1			1640	Total/NA
Cadmium	0.016	J	0.020	0.013	ug/L	1			1640	Total/NA
Chromium	1.8		1.0	0.11	ug/L	1			1640	Total/NA
Copper	0.55		0.50	0.43	ug/L	1			1640	Total/NA
Lead	0.052		0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.42	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	7.7		0.50	0.088	ug/L	1			1640	Total/NA
Iron	7.0		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	1.5		0.050	0.030	ug/L	1			1640	Total/NA
Client Sample ID: PAWE-3B3-SW-B					Lab Sample ID: 350-1619-238					
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.25	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.9		0.70	0.63	ug/L	1			1640	Total/NA
Cadmium	0.022		0.020	0.013	ug/L	1			1640	Total/NA
Chromium	1.9		1.0	0.11	ug/L	1			1640	Total/NA
Copper	0.58		0.50	0.43	ug/L	1			1640	Total/NA
Lead	0.099		0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.49	J	0.50	0.15	ug/L	1			1640	Total/NA
Zinc	0.33	J	1.0	0.31	ug/L	1			1640	Total/NA
Barium	8.3		0.50	0.088	ug/L	1			1640	Total/NA
Iron	9.9		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	5.6		0.050	0.030	ug/L	1			1640	Total/NA
Client Sample ID: PAWE-3CP2-SW-1					Lab Sample ID: 350-1619-239					
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.23	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.9		0.70	0.63	ug/L	1			1640	Total/NA
Cadmium	0.031		0.020	0.013	ug/L	1			1640	Total/NA
Chromium	1.8		1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.074		0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.43	J	0.50	0.15	ug/L	1			1640	Total/NA
Zinc	0.48	J	1.0	0.31	ug/L	1			1640	Total/NA
Barium	7.7		0.50	0.088	ug/L	1			1640	Total/NA
Iron	7.2		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.97		0.050	0.030	ug/L	1			1640	Total/NA
Client Sample ID: PAWE-3CP2-SW-20					Lab Sample ID: 350-1619-240					
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.26	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.9		0.70	0.63	ug/L	1			1640	Total/NA
Cadmium	0.029		0.020	0.013	ug/L	1			1640	Total/NA
Chromium	1.8		1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.030	J	0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.39	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	7.6		0.50	0.088	ug/L	1			1640	Total/NA
Iron	4.1	J	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.95		0.050	0.030	ug/L	1			1640	Total/NA

Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWE-3CP2-SW-20-FD					Lab Sample ID: 350-1619-241					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Mercury	0.21	J	0.50	0.20 ng/L	1	1631E	Total/NA			6
Arsenic	1.6		0.70	0.63 ug/L	1	1640	Total/NA			7
Cadmium	0.016	J	0.020	0.013 ug/L	1	1640	Total/NA			8
Chromium	1.0	B	1.0	0.11 ug/L	1	1640	Total/NA			9
Nickel	0.20	J	0.50	0.15 ug/L	1	1640	Total/NA			10
Zinc	0.35	J	1.0	0.31 ug/L	1	1640	Total/NA			11
Barium	7.3		0.50	0.088 ug/L	1	1640	Total/NA			12
Iron	3.9	J	5.0	0.81 ug/L	1	1640	Total/NA			13
Manganese	0.47		0.050	0.030 ug/L	1	1640	Total/NA			14
Client Sample ID: PAWE-3CP2-SW-40					Lab Sample ID: 350-1619-242					15
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.33	J	0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.7		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.018	J	0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	1.1	B	1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.023	J	0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.20	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	7.4		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	3.5	J	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.50		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAWE-3CP2-SW-B					Lab Sample ID: 350-1619-243					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.47	J	0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.7		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.017	J	0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	0.94	J B	1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.046	J	0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.23	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	7.7		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	50		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	2.4		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAWE-EQ					Lab Sample ID: 350-1619-244					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.91		0.50	0.20 ng/L	1	1631E	Total/NA			
Chromium	0.24	J B	1.0	0.11 ug/L	1	1640	Total/NA			
Iron	0.84	J	5.0	0.81 ug/L	1	1640	Total/NA			
Client Sample ID: PAWE-WB					Lab Sample ID: 350-1619-245					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.52		0.50	0.20 ng/L	1	1631E	Total/NA			
Chromium	0.21	J B	1.0	0.11 ug/L	1	1640	Total/NA			
Client Sample ID: PDPLB-EQ					Lab Sample ID: 350-1619-378					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.58		0.50	0.20 ng/L	1	1631E	Total/NA			
This Detection Summary does not include radiochemical test results.										
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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PDPLB-EQ (Continued)					Lab Sample ID: 350-1619-378					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Zinc	0.81	J B	1.0	0.31 ug/L	1	1640	Total/NA			6
Client Sample ID: PDPLB-M2-SW-1					Lab Sample ID: 350-1619-379					7
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		8
Mercury	0.56		0.50	0.20 ng/L	1	1631E	Total/NA			9
Arsenic	1.9		0.70	0.63 ug/L	1	1640	Total/NA			10
Zinc	0.46	J B	1.0	0.31 ug/L	1	1640	Total/NA			11
Barium	13		0.50	0.088 ug/L	1	1640	Total/NA			12
Client Sample ID: PDPLB-M2-SW-20					Lab Sample ID: 350-1619-380					13
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		14
Mercury	0.46	J	0.50	0.20 ng/L	1	1631E	Total/NA			15
Arsenic	1.9		0.70	0.63 ug/L	1	1640	Total/NA			
Zinc	0.33	J B	1.0	0.31 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Client Sample ID: PDPLB-M2-SW-40					Lab Sample ID: 350-1619-381					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.67		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.9		0.70	0.63 ug/L	1	1640	Total/NA			
Barium	11		0.50	0.088 ug/L	1	1640	Total/NA			
Client Sample ID: PDPLB-M2-SW-B					Lab Sample ID: 350-1619-382					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.68		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	2.3		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.015	J	0.020	0.013 ug/L	1	1640	Total/NA			
Copper	1.1		0.50	0.43 ug/L	1	1640	Total/NA			
Lead	0.031	J	0.050	0.023 ug/L	1	1640	Total/NA			
Zinc	0.37	J B	1.0	0.31 ug/L	1	1640	Total/NA			
Barium	14		0.50	0.088 ug/L	1	1640	Total/NA			
Client Sample ID: PDPLB-M3-SW-1					Lab Sample ID: 350-1619-383					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.78		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	2.0		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.015	J	0.020	0.013 ug/L	1	1640	Total/NA			
Zinc	0.37	J B	1.0	0.31 ug/L	1	1640	Total/NA			
Barium	14		0.50	0.088 ug/L	1	1640	Total/NA			
Client Sample ID: PDPLB-M3-SW-20					Lab Sample ID: 350-1619-384					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.42	J F1 F2	0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	2.0		0.70	0.63 ug/L	1	1640	Total/NA			
Barium	11		0.50	0.088 ug/L	1	1640	Total/NA			
This Detection Summary does not include radiochemical test results.										
Eurofins Seattle Specialty Metals										
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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PDPLB-M3-SW-40					Lab Sample ID: 350-1619-385					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Mercury	0.22	J	0.50	0.20 ng/L	1	1631E	Total/NA			6
Arsenic	1.8		0.70	0.63 ug/L	1	1640	Total/NA			7
Barium	22		0.50	0.088 ug/L	1	1640	Total/NA			8
Client Sample ID: PDPLB-M3-SW-B					Lab Sample ID: 350-1619-386					9
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		10
Mercury	3.1		0.50	0.20 ng/L	1	1631E	Total/NA			11
Arsenic	2.2		0.70	0.63 ug/L	1	1640	Total/NA			12
Cadmium	0.016	J	0.020	0.013 ug/L	1	1640	Total/NA			13
Lead	0.039	J	0.050	0.023 ug/L	1	1640	Total/NA			14
Barium	25		0.50	0.088 ug/L	1	1640	Total/NA			15
Client Sample ID: PDPLB-WB					Lab Sample ID: 350-1619-387					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.55		0.50	0.20 ng/L	1	1631E	Total/NA			
This Detection Summary does not include radiochemical test results.										
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Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPCPP-1C1					Lab Sample ID: 350-1619-1					
Date Collected: 02/16/25 03:03					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 56.6					
Method: EPA 1631B - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	120	F1 F2	2.9	1.4	ng/g	☐	04/03/25 20:27	04/15/25 08:41	30	
Method: EPA 1638 - Metals (ICP/MS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	3.6		0.36	0.11	mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1	
Barium	360	B	36	0.072	mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1	
Cadmium	0.054		0.036	0.0036	mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1	
Chromium	31		0.36	0.36	mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1	
Copper	8.6	B	0.18	0.022	mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1	
Iron	14000	F1	36	7.2	mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1	
Manganese	450	B *2	0.18	0.018	mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1	
Nickel	15	B	0.72	0.029	mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1	
Lead	15	B	0.14	0.014	mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1	
Zinc	31		3.6	1.8	mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1	
Client Sample ID: NPCPP-1C1-FD					Lab Sample ID: 350-1619-2					
Date Collected: 02/16/25 04:14					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 55.3					
Method: EPA 1631B - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1300		20	9.9	ng/g	☐	04/03/25 20:27	04/15/25 12:21	200	
Method: EPA 1638 - Metals (ICP/MS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	5.0		0.37	0.11	mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1	
Barium	400	B	37	0.075	mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1	
Cadmium	0.079		0.037	0.0037	mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1	
Chromium	48		0.37	0.37	mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1	
Copper	12	B	0.19	0.022	mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1	
Iron	21000		37	7.5	mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1	
Manganese	560	B *2	0.19	0.019	mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1	
Nickel	23	B	0.75	0.030	mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1	
Lead	20	B	0.15	0.015	mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1	
Zinc	44		3.7	1.9	mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1	
Client Sample ID: NPCPP-1C2X					Lab Sample ID: 350-1619-3					
Date Collected: 02/16/25 02:53					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 56.4					
Method: EPA 1631B - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	570		20	9.9	ng/g	☐	04/03/25 20:27	04/15/25 12:25	200	
Method: EPA 1638 - Metals (ICP/MS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic			0.33	0.10	mg/Kg	☐	03/27/25 18:41	04/03/25 19:52	1	
Barium	310	B	33	0.067	mg/Kg	☐	03/27/25 18:41	04/03/25 19:52	1	
Cadmium	0.066		0.033	0.0033	mg/Kg	☐	03/27/25 18:41	04/03/25 19:52	1	
Chromium	29		0.33	0.33	mg/Kg	☐	03/27/25 18:41	04/03/25 19:52	1	
Copper	8.5	B	0.17	0.020	mg/Kg	☐	03/27/25 18:41	04/03/25 19:52	1	
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Client Sample Results										Client: Tetra Tech Inc Project/Site: Gulf of Thailand - 2025										Job ID: 350-1619-1									
Client Sample ID: NPCPP-1C2X										Lab Sample ID: 350-1619-3										Matrix: Solid									
Date Collected: 02/16/25 02:53										Date Received: 03/06/25 10:30										Percent Solids: 56.4									
Method: EPA 1631B - Mercury, Low Level (CVAFS)										Method: EPA 1638 - Metals (ICP/MS) (Continued)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	59		3.3	1.6	ng/g	□	04/03/25 20:27	04/15/25 12:29	30	Iron	14000		33	6.7	mg/Kg	□	03/27/25 18:41	04/03/25 19:52	1	Manganese	460	B *2	0.17	0.017	mg/Kg	□	03/27/25 18:41	04/03/25 19:52	1
										Nickel	14	B	0.67	0.027	mg/Kg	□	03/27/25 18:41	04/03/25 19:52	1	Lead	15	B	0.13	0.013	mg/Kg	□	03/27/25 18:41	04/03/25 19:52	1
										Zinc	30		3.3	1.7	mg/Kg	□	03/27/25 18:41	04/03/25 19:52	1										

Client Sample ID: NPCPP-1CP1										Lab Sample ID: 350-1619-4										Matrix: Solid									
Date Collected: 02/16/25 08:12										Date Received: 03/06/25 10:30										Percent Solids: 52.9									
Method: EPA 1631B - Mercury, Low Level (CVAFS)										Method: EPA 1638 - Metals (ICP/MS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	59		3.3	1.6	ng/g	□	04/03/25 20:27	04/15/25 12:29	30	Arsenic	3.7		0.37	0.11	mg/Kg	□	03/27/25 18:41	04/03/25 19:54	1	Barium	380	B	37	0.075	mg/Kg	□	03/27/25 18:41	04/03/25 19:54	1
										Cadmium	0.047		0.037	0.0037	mg/Kg	□	03/27/25 18:41	04/03/25 19:54	1	Chromium	36		0.37	0.37	mg/Kg	□	03/27/25 18:41	04/03/25 19:54	1
										Copper	8.9	B	0.19	0.022	mg/Kg	□	03/27/25 18:41	04/03/25 19:54	1	Iron	16000		37	7.5	mg/Kg	□	03/27/25 18:41	04/03/25 19:54	1
										Manganese	390	B *2	0.19	0.019	mg/Kg	□	03/27/25 18:41	04/03/25 19:54	1	Nickel	17	B	0.75	0.030	mg/Kg	□	03/27/25 18:41	04/03/25 19:54	1
										Lead	15	B	0.15	0.015	mg/Kg	□	03/27/25 18:41	04/03/25 19:54	1	Zinc	34		3.7	1.9	mg/Kg	□	03/27/25 18:41	04/03/25 19:54	1

Client Sample ID: NPCPP-1CP2										Lab Sample ID: 350-1619-5										Matrix: Solid									
Date Collected: 02/16/25 07:36										Date Received: 03/06/25 10:30										Percent Solids: 52.6									
Method: EPA 1631B - Mercury, Low Level (CVAFS)										Method: EPA 1638 - Metals (ICP/MS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	130		3.4	1.6	ng/g	□	04/03/25 20:27	04/15/25 10:40	30	Arsenic	4.1		0.39	0.12	mg/Kg	□	03/27/25 18:41	04/03/25 19:57	1	Barium	430	B	39	0.078	mg/Kg	□	03/27/25 18:41	04/03/25 19:57	1
										Cadmium	0.057		0.039	0.0039	mg/Kg	□	03/27/25 18:41	04/03/25 19:57	1	Chromium	39		0.39	0.39	mg/Kg	□	03/27/25 18:41	04/03/25 19:57	1
										Copper	19	B	0.20	0.023	mg/Kg	□	03/27/25 18:41	04/03/25 19:57	1	Iron	16000		39	7.8	mg/Kg	□	03/27/25 18:41	04/03/25 19:57	1
										Manganese	460	B *2	0.20	0.020	mg/Kg	□	03/27/25 18:41	04/03/25 19:57	1	Nickel	18	B	0.78	0.031	mg/Kg	□	03/27/25 18:41	04/03/25 19:57	1
										Lead	16	B	0.16	0.016	mg/Kg	□	03/27/25 18:41	04/03/25 19:57	1	Zinc	37		3.9	2.0	mg/Kg	□	03/27/25 18:41	04/03/25 19:57	1

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Client Sample Results										Client: Tetra Tech Inc Project/Site: Gulf of Thailand - 2025										Job ID: 350-1619-1									
Client Sample ID: NPCPP-1CP3X										Lab Sample ID: 350-1619-6										Matrix: Solid									
Date Collected: 02/16/25 05:55										Date Received: 03/06/25 10:30										Percent Solids: 53.5									
Method: EPA 1631B - Mercury, Low Level (CVAFS)										Method: EPA 1638 - Metals (ICP/MS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	68		3.4	1.6	ng/g	□	04/03/25 20:27	04/15/25 10:44	30	Arsenic	4.2		0.36	0.11	mg/Kg	□	03/27/25 18:41	04/03/25 19:59	1	Barium	540	B	36	0.071	mg/Kg	□	03/27/25 18:41	04/03/25 19:59	1
										Cadmium	0.047		0.036	0.0036	mg/Kg	□	03/27/25 18:41	04/03/25 19:59	1	Chromium	37		0.36	0.36	mg/Kg	□	03/27/25 18:41	04/03/25 19:59	1
										Copper	9.9	B	0.18	0.021	mg/Kg	□	03/27/25 18:41	04/03/25 19:59	1	Iron	16000		36	7.1	mg/Kg	□	03/27/25 18:41	04/03/25 19:59	1
										Manganese	510	B *2	0.18	0.018	mg/Kg	□	03/27/25 18:41	04/03/25 19:59	1	Nickel	18	B	0.71	0.028	mg/Kg	□	03/27/25 18:41	04/03/25 19:59	1
										Lead	16	B	0.14	0.014	mg/Kg	□	03/27/25 18:41	04/03/25 19:59	1	Zinc	35		3.6	1.8	mg/Kg	□	03/27/25 18:41	04/03/25 19:59	1

Client Sample ID: NPCPP-1D2										Lab Sample ID: 350-1619-7										Matrix: Solid									
Date Collected: 02/15/25 01:46										Date Received: 03/06/25 10:30										Percent Solids: 49.8									
Method: EPA 1631B - Mercury, Low Level (CVAFS)										Method: EPA 1638 - Metals (ICP/MS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	96		3.3	1.6	ng/g	□	04/03/25 20:27	04/15/25 10:48	30	Arsenic	4.4		0.40	0.12	mg/Kg	□	03/27/25 18:41	04/03/25 20:01	1	Barium	590	B	40	0.081	mg/Kg	□	03/27/25 18:41	04/03/25 20:01	1
										Cadmium	0.050		0.040	0.0040	mg/Kg	□	03/27/25 18:41	04/03/25 20:01	1	Chromium	45		0.40	0.40	mg/Kg	□	03/27/25 18:41	04/03/25 20:01	1
										Copper	11	B	0.20	0.024	mg/Kg	□	03/27/25 18:41	04/03/25 20:01	1	Iron	18000		40	8.1	mg/Kg	□	03/27/25 18:41	04/03/25 20:01	1
										Manganese	510	B *2	0.20	0.020	mg/Kg	□	03/27/25 18:41	04/03/25 20:01	1	Nickel	22	B	0.81	0.032	mg/Kg	□	03/27/25 18:41	04/03/25 20:01	1
										Lead	17	B	0.16	0.016	mg/Kg	□	03/27/25 18:41	04/03/25 20:01	1	Zinc	43		4.0	2.0	mg/Kg	□	03/27/25 18:41	04/03/25 20:01	1

Client Sample ID: NPCPP-1E2										Lab Sample ID: 350-1619-8									
Date Collected: 02/15/25 01:08										Matrix: Solid									
Date Received: 03/06/25 10:30										Percent Solids: 49.8									

Client Sample Results														1
Client: Tetra Tech Inc														2
Project/Site: Gulf of Thailand - 2025														3
Job ID: 350-1619-1														4
Client Sample ID: NPCPP-2CP2														5
Lab Sample ID: 350-1619-13														6
Date Collected: 02/15/25 05:42														7
Matrix: Solid														8
Date Received: 03/06/25 10:30														9
Percent Solids: 51.6														10
Method: EPA 1638 - Metals (ICP/MS) (Continued)														11
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac														12
Iron 18000 39 7.8 mg/Kg 03/27/25 18:41 04/03/25 20:21 1														13
Manganese 480 B *2 0.20 0.020 mg/Kg 03/27/25 18:41 04/03/25 20:21 1														14
Nickel 21 B 0.78 0.031 mg/Kg 03/27/25 18:41 04/03/25 20:21 1														15
Lead 16 B 0.16 0.016 mg/Kg 03/27/25 18:41 04/03/25 20:21 1														16
Zinc 41 3.9 2.0 mg/Kg 03/27/25 18:41 04/03/25 20:21 1														17

Client Sample ID: NPCPP-2D2														18
Lab Sample ID: 350-1619-14														19
Date Collected: 02/15/25 06:22														20
Matrix: Solid														21
Date Received: 03/06/25 10:30														22
Percent Solids: 49.4														23
Method: EPA 1631B - Mercury, Low Level (CVAFS)														24
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac														25
Mercury 38 3.6 1.7 ng/g 04/03/25 20:27 04/15/25 08:45 30														26
Method: EPA 1638 - Metals (ICP/MS)														27
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac														28
Arsenic 4.8 0.38 0.11 mg/Kg 03/27/25 18:41 04/03/25 19:37 1														29
Barium 550 B 38 0.076 mg/Kg 03/27/25 18:41 04/03/25 19:37 1														30
Cadmium 0.055 0.038 0.0038 mg/Kg 03/27/25 18:41 04/03/25 19:37 1														31
Chromium 48 0.38 0.38 mg/Kg 03/27/25 18:41 04/03/25 19:37 1														32
Copper 12 B 0.19 0.023 mg/Kg 03/27/25 18:41 04/03/25 19:37 1														33
Iron 20000 38 7.6 mg/Kg 03/27/25 18:41 04/03/25 19:37 1														34
Manganese 510 B *2 0.19 0.019 mg/Kg 03/27/25 18:41 04/03/25 19:37 1														35
Nickel 24 B 0.76 0.030 mg/Kg 03/27/25 18:41 04/03/25 19:37 1														36
Lead 18 B 0.15 0.015 mg/Kg 03/27/25 18:41 04/03/25 19:37 1														37
Zinc 46 3.8 1.9 mg/Kg 03/27/25 18:41 04/03/25 19:37 1														38

Client Sample ID: NPCPP-3C1														39
Lab Sample ID: 350-1619-15														40
Date Collected: 02/16/25 08:56														41
Matrix: Solid														42
Date Received: 03/06/25 10:30														43
Percent Solids: 55.5														44
Method: EPA 1631B - Mercury, Low Level (CVAFS)														45
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac														46
Mercury 70 3.0 1.5 ng/g 04/03/25 20:27 04/15/25 11:25 30														47
Method: EPA 1638 - Metals (ICP/MS)														48
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac														49
Arsenic 3.9 0.34 0.10 mg/Kg 03/27/25 18:41 04/03/25 20:23 1														50
Barium 390 B 34 0.068 mg/Kg 03/27/25 18:41 04/03/25 20:23 1														51
Cadmium 0.063 0.034 0.0034 mg/Kg 03/27/25 18:41 04/03/25 20:23 1														52
Chromium 32 0.34 0.34 mg/Kg 03/27/25 18:41 04/03/25 20:23 1														53
Copper 9.2 B 0.17 0.021 mg/Kg 03/27/25 18:41 04/03/25 20:23 1														54
Iron 15000 34 6.8 mg/Kg 03/27/25 18:41 04/03/25 20:23 1														55
Manganese 470 B *2 0.17 0.017 mg/Kg 03/27/25 18:41 04/03/25 20:23 1														56
Nickel 16 B 0.68 0.027 mg/Kg 03/27/25 18:41 04/03/25 20:23 1														57
Lead 15 B 0.14 0.014 mg/Kg 03/27/25 18:41 04/03/25 20:23 1														58
Zinc 32 3.4 1.7 mg/Kg 03/27/25 18:41 04/03/25 20:23 1														59

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-3C2

Date Collected: 02/15/25 22:58

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-16

Matrix: Solid

Percent Solids: 58.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	540		10	4.9	ng/g	0	04/03/25 20:27	04/15/25 15:32	100	

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Arsenic	3.6		0.35	0.10	mg/Kg	0	03/27/25 18:41	04/03/25 20:26	1	
Barium	500 B		35	0.069	mg/Kg	0	03/27/25 18:41	04/03/25 20:26	1	
Cadmium	0.053		0.035	0.0035	mg/Kg	0	03/27/25 18:41	04/03/25 20:26	1	
Chromium	31		0.35	0.35	mg/Kg	0	03/27/25 18:41	04/03/25 20:26	1	
Copper	8.3 B		0.17	0.021	mg/Kg	0	03/27/25 18:41	04/03/25 20:26	1	
Iron	14000		35	6.9	mg/Kg	0	03/27/25 18:41	04/03/25 20:26	1	
Manganese	500 B *2		0.17	0.017	mg/Kg	0	03/27/25 18:41	04/03/25 20:26	1	
Nickel	14		0.69	0.028	mg/Kg	0	03/27/25 18:41	04/03/25 20:26	1	
Lead	14 B		0.14	0.014	mg/Kg	0	03/27/25 18:41	04/03/25 20:26	1	
Zinc	28		3.5	1.7	mg/Kg	0	03/27/25 18:41	04/03/25 20:26	1	

Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPCPP-3E2

Lab Sample ID: 350-1619-23

Date Collected: 02/16/25 10:28

Matrix: Solid

Date Received: 03/06/25 10:30

Percent Solids: 47.7

Method: EPA 1631B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	19000		42	8.4	mg/Kg	☐	03/31/25 17:00	04/03/25 18:36	1
Manganese	520 B *2		0.21	0.021	mg/Kg	☐	03/31/25 17:00	04/03/25 18:36	1
Nickel	23 B		0.84	0.034	mg/Kg	☐	03/31/25 17:00	04/03/25 18:36	1
Lead	17 B		0.17	0.017	mg/Kg	☐	03/31/25 17:00	04/03/25 18:36	1
Zinc	44		4.2	2.1	mg/Kg	☐	03/31/25 17:00	04/03/25 18:36	1

Client Sample ID: NPCPP-3F2X						Lab Sample ID: 350-1619-24					
Date Collected: 02/16/25 11:05						Matrix: Solid					
Date Received: 03/06/25 10:30						Percent Solids: 48.3					
Method: EPA 1631B - Mercury, Low Level (CVAFS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	65		3.5	1.7	ng/g	☐	04/03/25 20:27	04/15/25 14:00	30		
Method: EPA 1638 - Metals (ICP/MS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	4.9		0.41	0.12	mg/Kg	☐	03/31/25 17:00	04/03/25 18:39	1		
Barium	590 B		41	0.082	mg/Kg	☐	03/31/25 17:00	04/03/25 18:39	1		
Cadmium	0.051		0.041	0.0041	mg/Kg	☐	03/31/25 17:00	04/03/25 18:39	1		
Chromium	44 B		0.41	0.041	mg/Kg	☐	03/31/25 17:00	04/03/25 18:39	1		
Copper	11 B		0.20	0.025	mg/Kg	☐	03/31/25 17:00	04/03/25 18:39	1		
Iron	19000		41	8.2	mg/Kg	☐	03/31/25 17:00	04/03/25 18:39	1		
Manganese	560 B *2		0.20	0.020	mg/Kg	☐	03/31/25 17:00	04/03/25 18:39	1		
Nickel	21 B		0.82	0.033	mg/Kg	☐	03/31/25 17:00	04/03/25 18:39	1		
Lead	18 B		0.16	0.016	mg/Kg	☐	03/31/25 17:00	04/03/25 18:39	1		
Zinc	42		4.1	2.0	mg/Kg	☐	03/31/25 17:00	04/03/25 18:39	1		

Client Sample ID: NPCPP-3G2						Lab Sample ID: 350-1619-25					
Date Collected: 02/16/25 13:04						Matrix: Solid					
Date Received: 03/06/25 10:30						Percent Solids: 46.5					
Method: EPA 1631B - Mercury, Low Level (CVAFS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	39		3.6	1.8	ng/g	☐	04/03/25 20:27	04/15/25 14:05	30		
Method: EPA 1638 - Metals (ICP/MS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	4.9		0.43	0.13	mg/Kg	☐	03/31/25 17:00	04/03/25 18:41	1		
Barium	590 B		43	0.086	mg/Kg	☐	03/31/25 17:00	04/03/25 18:41	1		
Cadmium	0.048		0.043	0.0043	mg/Kg	☐	03/31/25 17:00	04/03/25 18:41	1		
Chromium	50 B		0.43	0.043	mg/Kg	☐	03/31/25 17:00	04/03/25 18:41	1		
Copper	12 B		0.22	0.026	mg/Kg	☐	03/31/25 17:00	04/03/25 18:41	1		
Iron	21000		43	8.6	mg/Kg	☐	03/31/25 17:00	04/03/25 18:41	1		
Manganese	500 B *2		0.22	0.022	mg/Kg	☐	03/31/25 17:00	04/03/25 18:41	1		
Nickel	25 B		0.86	0.034	mg/Kg	☐	03/31/25 17:00	04/03/25 18:41	1		
Lead	18 B		0.17	0.017	mg/Kg	☐	03/31/25 17:00	04/03/25 18:41	1		
Zinc	48		4.3	2.2	mg/Kg	☐	03/31/25 17:00	04/03/25 18:41	1		

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Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPCPP-4C2
Date Collected: 02/15/25 19:59
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-26
Matrix: Solid
Percent Solids: 56.7

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	120		3.0	1.4	ng/g	☐	04/03/25 20:27	04/15/25 14:09	30

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.6		0.34	0.10	mg/Kg	☐	03/31/25 17:00	04/03/25 18:44	1
Barium	590 B		34	0.068	mg/Kg	☐	03/31/25 17:00	04/03/25 18:44	1
Cadmium	0.051		0.034	0.0034	mg/Kg	☐	03/31/25 17:00	04/03/25 18:44	1
Chromium	34 B		0.34	0.034	mg/Kg	☐	03/31/25 17:00	04/03/25 18:44	1
Copper	9.0 B		0.17	0.021	mg/Kg	☐	03/31/25 17:00	04/03/25 18:44	1
Iron	15000		34	6.8	mg/Kg	☐	03/31/25 17:00	04/03/25 18:44	1
Manganese	490 B *2		0.17	0.017	mg/Kg	☐	03/31/25 17:00	04/03/25 18:44	1
Nickel	16 B		0.68	0.027	mg/Kg	☐	03/31/25 17:00	04/03/25 18:44	1
Lead	15 B		0.14	0.014	mg/Kg	☐	03/31/25 17:00	04/03/25 18:44	1
Zinc	32		3.4	1.7	mg/Kg	☐	03/31/25 17:00	04/03/25 18:44	1

Client Sample ID: NPWB-1C2
Date Collected: 02/14/25 04:51
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-33
Matrix: Solid
Percent Solids: 51.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	33		3.5	1.7	ng/g	□	04/03/25 20:27	04/15/25 14:46	30

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	20000		38	7.6	mg/Kg	□	03/31/25 17:00	04/03/25 19:05	1
Manganese	420 B *2		0.19	0.019	mg/Kg	□	03/31/25 17:00	04/03/25 19:05	1
Nickel	23 B		0.76	0.030	mg/Kg	□	03/31/25 17:00	04/03/25 19:05	1
Lead	18 B		0.15	0.015	mg/Kg	□	03/31/25 17:00	04/03/25 19:05	1
Zinc	46		3.8	1.9	mg/Kg	□	03/31/25 17:00	04/03/25 19:05	1

Client Sample ID: NPWB-1C2-FD
Date Collected: 02/14/25 05:13
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-34
Matrix: Solid
Percent Solids: 51.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	33		3.5	1.7	ng/g	□	04/03/25 20:27	04/15/25 14:46	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.5		0.36	0.11	mg/Kg	□	03/31/25 17:00	04/03/25 19:08	1
Barium	4600 B		36	0.071	mg/Kg	□	03/31/25 17:00	04/03/25 19:08	1
Cadmium	0.055		0.036	0.0036	mg/Kg	□	03/31/25 17:00	04/03/25 19:08	1
Chromium	44 B		0.36	0.36	mg/Kg	□	03/31/25 17:00	04/03/25 19:08	1
Copper	11 B		0.18	0.021	mg/Kg	□	03/31/25 17:00	04/03/25 19:08	1
Iron	19000		36	7.1	mg/Kg	□	03/31/25 17:00	04/03/25 19:08	1
Manganese	390 B *2		0.18	0.018	mg/Kg	□	03/31/25 17:00	04/03/25 19:08	1
Nickel	21 B		0.71	0.029	mg/Kg	□	03/31/25 17:00	04/03/25 19:08	1
Lead	17 B		0.14	0.014	mg/Kg	□	03/31/25 17:00	04/03/25 19:08	1
Zinc	44		3.6	1.8	mg/Kg	□	03/31/25 17:00	04/03/25 19:08	1

Client Sample ID: NPWB-1CP2
Date Collected: 02/14/25 03:00
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-35
Matrix: Solid
Percent Solids: 46.6

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	31		3.6	1.7	ng/g	□	04/03/25 20:27	04/15/25 14:50	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.1		0.40	0.12	mg/Kg	□	03/31/25 17:00	04/03/25 19:10	1
Barium	1600 B		40	0.081	mg/Kg	□	03/31/25 17:00	04/03/25 19:10	1
Cadmium	0.059		0.040	0.0040	mg/Kg	□	03/31/25 17:00	04/03/25 19:10	1
Chromium	50 B		0.40	0.40	mg/Kg	□	03/31/25 17:00	04/03/25 19:10	1
Copper	13 B		0.20	0.024	mg/Kg	□	03/31/25 17:00	04/03/25 19:10	1
Iron	21000		40	8.1	mg/Kg	□	03/31/25 17:00	04/03/25 19:10	1
Manganese	5100 B *2		0.20	0.020	mg/Kg	□	03/31/25 17:00	04/03/25 19:10	1
Nickel	26 B		0.81	0.032	mg/Kg	□	03/31/25 17:00	04/03/25 19:10	1
Lead	20 B		0.16	0.016	mg/Kg	□	03/31/25 17:00	04/03/25 19:10	1
Zinc	50		4.0	2.0	mg/Kg	□	03/31/25 17:00	04/03/25 19:10	1

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Client Sample ID: NPWB-1D2
Date Collected: 02/14/25 04:06
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-36
Matrix: Solid
Percent Solids: 50.0

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	31		3.4	1.6	ng/g	□	04/03/25 20:27	04/15/25 14:54	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.2		0.38	0.11	mg/Kg	□	03/31/25 17:00	04/03/25 19:13	1
Barium	800 B		38	0.078	mg/Kg	□	03/31/25 17:00	04/03/25 19:13	1
Cadmium	0.055		0.038	0.0038	mg/Kg	□	03/31/25 17:00	04/03/25 19:13	1
Chromium	48 B		0.38	0.38	mg/Kg	□	03/31/25 17:00	04/03/25 19:13	1
Copper	11 B		0.19	0.023	mg/Kg	□	03/31/25 17:00	04/03/25 19:13	1
Iron	22000		38	7.6	mg/Kg	□	03/31/25 17:00	04/03/25 19:13	1
Manganese	600 B *2		0.19	0.019	mg/Kg	□	03/31/25 17:00	04/03/25 19:13	1
Nickel	23 B		0.76	0.030	mg/Kg	□	03/31/25 17:00	04/03/25 19:13	1
Lead	19 B		0.15	0.015	mg/Kg	□	03/31/25 17:00	04/03/25 19:13	1
Zinc	44		3.8	1.9	mg/Kg	□	03/31/25 17:00	04/03/25 19:13	1

Client Sample ID: NPWB-2B3
Date Collected: 02/14/25 05:33
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-37
Matrix: Solid
Percent Solids: 52.3

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	21		3.2	1.6	ng/g	□	04/03/25 20:27	04/15/25 14:58	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.4		0.40	0.12	mg/Kg	□	03/31/25 17:00	04/03/25 18:14	1
Barium	1600 B		40	0.079	mg/Kg	□	03/31/25 17:00	04/03/25 18:14	1
Cadmium	0.057		0.040	0.0040	mg/Kg	□	03/31/25 17:00	04/03/25 18:14	1
Chromium	41 B		0.40	0.40	mg/Kg	□	03/31/25 17:00	04/03/25 18:14	1
Copper	10 B		0.20	0.024	mg/Kg	□	03/31/25 17:00	04/03/25 18:14	1
Iron	18000		40	7.9	mg/Kg	□	03/31/25 17:00	04/03/25 18:14	1
Manganese	470 B F1 *2		0.20	0.020	mg/Kg	□	03/31/25 17:00	04/03/25 18:14	1
Nickel	20 B		0.79	0.032	mg/Kg	□	03/31/25 17:00	04/03/25 18:14	1
Lead	16 B		0.16	0.016	mg/Kg	□	03/31/25 17:00	04/03/25 18:14	1
Zinc	39		4.0	2.0	mg/Kg	□	03/31/25 17:00	04/03/25 18:14	1

Client Sample ID: NPWB-2C2X
Date Collected: 02/14/25 05:33
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-38
Matrix: Solid
Percent Solids: 47.3

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	38		3.5	1.7	ng/g	□	04/03/25 20:27	04/15/25 15:03	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.4		0.41	0.12	mg/Kg	□	04/08/25 18:57	05/15/25 00:43	1
Barium	990 B		41	0.082	mg/Kg	□	04/08/25 18:57	05/15/25 00:43	1
Cadmium	0.048		0.041	0.0041	mg/Kg	□	04/08/25 18:57	05/15/25 00:43	1
Chromium	45		0.41	0.41	mg/Kg	□	04/08/25 18:57	05/15/25 00:43	1
Copper	12 B		0.20	0.025	mg/Kg	□	04/08/25 18:57	05/15/25 00:43	1

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Client Sample Results

Client Sample ID: NPWB-2C2X
Date Collected: 02/14/25 05:33
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-38
Matrix: Solid
Percent Solids: 47.3

Method: EPA 1638 - Metals (ICP/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	19000		41	8.2	mg/Kg	□	04/08/25 18:57	05/15/25 00:43	1
Manganese	460 B		0.20	0.020	mg/Kg	□	04/08/25 18:57	05/15/25 00:43	1
Nickel	22 B		0.82	0.033	mg/Kg	□	04/08/25 18:57	05/15/25 00:43	1
Lead	17 B		0.16	0.016	mg/Kg	□	04/08/25 18:57	05/15/25 00:43	1
Zinc	42		4.1	2.0	mg/Kg	□	04/08/25 18:57	05/15/25 00:43	1

Client Sample ID: NPWB-3B2
Date Collected: 02/14/25 18:29
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-39
Matrix: Solid
Percent Solids: 47.0

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	36		3.9	1.9	ng/g	□	04/03/25 20:27	04/15/25 15:07	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.2		0.42	0.13	mg/Kg	□	04/08/25 18:57	05/15/25 00:36	1
Barium	5100 F2 B		42	0.084	mg/Kg	□	04/08/25 18:57	05/15/25 00:36	1
Cadmium	0.069		0.042	0.0042	mg/Kg	□	04/08/25 18:57	05/15/25 00:36	1
Chromium	40		0.42	0.42	mg/Kg	□	04/08/25 18:57	05/15/25 00:36	1
Copper	12 B		0.21	0.025	mg/Kg	□	04/08/25 18:57	05/15/25 00:36	1
Iron	18000 F1		42	8.4	mg/Kg	□	04/08/25 18:57	05/15/25 00:36	1
Manganese	380 F1 B		0.21	0.021	mg/Kg	□	04/08/25 18:57	05/15/25 00:36	1
Nickel	19 B		0.84	0.034	mg/Kg	□	04/08/25 18:57	05/15/25 00:36	1
Lead	16 F1 F2 B		0.17	0.017	mg/Kg	□	04/08/25 18:57	05/15/25 00:36	1
Zinc	42		4.2	2.1	mg/Kg	□	04/08/25 18:57	05/15/25 00:36	1

Client Sample ID: NPWB-3C2
Date Collected: 02/14/25 20:22
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-40
Matrix: Solid
Percent Solids: 51.0

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	30		3.2	1.6	ng/g	☐	04/03/25 20:27	04/15/25 15:11	30

Client Sample Results

Client Sample ID: NPWB-4B3X Lab Sample ID: 350-1619-43
Date Collected: 02/14/25 19:19 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 52.8

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	34	B	4.1	2.0	ng/g	□	04/03/25 20:27	04/15/25 16:42	30

Client Sample ID: NPWB-4C2 Lab Sample ID: 350-1619-44
Date Collected: 02/14/25 19:52 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 44.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	34	B	4.1	2.0	ng/g	□	04/03/25 20:27	04/15/25 16:42	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	34	B	4.1	2.0	ng/g	□	04/03/25 20:27	04/15/25 16:42	30

Client Sample ID: NPWB-1B2X Lab Sample ID: 350-1619-45
Date Collected: 02/17/25 10:17 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 48.8

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	170	B	3.8	1.8	ng/g	□	04/03/25 20:27	04/15/25 15:57	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	170	B	3.8	1.8	ng/g	□	04/03/25 20:27	04/15/25 15:57	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	170	B	3.8	1.8	ng/g	□	04/03/25 20:27	04/15/25 15:57	30

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Client Sample Results

Client Sample ID: NPWG-1B2X-FD Lab Sample ID: 350-1619-46
Date Collected: 02/17/25 10:42 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 53.0

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	230	B	3.1	1.5	ng/g	□	04/03/25 20:27	04/15/25 16:46	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	230	B	3.1	1.5	ng/g	□	04/03/25 20:27	04/15/25 16:46	30

Client Sample ID: NPWG-1C2 Lab Sample ID: 350-1619-47
Date Collected: 02/17/25 05:05 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 48.6

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	48	B	3.4	1.6	ng/g	□	04/03/25 20:27	04/15/25 16:51	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	48	B	3.4	1.6	ng/g	□	04/03/25 20:27	04/15/25 16:51	30

Client Sample ID: NPWG-1CP2 Lab Sample ID: 350-1619-48
Date Collected: 02/17/25 03:37 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 45.0

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	33	B	3.8	1.8	ng/g	□	04/03/25 20:27	04/15/25 16:55	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	33	B	3.8	1.8	ng/g	□	04/03/25 20:27	04/15/25 16:55	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	33	B	3.8	1.8	ng/g	□	04/03/25 20:27	04/15/25 16:55	30

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Client Sample Results

Client Sample ID: NPWG-1CP2 Lab Sample ID: 350-1619-48
Date Collected: 02/17/25 03:37 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 45.0

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	21000		4.2	8.4	mg/Kg	□	04/01/25 18:16	05/14/25 22:21	1

Client Sample ID: NPWG-1D2 Lab Sample ID: 350-1619-49
Date Collected: 02/17/25 04:14 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 45.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	46	B	3.8	1.8	ng/g	□	04/03/25 20:27	04/15/25 16:09	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	46	B	3.8	1.8	ng/g	□	04/03/25 20:27	04/15/25 16:09	30

Client Sample ID: NPWG-2B2X Lab Sample ID: 350-1619-50
Date Collected: 02/16/25 22:45 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 50.8

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	40	B	3.4	1.7	ng/g	□	04/03/25 20:27	04/15/25 16:59	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	40	B	3.4	1.7	ng/g	□	04/03/25 20:27	04/15/25 16:59	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	40	B	3.4	1.7	ng/g	□	04/03/25 20:27	04/15/25 16:59	30

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Client Sample Results

Client Sample ID: NPWG-2C2 Lab Sample ID: 350-1619-51
Date Collected: 02/16/25 22:06 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 45.4

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	27	B	3.7	1.8	ng/g	□	04/03/25 20:27	04/15/25 17:03	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	27	B	3.7	1.8	ng/g	□	04/03/25 20:27	04/15/25 17:03	30

Client Sample ID: NPWG-3B2X Lab Sample ID: 350-1619-52
Date Collected: 02/17/25 15:36 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 50.7

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	47	B	3.4	1.6	ng/g	□	04/03/25 20:27	04/15/25 17:15	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	47	B	3.4	1.6	ng/g	□	04/03/25 20:27	04/15/25 17:15	30

Client Sample ID: NPWG-3C2 Lab Sample ID: 350-1619-53
Date Collected: 02/17/25 14:17 Matrix: Solid
Date Received: 03/06/25 10:30 Percent Solids: 48.5

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	33	B	3.5	1.7	ng/g	□	04/03/25 20:27	04/15/25 17:20	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	33	B	3.5	1.7	ng/g	□	04/03/25 20:27	04/15/25 17:20	30

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	33	B	3.5	1.7	ng/g	□	04/03/25 20:27	04/15/25 17:20	30

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Client Sample Results										Job ID: 350-1619-1									
Client: Tetra Tech Inc										Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPWG-3C2										Lab Sample ID: 350-1619-53									
Date Collected: 02/17/25 14:17										Matrix: Solid									
Date Received: 03/06/25 10:30										Percent Solids: 48.8									
Method: EPA 1631B - Mercury, Low Level (CVAFS)										Method: EPA 1638 - Metals (ICP/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	35	B	3.7	1.8	ng/g	☐	04/03/25 20:27	04/15/25 17:24	30	Iron	19000		43	8.5	mg/Kg	☐	04/01/25 18:16	05/14/25 22:37	1
						☐				Manganese	460	B	0.21	0.021	mg/Kg	☐	04/01/25 18:16	05/14/25 22:37	1
						☐				Nickel	21	B	0.85	0.034	mg/Kg	☐	04/01/25 18:16	05/14/25 22:37	1
						☐				Lead	17	B	0.17	0.017	mg/Kg	☐	04/01/25 18:16	05/14/25 22:37	1
						☐				Zinc	42		4.3	2.1	mg/Kg	☐	04/01/25 18:16	05/14/25 22:37	1

Client Sample ID: NPWG-3CP2										Lab Sample ID: 350-1619-54									
Date Collected: 02/16/25 17:47										Matrix: Solid									
Date Received: 03/06/25 10:30										Percent Solids: 48.8									
Method: EPA 1631B - Mercury, Low Level (CVAFS)										Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	35	B	3.7	1.8	ng/g	☐	04/03/25 20:27	04/15/25 17:24	30	Arsenic	4.9		0.40	0.12	mg/Kg	☐	04/01/25 18:16	05/14/25 22:39	1
						☐				Barium	2500	B	40	0.081	mg/Kg	☐	04/01/25 18:16	05/14/25 22:39	1
						☐				Cadmium	0.041		0.040	0.040	mg/Kg	☐	04/01/25 18:16	05/14/25 22:39	1
						☐				Chromium	45		0.40	0.40	mg/Kg	☐	04/01/25 18:16	05/14/25 22:39	1
						☐				Copper	11	B	0.20	0.024	mg/Kg	☐	04/01/25 18:16	05/14/25 22:39	1
						☐				Iron	19000		40	8.1	mg/Kg	☐	04/01/25 18:16	05/14/25 22:39	1
						☐				Manganese	480	B	0.20	0.020	mg/Kg	☐	04/01/25 18:16	05/14/25 22:39	1
						☐				Nickel	22	B	0.81	0.032	mg/Kg	☐	04/01/25 18:16	05/14/25 22:39	1
						☐				Lead	16	B	0.16	0.016	mg/Kg	☐	04/01/25 18:16	05/14/25 22:39	1
						☐				Zinc	41		4.0	2.0	mg/Kg	☐	04/01/25 18:16	05/14/25 22:39	1

Client Sample ID: NPWG-3D2										Lab Sample ID: 350-1619-55									
Date Collected: 02/16/25 17:16										Matrix: Solid									
Date Received: 03/06/25 10:30										Percent Solids: 48.2									
Method: EPA 1631B - Mercury, Low Level (CVAFS)										Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	31	B	3.5	1.7	ng/g	☐	04/03/25 20:27	04/15/25 17:28	30	Arsenic	5.4		0.43	0.13	mg/Kg	☐	04/01/25 18:16	05/14/25 22:42	1
						☐				Barium	910	B	43	0.085	mg/Kg	☐	04/01/25 18:16	05/14/25 22:42	1
						☐				Cadmium	0.050		0.043	0.043	mg/Kg	☐	04/01/25 18:16	05/14/25 22:42	1
						☐				Chromium	44		0.43	0.43	mg/Kg	☐	04/01/25 18:16	05/14/25 22:42	1
						☐				Copper	11	B	0.21	0.026	mg/Kg	☐	04/01/25 18:16	05/14/25 22:42	1
						☐				Iron	20000		43	8.5	mg/Kg	☐	04/01/25 18:16	05/14/25 22:42	1
						☐				Manganese	510	B	0.21	0.021	mg/Kg	☐	04/01/25 18:16	05/14/25 22:42	1
						☐				Nickel	22		0.85	0.034	mg/Kg	☐	04/01/25 18:16	05/14/25 22:42	1
						☐				Lead	17	B	0.17	0.017	mg/Kg	☐	04/01/25 18:16	05/14/25 22:42	1
						☐				Zinc	40		4.3	2.1	mg/Kg	☐	04/01/25 18:16	05/14/25 22:42	1

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Client Sample Results										Job ID: 350-1619-1									
Client: Tetra Tech Inc										Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPWG-4B2X										Lab Sample ID: 350-1619-56									
Date Collected: 02/17/25 16:05										Matrix: Solid									
Date Received: 03/06/25 10:30										Percent Solids: 49.2									
Method: EPA 1631B - Mercury, Low Level (CVAFS)										Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	49	B	3.4	1.7	ng/g	☐	04/03/25 20:27	04/15/25 17:32	30	Arsenic	5.3		0.38	0.11	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
						☐				Barium	13000	B	38	0.076	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
						☐				Cadmium	0.049		0.038	0.038	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
						☐				Chromium	45		0.38	0.38	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
						☐				Copper	11	B	0.19	0.023	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
						☐				Iron	19000		38	7.6	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
						☐				Manganese	420	B	0.19	0.019	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
						☐				Nickel	22		0.76	0.030	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
						☐				Lead	19	B	0.15	0.015	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
						☐				Zinc	48		3.8	1.9	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1

Client Sample ID: NPWG-4C2										Lab Sample ID: 350-1619-57									
Date Collected: 02/17/25 16:50										Matrix: Solid									
Date Received: 03/06/25 10:30										Percent Solids: 46.1									
Method: EPA 1631B - Mercury, Low Level (CVAFS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
Mercury	27	B	3.6	1.7	ng/g	☐	04/03/25 20:27	04/15/25 17:36	30										
Method: EPA 1638 - Metals (ICP/MS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
Arsenic	4.7		0.43	0.13	mg/Kg	☐	04/01/25 18:16	05/14/25 22:47	1										
Barium	1600	B	43	0.086	mg/Kg	☐	04/01/25 18:16	05/14/25 22:47	1										
Cadmium	0.045		0.043	0.004	mg/Kg	☐	04/01/25 18:16	05/14/25 22:47	1										
Chromium	47		0.43	0.43	mg/Kg	☐	04/01/25 18:16	05/14/25 22:47	1										
Copper	11	B	0.22	0.026	mg/Kg	☐	04/01/25 18:16	05/14/25 22:47	1										
Iron	19000		43	8.6	mg/Kg	☐	04/01/25 18:16	05/14/25 22:47	1										
Manganese	490	B	0.22	0.022	mg/Kg	☐	04/01/25 18:16	05/14/25 22:47	1										
Nickel	23		0.86	0.034	mg/Kg	☐	04/01/25 18:16	05/14/25 22:47	1										
Lead	17	B	0.17	0.017	mg/Kg	☐	04/01/25 18:16	05/14/25 22:47	1										
Zinc	41		4.3	2.2	mg/Kg	☐	04/01/25 18:16	05/14/25 22:47	1										

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-1CP3

Lab Sample ID: 350-1619-63

Date Collected: 02/18/25 11:23

Matrix: Solid

Date Received: 03/06/25 10:30

Percent Solids: 47.2

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Iron	21000	B	42	8.5 mg/Kg	☐	04/04/25 17:16	05/14/25 17:53	1
Manganese	620	B	0.21	0.021 mg/Kg	☐	04/04/25 17:16	05/14/25 17:53	1
Nickel	22	B	0.79	0.032 mg/Kg	☐	05/19/25 13:39	05/20/25 19:55	1
Lead	19		0.17	0.017 mg/Kg	☐	04/04/25 17:16	05/14/25 17:53	1
Zinc	41		4.2	2.1 mg/Kg	☐	04/04/25 17:16	05/14/25 17:53	1

Client Sample ID: PACPP-1D2										6
Date Collected: 02/18/25 21:28										7
Date Received: 03/06/25 10:30										8
Method: EPA 1631B - Mercury, Low Level (CVAFS)										9
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		10
Mercury	250		12	5.7 ng/g	☐	04/03/25 20:27	05/14/25 14:09	100		11
Method: EPA 1638 - Metals (ICP/MS)										12
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		13
Arsenic	6.8		0.39	0.12 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		14
Barium	1500	B	39	0.077 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		15
Cadmium	0.11		0.039	0.0039 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Chromium	47	B	0.39	0.39 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Copper	12	B	0.19	0.023 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Iron	22000	B	39	7.7 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Manganese	630	B	0.19	0.019 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Nickel	24		0.85	0.034 mg/Kg	☐	05/19/25 13:39	05/20/25 19:58	1		
Lead	19		0.15	0.015 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Zinc	50		3.9	1.9 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		

Client Sample ID: PACPP-1E2										12
Date Collected: 02/18/25 20:52										13
Date Received: 03/06/25 10:30										14
Method: EPA 1631B - Mercury, Low Level (CVAFS)										15
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	310		3.8	1.8 ng/g	☐	04/03/25 20:27	05/14/25 14:22	30		
Method: EPA 1638 - Metals (ICP/MS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	5.4		0.43	0.13 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Barium	1000	B	43	0.086 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Cadmium	0.054		0.043	0.0043 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Chromium	45	B	0.43	0.43 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Copper	12	B	0.22	0.026 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Iron	20000	B	43	8.6 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Manganese	490	B	0.22	0.022 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Nickel	26		0.79	0.032 mg/Kg	☐	05/19/25 13:39	05/20/25 20:01	1		
Lead	18		0.17	0.017 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		
Zinc	43		4.3	2.2 mg/Kg	☐	04/04/25 17:16	05/14/25 17:56	1		

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-1F2

Date Collected: 02/18/25 20:16

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-66

Matrix: Solid

Percent Solids: 49.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	240		3.7	1.8 ng/g	☐	04/03/25 20:27	05/01/25 17:43	30

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0		0.39	0.12 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Barium	940 B		39	0.078 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Cadmium	0.050		0.039	0.0039 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Chromium	46 B		0.39	0.39 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Copper	11 B		0.19	0.023 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Iron	19000 B		39	7.8 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Manganese	480 B		0.19	0.019 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Nickel	23		0.82	0.033 mg/Kg	☐	05/19/25 13:39	05/20/25 20:04	1
Lead	17		0.16	0.016 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Zinc	41		3.9	1.9 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1

Client Sample ID: PACPP-1G2										12
Date Collected: 02/18/25 19:39										13
Date Received: 03/06/25 10:30										14
Method: EPA 1631B - Mercury, Low Level (CVAFS)										15
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	220		3.6	1.7 ng/g	☐	04/03/25 20:27	05/01/25 17:47	30		
Method: EPA 1638 - Metals (ICP/MS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	4.8		0.41	0.12 mg/Kg	☐	04/04/25 17:16	05/14/25 18:03	1		
Barium	840	B	41	0.081 mg/Kg	☐	04/04/25 17:16	05/14/25 18:03	1		
Cadmium	0.053		0.041	0.0041 mg/Kg	☐	04/04/25 17:16	05/14/25 18:03	1		
Chromium	40	B	0.41	0.41 mg/Kg	☐	04/04/25 17:16	05/14/25 18:03	1		
Copper	9.8	B	0.20	0.024 mg/Kg	☐	04/04/25 17:16	05/14/25 18:03	1		
Iron	18000	B	41	8.1 mg/Kg	☐	04/04/25 17:16	05/14/25 18:03	1		
Manganese	550	B	0.20	0.020 mg/Kg	☐	04/04/25 17:16	05/14/25 18:03	1		
Nickel	23		0.85	0.034 mg/Kg	☐	05/19/25 13:39	05/20/25 20:07	1		
Lead	16		0.16	0.016 mg/Kg	☐	04/04/25 17:16	05/14/25 18:03	1		
Zinc	36		4.1	2.0 mg/Kg	☐	04/04/25 17:16	05/14/25 18:03	1		

Client Sample ID: PACPP-2C2										12
Date Collected: 02/19/25 02:15										13
Date Received: 03/06/25 10:30										14
Method: EPA 1631B - Mercury, Low Level (CVAFS)										15
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	1500		21	10 ng/g	☐	04/03/25 20:27	05/14/25 14:26	200		
Method: EPA 1638 - Metals (ICP/MS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	5.8		0.36	0.11 mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1		
Barium	660	B	36	0.072 mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1		
Cadmium	0.074		0.036	0.0036 mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1		
Chromium	37	B	0.36	0.36 mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1		
Copper	12	B	0.18	0.021 mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1		

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-2C2					Lab Sample ID: 350-1619-68				
Date Collected: 02/19/25 02:15					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 53.0				
Method: EPA 1638 - Metals (ICP/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	19000	B	36	7.2	mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1
Manganese	610	B	0.18	0.018	mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1
Nickel			0.74	0.030	mg/Kg	☐	05/19/25 13:39	05/20/25 20:10	1
Lead			0.14	0.014	mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1
Zinc	36		3.6	1.8	mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1

Client Sample ID: PACPP-3C3X
Date Collected: 02/19/25 09:15
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-73
Matrix: Solid
Percent Solids: 53.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	9900		290	140	ng/g	□	04/03/25 20:27	05/14/25 16:32	2500

Client Sample ID: PACPP-3CP1X
Date Collected: 02/19/25 03:00
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-74
Matrix: Solid
Percent Solids: 49.5

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	9900		290	140	ng/g	□	04/03/25 20:27	05/14/25 16:32	2500

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.1		0.39	0.12	mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1
Barium	640	B	39	0.078	mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1
Cadmium	0.059		0.039	0.0039	mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1
Chromium	37	B	0.39	0.39	mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1
Copper	10	B	0.19	0.023	mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1
Iron	18000	B	39	7.8	mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1
Manganese	550	B	0.19	0.019	mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1
Nickel	20		0.80	0.032	mg/Kg	□	05/19/25 13:39	05/20/25 20:31	1
Lead	17		0.16	0.016	mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1
Zinc	34		3.9	1.9	mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1

Client Sample ID: PACPP-3CP2
Date Collected: 02/19/25 04:09
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-75
Matrix: Solid
Percent Solids: 50.5

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	670		23	11	ng/g	□	04/03/25 20:27	05/14/25 15:28	200

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.0		0.38	0.11	mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1
Barium	600	B	38	0.076	mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1
Cadmium	0.052		0.038	0.0038	mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1
Chromium	43	B	0.38	0.38	mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1
Copper	10	B	0.023	0.023	mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1
Iron	26000	B	38	7.6	mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1
Manganese	700	B	0.19	0.019	mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1
Nickel	22		0.79	0.032	mg/Kg	□	05/19/25 13:39	05/20/25 20:33	1
Lead	21		0.15	0.015	mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1
Zinc	38		3.8	1.9	mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1

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Client Sample ID: PACPP-3CP3
Date Collected: 02/19/25 04:44
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-76
Matrix: Solid
Percent Solids: 49.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1100		23	11	ng/g	□	04/03/25 20:27	05/14/25 15:33	200

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.3		0.41	0.12	mg/Kg	□	04/04/25 17:16	05/14/25 18:29	1
Barium	2200	B	41	0.083	mg/Kg	□	04/04/25 17:16	05/14/25 18:29	1
Cadmium	0.069		0.041	0.0041	mg/Kg	□	04/04/25 17:16	05/14/25 18:29	1
Chromium	44	B	0.41	0.41	mg/Kg	□	04/04/25 17:16	05/14/25 18:29	1
Copper	11	B	0.21	0.025	mg/Kg	□	04/04/25 17:16	05/14/25 18:29	1
Iron	23000	B	41	8.3	mg/Kg	□	04/04/25 17:16	05/14/25 18:29	1
Manganese	610	B	0.21	0.021	mg/Kg	□	04/04/25 17:16	05/14/25 18:29	1
Nickel	23		0.76	0.030	mg/Kg	□	05/19/25 13:39	05/20/25 20:36	1
Lead	20		0.17	0.017	mg/Kg	□	04/04/25 17:16	05/14/25 18:29	1
Zinc	42		4.1	2.1	mg/Kg	□	04/04/25 17:16	05/14/25 18:29	1

Client Sample ID: PACPP-3D2X
Date Collected: 02/19/25 05:27
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-77
Matrix: Solid
Percent Solids: 50.0

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	250		3.3	1.6	ng/g	□	04/03/25 20:27	05/14/25 15:37	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.8		0.38	0.11	mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1
Barium	650	B	38	0.075	mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1
Cadmium	0.051		0.038	0.0038	mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1
Chromium	42	B	0.38	0.38	mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1
Copper	11	B	0.19	0.023	mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1
Iron	20000	B	38	7.5	mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1
Manganese	540	B	0.19	0.019	mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1
Nickel	21		0.79	0.032	mg/Kg	□	05/19/25 13:39	05/20/25 19:33	1
Lead	17		0.15	0.015	mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1
Zinc	38		3.8	1.9	mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1

Client Sample ID: PACPP-3E2X
Date Collected: 02/19/25 11:22
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-78
Matrix: Solid
Percent Solids: 48.5

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	190		3.4	1.7	ng/g	□	04/03/25 20:27	05/01/25 19:20	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.7		0.41	0.12	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1
Barium	630	B	41	0.083	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1
Cadmium	0.057		0.041	0.0041	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1
Chromium	44	B	0.41	0.41	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1
Copper	12	B	0.21	0.025	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1

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Client Sample ID: PACPP-3E2X
Date Collected: 02/19/25 11:22
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-78
Matrix: Solid
Percent Solids: 48.5

Method: EPA 1638 - Metals (ICP/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	20000	B	41	8.3	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1
Manganese	560	B	0.21	0.021	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1
Nickel	23		0.77	0.031	mg/Kg	□	05/19/25 13:39	05/20/25 20:39	1
Lead	18		0.17	0.017	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1
Zinc	41		4.1	2.1	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1

Client Sample ID: PACPP-3F2X
Date Collected: 02/19/25 12:46
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-79
Matrix: Solid
Percent Solids: 43.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	130		5.0	2.4	ng/g	□	04/04/25 17:33	04/07/25 17:02	40

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.4		0.45	0.14	mg/Kg	□	04/04/25 17:16	05/14/25 18:34	1
Barium	780	B	45	0.090	mg/Kg	□	04/04/25 17:16	05/14/25 18:34	1
Cadmium	0.055		0.045	0.0045	mg/Kg	□	04/04/25 17:16	05/14/25 18:34	1
Chromium	48	B	0.45	0.45	mg/Kg	□	04/04/25 17:16	05/14/25 18:34	1
Copper	12	B	0.23	0.027	mg/Kg	□	04/04/25 17:16	05/14/25 18:34	1
Iron	22000	B	45	9.0	mg/Kg	□	04/04/25 17:16	05/14/25 18:34	1
Manganese	630	B	0.23	0.023	mg/Kg	□	04/04/25 17:16	05/14/25 18:34	1
Nickel	24		0.88	0.035	mg/Kg	□	05/19/25 13:39	05/20/25 20:42	1
Lead	19		0.18	0.018	mg/Kg	□	04/04/25 17:16	05/14/25 18:34	1
Zinc	44		4.5	2.3	mg/Kg	□	04/04/25 17:16	05/14/25 18:34	1

Client Sample ID: PACPP-3G2
Date Collected: 02/19/25 13:35
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-80
Matrix: Solid
Percent Solids: 48.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	99		3.5	1.7	ng/g	□	04/03/25 20:27	05/01/25 16:54	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.4		0.40	0.12	mg/Kg	□	04/04/25 17:16	05/14/25 18:36	1
Barium	560	B	40	0.080	mg/Kg	□	04/04/25 17:16	05/14/25 18:36	1
Cadmium	0.051		0.040	0.0040	mg/Kg	□	04/04/25 17:16	05/14/25 18:36	1
Chromium	46	B	0.40	0.40	mg/Kg	□	04/04/25 17:16	05/14/25 18:36	1
Copper	11	B	0.20	0.024	mg/Kg	□	04/04/25 17:16	05/14/25 18:36	1
Iron	20000	B	40	8.0	mg/Kg	□	04/04/25 17:16	05/14/25 18:36	1
Manganese	490	B	0.20	0.020	mg/Kg	□	04/04/25 17:16	05/14/25 18:36	1
Nickel	24		0.75	0.030	mg/Kg	□	05/19/25 13:39	05/20/25 20:45	1
Lead	17		0.16	0.016	mg/Kg	□	04/04/25 17:16	05/14/25 18:36	1
Zinc	40		4.0	2.0	mg/Kg	□	04/04/25 17:16	05/14/25 18:36	1

Client Sample Results										Client: Tetra Tech Inc Project/Site: Gulf of Thailand - 2025										Job ID: 350-1619-1									
Client Sample ID: PACPP-4CP2X										Lab Sample ID: 350-1619-83										Matrix: Solid									
Date Collected: 02/18/25 04:56										Date Received: 03/06/25 10:30										Percent Solids: 52.7									
Method: EPA 1631B - Mercury, Low Level (CVAFS)										Method: EPA 1638 - Metals (ICP/MS)										(Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	19000		39	7.9	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1	Iron	19000		39	7.9	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1	Iron	19000		39	7.9	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1
Manganese	550 B		0.20	0.020	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1	Manganese	550 B		0.20	0.020	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1	Manganese	550 B		0.20	0.020	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1
Nickel	20 B		0.79	0.032	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1	Nickel	20 B		0.79	0.032	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1	Nickel	20 B		0.79	0.032	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1
Lead	18 B		0.16	0.016	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1	Lead	18 B		0.16	0.016	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1	Lead	18 B		0.16	0.016	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1
Zinc	37		3.9	2.0	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1	Zinc	37		3.9	2.0	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1	Zinc	37		3.9	2.0	mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1

Client Sample ID: PACPP-4D2X										Lab Sample ID: 350-1619-84									
Date Collected: 02/18/25 08:49										Matrix: Solid									
Date Received: 03/06/25 10:30										Percent Solids: 50.5									
Method: EPA 1631B - Mercury, Low Level (CVAFS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
Mercury	470		11	5.4	ng/g	☐	04/03/25 20:27	05/07/25 22:29	100										
Method: EPA 1638 - Metals (ICP/MS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
Arsenic	5.3		0.38	0.12	mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1										
Barium	510 B		38	0.077	mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1										
Cadmium	0.053		0.038	0.0038	mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1										
Chromium	43 B		0.38	0.38	mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1										
Copper	11 B		0.19	0.023	mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1										
Iron	19000		38	7.7	mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1										
Manganese	530 B		0.19	0.019	mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1										
Nickel	20 B		0.77	0.031	mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1										
Lead	18 B		0.15	0.015	mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1										
Zinc	37		3.8	1.9	mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1										

Client Sample ID: PAREF-A										Lab Sample ID: 350-1619-85										Matrix: Solid									
Date Collected: 02/13/25 19:06										Date Received: 03/06/25 10:30										Percent Solids: 46.3									

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	23		2.4	1.2	ng/g	☐	04/03/25 20:27	05/07/25 22:33	20
Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.1		0.39	0.12	mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1
Barium	230 B		39	0.078	mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1
Cadmium	0.041		0.039	0.0039	mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1
Chromium	54 B		0.39	0.39	mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1
Copper	12 B		0.19	0.023	mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1
Iron	22000		39	7.8	mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1
Manganese	400 B		0.19	0.019	mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1
Nickel	26 B		0.78	0.031	mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1
Lead	18 B		0.16	0.016	mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1
Zinc	47		3.9	1.9	mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1

Client Sample ID: PAWE-2B3
Date Collected: 02/20/25 14:56
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-103
Matrix: Solid
Percent Solids: 49.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	42		3.2	1.6	ng/g	☐	04/03/25 20:27	05/06/25 14:07	30

Client Sample ID: PAWE-2C2
Date Collected: 02/20/25 04:25
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-104
Matrix: Solid
Percent Solids: 50.1

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	42		3.2	1.6	ng/g	☐	04/03/25 20:27	05/06/25 14:07	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.4		0.41	0.12	mg/Kg	☐	03/21/25 16:19	05/14/25 23:40	1
Barium	460	B	41	0.081	mg/Kg	☐	03/21/25 16:19	05/14/25 23:40	1
Cadmium	0.045		0.041	0.0041	mg/Kg	☐	03/21/25 16:19	05/14/25 23:40	1
Chromium	37		0.41	0.41	mg/Kg	☐	03/21/25 16:19	05/14/25 23:40	1
Copper	9.3	B	0.20	0.024	mg/Kg	☐	03/21/25 16:19	05/14/25 23:40	1
Iron	16000		41	8.1	mg/Kg	☐	03/21/25 16:19	05/14/25 23:40	1
Manganese	460	B	0.20	0.020	mg/Kg	☐	03/21/25 16:19	05/14/25 23:40	1
Nickel	18	B	0.81	0.033	mg/Kg	☐	03/21/25 16:19	05/14/25 23:40	1
Lead	15	B	0.16	0.016	mg/Kg	☐	03/21/25 16:19	05/14/25 23:40	1
Zinc	33		4.1	2.0	mg/Kg	☐	03/21/25 16:19	05/14/25 23:40	1

Client Sample ID: PAWE-2C2-FD
Date Collected: 02/20/25 04:56
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-105
Matrix: Solid
Percent Solids: 52.5

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	36		3.2	1.6	ng/g	☐	04/03/25 20:27	05/06/25 14:11	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.6		0.38	0.11	mg/Kg	☐	03/21/25 16:19	05/14/25 23:42	1
Barium	440	B	38	0.076	mg/Kg	☐	03/21/25 16:19	05/14/25 23:42	1
Cadmium	0.044		0.038	0.0038	mg/Kg	☐	03/21/25 16:19	05/14/25 23:42	1
Chromium	37		0.38	0.38	mg/Kg	☐	03/21/25 16:19	05/14/25 23:42	1
Copper	9.4	B	0.19	0.023	mg/Kg	☐	03/21/25 16:19	05/14/25 23:42	1
Iron	16000		38	7.6	mg/Kg	☐	03/21/25 16:19	05/14/25 23:42	1
Manganese	430	B	0.19	0.019	mg/Kg	☐	03/21/25 16:19	05/14/25 23:42	1
Nickel	19	B	0.76	0.031	mg/Kg	☐	03/21/25 16:19	05/14/25 23:42	1
Lead	15	B	0.15	0.015	mg/Kg	☐	03/21/25 16:19	05/14/25 23:42	1
Zinc	34		3.8	1.9	mg/Kg	☐	03/21/25 16:19	05/14/25 23:42	1

Eurofins Seattle Specialty Metals

Client Sample ID: PAWE-3B3
Date Collected: 02/20/25 15:43
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-106
Matrix: Solid
Percent Solids: 50.4

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	98		3.4	1.7	ng/g	☐	04/03/25 20:27	05/06/25 14:15	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.1		0.39	0.12	mg/Kg	☐	03/21/25 16:19	05/14/25 23:45	1
Barium	4900	B	39	0.078	mg/Kg	☐	03/21/25 16:19	05/14/25 23:45	1
Cadmium	0.075		0.039	0.0039	mg/Kg	☐	03/21/25 16:19	05/14/25 23:45	1
Chromium	42		0.39	0.39	mg/Kg	☐	03/21/25 16:19	05/14/25 23:45	1
Copper	11	B	0.19	0.023	mg/Kg	☐	03/21/25 16:19	05/14/25 23:45	1
Iron	19000		39	7.8	mg/Kg	☐	03/21/25 16:19	05/14/25 23:45	1
Manganese	500	B	0.19	0.019	mg/Kg	☐	03/21/25 16:19	05/14/25 23:45	1
Nickel	19	B	0.78	0.031	mg/Kg	☐	03/21/25 16:19	05/14/25 23:45	1
Lead	18	B	0.16	0.016	mg/Kg	☐	03/21/25 16:19	05/14/25 23:45	1
Zinc	46		3.9	1.9	mg/Kg	☐	03/21/25 16:19	05/14/25 23:45	1

Client Sample ID: PAWE-3C2
Date Collected: 02/20/25 17:13
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-107
Matrix: Solid
Percent Solids: 49.4

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	48		3.3	1.6	ng/g	☐	04/03/25 20:27	05/06/25 14:20	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.1		0.40	0.12	mg/Kg	☐	03/21/25 16:19	05/14/25 23:47	1
Barium	980	B	40	0.080	mg/Kg	☐	03/21/25 16:19	05/14/25 23:47	1
Cadmium	0.049		0.040	0.0040	mg/Kg	☐	03/21/25 16:19	05/14/25 23:47	1
Chromium	43		0.40	0.40	mg/Kg	☐	03/21/25 16:19	05/14/25 23:47	1
Copper	11	B	0.20	0.024	mg/Kg	☐	03/21/25 16:19	05/14/25 23:47	1
Iron	18000		40	8.0	mg/Kg	☐	03/21/25 16:19	05/14/25 23:47	1
Manganese	460	B	0.20	0.020	mg/Kg	☐	03/21/25 16:19	05/14/25 23:47	1
Nickel	20	B	0.80	0.032	mg/Kg	☐	03/21/25 16:19	05/14/25 23:47	1
Lead	17	B	0.16	0.016	mg/Kg	☐	03/21/25 16:19	05/14/25 23:47	1
Zinc	39		4.0	2.0	mg/Kg	☐	03/21/25 16:19	05/14/25 23:47	1

Client Sample ID: PAWE-3CP2
Date Collected: 02/20/25 16:47
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-108
Matrix: Solid
Percent Solids: 46.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	40		3.8	1.8	ng/g	☐	04/03/25 20:27	05/06/25 14:24	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.5		0.41	0.12	mg/Kg	☐	03/21/25 16:19	05/14/25 23:50	1
Barium	560	B	41	0.083	mg/Kg	☐	03/21/25 16:19	05/14/25 23:50	1
Cadmium	0.043		0.041	0.0041	mg/Kg	☐	03/21/25 16:19	05/14/25 23:50	1
Chromium	43		0.41	0.41	mg/Kg	☐	03/21/25 16:19	05/14/25 23:50	1
Copper	10	B	0.21	0.025	mg/Kg	☐	03/21/25 16:19	05/14/25 23:50	1

Eurofins Seattle Specialty Metals

Client Sample ID: PAWE-3CP2
Date Collected: 02/20/25 16:47
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-108
Matrix: Solid
Percent Solids: 46.9

Method: EPA 1638 - Metals (ICP/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	18000		41	8.3	mg/Kg	☐	03/21/25 16:19	05/14/25 23:50	1
Manganese	470	B	0.21	0.021	mg/Kg	☐	03/21/25 16:19	05/14/25 23:50	1
Nickel	20	B	0.83	0.033	mg/Kg	☐	03/21/25 16:19	05/14/25 23:50	1
Lead	16	B	0.17	0.017	mg/Kg	☐	03/21/25 16:19	05/14/25 23:50	1
Zinc	38		4.1	2.1	mg/Kg	☐	03/21/25 16:19	05/14/25 23:50	1

Client Sample ID: PAWE-3D2
Date Collected: 02/20/25 19:49
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-109
Matrix: Solid
Percent Solids: 52.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	38		3.2	1.5	ng/g	☐	04/03/25 20:27	05/06/25 14:28	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.9		0.38	0.11	mg/Kg	☐	03/21/25 16:19	05/14/25 23:53	1
Barium	400	B	38	0.076	mg/Kg	☐	03/21/25 16:19	05/14/25 23:53	1
Cadmium	0.044		0.038	0.0038	mg/Kg	☐	03/21/25 16:19	05/14/25 23:53	1
Chromium	39		0.38	0.38	mg/Kg	☐	03/21/25 16:19	05/14/25 23:53	1
Copper	9.8	B	0.19	0.023	mg/Kg	☐	03/21/25 16:19	05/14/25 23:53	1
Iron	17000		38	7.6	mg/Kg	☐	03/21/25 16:19	05/14/25 23:53	1
Manganese	440	B	0.19	0.019	mg/Kg	☐	03/21/25 16:19	05/14/25 23:53	1
Nickel	19	B	0.76	0.030	mg/Kg	☐	03/21/25 16:19	05/14/25 23:53	1
Lead	15	B	0.15	0.015	mg/Kg	☐	03/21/25 16:19	05/14/25 23:53	1
Zinc	35		3.8	1.9	mg/Kg	☐	03/21/25 16:19	05/14/25 23:53	1

Client Sample ID: PAWE-4B2
Date Collected: 02/20/25 16:25
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-110
Matrix: Solid
Percent Solids: 52.6

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	42		3.2	1.6	ng/g	☐	04/03/25 20:27	05/06/25 14:32	30

Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.2		0.35	0.11	mg/Kg	☐	03/21/25 16:19	05/14/25 23:55	1
Barium	2100	B	35	0.071	mg/Kg	☐	03/21/25 16:19	05/14/25 23:55	1
Cadmium	0.069		0.035	0.0035	mg/Kg	☐	03/21/25 16:19	05/14/25 23:55	1
Chromium	39		0.35	0.35	mg/Kg	☐	03/21/25 16:19	05/14/25 23:55	1
Copper	9.8	B	0.18	0.021	mg/Kg	☐	03/21/25 16:19	05/14/25 23:55	1
Iron	17000		35	7.1	mg/Kg	☐	03/21/25 16:19	05/14/25 23:55	1
Manganese	490	B	0.18	0.018	mg/Kg	☐	03/21/25 16:19	05/14/25 23:55	1
Nickel	18	B	0.71	0.028	mg/Kg	☐	03/21/25 16:19	05/14/25 23:55	1
Lead	16	B	0.14	0.014	mg/Kg	☐	03/21/25 16:19	05/14/25 23:55	1
Zinc	38		3.5	1.8	mg/Kg	☐	03/21/25 16:19	05/14/25 23:55	1

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-1C2X-SW-20

Lab Sample ID: 350-1619-113

Date Collected: 02/16/25 01:58

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.19	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 17:04	1
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 17:04	1
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 17:04	1
Iron	2.1	J B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 17:04	1
Manganese	0.83		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 17:04	1

Client Sample ID: NPCPP-1C2X-SW-40									
Date Collected: 02/16/25 02:06									
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.56		0.50	0.20 ng/L			04/24/25 13:49	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Nickel	0.20	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Iron	13	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Manganese	1.5		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 17:18	1	

Client Sample ID: NPCPP-1C2X-SW-B									
Date Collected: 02/16/25 02:17									
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.80		0.50	0.20 ng/L			04/24/25 13:53	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Lead	0.035	J B	0.050	0.023 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Nickel	0.22	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Iron	39	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Manganese	2.9		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 17:32	1	

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-1CP2-SW-1

Lab Sample ID: 350-1619-116

Date Collected: 02/15/25 02:45

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.68		0.50	0.20 ng/L			04/24/25 13:57	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 17:46	1
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 17:46	1
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 17:46	1
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 17:46	1
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 17:46	1
Nickel	0.20 J		0.50	0.15 ug/L		04/08/25 16:09	04/09/25 17:46	1
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 17:46	1
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 17:46	1
Iron	5.8 B		5.0	0.81 ug/L		04/08/25 16:09	04/09/25 17:46	1
Manganese	0.92		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 17:46	1

Client Sample ID: NPCPP-1CP2-SW-20									
Date Collected: 02/15/25 02:51									
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.37	J	0.50	0.20 ng/L			04/24/25 14:01	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Nickel	0.23	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Iron	5.1	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Manganese	1.0		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 18:00	1	

Client Sample ID: NPCPP-1CP2-SW-40									
Date Collected: 02/15/25 02:59									
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.55		0.50	0.20 ng/L			04/24/25 14:05	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 18:14	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 18:14	1	
Chromium	ND		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 18:14	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 18:14	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 18:14	1	

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-1CP2-SW-40

Lab Sample ID: 350-1619-118

Date Collected: 02/15/25 02:59

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.50	0.15 ug/L		04/08/25 16:09	04/09/25 18:14	1
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 18:14	1
Barium	ND		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 18:14	1
Iron	ND		5.0	0.81 ug/L		04/08/25 16:09	04/09/25 18:14	1
Manganese	ND		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 18:14	1

Client Sample ID: NPCPP-1CP2-SW-B					Lab Sample ID: 350-1619-119				
Date Collected: 02/15/25 03:12					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.51		0.50	0.20 ng/L			04/24/25 14:09	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	ND		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Chromium	ND		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Nickel	ND		0.50	0.15 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Barium	ND		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Iron	ND		5.0	0.81 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Manganese	ND		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 18:28	1	

Client Sample ID: NPCPP-2C2-SW-40-FD
Date Collected: 02/16/25 00:58
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-123
Matrix: Water

Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.20	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 20:07	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 20:07	1	
Barium	13		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 20:07	1	
Iron	17	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 20:07	1	
Manganese	1.8		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 20:07	1	

Client Sample ID: NPCPP-2C2-SW-B
Date Collected: 02/16/25 01:06
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-124
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.35	J	0.50	0.20 ng/L			04/24/25 14:39	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Lead	0.031	J B	0.050	0.023 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Nickel	0.21	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Barium	13		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Iron	33	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Manganese	2.8		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 20:21	1	

Client Sample ID: NPCPP-3C2-SW-1
Date Collected: 02/15/25 22:02
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-125
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	2.7		0.50	0.20 ng/L			04/24/25 14:43	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Chromium	1.3		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Lead	0.020		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Nickel	0.23	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Iron	3.8	J B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Manganese	0.88		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 20:35	1	

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Client Sample ID: NPCPP-3C2-SW-20
Date Collected: 02/15/25 22:09
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-126
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	2.3		0.50	0.20 ng/L			04/24/25 14:47	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 20:49	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 20:49	1	
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 20:49	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 20:49	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 20:49	1	
Nickel	0.17	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 20:49	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 20:49	1	
Barium	11		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 20:49	1	
Iron	1.3	J B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 20:49	1	
Manganese	0.68		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 20:49	1	

Client Sample ID: NPCPP-3C2-SW-40
Date Collected: 02/15/25 22:17
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-127
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.36	J	0.50	0.20 ng/L			04/24/25 14:51	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Chromium	1.0		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Nickel	0.18	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Barium	10		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Iron	20	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Manganese	1.9		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 21:04	1	

Client Sample ID: NPCPP-3C2-SW-B
Date Collected: 02/15/25 22:27
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-128
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.36	J	0.50	0.20 ng/L			04/24/25 14:55	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Chromium	1.3		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Lead	0.037	J B	0.050	0.023 ug/L		04/08/25 16:09	04/09/25 21:18	1	

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Client Sample ID: NPCPP-3C2-SW-B
Date Collected: 02/15/25 22:27
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-128
Matrix: Water

Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.23	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Iron	39	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Manganese	2.9		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 21:18	1	

Client Sample ID: NPCPP-3C2-SW-1
Date Collected: 02/15/25 15:13
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-129
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.35	J	0.50	0.20 ng/L			04/24/25 14:59	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 06:56	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 06:56	1	
Chromium	1.3		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 06:56	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 06:56	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 06:56	1	
Nickel	0.18	J	0.50	0.15 ug/L		04/09/25 12:40	04/10/25 06:56	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 06:56	1	
Barium	12	F1	0.50	0.088 ug/L		04/09/25 12:40	04/10/25 06:56	1	
Iron	2.4	J	5.0	0.81 ug/L		04/09/25 12:40	04/10/25 06:56	1	
Manganese	0.79	F1	0.050	0.030 ug/L		04/09/25 12:40	04/10/25 06:56	1	

Client Sample ID: NPCPP-3C2-SW-20
Date Collected: 02/15/25 15:18
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-130
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.33	J	0.50	0.20 ng/L			04/24/25 15:03	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.0		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 07:39	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 07:39	1	
Chromium	1.1		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 07:39	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 07:39	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 07:39	1	

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-4C2-SW-1

Lab Sample ID: 350-1619-133

Date Collected: 02/15/25 04:20

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.29	J	0.50	0.15 ug/L		04/09/25 12:40	04/10/25 09:18	1
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 09:18	1
Barium	12		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 09:18	1
Iron	3.8	J	5.0	0.81 ug/L		04/09/25 12:40	04/10/25 09:18	1
Manganese	0.83		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 09:18	1

Client Sample ID: NPCPP-4C2-SW-20					Lab Sample ID: 350-1619-134				
Date Collected: 02/15/25 04:26					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/24/25 15:28	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Chromium	1.2		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Nickel	0.20	J	0.50	0.15 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Barium	13		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Iron	3.9	J B	5.0	0.81 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Manganese	0.99		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 12:49	1	

Client Sample ID: NPCPP-4C2-SW-40					Lab Sample ID: 350-1619-135				
Date Collected: 02/15/25 04:34					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/24/25 15:32	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Chromium	1.3		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Lead	0.024	J	0.050	0.023 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Nickel	0.21	J	0.50	0.15 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Barium	13		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Iron	17	B	5.0	0.81 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Manganese	1.7		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 13:03	1	

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Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPCPP-4C2-SW-B

Lab Sample ID: 350-1619-136

Date Collected: 02/15/25 04:45

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.24	J	0.50	0.20 ng/L			04/24/25 15:37	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 13:18	1
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 13:18	1
Chromium	1.3		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 13:18	1
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 13:18	1
Lead	0.033	J	0.050	0.023 ug/L		04/09/25 12:40	04/10/25 13:18	1
Nickel	0.28	J	0.50	0.15 ug/L		04/09/25 12:40	04/10/25 13:18	1
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 13:18	1
Barium	13		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 13:18	1
Iron	37	B	5.0	0.81 ug/L		04/09/25 12:40	04/10/25 13:18	1
Manganese	2.8		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 13:18	1

Client Sample ID: NPCPP-EQ					Lab Sample ID: 350-1619-137				
Date Collected: 02/12/25 20:00					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.27	J	0.50	0.20 ng/L			04/24/25 15:41	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	ND		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Chromium	ND		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Barium	ND		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Iron	ND		5.0	0.81 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Manganese	0.12		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 13:32	1	

Client Sample ID: NPCPP-WB					Lab Sample ID: 350-1619-138				
Date Collected: 02/12/25 20:07					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.28	J	0.50	0.20 ng/L			04/24/25 15:45	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	ND		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Chromium	ND		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 13:46	1	

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Client Sample Results									
Client: Tetra Tech Inc						Job ID: 350-1619-1			
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-WB						Lab Sample ID: 350-1619-138			
Date Collected: 02/12/25 20:07						Matrix: Water			
Date Received: 03/06/25 10:30									
Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Barium	ND		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Iron	ND		5.0	0.81 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Manganese	0.11		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 13:46	1	

Client Sample ID: NPREF-A-SW-1					Lab Sample ID: 350-1619-139				
Date Collected: 02/12/25 20:54					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.96		0.50	0.20	ng/L			04/24/25 15:49	1
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63	ug/L		04/09/25 12:40	04/10/25 14:00	1
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:40	04/10/25 14:00	1
Chromium	1.2		1.0	0.11	ug/L		04/09/25 12:40	04/10/25 14:00	1
Copper	ND		0.50	0.43	ug/L		04/09/25 12:40	04/10/25 14:00	1
Cobalt	0.026 J		0.050	0.023	ug/L		04/09/25 12:40	04/10/25 14:00	1
Nickel	0.18 J		0.50	0.15	ug/L		04/09/25 12:40	04/10/25 14:00	1
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:40	04/10/25 14:00	1
Barium	ND		0.50	0.088	ug/L		04/09/25 12:40	04/10/25 14:00	1
Iron	1.2 J B		5.0	0.81	ug/L		04/09/25 12:40	04/10/25 14:00	1
Manganese	0.78		0.050	0.030	ug/L		04/09/25 12:40	04/10/25 14:00	1

Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPREF-A-SW-B					Lab Sample ID: 350-1619-143					
Date Collected: 02/12/25 21:21					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1640 - Metals (ICPMS) (Continued)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Nickel	0.22	J	0.50	0.15 ug/L		04/09/25 12:40	04/10/25 15:25	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 15:25	1		
Barium	11		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 15:25	1		
Iron	40	B	5.0	0.81 ug/L		04/09/25 12:40	04/10/25 15:25	1		
Manganese	3.1		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 15:25	1		
Client Sample ID: NPREF-EQ					Lab Sample ID: 350-1619-144					
Date Collected: 02/12/25 20:07					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	1.9		0.50	0.20 ng/L			04/24/25 16:18	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	ND		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Chromium	0.11	J	1.0	0.11 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Barium	ND		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Iron	ND		5.0	0.81 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Manganese	0.20		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Client Sample ID: NPREF-WB					Lab Sample ID: 350-1619-145					
Date Collected: 02/12/25 20:00					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	2.1		0.50	0.20 ng/L			04/24/25 16:22	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	ND		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Chromium	0.13	J	1.0	0.11 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Barium	ND		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Iron	ND		5.0	0.81 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Manganese	0.20		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 15:53	1		
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Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPWB-1C2-SW-1					Lab Sample ID: 350-1619-146					
Date Collected: 02/14/25 00:47					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.22	J	0.50	0.20	ng/L			04/24/25 16:26	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Chromium	1.2		1.0	0.11	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Copper	ND		0.50	0.43	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Lead	ND		0.050	0.023	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Nickel	0.20	J	0.50	0.15	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Barium	12		0.50	0.088	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Iron	1.5	J B	5.0	0.81	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Manganese	0.86		0.050	0.030	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Client Sample ID: NPWB-1C2-SW-20					Lab Sample ID: 350-1619-147					
Date Collected: 02/14/25 00:54					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.32	J	0.50	0.20	ng/L			04/24/25 16:31	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Chromium	1.2		1.0	0.11	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Copper	ND		0.50	0.43	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Lead	ND		0.050	0.023	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Nickel	0.18	J	0.50	0.15	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Barium	12		0.50	0.088	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Iron	1.1	J B	5.0	0.81	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Manganese	0.82		0.050	0.030	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Client Sample ID: NPWB-1C2-SW-40					Lab Sample ID: 350-1619-148					
Date Collected: 02/14/25 01:02					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.25	J	0.50	0.20	ng/L			04/24/25 16:35	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Chromium	1.3		1.0	0.11	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Copper	ND		0.50	0.43	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Lead	ND		0.050	0.023	ug/L		04/09/25 12:40	04/10/25 16:35	1	
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Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPWB-1C2-SW-40					Lab Sample ID: 350-1619-148					
Date Collected: 02/14/25 01:02					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1640 - Metals (ICPMS) (Continued)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Nickel	0.19 J		0.50	0.15 ug/L		04/09/25 12:40	04/10/25 16:35	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 16:35	1		
Barium	12		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 16:35	1		
Iron	5.7 B		5.0	0.81 ug/L		04/09/25 12:40	04/10/25 16:35	1		
Manganese	1.1		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 16:35	1		
Client Sample ID: NPWB-1C2-SW-B					Lab Sample ID: 350-1619-149					
Date Collected: 02/14/25 01:11					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.33 J		0.50	0.20 ng/L			04/24/25 16:39	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:43	04/09/25 23:53	1		
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/09/25 23:53	1		
Chromium	1.1 B		1.0	0.11 ug/L		04/09/25 12:43	04/09/25 23:53	1		
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/09/25 23:53	1		
Lead	0.054 J		0.050	0.023 ug/L		04/09/25 12:43	04/09/25 23:53	1		
Nickel	0.22 J		0.50	0.15 ug/L		04/09/25 12:43	04/09/25 23:53	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/09/25 23:53	1		
Barium	13 F1		0.50	0.088 ug/L		04/09/25 12:43	04/09/25 23:53	1		
Iron	33		5.0	0.81 ug/L		04/09/25 12:43	04/09/25 23:53	1		
Manganese	2.8 F1		0.050	0.030 ug/L		04/09/25 12:43	04/09/25 23:53	1		
Client Sample ID: NPWB-1CP2-SW-1					Lab Sample ID: 350-1619-150					
Date Collected: 02/14/25 01:51					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.29 J		0.50	0.20 ng/L			04/24/25 16:43	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 01:04	1		
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 01:04	1		
Chromium	1.2 B		1.0	0.11 ug/L		04/09/25 12:43	04/10/25 01:04	1		
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 01:04	1		
Lead	ND		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 01:04	1		
Nickel	0.23 J		0.50	0.15 ug/L		04/09/25 12:43	04/10/25 01:04	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 01:04	1		
Barium	12 F1		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 01:04	1		
Iron	7.8		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 01:04	1		
Manganese	0.86 F1		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 01:04	1		

Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPWB-1CP2-SW-B					Lab Sample ID: 350-1619-153					
Date Collected: 02/14/25 02:20					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1640 - Metals (ICPMS) (Continued)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Nickel	0.22	J	0.50	0.15 ug/L		04/09/25 12:43	04/10/25 02:14	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 02:14	1		
Barium	13		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 02:14	1		
Iron	33		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 02:14	1		
Manganese	2.8		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 02:14	1		
Client Sample ID: NPWB-3B2-SW-1										
Date Collected: 02/14/25 15:52					Lab Sample ID: 350-1619-154					
Date Received: 03/06/25 10:30					Matrix: Water					
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.48	J	0.50	0.20 ng/L			04/24/25 17:49	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.1		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Chromium	1.2	B	1.0	0.11 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Lead	ND		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Nickel	0.17	J	0.50	0.15 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Barium	10		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Iron	3.2	J	5.0	0.81 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Manganese	0.88		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Client Sample ID: NPWB-3B2-SW-20										
Date Collected: 02/14/25 15:57					Lab Sample ID: 350-1619-155					
Date Received: 03/06/25 10:30					Matrix: Water					
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	7.1		0.50	0.20 ng/L			04/24/25 17:53	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.2		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Chromium	1.3	B	1.0	0.11 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Lead	ND		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Nickel	0.21	J	0.50	0.15 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Barium	13		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Iron	4.5	J	5.0	0.81 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Manganese	0.90		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 02:42	1		
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Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPWB-3B2-SW-40					Lab Sample ID: 350-1619-156				
Date Collected: 02/14/25 16:08					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.33	J	0.50	0.20 ng/L			04/24/25 18:43	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	0.38		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 02:56	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 02:56	1	
Chromium	1.1	B	1.0	0.11 ug/L		04/09/25 12:43	04/10/25 02:56	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 02:56	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 02:56	1	
Nickel	0.15	J	0.50	0.15 ug/L		04/09/25 12:43	04/10/25 02:56	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 02:56	1	
Barium	8.5		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 02:56	1	
Iron	20		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 02:56	1	
Manganese	1.9		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 02:56	1	
Client Sample ID: NPWB-3B2-SW-B					Lab Sample ID: 350-1619-157				
Date Collected: 02/14/25 16:18					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.32	J	0.50	0.20 ng/L			04/24/25 18:47	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 03:39	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 03:39	1	
Chromium	1.2	B	1.0	0.11 ug/L		04/09/25 12:43	04/10/25 03:39	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 03:39	1	
Lead	0.033	J	0.050	0.023 ug/L		04/09/25 12:43	04/10/25 03:39	1	
Nickel	0.22	J	0.50	0.15 ug/L		04/09/25 12:43	04/10/25 03:39	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 03:39	1	
Barium	13		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 03:39	1	
Iron	35		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 03:39	1	
Manganese	2.8		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 03:39	1	
Client Sample ID: NPWB-3CP2-SW-1					Lab Sample ID: 350-1619-158				
Date Collected: 02/14/25 14:11					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.0		0.50	0.20 ng/L			04/24/25 18:51	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 03:53	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 03:53	1	
Chromium	1.2	B	1.0	0.11 ug/L		04/09/25 12:43	04/10/25 03:53	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 03:53	1	
Lead	0.16		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 03:53	1	
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Client Sample Results										Job ID: 350-1619-1
Client: Tetra Tech Inc										
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPWB-3CP2-SW-1					Lab Sample ID: 350-1619-158					
Date Collected: 02/14/25 14:11					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1640 - Metals (ICPMS) (Continued)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.19	J	0.50	0.15	ug/L		04/09/25 12:43	04/10/25 03:53	1	
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:43	04/10/25 03:53	1	
Barium	12		0.50	0.088	ug/L		04/09/25 12:43	04/10/25 03:53	1	
Iron	3.8	J	5.0	0.81	ug/L		04/09/25 12:43	04/10/25 03:53	1	
Manganese	0.94		0.050	0.030	ug/L		04/09/25 12:43	04/10/25 03:53	1	
Client Sample ID: NPWB-3CP2-SW-20					Lab Sample ID: 350-1619-159					
Date Collected: 02/14/25 14:19					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.27	J	0.50	0.20	ng/L			04/24/25 18:55	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	0.84		0.70	0.63	ug/L		04/09/25 12:43	04/10/25 04:07	1	
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:43	04/10/25 04:07	1	
Chromium	0.97	J B	1.0	0.11	ug/L		04/09/25 12:43	04/10/25 04:07	1	
Copper	ND		0.50	0.43	ug/L		04/09/25 12:43	04/10/25 04:07	1	
Lead	ND		0.050	0.023	ug/L		04/09/25 12:43	04/10/25 04:07	1	
Nickel	ND		0.50	0.15	ug/L		04/09/25 12:43	04/10/25 04:07	1	
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:43	04/10/25 04:07	1	
Barium	8.0		0.50	0.088	ug/L		04/09/25 12:43	04/10/25 04:07	1	
Iron	4.6	J	5.0	0.81	ug/L		04/09/25 12:43	04/10/25 04:07	1	
Manganese	0.93		0.050	0.030	ug/L		04/09/25 12:43	04/10/25 04:07	1	
Client Sample ID: NPWB-3CP2-SW-20-FD					Lab Sample ID: 350-1619-160					
Date Collected: 02/14/25 14:45					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.32	J	0.50	0.20	ng/L			04/24/25 19:00	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63	ug/L		04/09/25 12:43	04/10/25 04:21	1	
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:43	04/10/25 04:21	1	
Chromium	1.2	B	1.0	0.11	ug/L		04/09/25 12:43	04/10/25 04:21	1	
Copper	ND		0.50	0.43	ug/L		04/09/25 12:43	04/10/25 04:21	1	
Nickel	0.050		0.023	0.013	ug/L		04/09/25 12:43	04/10/25 04:21	1	
Nickel	0.18	J	0.50	0.15	ug/L		04/09/25 12:43	04/10/25 04:21	1	
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:43	04/10/25 04:21	1	
Barium	10		0.50	0.088	ug/L		04/09/25 12:43	04/10/25 04:21	1	
Iron	3.7	J	5.0	0.81	ug/L		04/09/25 12:43	04/10/25 04:21	1	
Manganese	0.88		0.050	0.030	ug/L		04/09/25 12:43	04/10/25 04:21	1	

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWB-EQ

Lab Sample ID: 350-1619-163

Date Collected: 02/14/25 00:15

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:43	04/10/25 05:04	1
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 05:04	1
Barium	ND		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 05:04	1
Iron	ND		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 05:04	1
Manganese	0.12		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 05:04	1

Client Sample ID: NPWB-WB					Lab Sample ID: 350-1619-164				
Date Collected: 02/14/25 00:10					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/24/25 19:24	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	ND		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Chromium	ND		1.0	0.11 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Barium	ND		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Iron	ND		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Manganese	0.11		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 05:18	1	

Client Sample ID: NPWG-1B2X-SW-1					Lab Sample ID: 350-1619-165				
Date Collected: 02/17/25 00:58					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.78		0.50	0.20 ng/L			04/25/25 17:10	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Chromium	1.4 B		1.0	0.11 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Copper	0.93		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Lead	0.060		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Nickel	0.22 J		0.50	0.15 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Barium	12		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Iron	2.3 J		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Manganese	0.78		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 05:32	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPWG-1B2X-SW-20

Lab Sample ID: 350-1619-166

Date Collected: 02/17/25 01:01

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.44	J *2	0.50	0.20 ng/L			04/24/25 19:33	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.7		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 05:46	1

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.7		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 05:46	1	
Cadmium	0.015 J		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 05:46	1	
Chromium	1.2 B		1.0	0.11 ug/L		04/09/25 12:43	04/10/25 05:46	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 05:46	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 05:46	1	
Nickel	0.19 J		0.50	0.15 ug/L		04/09/25 12:43	04/10/25 05:46	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 05:46	1	
Barium	12		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 05:46	1	
Iron	1.8 J		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 05:46	1	
Manganese	0.80		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 05:46	1	

Client Sample ID: NPWG-1B2X-SW-40					Lab Sample ID: 350-1619-167				
Date Collected: 02/17/25 01:12					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.41	J *2	0.50	0.20 ng/L			04/24/25 19:37	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Chromium	1.4 B		1.0	0.11 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Lead	0.028 J		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Nickel	0.21 J		0.50	0.15 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Barium	13		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Iron	21		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Manganese	1.8		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 06:28	1	

Client Sample ID: NPWG-1B2X-SW-B					Lab Sample ID: 350-1619-168				
Date Collected: 02/17/25 01:22					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.48	J *2	0.50	0.20 ng/L			04/24/25 19:41	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Chromium	1.3 B		1.0	0.11 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Lead	0.034 J		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 06:42	1	

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPWG-1B2X-SW-B					Lab Sample ID: 350-1619-168				
Date Collected: 02/17/25 01:22					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.23	J	0.50	0.15 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Barium	13		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Iron	34		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Manganese	2.6		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 06:42	1	

Client Sample ID: NPWG-1CP2-SW-1					Lab Sample ID: 350-1619-169				
Date Collected: 02/17/25 02:01					Matrix: Water				
Date Received: 03/06/25 10:30									

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWG-3B2X-SW-1

Lab Sample ID: 350-1619-173

Date Collected: 02/16/25 20:10

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.18	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 01:03	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 01:03	1
Barium	12		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 01:03	1
Iron	1.3	J	5.0	0.81 ug/L		04/10/25 18:00	04/11/25 01:03	1
Manganese	0.75		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 01:03	1

Client Sample ID: NPWG-3B2X-SW-20					Lab Sample ID: 350-1619-174				
Date Collected: 02/16/25 20:16					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.9		0.50	0.20 ng/L			04/30/25 20:44	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	0.80		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Chromium	0.97	J	1.0	0.11 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Nickel	ND		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Barium	8.1		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Iron	1.3	J	5.0	0.81 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Manganese	0.79		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 01:17	1	

Client Sample ID: NPWG-3B2X-SW-40					Lab Sample ID: 350-1619-175				
Date Collected: 02/16/25 20:41					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.1		0.50	0.20 ng/L			04/30/25 20:48	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Nickel	0.19	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Barium	11		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Iron	19		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Manganese	1.8		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 01:31	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPWG-3B2X-SW-B

Date Collected: 02/16/25 20:51

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-176

Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.50	0.20 ng/L			04/24/25 18:23	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.0		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 01:46	1
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 01:46	1
Chromium	0.99	J	1.0	0.11 ug/L		04/10/25 18:00	04/11/25 01:46	1
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 01:46	1
Lead	0.028	J	0.050	0.023 ug/L		04/10/25 18:00	04/11/25 01:46	1
Nickel	0.17	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 01:46	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 01:46	1
Barium	10		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 01:46	1
Iron	25		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 01:46	1
Manganese	2.1		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 01:46	1

Client Sample ID: NPWG-3B2X-SW-B-FD					Lab Sample ID: 350-1619-177				
Date Collected: 02/16/25 21:04					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.4		0.50	0.20 ng/L			04/24/25 18:27	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Chromium	1.0		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Lead	0.025	J	0.050	0.023 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Nickel	0.18	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Barium	10		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Iron	27		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Manganese	2.1		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 02:28	1	

Client Sample ID: NPWG-3CP2-SW-1					Lab Sample ID: 350-1619-178				
Date Collected: 02/16/25 19:16					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.1		0.50	0.20 ng/L			04/24/25 18:31	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.0		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Chromium	1.0		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 02:42	1	

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Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPWG-3CP2-SW-1
Date Collected: 02/16/25 19:16
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-178
Matrix: Water

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.15	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 02:42	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 02:42	1
Barium	9.5		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 02:42	1
Iron	1.4	J	5.0	0.81 ug/L		04/10/25 18:00	04/11/25 02:42	1
Manganese	0.60		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 02:42	1

Client Sample ID: NPWG-3CP2-SW-20					Lab Sample ID: 350-1619-179				
Date Collected: 02/16/25 19:22					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)								
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.7		0.50	0.20 ng/L			04/24/25 18:35	1
Method: EPA 1640 - Metals (ICPMS)								
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 02:56	1
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 02:56	1
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 02:56	1
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 02:56	1
Lead	ND		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 02:56	1
Nickel	0.19 J		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 02:56	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 02:56	1
Barium	1.2		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 02:56	1
Iron	2.5 J		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 02:56	1
Manganese	0.68		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 02:56	1

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWG-WB

Lab Sample ID: 350-1619-183

Date Collected: 02/16/25 19:00

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 03:53	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 03:53	1
Barium	ND		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 03:53	1
Iron	ND		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 03:53	1
Manganese	0.16		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 03:53	1

Client Sample ID: PACPP-1C2X-SW-1
Date Collected: 02/17/25 20:01
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-184
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.59		0.50	0.20 ng/L			04/24/25 19:04	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Chromium	1.1		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Lead	0.054		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Nickel	0.18 J		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Iron	2.4 J		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Manganese	0.76		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 04:07	1	

Client Sample ID: PACPP-1C2X-SW-20
Date Collected: 02/17/25 20:07
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-185
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.61		0.50	0.20 ng/L			04/24/25 19:08	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Chromium	1.1		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Copper	0.51		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Lead	0.050		0.023 ug/L			04/10/25 18:00	04/11/25 04:21	1	
Nickel	0.18 J		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Barium	11		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Iron	1.8 J		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Manganese	0.71		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 04:21	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PACPP-1C2X-SW-40

Date Collected: 02/17/25 20:12

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-186

Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.7		0.50	0.20 ng/L			04/24/25 19:12	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 04:35	1

Client Sample ID: PACPP-1C2X-SW-B
Date Collected: 02/17/25 20:24
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-187
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	2.0		0.50	0.20 ng/L			04/24/25 19:17	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Lead	0.033 J		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Nickel	0.21 J		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Iron	36		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Manganese	2.8		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 05:17	1	

Client Sample ID: PACPP-1C2X-SW-1
Date Collected: 02/17/25 21:01
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-188
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.35 J		0.50	0.20 ng/L			04/24/25 19:21	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Chromium	1.1		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Lead	0.058		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 05:31	1	

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-1CP2X-SW-1					Lab Sample ID: 350-1619-188				
Date Collected: 02/17/25 21:01					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.17	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Iron	2.3	J	5.0	0.81 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Manganese	0.69		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 05:31	1	

Client Sample ID: PACPP-1CP2X-SW-20
Date Collected: 02/17/25 21:11
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-189
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.4		0.50	0.20 ng/L			04/24/25 19:25	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Chromium	1.1		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Lead	0.030 J		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Nickel	0.16 J		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Barium	11 F1		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Iron	1.3 J B		5.0	0.81 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Manganese	0.65 F1		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 05:46	1	

Client Sample ID: PACPP-1CP2X

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-2C2-SW-20

Lab Sample ID: 350-1619-193

Date Collected: 02/18/25 17:11

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	5.6		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 08:07	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 08:07	1
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 08:07	1
Iron	14 J B		50	8.1 ug/L		04/29/25 18:42	04/30/25 02:58	10
Manganese	9.9		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 08:07	1

Client Sample ID: PACPP-2C2-SW-40					Lab Sample ID: 350-1619-194				
Date Collected: 02/18/25 17:19					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.29 J		0.50	0.20 ng/L			04/24/25 19:54	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Cadmium	0.016 J		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Nickel	0.19 J		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Iron	8.9 B		5.0	0.81 ug/L		04/20/25 18:42	04/30/25 03:12	1	
Manganese	0.58		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 08:21	1	

Client Sample ID: PACPP-2C2-SW-B					Lab Sample ID: 350-1619-195				
Date Collected: 02/18/25 17:29					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.59		0.50	0.20 ng/L			04/24/25 19:58	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Cadmium	0.021		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Chromium	1.4		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Lead	0.030 J		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Nickel	0.21 J		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Barium	13		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Iron	35 B		5.0	0.81 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Manganese	2.6		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 08:35	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-3C2Y-SW-1

Date Collected: 02/18/25 00:56

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-196

Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20 ng/L			04/24/25 20:02	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 08:49	1
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 08:49	1
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 08:49	1
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 08:49	1
Lead	ND		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 08:49	1
Nickel	0.18 J		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 08:49	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 08:49	1
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 08:49	1
Iron	3.2 J B		5.0	0.81 ug/L		04/10/25 18:41	04/11/25 08:49	1
Manganese	0.78		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 08:49	1

Client Sample ID: PACPP-3C2Y-SW-20					Lab Sample ID: 350-1619-197				
Date Collected: 02/18/25 01:06					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/24/25 20:10	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Chromium	1.3		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Nickel	0.19 J		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Iron	2.1 J B		5.0	0.81 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Manganese	0.80		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 09:03	1	

Client Sample ID: PACPP-3C2Y-SW-40					Lab Sample ID: 350-1619-198				
Date Collected: 02/18/25 01:15					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.36 J		0.50	0.20 ng/L			04/24/25 20:10	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Chromium	1.3		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Lead	0.036 J		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 09:17	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PACPP-3C2Y-SW-40

Lab Sample ID: 350-1619-198

Date Collected: 02/18/25 01:15

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.20	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 09:17	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 09:17	1
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 09:17	1
Iron	16	B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 09:17	1
Manganese	1.3		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 09:17	1

Client Sample ID: PACPP-3C2Y-SW-B					Lab Sample ID: 350-1619-199				
Date Collected: 02/18/25 01:25					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	1.0		0.50	0.20 ng/L			04/24/25 20:15		1
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 09:31		1
Cadmium	ND		0.020	0.13 ug/L		04/10/25 18:41	04/11/25 09:31		1
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 09:31		1
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 09:31		1
Lead	0.035 J		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 09:31		1
Nickel	0.21 J		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 09:31		1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 09:31		1
Barium	13		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 09:31		1
Iron	40 B		5.0	0.81 ug/L		04/10/25 18:41	04/11/25 09:31		1
Manganese	2.8		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 09:31		1

Client Sample ID: PACPP-3CP2-SW-B Lab Sample ID: 350-1619-203
Date Collected: 02/18/25 02:36 Matrix: Water
Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.21	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 10:56	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 10:56	1	
Barium	13		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 10:56	1	
Iron	38	B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 10:56	1	
Manganese	3.2		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 10:56	1	

Client Sample ID: PACPP-4C2-SW-1 Lab Sample ID: 350-1619-204
Date Collected: 02/18/25 13:47 Matrix: Water
Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.51		0.50	0.20 ng/L			04/25/25 10:48	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Nickel	0.19	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Iron	2.7	J B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Manganese	0.65		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 11:10	1	

Client Sample ID: PACPP-4C2-SW-1-FD Lab Sample ID: 350-1619-205
Date Collected: 02/18/25 13:52 Matrix: Water
Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.56		0.50	0.20 ng/L			04/25/25 10:52	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Cadmium	0.015	J	0.020	0.013 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Lead	0.024	J	0.050	0.023 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Nickel	0.17	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Iron	2.3	J B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Manganese	0.64		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 11:24	1	

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Client Sample ID: PACPP-4C2-SW-20 Lab Sample ID: 350-1619-206
Date Collected: 02/18/25 13:58 Matrix: Water
Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.48	J	0.50	0.20 ng/L			04/25/25 10:56	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 11:38	1	
Cadmium	0.022		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 11:38	1	
Chromium	1.1		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 11:38	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 11:38	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 11:38	1	
Nickel	0.17	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 11:38	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 11:38	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 11:38	1	
Iron	2.1	J B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 11:38	1	
Manganese	0.63		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 11:38	1	

Client Sample ID: PACPP-4C2-SW-40 Lab Sample ID: 350-1619-207
Date Collected: 02/18/25 16:06 Matrix: Water
Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.39	J	0.50	0.20 ng/L			04/25/25 11:01	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Cadmium	0.014	J	0.020	0.013 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Nickel	0.19	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Iron	4.8	J B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Manganese	0.70		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 11:53	1	

Client Sample ID: PACPP-4C2-SW-B Lab Sample ID: 350-1619-208
Date Collected: 02/18/25 16:16 Matrix: Water
Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.68		0.50	0.20 ng/L			04/25/25 11:05	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Cadmium	0.019	J	0.020	0.013 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Chromium	1.3		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Lead	0.029	J	0.050	0.023 ug/L		04/10/25 18:41	04/11/25 12:12	1	

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Client Sample Results

Client Sample ID: PACPP-4C2-SW-B Lab Sample ID: 350-1619-208
Date Collected: 02/18/25 16:16 Matrix: Water
Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.20	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Barium	13		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Iron	32	B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Manganese	2.5		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 12:12	1	

Client Sample ID: PACPP-EQ Lab Sample ID: 350-1619-209
Date Collected: 02/17/25 19:07 Matrix: Water
Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.48	J	0.50	0.20 ng/L			04/25/25 11:17	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	ND		0.70	0.63 ug/L		04/29/25 18:42	04/29/25 22:43	1	
Cadmium	ND		0.020	0.013 ug/L		04/29/25 18:42	04/29/25 22:43	1	
Chromium	ND		1.0	0.11 ug/L		04/29/25 18:42	04/29/25 22:43	1	
Copper	ND		0.50	0.43 ug/L		04/29/25 18:42	04/29/25 22:43	1	
Lead	ND		0.050	0.023 ug/L		04/29/25 18:42	04/29/25 22:43	1	
Nickel	ND		0.50	0.15 ug/L		04/29/25 18:42	04/29/25 22:43	1	
Zinc	ND		1.0	0.31 ug/L		04/29/25 18:42	04/29/25 22:43	1	
Barium	ND		0.50	0.088 ug/L		04/29/25 18:42	04/29/25 22:43	1	
Iron	ND		5.0	0.81 ug/L		04/29/25 18:42	04/29/25 22:43	1	
Manganese	0.15		0.050	0.030 ug/L		05/13/25 17:28	05/13/25 16:19	1	

Client Sample ID: PACPP-WB Lab Sample ID: 350-1619-210
Date Collected: 02/17/25 19:02 Matrix: Water
Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.0		0.50	0.20 ng/L			04/25/25 11:21	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	ND		0.70	0.63 ug/L		04/29/25 18:42	04/29/25 23:26	1	
Cadmium	ND		0.020	0.013 ug/L		04/29/25 18:42	04/29/25 23:26	1	
Chromium	5.1		1.0	0.11 ug/L		04/29/25 18:42	04/29/25 23:26	1	
Copper	ND		0.50	0.43 ug/L		04/29/25 18:42	04/29/25 23:26	1	
Lead	ND		0.050	0.023 ug/L		04/29/25 18:42	04/29/25 23:26	1	
Nickel	ND		0.50	0.15 ug/L		04/29/25 18:42	04/29/25 23:26	1	
Zinc	ND		1.0	0.31 ug/L		04/29/25 18:42	04/29/25 23:26	1	
Barium	0.27	J	0.50	0.088 ug/L		04/29/25 18:42	04/29/25 23:26	1	
Iron	1.3	J B	5.0	0.81 ug/L		04/29/25 18:42	04/29/25 23:26	1	
Manganese	0.18	B	0.050	0.030 ug/L		04/29/25 18:42	04/30/25 12:55		

Client Sample ID: PAREF-A-SW-40
Date Collected: 02/13/25 16:40
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-213
Matrix: Water

Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.22	J	0.50	0.15 ug/L		04/11/25 11:09	04/11/25 20:26	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 20:26	1	
Barium	12	F1	0.50	0.088 ug/L		04/11/25 11:09	04/11/25 20:26	1	
Iron	19		5.0	0.81 ug/L		04/11/25 11:09	04/11/25 20:26	1	
Manganese	1.1		0.050	0.030 ug/L		05/12/25 00:00	05/13/25 16:33	1	

Client Sample ID: PAREF-A-SW-B
Date Collected: 02/13/25 16:51
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-214
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/25/25 11:38	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/11/25 11:09	04/11/25 21:37	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 21:37	1	
Chromium	0.96	J	1.0	0.11 ug/L		04/11/25 11:09	04/11/25 21:37	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/11/25 21:37	1	
Lead	0.036	J	0.050	0.023 ug/L		04/11/25 11:09	04/11/25 21:37	1	
Nickel	0.22	J	0.50	0.15 ug/L		04/11/25 11:09	04/11/25 21:37	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 21:37	1	
Barium	11	F1	0.50	0.088 ug/L		04/11/25 11:09	04/11/25 21:37	1	
Iron	44		5.0	0.81 ug/L		04/11/25 11:09	04/11/25 21:37	1	
Manganese	2.4	F1 F2	0.050	0.030 ug/L		05/19/25 12:25	05/19/25 21:01	1	

Client Sample ID: PAWB-1CP2-SW-1
Date Collected: 02/21/25 00:41
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-215
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.42	J	0.50	0.20 ng/L			04/25/25 11:42	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/11/25 11:09	04/11/25 22:19	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 22:19	1	
Chromium	1.1		1.0	0.11 ug/L		04/11/25 11:09	04/11/25 22:19	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/11/25 22:19	1	
Lead	0.020		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 22:19	1	
Nickel	0.22	J	0.50	0.15 ug/L		04/11/25 11:09	04/11/25 22:19	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 22:19	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/11/25 22:19	1	
Iron	2.9	J	5.0	0.81 ug/L		04/11/25 11:09	04/11/25 22:19	1	
Manganese	1.4	B *2	0.050	0.030 ug/L		04/29/25 18:42	04/30/25 03:54	1	

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Client Sample ID: PAWB-1CP2-SW-20
Date Collected: 02/21/25 00:50
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-216
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.34	J	0.50	0.20 ng/L			04/25/25 11:46	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/11/25 11:09	04/11/25 22:33	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 22:33	1	
Chromium	1.3		1.0	0.11 ug/L		04/11/25 11:09	04/11/25 22:33	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/11/25 22:33	1	
Lead	ND		0.050	0.023 ug/L		04/11/25 11:09	04/11/25 22:33	1	
Nickel	0.25	J	0.50	0.15 ug/L		04/11/25 11:09	04/11/25 22:33	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 22:33	1	
Barium	11		0.50	0.088 ug/L		04/11/25 11:09	04/11/25 22:33	1	
Iron	5.1		5.0	0.81 ug/L		04/11/25 11:09	04/11/25 22:33	1	
Manganese	1.1	B *2	0.050	0.030 ug/L		04/29/25 18:42	04/30/25 04:08	1	

Client Sample ID: PAWB-1CP2-SW-40
Date Collected: 02/21/25 00:58
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-217
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.35	J	0.50	0.20 ng/L			04/25/25 11:50	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/11/25 11:09	04/11/25 22:47	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 22:47	1	
Chromium	1.1		1.0	0.11 ug/L		04/11/25 11:09	04/11/25 22:47	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/11/25 22:47	1	
Lead	ND		0.050	0.023 ug/L		04/11/25 11:09	04/11/25 22:47	1	
Nickel	0.19	J	0.50	0.15 ug/L		04/11/25 11:09	04/11/25 22:47	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 22:47	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/11/25 22:47	1	
Iron	4.5	J	5.0	0.81 ug/L		04/11/25 11:09	04/11/25 22:47	1	
Manganese	1.6	B *2	0.050	0.030 ug/L		04/29/25 18:42	04/30/25 04:51	1	

Client Sample ID: PAWB-1CP2-SW-B
Date Collected: 02/21/25 01:11
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-218
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.45	J	0.50	0.20 ng/L			04/25/25 11:54	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.4		0.70	0.63 ug/L		04/11/25 11:09	04/11/25 23:02	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 23:02	1	
Chromium	1.2		1.0	0.11 ug/L		04/11/25 11:09	04/11/25 23:02	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/11/25 23:02	1	
Lead	0.028	J	0.050	0.023 ug/L		04/11/25 11:09	04/11/25 23:02	1	

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Client Sample ID: PAWB-1CP2-SW-B
Date Collected: 02/21/25 01:11
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-218
Matrix: Water

Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.21	J	0.50	0.15 ug/L		04/11/25 11:09	04/11/25 23:02	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 23:02	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/11/25 23:02	1	
Iron	32		5.0	0.81 ug/L		04/11/25 11:09	04/11/25 23:02	1	
Manganese	4.8	B *2	0.050	0.030 ug/L		04/29/25 18:42	04/30/25 05:05	1	

Client Sample ID: PAWB-3B2-SW-1
Date Collected: 02/21/25 13:45
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-219
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.32	J	0.50	0.20 ng/L			04/25/25 12:07	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/11/25 11:09	04/11/25 23:16	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 23:16	1	
Chromium	1.1		1.0	0.11 ug/L		04/11/25 11:09	04/11/25 23:16	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/11/25 23:16	1	
Lead	0.23		0.050	0.023 ug/L		04/11/25 11:09	04/11/25 23:16	1	
Nickel	0.17	J	0.50	0.15 ug/L		04/11/25 11:09	04/11/25 23:16	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 23:16	1	
Barium	11		0.50	0.088 ug/L		04/11/25 11:09	04/11/25 23:16	1	
Iron	1.6	J	5.0	0.81 ug/L		04/11/25 11:09	04/11/25 23:16	1	
Manganese	1.3	B *2	0.050	0.030 ug/L		04/29/25 18:42	04/30/25 05:19	1	

Client Sample ID: PAWB-3B2-SW-20
Date Collected: 02/21/25 13:51
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-220
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.76	F1	0.50	0.20 ng/L			04/25/25 12:36	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/11/25 11:09	04/11/25 23:30	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 23:30	1	
Chromium	1.2		1.0	0.11 ug/L		04/11/25 11:09	04/11/25 23:30	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/11/25 23:30	1	
Lead	ND		0.050	0.023 ug/L		04/11/25 11:09	04/11/25 23:30	1	
Nickel	0.17	J	0.50	0.15 ug/L		04/11/25 11:09	04/11/25 23:30	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 23:30	1	
Barium	11		0.50	0.088 ug/L		04/11/25 11:09	04/11/25 23:30	1	
Iron	1.1	J	5.0	0.81 ug/L		04/11/25 11:09	04/11/25 23:30	1	
Manganese	1.3	B *2	0.050	0.030 ug/L		04/29/25 18:42	04/30/25 05:33		

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWB-3CP2-SW-1

Lab Sample ID: 350-1619-223

Date Collected: 02/21/25 02:18

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.17	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 00:40	1
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 00:40	1
Barium	12	J	0.50	0.088 ug/L		04/11/25 11:09	04/12/25 00:40	1
Iron	1.5	J	5.0	0.81 ug/L		04/11/25 11:09	04/12/25 00:40	1
Manganese	1.3		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 07:40	1

Client Sample ID: PAWB-3CP2-SW-20					Lab Sample ID: 350-1619-224				
Date Collected: 02/21/25 02:25					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/25/25 13:01	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Chromium	1.2		1.0	0.11 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Lead	ND		0.050	0.023 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Nickel	0.17	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Iron	1.1	J	5.0	0.81 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Manganese	1.3		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 07:54	1	

Client Sample ID: PAWB-3CP2-SW-40					Lab Sample ID: 350-1619-225				
Date Collected: 02/21/25 02:14					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/25/25 13:05	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Chromium	1.3		1.0	0.11 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Lead	ND		0.050	0.023 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Nickel	0.17	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Iron	2.2	J	5.0	0.81 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Manganese	1.4		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 08:08	1	

Eurofins Seattle Specialty Metals

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PAWB-3CP2-SW-B

Lab Sample ID: 350-1619-226

Date Collected: 02/21/25 02:49

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20 ng/L			04/25/25 13:09	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.3		0.70	0.63 ug/L		04/11/25 11:09	04/12/25 01:23	1

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Chromium	1.3		1.0	0.11 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Lead	0.032	J	0.050	0.023 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Nickel	0.21	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Iron	31		5.0	0.81 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Manganese	4.7		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 08:22	1	

Client Sample ID: PAWE-1B1-SW-1					Lab Sample ID: 350-1619-227				
Date Collected: 02/20/25 14:05					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.61		0.50	0.20 ng/L			04/25/25 13:13	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Chromium	1.1		1.0	0.11 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Lead	0.057		0.050	0.023 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Nickel	0.21	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Iron	2.2	J	5.0	0.81 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Manganese	1.1		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 08:37	1	

Client Sample ID: PAWE-1B1-SW-20					Lab Sample ID: 350-1619-228				
Date Collected: 02/20/25 14:11					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.36	J	0.50	0.20 ng/L			04/25/25 13:17	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Chromium	1.3		1.0	0.11 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Lead	ND		0.050	0.023 ug/L		04/11/25 11:09	04/12/25 01:51	1	

Eurofins Seattle Specialty Metals

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PAWE-1B1-SW-20

Lab Sample ID: 350-1619-228

Date Collected: 02/20/25 14:11

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.17	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 01:51	1
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 01:51	1
Barium	1.2	J	0.50	0.088 ug/L		04/11/25 11:09	04/12/25 01:51	1
Iron	1.3	J	5.0	0.81 ug/L		04/11/25 11:09	04/12/25 01:51	1
Manganese	1.2		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 08:51	1

Client Sample ID: PAWE-1B1-SW-40					Lab Sample ID: 350-1619-229				
Date Collected: 02/20/25 14:19					Matrix: Water				
Date Received: 03/06/25 10:30									

Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PAWE-1CP2-SW-40					Lab Sample ID: 350-1619-233					
Date Collected: 02/19/25 21:27					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1640 - Metals (ICPMS) (Continued)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Nickel	0.19	J	0.50	0.15 ug/L		04/11/25 11:11	04/12/25 03:30	1		
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:11	04/12/25 03:30	1		
Barium	10	F1	0.50	0.088 ug/L		04/11/25 11:11	04/12/25 03:30	1		
Iron	3.5	J B	5.0	0.81 ug/L		04/11/25 11:11	04/12/25 03:30	1		
Manganese	1.2		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 10:30	1		
Client Sample ID: PAWE-1CP2-SW-B										
Date Collected: 02/19/25 21:17					Lab Sample ID: 350-1619-234					
Date Received: 03/06/25 10:30					Matrix: Water					
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.49	J	0.50	0.20 ng/L			04/25/25 13:50	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.2		0.70	0.63 ug/L		04/11/25 11:11	04/12/25 04:12	1		
Cadmium	0.013	J	0.020	0.013 ug/L		04/11/25 11:11	04/12/25 04:12	1		
Chromium	1.3		1.0	0.11 ug/L		04/11/25 11:11	04/12/25 04:12	1		
Copper	ND		0.50	0.43 ug/L		04/11/25 11:11	04/12/25 04:12	1		
Lead	0.035	J	0.050	0.023 ug/L		04/11/25 11:11	04/12/25 04:12	1		
Nickel	0.23	J	0.50	0.15 ug/L		04/11/25 11:11	04/12/25 04:12	1		
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:11	04/12/25 04:12	1		
Barium	14	F1	0.50	0.088 ug/L		04/11/25 11:11	04/12/25 04:12	1		
Iron	41	B	5.0	0.81 ug/L		04/11/25 11:11	04/12/25 04:12	1		
Manganese	5.3		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 10:46	1		
Client Sample ID: PAWE-3B3-SW-1										
Date Collected: 02/20/25 12:55					Lab Sample ID: 350-1619-235					
Date Received: 03/06/25 10:30					Matrix: Water					
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	ND		0.50	0.20 ng/L			04/25/25 13:55	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.2		0.70	0.63 ug/L		04/11/25 11:11	04/12/25 04:55	1		
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:11	04/12/25 04:55	1		
Chromium	1.2		1.0	0.11 ug/L		04/11/25 11:11	04/12/25 04:55	1		
Copper	ND		0.50	0.43 ug/L		04/11/25 11:11	04/12/25 04:55	1		
Lead	ND		0.050	0.023 ug/L		04/11/25 11:11	04/12/25 04:55	1		
Nickel	0.19	J	0.50	0.15 ug/L		04/11/25 11:11	04/12/25 04:55	1		
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:11	04/12/25 04:55	1		
Barium	12		0.50	0.088 ug/L		04/11/25 11:11	04/12/25 04:55	1		
Iron	3.0	J B	5.0	0.81 ug/L		04/11/25 11:11	04/12/25 04:55	1		
Manganese	1.1		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 11:02	1		
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Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PAWE-3B3-SW-20					Lab Sample ID: 350-1619-236					
Date Collected: 02/20/25 01:30					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.43	J	0.50	0.20	ng/L			04/25/25 13:59	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63	ug/L		04/11/25 11:11	04/12/25 05:09	1	
Cadmium	ND		0.020	0.013	ug/L		04/11/25 11:11	04/12/25 05:09	1	
Chromium	1.1		1.0	0.11	ug/L		04/11/25 11:11	04/12/25 05:09	1	
Copper	ND		0.50	0.43	ug/L		04/11/25 11:11	04/12/25 05:09	1	
Lead	ND		0.050	0.023	ug/L		04/11/25 11:11	04/12/25 05:09	1	
Nickel	0.18	J	0.50	0.15	ug/L		04/11/25 11:11	04/12/25 05:09	1	
Zinc	ND		1.0	0.31	ug/L		04/11/25 11:11	04/12/25 05:09	1	
Barium	12		0.50	0.088	ug/L		04/11/25 11:11	04/12/25 05:09	1	
Iron	1.7	J B	5.0	0.81	ug/L		04/11/25 11:11	04/12/25 05:09	1	
Manganese	1.2		0.050	0.030	ug/L		04/29/25 18:49	04/30/25 11:16	1	
Client Sample ID: PAWE-3B3-SW-40					Lab Sample ID: 350-1619-237					
Date Collected: 02/20/25 13:14					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.25	J	0.50	0.20	ng/L			04/25/25 14:03	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.8		0.70	0.63	ug/L		04/29/25 18:49	04/30/25 11:30	1	
Cadmium	0.016	J	0.020	0.013	ug/L		04/29/25 18:49	04/30/25 11:30	1	
Chromium	1.8		1.0	0.11	ug/L		04/29/25 18:49	04/30/25 11:30	1	
Copper	0.55		0.50	0.43	ug/L		04/29/25 18:49	04/30/25 11:30	1	
Lead	0.052		0.050	0.023	ug/L		04/29/25 18:49	04/30/25 11:30	1	
Nickel	0.42	J	0.50	0.15	ug/L		04/29/25 18:49	04/30/25 11:30	1	
Zinc	ND		1.0	0.31	ug/L		04/29/25 18:49	04/30/25 11:30	1	
Barium	7.7		0.50	0.088	ug/L		04/29/25 18:49	04/30/25 11:30	1	
Iron	7.0		5.0	0.81	ug/L		04/29/25 18:49	04/30/25 11:30	1	
Manganese	1.5		0.050	0.030	ug/L		04/29/25 18:49	04/30/25 11:30	1	
Client Sample ID: PAWE-3B3-SW-B					Lab Sample ID: 350-1619-238					
Date Collected: 02/20/25 13:24					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.25	J	0.50	0.20	ng/L			04/25/25 14:07	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.9		0.70	0.63	ug/L		04/29/25 18:49	04/30/25 11:44	1	
Cadmium	0.022		0.020	0.013	ug/L		04/29/25 18:49	04/30/25 11:44	1	
Chromium	1.9		1.0	0.11	ug/L		04/29/25 18:49	04/30/25 11:44	1	
Copper	0.58		0.50	0.43	ug/L		04/29/25 18:49	04/30/25 11:44	1	
Lead	0.099		0.050	0.023	ug/L		04/29/25 18:49	04/30/25 11:44	1	
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Client Sample Results										Job ID: 350-1619-1	
Client: Tetra Tech Inc											
Project/Site: Gulf of Thailand - 2025											
Client Sample ID: PAWE-3B3-SW-B					Lab Sample ID: 350-1619-238						
Date Collected: 02/20/25 13:24					Matrix: Water						
Date Received: 03/06/25 10:30											
Method: EPA 1640 - Metals (ICPMS) (Continued)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
Nickel	0.49	J	0.50	0.15	ug/L		04/29/25 18:49	04/30/25 11:44	1		
Zinc	0.33	J	1.0	0.31	ug/L		04/29/25 18:49	04/30/25 11:44	1		
Barium	8.3		0.50	0.088	ug/L		04/29/25 18:49	04/30/25 11:44	1		
Iron	99		5.0	0.81	ug/L		04/29/25 18:49	04/30/25 11:44	1		
Manganese	5.6		0.050	0.030	ug/L		04/29/25 18:49	04/30/25 11:44	1		
Client Sample ID: PAWE-3CP2-SW-1					Lab Sample ID: 350-1619-239						
Date Collected: 02/19/25 19:28					Matrix: Water						
Date Received: 03/06/25 10:30											
Method: EPA 1631E - Mercury, Low Level (CVAFS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
Mercury	0.23	J	0.50	0.20	ng/L			04/25/25 14:11		1	
Method: EPA 1640 - Metals (ICPMS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
Arsenic	1.9		0.70	0.63	ug/L		04/29/25 18:49	04/30/25 11:59	1		
Cadmium	0.031		0.020	0.013	ug/L		04/29/25 18:49	04/30/25 11:59	1		
Chromium	1.8		1.0	0.11	ug/L		04/29/25 18:49	04/30/25 11:59	1		
Copper	ND		0.50	0.43	ug/L		04/29/25 18:49	04/30/25 11:59	1		
Lead	0.074		0.050	0.023	ug/L		04/29/25 18:49	04/30/25 11:59	1		
Nickel	0.43	J	0.50	0.15	ug/L		04/29/25 18:49	04/30/25 11:59	1		
Zinc	0.48	J	1.0	0.31	ug/L		04/29/25 18:49	04/30/25 11:59	1		
Barium	7.7		0.50	0.088	ug/L		04/29/25 18:49	04/30/25 11:59	1		
Iron	7.2		5.0	0.81	ug/L		04/29/25 18:49	04/30/25 11:59	1		
Manganese	0.97		0.050	0.030	ug/L		04/29/25 18:49	04/30/25 11:59	1		
Client Sample ID: PAWE-3CP2-SW-20					Lab Sample ID: 350-1619-240						
Date Collected: 02/19/25 19:14					Matrix: Water						
Date Received: 03/06/25 10:30											
Method: EPA 1631E - Mercury, Low Level (CVAFS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
Mercury	0.26	J	0.50	0.20	ng/L			04/25/25 11:33		1	
Method: EPA 1640 - Metals (ICPMS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
Arsenic	1.9		0.70	0.63	ug/L		04/29/25 18:49	04/30/25 12:13	1		
Cadmium	0.029		0.020	0.013	ug/L		04/29/25 18:49	04/30/25 12:13	1		
Chromium	1.8		1.0	0.11	ug/L		04/29/25 18:49	04/30/25 12:13	1		
Copper	ND		0.50	0.43	ug/L		04/29/25 18:49	04/30/25 12:13	1		
Lead	0.030	J	0.050	0.023	ug/L		04/29/25 18:49	04/30/25 12:13	1		
Nickel	0.39	J	0.50	0.15	ug/L		04/29/25 18:49	04/30/25 12:13	1		
Zinc	ND		1.0	0.31	ug/L		04/29/25 18:49	04/30/25 12:13	1		
Barium	7.6		0.50	0.088	ug/L		04/29/25 18:49	04/30/25 12:13	1		
Iron	4.1	J	5.0	0.81	ug/L		04/29/25 18:49	04/30/25 12:13	1		
Manganese	0.95		0.050	0.030	ug/L		04/29/25 18:49	04/30/25 12:13	1		
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Client Sample Results										Job ID: 350-1619-1									
Client: Tetra Tech Inc Project/Site: Gulf of Thailand - 2025																			
Client Sample ID: PAWE-3CP2-SW-B					Lab Sample ID: 350-1619-243														
Date Collected: 02/19/25 19:58					Matrix: Water														
Date Received: 03/06/25 10:30																			
Method: EPA 1640 - Metals (ICPMS) (Continued)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
Nickel	0.23	J	0.50	0.15	ug/L		05/12/25 00:00	05/13/25 10:16	1										
Zinc	ND		1.0	0.31	ug/L		05/12/25 00:00	05/13/25 10:16	1										
Barium	7.7		0.50	0.088	ug/L		05/12/25 00:00	05/13/25 00:52	1										
Iron	50		5.0	0.81	ug/L		05/12/25 00:00	05/13/25 10:16	1										
Manganese	2.4		0.050	0.030	ug/L		05/12/25 00:00	05/13/25 10:16	1										
Client Sample ID: PAWE-EQ					Lab Sample ID: 350-1619-244														
Date Collected: 02/19/25 19:06					Matrix: Water														
Date Received: 03/06/25 10:30																			
Method: EPA 1631E - Mercury, Low Level (CVAFS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
Mercury	0.91		0.50	0.20	ng/L			04/25/25 11:49	1										
Method: EPA 1640 - Metals (ICPMS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
Arsenic	ND		0.70	0.63	ug/L		05/12/25 00:00	05/13/25 01:06	1										
Cadmium	ND		0.020	0.013	ug/L		05/12/25 00:00	05/13/25 10:31	1										
Chromium	0.24	J B	1.0	0.11	ug/L		05/12/25 00:00	05/13/25 10:31	1										
Copper	ND		0.50	0.43	ug/L		05/12/25 00:00	05/13/25 10:31	1										
Lead	ND		0.050	0.023	ug/L		05/12/25 00:00	05/13/25 10:31	1										
Nickel	ND		0.50	0.15	ug/L		05/12/25 00:00	05/13/25 10:31	1										
Zinc	ND		1.0	0.31	ug/L		05/12/25 00:00	05/13/25 10:31	1										
Barium	ND		0.50	0.088	ug/L		05/12/25 00:00	05/13/25 01:06	1										
Iron	0.84	J	5.0	0.81	ug/L		05/12/25 00:00	05/13/25 10:31	1										
Manganese	ND		0.050	0.030	ug/L		05/12/25 00:00	05/13/25 10:31	1										
Client Sample ID: PAWE-WB					Lab Sample ID: 350-1619-245														
Date Collected: 02/19/25 19:00					Matrix: Water														
Date Received: 03/06/25 10:30																			
Method: EPA 1631E - Mercury, Low Level (CVAFS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
Mercury	0.52		0.50	0.20	ng/L			04/25/25 12:02	1										
Method: EPA 1640 - Metals (ICPMS)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
Arsenic	ND		0.70	0.63	ug/L		05/12/25 00:00	05/13/25 01:20	1										
Cadmium	ND		0.020	0.013	ug/L		05/12/25 00:00	05/13/25 10:59	1										
Chromium	0.21	J B	1.0	0.11	ug/L		05/12/25 00:00	05/13/25 10:59	1										
Copper	ND		0.50	0.43	ug/L		05/12/25 00:00	05/13/25 10:59	1										
Lead	ND		0.050	0.023	ug/L		05/12/25 00:00	05/13/25 10:59	1										
Nickel	ND		0.50	0.15	ug/L		05/12/25 00:00	05/13/25 10:59	1										
Zinc	ND		1.0	0.31	ug/L		05/12/25 00:00	05/13/25 10:59	1										
Barium	ND		0.50	0.088	ug/L		05/12/25 00:00	05/13/25 01:20	1										
Iron	ND		5.0	0.81	ug/L		05/12/25 00:00	05/13/25 10:59	1										
Manganese	ND		0.050	0.030	ug/L		05/12/25 00:00	05/13/25 10:59	1										
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Client Sample Results										Job ID: 350-1619-1									
Client: Tetra Tech Inc Project/Site: Gulf of Thailand - 2025																			
Client Sample ID: PDPLB-EQ					Lab Sample ID: 350-1619-378														
Date Collected: 02/11/25 19:07					Matrix: Water														
Date Received: 03/06/25 10:30																			
Method: EPA 1631E - Mercury, Low Level (CVAFS)																			
Analyte		Result		Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac							
Mercury		0.58				0.50	0.20	ng/L			04/25/25 15:00	1							
Method: EPA 1640 - Metals (ICPMS)																			
Analyte		Result		Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac							
Arsenic		ND				0.70	0.63	ug/L		04/03/25 16:43	04/04/25 10:53	1							
Cadmium		ND				0.020	0.013	ug/L		04/03/25 16:43	04/04/25 10:53	1							
Copper		ND				0.50	0.43	ug/L		04/03/25 16:43	04/04/25 10:53	1							
Lead		ND				0.050	0.023	ug/L		04/03/25 16:43	04/04/25 10:53	1							
Zinc		0.81		J B		1.0	0.31	ug/L		04/03/25 16:43	04/04/25 10:53	1							
Barium		ND				0.50	0.088	ug/L		04/03/25 16:43	04/04/25 10:53	1							
Client Sample ID: PDPLB-M2-SW-1					Lab Sample ID: 350-1619-379														
Date Collected: 02/11/25 21:36					Matrix: Water														
Date Received: 03/06/25 10:30																			
Method: EPA 1631E - Mercury, Low Level (CVAFS)																			
Analyte		Result		Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac							
Mercury		0.56				0.50	0.20	ng/L			04/25/25 15:04	1							
Method: EPA 1640 - Metals (ICPMS)																			
Analyte		Result		Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac							
Arsenic		1.9				0.70	0.63	ug/L		04/03/25 16:43	04/04/25 11:07	1							
Cadmium		ND				0.020	0.013	ug/L		04/03/25 16:43	04/04/25 11:07	1							
Copper		ND				0.50	0.43	ug/L		04/03/25 16:43	04/04/25 11:07	1							
Lead		ND				0.050	0.023	ug/L		04/03/25 16:43	04/04/25 11:07	1							
Zinc		0.46		J B		1.0	0.31	ug/L		04/03/25 16:43	04/04/25 11:07	1							
Barium		13				0.50	0.088	ug/L		04/03/25 16:43	04/04/25 11:07	1							
Client Sample ID: PDPLB-M2-SW-20					Lab Sample ID: 350-1619-380														
Date Collected: 02/11/25 21:30					Matrix: Water														
Date Received: 03/06/25 10:30																			
Method: EPA 1631E - Mercury, Low Level (CVAFS)																			
Analyte		Result		Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac							
Mercury		0.46		J		0.50	0.20	ng/L			04/25/25 15:09	1							
Method: EPA 1640 - Metals (ICPMS)																			
Analyte		Result		Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac							
Arsenic		1.9				0.70	0.63	ug/L		04/03/25 16:43	04/04/25 11:21	1							
Cadmium		ND				0.020	0.013	ug/L		04/03/25 16:43	04/04/25 11:21	1							
Copper		ND				0.50	0.43	ug/L		04/03/25 16:43	04/04/25 11:21	1							
Lead		ND				0.050	0.023	ug/L		04/03/25 16:43	04/04/25 11:21	1							
Zinc		0.33		J B		1.0	0.31	ug/L		04/03/25 16:43	04/04/25 11:21	1							
Barium		12				0.50	0.088	ug/L		04/03/25 16:43	04/04/25 11:21	1							
Client Sample ID: PDPLB-M2-SW-40					Lab Sample ID: 350-1619-381														
Date Collected: 02/11/25 21:20					Matrix: Water														
Date Received: 03/06/25 10:30																			
Method: EPA 1631E - Mercury, Low Level (CVAFS)																			
Analyte		Result		Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac							
Mercury		0.67				0.50	0.20	ng/L			04/25/25 15:21	1							
Eurofins Seattle Specialty Metals																			

Client Sample ID: PDPLB-WB									
Date Collected: 02/11/25 19:00									
Date Received: 03/06/25 10:30									
Lab Sample ID: 350-1619-387									
Matrix: Water									
Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.50	0.43	ug/L		05/19/25 12:25	05/20/25 00:19	1
Lead	ND		0.050	0.023	ug/L		05/19/25 12:25	05/20/25 00:19	1
Zinc	ND		1.0	0.31	ug/L		05/19/25 12:25	05/20/25 00:19	1
Barium	ND		0.50	0.088	ug/L		05/19/25 12:25	05/20/25 00:19	1

Method: 1631B - Mercury, Low Level (CVAFS)									
Lab Sample ID: MB 350-5840/1-A									
Matrix: Solid									
Analysis Batch: 6250									
Client Sample ID: Method Blank									
Prep Type: Total/NA									
Prep Batch: 5840									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	yD		1.2	0.5g	n/4/4		0N03/25 20:2A	0N15/25 09:36	20
Lab Sample ID: MB 350-5840/2-A									
Matrix: Solid									
Analysis Batch: 6250									
Client Sample ID: Method Blank									
Prep Type: Total/NA									
Prep Batch: 5840									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	yD		1.2	0.5g	n/4/4		0N03/25 20:2A	0N15/25 09:36	20
Lab Sample ID: MB 350-5840/3-A									
Matrix: Solid									
Analysis Batch: 6250									
Client Sample ID: Method Blank									
Prep Type: Total/NA									
Prep Batch: 5840									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	yD		1.2	0.5g	n/4/4		0N03/25 20:2A	0N15/25 09:36	20
Lab Sample ID: LCS 350-5840/4-A									
Matrix: Solid									
Analysis Batch: 6250									
Client Sample ID: Lab Control Sample									
Prep Type: Total/NA									
Prep Batch: 5840									
Analyte	Result	Qualifier	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM			39A	393	n/4/4	n/4/4		99	A5 - 125
Lab Sample ID: LCSD 350-5840/5-A									
Matrix: Solid									
Analysis Batch: 6250									
Client Sample ID: Lab Control Sample Dup									
Prep Type: Total/NA									
Prep Batch: 5840									
Analyte	Result	Qualifier	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits
MercurM			39A	3Ag	n/4/4	n/4/4		95	A5 - 125
Lab Sample ID: 350-1619-1 MS									
Matrix: Solid									
Analysis Batch: 6250									
Client Sample ID: NPCPP-1C1									
Prep Type: Total/NA									
Prep Batch: 5840									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	120	F1 F2	6g3	990	F1	n/4/4		12A	A1 - 125
Lab Sample ID: 350-1619-1 MSD									
Matrix: Solid									
Analysis Batch: 6250									
Client Sample ID: NPCPP-1C1									
Prep Type: Total/NA									
Prep Batch: 5840									
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	120	F1 F2	AgA	Ag6	F2	n/4/4		90	A1 - 125
Lab Sample ID: 350-1619-14 MS									
Matrix: Solid									
Analysis Batch: 6250									
Client Sample ID: NPCPP-2D2									
Prep Type: Total/NA									
Prep Batch: 5840									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	3g		g11	g1A		n/4/4		96	A1 - 125

Method: 1631B - Mercury, Low Level (CVAFS)									
Lab Sample ID: 350-1619-14 MSD Matrix: Solid Analysis Batch: 6250						Client Sample ID: NPCPP-2D2 Prep Type: Total/NA Prep Batch: 5840			
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	3g		A30	ANA		n/4/4		9A	A1 - 125
Lab Sample ID: MB 350-5928/1-A Matrix: Solid Analysis Batch: 6250						Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5928			
Analyte	Result	MB Qualifier	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
MercurM	0.5gA	J	1.2	0.5g	n/4/4		0N03/25 20:2A	0N15/25 15:36	
Lab Sample ID: MB 350-5928/2-A Matrix: Solid Analysis Batch: 6250						Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5928			
Analyte	Result	MB Qualifier	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
MercurM	yD		1.2	0.5g	n/4/4		0N03/25 20:2A	0N15/25 15:36	
Lab Sample ID: MB 350-5928/3-A Matrix: Solid Analysis Batch: 6250						Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5928			
Analyte	Result	MB Qualifier	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
MercurM	yD		1.2	0.5g	n/4/4		0N03/25 20:2A	0N15/25 15:36	
Lab Sample ID: LCS 350-5928/4-A Matrix: Solid Analysis Batch: 6250						Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 5928			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit	
MercurM	39A	323		n/4/4		g1	A5 - 125		
Lab Sample ID: LCSD 350-5928/5-A Matrix: Solid Analysis Batch: 6250						Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Prep Batch: 5928			
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit	
MercurM	39A	353		n/4/4		g9	A5 - 125		
Lab Sample ID: 350-1619-45 MS Matrix: Solid Analysis Batch: 6250						Client Sample ID: NPWG-1B2X Prep Type: Total/NA Prep Batch: 5928			
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	1A0	8	g26	gg9		n/4/4		g6	A1 - 125
Lab Sample ID: 350-1619-45 MSD Matrix: Solid Analysis Batch: 6250						Client Sample ID: NPWG-1B2X Prep Type: Total/NA Prep Batch: 5928			
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	1A0	8	A56	gNA		n/4/4		g9	A1 - 125

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Method: 1631E - Mercury, Low Level (CVAFS)

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Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Method: 1631E - Mercury, Low Level (CVAFS)

s urofinmSeattle SKecialtM:etalm

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Method: 1631E - Mercury, Low Level (CVAFS)

s urofinmSeattle SKecialtMøetalm

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Method: 1631E - Mercury, Low Level (CVAFS)

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Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 350-5845/2-A										Client Sample ID: Method Blank									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6050										Prep Batch: 5845									
Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac								
oianfanene	0.062	J	0.010		0.10	0.010	^ 4/k/4		03/24/25 1g/NI	0N03/25 19/23	1								
yicLeL	0.025N	J	0.010		0.016	0.016	^ 4/k/4		03/24/25 1g/NI	0N03/25 19/23	1								
7ead	0.0235	J	0.010		0.010	0.010	^ 4/k/4		03/24/25 1g/NI	0N03/25 19/23	1								
Zinc	yD		2.0		1.0	1.0	^ 4/k/4		03/24/25 1g/NI	0N03/25 19/23	1								

Lab Sample ID: LCS 350-5845/3-A										Client Sample ID: Lab Control Sample									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6050										Prep Batch: 5845									
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit								
prmenic			100	9A.A		^ 4/k/4		9g	A5 -125										
Bariu*			100	96.2	J	^ 4/k/4		9g	A5 -125										
Cad* iu*			20.0	19.N		^ 4/k/4		9A	A5 -125										
Chro* iu*			100	106		^ 4/k/4		106	A5 -125										
CoKker			100	106		^ 4/k/4		106	A5 -125										
Iron			2500	2590		^ 4/k/4		10N	A5 -125										
oianfanene			100	95.6		^ 4/k/4		9g	A5 -125										
yicLeL			100	101		^ 4/k/4		101	A5 -125										
7ead			100	101		^ 4/k/4		101	A5 -125										
Zinc			100	101		^ 4/k/4		101	A5 -125										

Lab Sample ID: LCSD 350-5845/4-A										Client Sample ID: Lab Control Sample Dup									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6050										Prep Batch: 5845									
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit								
prmenic			100	102		^ 4/k/4		102	A5 -125	N	20								
Bariu*			100	99.1	J	^ 4/k/4		99	A5 -125	3	20								
Cad* iu*			20.0	20.1		^ 4/k/4		100	A5 -125	3	20								
Chro* iu*			100	106		^ 4/k/4		106	A5 -125	5	20								
CoKker			100	111		^ 4/k/4		111	A5 -125	N	20								
Iron			2500	2620		^ 4/k/4		105	A5 -125	1	20								
oianfanene			100	100		^ 4/k/4		100	A5 -125	5	20								
yicLeL			100	105		^ 4/k/4		105	A5 -125	3	20								
7ead			100	10N		^ 4/k/4		10N	A5 -125	N	20								
Zinc			100	10g		^ 4/k/4		10g	A5 -125	A	20								

Lab Sample ID: 350-1619-1 MS										Client Sample ID: NPCPP-1C1									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6050										Prep Batch: 5845									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit								
prmenic	3.6		166	1AN		^ 4/k/4	B	103	A5 -125										
Bariu*	360	8	166	51g		^ 4/k/4	B	9A	A5 -125										
Cad* iu*	0.05N		33.2	33.3		^ 4/k/4	B	100	A5 -125										
Chro* iu*	31		166	203		^ 4/k/4	B	10N	A5 -125										
CoKker	g/6	8	166	19A		^ 4/k/4	B	10g	A0 -130										
Iron	1N000	F1	1N00	20200	F1	^ 4/k/4	B	13g	A5 -125										
oianfanene	N60	6 E2	166	612		^ 4/k/4	B	99	A5 -125										

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Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: 350-1619-14 MSD										Client Sample ID: NPCPP-2D2									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6050										Prep Batch: 5845									
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit								
7ead	1g	8	196	21A		^ 4/k/4	B	101	A5 -125	3	20								
Zinc	N6		196	2Ng		^ 4/k/4	B	103	65 -135	2	20								

Lab Sample ID: MB 350-5891/1-A										Client Sample ID: Method Blank									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6050										Prep Batch: 5891									
Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac								
prmenic	yD		0.20		0.060	0.060	^ 4/k/4		03/31/25 1A/00	0N03/25 1A/5A	1								
Bariu*	0.303	J	0.20		0.0N0	0.0N0	^ 4/k/4		03/31/25 1A/00	0N03/25 1A/5A	1								
Cad* iu*	yD		0.020		0.0020	0.0020	^ 4/k/4		03/31/25 1A/00	0N03/25 1A/5A	1								
Chro* iu*	yD		0.20		0.20	0.20	^ 4/k/4		03/31/25 1A/00	0N03/25 1A/5A	1								
CoKker	yD		0.10		0.012	0.012	^ 4/k/4		03/31/25 1A/00	0N03/25 1A/5A	1								
Iron	yD		20		N0	N0	^ 4/k/4		03/31/25 1A/00	0N03/25 1A/5A	1								
oianfanene	0.00gD	J	0.10		0.010	0.010	^ 4/k/4		03/31/25 1A/00	0N03/25 1A/5A	1								
yicLeL	yD		0.0N0		0.0N0	0.016	^ 4/k/4		03/31/25 1A/00	0N03/25 1A/5A	1								
7ead	0.0150	J	0.010		0.00gD	0.00gD	^ 4/k/4		03/31/25 1A/00	0N03/25 1A/5A	1								
Zinc	yD		2.0		1.0	1.0	^ 4/k/4		03/31/25 1A/00	0N03/25 1A/5A	1								

Lab Sample ID: MB 350-5891/2-A	Client Sample ID: Method Blank
Matrix: Solid	Prep Type: Total/NA
Analysis Batch: 6050	Prep Batch: 5891

QC Sample Results

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: 350-1619-37 MS										Client Sample ID: NPWB-2B3									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6050										Prep Batch: 5891									
Analyte	Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits										
pH	11		1g	1g				95	A5-125										
Barium	1600	8	1g	1g	N			116	A5-125										
Cadmium	0.05A		3A2	3NN				92	A5-125										
Chromium	11	8	1g	21A				99	A5-125										
Copper	10	8	1g	19N				99	A0-130										
Iron	1g000		N60	22100				96	A5-125										
Vanillinene	N40	8 F1 E2	1g	5g1	F1			99	A5-125										
Yttrium	20	8	1g	195				99	A5-125										
Zinc	16	8	1g	191				99	A5-125										
	39		1g	215				95	65-135										

Lab Sample ID: 350-1619-37 MSD										Client Sample ID: NPWB-2B3									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6050										Prep Batch: 5891									

Analyte	Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	11		19N	193				9A	A5-125	6	20
Barium	1600	8	19N	1900	N			90	A5-125	2	20
Cadmium	0.05A		3g	36g				95	A5-125	A	20
Chromium	11	8	19N	230				9A	A5-125	6	20
Copper	10	8	19N	206				101	A0-130	6	20
Iron	1g000		Ng50	22600				103	A5-125	2	20
Vanillinene	N40	8 F1 E2	19N	60N	F1			A0	A5-125	N	20
Yttrium	20	8	19N	209				9g	A5-125	A	20
Zinc	16	8	19N	20A				9g	A5-125	g	20
	39		19N	22A				9A	65-135	5	20

Lab Sample ID: MB 350-5927/1-A										Client Sample ID: Method Blank									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 5927									

Analyte	Result	MB Qualifier	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	yD			0.20	0.060	A4/k4		0N01/25 1g-16	05/1N25 21-3g	1
Barium	0.1g5	J		0.20	0.0ND	A4/k4		0N01/25 1g-16	05/1N25 21-3g	1
Cadmium	yD			0.020	0.0020	A4/k4		0N01/25 1g-16	05/1N25 21-3g	1
Chromium	yD			0.20	0.20	A4/k4		0N01/25 1g-16	05/1N25 21-3g	1
Copper	0.01g2	J		0.10	0.012	A4/k4		0N01/25 1g-16	05/1N25 21-3g	1
Iron	yD			20	NO	A4/k4		0N01/25 1g-16	05/1N25 21-3g	1
Vanillinene	0.0692	J		0.10	0.010	A4/k4		0N01/25 1g-16	05/1N25 21-3g	1
Yttrium	yD			0.10	0.016	A4/k4		0N01/25 1g-16	05/1N25 21-3g	1
Zinc	0.00g9N	J		0.0g0	0.00g0	A4/k4		0N01/25 1g-16	05/1N25 21-3g	1
	yD			2.0	1.0	A4/k4		0N01/25 1g-16	05/1N25 21-3g	1

Lab Sample ID: MB 350-5927/2-A										Client Sample ID: Method Blank									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 5927									

Analyte	Result	MB Qualifier	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	yD			0.20	0.060	A4/k4		0N01/25 1g-16	05/1N25 21-3g	1

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QC Sample Results

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 350-5927/2-A							Client Sample ID: Method Blank			
Matrix: Solid							Prep Type: Total/NA			
Analysis Batch: 6893							Prep Batch: 5927			
Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed		Dil Fac
	Result	Qualifier						Result	Qualifier	
Barium	0.239	J	20	0.0	0.0ND	A4/k4	0N01/25 1g-16	05/1N25 21-3g		1
Cadmium	yD		0.020	0.020	0.0020	A4/k4	0N01/25 1g-16	05/1N25 21-3g		1
Chromium	yD		0.20	0.20	0.20	A4/k4	0N01/25 1g-16	05/1N25 21-3g		1
Copper	0.10g		0.10	0.012	0.012	A4/k4	0N01/25 1g-16	05/1N25 21-3g		1
Iron	yD		20	NO	NO	A4/k4	0N01/25 1g-16	05/1N25 21-3g		1
Vanillinene	0.069g	J	0.10	0.010	0.010	A4/k4	0N01/25 1g-16	05/1N25 21-3g		1
Yttrium	yD		0.10	0.016	0.016	A4/k4	0N01/25 1g-16	05/1N25 21-3g		1
Zinc	0.00gA2	J	0.0g0	0.00g0	0.00g0	A4/k4	0N01/25 1g-16	05/1N25 21-3g		1
	yD		2.0	1.0	1.0	A4/k4	0N01/25 1g-16	05/1N25 21-3g		1

Lab Sample ID: LCS 350-5927/3-A										Client Sample ID: Lab Control Sample									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 5927									

Analyte	Result	MB Qualifier	MB Qualifier	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	11			100	93.2				93	A5-125		
Barium	1600	8		100	103	J			103	A5-125		
Cadmium	0.05A			20.0	1g				93	A5-125		
Chromium	11	8		100	91.6				92	A5-125		
Copper	10	8		100	102				102	A5-125		
Iron	1g000			2500	2ND0				96	A5-125		
Vanillinene	0.0692	J		100	93.5				9N	A5-125		
Yttrium	yD			100	96.6				9A	A5-125		
Zinc	16	8		100	9A.6				9g	A5-125		
	39			100	9Ng				9g	A5-125		

Lab Sample ID: LCSD 350-5927/4-A										Client Sample ID: Lab Control Sample Dup									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 5927									

Analyte	Result	MB Qualifier	MB Qualifier	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	11			100	93.9				9N	A5-125	1	20
Barium	1600	8		100	106	J			106	A5-125	3	20
Cadmium	0.05A			20.0	1g				93	A5-125	0	20
Chromium	11	8		100	92.3				92	A5-125	1	20
Copper	10	8		100	102				102	A5-125	0	20
Iron	1g000			2500	2510				100	A5-125	N	20
Vanillinene	0.0692	J		100	9N.0				9N	A5-125	0	20
Yttrium	yD			100	9A.1				9A	A5-125	0	20
Zinc	16	8		100	9A.3				9A	A5-125	0	20
	39			100	9NN				9N	A5-125	0	20

Lab Sample ID: 350-1619-45 MS										Client Sample ID: NPWG-1B2X									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 5927									

Analyte	Result	Sample Qualifier	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit
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QC Sample Results

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 350-6026/3-A

Matrix: Solid

Analysis Batch: 6893

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	100	95.1		^ 4/k4		95	A5-125
Lead	100	99.g		^ 4/k4		99	A5-125
Zinc	100	9A.5		^ 4/k4		9A	A5-125

Lab Sample ID: LCSD 350-6026/4-A

Matrix: Solid

Analysis Batch: 6893

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6026

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	100	9NA		^ 4/k4		95	A5-125	1	20
Lead	100	10A J		^ 4/k4		10A	A5-125	1	20
Cadmium	20.0	19.0		^ 4/k4		95	A5-125	1	20
Chromium	100	93.5		^ 4/k4		9N	A5-125	2	20
Copper	100	10N		^ 4/k4		10N	A5-125	0	20
Iron	2500	2N0		^ 4/k4		9g	A5-125	1	20
Vanadium	100	96.1		^ 4/k4		96	A5-125	1	20
Lead	100	99.g		^ 4/k4		99	A5-125	1	20
Zinc	100	9A.0		^ 4/k4		9A	A5-125	1	20

Lab Sample ID: 350-1619-69 MS

Matrix: Solid

Analysis Batch: 6893

Client Sample ID: PACPP-2CP2

Prep Type: Total/NA

Prep Batch: 6026

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	6.3		19g	200		^ 4/k4	B	9g	A5-125		
Barium	g00 F1 8		19g	g90 N		^ 4/k4	B	N6	A5-125		
Cadmium	0.066		N0.6	3A.0		^ 4/k4	B	91	A5-125		
Chromium	N6 8		19g	230		^ 4/k4	B	91	A5-125		
Copper	13 8		19g	21N		^ 4/k4	B	101	A0-130		
Iron	21000 8		N660	2N00 N		^ 4/k4	B	5A	A5-125		
Vanadium	6N0 F1 8		19g	AN2 F1		^ 4/k4	B	56	A5-125		
Lead	20		19g	21g		^ 4/k4	B	100	A5-125		
Zinc	NN		19g	231		^ 4/k4	B	9N	65-135		

Lab Sample ID: 350-1619-69 MSD

Matrix: Solid

Analysis Batch: 6893

Client Sample ID: PACPP-2CP2

Prep Type: Total/NA

Prep Batch: 6026

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	6.3		203	193		^ 4/k4	B	92	A5-125	3	20
Barium	g00 F1 8		203	g59 F1		^ 4/k4	B	30	A5-125	N	20
Cadmium	0.066		N0.6	3A.0		^ 4/k4	B	91	A5-125	3	20
Chromium	N6 8		203	22N		^ 4/k4	B	g6	A5-125	2	20
Copper	13 8		203	209		^ 4/k4	B	9A	A0-130	3	20
Iron	21000 8		50A0	2N00 N		^ 4/k4	B	60	A5-125	1	20
Vanadium	6N0 F1 8		203	AN2 F1		^ 4/k4	B	50	A5-125	1	20
Lead	20		203	210		^ 4/k4	B	93	A5-125	N	20
Zinc	NN		203	222		^ 4/k4	B	gg	65-135	N	20

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QC Sample Results														
Client: Tetra Tech Inc										Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025														
Method: 1638 - Metals (ICP/MS) (Continued)														
Lab Sample ID: MB 350-6047/2-A										Client Sample ID: Method Blank				
Matrix: Solid										Prep Type: Total/NA				
Analysis Batch: 6893										Prep Batch: 6047				
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac					
Chromium	yD		0.20	0.20	^ 4/k4		0N0g/25 09:56	05/1N25 1g:N6	1					
Copper	0.0251 J		0.10	0.012	^ 4/k4		0N0g/25 09:56	05/1N25 1g:N6	1					
Iron	yD		20	N0	^ 4/k4		0N0g/25 09:56	05/1N25 1g:N6	1					
Vanadium	0.046g J		0.10	0.010	^ 4/k4		0N0g/25 09:56	05/1N25 1g:N6	1					
Yttrium	0.0205 J		0.40	0.016	^ 4/k4		0N0g/25 09:56	05/1N25 1g:N6	1					
Lead	0.0125 J		0.0g0	0.00g0	^ 4/k4		0N0g/25 09:56	05/1N25 1g:N6	1					
Zinc	yD		2.0	1.0	^ 4/k4		0N0g/25 09:56	05/1N25 1g:N6	1					
Lab Sample ID: LCS 350-6047/3-A										Client Sample ID: Lab Control Sample				
Matrix: Solid										Prep Type: Total/NA				
Analysis Batch: 6893										Prep Batch: 6047				
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits						
Barium		100	92.6		^ 4/k4		93	A5-125						
Barium		100	108 J		^ 4/k4		108	A5-125						
Cadmium		20.0	1g.A		^ 4/k4		93	A5-125						
Chromium		100	90.N		^ 4/k4		90	A5-125						
Copper		100	102		^ 4/k4		102	A5-125						
Iron		2500	2N0		^ 4/k4		96	A5-125						
Vanadium		100	93.1		^ 4/k4		93	A5-125						
Yttrium		100	95.9		^ 4/k4		96	A5-125						
Lead		100	96.3		^ 4/k4		96	A5-125						
Zinc		100	93.g		^ 4/k4		9N	A5-125						
Lab Sample ID: LCSD 350-6047/4-A										Client Sample ID: Lab Control Sample Dup				
Matrix: Solid										Prep Type: Total/NA				
Analysis Batch: 6893										Prep Batch: 6047				
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit				
Barium		100	93.3		^ 4/k4		93	A5-125	1	20				
Barium		100	102 J		^ 4/k4		102	A5-125	3	20				
Cadmium		20.0	1g.5		^ 4/k4		92	A5-125	1	20				
Chromium		100	gg.A		^ 4/k4		gg	A5-125	2	20				
Copper		100	102		^ 4/k4		102	A5-125	0	20				
Iron		2500	2390		^ 4/k4		96	A5-125	1	20				
Vanadium		100	93.2		^ 4/k4		93	A5-125	0	20				
Yttrium		100	96.0		^ 4/k4		96	A5-125	0	20				
Lead		100	95.g		^ 4/k4		96	A5-125	1	20				
Zinc		100	93.9		^ 4/k4		9N	A5-125	0	20				
Lab Sample ID: 350-1619-81 MS										Client Sample ID: PACPP-4C2X				
Matrix: Solid										Prep Type: Total/NA				
Analysis Batch: 6893										Prep Batch: 6047				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit			
Barium	A.0		169	1g0		^ 4/k4	B	102	A5-125					
Barium	5500 8		169	gg10 N		^ 4/k4	B	23A2	A5-125					
Cadmium	0.13		33.9	33.A		^ 4/k4	B	99	A5-125					
Chromium	3A 8		169	20A		^ 4/k4	B	100	A5-125					

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: 350-1619-99 MSD										Client Sample ID: PAWE-1B1									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 6047									
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit								
Iron	1g000 F1		N630	23500		^ 4/k/4		116	A5 -125	2	20								
Chloroform	550 8		1g5	691		^ 4/k/4		A5	A5 -125	0	20								
Lead	19 8		1g5	20A		^ 4/k/4		101	A5 -125	1	20								
Lead	1A 8		1g5	20A		^ 4/k/4		102	A5 -125	3	20								
Zinc	N6		1g5	226		^ 4/k/4		9g	65 -135	0	20								

Lab Sample ID: MB 350-6097/1-A										Client Sample ID: Method Blank									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 6097									

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
pmnic	yD		0.20	0.060	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Barium	0.25g J		20	0.0N0	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Cadmium	yD		0.020	0.0020	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Chloroform	yD		0.20	0.20	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Copper	0.0215 J		0.10	0.012	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Iron	yD		20	N0	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Chloroform	0.06Ng J		0.10	0.010	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Lead	0.1N6 J		0.0N0	0.016	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Lead	0.0233 J		0.0g0	0.00g0	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Zinc	yD		2.0	1.0	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										

Lab Sample ID: LCS 350-6097/2-A										Client Sample ID: Lab Control Sample									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 6097									

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit										
pmnic	100	9N1		^ 4/k/4		9N	A5 -125												
Barium	100	106 J		^ 4/k/4		106	A5 -125												
Cadmium	20.0	1gA		^ 4/k/4		93	A5 -125												
Chloroform	100	93.0		^ 4/k/4		93	A5 -125												
Copper	100	102		^ 4/k/4		102	A5 -125												
Iron	2500	2Ng0		^ 4/k/4		99	A5 -125												
Chloroform	100	95.1		^ 4/k/4		95	A5 -125												
Lead	100	96.g		^ 4/k/4		9A	A5 -125												
Lead	100	9g.N		^ 4/k/4		9A	A5 -125												
Zinc	100	95.3		^ 4/k/4		95	A5 -125												

Lab Sample ID: LCSD 350-6097/3-A										Client Sample ID: Lab Control Sample Dup									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 6097									

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit										
pmnic	100	99.0		^ 4/k/4		99	A5 -125	5	20										
Barium	100	110 J		^ 4/k/4		110	A5 -125	N	20										
Cadmium	20.0	19.9		^ 4/k/4		99	A5 -125	6	20										
Chloroform	100	9A.0		^ 4/k/4		9A	A5 -125	N	20										
Copper	100	100		^ 4/k/4		100	A5 -125	6	20										
Iron	2500	2590		^ 4/k/4		10N	A5 -125	5	20										

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Method: 1638 - Metals (ICP/MS)

Lab Sample ID: LCS 350-6875/27-A										Client Sample ID: Lab Control Sample									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6977										Prep Batch: 6875									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit										
Lead	100	113		^ 4/k/4		113	A5 -125												

Lab Sample ID: LCSD 350-6875/28-A										Client Sample ID: Lab Control Sample Dup									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6977										Prep Batch: 6875									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit										
Lead	100	99.6		^ 4/k/4		100	A5 -125	12	20										

Lab Sample ID: 350-1619-69 MS										Client Sample ID: PACPP-2CP2									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6977										Prep Batch: 6875									

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit								
Lead	23		20A	226		^ 4/k/4		9g	A5 -125										

Lab Sample ID: 350-1619-69 MSD										Client Sample ID: PACPP-2CP2									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6977										Prep Batch: 6875									

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier
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QC Sample Results										Job ID: 350-1619-1				
Client: Tetra Tech Inc														
Project/Site: Gulf of Thailand - 2025														
Method: 1640 - Metals (ICPMS) (Continued)														
Lab Sample ID: MB 350-6090/2-A										Client Sample ID: Method Blank				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6090				
Analyte	Result	Qualifier	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
pH	yD			0.40	0.63	u4/7		0N09/25 16:09	0N09/25 06:5N	1				
Cad ²⁺ iu ^h	yD			0.020	0.013	u4/7		0N09/25 16:09	0N09/25 06:5N	1				
Chro ⁶⁺ iu ^h	yD			1.0	0.11	u4/7		0N09/25 16:09	0N09/25 06:5N	1				
CoK ²⁺	yD			0.50	0.08	u4/7		0N09/25 16:09	0N09/25 06:5N	1				
Lead	yD			0.050	0.023	u4/7		0N09/25 16:09	0N09/25 06:5N	1				
Yt ³⁺	yD			0.50	0.15	u4/7		0N09/25 16:09	0N09/25 06:5N	1				
Zinc	yD			1.0	0.31	u4/7		0N09/25 16:09	0N09/25 06:5N	1				
Bar ²⁺	yD			0.50	0.09g	u4/7		0N09/25 16:09	0N09/25 06:5N	1				
Iron	yD			5.0	0.91	u4/7		0N09/25 16:09	0N09/25 06:5N	1				
Can ²⁺	yD			0.050	0.030	u4/7		0N09/25 16:09	0N09/25 06:5N	1				
Lab Sample ID: LCS 350-6090/3-A										Client Sample ID: Lab Control Sample				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6090				
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits					
pH			12.5	11.6		u4/7		93	A0-130					
Cad ²⁺ iu ^h			1.25	1.15		u4/7		92	A0-130					
Chro ⁶⁺ iu ^h			12.5	12.1		u4/7		9A	A0-130					
CoK ²⁺			12.5	12.0		u4/7		96	A0-130					
Lead			2.50	2.31		u4/7		92	A0-130					
Yt ³⁺			12.5	11.N		u4/7		91	A0-130					
Zinc			12.5	12.1		u4/7		9A	A0-130					
Bar ²⁺			12.5	11.9		u4/7		95	A0-130					
Iron			62.5	59.A		u4/7		9N	A0-130					
Can ²⁺			12.5	9.9A		u4/7		9A	A0-130					
Lab Sample ID: LCSD 350-6090/4-A										Client Sample ID: Lab Control Sample Dup				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6090				
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit			
pH			12.5	11.6		u4/7		93	A0-130	0	20			
Cad ²⁺ iu ^h			1.25	1.16		u4/7		93	A0-130	2	20			
Chro ⁶⁺ iu ^h			12.5	11.9		u4/7		95	A0-130	2	20			
CoK ²⁺			12.5	12.0		u4/7		96	A0-130	0	20			
Lead			2.50	2.32		u4/7		93	A0-130	1	20			
Yt ³⁺			12.5	11.N		u4/7		92	A0-130	0	20			
Zinc			12.5	12.N		u4/7		99	A0-130	2	20			
Bar ²⁺			12.5	11.A		u4/7		93	A0-130	2	20			
Iron			62.5	60.5		u4/7		9A	A0-130	3	20			
Can ²⁺			12.5	10.2		u4/7		92	A0-130	3	20			
Lab Sample ID: MB 350-6110/1-A										Client Sample ID: Method Blank				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6110				
Analyte	Result	Qualifier	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
pH	yD			0.40	0.63	u4/7		0N09/25 12:00	0N09/25 22:56	1				
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QC Sample Results														
Client: Tetra Tech Inc										Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025														
Method: 1640 - Metals (ICPMS) (Continued)														
Lab Sample ID: MB 350-6110/1-A										Client Sample ID: Method Blank				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6110				
Analyte	Result	MB Qualifier	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac			
Cad ²⁺ iu ^h	yD			0.020	0.013	u4/7		0N09/25 12:00	0N09/25 22:56	1				
Chro ⁶⁺ iu ^h	yD			1.0	0.11	u4/7		0N09/25 12:00	0N09/25 22:56	1				
CoK ²⁺	yD			0.50	0.08	u4/7		0N09/25 12:00	0N09/25 22:56	1				
7e4d	yD			0.050	0.023	u4/7		0N09/25 12:00	0N09/25 22:56	1				
y i c i e l	yD			0.50	0.15	u4/7		0N09/25 12:00	0N09/25 22:56	1				
Zinc	yD			1.0	0.31	u4/7		0N09/25 12:00	0N09/25 22:56	1				
8a i u ^h	yD			0.50	0.09g	u4/7		0N09/25 12:00	0N09/25 22:56	1				
Iron	yD			5.0	0.91	u4/7		0N09/25 12:00	0N09/25 22:56	1				
Lab Sample ID: MB 350-6110/1-A										Client Sample ID: Method Blank				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6110				
Analyte	Result	MB Qualifier	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac			
pH	yD			0.40	0.63	u4/7		0N09/25 12:00	0N10/25 11:25	1				
Cad ²⁺ iu ^h	yD			0.020	0.013	u4/7		0N09/25 12:00	0N10/25 11:25	1				
Chro ⁶⁺ iu ^h	yD			1.0	0.11	u4/7		0N09/25 12:00	0N10/25 11:25	1				
CoK ²⁺	yD			0.50	0.08	u4/7		0N09/25 12:00	0N10/25 11:25	1				
7e4d	yD			0.050	0.023	u4/7		0N09/25 12:00	0N10/25 11:25	1				
y i c i e l	yD			0.50	0.15	u4/7		0N09/25 12:00	0N10/25 11:25	1				
Zinc	yD			1.0	0.31	u4/7		0N09/25 12:00	0N10/25 11:25	1				
8a i u ^h	yD			0.50	0.09g	u4/7		0N09/25 12:00	0N10/25 11:25	1				
Can4anene	1AA J			5.0	0.91	u4/7		0N09/25 12:00	0N10/25 11:25	1				
	yD			0.050	0.030	u4/7		0N09/25 12:00	0N10/25 11:25	1				
Lab Sample ID: MB 350-6110/2-A										Client Sample ID: Method Blank				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6110				
Analyte	Result	MB Qualifier	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac			
pH	yD			0.40	0.63	u4/7		0N09/25 12:00	0N09/25 23:11	1				
Cad ²⁺ iu ^h	yD			0.020	0.013	u4/7		0N09/25 12:00	0N09/25 23:11	1				
Chro ⁶⁺ iu ^h	yD			1.0	0.11	u4/7		0N09/25 12:00	0N09/25 23:11	1				
CoK ²⁺	yD			0.50	0.08	u4/7		0N09/25 12:00	0N09/25 23:11	1				
7e4d	yD			0.050	0.023	u4/7		0N09/25 12:00	0N09/25 23:11	1				
y i c i e l	yD			0.50	0.15	u4/7		0N09/25 12:00	0N09/25 23:11	1				
Zinc	yD			1.0	0.31	u4/7		0N09/25 12:00	0N09/25 23:11	1				
8a i u ^h	yD			0.50	0.09g	u4/7		0N09/25 12:00	0N09/25 23:11	1				
Iron	yD			5.0	0.91	u4/7		0N09/25 12:00	0N09/25 23:11	1				
Lab Sample ID: MB 350-6110/2-A										Client Sample ID: Method Blank				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6110				
Analyte	Result	MB Qualifier	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac			
pH	yD			0.40	0.63	u4/7		0N09/25 12:00	0N10/25 11:39	1				
Cad ²⁺ iu ^h	yD			0.020	0.013	u4/7		0N09/25 12:00	0N10/25 11:39	1				
Chro ⁶⁺ iu ^h	yD			1.0	0.11	u4/7		0N09/25 12:00	0N10/25 11:39	1				
CoK ²⁺	yD			0.50	0.08	u4/7		0N09/25 12:00	0N10/25 11:39	1				
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 350-1619-130 MS

Matrix: Water

Analysis Batch: 6254

Client Sample ID: NPCPP-3CP2-SW-20

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cd ²⁺ iu ^a	0.41	F1	12.5	21.4	F1	µg/l		16g	50 - 150

Lab Sample ID: 350-1619-130 MS

Matrix: Water

Analysis Batch: 6206

Client Sample ID: NPCPP-3CP2-SW-20

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cd ²⁺ iu ^a	yD		1.25	1.22		µg/l		9g	50 - 150

Lab Sample ID: 350-1619-130 MSD

Matrix: Water

Analysis Batch: 6206

Client Sample ID: NPCPP-3CP2-SW-20

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
pmenic	1.0		12.5	13.6		µg/l		101	50 - 150	1	20
Cd ²⁺ iu ^a	yD		1.25	1.33		µg/l		106	50 - 150	3	20
Chro ⁶⁺ iu ^a	1.1		12.5	1N2		µg/l		105	50 - 150	1	20
CoK ⁶⁺ er	yD		12.5	1N1N		µg/l		115	50 - 150	2	20
7e4d	yD		2.50	2ND		µg/l		96	50 - 150	3	20
yiLel	0.16 J		12.5	13.A		µg/l		10g	50 - 150	3	20
Zinc	yD		12.5	15.2		µg/l		121	50 - 150	2	20
Bariu ^a	g.6 F1		12.5	2g.1 F1		µg/l		156	50 - 150	2	20
Iron	3.0 J		62.5	g1.g		µg/l		126	50 - 150	1	20
Cd ²⁺ iu ^a	0.41 F1		12.5	20.2 F1		µg/l		156	50 - 150	A	20

Lab Sample ID: 350-1619-130 MSD

Matrix: Water

Analysis Batch: 6206

Client Sample ID: NPCPP-3CP2-SW-20

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Cd ²⁺ iu ^a	yD		1.25	1.2g		µg/l		102	50 - 150	N	20

Lab Sample ID: MB 350-6111/1-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6111

Analyte	MB Result	MB Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
pmenic	yD		0.40	0.63 µg/l		0N09/25 12:N	0N09/25 22:00	1
Cd ²⁺ iu ^a	yD		0.020	0.013 µg/l		0N09/25 12:N	0N09/25 22:00	1
Chro ⁶⁺ iu ^a	yD		1.0	0.11 µg/l		0N09/25 12:N	0N09/25 22:00	1
CoK ⁶⁺ er	yD		0.50	0.NB µg/l		0N09/25 12:N	0N09/25 22:00	1
7e4d	yD		0.050	0.023 µg/l		0N09/25 12:N	0N09/25 22:00	1
yiLel	yD		0.50	0.15 µg/l		0N09/25 12:N	0N09/25 22:00	1
Zinc	yD		1.0	0.31 µg/l		0N09/25 12:N	0N09/25 22:00	1
Bariu ^a	yD		0.50	0.0gg µg/l		0N09/25 12:N	0N09/25 22:00	1
Iron	yD		5.0	0.g1 µg/l		0N09/25 12:N	0N09/25 22:00	1

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QC Sample Results										Job ID: 350-1619-1			
Client: Tetra Tech Inc													
Project/Site: Gulf of Thailand - 2025													
Method: 1640 - Metals (ICPMS) (Continued)													
Lab Sample ID: MB 350-6111/1-A										Client Sample ID: Method Blank			
Matrix: Water										Prep Type: Total/NA			
Analysis Batch: 6206										Prep Batch: 6111			
Analyte	MB MB		RL	MDL Unit	D	Prepared	Analyzed	Dil Fac					
	Result	Qualifier											
pmenic	yD		0.40	0.63 u4/7		0N09/25 12:N	0N10/25 10:2g	1					
Cad ²⁺ iu ^a	yD		0.020	0.013 u4/7		0N09/25 12:N	0N10/25 10:2g	1					
Chro ⁶⁺ iu ^a	yD		1.0	0.11 u4/7		0N09/25 12:N	0N10/25 10:2g	1					
CoK ⁶⁺ er	yD		0.50	0.N6 u4/7		0N09/25 12:N	0N10/25 10:2g	1					
7e4d	yD		0.050	0.023 u4/7		0N09/25 12:N	0N10/25 10:2g	1					
yiLel	yD		0.50	0.15 u4/7		0N09/25 12:N	0N10/25 10:2g	1					
Zinc	yD		1.0	0.31 u4/7		0N09/25 12:N	0N10/25 10:2g	1					
8ariu ^a	yD		0.50	0.0gg u4/7		0N09/25 12:N	0N10/25 10:2g	1					
Iron	yD		5.0	0.g1 u4/7		0N09/25 12:N	0N10/25 10:2g	1					
Lab Sample ID: MB 350-6111/2-A										Client Sample ID: Method Blank			
Matrix: Water										Prep Type: Total/NA			
Analysis Batch: 6206										Prep Batch: 6111			
Analyte	MB MB		RL	MDL Unit	D	Prepared	Analyzed	Dil Fac					
	Result	Qualifier											
pmenic	yD		0.40	0.63 u4/7		0N09/25 12:N	0N09/25 22:1N	1					
Cad ²⁺ iu ^a	yD		0.020	0.013 u4/7		0N09/25 12:N	0N09/25 22:1N	1					
Chro ⁶⁺ iu ^a	yD		1.0	0.11 u4/7		0N09/25 12:N	0N09/25 22:1N	1					
CoK ⁶⁺ er	yD		0.50	0.N6 u4/7		0N09/25 12:N	0N09/25 22:1N	1					
7e4d	yD		0.050	0.023 u4/7		0N09/25 12:N	0N09/25 22:1N	1					
yiLel	yD		0.50	0.15 u4/7		0N09/25 12:N	0N09/25 22:1N	1					
Zinc	yD		1.0	0.31 u4/7		0N09/25 12:N	0N09/25 22:1N	1					
8ariu ^a	yD		0.50	0.0gg u4/7		0N09/25 12:N	0N09/25 22:1N	1					
Iron	yD		5.0	0.g1 u4/7		0N09/25 12:N	0N09/25 22:1N	1					
Lab Sample ID: MB 350-6111/2-A										Client Sample ID: Method Blank			
Matrix: Water										Prep Type: Total/NA			
Analysis Batch: 6206										Prep Batch: 6111			
Analyte	MB MB		RL	MDL Unit	D	Prepared	Analyzed	Dil Fac					
	Result	Qualifier											
pmenic	yD		0.40	0.63 u4/7		0N09/25 12:N	0N10/25 10:N2	1					
Cad ²⁺ iu ^a	yD		0.020	0.013 u4/7		0N09/25 12:N	0N10/25 10:N2	1					
Chro ⁶⁺ iu ^a	0.205 J		1.0	0.11 u4/7		0N09/25 12:N	0N10/25 10:N2	1					
CoK ⁶⁺ er	yD		0.50	0.N6 u4/7		0N09/25 12:N	0N10/25 10:N2	1					
7e4d	yD		0.050	0.023 u4/7		0N09/25 12:N	0N10/25 10:N2	1					
yiLel	yD		0.50	0.15 u4/7		0N09/25 12:N	0N10/25 10:N2	1					
Zinc	yD		1.0	0.31 u4/7		0N09/25 12:N	0N10/25 10:N2	1					
8ariu ^a	yD		0.50	0.0gg u4/7		0N09/25 12:N	0N10/25 10:N2	1					
Iron	yD		5.0	0.g1 u4/7		0N09/25 12:N	0N10/25 10:N2	1					
Lab Sample ID: LCS 350-6111/3-A										Client Sample ID: Lab Control Sample			
Matrix: Water										Prep Type: Total/NA			
Analysis Batch: 6206										Prep Batch: 6111			
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits				
pmenic			12.5	10.6		u4/7		95	AO-130				
Cad ²⁺ iu ^a			1.25	1.22		u4/7		9A	AO-130				
Chro ⁶⁺ iu ^a			12.5	12.1		u4/7		9A	AO-130				
CoK ⁶⁺ er			12.5	12.A		u4/7		102	AO-130				
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

QC Sample Results

Job ID: 350-1619-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-6145/1-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6145

Analyte	Result	MB MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	yD		5.0	0.g1	u4/7		0N10/25 1g00	0N10/25 20.N6	
Cadmium	yD		0.050	0.030	u4/7		0N10/25 1g00	0N10/25 20.N6	1

Lab Sample ID: MB 350-6145/2-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6145

Analyte	Result	MB MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	yD		0.40	0.63	u4/7		0N10/25 1g00	0N10/25 21.03	1
Cadmium	yD		0.020	0.013	u4/7		0N10/25 1g00	0N10/25 21.03	1
Chromium	yD		1.0	0.11	u4/7		0N10/25 1g00	0N10/25 21.03	1
Cobalt	yD		0.50	0.N6	u4/7		0N10/25 1g00	0N10/25 21.03	1
Lead	yD		0.050	0.023	u4/7		0N10/25 1g00	0N10/25 21.03	1
Yttrium	yD		0.50	0.15	u4/7		0N10/25 1g00	0N10/25 21.03	1
Zinc	yD		1.0	0.31	u4/7		0N10/25 1g00	0N10/25 21.03	1
Barium	yD		0.50	0.09g	u4/7		0N10/25 1g00	0N10/25 21.03	1
Iron	yD		5.0	0.g1	u4/7		0N10/25 1g00	0N10/25 21.03	1
Cadmium	yD		0.050	0.030	u4/7		0N10/25 1g00	0N10/25 21.03	1

Lab Sample ID: LCS 350-6145/3-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec Limits
pH	12.5	10.3		u4/7		g3 AO - 130
Cadmium	1.25	1.13		u4/7		90 AO - 130
Chromium	12.5	11.5		u4/7		92 AO - 130
Cobalt	12.5	11.1		u4/7		g1 AO - 130
Lead	2.50	2.26		u4/7		91 AO - 130
Yttrium	12.5	10.9		u4/7		gA AO - 130
Zinc	12.5	11.g		u4/7		9N AO - 130
Barium	12.5	12.5		u4/7		100 AO - 130
Iron	62.5	5g.6		u4/7		9N AO - 130
Cadmium	12.5	11.3		u4/7		90 AO - 130

Lab Sample ID: LCS 350-6145/4-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6145

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec Limits	RPD	RPD Limit
pH	12.5	10.5		u4/7		gN AO - 130	1	20
Cadmium	1.25	1.13		u4/7		90 AO - 130	0	20
Chromium	12.5	12.1		u4/7		9A AO - 130	5	20
Cobalt	12.5	11.0		u4/7		99 AO - 130	1	20
Lead	2.50	2.2A		u4/7		g1 AO - 130	0	20
Yttrium	12.5	10.5		u4/7		g6 AO - 130	1	20
Zinc	12.5	11.g		u4/7		92 AO - 130	2	20
Barium	12.5	12.6		u4/7		101 AO - 130	1	20
Iron	62.5	60.1		u4/7		96 AO - 130	3	20

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Job ID: 350-1619-1

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Job ID: 350-1619-1

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Job ID: 350-1619-1

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QC Sample Results														
Client: Tetra Tech Inc										Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025														
Method: 1640 - Metals (ICPMS) (Continued)														
Lab Sample ID: LCS 350-6156/3-A										Client Sample ID: Lab Control Sample				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6156				
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits						
Lead		2.50	2.2A		u4/7		91	A0 -130						
Yttrium		12.5	10.5		u4/7		9N	A0 -130						
Zinc		12.5	11.3		u4/7		90	A0 -130						
Barium ^a		12.5	13.0		u4/7		10A	A0 -130						
Iron		62.5	56.6		u4/7		91	A0 -130						
Lab Sample ID: LCSD 350-6156/4-A										Client Sample ID: Lab Control Sample Dup				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6156				
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit				
Praseodym		12.5	10.1		u4/7		g1	A0 -130	0	20				
Cadm ^a iu ^a		1.25	1.10		u4/7		gg	A0 -130	0	20				
Chro ^a iu ^a		12.5	10.9		u4/7		gA	A0 -130	2	20				
Cobalt		12.5	10.2		u4/7		g2	A0 -130	2	20				
Lead		2.50	2.2N		u4/7		90	A0 -130	1	20				
Yttrium		12.5	10.0		u4/7		g3	A0 -130	1	20				
Zinc		12.5	11.0		u4/7		gg	A0 -130	2	20				
Barium ^a		12.5	13.5		u4/7		10g	A0 -130	0	20				
Iron		62.5	5A.A		u4/7		92	A0 -130	2	20				

Lab Sample ID: 350-1619-233 MS										Client Sample ID: PAWE-1CP2-SW-40				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6156				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit			
Praseodymium	1.2		12.5	13.5		u4/7		99	50 -150					
Cadmium	yD		1.25	1.2A		u4/7		101	50 -150					
Chromium	1.1		12.5	13.6		u4/7		100	50 -150					
Cobalt	yD		12.5	13.0		u4/7		10N	50 -150					
Lead	yD		2.50	2.3A		u4/7		95	50 -150					
Yttrium	0.19 J		12.5	12.A		u4/7		100	50 -150					
Zinc	yD		12.5	1N2		u4/7		113	50 -150					
Barium	10 F1		12.5	30.2 F1		u4/7		15g	50 -150					
Iron	3.5 J 8		62.5	A9.0		u4/7		121	50 -150					

Lab Sample ID: 350-1619-233 MSD										Client Sample ID: PAWE-1CP2-SW-40				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6156				
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit			
Praseodymium	1.2		12.5	13.5		u4/7		99	50 -150	0	20			
Cadmium	yD		1.25	1.23		u4/7		98	50 -150	3	20			
Chromium	1.1		12.5	1N2		u4/7		105	50 -150	5	20			
Cobalt	yD		12.5	12.9		u4/7		103	50 -150	0	20			
Lead	yD		2.50	2.30		u4/7		92	50 -150	3	20			
Yttrium	0.19 J		12.5	12.g		u4/7		100	50 -150	0	20			
Zinc	yD		12.5	13.9		u4/7		111	50 -150	2	20			
Barium	10 F1		12.5	29.g F1		u4/7		155	50 -150	1	20			

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-6520/2-A

Matrix: Water

Analysis Batch: 6609

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6520

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Praseodymium	yD		0.40	0.63	u4/7		0N29/25 1gN2	0N29/25 20.22	1
Cadmium	yD		0.020	0.013	u4/7		0N29/25 1gN2	0N29/25 20.22	1
Chromium	yD		1.0	0.11	u4/7		0N29/25 1gN2	0N29/25 20.22	1
Cobalt	yD		0.50	0.NB	u4/7		0N29/25 1gN2	0N29/25 20.22	1
Lead	yD		0.050	0.023	u4/7		0N29/25 1gN2	0N29/25 20.22	1
Yttrium	yD		0.50	0.15	u4/7		0N29/25 1gN2	0N29/25 20.22	1
Zinc	yD		1.0	0.31	u4/7		0N29/25 1gN2	0N29/25 20.22	1
Barium	yD		0.50	0.09g	u4/7		0N29/25 1gN2	0N29/25 20.22	1
Iron	yD		5.0	0.g1	u4/7		0N29/25 1gN2	0N29/25 20.22	1
Lanthanum	yD		0.050	0.030	u4/7		0N29/25 1gN2	0N29/25 20.22	1

Lab Sample ID: LCS 350-6520/3-A

Matrix: Water

Analysis Batch: 6609

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6520

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Praseodymium	12.5	11.9		u4/7		95	AO_130
Cadmium	1.25	1.20		u4/7		96	AO_130
Chromium	12.5	12.N		u4/7		99	AO_130
Cobalt	12.5	12.2		u4/7		9g	AO_130
Lead	2.50	2.55		u4/7		102	AO_130

Lab Sample ID: LCS 350-6520/3-A										Client Sample ID: Lab Control Sample				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6609										Prep Batch: 6520				
Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit				
Praseodymium		12.5	11.9		u4/7		95	A0 -130						
Cadmium		1.25	1.20		u4/7		96	A0 -130						
Chromium		12.5	12.N		u4/7		99	A0 -130						
Cobalt		12.5	12.2		u4/7		9g	A0 -130						
Lead		2.50	2.55		u4/7		102	A0 -130						
Yttrium		12.5	12.5		u4/7		100	A0 -130						
Zinc		12.5	12.5		u4/7		100	A0 -130						
Barium		12.5	12.3		u4/7		99	A0 -130						
Iron		62.5	60.5		u4/7		9A	A0 -130						
lanthanum		12.5	13.0		u4/7		10N	A0 -130						

Lab Sample ID: LCSD 350-6520/4-A										Client Sample ID: Lab Control Sample Dup				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6609										Prep Batch: 6520				
Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit				
Praseodymium		12.5	12.A		u4/7		101	A0 -130	6	20				
Cadmium		1.25	1.1A		u4/7		9N	A0 -130	2	20				
Chromium		12.5	12.9		u4/7		103	A0 -130	N	20				
Cobalt		12.5	12.0		u4/7		96	A0 -130	2	20				
Lead		2.50	2.Ng		u4/7		99	A0 -130	2	20				
Yttrium		12.5	12.1		u4/7		9A	A0 -130	3	20				
Zinc		12.5	12.2		u4/7		9A	A0 -130	3	20				
Barium		12.5	12.6		u4/7		101	A0 -130	2	20				
Iron		62.5	61.0		u4/7		9g	A0 -130	1	20				
lanthanum		12.5	12.5		u4/7		100	A0 -130	3	20				

Lab Sample ID: 350-1619-209 MS										Client Sample ID: PACPP-EQ				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6609										Prep Batch: 6520				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit			
Praseodymium	yD		12.5	13.0		u4/7		10N	50 -150					

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

QC Sample Results

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 350-1619-210 MSD

Matrix: Water

Analysis Batch: 6591

Client Sample ID: PACPP-WB

Prep Type: Total/NA

Prep Batch: 6520

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chro ³⁺ iu ^a	yD		12.5	12.9		u4/7		103	50 - 150	2	20
CoK ⁹ er	yD		12.5	12.5		u4/7		100	50 - 150	1	20
7eaa	yD		2.50	2.9A		u4/7		99	50 - 150	1	20
y iLel	yD		12.5	12.3		u4/7		99	50 - 150	2	20
Zinc	yD		12.5	12.5		u4/7		100	50 - 150	N	20
8ariu ⁴	yD		12.5	13.0		u4/7		10N	50 - 150	2	20
Iron	yD		62.5	55 g		u4/7		g9	50 - 150	N	20
Canfanene	0.1g 8		12.5	13 g		u4/7		109	50 - 150	2	20

Lab Sample ID: MB 350-6521/1-A

Matrix: Water

Analysis Batch: 6609

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6521

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
prmenic	yD		0.40	0.63	u4/7		0N29/25 1g-N9	0N29/25 21.19	1
Cad ⁴⁺ iu ^a	yD		0.020	0.013	u4/7		0N29/25 1g-N9	0N29/25 21.19	1
Chro ³⁺ iu ^a	yD		1.0	0.11	u4/7		0N29/25 1g-N9	0N29/25 21.19	1
CoK ⁹ er	yD		0.50	0.9B	u4/7		0N29/25 1g-N9	0N29/25 21.19	1
7eaa	yD		0.050	0.023	u4/7		0N29/25 1g-N9	0N29/25 21.19	1
y iLel	yD		0.50	0.15	u4/7		0N29/25 1g-N9	0N29/25 21.19	1
Zinc	yD		1.0	0.31	u4/7		0N29/25 1g-N9	0N29/25 21.19	1
8ariu ⁴	yD		0.50	0.09g	u4/7		0N29/25 1g-N9	0N29/25 21.19	1
Iron	yD		5.0	0.91	u4/7		0N29/25 1g-N9	0N29/25 21.19	1
Canfanene	yD		0.050	0.030	u4/7		0N29/25 1g-N9	0N29/25 21.19	1

Lab Sample ID: MB 350-6521/2-A

Matrix: Water

Analysis Batch: 6609

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6521

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
prmenic	yD		0.40	0.63	u4/7		0N29/25 1g-N9	0N29/25 21.33	1
Cad ⁴⁺ iu ^a	yD		0.020	0.013	u4/7		0N29/25 1g-N9	0N29/25 21.33	1
Chro ³⁺ iu ^a	yD		1.0	0.11	u4/7		0N29/25 1g-N9	0N29/25 21.33	1
CoK ⁹ er	yD		0.50	0.9B	u4/7		0N29/25 1g-N9	0N29/25 21.33	1
7eaa	yD		0.050	0.023	u4/7		0N29/25 1g-N9	0N29/25 21.33	1
y iLel	yD		0.50	0.15	u4/7		0N29/25 1g-N9	0N29/25 21.33	1
Zinc	yD		1.0	0.31	u4/7		0N29/25 1g-N9	0N29/25 21.33	1
8ariu ⁴	yD		0.50	0.09g	u4/7		0N29/25 1g-N9	0N29/25 21.33	1
Iron	yD		5.0	0.91	u4/7		0N29/25 1g-N9	0N29/25 21.33	1
Canfanene	yD		0.050	0.030	u4/7		0N29/25 1g-N9	0N29/25 21.33	1

Lab Sample ID: LCS 350-6521/3-A

Matrix: Water

Analysis Batch: 6609

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6521

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
prmenic			12.5	12.6		u4/7		101	A0 - 130
Cad ⁴⁺ iu ^a			12.5	1.20		u4/7		96	A0 - 130
Chro ³⁺ iu ^a			12.5	12.6		u4/7		101	A0 - 130

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Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-6521/3-A
Matrix: Water
Analysis Batch: 6591

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6521

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
CoK ⁹ er	12.5	12.9		u4/7		99	A0 - 130
7eaa	2.50	2.55		u4/7		102	A0 - 130
y iLel	12.5	12.9		u4/7		99	A0 - 130
Zinc	12.5	12.9		u4/7		99	A0 - 130
8aria ⁴	12.5	12.6		u4/7		101	A0 - 130
Iron	62.5	61.9		u4/7		9g	A0 - 130
Canfanene	12.5	13.3		u4/7		106	A0 - 130

Lab Sample ID: LCS 350-6521/4-A
Matrix: Water
Analysis Batch: 6609

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6521

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
prmenic	12.5	13.3		u4/7		10A	A0 - 130	5	20
Cad ⁴⁺ iu ^a	1.25	1.15		u4/7		92	A0 - 130	N	20
Chro ³⁺ iu ^a	12.5	12.2		u4/7		9A	A0 - 130	3	20
CoK ⁹ er	12.5	12.0		u4/7		96	A0 - 130	3	20
7eaa	2.50	2.9g		u4/7		99	A0 - 130	3	20
y iLel	12.5	11.9		u4/7		96	A0 - 130	N	20
Zinc	12.5	12.1		u4/7		9A	A0 - 130	2	20
8aria ⁴	12.5	12.5		u4/7		100	A0 - 130	1	20
Iron	62.5	60.4		u4/7		9A	A0 - 130	1	20
Canfanene	12.5	12.9		u4/7		103	A0 - 130	3	20

Lab Sample ID: 350-1619-221 MS
Matrix: Water
Analysis Batch: 6609

Client Sample ID: PAWB-3B2-SW-40
Prep Type: Total/NA
Prep Batch: 6521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
prmenic	1.9		12.5	1g A		u4/7		13g	50 - 150
Cad ⁴⁺ iu ^a	0.015 J F1		1.25	2.5g F1		u4/7		205	50 - 150
Chro ³⁺ iu ^a	1 g		12.5	190		u4/7		9g	50 - 150
CoK ⁹ er	0.51 F1		12.5	29.5 F1		u4/7		232	50 - 150
7eaa	0.032 J F1		2.50	NAN F1		u4/7		19g	50 - 150
y iLel	0.33 J F1		12.5	2g F1		u4/7		22A	50 - 150
Zinc	1.1 F1		12.5	30.1 F1		u4/7		232	50 - 150
8aria ⁴	5.9		12.5	1g A		u4/7		103	50 - 150
Iron	22 F1		62.5	1A3 F1		u4/7		2N1	50 - 150
Canfanene	1.9 F1 E2		12.5	35.0 F1		u4/7		265	50 - 150

Lab Sample ID: 350-1619-221 MS
Matrix: Water
Analysis Batch: 6609

Client Sample ID: PAWB-3B2-SW-40
Prep Type: Total/NA
Prep Batch: 6521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
prmenic	1.9		12.5	1NA		u4/7		106	50 - 150

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Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-6760/4-A
Matrix: Water
Analysis Batch: 6816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
pH	12.5	12.0	u4/7			96	A0 - 130	
Cad ²⁺ iu ^h	1.25	1.19	u4/7			95	A0 - 130	
Chro ⁶⁺ iu ^h	12.5	12.5	u4/7			100	A0 - 130	
CoK ⁶⁺ iu ^h	12.5	12.3	u4/7			99	A0 - 130	
Lead	2.50	2.NN	u4/7			9g	A0 - 130	
YicLel	12.5	11.9	u4/7			95	A0 - 130	
Zinc	12.5	12.5	u4/7			100	A0 - 130	
Barium	12.5	12.3	u4/7			9g	A0 - 130	
Iron	62.5	60.A	u4/7			9A	A0 - 130	
Canfanene	12.5	12.6	u4/7			101	A0 - 130	

Lab Sample ID: LCSD 350-6760/5-A
Matrix: Water
Analysis Batch: 6816

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6760

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	12.5	12.1	u4/7			9A	A0 - 130	0	20
Cad ²⁺ iu ^h	1.25	1.1N	u4/7			91	A0 - 130	N	20
Chro ⁶⁺ iu ^h	12.5	12.A	u4/7			101	A0 - 130	1	20
CoK ⁶⁺ iu ^h	12.5	12.0	u4/7			96	A0 - 130	2	20
Lead	2.50	2.39	u4/7			96	A0 - 130	2	20
YicLel	12.5	11.A	u4/7			93	A0 - 130	2	20
Zinc	12.5	12.2	u4/7			9A	A0 - 130	2	20
Barium	12.5	12.3	u4/7			99	A0 - 130	1	20
Iron	62.5	60.2	u4/7			96	A0 - 130	1	20
Canfanene	12.5	12.N	u4/7			99	A0 - 130	1	20

Lab Sample ID: MB 350-6877/1-A
Matrix: Water
Analysis Batch: 6963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	yD		0.A0	0.63	u4/7		05/19/25 12:25	05/19/25 19:22	1
Cad ²⁺ iu ^h	yD		0.020	0.013	u4/7		05/19/25 12:25	05/19/25 19:22	1
Chro ⁶⁺ iu ^h	yD		1.0	0.11	u4/7		05/19/25 12:25	05/19/25 19:22	1
CoK ⁶⁺ iu ^h	yD		0.50	0.NB	u4/7		05/19/25 12:25	05/19/25 19:22	1
Lead	yD		0.050	0.023	u4/7		05/19/25 12:25	05/19/25 19:22	1
YicLel	yD		0.50	0.15	u4/7		05/19/25 12:25	05/19/25 19:22	1
Zinc	yD		1.0	0.31	u4/7		05/19/25 12:25	05/19/25 19:22	1
Barium	yD		0.50	0.09g	u4/7		05/19/25 12:25	05/19/25 19:22	1
Iron	yD		5.0	0.g1	u4/7		05/19/25 12:25	05/19/25 19:22	1
Canfanene	yD		0.050	0.030	u4/7		05/19/25 12:25	05/19/25 19:22	1

Lab Sample ID: MB 350-6877/2-A
Matrix: Water
Analysis Batch: 6963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	yD		0.A0	0.63	u4/7		05/19/25 12:25	05/19/25 19:36	1

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Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 350-1619-214 MS
Matrix: Water
Analysis Batch: 6963

Client Sample ID: PAREF-A-SW-B
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chro ⁶⁺ iu ^h	2.A F1		12.5	31.3 F1	u4/7			229	50 - 150
CoK ⁶⁺ iu ^h	yD F2		12.5	15.N	u4/7			123	50 - 150
Lead	0.0N6 J F1 F2		2.50	2.5g	u4/7			101	50 - 150
YicLel	0.2N J F2		12.5	15.1	u4/7			119	50 - 150
Zinc	yD F1 F2		12.5	15.9	u4/7			12A	50 - 150
Barium	1g F1		12.5	51.g F1	u4/7			2A0	50 - 150
Iron	51 F1 F2		62.5	132	u4/7			129	50 - 150
Canfanene	2.N F1 F2		12.5	19.0	u4/7			133	50 - 150

Lab Sample ID: 350-1619-214 MSD
Matrix: Water
Analysis Batch: 6963

Client Sample ID: PAREF-A-SW-B
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	1.A		12.5	19.5	1N6	u4/7			50 - 150	1	20
Cad ²⁺ iu ^h	yD F1 F2		1.25	1.26	u4/7			101	50 - 150	g	20
Chro ⁶⁺ iu ^h	2.A F1		12.5	32.1 F1	u4/7			235	50 - 150	2	20
CoK ⁶⁺ iu ^h	yD F2		12.5	1N2	u4/7			11N	50 - 150	g	20
Lead	0.0N6 J F1 F2		2.50	2.3N	u4/7			92	50 - 150	10	20
YicLel	0.2N J F2		12.5	1N0	u4/7			110	50 - 150	g	20
Zinc	yD F1 F2		12.5	1N6	u4/7			116	50 - 150	9	20
Barium	1g F1		12.5	52.0 F1	u4/7			2A2	50 - 150	A	20
Iron	51 F1 F2		62.5	123	u4/7			115	50 - 150	A	20
Canfanene	2.N F1 F2		12.5	1g.0	u4/7			125	50 - 150	6	20

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Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-6877/2-A
Matrix: Water
Analysis Batch: 6963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cad ²⁺ iu ^h	yD		0.020	0.013	u4/7		05/19/25 12:25	05/19/25 19:36	1
Chro ⁶⁺ iu ^h	yD		1.0	0.11	u4/7		05/19/25 12:25	05/19/25 19:36	1
CoK ⁶⁺ iu ^h	yD		0.50	0.NB	u4/7		05/19/25 12:25	05/19/25 19:36	1
Lead	yD		0.050	0.023	u4/7		05/19/25 12:25	05/19/25 19:36	1
YicLel	yD		0.50	0.15	u4/7		05/19/25 12:25	05/19/25 19:36	1
Zinc	yD		1.0	0.31	u4/7		05/19/25 12:25	05/19/25 19:36	1
Barium	yD		0.50	0.09g	u4/7		05/19/25 12:25	05/19/25 19:36	1
Iron	yD		5.0	0.g1	u4/7		05/19/25 12:25	05/19/25 19:36	1
Canfanene	yD		0.050	0.030	u4/7		05/19/25 12:25	05/19/25 19:36	1

Lab Sample ID: LCS 350-6877/3-A
Matrix: Water
Analysis Batch: 6963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	12.5	12.6	u4/7			101	A0 - 130		
Cad ²⁺ iu ^h	1.25	1.1A	u4/7			9N	A0 - 130		
Chro ⁶⁺ iu ^h	12.5	12.6	u4/7			101	A0 - 130		
CoK ⁶⁺ iu ^h	12.5	12.5	u4/7			100	A0 - 130		
Lead	2.50	2.NN	u4/7			9g	A0 - 130		
YicLel	12.5	12.2	u4/7			9g	A0 - 130		
Zinc	12.5	12.N	u4/7			99	A0 - 130		
Barium	12.5	12.0	u4/7			9g	A0 - 130		
Iron	62.5	5g.9	u4/7			9N	A0 - 130		
Canfanene	12.5	12.A	u4/7			101	A0 - 130		

Lab Sample ID: LCSD 350-6877/4-A
Matrix: Water
Analysis Batch: 6963

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	12.5	12.2	u4/7			9A	A0 - 130	N	20
Cad ²⁺ iu ^h	1.25	1.21	u4/7			9A	A0 - 130	3	20
Chro ⁶⁺ iu ^h	12.5	12.3	u4/7			99	A0 - 130	2	20
CoK ⁶⁺ iu ^h	12.5	12.9	u4/7			103	A0 - 130	3	20
Lead	2.50	2.56	u4/7			102	A0 - 130	5	20
YicLel	12.5	12.A	u4/7			102	A0 - 130	N	20
Zinc	12.5	12.9	u4/7			103	A0 - 130	N	20
Barium	12.5	12.3	u4/7			99	A0 - 130	3	20
Iron	62.5	62.6	u4/7			100	A0 - 130	6	20
Canfanene	12.5	13.1	u4/7			105	A0 - 130	3	20

Lab Sample ID: 350-1619-214 MS
Matrix: Water
Analysis Batch: 6963

Client Sample ID: PAREF-A-SW-B
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
pH	1.A		12.5	19.3	u4/7			1N1	50 - 150
Cad ²⁺ iu ^h	yD F1 F2		1.25	1.3A	u4/7			109	50 - 150

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Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 350-1619-214 MS
Matrix: Water
Analysis Batch: 6963

Client Sample ID: PAREF-A-SW-B
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chro ⁶⁺ iu ^h	2.A F1		12.5	31.3 F1	u4/7			229	50 - 150
CoK ⁶⁺ iu ^h	yD F2		12.5	15.N	u4/7			123	50 - 150
Lead	0.0N6 J F1 F2		2.50	2.5g	u4/7			101	50 - 150
YicLel	0.2N J F2		12.5	15.1	u4/7			119	50 - 150
Zinc	yD F1 F2		12.5	15.9	u4/7			12A	50 - 150
Barium	1g F1		12.5	51.g F1	u4/7			2A0	50 - 150
Iron	51 F1 F2		62.5	132	u4/7			129	50 - 150
Canfanene	2.N F1 F2		12.5	19.0	u4/7			133	50 - 150

Lab Sample ID: 350-1619-214 MSD
Matrix: Water
Analysis Batch: 6963

Client Sample ID: PAREF-A-SW-B
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	1.A		12.5	19.5	1N6	u4/7			50 - 150	1	20
Cad ²⁺ iu ^h	yD F1 F2		1.25	1.26	u4/7			101	50 - 150	g	20
Chro ⁶⁺ iu ^h	2.A F1		12.5	32.1 F1	u4/7			235	50 - 150	2	20
CoK ⁶⁺ iu ^h	yD F2		12.5	1N2	u4/7			11N	50 - 150	g	20
Lead	0.0N6 J F1 F2		2.50	2.3N	u4/7			92	50 - 150	10	20
YicLel	0.2N J F2		12.5	1N0	u4/7			110	50 - 150	g	20
Zinc	yD F1 F2		12.5	1N6	u4/7			116	50 - 150	9	20
Barium	1g F1		12.5	52.0 F1	u4/7			2A2	50 - 150	A	20
Iron	51 F1 F2		62.5	123	u4/7			115	50 - 150	A	20
Canfanene	2.N F1 F2		12.5	1g.0	u4/7			125	50 - 150	6	20

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Metals

Prep Batch: 5727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-101	PAWE-1CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-102	PAWE-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-103	PAWE-2B3	Total/NA	Solid	HF Bomb Prep	
350-1619-104	PAWE-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-105	PAWE-2C2-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-106	PAWE-3B3	Total/NA	Solid	HF Bomb Prep	
350-1619-107	PAWE-3C2	Total/NA	Solid	HF Bomb Prep	
350-1619-108	PAWE-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-109	PAWE-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-110	PAWE-4B2	Total/NA	Solid	HF Bomb Prep	
350-1619-111	PAWE-4C2	Total/NA	Solid	HF Bomb Prep	
MB 350-5727/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-5727/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5727/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCSD 350-5727/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-111 MS	PAWE-4C2	Total/NA	Solid	HF Bomb Prep	
350-1619-111 MSD	PAWE-4C2	Total/NA	Solid	HF Bomb Prep	

Metals (Continued)

Prep Batch: 5840 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-19	NPCPP-3CP1	Total/NA	Solid	1631B CAR	
350-1619-20	NPCPP-3CP2	Total/NA	Solid	1631B CAR	
MB 350-5840/1-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5840/2-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5840/3-A	Method Blank	Total/NA	Solid	1631B CAR	
LCS 350-5840/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
LCS 350-5840/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	
350-1619-1 MS	NPCPP-1C1	Total/NA	Solid	1631B CAR	
350-1619-1 MSD	NPCPP-1C1	Total/NA	Solid	1631B CAR	
350-1619-14 MS	NPCPP-2D2	Total/NA	Solid	1631B CAR	
350-1619-14 MSD	NPCPP-2D2	Total/NA	Solid	1631B CAR	

Prep Batch: 5845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-1	NPCPP-1C1	Total/NA	Solid	HF Bomb Prep	
350-1619-2	NPCPP-1C1-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-3	NPCPP-1C2X	Total/NA	Solid	HF Bomb Prep	
350-1619-4	NPCPP-1CP1	Total/NA	Solid	HF Bomb Prep	
350-1619-5	NPCPP-1CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-6	NPCPP-1CP3X	Total/NA	Solid	HF Bomb Prep	
350-1619-7	NPCPP-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-8	NPCPP-1E2	Total/NA	Solid	HF Bomb Prep	
350-1619-9	NPCPP-1F2	Total/NA	Solid	HF Bomb Prep	
350-1619-10	NPCPP-1G2	Total/NA	Solid	HF Bomb Prep	
350-1619-11	NPCPP-2C1X	Total/NA	Solid	HF Bomb Prep	
350-1619-12	NPCPP-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-13	NPCPP-2CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-14	NPCPP-2D2	Total/NA	Solid	HF Bomb Prep	
350-1619-15	NPCPP-3C1	Total/NA	Solid	HF Bomb Prep	
350-1619-16	NPCPP-3C2	Total/NA	Solid	HF Bomb Prep	
350-1619-17	NPCPP-3C3X	Total/NA	Solid	HF Bomb Prep	
MB 350-5845/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-5845/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5845/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-5845/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-1 MS	NPCPP-1C1	Total/NA	Solid	HF Bomb Prep	
350-1619-1 MSD	NPCPP-1C1	Total/NA	Solid	HF Bomb Prep	
350-1619-14 MS	NPCPP-2D2	Total/NA	Solid	HF Bomb Prep	
350-1619-14 MSD	NPCPP-2D2	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 5891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-18	NPCPP-3C3X-FD	Total/NA	Solid	HF Bomb Prep	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 5891 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-18	NPCPP-3CP1	Total/NA	Solid	HF Bomb Prep	
350-1619-20	NPCPP-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-21	NPCPP-3CP3X	Total/NA	Solid	HF Bomb Prep	
350-1619-22	NPCPP-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-23	NPCPP-3E2	Total/NA	Solid	HF Bomb Prep	
350-1619-24	NPCPP-3F2X	Total/NA	Solid	HF Bomb Prep	
350-1619-25	NPCPP-3G2	Total/NA	Solid	HF Bomb Prep	
350-1619-26	NPCPP-4C2	Total/NA	Solid	HF Bomb Prep	
350-1619-27	NPCPP-4CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-28	NPCPP-4D2	Total/NA	Solid	HF Bomb Prep	
350-1619-29	NPREF-A	Total/NA	Solid	HF Bomb Prep	
350-1619-30	NPREF-B	Total/NA	Solid	HF Bomb Prep	
350-1619-31	NPREF-B-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-32	NPREF-C	Total/NA	Solid	HF Bomb Prep	
350-1619-33	NPWB-1C2	Total/NA	Solid	HF Bomb Prep	
350-1619-34	NPWB-1C2-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-35	NPWB-1CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-36	NPWB-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-37	NPWB-2B3	Total/NA	Solid	HF Bomb Prep	
MB 350-5891/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-5891/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5891/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-5891/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-20 MS	NPCPP-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-20 MSD	NPCPP-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-37 MS	NPWB-2B3	Total/NA	Solid	HF Bomb Prep	
350-1619-37 MSD	NPWB-2B3	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 5927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-41	NPWB-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-42	NPWB-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-43	NPWB-4B3X	Total/NA	Solid	HF Bomb Prep	
350-1619-44	NPWB-4C2	Total/NA	Solid	HF Bomb Prep	
350-1619-45	NPWG-1B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-46	NPWG-1B2X-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-47	NPWG-1C2	Total/NA	Solid	HF Bomb Prep	
350-1619-48	NPWG-1CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-49	NPWG-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-50	NPWG-2B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-51	NPWG-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-52	NPWG-3B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-53	NPWG-3C2	Total/NA	Solid	HF Bomb Prep	
350-1619-54	NPWG-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-55	NPWG-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-56	NPWG-4B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-57	NPWG-4C2	Total/NA	Solid	HF Bomb Prep	
350-1619-58	PACPP-1C1	Total/NA	Solid	HF Bomb Prep	
350-1619-59	PACPP-1C2X	Total/NA	Solid	HF Bomb Prep	
350-1619-60	PACPP-1C3X	Total/NA	Solid	HF Bomb Prep	
MB 350-5927/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 5927 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-5927/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5927/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-5927/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-45 MS	NPWG-1B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-45 MSD	NPWG-1B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-49 MS	NPWG-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-49 MSD	NPWG-1D2	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 5928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-41	NPWB-3CP2	Total/NA	Solid	1631B CAR	
350-1619-42	NPWB-3D2	Total/NA	Solid	1631B CAR	
350-1619-43	NPWB-4B3X	Total/NA	Solid	1631B CAR	
350-1619-44	NPWB-4C2	Total/NA	Solid	1631B CAR	
350-1619-45	NPWG-1B2X	Total/NA	Solid	1631B CAR	
350-1619-46	NPWG-1B2X-FD	Total/NA	Solid	1631B CAR	
350-1619-47	NPWG-1C2	Total/NA	Solid	1631B CAR	
350-1619-48	NPWG-1CP2	Total/NA	Solid	1631B CAR	
350-1619-49	NPWG-1D2	Total/NA	Solid	1631B CAR	
350-1619-50	NPWG-2B2X	Total/NA	Solid	1631B CAR	
350-1619-51	NPWG-2C2	Total/NA	Solid	1631B CAR	
350-1619-52	NPWG-3B2X	Total/NA	Solid	1631B CAR	
350-1619-53	NPWG-3C2	Total/NA	Solid	1631B CAR	
350-1619-54	NPWG-3CP2	Total/NA	Solid	1631B CAR	
350-1619-55	NPWG-3D2	Total/NA	Solid	1631B CAR	
350-1619-56	NPWG-4B2X	Total/NA	Solid	1631B CAR	
350-1619-57	NPWG-4C2	Total/NA	Solid	1631B CAR	
350-1619-58	PACPP-1C1	Total/NA	Solid	1631B CAR	
350-1619-59	PACPP-1C2X	Total/NA	Solid	1631B CAR	
350-1619-60	PACPP-1C3X	Total/NA	Solid	1631B CAR	
MB 350-5928/1-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5928/2-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5928/3-A	Method Blank	Total/NA	Solid	1631B CAR	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 5928 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 350-5928/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
LCS 350-5928/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	
350-1619-45 MS	NPWG-1B2X	Total/NA	Solid	1631B CAR	
350-1619-45 MSD	NPWG-1B2X	Total/NA	Solid	1631B CAR	
350-1619-49 MS	NPWG-1D2	Total/NA	Solid	1631B CAR	
350-1619-49 MSD	NPWG-1D2	Total/NA	Solid	1631B CAR	

Prep Batch: 5952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-21	NPCPP-3CP3X	Total/NA	Solid	1631B CAR	
350-1619-22	NPCPP-3D2	Total/NA	Solid	1631B CAR	
350-1619-23	NPCPP-3E2	Total/NA	Solid	1631B CAR	
350-1619-24	NPCPP-3F2X	Total/NA	Solid	1631B CAR	
350-1619-25	NPCPP-3G2	Total/NA	Solid	1631B CAR	
350-1619-26	NPCPP-4C2	Total/NA	Solid	1631B CAR	
350-1619-27	NPCPP-4CP2	Total/NA	Solid	1631B CAR	
350-1619-28	NPCPP-4D2	Total/NA	Solid	1631B CAR	
350-1619-29	NPREF-A	Total/NA	Solid	1631B CAR	
350-1619-30	NPREF-B	Total/NA	Solid	1631B CAR	
350-1619-31	NPREF-B-FD	Total/NA	Solid	1631B CAR	
350-1619-32	NPREF-C	Total/NA	Solid	1631B CAR	
350-1619-33	NPWB-1C2	Total/NA	Solid	1631B CAR	
350-1619-34	NPWB-1C2-FD	Total/NA	Solid	1631B CAR	
350-1619-35	NPWB-1CP2	Total/NA	Solid	1631B CAR	
350-1619-36	NPWB-1D2	Total/NA	Solid	1631B CAR	
350-1619-37	NPWB-2B3	Total/NA	Solid	1631B CAR	
350-1619-38	NPWB-2C2X	Total/NA	Solid	1631B CAR	
350-1619-39	NPWB-3B2	Total/NA	Solid	1631B CAR	
350-1619-40	NPWB-3C2	Total/NA	Solid	1631B CAR	
MB 350-5952/1-A	Method Blank	Total/NA	Solid	1631B CAR	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 5952 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-5952/2-A	Method Blank	Total/NA	Solid	1631B CAR	Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep
MB 350-5952/3-A	Method Blank	Total/NA	Solid	1631B CAR	
LCS 350-5952/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
LCSD 350-5952/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	
350-1619-21 MS	NPCPP-3CP3X	Total/NA	Solid	1631B CAR	
350-1619-21 MSD	NPCPP-3CP3X	Total/NA	Solid	1631B CAR	
350-1619-33 MS	NPWB-1C2	Total/NA	Solid	1631B CAR	
350-1619-33 MSD	NPWB-1C2	Total/NA	Solid	1631B CAR	

Prep Batch: 5955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-61	PACPP-1CP1	Total/NA	Solid	1631B CAR	Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep
350-1619-62	PACPP-1CP2X	Total/NA	Solid	1631B CAR	
350-1619-63	PACPP-1CP3	Total/NA	Solid	1631B CAR	
350-1619-64	PACPP-1D2	Total/NA	Solid	1631B CAR	
350-1619-65	PACPP-1E2	Total/NA	Solid	1631B CAR	
350-1619-66	PACPP-1F2	Total/NA	Solid	1631B CAR	
350-1619-67	PACPP-1G2	Total/NA	Solid	1631B CAR	
350-1619-68	PACPP-2C2	Total/NA	Solid	1631B CAR	
350-1619-69	PACPP-2CP2	Total/NA	Solid	1631B CAR	
350-1619-70	PACPP-2D2	Total/NA	Solid	1631B CAR	
350-1619-71	PACPP-3C1	Total/NA	Solid	1631B CAR	
350-1619-72	PACPP-3C2Y	Total/NA	Solid	1631B CAR	
350-1619-73	PACPP-3C3X	Total/NA	Solid	1631B CAR	
350-1619-74	PACPP-3CP1X	Total/NA	Solid	1631B CAR	
350-1619-75	PACPP-3CP2	Total/NA	Solid	1631B CAR	
350-1619-76	PACPP-3CP3	Total/NA	Solid	1631B CAR	
350-1619-77	PACPP-3D2X	Total/NA	Solid	1631B CAR	
350-1619-78	PACPP-3E2X	Total/NA	Solid	1631B CAR	
350-1619-80	PACPP-3G2	Total/NA	Solid	1631B CAR	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 5955 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-5955/1-A	Method Blank	Total/NA	Solid	1631B CAR	Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep
MB 350-5955/2-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5955/3-A	Method Blank	Total/NA	Solid	1631B CAR	
LCS 350-5955/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
LCSD 350-5955/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	
350-1619-61 MS	PACPP-1CP1	Total/NA	Solid	1631B CAR	
350-1619-61 MSD	PACPP-1CP1	Total/NA	Solid	1631B CAR	
350-1619-80 MS	PACPP-3G2	Total/NA	Solid	1631B CAR	
350-1619-80 MSD	PACPP-3G2	Total/NA	Solid	1631B CAR	

Prep Batch: 5958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-81	PACPP-4C2X	Total/NA	Solid	1631B CAR	Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep
350-1619-82	PACPP-4C2X-FD	Total/NA	Solid	1631B CAR	
350-1619-83	PACPP-4CP2X	Total/NA	Solid	1631B CAR	
350-1619-84	PACPP-4D2X	Total/NA	Solid	1631B CAR	
350-1619-85	PAREF-A	Total/NA	Solid	1631B CAR	
350-1619-86	PAREF-B	Total/NA	Solid	1631B CAR	
350-1619-87	PAREF-C	Total/NA	Solid	1631B CAR	
350-1619-88	PAWB-1C2	Total/NA	Solid	1631B CAR	
350-1619-89	PAWB-1CP2	Total/NA	Solid	1631B CAR	
350-1619-90	PAWB-1D2	Total/NA	Solid	1631B CAR	
350-1619-91	PAWB-2B1X	Total/NA	Solid	1631B CAR	
350-1619-92	PAWB-2C2	Total/NA	Solid	1631B CAR	
350-1619-93	PAWB-3B2	Total/NA	Solid	1631B CAR	
350-1619-94	PAWB-3C2	Total/NA	Solid	1631B CAR	
350-1619-95	PAWB-3CP2	Total/NA	Solid	1631B CAR	
350-1619-96	PAWB-3D2	Total/NA	Solid	1631B CAR	
350-1619-97	PAWB-4B2X	Total/NA	Solid	1631B CAR	
350-1619-98	PAWB-4C2	Total/NA	Solid	1631B CAR	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 5958 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-99	PAWE-1B1	Total/NA	Solid	1631B CAR	Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep
350-1619-100	PAWE-1C2	Total/NA	Solid	1631B CAR	
MB 350-5958/1-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5958/2-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5958/3-A	Method Blank	Total/NA	Solid	1631B CAR	
LCS 350-5958/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
LCSD 350-5958/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	
350-1619-89 MS	PAWB-1CP2	Total/NA	Solid	1631B CAR	
350-1619-89 MSD	PAWB-1CP2	Total/NA	Solid	1631B CAR	
350-1619-94 MS	PAWB-3C2	Total/NA	Solid	1631B CAR	
350-1619-94 MSD	PAWB-3C2	Total/NA	Solid	1631B CAR	

Prep Batch: 5961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-101	PAWE-1CP2	Total/NA	Solid	1631B CAR	Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep
350-1619-102	PAWE-1D2	Total/NA	Solid	1631B CAR	
350-1619-103	PAWE-2B3	Total/NA	Solid	1631B CAR	
350-1619-104	PAWE-2C2	Total/NA	Solid	1631B CAR	
350-1619-105	PAWE-2C2-FD	Total/NA	Solid	1631B CAR	
350-1619-106	PAWE-3B3	Total/NA	Solid	1631B CAR	
350-1619-107	PAWE-3C2	Total/NA	Solid	1631B CAR	
350-1619-108	PAWE-3CP2	Total/NA	Solid	1631B CAR	
350-1619-109	PAWE-3D2	Total/NA	Solid	1631B CAR	
350-1619-110	PAWE-4B2	Total/NA	Solid	1631B CAR	
350-1619-111	PAWE-4C2	Total/NA	Solid	1631B CAR	
MB 350-5961/1-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5961/2-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5961/3-A	Method Blank	Total/NA	Solid	1631B CAR	
LCS 350-5961/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
LCSD 350-5961/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 5961 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-103 MS	PAWE-2B3	Total/NA	Solid	1631B CAR	Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep
350-1619-103 MSD	PAWE-2B3	Total/NA	Solid	1631B CAR	

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-378	PDPLB-EQ	Total/NA	Water	1640	Prep 1640 Prep 1640 Prep 1640 Prep 1640 Prep 1640 Prep 1640 Prep 1640 Prep
350-1619-379	PDPLB-M2-SW-1	Total/NA	Water	1640	
350-1619-380	PDPLB-M2-SW-20	Total/NA	Water	1640	
350-1619-381	PDPLB-M2-SW-40	Total/NA	Water	1640	
350-1619-382	PDPLB-M2-SW-B	Total/NA	Water	1640	
350-1619-383	PDPLB-M3-SW-1	Total/NA	Water	1640	
350-1619-384	PDPLB-M3-SW-20	Total/NA	Water	1640	
MB 350-5997/1-A	Method Blank	Total/NA	Water	1640	
MB 350-5997/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-5997/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-5997/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Prep Batch: 6025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-79	PACPP-3F2X	Total/NA	Solid	1631B CAR	Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep 1631B CAR Prep
MB 350-6025/1-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-6025/2-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-6025/3-A	Method Blank	Total/NA	Solid	1631B CAR	
LCS 350-6025/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
LCSD 350-6025/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	

Prep Batch: 6026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-61	PACPP-1CP1	Total/NA	Solid	HF Bomb Prep	Prep HF Bomb Prep Prep HF Bomb Prep Prep HF Bomb Prep Prep HF Bomb Prep Prep HF Bomb Prep Prep HF Bomb Prep Prep HF Bomb Prep Prep
350-1619-62	PACPP-1CP2X	Total/NA	Solid	HF Bomb Prep	
350-1619-63	PACPP-1CP3	Total/NA	Solid	HF Bomb Prep	
350-1619-64	PACPP-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-65	PACPP-1E2	Total/NA	Solid	HF Bomb Prep	
350-1619-66	PACPP-1F2	Total/NA	Solid	HF Bomb Prep	
350-1619-67	PACPP-1G2	Total/NA	Solid	HF Bomb Prep	
350-1619-68	PACPP-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-69	PACPP-2CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-70	PACPP-2D2	Total/NA	Solid	HF Bomb Prep	
350-1619-71	PACPP-3C1	Total/NA	Solid	HF Bomb Prep	
350-1619-72	PACPP-3C2Y	Total/NA	Solid	HF Bomb Prep	
350-1619-73	PACPP-3C3X	Total/NA	Solid	HF Bomb Prep	
350-1619-74	PACPP-3CP1X	Total/NA	Solid	HF Bomb Prep	
350-1619-75	PACPP-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-76	PACPP-3CP3	Total/NA	Solid	HF Bomb Prep	
350-1619-77	PACPP-3D2X	Total/NA	Solid	HF Bomb Prep	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 6026 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-78	PACPP-3E2X	Total/NA	Solid	HF Bomb Prep	
350-1619-79	PACPP-3F2X	Total/NA	Solid	HF Bomb Prep	
350-1619-80	PACPP-3G2	Total/NA	Solid	HF Bomb Prep	
MB 350-6026/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-6026/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-6026/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-6026/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-69 MS	PACPP-2CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-69 MSD	PACPP-2CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-77 MS	PACPP-3D2X	Total/NA	Solid	HF Bomb Prep	
350-1619-77 MSD	PACPP-3D2X	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 6047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-81	PACPP-4C2X	Total/NA	Solid	HF Bomb Prep	
350-1619-82	PACPP-4C2X-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-83	PACPP-4CP2X	Total/NA	Solid	HF Bomb Prep	
350-1619-84	PACPP-4D2X	Total/NA	Solid	HF Bomb Prep	
350-1619-85	PAREF-A	Total/NA	Solid	HF Bomb Prep	
350-1619-86	PAREF-B	Total/NA	Solid	HF Bomb Prep	
350-1619-87	PAREF-C	Total/NA	Solid	HF Bomb Prep	
350-1619-88	PAWB-1C2	Total/NA	Solid	HF Bomb Prep	
350-1619-89	PAWB-1CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-90	PAWB-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-91	PAWB-2B1X	Total/NA	Solid	HF Bomb Prep	
350-1619-92	PAWB-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-93	PAWB-3B2	Total/NA	Solid	HF Bomb Prep	
350-1619-94	PAWB-3C2	Total/NA	Solid	HF Bomb Prep	
350-1619-95	PAWB-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-96	PAWB-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-97	PAWB-4B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-98	PAWB-4C2	Total/NA	Solid	HF Bomb Prep	
350-1619-99	PAWE-1B1	Total/NA	Solid	HF Bomb Prep	
350-1619-100	PAWE-1C2	Total/NA	Solid	HF Bomb Prep	
MB 350-6047/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-6047/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-6047/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-6047/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-81 MS	PACPP-4C2X	Total/NA	Solid	HF Bomb Prep	
350-1619-81 MSD	PACPP-4C2X	Total/NA	Solid	HF Bomb Prep	
350-1619-99 MS	PAWE-1B1	Total/NA	Solid	HF Bomb Prep	
350-1619-99 MSD	PAWE-1B1	Total/NA	Solid	HF Bomb Prep	

Analysis Batch: 6050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-1	NPCPP-1C1	Total/NA	Solid	1638	5845
350-1619-2	NPCPP-1C1-FD	Total/NA	Solid	1638	5845
350-1619-3	NPCPP-1C2X	Total/NA	Solid	1638	5845
350-1619-4	NPCPP-1CP1	Total/NA	Solid	1638	5845
350-1619-5	NPCPP-1CP2	Total/NA	Solid	1638	5845
350-1619-6	NPCPP-1CP3X	Total/NA	Solid	1638	5845

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6050 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-7	NPCPP-1D2	Total/NA	Solid	1638	5845
350-1619-8	NPCPP-1E2	Total/NA	Solid	1638	5845
350-1619-9	NPCPP-1F2	Total/NA	Solid	1638	5845
350-1619-10	NPCPP-1G2	Total/NA	Solid	1638	5845
350-1619-11	NPCPP-2C1X	Total/NA	Solid	1638	5845
350-1619-12	NPCPP-2C2	Total/NA	Solid	1638	5845
350-1619-13	NPCPP-2CP2	Total/NA	Solid	1638	5845
350-1619-14	NPCPP-2D2	Total/NA	Solid	1638	5845
350-1619-15	NPCPP-3C1	Total/NA	Solid	1638	5845
350-1619-16	NPCPP-3C2	Total/NA	Solid	1638	5845
350-1619-17	NPCPP-3C3X	Total/NA	Solid	1638	5845
350-1619-18	NPCPP-3C3X-FD	Total/NA	Solid	1638	5891
350-1619-19	NPCPP-3CP1	Total/NA	Solid	1638	5891
350-1619-20	NPCPP-3CP2	Total/NA	Solid	1638	5891
350-1619-21	NPCPP-3CP3X	Total/NA	Solid	1638	5891
350-1619-22	NPCPP-3D2	Total/NA	Solid	1638	5891
350-1619-23	NPCPP-3E2	Total/NA	Solid	1638	5891
350-1619-24	NPCPP-3F2X	Total/NA	Solid	1638	5891
350-1619-25	NPCPP-3G2	Total/NA	Solid	1638	5891
350-1619-26	NPCPP-4C2	Total/NA	Solid	1638	5891
350-1619-27	NPCPP-4CP2	Total/NA	Solid	1638	5891
350-1619-28	NPCPP-4D2	Total/NA	Solid	1638	5891
350-1619-29	NPREF-A	Total/NA	Solid	1638	5891
350-1619-30	NPREF-B	Total/NA	Solid	1638	5891
350-1619-31	LCS 350-5845/4-A	Total/NA	Solid	1638	5891
350-1619-32	NPREF-C	Total/NA	Solid	1638	5891
350-1619-33	NPWB-1C2	Total/NA	Solid	1638	5891
350-1619-34	NPWB-1C2-FD	Total/NA	Solid	1638	5891
350-1619-35	NPWB-1CP2	Total/NA	Solid	1638	5891
350-1619-36	NPWB-1D2	Total/NA	Solid	1638	5891
350-1619-37	NPWB-2B3	Total/NA	Solid	1638	5891
MB 350-5845/1-A	Method Blank	Total/NA	Solid	1638	5845
MB 350-5845/2-A	Method Blank	Total/NA	Solid	1638	5845
MB 350-5891/1-A	Method Blank	Total/NA	Solid	1638	5891
MB 350-5891/2-A	Method Blank	Total/NA	Solid	1638	5891
LCS 350-5845/3-A	Lab Control Sample	Total/NA	Solid	1638	5845
LCS 350-5891/3-A	Lab Control Sample	Total/NA	Solid	1638	5891
LCS 350-5845/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5845
LCS 350-5891/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5891
350-1619-1 MS	NPCPP-1C1	Total/NA	Solid	1638	5845
350-1619-1 MSD	NPCPP-1C1	Total/NA	Solid	1638	5845
350-1619-14 MS	NPCPP-2D2	Total/NA	Solid	1638	5845
350-1619-14 MSD	NPCPP-2D2	Total/NA	Solid	1638	5845
350-1619-20 MS	NPCPP-3CP2	Total/NA	Solid	1638	5891
350-1619-20 MSD	NPCPP-3CP2	Total/NA	Solid	1638	5891
350-1619-37 MS	NPWB-2B3	Total/NA	Solid	1638	5891
350-1619-37 MSD	NPWB-2B3	Total/NA	Solid	1638	5891

Analysis Batch: 6066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-378	PPLEB-EQ	Total/NA	Water	1640	5997

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6066 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-379	PDPLB-M2-SW-1	Total/NA	Water	1640	5997
350-1619-380	PDPLB-M2-SW-20	Total/NA	Water	1640	5997
350-1619-381	PDPLB-M2-SW-40	Total/NA	Water	1640	5997
350-1619-382	PDPLB-M2-SW-B	Total/NA	Water	1640	5997
350-1619-383	PDPLB-M3-SW-1	Total/NA	Water	1640	5997
350-1619-384	PDPLB-M3-SW-20	Total/NA	Water	1640	5997
MB 350-5997/1-A	Method Blank	Total/NA	Water	1640	5997
MB 350-5997/2-A	Method Blank	Total/NA	Water	1640	5997
LCS 350-5997/3-A	Lab Control Sample	Total/NA	Water	1640	5997
LCS 350-5997/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5997

Prep Batch: 6090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-112	NPCPP-1C2X-SW-1	Total/NA	Water	1640	
350-1619-113	NPCPP-1C2X-SW-20	Total/NA	Water	1640	
350-1619-114	NPCPP-1C2X-SW-40	Total/NA	Water	1640	
350-1619-115	NPCPP-1C2X-SW-B	Total/NA	Water	1640	
350-1619-116	NPCPP-1CP2-SW-1	Total/NA	Water	1640	
350-1619-117	NPCPP-1CP2-SW-20	Total/NA	Water	1640	
350-1619-118	NPCPP-1CP2-SW-40	Total/NA	Water	1640	
350-1619-119	NPCPP-1CP2-SW-B	Total/NA	Water	1640	
350-1619-120	NPCPP-2C2-SW-1	Total/NA	Water	1640	
350-1619-121	NPCPP-2C2-SW-20	Total/NA	Water	1640	
350-1619-122	NPCPP-2C2-SW-40	Total/NA	Water	1640	
350-1619-123	NPCPP-2C2-SW-40-FD	Total/NA	Water	1640	
350-1619-124	NPCPP-2C2-SW-B	Total/NA	Water	1640	
350-1619-125	NPCPP-3C2-SW-1	Total/NA	Water	1640	
350-1619-126	NPCPP-3C2-SW-20	Total/NA	Water	1640	
350-1619-127	NPCPP-3C2-SW-40	Total/NA	Water	1640	
350-1619-128	NPCPP-3C2-SW-B	Total/NA	Water	1640	
MB 350-6090/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6090/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6090/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6090/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Prep Batch: 6097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-38	NPWB-3B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-39	NPWB-3B2	Total/NA	Solid	HF Bomb Prep	
350-1619-40	NPWB-3C2	Total/NA	Solid	HF Bomb Prep	
MB 350-6097/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-6097/2-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-6097/3-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-39 MS	NPWB-3B2	Total/NA	Solid	HF Bomb Prep	
350-1619-39 MSD	NPWB-3B2	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 6110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-129	NPCPP-3CP2-SW-1	Total/NA	Water	1640	
350-1619-130	NPCPP-3CP2-SW-20	Total/NA	Water	1640	
350-1619-131	NPCPP-3CP2-SW-40	Total/NA	Water	1640	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 6110 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-132	NPCPP-3CP2-SW-B	Total/NA	Water	1640	
350-1619-133	NPCPP-4C2-SW-1	Total/NA	Water	1640	
350-1619-134	NPCPP-4C2-SW-20	Total/NA	Water	1640	
350-1619-135	NPCPP-4C2-SW-40	Total/NA	Water	1640	
350-1619-136	NPCPP-4C2-SW-B	Total/NA	Water	1640	
350-1619-137	NPCPP-EQ	Total/NA	Water	1640	
350-1619-138	NPCPP-WB	Total/NA	Water	1640	
350-1619-139	NPREF-A-SW-1	Total/NA	Water	1640	
350-1619-140	NPREF-A-SW-1-FD	Total/NA	Water	1640	
350-1619-141	NPREF-A-SW-20	Total/NA	Water	1640	
350-1619-142	NPREF-A-SW-40	Total/NA	Water	1640	
350-1619-143	NPREF-A-SW-B	Total/NA	Water	1640	
350-1619-144	NPREF-EQ	Total/NA	Water	1640	
350-1619-145	NPREF-WB	Total/NA	Water	1640	
350-1619-146	NPWB-1C2-SW-1	Total/NA	Water	1640	
350-1619-147	NPWB-1C2-SW-20	Total/NA	Water	1640	
350-1619-148	NPWB-1C2-SW-40	Total/NA	Water	1640	
MB 350-6110/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6110/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6110/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6110/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-129 MS	NPCPP-3CP2-SW-1	Total/NA	Water	1640	
350-1619-129 MSD	NPCPP-3CP2-SW-1	Total/NA	Water	1640	
350-1619-130 MS	NPCPP-3CP2-SW-20	Total/NA	Water	1640	
350-1619-130 MSD	NPCPP-3CP2-SW-20	Total/NA	Water	1640	

Prep Batch: 6111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-149	NPWB-1C2-SW-B	Total/NA	Water	1640	
350-1619-150	NPWB-1CP2-SW-1	Total/NA	Water	1640	
350-1619-151	NPWB-1CP2-SW-20	Total/NA	Water	1640	
350-1619-152	NPWB-1CP2-SW-40	Total/NA	Water	1640	
350-1619-153	NPWB-1CP2-SW-B	Total/NA	Water	1640	
350-1619-154	NPWB-3B2-SW-1	Total/NA	Water	1640	
350-1619-155	NPWB-3B2-SW-20	Total/NA	Water	1640	
350-1619-156	NPWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-157	NPWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-158	NPWB-3CP2-SW-1	Total/NA	Water	1640	
350-1619-159	NPWB-3CP2-SW-20	Total/NA	Water	1640	
350-1619-160	NPWB-3CP2-SW-20-FD	Total/NA	Water	1640	
350-1619-161	NPWB-3CP2-SW-40	Total/NA	Water	1640	
350-1619-162	NPWB-3CP2-SW-B	Total/NA	Water	1640	
350-1619-163	NPWB-EQ	Total/NA	Water	1640	
350-1619-164	NPWB-WB	Total/NA	Water	1640	
350-1619-165	NPWG-1B2X-SW-1	Total/NA	Water	1640	
350-1619-166	NPWG-1B2X-SW-20	Total/NA	Water	1640	
350-1619-167	NPWG-1B2X-SW-40	Total/NA	Water	1640	
350-1619-168	NPWG-1B2X-SW-B	Total/NA	Water	1640	
MB 350-6111/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6111/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6111/3-A	Lab Control Sample	Total/NA	Water	1640	

Metals (Continued)

Prep Batch: 6111 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 350-6111/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-149 MS	NPWB-1C2-SW-B	Total/NA	Water	1640	
350-1619-149 MSD	NPWB-1C2-SW-B	Total/NA	Water	1640	
350-1619-150 MS	NPWB-1CP2-SW-1	Total/NA	Water	1640	
350-1619-150 MSD	NPWB-1CP2-SW-1	Total/NA	Water	1640	

Prep Batch: 6145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-169	NPWG-1CP2-SW-1	Total/NA	Water	1640	
350-1619-170	NPWG-1CP2-SW-20	Total/NA	Water	1640	
350-1619-171	NPWG-1CP2-SW-40	Total/NA	Water	1640	
350-1619-172	NPWG-1CP2-SW-B	Total/NA	Water	1640	
350-1619-173	NPWG-3B2X-SW-1	Total/NA	Water	1640	
350-1619-174	NPWG-3B2X-SW-20	Total/NA	Water	1640	
350-1619-175	NPWG-3B2X-SW-40	Total/NA	Water	1640	
350-1619-176	NPWG-3B2X-SW-B	Total/NA	Water	1640	
350-1619-177	NPWG-3B2X-SW-B-FD	Total/NA	Water	1640	
350-1619-178	NPWG-3CP2-SW-1	Total/NA	Water	1640	
350-1619-179	NPWG-3CP2-SW-40	Total/NA	Water	1640	
350-1619-180	NPWG-3CP2-SW-B	Total/NA	Water	1640	
350-1619-181	NPWG-3CP2-SW-B	Total/NA	Water	1640	
350-1619-182	NPWG-EQ	Total/NA	Water	1640	
350-1619-183	NPWG-WB	Total/NA	Water	1640	
350-1619-184	PACPP-1C2X-SW-1	Total/NA	Water	1640	
350-1619-185	PACPP-1C2X-SW-20	Total/NA	Water	1640	
350-1619-186	PACPP-1C2X-SW-40	Total/NA	Water	1640	
350-1619-187	PACPP-1C2X-SW-B	Total/NA	Water	1640	
350-1619-188	PACPP-1CP2X-SW-1	Total/NA	Water	1640	
MB 350-6145/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6145/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6145/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6145/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-169 MS	NPWG-1CP2-SW-1	Total/NA	Water	1640	
350-1619-169 MSD	NPWG-1CP2-SW-1	Total/NA	Water	1640	
350-1619-170 MS	NPWG-1CP2-SW-20	Total/NA	Water	1640	
350-1619-170 MSD	NPWG-1CP2-SW-20	Total/NA	Water	1640	

Prep Batch: 6146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-189	PACPP-1CP2X-SW-20	Total/NA	Water	1640	
350-1619-190	PACPP-1CP2X-SW-40	Total/NA	Water	1640	
350-1619-191	PACPP-1CP2X-SW-B	Total/NA	Water	1640	
350-1619-192	PACPP-2C2-SW-1	Total/NA	Water	1640	
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1640	
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1640	
350-1619-195	PACPP-2C2-SW-B	Total/NA	Water	1640	
350-1619-196	PACPP-3C2Y-SW-1	Total/NA	Water	1640	
350-1619-197	PACPP-3C2Y-SW-20	Total/NA	Water	1640	
350-1619-198	PACPP-3C2Y-SW-40	Total/NA	Water	1640	
350-1619-199	PACPP-3C2Y-SW-B	Total/NA	Water	1640	
350-1619-200	PACPP-3CP2-SW-1	Total/NA	Water	1640	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 6146 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-201	PACPP-3CP2-SW-20	Total/NA	Water	1640	
350-1619-202	PACPP-3CP2-SW-40	Total/NA	Water	1640	
350-1619-203	PACPP-3CP2-SW-B	Total/NA	Water	1640	
350-1619-204	PACPP-4C2-SW-1	Total/NA	Water	1640	
350-1619-205	PACPP-4C2-SW-1-FD	Total/NA	Water	1640	
350-1619-206	PACPP-4C2-SW-20	Total/NA	Water	1640	
350-1619-207	PACPP-4C2-SW-40	Total/NA	Water	1640	
350-1619-208	PACPP-4C2-SW-B	Total/NA	Water	1640	
MB 350-6146/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6146/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6146/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6146/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-189 MS	PACPP-1CP2X-SW-20	Total/NA	Water	1640	
350-1619-189 MSD	PACPP-1CP2X-SW-20	Total/NA	Water	1640	
350-1619-190 MS	PACPP-1CP2X-SW-40	Total/NA	Water	1640	
350-1619-190 MSD	PACPP-1CP2X-SW-40	Total/NA	Water	1640	

Analysis Batch: 6151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-79	PACPP-3F2X	Total/NA	Solid	1631B	6025
MB 350-6025/1-A	Method Blank	Total/NA	Solid	1631B	6025
MB 350-6025/2-A	Method Blank	Total/NA	Solid	1631B	6025
MB 350-6025/3-A	Method Blank	Total/NA	Solid	1631B	6025
LCS 350-6025/4-A	Lab Control Sample	Total/NA	Solid	1631B	6025
LCS 350-6025/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	6025

Prep Batch: 6155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-213	PAWE-A-SW-40	Total/NA	Water	1640	
350-1619-214	PAWE-A-SW-B	Total/NA	Water	1640	
350-1619-215	PAWB-1CP2-SW-1	Total/NA	Water	1640	
350-1619-216	PAWB-1CP2-SW-20	Total/NA	Water	1640	
350-1619-217	PAWB-1CP2-SW-40	Total/NA	Water	1640	
350-1619-218	PAWB-1CP2-SW-B	Total/NA	Water	1640	
350-1619-219	PAWB-3B2-SW-1	Total/NA	Water	1640	
350-1619-220	PAWB-3B2-SW-20	Total/NA	Water	1640	
350-1619-221	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-222	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-223	PAWB-3CP2-SW-1	Total/NA	Water	1640	
350-1619-224	PAWB-3CP2-SW-20	Total/NA	Water	1640	
350-1619-225	PAWB-3CP2-SW-40	Total/NA	Water	1640	
350-1619-226	PAWB-3CP2-SW-B	Total/NA	Water	1640	
350-1619-227	PAWE-1B1-SW-1	Total/NA	Water	1640	
350-1619-228	PAWE-1B1-SW-20	Total/NA	Water	1640	
350-1619-229	PAWE-1B1-SW-40	Total/NA	Water	1640	
350-1619-230	PAWE-1B1-SW-B	Total/NA	Water	1640	
350-1619-231	PAWE-1CP2-SW-1	Total/NA	Water	1640	
350-1619-232	PAWE-1CP2-SW-20	Total/NA	Water	1640	
MB 350-6155/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6155/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6155/3-A	Lab Control Sample	Total/NA	Water	1640	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 6155 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 350-6155/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-213 MS	PAWE-A-SW-40	Total/NA	Water	1640	
350-1619-213 MSD	PAWE-A-SW-40	Total/NA	Water	1640	
350-1619-214 MS	PAWE-A-SW-B	Total/NA	Water	1640	
350-1619-214 MSD	PAWE-A-SW-B	Total/NA	Water	1640	

Prep Batch: 6156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-233	PAWE-1CP2-SW-40	Total/NA	Water	1640	
350-1619-234	PAWE-1CP2-SW-B	Total/NA	Water	1640	
350-1619-235	PAWE-3B3-SW-1	Total/NA	Water	1640	
350-1619-236	PAWE-3B3-SW-20	Total/NA	Water	1640	
MB 350-6156/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6156/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6156/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6156/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-233 MS	PAWE-1CP2-SW-40	Total/NA	Water	1640	
350-1619-233 MSD	PAWE-1CP2-SW-40	Total/NA	Water	1640	
350-1619-234 MS	PAWE-1CP2-SW-B	Total/NA	Water	1640	
350-1619-234 MSD	PAWE-1CP2-SW-B	Total/NA	Water	1640	

Analysis Batch: 6206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-112	NPCCP-1C2X-SW-1	Total/NA	Water	1640	6090
350-1619-113	NPCCP-1C2X-SW-20	Total/NA	Water	1640	6090
350-1619-114	NPCCP-1C2X-SW-40	Total/NA	Water	1640	6090
350-1619-115	NPCCP-1C2X-SW-B	Total/NA	Water	1640	6090
350-1619-116	NPCCP-1CP2-SW-1	Total/NA	Water	1640	6090
350-1619-117	NPCCP-1CP2-SW-20	Total/NA	Water	1640	6090
350-1619-118	NPCCP-1CP2-SW-40	Total/NA	Water	1640	6090
350-1619-119	NPCCP-1CP2-SW-B	Total/NA	Water	1640	6090
350-1619-120	NPCCP-2C2-SW-1	Total/NA	Water	1640	6090
350-1619-121	NPCCP-2C2-SW-20	Total/NA	Water	1640	6090
350-1619-122	NPCCP-2C2-SW-40	Total/NA	Water	1640	6090
350-1619-123	NPCCP-2C2-SW-40-FD	Total/NA	Water	1640	6090
350-1619-124	NPCCP-2C2-SW-B	Total/NA	Water	1640	6090
350-1619-125	NPCCP-3C2-SW-1	Total/NA	Water	1640	6090
350-1619-126	NPCCP-3C2-SW-20	Total/NA	Water	1640	6090
350-1619-127	NPCCP-3C2-SW-40	Total/NA	Water	1640	6090
350-1619-128	NPCCP-3C2-SW-B	Total/NA	Water	1640	6090
350-1619-129	NPCCP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-130	NPCCP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-131	NPCCP-3CP2-SW-40	Total/NA	Water	1640	6110
350-1619-132	NPCCP-3CP2-SW-B	Total/NA	Water	1640	6110
350-1619-133	PACPP-1C2X-SW-1	Total/NA	Water	1640	6110
350-1619-134	PACPP-1C2X-SW-20	Total/NA	Water	1640	6110
350-1619-135	PACPP-1C2X-SW-40	Total/NA	Water	1640	6110
350-1619-136	PACPP-1C2X-SW-B	Total/NA	Water	1640	6110
350-1619-137	NPCCP-EQ	Total/NA	Water	1640	6110
350-1619-138	NPCCP-WB	Total/NA	Water	1640	6110
350-1619-139	NPREF-A-SW-1	Total/NA	Water	1640	6110

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6206 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-140	NPREF-A-SW-1-FD	Total/NA	Water	1640	6110
350-1619-141	NPREF-A-SW-20	Total/NA	Water	1640	6110
350-1619-142	NPREF-A-SW-40	Total/NA	Water	1640	6110
350-1619-143	NPREF-A-SW-B	Total/NA	Water	1640	6110
350-1619-144	NPREF-EQ	Total/NA	Water	1640	6110
350-1619-145	NPREF-WB	Total/NA	Water	1640	6110
350-1619-146	NPWB-1C2-SW-1	Total/NA	Water	1640	6110
350-1619-147	NPWB-1C2-SW-20	Total/NA	Water	1640	6110
350-1619-148	NPWB-1C2-SW-40	Total/NA	Water	1640	6110
350-1619-149	NPWB-1C2-SW-B	Total/NA	Water	1640	6111
350-1619-150	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-151	NPWB-1CP2-SW-20	Total/NA	Water	1640	6111
350-1619-152	NPWB-1CP2-SW-40	Total/NA	Water	1640	6111
350-1619-153	NPWB-1CP2-SW-B	Total/NA	Water	1640	6111
350-1619-154	NPWB-3B2-SW-1	Total/NA	Water	1640	6111
350-1619-155	NPWB-3B2-SW-20	Total/NA	Water	1640	6111
350-1619-156	NPWB-3B2-SW-40	Total/NA	Water	1640	6111
350-1619-157	NPWB-3B2-SW-B	Total/NA	Water	1640	6111
350-1619-158	NPWB-3CP2-SW-1	Total/NA	Water	1640	6111
350-1619-159	NPWB-3CP2-SW-20	Total/NA	Water	1640	6111
350-1619-160	NPWB-3CP2-SW-20-FD	Total/NA	Water	1640	6111
350-1619-161	NPWB-3CP2-SW-40	Total/NA	Water	1640	6111
350-1619-162	NPWB-3CP2-SW-B	Total/NA	Water	1640	6111
350-1619-163	NPWB-EQ	Total/NA	Water	1640	6111
350-1619-164	NPWB-WB	Total/NA	Water	1640	6111
350-1619-165	NPWG-1B2X-SW-1	Total/NA	Water	1640	6111
350-1619-166	NPWG-1B2X-SW-20	Total/NA	Water	1640	6111
350-1619-167	NPWG-1B2X-SW-40	Total/NA	Water	1640	6111
350-1619-168	NPWG-1B2X-SW-B	Total/NA	Water	1640	6111
350-1619-169	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-170	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-171	NPWG-1CP2-SW-40	Total/NA	Water	1640	6145
350-1619-172	NPWG-1CP2-SW-B	Total/NA	Water	1640	6145
350-1619-173	NPWG-3B2X-SW-1	Total/NA	Water	1640	6145
350-1619-174	NPWG-3B2X-SW-20	Total/NA	Water	1640	6145
350-1619-175	NPWG-3B2X-SW-40	Total/NA	Water	1640	6145
350-1619-176	NPWG-3B2X-SW-B	Total/NA	Water	1640	6145
350-1619-177	NPWG-3B2X-SW-B-FD	Total/NA	Water	1640	6145
350-1619-178	NPWG-3CP2-SW-1	Total/NA	Water	1640	6145
350-1619-179	NPWG-3CP2-SW-20	Total/NA	Water	1640	6145
350-1619-180	NPWG-3CP2-SW-40	Total/NA	Water	1640	6145
350-1619-181	NPWG-3CP2-SW-B	Total/NA	Water	1640	6145
350-1619-182	NPWG-EQ	Total/NA	Water	1640	6145
350-1619-183	NPWG-WB	Total/NA	Water	1640	6145
350-1619-184	PACPP-1C2X-SW-1	Total/NA	Water	1640	6145A
350-1619-185	PACPP-1C2X-SW-20	Total/NA	Water	1640	6145
350-1619-186	PACPP-1C2X-SW-40	Total/NA	Water	1640	6145
350-1619-187	PACPP-1C2X-SW-B	Total/NA	Water	1640	6145
350-1619-188	PACPP-1CP2X-SW-1	Total/NA	Water	1640	6145
350-1619-189	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-190	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146

Metals (Continued)

Analysis Batch: 6206 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-191	PACPP-1CP2X-SW-B	Total/NA	Water	1640	6110
350-1619-192	PACPP-2C2-SW-1	Total/NA	Water	1640	6146
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1640	6146
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1640	6146
350-1619-195	PACPP-2C2-SW-80	Total/NA	Water	1640	6146
350-1619-196	PACPP-3C2Y-SW-1	Total/NA	Water	1640	6146
350-1619-197	PACPP-3C2Y-SW-20	Total/NA	Water	1640	6146
350-1619-198	PACPP-3C2Y-SW-40	Total/NA	Water	1640	6146
350-1619-199	PACPP-3C2Y-SW-8	Total/NA	Water	1640	6146
350-1619-200	PACPP-3CP2-SW-1	Total/NA	Water	1640	6146
350-1619-201	PACPP-3CP2-SW-20	Total/NA	Water	1640	6146
350-1619-202	PACPP-3CP2-SW-40	Total/NA	Water	1640	6146
350-1619-203	PACPP-3CP2-SW-8	Total/NA	Water	1640	6146
350-1619-204	PACPP-4C2-SW-1	Total/NA	Water	1640	6146
350-1619-205	PACPP-4C2-SW-1-FD	Total/NA	Water	1640	6146
350-1619-206	PACPP-4C2-SW-20	Total/NA	Water	1640	6146
350-1619-207	PACPP-4C2-SW-40	Total/NA	Water	1640	6146
350-1619-208	PACPP-4C2-SW-8	Total/NA	Water	1640	6146
350-1619-213	PAREF-A-SW-40	Total/NA	Water	1640	6155
350-1619-214	PAREF-A-SW-8	Total/NA	Water	1640	6155
350-1619-215	PAWB-1CP2-SW-1	Total/NA	Water	1640	6155
350-1619-216	PAWB-1CP2-SW-20	Total/NA	Water	1640	6155
350-1619-217	PAWB-1CP2-SW-40	Total/NA	Water	1640	6155
350-1619-218	PAWB-1CP2-SW-8	Total/NA	Water	1640	6155
350-1619-219	PAWB-3B2-SW-1	Total/NA	Water	1640	6155
350-1619-220	PAWB-3B2-SW-20	Total/NA	Water	1640	6155
350-1619-221	PAWB-3B2-SW-40	Total/NA	Water	1640	6155
350-1619-222	PAWB-3B2-SW-8	Total/NA	Water	1640	6155
350-1619-223	PAWB-3CP2-SW-1	Total/NA	Water	1640	6155
350-1619-224	PAWB-3CP2-SW-20	Total/NA	Water	1640	6155
350-1619-225	PAWB-3CP2-SW-40	Total/NA	Water	1640	6155
350-1619-226	PAWB-3CP2-SW-8	Total/NA	Water	1640	6155
350-1619-227	PAWE-1B1-SW-1	Total/NA	Water	1640	6155
350-1619-228	PAWE-1B1-SW-20	Total/NA	Water	1640	6155
350-1619-229	PAWE-1B1-SW-40	Total/NA	Water	1640	6155
350-1619-230	PAWE-1B1-SW-8	Total/NA	Water	1640	6155
350-1619-231	PAWE-1CP2-SW-1	Total/NA	Water	1640	6155
350-1619-232	PAWE-1CP2-SW-20	Total/NA	Water	1640	6155
350-1619-233	PAWE-1CP2-SW-40	Total/NA	Water	1640	6155
350-1619-234	PAWE-1CP2-SW-8	Total/NA	Water	1640	6156
350-1619-235	PAWE-3B3-SW-1	Total/NA	Water	1640	6156
350-1619-236	PAWE-3B3-SW-20	Total/NA	Water	1640	6156
MB 350-6090/1-A	Method Blank	Total/NA	Water	1640	6090
MB 350-6090/2-A	Method Blank	Total/NA	Water	1640	6090
MB 350-6110/1-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6110/1-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6110/2-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6110/2-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6111/1-A	Method Blank	Total/NA	Water	1640	6111
MB 350-6111/1-A	Method Blank	Total/NA	Water	1640	6111
MB 350-6111/2-A	Method Blank	Total/NA	Water	1640	6111

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6206 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-6111/2-A	Method Blank	Total/NA	Water	1640	6111
MB 350-6145/1-A	Method Blank	Total/NA	Water	1640	6145
MB 350-6145/2-A	Method Blank	Total/NA	Water	1640	6145
MB 350-6146/1-A	Method Blank	Total/NA	Water	1640	6146
MB 350-6146/2-A	Method Blank	Total/NA	Water	1640	6146
MB 350-6155/1-A	Method Blank	Total/NA	Water	1640	6155
MB 350-6155/2-A	Method Blank	Total/NA	Water	1640	6155
MB 350-6156/1-A	Method Blank	Total/NA	Water	1640	6156
MB 350-6156/2-A	Method Blank	Total/NA	Water	1640	6156
LCS 350-6090/3-A	Lab Control Sample	Total/NA	Water	1640	6090
LCS 350-6110/3-A	Lab Control Sample	Total/NA	Water	1640	6110
LCS 350-6111/3-A	Lab Control Sample	Total/NA	Water	1640	6111
LCS 350-6145/3-A	Lab Control Sample	Total/NA	Water	1640	6145
LCS 350-6146/3-A	Lab Control Sample	Total/NA	Water	1640	6146
LCS 350-6155/3-A	Lab Control Sample	Total/NA	Water	1640	6155
LCS 350-6156/3-A	Lab Control Sample	Total/NA	Water	1640	6156
LCSD 350-6090/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6090
LCSD 350-6110/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6110
LCSD 350-6111/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6111
LCSD 350-6145/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6145
LCSD 350-6146/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6146
LCSD 350-6155/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6155
LCSD 350-6156/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6156
350-1619-129 MS	NPCPP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-129 MS	NPCPP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-129 MSD	NPCPP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-129 MSD	NPCPP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-130 MS	NPCPP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-130 MSD	NPCPP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-130 MSD	NPCPP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-149 MS	NPWB-1C2-SW-B	Total/NA	Water	1640	6111
350-1619-149 MSD	NPWB-1C2-SW-B	Total/NA	Water	1640	6111
350-1619-150 MS	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-150 MSD	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-169 MS	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-169 MSD	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-170 MS	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-170 MSD	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-189 MS	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-189 MSD	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-190 MS	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146
350-1619-190 MSD	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146
350-1619-213 MS	PAREF-A-SW-40	Total/NA	Water	1640	6155
350-1619-213 MSD	PAREF-A-SW-40	Total/NA	Water	1640	6155
350-1619-214 MS	PAREF-A-SW-B	Total/NA	Water	1640	6155
350-1619-214 MSD	PAREF-A-SW-B	Total/NA	Water	1640	6155
350-1619-233 MS	PAWE-1CP2-SW-40	Total/NA	Water	1640	6156
350-1619-233 MSD	PAWE-1CP2-SW-40	Total/NA	Water	1640	6156
350-1619-234 MS	PAWE-1CP2-SW-8	Total/NA	Water	1640	6156
350-1619-234 MSD	PAWE-1CP2-SW-8	Total/NA	Water	1640	6156

Eurofins Seattle Specialty Metals

Metals

Analysis Batch: 6250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-1	NPCPP-1C1	Total/NA	Solid	1631B	5840
350-1619-2	NPCPP-1C1-FD	Total/NA	Solid	1631B	5840
350-1619-3	NPCPP-1C2X	Total/NA	Solid	1631B	5840
350-1619-4	NPCPP-1CP1	Total/NA	Solid	1631B	5840
350-1619-5	NPCPP-1CP2	Total/NA	Solid	1631B	5840
350-1619-6	NPCPP-1CP3X	Total/NA	Solid	1631B	5840
350-1619-7	NPCPP-1D2	Total/NA	Solid	1631B	5840
350-1619-8	NPCPP-1E2	Total/NA	Solid	1631B	5840
350-1619-9	NPCPP-1F2	Total/NA	Solid	1631B	5840
350-1619-10	NPCPP-1G2	Total/NA	Solid	1631B	5840
350-1619-11	NPCPP-2C1X	Total/NA	Solid	1631B	5840
350-1619-12	NPCPP-2C2	Total/NA	Solid	1631B	5840
350-1619-13	NPCPP-2CP2	Total/NA	Solid	1631B	5840
350-1619-14	NPCPP-2D1	Total/NA	Solid	1631B	5840
350-1619-15	NPCPP-3C1	Total/NA	Solid	1631B	5840
350-1619-16	NPCPP-3C2	Total/NA	Solid	1631B	5840
350-1619-17	NPCPP-3C3X	Total/NA	Solid	1631B	5840
350-1619-18	NPCPP-3C3X-FD	Total/NA	Solid	1631B	5840
350-1619-19	NPCPP-3CP1	Total/NA	Solid	1631B	5840
350-1619-20	NPCPP-3CP2	Total/NA	Solid	1631B	5840
350-1619-21	NPCPP-3CP3X	Total/NA	Solid	1631B	5952
350-1619-22	NPCPP-3D2	Total/NA	Solid	1631B	5952
350-1619-23	NPCPP-3E2	Total/NA	Solid	1631B	5952
350-1619-24	NPCPP-3F2X	Total/NA	Solid	1631B	5952
350-1619-25	NPCPP-3G2	Total/NA	Solid	1631B	5952
350-1619-26	NPCPP-4C2	Total/NA	Solid	1631B	5952
350-1619-27	NPCPP-4CP2	Total/NA	Solid	1631B	5952
350-1619-28	NPCPP-4D2	Total/NA	Solid	1631B	5952
350-1619-29	NPREF-A	Total/NA	Solid	1631B	5952
350-1619-30	NPREF-B	Total/NA	Solid	1631B	5952
350-1619-31	NPREF-B-FD	Total/NA	Solid	1631B	5952
350-1619-32	NPREF-C	Total/NA	Solid	1631B	5952
350-1619-33	NPWB-1C2	Total/NA	Solid	1631B	5952
350-1619-34	NPWB-1C2-FD	Total/NA	Solid	1631B	5952
350-1619-35	NPWB-1CP2	Total/NA	Solid	1631B	5952
350-1619-36	NPWB-1D2	Total/NA	Solid	1631B	5952
350-1619-37	NPWB-2B3	Total/NA	Solid	1631B	5952
350-1619-38	NPWB-2C2X	Total/NA	Solid	1631B	5952
350-1619-39	NPWB-3B2	Total/NA	Solid	1631B	5952
350-1619-40	NPWB-3C2	Total/NA	Solid	1631B	5952
350-1619-41	NPWB-3CP2	Total/NA	Solid	1631B	5928
350-1619-42	NPWB-3D2	Total/NA	Solid	1631B	5928
350-1619-43	NPWB-4B3X	Total/NA	Solid	1631B	5928
350-1619-44	NPWB-4C2	Total/NA	Solid	1631B	5928
350-1619-45	NPWG-1B2X	Total/NA	Solid	1631B	5928
350-1619-46	NPWG-1B2X-FD	Total/NA	Solid	1631B	5928
350-1619-47	NPWG-1C2	Total/NA	Solid	1631B	5928
350-1619-48	NPWG-1CP2	Total/NA	Solid	1631B	5928
350-1619-49	NPWG-1D2	Total/NA	Solid	1631B	5928
350-1619-50	NPWG-2B2X	Total/NA	Solid	1631B	5928
350-1619-51	NPWG-2C2	Total/NA	Solid	1631B	5928

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6250 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-52	NPWG-3B2X	Total/NA	Solid	1631B	5928
350-1619-53	NPWG-3C2	Total/NA	Solid	1631B	5928
350-1619-54	NPWG-3CP2	Total/NA	Solid	1631B	5928
350-1619-55	NPWG-3D2	Total/NA	Solid	1631B	5928
350-1619-56	NPWG-4B2X	Total/NA	Solid	1631B	5928
350-1619-57	NPWG-4C2	Total/NA	Solid	1631B	5928
MB 350-5840/1-A	Method Blank	Total/NA	Solid	1631B	5840
MB 350-5840/2-A	Method Blank	Total/NA	Solid	1631B	5840
MB 350-5840/3-A	Method Blank	Total/NA	Solid	1631B	5840
MB 350-5928/1-A	Method Blank	Total/NA	Solid	1631B	5928
MB 350-5928/2-A	Method Blank	Total/NA	Solid	1631B	5928
MB 350-5928/3-A	Method Blank	Total/NA	Solid	1631B	5928
MB 350-5952/1-A	Method Blank	Total/NA	Solid	1631B	5952
MB 350-5952/2-A	Method Blank	Total/NA	Solid	1631B	5952
MB 350-5952/3-A	Method Blank	Total/NA	Solid	1631B	5952
LCS 350-5840/4-A	Lab Control Sample	Total/NA	Solid	1631B	5840
LCS 350-5928/4-A	Lab Control Sample	Total/NA	Solid	1631B	5928
LCS 350-5952/4-A	Lab Control Sample	Total/NA	Solid	1631B	5952
LCSD 350-5840/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5840
LCSD 350-5928/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5928
LCSD 350-5952/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5952
350-1619-1 MS	NPCPP-1C1	Total/NA	Solid	1631B	5840
350-1619-1 MSD	NPCPP-1C1	Total/NA	Solid	1631B	5840
350-1619-14 MS	NPCPP-2D2	Total/NA	Solid	1631B	5840
350-1619-14 MSD	NPCPP-2D2	Total/NA	Solid	1631B	5840
350-1619-21 MS	NPCPP-3CP3X	Total/NA	Solid	1631B	5952
350-1619-21 MSD	NPCPP-3CP3X	Total/NA	Solid	1631B	5952
350-1619-33 MS	NPWB-1C2	Total/NA	Solid	1631B	5952
350-1619-33 MSD	NPWB-1C2	Total/NA	Solid	1631B	5952
350-1619-45 MS	NPWG-1B2X	Total/NA	Solid	1631B	5928
350-1619-45 MSD	NPWG-1B2X	Total/NA	Solid	1631B	5928
350-1619-49 MS	NPWG-1D2	Total/NA	Solid	1631B	5928
350-1619-49 MSD	NPWG-1D2	Total/NA	Solid	1631B	5928

Metals (Continued)

Analysis Batch: 6254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-127	NPCCP-3CP2-SW-0	Total/NA	Water	1640	6090
350-1619-128	NPCCP-3CP2-SW-B	Total/NA	Water	1640	6090
350-1619-129	NPCCP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-130	NPCCP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-131	NPCCP-3CP2-SW-40	Total/NA	Water	1640	6110
350-1619-132	NPCCP-3CP2-SW-B	Total/NA	Water	1640	6110
350-1619-133	NPCCP-4C2-SW-1	Total/NA	Water	1640	6110
350-1619-134	NPCCP-4C2-SW-20	Total/NA	Water	1640	6110
350-1619-135	NPCCP-4C2-SW-40	Total/NA	Water	1640	6110
350-1619-136	NPCCP-4C2-SW-B	Total/NA	Water	1640	6110
350-1619-137	NPCCP-EQ	Total/NA	Water	1640	6110
350-1619-138	NPCCP-WB	Total/NA	Water	1640	6110
350-1619-139	NPREF-A-SW-1	Total/NA	Water	1640	6110
350-1619-140	NPREF-A-SW-1-FD	Total/NA	Water	1640	6110
350-1619-141	NPREF-A-SW-20	Total/NA	Water	1640	6110
350-1619-142	NPREF-A-SW-40	Total/NA	Water	1640	6110
350-1619-143	NPREF-A-SW-B	Total/NA	Water	1640	6110
350-1619-144	NPREF-EQ	Total/NA	Water	1640	6110
350-1619-145	NPREF-WB	Total/NA	Water	1640	6110
350-1619-146	NPWB-1C2-SW-1	Total/NA	Water	1640	6110
350-1619-147	NPWB-1C2-SW-20	Total/NA	Water	1640	6110
350-1619-148	NPWB-1C2-SW-40	Total/NA	Water	1640	6110
350-1619-149	NPWB-1C2-SW-B	Total/NA	Water	1640	6111
350-1619-150	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-151	NPWB-1CP2-SW-20	Total/NA	Water	1640	6111
350-1619-152	NPWB-1CP2-SW-40	Total/NA	Water	1640	6111
350-1619-153	NPWB-1CP2-SW-B	Total/NA	Water	1640	6111
350-1619-154	NPWB-3B2-SW-1	Total/NA	Water	1640	6111
350-1619-155	NPWB-3B2-SW-20	Total/NA	Water	1640	6111
350-1619-156	NPWB-3B2-SW-40	Total/NA	Water	1640	6111
350-1619-157	NPWB-3B2-SW-B	Total/NA	Water	1640	6111
350-1619-158	NPWB-3CP2-SW-1	Total/NA	Water	1640	6111
350-1619-159	NPWB-3CP2-SW-20	Total/NA	Water	1640	6111
350-1619-160	NPWB-3CP2-SW-20-FD	Total/NA	Water	1640	6111
350-1619-161	NPWB-3CP2-SW-40	Total/NA	Water	1640	6111
350-1619-162	NPWB-3CP2-SW-B	Total/NA	Water	1640	6111
350-1619-163	NPWB-EQ	Total/NA	Water	1640	6111
350-1619-164	NPWB-WB	Total/NA	Water	1640	6111
350-1619-165	NPWG-1B2X-SW-1	Total/NA	Water	1640	6111
350-1619-166	NPWG-1B2X-SW-20	Total/NA	Water	1640	6111
350-1619-167	NPWG-1B2X-SW-40	Total/NA	Water	1640	6111
350-1619-168	NPWG-1B2X-SW-B	Total/NA	Water	1640	6111
350-1619-169	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-170	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-171	NPWG-1CP2-SW-40	Total/NA	Water	1640	6145
350-1619-172	NPWG-1CP2-SW-B	Total/NA	Water	1640	6145
350-1619-173	NPWG-3B2X-SW-1	Total/NA	Water	1640	6145
350-1619-174	NPWG-3B2X-SW-20	Total/NA	Water	1640	6145
350-1619-175	NPWG-3B2X-SW-40	Total/NA	Water	1640	6145
350-1619-176	NPWG-3B2X-SW-B	Total/NA	Water	1640	6145
350-1619-177	NPWG-3B2X-SW-B-FD	Total/NA	Water	1640	6145

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-178	NPWG-3CP2-SW-1	Total/NA	Water	1640	6145
350-1619-179	NPWG-3CP2-SW-20	Total/NA	Water	1640	6145
350-1619-180	NPWG-3CP2-SW-40	Total/NA	Water	1640	6145
350-1619-181	NPWG-3CP2-SW-B	Total/NA	Water	1640	6145
350-1619-182	NPWG-EQ	Total/NA	Water	1640	6145
350-1619-183	NPWG-WB	Total/NA	Water	1640	6145
350-1619-184	PACPP-1C2X-SW-1	Total/NA	Water	1640	6145
350-1619-185	PACPP-1C2X-SW-20	Total/NA	Water	1640	6145
350-1619-186	PACPP-1C2X-SW-40	Total/NA	Water	1640	6145
350-1619-187	PACPP-1C2X-SW-B	Total/NA	Water	1640	6145
350-1619-188	PACPP-1CP2X-SW-1	Total/NA	Water	1640	6145
350-1619-189	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-190	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146
350-1619-191	PACPP-1CP2X-SW-B	Total/NA	Water	1640	6146
350-1619-192	PACPP-2C2-SW-1	Total/NA	Water	1640	6146
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1640	6146
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1640	6146
350-1619-195	PACPP-2C2-SW-B	Total/NA	Water	1640	6146
350-1619-196	PACPP-3C2Y-SW-1	Total/NA	Water	1640	6146
350-1619-197	PACPP-3C2Y-SW-20	Total/NA	Water	1640	6146
350-1619-198	PACPP-3C2Y-SW-40	Total/NA	Water	1640	6146
350-1619-199	PACPP-3C2Y-SW-B	Total/NA	Water	1640	6146
350-1619-200	PACPP-3CP2-SW-1	Total/NA	Water	1640	6146
350-1619-201	PACPP-3CP2-SW-20	Total/NA	Water	1640	6146
350-1619-202	PACPP-3CP2-SW-40	Total/NA	Water	1640	6146
350-1619-203	PACPP-3CP2-SW-B	Total/NA	Water	1640	6146
350-1619-204	PACPP-4C2-SW-1	Total/NA	Water	1640	6146
350-1619-205	PACPP-4C2-SW-1-FD	Total/NA	Water	1640	6146
350-1619-206	PACPP-4C2-SW-20	Total/NA	Water	1640	6146
350-1619-207	PACPP-4C2-SW-40	Total/NA	Water	1640	6146
350-1619-208	PACPP-4C2-SW-B	Total/NA	Water	1640	6146
MB 350-6090/1-A	Method Blank	Total/NA	Water	1640	6090
MB 350-6090/2-A	Method Blank	Total/NA	Water	1640	6090
MB 350-6110/1-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6110/2-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6145/1-A	Method Blank	Total/NA	Water	1640	6145
MB 350-6145/2-A	Method Blank	Total/NA	Water	1640	6145
MB 350-6146/1-A	Method Blank	Total/NA	Water	1640	6146
MB 350-6146/2-A	Method Blank	Total/NA	Water	1640	6146
LCS 350-6090/3-A	Lab Control Sample	Total/NA	Water	1640	6090
LCS 350-6110/3-A	Lab Control Sample	Total/NA	Water	1640	6110
LCS 350-6145/3-A	Lab Control Sample	Total/NA	Water	1640	6145
LCS 350-6146/3-A	Lab Control Sample	Total/NA	Water	1640	6146
LCSD 350-6090/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6090
LCSD 350-6110/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6110
LCSD 350-6145/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6145
LCSD 350-6146/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6146
350-1619-129 MS	NPCCP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-129 MSD	NPCCP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-130 MS	NPCCP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-130 MSD	NPCCP-3CP2-SW-20	Total/NA	Water	1640	6110

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-149 MS	NPWB-1C2-SW-B	Total/NA	Water	1640	6111
350-1619-149 MSD	NPWB-1C2-SW-B	Total/NA	Water	1640	6111
350-1619-150 MS	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-150 MSD	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-169 MS	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-169 MSD	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-170 MS	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-170 MSD	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-189 MS	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-189 MSD	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-190 MS	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146
350-1619-190 MSD	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146

Analysis Batch: 6430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-152	NPWB-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-153	NPWB-1CP2-SW-B	Total/NA	Water	1631E	
350-1619-154	NPWB-3B2-SW-1	Total/NA	Water	1631E	
350-1619-155	NPWB-3B2-SW-20	Total/NA	Water	1631E	
350-1619-156	NPWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-157	NPWB-3B2-SW-B	Total/NA	Water	1631E	
350-1619-158	NPWB-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-159	NPWB-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-160	NPWB-3CP2-SW-20-FD	Total/NA	Water	1631E	
350-1619-161	NPWB-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-162	NPWB-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-163	NPWB-EQ	Total/NA	Water	1631E	
350-1619-164	NPWB-WB	Total/NA	Water	1631E	
350-1619-166	NPWG-1B2X-SW-20	Total/NA	Water	1631E	
350-1619-167	NPWG-1B2X-SW-40	Total/NA	Water	1631E	
350-1619-168	NPWG-1B2X-SW-B	Total/NA	Water	1631E	
350-1619-169	NPWG-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-172	NPWG-1CP2-SW-B	Total/NA	Water	1631E	
MB 350-6430/116	Method Blank	Total/NA	Water	1631E	
MB 350-6430/117	Method Blank	Total/NA	Water	1631E	
MB 350-6430/118	Method Blank	Total/NA	Water	1631E	
MB 350-6430/21	Method Blank	Total/NA	Water	1631E	
MB 350-6430/22	Method Blank	Total/NA	Water	1631E	
MB 350-6430/23	Method Blank	Total/NA	Water	1631E	
LCS 350-6430/119	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6430/32	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-6430/120	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6430/33	Lab Control Sample Dup	Total/NA	Water	1631E	
350-1619-156 MS	NPWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-156 MSD	NPWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-157 MS	NPWB-3B2-SW-B	Total/NA	Water	1631E	
350-1619-157 MSD	NPWB-3B2-SW-B	Total/NA	Water	1631E	

Analysis Batch: 6431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-112	NPCCP-1C2X-SW-1	Total/NA	Water	1631E	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6431 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-113	NPCCP-1C2X-SW-20	Total/NA	Water	1631E	
350-1619-114	NPCCP-1C2X-SW-40	Total/NA	Water	1631E	
350-1619-115	NPCCP-1C2X-SW-B	Total/NA	Water	1631E	
350-1619-116	NPCCP-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-117	NPCCP-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-118	NPCCP-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-119	NPCCP-1CP2-SW-B	Total/NA	Water	1631E	
350-1619-120	NPCCP-2C2-SW-1	Total/NA	Water	1631E	
350-1619-121	NPCCP-2C2-SW-20	Total/NA	Water	1631E	
350-1619-122	NPCCP-2C2-SW-40	Total/NA	Water	1631E	
350-1619-123	NPCCP-2C2-SW-40-FD	Total/NA	Water	1631E	
350-1619-124	NPCCP-2C2-SW-B	Total/NA	Water	1631E	
350-1619-125	NPCCP-3C2-SW-1	Total/NA	Water	1631E	
350-1619-126	NPCCP-3C2-SW-20	Total/NA	Water	1631E	
350-1619-127	NPCCP-3C2-SW-40	Total/NA	Water	1631E	
350-1619-128	NPCCP-3C2-SW-B	Total/NA	Water	1631E	
350-1619-129	NPCCP-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-130	NPCCP-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-131	NPCCP-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-132	NPCCP-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-133	NPCCP-4C2-SW-1	Total/NA	Water	1631E	
350-1619-134	NPCCP-4C2-SW-20	Total/NA	Water	1631E	
350-1619-135	NPCCP-4C2-SW-40	Total/NA	Water	1631E	
350-1619-136	NPCCP-4C2-SW-B	Total/NA	Water	1631E	
350-1619-137	NPCCP-EQ	Total/NA	Water	1631E	
350-1619-138	NPCCP-WB	Total/NA	Water	1631E	
350-1619-139	NPREF-A-SW-1	Total/NA	Water	1631E	
350-1619-140	NPREF-A-SW-1-FD	Total/NA	Water	1631E	
350-1619-141	NPREF-A-SW-20	Total/NA	Water	1631E	
350-1619-142	NPREF-A-SW-40	Total/NA	Water	1631E	
350-1619-143	NPREF-A-SW-B	Total/NA	Water	1631E	
350-1619-144	NPREF-EQ	Total/NA	Water	1631E	
350-1619-145	NPREF-WB	Total/NA	Water	1631E	
350-1619-146	NPWB-1C2-SW-1	Total/NA	Water	1631E	
350-1619-147	NPWB-1C2-SW-20	Total/NA	Water	1631E	
350-1619-148	NPWB-1C2-SW-40	Total/NA	Water	1631E	
350-1619-149	NPWB-1C2-SW-B	Total/NA	Water	1631E	
350-1619-150	NPWB-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-151	NPWB-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-176	NPWG-3B2X-SW-B	Total/NA	Water	1631E	
350-1619-177	NPWG-3B2X-SW-B-FD	Total/NA	Water	1631E	
350-1619-178	NPWG-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-179	NPWG-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-180	NPWG-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-181	NPWG-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-182	NPWG-EQ	Total/NA	Water	1631E	
350-1619-183	NPWG-WB	Total/NA	Water	1631E	
350-1619-184	PACPP-1C2X-SW-1	Total/NA	Water	1631E	
350-1619-185	PACPP-1C2X-SW-20	Total/NA	Water	1631E	
350-1619-186	PACPP-1C2X-SW-40	Total/NA	Water	1631E	
350-1619-187	PACPP-1C2X-SW-B	Total/NA	Water	1631E	

Metals (Continued)

Analysis Batch: 6431 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-188	PACPP-1CP2X-SW-1	Total/NA	Water	1631E	
350-1619-189	PACPP-1CP2X-SW-20	Total/NA	Water	1631E	
350-1619-190	PACPP-1CP2X-SW-40	Total/NA	Water	1631E	
350-1619-191	PACPP-1CP2X-SW-B	Total/NA	Water	1631E	
350-1619-192	PACPP-2C2-SW-1	Total/NA	Water	1631E	
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1631E	
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1631E	
350-1619-195	PACPP-2C2-SW-B	Total/NA	Water	1631E	
350-1619-196	PACPP-3C2Y-SW-1	Total/NA	Water	1631E	
350-1619-197	PACPP-3C2Y-SW-20	Total/NA	Water	1631E	
350-1619-198	PACPP-3C2Y-SW-40	Total/NA	Water	1631E	
350-1619-199	PACPP-3C2Y-SW-B	Total/NA	Water	1631E	
MB 350-6431/11	Method Blank	Total/NA	Water	1631E	
MB 350-6431/12	Method Blank	Total/NA	Water	1631E	
MB 350-6431/13	Method Blank	Total/NA	Water	1631E	
MB 350-6431/14	Method Blank	Total/NA	Water	1631E	
MB 350-6431/15	Method Blank	Total/NA	Water	1631E	
MB 350-6431/16	Method Blank	Total/NA	Water	1631E	
MB 350-6431/79	Method Blank	Total/NA	Water	1631E	
MB 350-6431/80	Method Blank	Total/NA	Water	1631E	
MB 350-6431/83	Method Blank	Total/NA	Water	1631E	
MB 350-6431/90	Method Blank	Total/NA	Water	1631E	
MB 350-6431/91	Method Blank	Total/NA	Water	1631E	
MB 350-6431/92	Method Blank	Total/NA	Water	1631E	
LCS 350-6431/17	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6431/25	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6431/84	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6431/95	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-6431/18	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6431/26	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6431/85	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6431/96	Lab Control Sample Dup	Total/NA	Water	1631E	
350-1619-112 MS	NPCPP-1C2X-SW-1	Total/NA	Water	1631E	
350-1619-112 MSD	NPCPP-1C2X-SW-1	Total/NA	Water	1631E	
350-1619-113 MS	NPCPP-1C2X-SW-20	Total/NA	Water	1631E	
350-1619-113 MSD	NPCPP-1C2X-SW-20	Total/NA	Water	1631E	
350-1619-132 MS	NPCPP-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-132 MSD	NPCPP-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-133 MS	NPCPP-4C2-SW-1	Total/NA	Water	1631E	
350-1619-133 MSD	NPCPP-4C2-SW-1	Total/NA	Water	1631E	
350-1619-176 MS	NPWG-3B2X-SW-B	Total/NA	Water	1631E	
350-1619-176 MSD	NPWG-3B2X-SW-B	Total/NA	Water	1631E	
350-1619-177 MS	NPWG-3B2X-SW-B-FD	Total/NA	Water	1631E	
350-1619-177 MSD	NPWG-3B2X-SW-B-FD	Total/NA	Water	1631E	
350-1619-196 MS	PACPP-3C2Y-SW-1	Total/NA	Water	1631E	
350-1619-196 MSD	PACPP-3C2Y-SW-1	Total/NA	Water	1631E	
350-1619-197 MS	PACPP-3C2Y-SW-20	Total/NA	Water	1631E	
350-1619-197 MSD	PACPP-3C2Y-SW-20	Total/NA	Water	1631E	

Eurofins Seattle Specialty Metals

Metals

Analysis Batch: 6472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-165	NPWG-1B2X-SW-1	Total/NA	Water	1631E	
350-1619-170	NPWG-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-171	NPWG-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-240	PAWE-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-241	PAWE-3CP2-SW-20-FD	Total/NA	Water	1631E	
350-1619-242	PAWE-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-243	PAWE-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-244	PAWE-EQ	Total/NA	Water	1631E	
350-1619-245	PAWE-WB	Total/NA	Water	1631E	
350-1619-378	PDPLB-EQ	Total/NA	Water	1631E	
350-1619-379	PDPLB-M2-SW-1	Total/NA	Water	1631E	
350-1619-380	PDPLB-M2-SW-20	Total/NA	Water	1631E	
350-1619-381	PDPLB-M2-SW-40	Total/NA	Water	1631E	
350-1619-382	PDPLB-M2-SW-B	Total/NA	Water	1631E	
350-1619-383	PDPLB-M3-SW-1	Total/NA	Water	1631E	
MB 350-6472/11	Method Blank	Total/NA	Water	1631E	
MB 350-6472/119	Method Blank	Total/NA	Water	1631E	
MB 350-6472/12	Method Blank	Total/NA	Water	1631E	
MB 350-6472/120	Method Blank	Total/NA	Water	1631E	
MB 350-6472/121	Method Blank	Total/NA	Water	1631E	
MB 350-6472/13	Method Blank	Total/NA	Water	1631E	
MB 350-6472/14	Method Blank	Total/NA	Water	1631E	
MB 350-6472/15	Method Blank	Total/NA	Water	1631E	
MB 350-6472/16	Method Blank	Total/NA	Water	1631E	
MB 350-6472/17	Method Blank	Total/NA	Water	1631E	
MB 350-6472/18	Method Blank	Total/NA	Water	1631E	
MB 350-6472/19	Method Blank	Total/NA	Water	1631E	
LCS 350-6472/122	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6472/20	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6472/52	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6472/86	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-6472/123	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6472/23	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6472/53	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6472/87	Lab Control Sample Dup	Total/NA	Water	1631E	
350-1619-240 MS	PAWE-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-240 MSD	PAWE-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-241 MS	PAWE-3CP2-SW-20-FD	Total/NA	Water	1631E	
350-1619-241 MSD	PAWE-3CP2-SW-20-FD	Total/NA	Water	1631E	

Analysis Batch: 6479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-200	PACPP-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-201	PACPP-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-202	PACPP-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-203	PACPP-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-204	PACPP-4C2-SW-1	Total/NA	Water	1631E	
350-1619-205	PACPP-4C2-SW-1-FD	Total/NA	Water	1631E	
350-1619-206	PACPP-4C2-SW-20	Total/NA	Water	1631E	
350-1619-207	PACPP-4C2-SW-40	Total/NA	Water	1631E	
350-1619-208	PACPP-4C2-SW-B	Total/NA	Water	1631E	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6479 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-209	PACPP-EQ	Total/NA	Water	1631E	
350-1619-210	PACPP-WB	Total/NA	Water	1631E	
350-1619-211	PAREF-A-SW-1	Total/NA	Water	1631E	
350-1619-212	PAREF-A-SW-20	Total/NA	Water	1631E	
350-1619-213	PAREF-A-SW-40	Total/NA	Water	1631E	
350-1619-214	PAREF-A-SW-B	Total/NA	Water	1631E	
350-1619-215	PAWB-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-216	PAWB-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-217	PAWB-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-218	PAWB-1CP2-SW-B	Total/NA	Water	1631E	
350-1619-219	PAWB-3B2-SW-1	Total/NA	Water	1631E	
350-1619-220	PAWB-3B2-SW-20	Total/NA	Water	1631E	
350-1619-221	PAWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-222	PAWB-3B2-SW-B	Total/NA	Water	1631E	
350-1619-223	PAWB-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-224	PAWB-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-225	PAWB-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-226	PAWB-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-227	PAWE-1B1-SW-1	Total/NA	Water	1631E	
350-1619-228	PAWE-1B1-SW-20	Total/NA	Water	1631E	
350-1619-229	PAWE-1B1-SW-40	Total/NA	Water	1631E	
350-1619-230	PAWE-1B1-SW-B	Total/NA	Water	1631E	
350-1619-231	PAWE-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-232	PAWE-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-233	PAWE-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-234	PAWE-1CP2-SW-B	Total/NA	Water	1631E	
350-1619-235	PAWE-3B3-SW-1	Total/NA	Water	1631E	
350-1619-236	PAWE-3B3-SW-20	Total/NA	Water	1631E	
350-1619-237	PAWE-3B3-SW-40	Total/NA	Water	1631E	
350-1619-238	PAWE-3B3-SW-B	Total/NA	Water	1631E	
350-1619-239	PAWE-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-384	PDPLB-M3-SW-20	Total/NA	Water	1631E	
350-1619-385	PDPLB-M3-SW-40	Total/NA	Water	1631E	
350-1619-386	PDPLB-M3-SW-B	Total/NA	Water	1631E	
350-1619-387	PDPLB-WB	Total/NA	Water	1631E	
MB 350-6479/11	Method Blank	Total/NA	Water	1631E	
MB 350-6479/12	Method Blank	Total/NA	Water	1631E	
MB 350-6479/13	Method Blank	Total/NA	Water	1631E	
MB 350-6479/14	Method Blank	Total/NA	Water	1631E	
MB 350-6479/15	Method Blank	Total/NA	Water	1631E	
MB 350-6479/16	Method Blank	Total/NA	Water	1631E	
MB 350-6479/17	Method Blank	Total/NA	Water	1631E	
MB 350-6479/18	Method Blank	Total/NA	Water	1631E	
MB 350-6479/19	Method Blank	Total/NA	Water	1631E	
LCS 350-6479/28	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6479/60	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6479/90	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-6479/29	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6479/61	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6479/91	Lab Control Sample Dup	Total/NA	Water	1631E	
350-1619-200 MS	PACPP-3CP2-SW-1	Total/NA	Water	1631E	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6479 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-200 MSD	PACPP-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-201 MS	PACPP-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-201 MSD	PACPP-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-220 MS	PAWB-3B2-SW-20	Total/NA	Water	1631E	
350-1619-220 MSD	PAWB-3B2-SW-20	Total/NA	Water	1631E	
350-1619-221 MS	PAWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-221 MSD	PAWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-384 MS	PDPLB-M3-SW-20	Total/NA	Water	1631E	
350-1619-384 MSD	PDPLB-M3-SW-20	Total/NA	Water	1631E	
350-1619-385 MS	PDPLB-M3-SW-40	Total/NA	Water	1631E	
350-1619-385 MSD	PDPLB-M3-SW-40	Total/NA	Water	1631E	

Prep Batch: 6520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1640	
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1640	
350-1619-209	PACPP-EQ	Total/NA	Water	1640	
350-1619-210	PACPP-WB	Total/NA	Water	1640	
350-1619-211	PAREF-A-SW-1	Total/NA	Water	1640	
350-1619-212	PAREF-A-SW-20	Total/NA	Water	1640	
350-1619-215	PAWB-1CP2-SW-1	Total/NA	Water	1640	
350-1619-216	PAWB-1CP2-SW-20	Total/NA	Water	1640	
350-1619-217	PAWB-1CP2-SW-40	Total/NA	Water	1640	
350-1619-218	PAWB-1CP2-SW-B	Total/NA	Water	1640	
350-1619-219	PAWB-3B2-SW-1	Total/NA	Water	1640	
350-1619-220	PAWB-3B2-SW-20	Total/NA	Water	1640	
MB 350-6520/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6520/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6520/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-6520/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-209 MS	PACPP-EQ	Total/NA	Water	1640	
350-1619-209 MSD	PACPP-EQ	Total/NA	Water	1640	
350-1619-210 MS	PACPP-WB	Total/NA	Water	1640	
350-1619-210 MSD	PACPP-WB	Total/NA	Water	1640	

Metals (Continued)

Prep Batch: 6521 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-235	PAWE-3B3-SW-1	Total/NA	Water	1640	6521
350-1619-236	PAWE-3B3-SW-20	Total/NA	Water	1640	
350-1619-237	PAWE-3B3-SW-40	Total/NA	Water	1640	
350-1619-238	PAWE-3B3-SW-B	Total/NA	Water	1640	
350-1619-239	PAWE-3CP2-SW-1	Total/NA	Water	1640	
350-1619-240	PAWE-3CP2-SW-20	Total/NA	Water	1640	
MB 350-6521/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6521/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6521/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-6521/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-221 MS	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-221 MSD	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-222 MS	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	

Analysis Batch: 6572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-173	NPWG-3B2X-SW-1	Total/NA	Water	1631E	6572
350-1619-174	NPWG-3B2X-SW-20	Total/NA	Water	1631E	
350-1619-175	NPWG-3B2X-SW-40	Total/NA	Water	1631E	
MB 350-6572/16	Method Blank	Total/NA	Water	1631E	
MB 350-6572/17	Method Blank	Total/NA	Water	1631E	
MB 350-6572/18	Method Blank	Total/NA	Water	1631E	
LCS 350-6572/19	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-6572/20	Lab Control Sample Dup	Total/NA	Water	1631E	

Analysis Batch: 6591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1640	6520
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1640	
350-1619-209	PACPP-EQ	Total/NA	Water	1640	
350-1619-210	PACPP-WB	Total/NA	Water	1640	
350-1619-210	PACPP-WB	Total/NA	Water	1640	
350-1619-211	PAREF-A-SW-1	Total/NA	Water	1640	
350-1619-211	PAREF-A-SW-1	Total/NA	Water	1640	
350-1619-212	PAREF-A-SW-20	Total/NA	Water	1640	
350-1619-212	PAREF-A-SW-20	Total/NA	Water	1640	
350-1619-215	PAWB-1CP2-SW-1	Total/NA	Water	1640	
350-1619-216	PAWB-1CP2-SW-20	Total/NA	Water	1640	
350-1619-217	PAWB-1CP2-SW-40	Total/NA	Water	1640	
350-1619-218	PAWB-1CP2-SW-B	Total/NA	Water	1640	
350-1619-219	PAWB-3B2-SW-1	Total/NA	Water	1640	
350-1619-220	PAWB-3B2-SW-20	Total/NA	Water	1640	
350-1619-221	PAWB-3B2-SW-40	Total/NA	Water	1640	6521
350-1619-222	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-223	PAWB-3CP2-SW-1	Total/NA	Water	1640	
350-1619-224	PAWB-3CP2-SW-20	Total/NA	Water	1640	
350-1619-225	PAWB-3CP2-SW-40	Total/NA	Water	1640	
350-1619-226	PAWB-3CP2-SW-B	Total/NA	Water	1640	
350-1619-227	PAWE-1B1-SW-1	Total/NA	Water	1640	
350-1619-228	PAWE-1B1-SW-20	Total/NA	Water	1640	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6591 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-239	PAWE-1B1-SW-40	Total/NA	Water	1640	6521
350-1619-231	PAWE-1CP2-SW-1	Total/NA	Water	1640	
350-1619-232	PAWE-1CP2-SW-20	Total/NA	Water	1640	
350-1619-233	PAWE-1CP2-SW-40	Total/NA	Water	1640	
350-1619-234	PAWE-1CP2-SW-B	Total/NA	Water	1640	
350-1619-235	PAWE-3B3-SW-1	Total/NA	Water	1640	
350-1619-236	PAWE-3B3-SW-20	Total/NA	Water	1640	
350-1619-237	PAWE-3B3-SW-40	Total/NA	Water	1640	
350-1619-238	PAWE-3B3-SW-B	Total/NA	Water	1640	
350-1619-239	PAWE-3CP2-SW-1	Total/NA	Water	1640	
350-1619-240	PAWE-3CP2-SW-20	Total/NA	Water	1640	
MB 350-6520/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6520/2-A	Method Blank	Total/NA	Water	1640	
MB 350-6521/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6521/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6520/3-A	Lab Control Sample	Total/NA	Water	1640	6520
LCS 350-6521/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-6520/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
LCSD 350-6521/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-209 MS	PACPP-EQ	Total/NA	Water	1640	
350-1619-209 MSD	PACPP-EQ	Total/NA	Water	1640	
350-1619-210 MS	PACPP-WB	Total/NA	Water	1640	
350-1619-221 MS	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-221 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MS	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	

Analysis Batch: 6609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-209	PACPP-EQ	Total/NA	Water	1640	6520
350-1619-210	PACPP-WB	Total/NA	Water	1640	
350-1619-211	PAREF-A-SW-1	Total/NA	Water	1640	
350-1619-212	PAREF-A-SW-20	Total/NA	Water	1640	
350-1619-237	PAWE-3B3-SW-40	Total/NA	Water	1640	
350-1619-238	PAWE-3B3-SW-B	Total/NA	Water	1640	
350-1619-239	PAWE-3CP2-SW-1	Total/NA	Water	1640	
350-1619-240	PAWE-3CP2-SW-20	Total/NA	Water	1640	
MB 350-6520/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6520/2-A	Method Blank	Total/NA	Water	1640	
MB 350-6521/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6521/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6520/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6521/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-6520/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
LCSD 350-6521/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6521
350-1619-209 MS	PACPP-EQ	Total/NA	Water	1640	
350-1619-209 MSD	PACPP-EQ	Total/NA	Water	1640	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6609 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-210 MS	PACPP-WB	Total/NA	Water	1640	6520
350-1619-210 MSD	PACPP-WB	Total/NA	Water	1640	
350-1619-221 MS	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-221 MS	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-221 MSD	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-221 MSD	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-222 MS	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MS	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	

Analysis Batch: 6631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-61	PACPP-1CP1	Total/NA	Solid	1631B	5955
350-1619-66	PACPP-1F2	Total/NA	Solid	1631B	
350-1619-67	PACPP-1G2	Total/NA	Solid	1631B	
350-1619-70	PACPP-2D2	Total/NA	Solid	1631B	
350-1619-78	PACPP-3EXX	Total/NA	Solid	1631B	
350-1619-80	PACPP-3G2	Total/NA	Solid	1631B	
MB 350-5955/1-A	Method Blank	Total/NA	Solid	1631B	
MB 350-5955/2-A	Method Blank	Total/NA	Solid	1631B	
MB 350-5955/3-A	Method Blank	Total/NA	Solid	1631B	
LCS 350-5955/4-A	Lab Control Sample	Total/NA	Solid	1631B	
LCSD 350-5955/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	
350-1619-61 MS	PACPP-1CP1	Total/NA	Solid	1631B	
350-1619-61 MSD	PACPP-1CP1	Total/NA	Solid	1631B	
350-1619-80 MS	PACPP-3G2	Total/NA	Solid	1631B	
350-1619-80 MSD	PACPP-3G2	Total/NA	Solid	1631B	

Analysis Batch: 6735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-81	PACPP-4CX	Total/NA	Solid	1631B	5958
350-1619-84	PACPP-4DX	Total/NA	Solid	1631B	
350-1619-85	PAREF-A	Total/NA	Solid	1631B	
350-1619-86	PAREF-B	Total/NA	Solid	1631B	
350-1619-87	PAREF-C	Total/NA	Solid	1631B	
350-1619-88	PAWB-1C2	Total/NA	Solid	1631B	
350-1619-89	PAWB-1CP2	Total/NA	Solid	1631B	
350-1619-90	PAWB-1D2	Total/NA	Solid	1631B	
350-1619-91	PAWB-2B1X	Total/NA	Solid	1631B	
350-1619-92	PAWB-2C2	Total/NA	Solid	1631B	
350-1619-93	PAWB-3B2	Total/NA	Solid	1631B	
350-1619-94	PAWB-3C2	Total/NA	Solid	1631B	
350-1619-95	PAWB-3CP2	Total/NA	Solid	1631B	
350-1619-96	PAWB-3D2	Total/NA	Solid	1631B	
350-1619-97	PAWB-4B2X	Total/NA	Solid	1631B	5958
350-1619-98	PAWB-4C2	Total/NA	Solid	1631B	
350-1619-99	PAWE-1B1	Total/NA	Solid	1631B	
350-1619-100	PAWE-1C2	Total/NA	Solid	1631B	
MB 350-5958/1-A	Method Blank	Total/NA	Solid	1631B	
MB 350-5958/2-A	Method Blank	Total/NA	Solid	1631B	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-5958/3-A	Method Blank	Total/NA	Solid	1631B	5958
LCSD 350-5958/4-A	Lab Control Sample	Total/NA	Solid	1631B	
LCSD 350-5958/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	
350-1619-89 MS	PAWB-1CP2	Total/NA	Solid	1631B	
350-1619-89 MSD	PAWB-1CP2	Total/NA	Solid	1631B	
350-1619-94 MS	PAWB-3C2	Total/NA	Solid	1631B	
350-1619-94 MSD	PAWB-3C2	Total/NA	Solid	1631B	

Analysis Batch: 6736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-101	PAWE-1CP2	Total/NA	Solid	1631B	5961
350-1619-102	PAWE-1D2	Total/NA	Solid	1631B	
350-1619-103	PAWE-2B3	Total/NA	Solid	1631B	
350-1619-104	PAWE-2C2	Total/NA	Solid	1631B	
350-1619-105	PAWE-2C2-FD	Total/NA	Solid	1631B	
350-1619-106	PAWE-3B3	Total/NA	Solid	1631B	
350-1619-107	PAWE-3C2	Total/NA	Solid	1631B	
350-1619-108	PAWE-3CP2	Total/NA	Solid	1631B	
350-1619-109	PAWE-3D2	Total/NA	Solid	1631B	
350-1619-110	PAWE-4B2	Total/NA	Solid	1631B	
350-1619-111	PAWE-4C2	Total/NA	Solid	1631B	
MB 350-5961/1-A	Method Blank	Total/NA	Solid	1631B	
MB 350-5961/2-A	Method Blank	Total/NA	Solid	1631B	
MB 350-5961/3-A	Method Blank	Total/NA	Solid	1631B	
LCS 350-5961/4-A	Lab Control Sample	Total/NA	Solid	1631B	
LCSD 350-5961/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	
350-1619-103 MS	PAWE-2B3	Total/NA	Solid	1631B	
350-1619-103 MSD	PAWE-2B3	Total/NA	Solid	1631B	

Metals (Continued)

Analysis Batch: 6814 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-245	PAWE-WB	Total/NA	Water	1640	6760
350-1619-245	PAWE-WB	Total/NA	Water	1640	6760
MB 350-6760/1-A	Method Blank	Total/NA	Water	1640	6760
MB 350-6760/2-A	Method Blank	Total/NA	Water	1640	6760
LCS 350-6760/4-A	Lab Control Sample	Total/NA	Water	1640	6760
LCS 350-6760/5-A	Lab Control Sample Dup	Total/NA	Water	1640	6760

Analysis Batch: 6815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-209	PACPP-EQ	Total/NA	Water	1640	6760
350-1619-213	PAREF-A-SW-40	Total/NA	Water	1640	6760
350-1619-241	PAWE-3CP2-SW-20-FD	Total/NA	Water	1640	6760
350-1619-243	PAWE-3CP2-SW-B	Total/NA	Water	1640	6760
350-1619-244	PAWE-EQ	Total/NA	Water	1640	6760
350-1619-245	PAWE-WB	Total/NA	Water	1640	6760
MB 350-6760/1-A	Method Blank	Total/NA	Water	1640	6760
MB 350-6760/2-A	Method Blank	Total/NA	Water	1640	6760
LCS 350-6760/4-A	Lab Control Sample	Total/NA	Water	1640	6760
LCS 350-6760/5-A	Lab Control Sample Dup	Total/NA	Water	1640	6760

Analysis Batch: 6816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-241	PAWE-3CP2-SW-20-FD	Total/NA	Water	1640	6760
350-1619-242	PAWE-3CP2-SW-40	Total/NA	Water	1640	6760
350-1619-243	PAWE-3CP2-SW-B	Total/NA	Water	1640	6760
350-1619-244	PAWE-EQ	Total/NA	Water	1640	6760
350-1619-245	PAWE-WB	Total/NA	Water	1640	6760
MB 350-6760/1-A	Method Blank	Total/NA	Water	1640	6760
MB 350-6760/2-A	Method Blank	Total/NA	Water	1640	6760
LCS 350-6760/4-A	Lab Control Sample	Total/NA	Water	1640	6760
LCS 350-6760/5-A	Lab Control Sample Dup	Total/NA	Water	1640	6760

Analysis Batch: 6821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-58	PACPP-1C1	Total/NA	Solid	1631B	5928
350-1619-59	PACPP-1C2X	Total/NA	Solid	1631B	5928
350-1619-60	PACPP-1C3X	Total/NA	Solid	1631B	5928
350-1619-62	PACPP-1CP2X	Total/NA	Solid	1631B	5955
350-1619-63	PACPP-1CP3	Total/NA	Solid	1631B	5955
350-1619-64	PACPP-1D2	Total/NA	Solid	1631B	5955
350-1619-65	PACPP-1E2	Total/NA	Solid	1631B	5955
350-1619-68	PACPP-3C2	Total/NA	Solid	1631B	5955
350-1619-69	PACPP-3CP2	Total/NA	Solid	1631B	5955
350-1619-71	PACPP-3C1	Total/NA	Solid	1631B	5955
350-1619-72	PACPP-3C2Y	Total/NA	Solid	1631B	5955
350-1619-73	PACPP-3C3X	Total/NA	Solid	1631B	5955
350-1619-74	PACPP-3CP1X	Total/NA	Solid	1631B	5955
350-1619-75	PACPP-3CP2	Total/NA	Solid	1631B	5955
350-1619-76	PACPP-3CP3	Total/NA	Solid	1631B	5955
350-1619-77	PACPP-3D2X	Total/NA	Solid	1631B	5955
350-1619-82	PACPP-4C2X-FD	Total/NA	Solid	1631B	5958

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6821 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-83	PACPP-4CP2X	Total/NA	Solid	1631B	5958

Prep Batch: 6875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-61	PACPP-1CP1	Total/NA	Solid	HF Bomb Prep	
350-1619-62	PACPP-1CP2X	Total/NA	Solid	HF Bomb Prep	
350-1619-63	PACPP-1CP3	Total/NA	Solid	HF Bomb Prep	
350-1619-64	PACPP-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-65	PACPP-1E2	Total/NA	Solid	HF Bomb Prep	
350-1619-66	PACPP-1F2	Total/NA	Solid	HF Bomb Prep	
350-1619-67	PACPP-1G2	Total/NA	Solid	HF Bomb Prep	
350-1619-68	PACPP-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-69	PACPP-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-70	PACPP-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-71	PACPP-3C1	Total/NA	Solid	HF Bomb Prep	
350-1619-72	PACPP-3C2Y	Total/NA	Solid	HF Bomb Prep	
350-1619-73	PACPP-3C3X	Total/NA	Solid	HF Bomb Prep	
350-1619-74	PACPP-3CP1X	Total/NA	Solid	HF Bomb Prep	
350-1619-75	PACPP-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-76	PACPP-3CP3	Total/NA	Solid	HF Bomb Prep	
350-1619-77	PACPP-3D2X	Total/NA	Solid	HF Bomb Prep	
350-1619-78	PACPP-3E2X	Total/NA	Solid	HF Bomb Prep	
350-1619-79	PACPP-3F2X	Total/NA	Solid	HF Bomb Prep	
350-1619-80	PACPP-3G2	Total/NA	Solid	HF Bomb Prep	
MB 350-6875/25-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-6875/26-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-6875/27-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-6875/28-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-69 MS	PACPP-2CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-69 MSD	PACPP-2CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-77 MS	PACPP-3D2X	Total/NA	Solid	HF Bomb Prep	
350-1619-77 MSD	PACPP-3D2X	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 6877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-214	PAREF-A-SW-B	Total/NA	Water	1640	
350-1619-242	PAWE-3CP2-SW-40	Total/NA	Water	1640	
350-1619-385	PDPLB-M3-SW-40	Total/NA	Water	1640	
350-1619-386	PDPLB-M3-SW-B	Total/NA	Water	1640	
350-1619-387	PDPLB-WB	Total/NA	Water	1640	
MB 350-6877/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6877/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6877/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6877/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-214 MS	PAREF-A-SW-B	Total/NA	Water	1640	
350-1619-214 MSD	PAREF-A-SW-B	Total/NA	Water	1640	

Analysis Batch: 6893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-38	NPWB-2C2X	Total/NA	Solid	1638	6097
350-1619-39	NPWB-3B2	Total/NA	Solid	1638	6097

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-40	NPWB-3C2	Total/NA	Solid	1638	6097
350-1619-41	NPWB-3CP2	Total/NA	Solid	1638	5927
350-1619-42	NPWB-3D2	Total/NA	Solid	1638	5927
350-1619-43	NPWB-4B3X	Total/NA	Solid	1638	5927
350-1619-44	NPWB-4C2	Total/NA	Solid	1638	5927
350-1619-45	NPWG-1B2X	Total/NA	Solid	1638	5927
350-1619-46	NPWG-1B2X-FD	Total/NA	Solid	1638	5927
350-1619-47	NPWG-1C2	Total/NA	Solid	1638	5927
350-1619-48	NPWG-1CP2	Total/NA	Solid	1638	5927
350-1619-49	NPWG-1D2	Total/NA	Solid	1638	5927
350-1619-50	NPWG-2B2X	Total/NA	Solid	1638	5927
350-1619-51	NPWG-2C2	Total/NA	Solid	1638	5927
350-1619-52	NPWG-3B2X	Total/NA	Solid	1638	5927
350-1619-53	NPWG-3C2	Total/NA	Solid	1638	5927
350-1619-54	NPWG-3CP2	Total/NA	Solid	1638	5927
350-1619-55	NPWG-3D2	Total/NA	Solid	1638	5927
350-1619-56	NPWG-4B2X	Total/NA	Solid	1638	5927
350-1619-57	NPWG-4C2	Total/NA	Solid	1638	5927
350-1619-58	PACPP-1C1	Total/NA	Solid	1638	5927
350-1619-59	PACPP-1C2X	Total/NA	Solid	1638	5927
350-1619-60	PACPP-1C3X	Total/NA	Solid	1638	5927
350-1619-61	PACPP-1CP1	Total/NA	Solid	1638	6026
350-1619-62	PACPP-1CP2X	Total/NA	Solid	1638	6026
350-1619-63	PACPP-1CP3	Total/NA	Solid	1638	6026
350-1619-64	PACPP-1D2	Total/NA	Solid	1638	6026
350-1619-65	PACPP-1E2	Total/NA	Solid	1638	6026
350-1619-66	PACPP-1F2	Total/NA	Solid	1638	6026
350-1619-67	PACPP-1G2	Total/NA	Solid	1638	6026
350-1619-68	PACPP-2C2	Total/NA	Solid	1638	6026
350-1619-69	PACPP-2CP2	Total/NA	Solid	1638	6026
350-1619-70	PACPP-2D2	Total/NA	Solid	1638	6026
350-1619-71	PACPP-3C1	Total/NA	Solid	1638	6026
350-1619-72	PACPP-3C2Y	Total/NA	Solid	1638	6026
350-1619-73	PACPP-3C3X	Total/NA	Solid	1638	6026
350-1619-74	PACPP-3CP1X	Total/NA	Solid	1638	6026
350-1619-75	PACPP-3CP2	Total/NA	Solid	1638	6026
350-1619-76	PACPP-3CP3	Total/NA	Solid	1638	6026
350-1619-77	PACPP-3D2X	Total/NA	Solid	1638	6026
350-1619-78	PACPP-3E2X	Total/NA	Solid	1638	6026
350-1619-79	PACPP-3F2X	Total/NA	Solid	1638	6026
350-1619-80	PACPP-3G2	Total/NA	Solid	1638	6026
350-1619-81	PACPP-4C2X	Total/NA	Solid	1638	6047
350-1619-82	PACPP-4C2X-FD	Total/NA	Solid	1638	6047
350-1619-83	PACPP-4CP2X	Total/NA	Solid	1638	6047
350-1619-84	PACPP-4D2X	Total/NA	Solid	1638	6047
350-1619-85	PAREF-A	Total/NA	Solid	1638	6047
350-1619-86	PAREF-B	Total/NA	Solid	1638	6047
350-1619-87	PAREF-C	Total/NA	Solid	1638	6047
350-1619-88	PAWB-1C2	Total/NA	Solid	1638	6047
350-1619-89	PAWB-1CP2	Total/NA	Solid	1638	6047
350-1619-90	PAWB-1D2	Total/NA	Solid	1638	6047

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-91	PAWB-2B1X	Total/NA	Solid	1638	6047
350-1619-92	PAWB-2C2	Total/NA	Solid	1638	6047
350-1619-93	PAWB-3B2	Total/NA	Solid	1638	6047
350-1619-94	PAWB-3C2	Total/NA	Solid	1638	6047
350-1619-95	PAWB-3CP2	Total/NA	Solid	1638	6047
350-1619-96	PAWB-3D2	Total/NA	Solid	1638	6047
350-1619-97	PAWB-4B2X	Total/NA	Solid	1638	6047
350-1619-98	PAWB-4C2	Total/NA	Solid	1638	6047
350-1619-99	PAWE-1B1	Total/NA	Solid	1638	6047
350-1619-100	PAWE-1C2	Total/NA	Solid	1638	6047
350-1619-101	PAWE-1CP2	Total/NA	Solid	1638	5727
350-1619-102	PAWE-1D2	Total/NA	Solid	1638	5727
350-1619-103	PAWE-2B3	Total/NA	Solid	1638	5727
350-1619-104	PAWE-2C2	Total/NA	Solid	1638	5727
350-1619-105	PAWE-2C2-FD	Total/NA	Solid	1638	5727
350-1619-106	PAWE-3B3	Total/NA	Solid	1638	5727
350-1619-107	PAWE-3C2	Total/NA	Solid	1638	5727
350-1619-108	PAWE-3CP2	Total/NA	Solid	1638	5727
350-1619-109	PAWE-3D2	Total/NA	Solid	1638	5727
350-1619-110	PAWE-4B2	Total/NA	Solid	1638	5727
350-1619-111	PAWE-4C2	Total/NA	Solid	1638	5727
MB 350-5727/1-A	Method Blank	Total/NA	Solid	1638	5727
MB 350-5727/2-A	Method Blank	Total/NA	Solid	1638	5727
MB 350-5927/1-A	Method Blank	Total/NA	Solid	1638	5927
MB 350-5927/2-A	Method Blank	Total/NA	Solid	1638	5927
MB 350-6026/1-A	Method Blank	Total/NA	Solid	1638	6026
MB 350-6026/2-A	Method Blank	Total/NA	Solid	1638	6026
MB 350-6047/1-A	Method Blank	Total/NA	Solid	1638	6047
MB 350-6047/2-A	Method Blank	Total/NA	Solid	1638	6047
MB 350-6097/1-A	Method Blank	Total/NA	Solid	1638	6097
LCS 350-5727/3-A	Lab Control Sample	Total/NA	Solid	1638	5727
LCS 350-5927/3-A	Lab Control Sample	Total/NA	Solid	1638	5927
LCS 350-6026/3-A	Lab Control Sample	Total/NA	Solid	1638	6026
LCS 350-6047/3-A	Lab Control Sample	Total/NA	Solid	1638	6047
LCS 350-6097/3-A	Lab Control Sample	Total/NA	Solid	1638	6097
LCSD 350-5727/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5727
LCSD 350-5927/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5927
LCSD 350-6026/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	6026
LCSD 350-6047/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	6047
LCSD 350-6097/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	6097
350-1619-39 MS	NPWB-3B2	Total/NA	Solid	1638	6097
350-1619-39 MSD	NPWB-3B2	Total/NA	Solid	1638	6097
350-1619-45 MS	NPWG-1B2X	Total/NA	Solid	1638	5927
350-1619-45 MSD	NPWG-1B2X	Total/NA	Solid	1638	5927
350-1619-46 MS	NPWG-1M2	Total/NA	Solid	1638	5927
350-1619-46 MSD	NPWG-1D2	Total/NA	Solid	1638	5927
350-1619-69 MS	PACPP-2CP2	Total/NA	Solid	1638	6026
350-1619-69 MSD	PACPP-2CP2	Total/NA	Solid	1638	6026
350-1619-77 MS	PACPP-3D2X	Total/NA	Solid	1638	6026
350-1619-77 MSD	PACPP-3D2X	Total/NA	Solid	1638	6026
350-1619-81 MS	PACPP-4C2X	Total/NA	Solid	1638	6047

Metals (Continued)

Analysis Batch: 6893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-81 MSD	PACPP-4C2X	Total/NA	Solid	1638	6047
350-1619-99 MS	PAWE-1B1	Total/NA	Solid	1638	6047
350-1619-99 MSD	PAWE-1B1	Total/NA	Solid	1638	6047
350-1619-111 MS	PAWE-4C2	Total/NA	Solid	1638	5727
350-1619-111 MSD	PAWE-4C2	Total/NA	Solid	1638	5727

Analysis Batch: 6963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-214	PAREF-A-SW-B	Total/NA	Water	1640	6877
350-1619-242	PAWE-3CP2-SW-40	Total/NA	Water	1640	6877
350-1619-385	PDPLB-M3-SW-40	Total/NA	Water	1640	6877
350-1619-386	PDPLB-M3-SW-B	Total/NA	Water	1640	6877
350-1619-387	PDPLB-1D2	Total/NA	Water	1640	6877
MB 350-6877/1-A	Method Blank	Total/NA	Water	1640	6877
MB 350-6877/2-A	Method Blank	Total/NA	Water	1640	6877
LCS 350-6877/3-A	Lab Control Sample	Total/NA	Water	1640	6877
LCSD 350-6877/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6877
350-1619-214 MS	PAREF-A-SW-B	Total/NA	Water	1640	6877
350-1619-214 MSD	PAREF-A-SW-B	Total/NA	Water	1640	6877

Analysis Batch: 6977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-61	PACPP-1CP1	Total/NA	Solid	1638	6875
350-1619-62	PACPP-1CP2X	Total/NA	Solid	1638	6875
350-1619-63	PACPP-1CP3	Total/NA	Solid	1638	6875
350-1619-64	PACPP-1D2	Total/NA	Solid	1638	6875
350-1619-65	PACPP-1E2	Total/NA	Solid	1638	6875
350-1619-66	PACPP-1F2	Total/NA	Solid	1638	6875
350-1619-67	PACPP-1G2	Total/NA	Solid	1638	6875
350-1619-68	PACPP-2C2	Total/NA	Solid	1638	6875
350-1619-69	PACPP-2CP2	Total/NA	Solid	1638	6875
350-1619-70	PACPP-2D2	Total/NA	Solid	1638	6875
350-1619-71	PACPP-3C1	Total/NA	Solid	1638	6875
350-1619-72	PACPP-3C2Y	Total/NA	Solid	1638	6875
350-1619-73	PACPP-3C3X	Total/NA	Solid	1638	6875
350-1619-74	PACPP-3CP1X	Total/NA	Solid	1638	6875
350-1619-75	PACPP-3CP2	Total/NA	Solid	1638	6875
350-1619-76	PACPP-3CP3	Total/NA	Solid	1638	6875
350-1619-77	PACPP-3D2X	Total/NA	Solid	1638	6875
350-1619-78	PACPP-3E2X	Total/NA	Solid	1638	6875
350-1619-79	PACPP-3F2X	Total/NA	Solid	1638	6875
350-1619-80	PACPP-3G2	Total/NA	Solid	1638	6875
MB 350-6875/25-A	Method Blank	Total/NA	Solid	1638	6875
MB 350-6875/26-A	Method Blank	Total/NA	Solid	1638	6875
LCS 350-6875/27-A	Lab Control Sample	Total/NA	Solid	1638	6875
LCSD 350-6875/28-A	Lab Control Sample Dup	Total/NA	Solid	1638	6875
350-1619-69 MS	PACPP-2CP2	Total/NA	Solid	1638	6875
350-1619-69 MSD	PACPP-2CP2	Total/NA	Solid	1638	6875
350-1619-77 MS	PACPP-3D2X	Total/NA	Solid	1638	6875
350-1619-77 MSD	PACPP-3D2X	Total/NA	Solid	1638	6875

Eurofins Seattle Specialty Metals

General Chemistry

Analysis Batch: 5848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-1	NPCPP-1C1	Total/NA	Solid	Moisture - 2540	
350-1619-2	NPCPP-1C1-FD	Total/NA	Solid	Moisture - 2540	
350-1619-3	NPCPP-1C2X	Total/NA	Solid	Moisture - 2540	
350-1619-4	NPCPP-1CP1	Total/NA	Solid	Moisture - 2540	
350-1619-5	NPCPP-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-6	NPCPP-1CP3X	Total/NA	Solid	Moisture - 2540	
350-1619-7	NPCPP-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-8	NPCPP-1E2	Total/NA	Solid	Moisture - 2540	
350-1619-9	NPCPP-1F2	Total/NA	Solid	Moisture - 2540	
350-1619-10	NPCPP-1G2	Total/NA	Solid	Moisture - 2540	
350-1619-11	NPCPP-2C1X	Total/NA	Solid	Moisture - 2540	
350-1619-12	NPCPP-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-13	NPCPP-2CP2	Total/NA	Solid	Moisture - 2540	
350-1619-14	NPCPP-2D2	Total/NA	Solid	Moisture - 2540	
350-1619-15	NPCPP-3C1	Total/NA	Solid	Moisture - 2540	
350-1619-16	NPCPP-3C2	Total/NA	Solid	Moisture - 2540	
350-1619-17	NPCPP-3C3X	Total/NA	Solid	Moisture - 2540	
350-1619-18	NPCPP-3C3X-FD	Total/NA	Solid	Moisture - 2540	
350-1619-19	NPCPP-3CP1	Total/NA	Solid	Moisture - 2540	
350-1619-20	NPCPP-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-11 DU	NPCPP-2C1X	Total/NA	Solid	Moisture - 2540	

Analysis Batch: 5930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-41	NPWB-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-42	NPWB-3D2	Total/NA	Solid	Moisture - 2540	
350-1619-43	NPWB-4B3X	Total/NA	Solid	Moisture - 2540	
350-1619-44	NPWB-4C2	Total/NA	Solid	Moisture - 2540	
350-1619-45	NPWG-1B2X	Total/NA	Solid	Moisture - 2540	
350-1619-46	NPWG-1B2X-FD	Total/NA	Solid	Moisture - 2540	
350-1619-47	NPWG-1C2	Total/NA	Solid	Moisture - 2540	
350-1619-48	NPWG-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-49	NPWG-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-50	NPWG-2B2X	Total/NA	Solid	Moisture - 2540	
350-1619-51	NPWG-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-52	NPWG-3B2X	Total/NA	Solid	Moisture - 2540	
350-1619-53	NPWG-3C2	Total/NA	Solid	Moisture - 2540	
350-1619-54	NPWG-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-55	NPWG-3D2	Total/NA	Solid	Moisture - 2540	
350-1619-56	NPWG-4B2X	Total/NA	Solid	Moisture - 2540	
350-1619-57	NPWG-4C2	Total/NA	Solid	Moisture - 2540	
350-1619-58	PACPP-1C1	Total/NA	Solid	Moisture - 2540	
350-1619-59	PACPP-1C2X	Total/NA	Solid	Moisture - 2540	
350-1619-60	PACPP-1C3X	Total/NA	Solid	Moisture - 2540	
350-1619-54 DU	NPWG-3CP2	Total/NA	Solid	Moisture - 2540	

Analysis Batch: 5972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-21	NPCPP-3CP3X	Total/NA	Solid	Moisture - 2540	
350-1619-22	NPCPP-3D2	Total/NA	Solid	Moisture - 2540	
350-1619-23	NPCPP-3E2	Total/NA	Solid	Moisture - 2540	

Eurofins Seattle Specialty Metals

General Chemistry (Continued)

Analysis Batch: 5972 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-24	NPCPP-3F2X	Total/NA	Solid	Moisture - 2540	
350-1619-25	NPCPP-3G2	Total/NA	Solid	Moisture - 2540	
350-1619-26	NPCPP-4C2	Total/NA	Solid	Moisture - 2540	
350-1619-27	NPCPP-4CP2	Total/NA	Solid	Moisture - 2540	
350-1619-28	NPCPP-4D2	Total/NA	Solid	Moisture - 2540	
350-1619-29	NPREF-A	Total/NA	Solid	Moisture - 2540	
350-1619-30	NPREF-B	Total/NA	Solid	Moisture - 2540	
350-1619-31	NPREF-B-FD	Total/NA	Solid	Moisture - 2540	
350-1619-32	NPREF-C	Total/NA	Solid	Moisture - 2540	
350-1619-33	NPWB-1C2	Total/NA	Solid	Moisture - 2540	
350-1619-34	NPWB-1C2-FD	Total/NA	Solid	Moisture - 2540	
350-1619-35	NPWB-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-36	NPWB-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-37	NPWB-2B3	Total/NA	Solid	Moisture - 2540	
350-1619-38	NPWB-2C2X	Total/NA	Solid	Moisture - 2540	
350-1619-39	NPWB-3B2	Total/NA	Solid	Moisture - 2540	
350-1619-40	NPWB-3C2	Total/NA	Solid	Moisture - 2540	
350-1619-25 DU	NPCPP-3G2	Total/NA	Solid	Moisture - 2540	

Analysis Batch: 5977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-61	PACPP-1CP1	Total/NA	Solid	Moisture - 2540	
350-1619-62	PACPP-1CP2X	Total/NA	Solid	Moisture - 2540	
350-1619-63	PACPP-1CP3	Total/NA	Solid	Moisture - 2540	
350-1619-64	PACPP-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-65	PACPP-1E2	Total/NA	Solid	Moisture - 2540	
350-1619-66	PACPP-1F2	Total/NA	Solid	Moisture - 2540	
350-1619-67	PACPP-1G2	Total/NA	Solid	Moisture - 2540	
350-1619-68	PACPP-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-69	PACPP-2CP2	Total/NA	Solid	Moisture - 2540	
350-1619-70	PACPP-2D2	Total/NA	Solid	Moisture - 2540	
350-1619-71	PACPP-3C1	Total/NA	Solid	Moisture - 2540	
350-1619-72	PACPP-3C2Y	Total/NA	Solid	Moisture - 2540	
350-1619-73	PACPP-3C3X	Total/NA	Solid	Moisture - 2540	
350-1619-74	PACPP-3CP1X	Total/NA	Solid	Moisture - 2540	
350-1619-75	PACPP-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-76	PACPP-3CP3	Total/NA	Solid	Moisture - 2540	
350-1619-77	PACPP-3D2X	Total/NA	Solid	Moisture - 2540	
350-1619-78	PACPP-3E2X	Total/NA	Solid	Moisture - 2540	
350-1619-79	PACPP-3F2X	Total/NA	Solid	Moisture - 2540	
350-1619-80	PACPP-3G2	Total/NA	Solid	Moisture - 2540	
350-1619-71 DU	PACPP-3C1	Total/NA	Solid	Moisture - 2540	

Analysis Batch: 6063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-81	PACPP-4C2X	Total/NA	Solid	Moisture - 2540	
350-1619-82	PACPP-4C2X-FD	Total/NA	Solid	Moisture - 2540	
350-1619-83	PACPP-4CP2X	Total/NA	Solid	Moisture - 2540	
350-1619-84	PACPP-4D2X	Total/NA	Solid	Moisture - 2540	
350-1619-85	PAREF-A	Total/NA	Solid	Moisture - 2540	
350-1619-86	PAREF-B	Total/NA	Solid	Moisture - 2540	

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General Chemistry (Continued)

Analysis Batch: 6063 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-87	PAREF-C	Total/NA	Solid	Moisture - 2540	
350-1619-88	PAWB-1C2	Total/NA	Solid	Moisture - 2540	
350-1619-89	PAWB-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-90	PAWB-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-91	PAWB-2B1X	Total/NA	Solid	Moisture - 2540	
350-1619-92	PAWB-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-93	PAWB-3B2	Total/NA	Solid	Moisture - 2540	
350-1619-94	PAWB-3C2	Total/NA	Solid	Moisture - 2540	
350-1619-95	PAWB-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-96	PAWB-3D2	Total/NA	Solid	Moisture - 2540	
350-1619-97	PAWB-4B2X	Total/NA	Solid	Moisture - 2540	
350-1619-98	PAWB-4C2	Total/NA	Solid	Moisture - 2540	
350-1619-99	PAWE-1B1	Total/NA	Solid	Moisture - 2540	
350-1619-100	PAWE-1C2	Total/NA	Solid	Moisture - 2540	
350-1619-100 DU	PAWE-1C2	Total/NA	Solid	Moisture - 2540	

Analysis Batch: 6070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-101	PAWE-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-102	PAWE-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-103	PAWE-2B3	Total/NA	Solid	Moisture - 2540	
350-1619-104	PAWE-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-105	PAWE-2C2-FD	Total/NA	Solid	Moisture - 2540	
350-1619-106	PAWE-3B3	Total/NA	Solid	Moisture - 2540	
350-1619-107	PAWE-3C2	Total/NA	Solid	Moisture - 2540	
350-1619-108	PAWE-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-109	PAWE-3D2	Total/NA	Solid	Moisture - 2540	
350-1619-110	PAWE-4B2	Total/NA	Solid	Moisture - 2540	
350-1619-111	PAWE-4C2	Total/NA	Solid	Moisture - 2540	
350-1619-103 DU	PAWE-2B3	Total/NA	Solid	Moisture - 2540	

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPCPP-2CP2					Lab Sample ID: 350-1619-13					4
Date Collected: 02/15/25 05:42					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		8
Client Sample ID: NPCPP-2CP2					Lab Sample ID: 350-1619-13					9
Date Collected: 02/15/25 05:42					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 51.6					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 11:21		14
Total/NA	Prep	HF Bomb Prep			5845	JS	EET SSM	03/27/25 18:41		15
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 20:21		16
Client Sample ID: NPCPP-2D2					Lab Sample ID: 350-1619-14					17
Date Collected: 02/15/25 06:22					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		21
Client Sample ID: NPCPP-2D2					Lab Sample ID: 350-1619-14					22
Date Collected: 02/15/25 06:22					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 49.4					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 08:45		27
Total/NA	Prep	HF Bomb Prep			5845	JS	EET SSM	03/27/25 18:41		28
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 19:37		29
Client Sample ID: NPCPP-3C1					Lab Sample ID: 350-1619-15					30
Date Collected: 02/16/25 08:56					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		34
Client Sample ID: NPCPP-3C1					Lab Sample ID: 350-1619-15					35
Date Collected: 02/16/25 08:56					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 55.5					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 11:25		40
Total/NA	Prep	HF Bomb Prep			5845	JS	EET SSM	03/27/25 18:41		41
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 20:23		42

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPCPP-3C2					Lab Sample ID: 350-1619-16					4
Date Collected: 02/15/25 22:58					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		8
Client Sample ID: NPCPP-3C2					Lab Sample ID: 350-1619-16					9
Date Collected: 02/15/25 22:58					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 58.2					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		100	6250	CL	EET SSM	04/15/25 15:32		14
Total/NA	Prep	HF Bomb Prep			5845	JS	EET SSM	03/27/25 18:41		15
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 20:26		16
Client Sample ID: NPCPP-3C3X					Lab Sample ID: 350-1619-17					17
Date Collected: 02/15/25 23:36					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		21
Client Sample ID: NPCPP-3C3X					Lab Sample ID: 350-1619-17					22
Date Collected: 02/15/25 23:36					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 55.6					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		100	6250	CL	EET SSM	04/15/25 12:42		27
Total/NA	Prep	HF Bomb Prep			5845	JS	EET SSM	03/27/25 18:41		28
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 20:28		29
Client Sample ID: NPCPP-3C3X-FD					Lab Sample ID: 350-1619-18					30
Date Collected: 02/15/25 20:54					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		34
Client Sample ID: NPCPP-3C3X-FD					Lab Sample ID: 350-1619-18					35
Date Collected: 02/15/25 20:54					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 55.3					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		400	6250	CL	EET SSM	04/15/25 12:46		40
Total/NA	Prep	HF Bomb Prep			5891	JS	EET SSM	03/31/25 17:00		41
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 18:27		42

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: NPCPP-3CP1

Date Collected: 02/15/25 17:01

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-19

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35

Client Sample ID: NPCPP-3CP1

Date Collected: 02/15/25 17:01

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-19

Matrix: Solid

Percent Solids: 50.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 15:15
Total/NA	Prep	HF Bomb Prep			5891	JS	EET SSM	03/31/25 17:00
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 18:29

Client Sample ID: NPCPP-3CP2

Date Collected: 02/15/25 11:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-20

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35

Client Sample ID: NPCPP-3CP2

Date Collected: 02/15/25 11:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-20

Matrix: Solid

Percent Solids: 53.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		1000	6250	CL	EET SSM	04/15/25 15:28
Total/NA	Prep	HF Bomb Prep			5891	JS	EET SSM	03/31/25 17:00
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 18:07

Client Sample ID: NPCPP-3CP3X

Date Collected: 02/15/25 16:23

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-21

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5972	JS	EET SSM	04/03/25 13:48

Client Sample ID: NPCPP-3CP3X

Date Collected: 02/15/25 16:23

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-21

Matrix: Solid

Percent Solids: 53.1

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWB-2B3					Lab Sample ID: 350-1619-37					4
Date Collected: 02/14/25 18:54					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5972	JS	EET SSM	04/03/25 13:48		8
Client Sample ID: NPWB-2B3					Lab Sample ID: 350-1619-37					9
Date Collected: 02/14/25 18:54					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 52.3					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5952	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 14:58		14
Total/NA	Prep	HF Bomb Prep			5891	JS	EET SSM	03/31/25 17:00		15
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 18:14		16
Client Sample ID: NPWB-2C2X					Lab Sample ID: 350-1619-38					17
Date Collected: 02/14/25 05:33					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	5972	JS	EET SSM	04/03/25 13:48		21
Client Sample ID: NPWB-2C2X					Lab Sample ID: 350-1619-38					22
Date Collected: 02/14/25 05:33					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 47.3					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5952	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 15:03		27
Total/NA	Prep	HF Bomb Prep			6097	JS	EET SSM	04/08/25 18:57		28
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/15/25 00:43		29
Client Sample ID: NPWB-3B2					Lab Sample ID: 350-1619-39					30
Date Collected: 02/14/25 18:29					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	5972	JS	EET SSM	04/03/25 13:48		34
Client Sample ID: NPWB-3B2					Lab Sample ID: 350-1619-39					35
Date Collected: 02/14/25 18:29					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 47.0					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5952	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 15:07		40
Total/NA	Prep	HF Bomb Prep			6097	JS	EET SSM	04/08/25 18:57		41
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/15/25 00:36		42
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWB-3C2					Lab Sample ID: 350-1619-40					4
Date Collected: 02/14/25 20:22					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5972	JS	EET SSM	04/03/25 13:48		8
Client Sample ID: NPWB-3C2					Lab Sample ID: 350-1619-40					9
Date Collected: 02/14/25 20:22					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 51.0					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5952	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 15:11		14
Total/NA	Prep	HF Bomb Prep			6097	JS	EET SSM	04/08/25 18:57		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/15/25 00:46		16
Client Sample ID: NPWB-3CP2					Lab Sample ID: 350-1619-41					17
Date Collected: 02/14/25 21:24					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		21
Client Sample ID: NPWB-3CP2					Lab Sample ID: 350-1619-41					22
Date Collected: 02/14/25 21:24					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 48.6					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:30		27
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		28
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:06		29
Client Sample ID: NPWB-3D2					Lab Sample ID: 350-1619-42					30
Date Collected: 02/14/25 21:55					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		34
Client Sample ID: NPWB-3D2					Lab Sample ID: 350-1619-42					35
Date Collected: 02/14/25 21:55					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 48.0					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:34		40
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		41
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:09		42
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWB-4B3X

Date Collected: 02/14/25 19:19

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-43

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03

Client Sample ID: NPWB-4B3X

Date Collected: 02/14/25 19:19

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-43

Matrix: Solid

Percent Solids: 52.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:38
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:11

Client Sample ID: NPWB-4C2

Date Collected: 02/14/25 19:52

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-44

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03

Client Sample ID: NPWB-4C2

Date Collected: 02/14/25 19:52

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-44

Matrix: Solid

Percent Solids: 44.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:42
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:14

Client Sample ID: NPWG-1B2X

Date Collected: 02/17/25 10:17

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-45

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03

Client Sample ID: NPWG-1B2X

Date Collected: 02/17/25 10:17

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-45

Matrix: Solid

Percent Solids: 48.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 15:57
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 21:46

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWG-1D2					Lab Sample ID: 350-1619-49					4
Date Collected: 02/17/25 04:14					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		8
Client Sample ID: NPWG-1D2					Lab Sample ID: 350-1619-49					9
Date Collected: 02/17/25 04:14					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 45.2					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:09		14
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 21:54		
Client Sample ID: NPWG-2B2X					Lab Sample ID: 350-1619-50					
Date Collected: 02/16/25 22:45					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		
Client Sample ID: NPWG-2B2X					Lab Sample ID: 350-1619-50					
Date Collected: 02/16/25 22:45					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 50.8					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:59		
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:24		
Client Sample ID: NPWG-2C2					Lab Sample ID: 350-1619-51					
Date Collected: 02/16/25 22:06					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		
Client Sample ID: NPWG-2C2					Lab Sample ID: 350-1619-51					
Date Collected: 02/16/25 22:06					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 45.4					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:03		
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:26		

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWG-3B2X					Lab Sample ID: 350-1619-52					4
Date Collected: 02/17/25 15:36					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		8
Client Sample ID: NPWG-3B2X					Lab Sample ID: 350-1619-52					9
Date Collected: 02/17/25 15:36					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 50.7					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:15		14
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:29		
Client Sample ID: NPWG-3C2					Lab Sample ID: 350-1619-53					
Date Collected: 02/17/25 14:17					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		
Client Sample ID: NPWG-3C2					Lab Sample ID: 350-1619-53					
Date Collected: 02/17/25 14:17					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 48.5					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:20		
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:37		
Client Sample ID: NPWG-3CP2					Lab Sample ID: 350-1619-54					
Date Collected: 02/16/25 16:47					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		
Client Sample ID: NPWG-3CP2					Lab Sample ID: 350-1619-54					
Date Collected: 02/16/25 16:47					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 48.8					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:24		
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:39		

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWG-3D2

Date Collected: 02/16/25 17:16

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-55

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03

Client Sample ID: NPWG-3D2

Date Collected: 02/16/25 17:16

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-55

Matrix: Solid

Percent Solids: 48.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:28
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:42

Client Sample ID: NPWG-4B2X

Date Collected: 02/17/25 16:05

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-56

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03

Client Sample ID: NPWG-4B2X

Date Collected: 02/17/25 16:05

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-56

Matrix: Solid

Percent Solids: 49.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:32
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:44

Client Sample ID: NPWG-4C2

Date Collected: 02/17/25 16:50

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-57

Matrix: Solid

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-1CP1					Lab Sample ID: 350-1619-61					4
Date Collected: 02/18/25 10:41					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		8
										9
Client Sample ID: PACPP-1CP1					Lab Sample ID: 350-1619-61					10
Date Collected: 02/18/25 10:41					Matrix: Solid					11
Date Received: 03/06/25 10:30					Percent Solids: 48.3					12
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		13
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		14
Total/NA	Analysis	1631B		100	6631	CL	EET SSM	05/01/25 19:28		15
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 17:48		
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 19:49		

Client Sample ID: PACPP-1CP2X					Lab Sample ID: 350-1619-62				
Date Collected: 02/18/25 11:23					Matrix: Solid				
Date Received: 03/06/25 10:30									

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05
Client Sample ID: PACPP-1CP2X					Lab Sample ID: 350-1619-62			
Date Collected: 02/17/25 23:19					Matrix: Solid			
Date Received: 03/06/25 10:30					Percent Solids: 50.1			
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		200	6821	COW	EET SSM	05/14/25 14:01
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 17:51
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 19:52

Client Sample ID: PACPP-1CP3					Lab Sample ID: 350-1619-63				
Date Collected: 02/18/25 11:23					Matrix: Solid				
Date Received: 03/06/25 10:30									

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-1CP3					Lab Sample ID: 350-1619-63					4
Date Collected: 02/18/25 21:28					Matrix: Solid					5
Date Received: 03/06/25 10:30					Percent Solids: 47.2					6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		8
Total/NA	Analysis	1631B		200	6821	COW	EET SSM	05/14/25 14:05		9
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		10
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 17:53		11
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		12
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 19:55		13
										14
Client Sample ID: PACPP-1D2					Lab Sample ID: 350-1619-64					15
Date Collected: 02/18/25 21:28					Matrix: Solid					16
Date Received: 03/06/25 10:30										17
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		18
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		19
										20
Client Sample ID: PACPP-1D2					Lab Sample ID: 350-1619-64					21
Date Collected: 02/18/25 21:28					Matrix: Solid					22
Date Received: 03/06/25 10:30					Percent Solids: 47.0					23
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		24
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		25
Total/NA	Analysis	1631B		100	6821	COW	EET SSM	05/14/25 14:09		26
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		27
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 17:56		28
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		29
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 19:58		30

Client Sample ID: PACPP-1E2					Lab Sample ID: 350-1619-65				
Date Collected: 02/18/25 20:52					Matrix: Solid				
Date Received: 03/06/25 10:30									

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05

Client Sample ID: PACPP-1E2					Lab Sample ID: 350-1619-65				
Date Collected: 02/18/25 20:52					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 47.5				

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6821	COW	EET SSM	05/14/25 14:22
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 17:58
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:01

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-1F2					Lab Sample ID: 350-1619-66					4
Date Collected: 02/18/25 20:16					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		8
										9
Client Sample ID: PACPP-1F2					Lab Sample ID: 350-1619-66					10
Date Collected: 02/18/25 20:16					Matrix: Solid					11
Date Received: 03/06/25 10:30					Percent Solids: 49.2					12
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		13
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		14
Total/NA	Analysis	1631B		30	6631	CL	EET SSM	05/01/25 17:43		15
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:01		
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:04		

Client Sample ID: PACPP-1G2					Lab Sample ID: 350-1619-67				
Date Collected: 02/18/25 19:39					Matrix: Solid				
Date Received: 03/06/25 10:30									

Batch			Run	Dilution Factor	Batch		Lab	Prepared
Prep Type	Type	Method			Number	Analyst		or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05
Client Sample ID: PACPP-1G2							Lab Sample ID: 350-1619-67	
Date Collected: 02/18/25 19:39							Matrix: Solid	
Date Received: 03/06/25 10:30							Percent Solids: 46.9	
Batch			Run	Dilution Factor	Batch		Lab	Prepared
Prep Type	Type	Method			Number	Analyst		or Analyzed
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6631	CL	EET SSM	05/01/25 17:47
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16
Total/NA	Analysis	1638		1	6083	COW	EET SSM	05/14/25 18:03
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:07

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-3C1					Lab Sample ID: 350-1619-71					4
Date Collected: 02/19/25 10:36					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		8
Client Sample ID: PACPP-3C1					Lab Sample ID: 350-1619-71					9
Date Collected: 02/19/25 10:36					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 52.8					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		200	6821	COW	EET SSM	05/14/25 14:34		14
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:16		16
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		17
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:16		18
Client Sample ID: PACPP-3C2Y					Lab Sample ID: 350-1619-72					19
Date Collected: 02/19/25 09:49					Matrix: Solid					20
Date Received: 03/06/25 10:30										21
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		22
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		23
Client Sample ID: PACPP-3C2Y					Lab Sample ID: 350-1619-72					24
Date Collected: 02/19/25 04:44					Matrix: Solid					25
Date Received: 03/06/25 10:30					Percent Solids: 50.8					26
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		27
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		28
Total/NA	Analysis	1631B		1000	6821	COW	EET SSM	05/14/25 16:24		29
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		30
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:19		31
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		32
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:25		33
Client Sample ID: PACPP-3C3X					Lab Sample ID: 350-1619-73					34
Date Collected: 02/19/25 09:15					Matrix: Solid					35
Date Received: 03/06/25 10:30										36
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		37
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		38
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-3C3X					Lab Sample ID: 350-1619-73					4
Date Collected: 02/19/25 09:15					Matrix: Solid					5
Date Received: 03/06/25 10:30					Percent Solids: 53.9					6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		8
Total/NA	Analysis	1631B		1000	6821	COW	EET SSM	05/14/25 16:28		9
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		10
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:21		11
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		12
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:28		13
Client Sample ID: PACPP-3CP1X					Lab Sample ID: 350-1619-74					14
Date Collected: 02/19/25 03:00					Matrix: Solid					15
Date Received: 03/06/25 10:30										16
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		17
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		18
Client Sample ID: PACPP-3CP1X					Lab Sample ID: 350-1619-74					19
Date Collected: 02/19/25 03:00					Matrix: Solid					20
Date Received: 03/06/25 10:30					Percent Solids: 49.5					21
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		22
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		23
Total/NA	Analysis	1631B		2500	6821	COW	EET SSM	05/14/25 16:32		24
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		25
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:24		26
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		27
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:31		28
Client Sample ID: PACPP-3CP2					Lab Sample ID: 350-1619-75					29
Date Collected: 02/19/25 04:09					Matrix: Solid					30
Date Received: 03/06/25 10:30										31
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		32
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		33
Client Sample ID: PACPP-3CP2					Lab Sample ID: 350-1619-75					34
Date Collected: 02/19/25 04:09					Matrix: Solid					35
Date Received: 03/06/25 10:30					Percent Solids: 50.5					36
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		37
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		38
Total/NA	Analysis	1631B		200	6821	COW	EET SSM	05/14/25 15:28		39
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		40
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:26		41
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		42
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:33		43
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Sample ID: 350-1619-1

Client Sample ID: PACPP-3CP3

Date Collected: 02/19/25 04:44

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-76

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05

Client Sample ID: PACPP-3CP3

Date Collected: 02/19/25 04:44

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-76

Matrix: Solid

Percent Solids: 49.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		200	6821	COW	EET SSM	05/14/25 15:33
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:29
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:36

Client Sample ID: PACPP-3D2X

Date Collected: 02/19/25 05:27

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-77

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05

Client Sample ID: PACPP-3D2X

Date Collected: 02/19/25 05:27

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-77

Matrix: Solid

Percent Solids: 50.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6821	COW	EET SSM	05/14/25 15:37
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 17:33
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 19:33

Client Sample ID: PACPP-3E2X

Date Collected: 02/19/25 11:22

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-78

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-4C2X					Lab Sample ID: 350-1619-81					4
Date Collected: 02/18/25 03:59					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		8
Client Sample ID: PACPP-4C2X					Lab Sample ID: 350-1619-81					9
Date Collected: 02/18/25 03:59					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 54.8					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		200	6735	COW	EET SSM	05/07/25 22:11		14
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:54		16
Client Sample ID: PACPP-4C2X-FD					Lab Sample ID: 350-1619-82					17
Date Collected: 02/18/25 04:22					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		21
Client Sample ID: PACPP-4C2X-FD					Lab Sample ID: 350-1619-82					22
Date Collected: 02/18/25 04:22					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 54.6					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		1000	6821	COW	EET SSM	05/14/25 15:41		27
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		28
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:14		29
Client Sample ID: PACPP-4CP2X					Lab Sample ID: 350-1619-83					30
Date Collected: 02/18/25 04:56					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		34
Client Sample ID: PACPP-4CP2X					Lab Sample ID: 350-1619-83					35
Date Collected: 02/18/25 04:56					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 52.7					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		30	6821	COW	EET SSM	05/14/25 15:45		40
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		41
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:17		42

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-4D2X					Lab Sample ID: 350-1619-84					4
Date Collected: 02/18/25 08:49					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		8
Client Sample ID: PACPP-4D2X					Lab Sample ID: 350-1619-84					9
Date Collected: 02/18/25 08:49					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 50.5					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		100	6735	COW	EET SSM	05/07/25 22:29		14
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:19		16
Client Sample ID: PAREF-A					Lab Sample ID: 350-1619-85					17
Date Collected: 02/13/25 19:06					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		21
Client Sample ID: PAREF-A					Lab Sample ID: 350-1619-85					22
Date Collected: 02/13/25 19:06					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 46.3					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		20	6735	COW	EET SSM	05/07/25 22:33		27
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		28
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:22		29
Client Sample ID: PAREF-B					Lab Sample ID: 350-1619-86					30
Date Collected: 02/13/25 19:38					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		34
Client Sample ID: PAREF-B					Lab Sample ID: 350-1619-86					35
Date Collected: 02/13/25 19:38					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 49.9					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		20	6735	COW	EET SSM	05/07/25 22:37		40
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		41
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:24		42

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: PAREF-C

Date Collected: 02/13/25 19:59

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-87

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14

Client Sample ID: PAREF-C

Date Collected: 02/13/25 19:59

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-87

Matrix: Solid

Percent Solids: 51.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		20	6735	COW	EET SSM	05/07/25 22:42
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:27

Client Sample ID: PAWB-1C2

Date Collected: 02/20/25 23:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-88

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14

Client Sample ID: PAWB-1C2

Date Collected: 02/20/25 23:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-88

Matrix: Solid

Percent Solids: 49.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWB-3B2					Lab Sample ID: 350-1619-93					4
Date Collected: 02/21/25 14:36					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		8
Client Sample ID: PAWB-3B2					Lab Sample ID: 350-1619-93					9
Date Collected: 02/21/25 14:36					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 52.1					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:11		14
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:47		16
Client Sample ID: PAWB-3C2					Lab Sample ID: 350-1619-94					17
Date Collected: 02/21/25 05:40					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		21
Client Sample ID: PAWB-3C2					Lab Sample ID: 350-1619-94					22
Date Collected: 02/21/25 05:40					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 48.0					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 21:50		27
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		28
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:49		29
Client Sample ID: PAWB-3CP2					Lab Sample ID: 350-1619-95					30
Date Collected: 02/21/25 04:55					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		34
Client Sample ID: PAWB-3CP2					Lab Sample ID: 350-1619-95					35
Date Collected: 02/21/25 04:55					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 46.9					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:15		40
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		41
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:52		42
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWB-3D2					Lab Sample ID: 350-1619-96					4
Date Collected: 02/21/25 04:19					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		8
Client Sample ID: PAWB-3D2					Lab Sample ID: 350-1619-96					9
Date Collected: 02/21/25 04:19					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 48.3					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:19		14
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:54		16
Client Sample ID: PAWB-4B2X					Lab Sample ID: 350-1619-97					17
Date Collected: 02/21/25 15:54					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		21
Client Sample ID: PAWB-4B2X					Lab Sample ID: 350-1619-97					22
Date Collected: 02/21/25 15:54					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 50.5					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:23		27
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		28
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:57		29
Client Sample ID: PAWB-4C2					Lab Sample ID: 350-1619-98					30
Date Collected: 02/21/25 19:24					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		34
Client Sample ID: PAWB-4C2					Lab Sample ID: 350-1619-98					35
Date Collected: 02/21/25 19:24					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 49.2					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:27		40
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		41
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:59		42
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWE-1B1

Date Collected: 02/20/25 17:12

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-99

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14

Client Sample ID: PAWE-1B1

Date Collected: 02/20/25 17:12

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-99

Matrix: Solid

Percent Solids: 51.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:31
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:01

Client Sample ID: PAWE-1C2

Date Collected: 02/20/25 01:48

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-100

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14

Client Sample ID: PAWE-1C2

Date Collected: 02/20/25 01:48

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-100

Matrix: Solid

Percent Solids: 51.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:35
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 20:02

Client Sample ID: PAWE-1C2C

Date Collected: 02/20/25 02:23

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-101

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29

Client Sample ID: PAWE-1C2C

Date Collected: 02/20/25 02:23

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-101

Matrix: Solid

Percent Solids: 51.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 13:59
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:32

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWE-2C2-FD					Lab Sample ID: 350-1619-105					4
Date Collected: 02/20/25 04:56					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		8
Client Sample ID: PAWE-2C2-FD					Lab Sample ID: 350-1619-105					9
Date Collected: 02/20/25 04:56					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 52.5					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:11		14
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:42		
Client Sample ID: PAWE-3B3					Lab Sample ID: 350-1619-106					
Date Collected: 02/20/25 15:43					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		
Client Sample ID: PAWE-3B3					Lab Sample ID: 350-1619-106					
Date Collected: 02/20/25 15:43					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 50.4					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:15		
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:45		
Client Sample ID: PAWE-3C2					Lab Sample ID: 350-1619-107					
Date Collected: 02/20/25 17:13					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		
Client Sample ID: PAWE-3C2					Lab Sample ID: 350-1619-107					
Date Collected: 02/20/25 17:13					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 49.4					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:20		
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:47		
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWE-3CP2					Lab Sample ID: 350-1619-108					4
Date Collected: 02/20/25 16:47					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		8
Client Sample ID: PAWE-3CP2					Lab Sample ID: 350-1619-108					9
Date Collected: 02/20/25 16:47					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 46.9					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:24		14
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:50		
Client Sample ID: PAWE-3D2					Lab Sample ID: 350-1619-109					
Date Collected: 02/20/25 19:49					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		
Client Sample ID: PAWE-3D2					Lab Sample ID: 350-1619-109					
Date Collected: 02/20/25 19:49					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 52.4					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:28		
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:53		
Client Sample ID: PAWE-4B2					Lab Sample ID: 350-1619-110					
Date Collected: 02/20/25 16:25					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		
Client Sample ID: PAWE-4B2					Lab Sample ID: 350-1619-110					
Date Collected: 02/20/25 16:25					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 52.6					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:32		
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:55		
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWE-4C2

Date Collected: 02/20/25 01:09

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-111

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29

Client Sample ID: PAWE-4C2

Date Collected: 02/20/25 01:09

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-111

Matrix: Solid

Percent Solids: 50.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:44
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:12

Client Sample ID: NPCPP-1C2X-SW-1

Date Collected: 02/16/25 01:52

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-112

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 13:32
Total/NA	Prep	1640			6090	COW	EET SSM	04/08/25 16:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/09/25 19:53
Total/NA	Prep	1640			6090	COW	EET SSM	04/08/25 16:09
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/09/25 19:53

Client Sample ID: NPCPP-1C2X-SW-20

Date Collected: 02/16/25 01:58

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-113

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 13:36
Total/NA	Prep	1640			6090	COW	EET SSM	04/08/25 16:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/09/25 17:04
Total/NA	Prep	1640			6090	COW	EET SSM	04/08/25 16:09
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/09/25 17:04

Client Sample ID: NPCPP-1C2X-SW-40

Date Collected: 02/16/25 02:06

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-114

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 13:49
Total/NA	Prep	1640			6090	COW	EET SSM	04/08/25 16:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/09/25 17:18
Total/NA	Prep	1640			6090	COW	EET SSM	04/08/25 16:09
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/09/25 17:18

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPCPP-4C2-SW-40					Lab Sample ID: 350-1619-135					4
Date Collected: 02/15/25 04:34					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		8
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 13:03		9
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		10
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 13:03		11
Client Sample ID: NPCPP-4C2-SW-B					Lab Sample ID: 350-1619-136					12
Date Collected: 02/15/25 04:45					Matrix: Water					13
Date Received: 03/06/25 10:30										14
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		15
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:37		16
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		17
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 13:18		18
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		19
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 13:18		20
Client Sample ID: NPCPP-EQ					Lab Sample ID: 350-1619-137					21
Date Collected: 02/12/25 20:00					Matrix: Water					22
Date Received: 03/06/25 10:30										23
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		24
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:41		25
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		26
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 13:32		27
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		28
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 13:32		29
Client Sample ID: NPCPP-WB					Lab Sample ID: 350-1619-138					30
Date Collected: 02/12/25 20:07					Matrix: Water					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:45		34
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		35
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 13:46		36
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		37
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 13:46		38
Client Sample ID: NPREF-A-SW-1					Lab Sample ID: 350-1619-139					39
Date Collected: 02/12/25 20:54					Matrix: Water					40
Date Received: 03/06/25 10:30										41
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		42
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:49		43
Eurofins Seattle Specialty Metals										44
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPREF-A-SW-1					Lab Sample ID: 350-1619-139					4
Date Collected: 02/12/25 20:54					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		8
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 14:00		9
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		10
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 14:00		11
Client Sample ID: NPREF-A-SW-1-FD					Lab Sample ID: 350-1619-140					12
Date Collected: 02/12/25 20:59					Matrix: Water					13
Date Received: 03/06/25 10:30										14
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		15
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:53		16
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		17
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 14:14		18
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		19
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 14:14		20
Client Sample ID: NPREF-A-SW-20					Lab Sample ID: 350-1619-141					21
Date Collected: 02/12/25 21:05					Matrix: Water					22
Date Received: 03/06/25 10:30										23
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		24
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:57		25
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		26
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 14:28		27
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		28
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 14:28		29
Client Sample ID: NPREF-A-SW-40					Lab Sample ID: 350-1619-142					30
Date Collected: 02/12/25 21:11					Matrix: Water					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:01		34
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		35
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 14:42		36
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		37
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 14:42		38
Client Sample ID: NPREF-A-SW-B					Lab Sample ID: 350-1619-143					39
Date Collected: 02/12/25 21:21					Matrix: Water					40
Date Received: 03/06/25 10:30										41
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		42
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:06		43
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: NPREF-A-SW-B

Date Collected: 02/12/25 21:21

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-143

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 15:25
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 15:25

Client Sample ID: NPREF-EQ

Date Collected: 02/12/25 20:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-144

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:18
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 15:39
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 15:39

Client Sample ID: NPREF-WB

Date Collected: 02/12/25 20:00

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-145

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:22
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 15:53
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 15:53

Client Sample ID: NPWB-1C2-SW-1

Date Collected: 02/14/25 00:47

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-146

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:26
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 16:07
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 16:07

Client Sample ID: NPWB-1C2-SW-20

Date Collected: 02/14/25 00:54

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-147

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:31

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWB-1CP2-SW-20					Lab Sample ID: 350-1619-151					4
Date Collected: 02/14/25 01:57					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		8
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 01:46		9
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		10
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 01:46		11
Client Sample ID: NPWB-1CP2-SW-40					Lab Sample ID: 350-1619-152					12
Date Collected: 02/14/25 02:09					Matrix: Water					13
Date Received: 03/06/25 10:30										14
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		15
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 17:41		16
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		17
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 02:00		18
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		19
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 02:00		20
Client Sample ID: NPWB-1CP2-SW-B					Lab Sample ID: 350-1619-153					21
Date Collected: 02/14/25 02:20					Matrix: Water					22
Date Received: 03/06/25 10:30										23
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		24
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 17:45		25
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		26
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 02:14		27
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		28
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 02:14		29
Client Sample ID: NPWB-3B2-SW-1					Lab Sample ID: 350-1619-154					30
Date Collected: 02/14/25 14:19					Matrix: Water					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 17:49		34
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		35
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 02:28		36
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		37
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 02:28		38
Client Sample ID: NPWB-3B2-SW-20					Lab Sample ID: 350-1619-155					39
Date Collected: 02/14/25 15:57					Matrix: Water					40
Date Received: 03/06/25 10:30										41
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		42
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 17:53		43
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWB-3B2-SW-20					Lab Sample ID: 350-1619-155					4
Date Collected: 02/14/25 15:57					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		8
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 02:42		9
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		10
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 02:42		11
Client Sample ID: NPWB-3B2-SW-40					Lab Sample ID: 350-1619-156					12
Date Collected: 02/14/25 16:08					Matrix: Water					13
Date Received: 03/06/25 10:30										14
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		15
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 18:43		16
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		17
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 02:56		18
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		19
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 02:56		20
Client Sample ID: NPWB-3B2-SW-B					Lab Sample ID: 350-1619-157					21
Date Collected: 02/14/25 16:18					Matrix: Water					22
Date Received: 03/06/25 10:30										23
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		24
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 18:47		25
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		26
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 03:39		27
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		28
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 03:39		29
Client Sample ID: NPWB-3CP2-SW-1					Lab Sample ID: 350-1619-158					30
Date Collected: 02/14/25 14:11					Matrix: Water					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 18:51		34
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		35
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 03:53		36
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		37
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 03:53		38
Client Sample ID: NPWB-3CP2-SW-20					Lab Sample ID: 350-1619-159					39
Date Collected: 02/14/25 14:19					Matrix: Water					40
Date Received: 03/06/25 10:30										41
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		42
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 18:55		43
Eurofins Seattle Specialty Metals										44
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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWB-3CP2-SW-20

Lab Sample ID: 350-1619-159

Date Collected: 02/14/25 14:19

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 04:07
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 04:07

Client Sample ID: NPWB-3CP2-SW-20-FD

Lab Sample ID: 350-1619-160

Date Collected: 02/14/25 14:45

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 19:00
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 04:21
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 04:21

Client Sample ID: NPWB-3CP2-SW-40

Lab Sample ID: 350-1619-161

Date Collected: 02/14/25 14:51

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 19:04
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 04:35
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 04:35

Client Sample ID: NPWB-3CP2-SW-B

Lab Sample ID: 350-1619-162

Date Collected: 02/14/25 15:02

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 19:08
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 04:49
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 04:49

Client Sample ID: NPWB-EQ

Lab Sample ID: 350-1619-163

Date Collected: 02/14/25 00:15

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 19:20

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWG-WB					Lab Sample ID: 350-1619-183					4
Date Collected: 02/16/25 19:00					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		8
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 03:53		9
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		10
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 03:53		11
Client Sample ID: PACPP-1C2X-SW-1					Lab Sample ID: 350-1619-184					12
Date Collected: 02/17/25 20:01					Matrix: Water					13
Date Received: 03/06/25 10:30										14
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		15
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 19:04		16
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		17
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 04:07		18
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		19
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 04:07		20
Client Sample ID: PACPP-1C2X-SW-20					Lab Sample ID: 350-1619-185					21
Date Collected: 02/17/25 20:07					Matrix: Water					22
Date Received: 03/06/25 10:30										23
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		24
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 19:08		25
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		26
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 04:21		27
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		28
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 04:21		29
Client Sample ID: PACPP-1C2X-SW-40					Lab Sample ID: 350-1619-186					30
Date Collected: 02/17/25 20:12					Matrix: Water					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 19:12		34
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		35
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 04:35		36
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		37
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 04:35		38
Client Sample ID: PACPP-1C2X-SW-B					Lab Sample ID: 350-1619-187					39
Date Collected: 02/17/25 20:24					Matrix: Water					40
Date Received: 03/06/25 10:30										41
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		42
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 19:17		43
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-1C2X-SW-B					Lab Sample ID: 350-1619-187					4
Date Collected: 02/17/25 20:24					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		8
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 05:17		9
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		10
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 05:17		11
Client Sample ID: PACPP-1CP2X-SW-1					Lab Sample ID: 350-1619-188					12
Date Collected: 02/17/25 21:01					Matrix: Water					13
Date Received: 03/06/25 10:30										14
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		15
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 19:21		16
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		17
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 05:31		18
Total/NA	Prep	1640			6145	COW	EET SSM	04/10/25 18:00		19
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 05:31		20
Client Sample ID: PACPP-1CP2X-SW-20					Lab Sample ID: 350-1619-189					21
Date Collected: 02/17/25 21:11					Matrix: Water					22
Date Received: 03/06/25 10:30										23
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		24
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 19:25		25
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41		26
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 05:46		27
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41		28
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 05:46		29
Client Sample ID: PACPP-1CP2X-SW-40					Lab Sample ID: 350-1619-190					30
Date Collected: 02/17/25 21:29					Matrix: Water					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 19:37		34
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41		35
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 06:28		36
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41		37
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 06:28		38
Client Sample ID: PACPP-1CP2X-SW-B					Lab Sample ID: 350-1619-191					39
Date Collected: 02/17/25 21:29					Matrix: Water					40
Date Received: 03/06/25 10:30										41
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		42
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 19:41		43
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: PACPP-1CP2X-SW-B

Date Collected: 02/17/25 21:29

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-191

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 07:10
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 07:10

Client Sample ID: PACPP-2C2-SW-1

Date Collected: 02/18/25 17:05

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-192

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 19:46
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 07:24
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 07:24

Client Sample ID: PACPP-2C2-SW-20

Date Collected: 02/18/25 17:11

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-193

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 19:50
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 08:07
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 08:07
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		10	6591	COW	EET SSM	04/30/25 02:58

Client Sample ID: PACPP-2C2-SW-40

Date Collected: 02/18/25 17:19

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-194

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 19:54
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 08:21
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 08:21
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 03:12

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-3C2Y-SW-B

Date Collected: 02/18/25 01:25

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-199

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 09:31
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 09:31

Client Sample ID: PACPP-3CP2-SW-1

Date Collected: 02/18/25 02:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-200

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:32
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 09:46
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 09:46

Client Sample ID: PACPP-3CP2-SW-20

Date Collected: 02/18/25 02:17

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-201

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:36
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 10:00
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 10:00

Client Sample ID: PACPP-3CP2-SW-40

Date Collected: 02/18/25 02:25

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-202

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:40
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 10:14
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 10:14

Client Sample ID: PACPP-3CP2-SW-B

Date Collected: 02/18/25 02:36

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-203

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:44

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-3CP2-SW-B

Date Collected: 02/18/25 02:36

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-203

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 10:56
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 10:56

Client Sample ID: PACPP-4C2-SW-1

Date Collected: 02/18/25 13:47

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-204

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:48
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 11:10
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 11:10

Client Sample ID: PACPP-4C2-SW-1-FD

Date Collected: 02/18/25 13:52

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-205

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:52
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 11:24
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 11:24

Client Sample ID: PACPP-4C2-SW-20

Date Collected: 02/18/25 13:58

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-206

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:56
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 11:38
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 11:38

Client Sample ID: PACPP-4C2-SW-40

Date Collected: 02/18/25 16:06

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-207

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:01

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PACPP-4C2-SW-40

Date Collected: 02/18/25 16:06

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-207

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 11:53
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 11:53

Client Sample ID: PACPP-4C2-SW-B

Date Collected: 02/18/25 16:16

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-208

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:05
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 12:12
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 12:12

Client Sample ID: PACPP-EQ

Date Collected: 02/17/25 19:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-209

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:17
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/29/25 22:43
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/29/25 22:43
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 17:28
Total/NA	Analysis	1640		1	6815	COW	EET SSM	05/13/25 16:19

Client Sample ID: PACPP-WB

Date Collected: 02/17/25 19:02

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-210

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:21
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/29/25 23:26
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/29/25 23:26
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 12:55

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWB-1CP2-SW-1

Lab Sample ID: 350-1619-215

Date Collected: 02/21/25 00:41

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:42
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 22:19
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 03:54

Client Sample ID: PAWB-1CP2-SW-20

Lab Sample ID: 350-1619-216

Date Collected: 02/21/25 00:50

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:46
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 22:33
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 04:08

Client Sample ID: PAWB-1CP2-SW-40

Lab Sample ID: 350-1619-217

Date Collected: 02/21/25 00:58

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:50
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 22:47
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 04:51

Client Sample ID: PAWB-1CP2-SW-B

Lab Sample ID: 350-1619-218

Date Collected: 02/21/25 01:11

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:54
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 23:02
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 05:05

Client Sample ID: PAWB-3B2-SW-1

Lab Sample ID: 350-1619-219

Date Collected: 02/21/25 13:45

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 12:07

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWB-3B2-SW-1

Lab Sample ID: 350-1619-219

Date Collected: 02/21/25 13:45

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 23:16
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 05:19

Client Sample ID: PAWB-3B2-SW-20

Lab Sample ID: 350-1619-220

Date Collected: 02/21/25 13:51

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 12:36
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 23:30
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 05:33

Client Sample ID: PAWB-3B2-SW-40

Lab Sample ID: 350-1619-221

Date Collected: 02/21/25 13:59

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 12:40
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 00:12
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 05:47

Client Sample ID: PAWB-3B2-SW-B

Lab Sample ID: 350-1619-222

Date Collected: 02/21/25 14:09

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 12:44
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 00:26
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 15:30

Client Sample ID: PAWB-3CP2-SW-1

Lab Sample ID: 350-1619-223

Date Collected: 02/21/25 02:18

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 12:57

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWB-3CP2-SW-1

Lab Sample ID: 350-1619-223

Date Collected: 02/21/25 02:18

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 00:40
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 07:40

Client Sample ID: PAWB-3CP2-SW-20

Lab Sample ID: 350-1619-224

Date Collected: 02/21/25 02:25

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:01
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 00:55
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 07:54

Client Sample ID: PAWB-3CP2-SW-40

Lab Sample ID: 350-1619-225

Date Collected: 02/21/25 02:14

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:05
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 01:09
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 08:08

Client Sample ID: PAWB-3CP2-SW-B

Lab Sample ID: 350-1619-226

Date Collected: 02/21/25 02:49

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:09
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 01:23
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 08:22

Client Sample ID: PAWE-1B1-SW-1

Lab Sample ID: 350-1619-227

Date Collected: 02/20/25 14:05

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:13

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWE-1CP2-SW-1

Date Collected: 02/19/25 21:11

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-231

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 03:02
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 09:33

Client Sample ID: PAWE-1CP2-SW-20

Date Collected: 02/19/25 21:16

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-232

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:34
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 03:16
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 09:47

Client Sample ID: PAWE-1CP2-SW-40

Date Collected: 02/19/25 21:27

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-233

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:46
Total/NA	Prep	1640			6156	COW	EET SSM	04/11/25 11:11
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 03:30
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 10:30

Client Sample ID: PAWE-1CP2-SW-B

Date Collected: 02/19/25 21:17

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-234

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:50
Total/NA	Prep	1640			6156	COW	EET SSM	04/11/25 11:11
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 04:12
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 10:46

Client Sample ID: PAWE-3B3-SW-1

Date Collected: 02/20/25 12:55

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-235

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:55

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: PAWE-3B3-SW-1

Date Collected: 02/20/25 12:55

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-235

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6156	COW	EET SSM	04/11/25 11:11
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 04:55
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 11:02

Client Sample ID: PAWE-3B3-SW-20

Date Collected: 02/20/25 01:30

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-236

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:59
Total/NA	Prep	1640			6156	COW	EET SSM	04/11/25 11:11
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 05:09
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 11:16

Client Sample ID: PAWE-3B3-SW-40

Date Collected: 02/20/25 13:14

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-237

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:03
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 11:30
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/30/25 11:30

Client Sample ID: PAWE-3B3-SW-B

Date Collected: 02/20/25 13:24

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-238

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:07
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 11:44
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/30/25 11:44

Client Sample ID: PAWE-3CP2-SW-1

Date Collected: 02/19/25 19:28

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-239

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:11

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: PAWE-3CP2-SW-1

Date Collected: 02/19/25 19:28

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-239

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 11:59
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/30/25 11:59

Client Sample ID: PAWE-3CP2-SW-20

Date Collected: 02/19/25 19:14

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-240

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 11:33
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 12:13
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/30/25 12:13

Client Sample ID: PAWE-3CP2-SW-20-FD

Date Collected: 02/19/25 19:41

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-241

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 11:37
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 00:00
Total/NA	Analysis	1640		1	6814	COW	EET SSM	05/12/25 23:55
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 00:00
Total/NA	Analysis	1640		1	6815	COW	EET SSM	05/12/25 23:55
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 00:00
Total/NA	Analysis	1640		1	6816	COW	EET SSM	05/12/25 23:55

Client Sample ID: PAWE-3CP2-SW-40

Date Collected: 02/19/25 19:48

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-242

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 11:41
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 00:00
Total/NA	Analysis	1640		1	6814	COW	EET SSM	05/13/25 00:09
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 00:00
Total/NA	Analysis	1640		1	6816	COW	EET SSM	05/13/25 00:09
Total/NA	Prep	1640			6877	COW	EET SSM	05/19/25 12:25
Total/NA	Analysis	1640		1	6963	COW	EET SSM	05/19/25 23:37

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PDPLB-EQ					Lab Sample ID: 350-1619-378					4
Date Collected: 02/11/25 19:07					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:00		8
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43		9
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 10:53		10
Client Sample ID: PDPLB-M2-SW-1					Lab Sample ID: 350-1619-379					11
Date Collected: 02/11/25 21:36					Matrix: Water					12
Date Received: 03/06/25 10:30										13
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		14
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:04		15
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43		
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 11:07		
Client Sample ID: PDPLB-M2-SW-20					Lab Sample ID: 350-1619-380					
Date Collected: 02/11/25 21:30					Matrix: Water					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:09		
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43		
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 11:21		
Client Sample ID: PDPLB-M2-SW-40					Lab Sample ID: 350-1619-381					
Date Collected: 02/11/25 21:20					Matrix: Water					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:21		
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43		
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 11:36		
Client Sample ID: PDPLB-M2-SW-B					Lab Sample ID: 350-1619-382					
Date Collected: 02/11/25 21:10					Matrix: Water					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:25		
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43		
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 13:43		
Client Sample ID: PDPLB-M3-SW-1					Lab Sample ID: 350-1619-383					
Date Collected: 02/11/25 19:16					Matrix: Water					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:29		
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PDPLB-M3-SW-1					Lab Sample ID: 350-1619-383					4
Date Collected: 02/11/25 19:16					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43		8
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 13:57		9
Client Sample ID: PDPLB-M3-SW-20					Lab Sample ID: 350-1619-384					10
Date Collected: 02/11/25 19:22					Matrix: Water					11
Date Received: 03/06/25 10:30										12
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		13
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:48		14
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43		15
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 14:11		
Client Sample ID: PDPLB-M3-SW-40					Lab Sample ID: 350-1619-385					
Date Collected: 02/11/25 19:29					Matrix: Water					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:53		
Total/NA	Prep	1640			6877	COW	EET SSM	05/19/25 12:25		
Total/NA	Analysis	1640		1	6963	COW	EET SSM	05/19/25 23:51		
Client Sample ID: PDPLB-M3-SW-B					Lab Sample ID: 350-1619-386					
Date Collected: 02/11/25 19:40					Matrix: Water					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:57		
Total/NA	Prep	1640			6877	COW	EET SSM	05/19/25 12:25		
Total/NA	Analysis	1640		1	6963	COW	EET SSM	05/20/25 00:05		
Client Sample ID: PDPLB-WB					Lab Sample ID: 350-1619-387					
Date Collected: 02/11/25 19:00					Matrix: Water					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 15:01		
Total/NA	Prep	1640			6877	COW	EET SSM	05/19/25 12:25		
Total/NA	Analysis	1640		1	6963	COW	EET SSM	05/20/25 00:19		
Laboratory References:										
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310										
Eurofins Seattle Specialty Metals										

Accreditation/Certification Summary				1
Client: Tetra Tech Inc				2
Project/Site: Gulf of Thailand - 2025				3
Laboratory: Eurofins Seattle Specialty Metals				4
All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.				5
Authority	Program	Identification Number	Expiration Date	6
Alaska (UST)	State	20-004	02-19-27	7
ANAB	Dept. of Defense ELAP	L2236	01-19-27	8
ANAB	Dept. of Energy	L2236.01	01-19-27	9
ANAB	ISO/IEC 17025	L2236	01-19-27	10
California	State	2954	07-08-26	11
Florida	NELAP	E87575	06-30-25	12
Louisiana (All)	NELAP	03073	06-30-25	13
Maine	State	WA01273	05-02-26	14
New Jersey	NELAP	WA014	06-30-25	15
New York	NELAP	11662	04-01-26	
Oregon	NELAP	4167-008	07-07-25	
US Fish & Wildlife	US Federal Programs	A20571	06-30-25	
USDA	US Federal Programs	525-23-4-22573	01-24-28	
Washington	State	C788-23a	07-13-25	
Wisconsin	State	399133460	07-31-25	

Method Summary				1
Client: Tetra Tech Inc				2
Project/Site: Gulf of Thailand - 2025				3
Method	Method Description	Protocol	Laboratory	4
1631B	Mercury, Low Level (CVAFS)	EPA	EET SSM	5
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM	6
1638	Metals (ICP/MS)	EPA	EET SSM	7
1640	Metals (ICP/MS)	EPA	EET SSM	8
Moisture - 2540	Percent Moisture	SM	EET SSM	9
1631B CAR Prep	Preparation of Solids, Modified Cold Aqua-Regia	Lab SOP	EET SSM	10
1640	Preparation, Total Recoverable Metals	EPA	EET SSM	11
HF Bomb Prep	HF/HNO3/ HCl Bomb Digestion of Solids for Total Metals	Lab SOP	EET SSM	12
Protocol References:				13
EPA = US Environmental Protection Agency				14
Lab SOP = Laboratory Standard Operating Procedure				15
SM = "Standard Methods For The Examination Of Water And Wastewater"				
Laboratory References:				
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310				

Sample Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1619-1	NPCPP-1C1	Solid	02/16/25 03:03	03/06/25 10:30
350-1619-2	NPCPP-1C1-FD	Solid	02/16/25 04:14	03/06/25 10:30
350-1619-3	NPCPP-1C2X	Solid	02/16/25 02:53	03/06/25 10:30
350-1619-4	NPCPP-1C1	Solid	02/16/25 08:12	03/06/25 10:30
350-1619-5	NPCPP-1C2	Solid	02/16/25 07:36	03/06/25 10:30
350-1619-6	NPCPP-1C3X	Solid	02/16/25 05:55	03/06/25 10:30
350-1619-7	NPCPP-1D2	Solid	02/15/25 01:46	03/06/25 10:30
350-1619-8	NPCPP-1E2	Solid	02/15/25 01:08	03/06/25 10:30
350-1619-9	NPCPP-1F2	Solid	02/15/25 00:22	03/06/25 10:30
350-1619-10	NPCPP-1G2	Solid	02/14/25 22:53	03/06/25 10:30
350-1619-11	NPCPP-2C1X	Solid	02/16/25 04:54	03/06/25 10:30
350-1619-12	NPCPP-2C2	Solid	02/16/25 05:22	03/06/25 10:30
350-1619-13	NPCPP-2CP2	Solid	02/15/25 05:42	03/06/25 10:30
350-1619-14	NPCPP-2D2	Solid	02/15/25 06:22	03/06/25 10:30
350-1619-15	NPCPP-3C1	Solid	02/16/25 08:56	03/06/25 10:30
350-1619-16	NPCPP-3C2	Solid	02/15/25 22:58	03/06/25 10:30
350-1619-17	NPCPP-3C3X	Solid	02/15/25 23:36	03/06/25 10:30
350-1619-18	NPCPP-3C3X-FD	Solid	02/15/25 20:54	03/06/25 10:30
350-1619-19	NPCPP-3CP1	Solid	02/15/25 17:01	03/06/25 10:30
350-1619-20	NPCPP-3CP2	Solid	02/15/25 11:07	03/06/25 10:30
350-1619-21	NPCPP-3CP3X	Solid	02/15/25 16:23	03/06/25 10:30
350-1619-22	NPCPP-3D2	Solid	02/16/25 09:50	03/06/25 10:30
350-1619-23	NPCPP-3E2	Solid	02/16/25 10:28	03/06/25 10:30
350-1619-24	NPCPP-3F2X	Solid	02/16/25 11:05	03/06/25 10:30
350-1619-25	NPCPP-3G2	Solid	02/16/25 13:04	03/06/25 10:30
350-1619-26	NPCPP-4C2	Solid	02/15/25 19:59	03/06/25 10:30
350-1619-27	NPCPP-4CP2	Solid	02/15/25 19:27	03/06/25 10:30
350-1619-28	NPCPP-4D2	Solid	02/15/25 18:54	03/06/25 10:30
350-1619-29	NPREF-A	Solid	02/12/25 21:54	03/06/25 10:30
350-1619-30	NPREF-B	Solid	02/12/25 22:27	03/06/25 10:30
350-1619-31	NPREF-B-FD	Solid	02/12/25 20:54	03/06/25 10:30
350-1619-32	NPREF-C	Solid	02/12/25 23:16	03/06/25 10:30
350-1619-33	NPWB-1C2	Solid	02/14/25 04:51	03/06/25 10:30
350-1619-34	NPWB-1C2-FD	Solid	02/14/25 05:13	03/06/25 10:30
350-1619-35	NPWB-1CP2	Solid	02/14/25 03:00	03/06/25 10:30
350-1619-36	NPWB-1D2	Solid	02/14/25 04:06	03/06/25 10:30
350-1619-37	NPWB-2B3	Solid	02/14/25 18:54	03/06/25 10:30
350-1619-38	NPWB-2C2X	Solid	02/14/25 05:33	03/06/25 10:30
350-1619-39	NPWB-3B2	Solid	02/14/25 18:29	03/06/25 10:30
350-1619-40	NPWB-3C2	Solid	02/14/25 20:22	03/06/25 10:30
350-1619-41	NPWB-3CP2	Solid	02/14/25 21:24	03/06/25 10:30
350-1619-42	NPWB-3D2	Solid	02/14/25 21:55	03/06/25 10:30
350-1619-43	NPWB-4B3X	Solid	02/14/25 19:19	03/06/25 10:30
350-1619-44	NPWB-4C2	Solid	02/14/25 19:52	03/06/25 10:30
350-1619-45	NPWG-1B2X	Solid	02/17/25 10:17	03/06/25 10:30
350-1619-46	NPWG-1B2X-FD	Solid	02/17/25 10:42	03/06/25 10:30
350-1619-47	NPWG-1C2	Solid	02/17/25 05:05	03/06/25 10:30
350-1619-48	NPWG-1CP2	Solid	02/17/25 03:37	03/06/25 10:30
350-1619-49	NPWG-1D2	Solid	02/17/25 04:14	03/06/25 10:30
350-1619-50	NPWG-2B2X	Solid	02/16/25 22:45	03/06/25 10:30
350-1619-51	NPWG-2C2	Solid	02/16/25 22:06	03/06/25 10:30
350-1619-52	NPWG-3B2X	Solid	02/17/25 15:36	03/06/25 10:30
350-1619-53	NPWG-3C2	Solid	02/17/25 14:17	03/06/25 10:30
350-1619-54	NPWG-3CP2	Solid	02/16/25 16:47	03/06/25 10:30

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Eurofins Seattle Specialty Metals
5/23/2025

Sample Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1619-55	NPWG-3D2	Solid	02/16/25 17:16	03/06/25 10:30
350-1619-56	NPWG-4B2X	Solid	02/17/25 16:05	03/06/25 10:30
350-1619-57	NPWG-4C2	Solid	02/17/25 16:50	03/06/25 10:30
350-1619-58	PACPP-1C1	Solid	02/19/25 00:48	03/06/25 10:30
350-1619-59	PACPP-1C2X	Solid	02/17/25 22:46	03/06/25 10:30
350-1619-60	PACPP-1C3X	Solid	02/19/25 01:32	03/06/25 10:30
350-1619-61	PACPP-1CP1	Solid	02/18/25 10:41	03/06/25 10:30
350-1619-62	PACPP-1CP2X	Solid	02/17/25 23:19	03/06/25 10:30
350-1619-63	PACPP-1CP3	Solid	02/18/25 11:23	03/06/25 10:30
350-1619-64	PACPP-1D2	Solid	02/18/25 21:28	03/06/25 10:30
350-1619-65	PACPP-1E2	Solid	02/18/25 20:52	03/06/25 10:30
350-1619-66	PACPP-1F2	Solid	02/18/25 20:16	03/06/25 10:30
350-1619-67	PACPP-1G2	Solid	02/18/25 19:39	03/06/25 10:30
350-1619-68	PACPP-2C2	Solid	02/19/25 02:15	03/06/25 10:30
350-1619-69	PACPP-2CP2	Solid	02/18/25 23:14	03/06/25 10:30
350-1619-70	PACPP-2D2	Solid	02/18/25 22:32	03/06/25 10:30
350-1619-71	PACPP-3C1	Solid	02/19/25 10:36	03/06/25 10:30
350-1619-72	PACPP-3C2Y	Solid	02/19/25 09:49	03/06/25 10:30
350-1619-73	PACPP-3C3X	Solid	02/19/25 06:15	03/06/25 10:30
350-1619-74	PACPP-3CP1X	Solid	02/19/25 03:00	03/06/25 10:30
350-1619-75	PACPP-3CP2	Solid	02/19/25 04:09	03/06/25 10:30
350-1619-76	PACPP-3CP3	Solid	02/19/25 04:44	03/06/25 10:30
350-1619-77	PACPP-3D2X	Solid	02/19/25 05:27	03/06/25 10:30
350-1619-78	PACPP-3E2X	Solid	02/19/25 11:22	03/06/25 10:30
350-1619-79	PACPP-3F2X	Solid	02/19/25 12:46	03/06/25 10:30
350-1619-80	PACPP-3G2	Solid	02/19/25 13:35	03/06/25 10:30
350-1619-81	PACPP-4C2X	Solid	02/18/25 03:59	03/06/25 10:30
350-1619-82	PACPP-4C2X-FD	Solid	02/18/25 04:22	03/06/25 10:30
350-1619-83	PACPP-4CP2X	Solid	02/18/25 04:56	03/06/25 10:30
350-1619-84	PACPP-4D2X	Solid	02/18/25 08:49	03/06/25 10:30
350-1619-85	PAREF-A	Solid	02/13/25 19:06	03/06/25 10:30
350-1619-86	PAREF-B	Solid	02/13/25 19:38	03/06/25 10:30
350-1619-87	PAREF-C	Solid	02/13/25 19:59	03/06/25 10:30
350-1619-88	PAWB-1C2	Solid	02/20/25 23:07	03/06/25 10:30
350-1619-89	PAWB-1CP2	Solid	02/20/25 22:25	03/06/25 10:30
350-1619-90	PAWB-1D2	Solid	02/20/25 21:40	03/06/25 10:30
350-1619-91	PAWB-2B1X	Solid	02/21/25 16:23	03/06/25 10:30
350-1619-92	PAWB-2C2	Solid	02/21/25 16:59	03/06/25 10:30
350-1619-93	PAWB-3B2	Solid	02/21/25 14:36	03/06/25 10:30
350-1619-94	PAWB-3C2	Solid	02/21/25 05:40	03/06/25 10:30
350-1619-95	PAWB-3CP2	Solid	02/21/25 04:55	03/06/25 10:30
350-1619-96	PAWB-3D2	Solid	02/21/25 04:19	03/06/25 10:30
350-1619-97	PAWB-4B2X	Solid	02/21/25 15:54	03/06/25 10:30
350-1619-98	PAWB-4C2	Solid	02/21/25 19:24	03/06/25 10:30
350-1619-99	PAWE-1B1	Solid	02/20/25 17:12	03/06/25 10:30
350-1619-100	PAWE-1C2	Solid	02/20/25 01:48	03/06/25 10:30
350-1619-101	PAWE-1CP2	Solid	02/20/25 02:23	03/06/25 10:30
350-1619-102	PAWE-1D2	Solid	02/20/25 03:08	03/06/25 10:30
350-1619-103	PAWE-2B3	Solid	02/20/25 14:56	03/06/25 10:30
350-1619-104	PAWE-2C2	Solid	02/20/25 04:25	03/06/25 10:30
350-1619-105	PAWE-2C2-FD	Solid	02/20/25 04:56	03/06/25 10:30
350-1619-106	PAWE-3B3	Solid	02/20/25 15:43	03/06/25 10:30
350-1619-107	PAWE-3C2	Solid	02/20/25 17:13	03/06/25 10:30
350-1619-108	PAWE-3CP2	Solid	02/20/25 16:47	03/06/25 10:30

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Eurofins Seattle Specialty Metals
5/23/2025

Sample Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1619-109	PAWE-3D2	Solid	02/20/25 19:49	03/06/25 10:30
350-1619-110	PAWE-4B2	Solid	02/20/25 16:25	03/06/25 10:30
350-1619-111	PAWE-4C2	Solid	02/20/25 01:09	03/06/25 10:30
350-1619-112	NPCPP-1C2X-SW-1	Water	02/16/25 01:52	03/06/25 10:30
350-1619-113	NPCPP-1C2X-SW-20	Water	02/16/25 01:58	03/06/25 10:30
350-1619-114	NPCPP-1C2X-SW-40	Water	02/16/25 02:06	03/06/25 10:30
350-1619-115	NPCPP-1C2X-SW-B	Water	02/16/25 02:17	03/06/25 10:30
350-1619-116	NPCPP-1CP2-SW-1	Water	02/15/25 02:45	03/06/25 10:30
350-1619-117	NPCPP-1CP2-SW-20	Water	02/15/25 02:51	03/06/25 10:30
350-1619-118	NPCPP-1CP2-SW-40	Water	02/15/25 02:59	03/06/25 10:30
350-1619-119	NPCPP-1CP2-SW-B	Water	02/15/25 03:12	03/06/25 10:30
350-1619-120	NPCPP-2C2-SW-1	Water	02/16/25 00:12	03/06/25 10:30
350-1619-121	NPCPP-2C2-SW-20	Water	02/16/25 00:18	03/06/25 10:30
350-1619-122	NPCPP-2C2-SW-40	Water	02/16/25 00:46	03/06/25 10:30
350-1619-123	NPCPP-2C2-SW-40-FD	Water	02/16/25 00:58	03/06/25 10:30
350-1619-124	NPCPP-2C2-SW-B	Water	02/16/25 01:06	03/06/25 10:30
350-1619-125	NPCPP-3C2-SW-1	Water	02/15/25 22:02	03/06/25 10:30
350-1619-126	NPCPP-3C2-SW-20	Water	02/15/25 22:09	03/06/25 10:30
350-1619-127	NPCPP-3C2-SW-40	Water	02/15/25 22:17	03/06/25 10:30
350-1619-128	NPCPP-3C2-SW-B	Water	02/15/25 22:27	03/06/25 10:30
350-1619-129	NPCPP-3CP2-SW-1	Water	02/15/25 15:13	03/06/25 10:30
350-1619-130	NPCPP-3CP2-SW-20	Water	02/15/25 15:18	03/06/25 10:30
350-1619-131	NPCPP-3CP2-SW-40	Water	02/15/25 15:26	03/06/25 10:30
350-1619-132	NPCPP-3CP2-SW-B	Water	02/15/25 15:39	03/06/25 10:30
350-1619-133	NPCPP-4C2-SW-1	Water	02/15/25 04:20	03/06/25 10:30
350-1619-134	NPCPP-4C2-SW-20	Water	02/15/25 04:26	03/06/25 10:30
350-1619-135	NPCPP-4C2-SW-40	Water	02/15/25 04:34	03/06/25 10:30
350-1619-136	NPCPP-4C2-SW-B	Water	02/15/25 04:45	03/06/25 10:30
350-1619-137	NPREF-A	Water	02/12/25 20:00	03/06/25 10:30
350-1619-138	NPREF-WB	Water	02/12/25 20:07	03/06/25 10:30
350-1619-139	NPREF-A-SW-1	Water	02/12/25 20:54	03/06/25 10:30
350-1619-140	NPREF-A-SW-1-FD	Water	02/12/25 20:59	03/06/25 10:30
350-1619-141	NPREF-A-SW-20	Water	02/12/25 21:05	03/06/25 10:30
350-1619-142	NPREF-A-SW-40	Water	02/12/25 21:11	03/06/25 10:30
350-1619-143	NPREF-A-SW-B	Water	02/12/25 21:21	03/06/25 10:30
350-1619-144	NPREF-EQ	Water	02/12/25 20:07	03/06/25 10:30
350-1619-145	NPREF-WB	Water	02/12/25 20:00	03/06/25 10:30
350-1619-146	NPWB-1C2-SW-1	Water	02/14/25 00:47	03/06/25 10:30
350-1619-147	NPWB-1C2-SW-20	Water	02/14/25 00:54	03/06/25 10:30
350-1619-148	NPWB-1C2-SW-40	Water	02/14/25 01:02	03/06/25 10:30
350-1619-149	NPWB-1C2-SW-B	Water	02/14/25 01:11	03/06/25 10:30
350-1619-150	NPWB-1CP2-SW-1	Water	02/14/25 01:51	03/06/25 10:30
350-1619-151	NPWB-1CP2-SW-20	Water	02/14/25 01:57	03/06/25 10:30
350-1619-152	NPWB-1CP2-SW-40	Water	02/14/25 02:09	03/06/25 10:30</

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1619-217	PAWB-1CP2-SW-40	Water	02/21/25 00:58	03/06/25 10:30
350-1619-218	PAWB-1CP2-SW-B	Water	02/21/25 01:11	03/06/25 10:30
350-1619-219	PAWB-3B2-SW-1	Water	02/21/25 13:45	03/06/25 10:30
350-1619-220	PAWB-3B2-SW-20	Water	02/21/25 13:51	03/06/25 10:30
350-1619-221	PAWB-3B2-SW-40	Water	02/21/25 13:59	03/06/25 10:30
350-1619-222	PAWB-3B2-SW-B	Water	02/21/25 14:09	03/06/25 10:30
350-1619-223	PAWB-3CP2-SW-1	Water	02/21/25 02:18	03/06/25 10:30
350-1619-224	PAWB-3CP2-SW-20	Water	02/21/25 02:25	03/06/25 10:30
350-1619-225	PAWB-3CP2-SW-B	Water	02/21/25 02:14	03/06/25 10:30
350-1619-226	PAWB-3CP2-SW-B	Water	02/21/25 02:49	03/06/25 10:30
350-1619-227	PAWE-1B1-SW-1	Water	02/20/25 14:05	03/06/25 10:30
350-1619-228	PAWE-1B1-SW-20	Water	02/20/25 14:11	03/06/25 10:30
350-1619-229	PAWE-1B1-SW-40	Water	02/20/25 14:19	03/06/25 10:30
350-1619-230	PAWE-1B1-SW-B	Water	02/20/25 14:29	03/06/25 10:30
350-1619-231	PAWE-1CP2-SW-1	Water	02/19/25 21:11	03/06/25 10:30
350-1619-232	PAWE-1CP2-SW-20	Water	02/19/25 21:16	03/06/25 10:30
350-1619-233	PAWE-1CP2-SW-40	Water	02/19/25 21:27	03/06/25 10:30
350-1619-234	PAWE-1CP2-SW-B	Water	02/19/25 21:17	03/06/25 10:30
350-1619-235	PAWE-3B3-SW-1	Water	02/20/25 12:55	03/06/25 10:30
350-1619-236	PAWE-3B3-SW-20	Water	02/20/25 01:30	03/06/25 10:30
350-1619-237	PAWE-3B3-SW-40	Water	02/20/25 13:14	03/06/25 10:30
350-1619-238	PAWE-3B3-SW-B	Water	02/20/25 13:24	03/06/25 10:30
350-1619-239	PAWE-3CP2-SW-1	Water	02/19/25 19:28	03/06/25 10:30
350-1619-240	PAWE-3CP2-SW-20	Water	02/19/25 19:14	03/06/25 10:30
350-1619-241	PAWE-3CP2-SW-20-FD	Water	02/19/25 19:41	03/06/25 10:30
350-1619-242	PAWE-3CP2-SW-40	Water	02/19/25 19:48	03/06/25 10:30
350-1619-243	PAWE-3CP2-SW-B	Water	02/19/25 19:53	03/06/25 10:30
350-1619-244	PAWE-EQ	Water	02/19/25 19:06	03/06/25 10:30
350-1619-245	PAWB-WB	Water	02/19/25 19:00	03/06/25 10:30
350-1619-378	PDPLB-EQ	Water	02/11/25 19:07	03/06/25 10:30
350-1619-379	PDPLB-M2-SW-1	Water	02/11/25 21:36	03/06/25 10:30
350-1619-380	PDPLB-M2-SW-20	Water	02/11/25 21:30	03/06/25 10:30
350-1619-381	PDPLB-M2-SW-40	Water	02/11/25 21:20	03/06/25 10:30
350-1619-382	PDPLB-M2-SW-B	Water	02/11/25 21:10	03/06/25 10:30
350-1619-383	PDPLB-M3-SW-1	Water	02/11/25 19:16	03/06/25 10:30
350-1619-384	PDPLB-M3-SW-20	Water	02/11/25 19:22	03/06/25 10:30
350-1619-385	PDPLB-M3-SW-40	Water	02/11/25 19:29	03/06/25 10:30
350-1619-386	PDPLB-M3-SW-B	Water	02/11/25 19:40	03/06/25 10:30
350-1619-387	PDPLB-WB	Water	02/11/25 19:00	03/06/25 10:30

[illegible]

Ship To:		CHAIN OF CUSTODY				Report to:			
LillyAnn Lacomt						Dr. Ted Donn			
Eurofins Specialty Metals Testing						Tetra Tech Inc.			
5755 8th St. E						Lafayette, CA			
Eda, WA 98474						ted.donn@tetratech.com			
USA									
Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	9 Metals (Au, Ba, Cd, Cr, Cu, Fe, Ni, Pb, Zn) EPA 1631 M	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M
1779.27	NPWB-3C2X	2/14/2025	5:33	SED	Frozen	1	1	1	1
1779.27	NPWB-3B2	2/14/2025	18:29	SED	Frozen	1	1	1	1
1779.27	NPWB-3C2	2/14/2025	20:22	SED	Frozen	1	1	1	1
1779.27	NPWB-3CP2	2/14/2025	21:24	SED	Frozen	1	1	1	1
1779.27	NPWB-3DQ	2/14/2025	21:55	SED	Frozen	1	1	1	1
1779.27	NPWB-4B3X	2/14/2025	19:19	SED	Frozen	1	1	1	1
1779.27	NPWB-4C2	2/14/2025	19:52	SED	Frozen	1	1	1	1
1779.27	NPWQ-1B2X	2/17/2025	19:17	SED	Frozen	1	1	1	1
1779.27	NPWQ-1B2X-FD	2/17/2025	19:42	SED	Frozen	1	1	1	1
1779.27	NPWQ-1C2	2/17/2025	6:05	SED	Frozen	1	1	1	1
1779.27	NPWQ-1CP2	2/17/2025	3:37	SED	Frozen	1	1	1	1
1779.27	NPWQ-1D2	2/17/2025	4:14	SED	Frozen	1	1	1	1
1779.27	NPWQ-2B2X	2/18/2025	22:45	SED	Frozen	1	1	1	1
1779.27	NPWQ-3C5	2/14/2026	20:06	SED	Frozen	1	1	1	1
1779.27	NPWQ-3B2X	2/17/2025	16:39	SED	Frozen	1	1	1	1
1779.27	NPWQ-3C2	2/17/2025	14:17	SED	Frozen	1	1	1	1
1779.27	NPWQ-3CP2	2/16/2025	16:47	SED	Frozen	1	1	1	1
1779.27	NPWQ-3D2	2/16/2025	17:16	SED	Frozen	1	1	1	1
1779.27	NPWQ-4B2X	2/17/2025	16:05	SED	Frozen	1	1	1	1
1779.27	NPWQ-4C2	2/17/2025	16:59	SED	Frozen	1	1	1	1
1779.27	PACPP-1C1	2/19/2025	8:48	SED	Frozen	1	1	1	1
1779.27	PACPP-1D2	2/17/2025	2:46	SED	Frozen	1	1	1	1
1779.27	PACPP-1C3X	2/19/2025	1:32	SED	Frozen	1	1	1	1
1779.27	PACPP-1CP1	2/19/2025	16:41	SED	Frozen	1	1	1	1
1779.27	PACPP-1CPX	2/17/2025	23:19	SED	Frozen	1	1	1	1
1779.27	PACPP-1D1	2/19/2025	11:21	SED	Frozen	1	1	1	1
1779.27	PACPP-1D2	2/18/2025	21:28	SED	Frozen	1	1	1	1
1779.27	PACPP-1E2	2/19/2025	20:52	SED	Frozen	1	1	1	1
1779.27	PACPP-1F2	2/18/2025	28:16	SED	Frozen	1	1	1	1
1779.27	PACPP-1G2	2/19/2025	19:35	SED	Frozen	1	1	1	1
1779.27	PACPP-2C2	2/19/2025	2:15	SED	Frozen	1	1	1	1
1779.27	PACPP-2CP2	2/19/2025	23:14	SED	Frozen	1	1	1	1
1779.27	PACPP-2D2	2/19/2025	22:32	SED	Frozen	1	1	1	1
1779.27	PACPP-3C1	2/19/2025	16:38	SED	Frozen	1	1	1	1
1779.27	PACPP-3CP2	2/19/2025	9:49	SED	Frozen	1	1	1	1
1779.27	PACPP-3C3X	2/							

[illegible]

Project	Sample ID	Date	Time	SW	Medium	Preserve	Ng (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	9 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Ng (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1646	9 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1646	
1779.27	NPWVG-1CP2-SW-20	2/17/2025	2-10	SW		Frozen								
1779.27	NPWVG-1CP2-SW-40	2/17/2025	2-18	SW		Frozen								
1779.27	NPWVG-1CP2-SW-8	2/17/2025	2-28	SW		Frozen								
1779.27	NPWVG-382X-SW-1	2/16/2025	20-10	SW		Frozen								
1779.27	NPWVG-382X-SW-20	2/16/2025	20-18	SW		Frozen								
1779.27	NPWVG-382X-SW-40	2/16/2025	20-41	SW		Frozen								
1779.27	NPWVG-382X-SW-8	2/16/2025	20-51	SW		Frozen								
1779.27	NPWVG-382X-SW-8-ED	2/16/2025	21-04	SW		Frozen								
1779.27	NPWVG-3CP2-SW-1	2/16/2025	19-18	SW		Frozen								
1779.27	NPWVG-3CP2-SW-20	2/16/2025	19-22	SW		Frozen								
1779.27	NPWVG-3CP2-SW-40	2/16/2025	19-10	SW		Frozen								
1779.27	NPWVG-3CP2-SW-8	2/16/2025	19-40	SW		Frozen								
1779.27	NPWVG-EQ	2/16/2025	19-46	SW		Frozen								
1779.27	NPWVG-WB	2/16/2025	19-50	SW		Frozen								
1779.27	PACRP-1C2X-SW-1	2/17/2025	20-01	SW		Frozen								
1779.27	PACRP-1C2X-SW-20	2/17/2025	20-07	SW		Frozen								
1779.27	PACRP-1C2X-SW-40	2/17/2025	20-14	SW		Frozen								
1779.27	PACRP-1C2X-SW-8	2/17/2025	20-24	SW		Frozen								
1779.27	PACRP-1CP2X-SW-1	2/17/2025	21-01	SW		Frozen								
1779.27	PACRP-1CP2X-SW-20	2/17/2025	21-11	SW		Frozen								
1779.27	PACRP-1CP2X-SW-40	2/17/2025	21-19	SW		Frozen								
1779.27	PACRP-1CP2X-SW-8	2/17/2025	21-29	SW		Frozen								
1779.27	PACRP-2C2-SW-1	2/18/2025	17-05	SW		Frozen								
1779.27	PACRP-2C2-SW-20	2/18/2025	17-11	SW		Frozen								
1779.27	PACRP-2C2-SW-40	2/18/2025	17-19	SW		Frozen								
1779.27	PACRP-2C2-SW-8	2/18/2025	17-59	SW		Frozen								
1779.27	PACRP-3C2Y-SW-1	2/18/2025	0-59	SW		Frozen								
1779.27	PACRP-3C2Y-SW-20	2/18/2025	1-06	SW		Frozen								
1779.27	PACRP-3C2Y-SW-40	2/18/2025	1-15	SW		Frozen								
1779.27	PACRP-3C2Y-SW-8	2/18/2025	1-25	SW		Frozen								
1779.27	PACRP-3CP2-SW-1	2/18/2025	2-07	SW		Frozen								
1779.27	PACRP-3CP2-SW-20	2/18/2025	2-17	SW		Frozen								
1779.27	PACRP-3CP2-SW-40	2/18/2025	2-25	SW		Frozen								
1779.27	PACRP-3CP2-SW-8	2/18/2025	2-36	SW		Frozen								
1779.27	PACRP-4C2-SW-1	2/18/2025	13-47	SW		Frozen								
1779.27	PACRP-4C2-SW-1-ED	2/18/2025	13-52	SW		Frozen								
1779.27	PACRP-4C2-SW-20	2/18/2025	13-58	SW		Frozen								
1779.27	PACRP-4C2-SW-40	2/18/2025	16-06	SW		Frozen								
1779.27	PACRP-4C2-SW-8	2/18/2025	16-16	SW		Frozen								
1779.27	PACRP-EQ	2/17/2025	19-07	SW		Frozen								
1779.27	PACRP-WB	2/17/2025	19-02	SW		Frozen								
1779.27	PARF-E-SW-1	2/17/2025	16-21	SW		Frozen								
1779.27	PARF-E-SW-20	2/17/2025	16-11	SW		Frozen								
1779.27	PARF-E-SW-40	2/17/2025	16-01	SW		Frozen								
1779.27	PARF-E-SW-8	2/17/2025	16-01	SW		Frozen								

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Project	Sample ID	Date	Time	Medium	Preserve	1-Hg (EPA 1631 B)	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Hg, Pb, Zn) EPA 1631 M	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Hg, Pb, Zn) EPA 1631 M	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Hg, Pb, Zn) EPA 1640	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Hg, Pb, Zn) EPA 1646
								1-Day Weight		
T779-28	MGWA-BSX	2/4/2025	12:44	SED	Frozen	1	1	1	1	1
T779-28	MGWA-AQ2	2/3/2025	23:24	SED	Frozen	1	1	1	1	1
T779-28	MGWA-BSX-SW-1	2/4/2025	0:46	SW	Frozen				1	1
T779-28	MGWA-BSX-SW-20	2/4/2025	0:52	SW	Frozen				1	1
T779-28	MGWA-BSX-SW-40	2/4/2025	1:01	SW	Frozen				1	1
T779-28	MGWA-BSX-SW-8	2/4/2025	1:13	SW	Frozen				1	1
T779-28	MGWA-ICP-SW-1	2/4/2025	2:04	SW	Frozen				1	1
T779-28	MGWA-ICP-SW-20	2/4/2025	2:14	SW	Frozen				1	1
T779-28	MGWA-ICP-SW-40	2/4/2025	2:22	SW	Frozen				1	1
T779-28	MGWA-ICP-SW-8	2/4/2025	2:35	SW	Frozen				1	1
T779-28	MGWA-BSX-SW-1	2/1/2025	19:21	SW	Frozen				1	1
T779-28	MGWA-BSX-SW-20	2/1/2025	19:14	SW	Frozen				1	1
T779-28	MGWA-BSX-SW-40	2/1/2025	19:41	SW	Frozen				1	1
T779-28	MGWA-BSX-SW-8	2/1/2025	19:41	SW	Frozen				1	1
T779-28	MGWA-3CP-SW-1	2/1/2025	16:21	SW	Frozen				1	1
T779-28	MGWA-3CP-SW-20	2/1/2025	16:11	SW	Frozen				1	1
T779-28	MGWA-3CP-SW-40	2/1/2025	16:19	SW	Frozen				1	1
T779-28	MGWA-3CP-SW-40-FD	2/1/2025	18:48	SW	Frozen				1	1
T779-25	MGWA-3CP2-SW-8	2/1/2025	16:59	SW	Frozen				1	1
T779-25	MGWA-EQ	2/3/2025	7:45	SW	Frozen				1	1
T779-25	MGWA-WB	2/3/2025	7:40	SW	Frozen				1	1
T779-31-8	BARLHM1	2/22/2025	2:03	SED	Frozen			1	1	
T779-31-8	BARLHM2	2/22/2025	2:36	SED	Frozen			1	1	
T779-31-8	BARLHM3	2/22/2025	4:45	SED	Frozen			1	1	
T779-31-8	BARLHM4	2/22/2025	6:33	SED	Frozen			1	1	
T779-31-8	BARLHM5	2/22/2025	8:09	SED	Frozen			1	1	
T779-31-8	BARLHM6	2/22/2025	8:36	SED	Frozen			1	1	
T779-31-8	BARLHM7	2/22/2025	9:18	SED	Frozen			1	1	
T779-31-8	BARLHM2	2/22/2025	9:50	SED	Frozen			1	1	
T779-31-8	BARLHM1	2/22/2025	0:42	SED	Frozen			1	1	
T779-31-8	BARLHM2	2/22/2025	1:19	SED	Frozen			1	1	
T779-31-8	POPLB-M1	2/11/2025	22:54	SED	Frozen			1	1	
T779-31-8	POPLB-M2	2/11/2025	22:41	SED	Frozen			1	1	
T779-31-8	POPLB-M3	2/11/2025	20:17	SED	Frozen			1	1	
T779-31-8	POPLB-M4	2/11/2025	20:38	SED	Frozen			1	1	
T779-31-8	POPLB-N1	2/11/2025	17:17	SED	Frozen			1	1	
T779-31-8	POPLB-N2	2/11/2025	17:36	SED	Frozen			1	1	
T779-31-8	POPLB-S1	2/13/2025	2:10	SED	Frozen			1	1	
T779-31-8	POPLB-S2	2/13/2025	1:53	SED	Frozen			1	1	
T779-31-8	PMWH-182X-C1	2/19/2025	22:26	SED	Frozen			1	1	
T779-31-8	PMWH-182X-C2	2/16/2025	22:35	SED	Frozen			1	1	
T779-31-8	PMWH-182X-C3	2/16/2025	22:43	SED	Frozen			1	1	
T779-31-8	PMWH-182X-X-(0-5)	2/19/2025	8:41	SED	Frozen			1	1	

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Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Ng (EPA 821 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 821 B	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 821 B	Ng (EPA 821 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 821 E
1779-31-B	PMNH-Center-C1	2/11/2025	5:34	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-C2	2/11/2025	5:48	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-C3	2/11/2025	5:57	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-X-(8-5)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-X-(15-15)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-X-(15-20)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-X-(6-10)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1
1779-31-B	SAREF-A	2/11/2025	14:53	SED	Frozen	1	1	1	1	1
1779-31-B	SAREF-B	2/11/2025	15:19	SED	Frozen	1	1	1	1	1
1779-31-B	SAREF-C	2/11/2025	16:45	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-M1	2/23/2025	2:31	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-M2	2/23/2025	2:39	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-M3	2/23/2025	6:31	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-M4	2/23/2025	8:42	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-M1	2/23/2025	9:20	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-N2	2/23/2025	9:42	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-S1	2/23/2025	0:53	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-S2	2/23/2025	1:21	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-E1	2/23/2025	17:33	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-E2	2/23/2025	17:49	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-M1	2/23/2025	15:12	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-S2	2/23/2025	16:51	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-W1	2/23/2025	12:47	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-W1-FD	2/23/2025	12:36	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-W2	2/23/2025	13:16	SED	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-1	2/22/2025	3:35	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-20	2/22/2025	3:41	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-40	2/22/2025	3:49	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-6	2/22/2025	4:01	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-1	2/22/2025	5:19	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-1-FD	2/22/2025	5:24	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-20	2/22/2025	5:30	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-40	2/22/2025	5:38	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-6	2/22/2025	5:49	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-EQ	2/11/2025	19:07	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-1	2/11/2025	21:36	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-20	2/11/2025	21:30	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-40	2/11/2025	21:30	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-6	2/11/2025	21:19	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-1	2/11/2025	19:16	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-20	2/11/2025	19:22	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-40	2/11/2025	19:29	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-6	2/11/2025	19:40	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-SW-1	2/11/2025	19:07	SW	Frozen	1	1	1	1	1

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Report to:
Dr. Ted Donn
Tetra Tech Inc.
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Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)		Hg (EPA 1631 E)		Hg (EPA 1631 F)	
						10 Metals (Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn)	18 Metals (Al, Ba, Cd, Cu, Fe, Pb, Ni, P, Zn)	18 Metals (Al, Ba, Cd, Cu, Fe, Pb, Ni, P, Zn)	18 Metals (Al, Ba, Cd, Cu, Fe, Pb, Ni, P, Zn)		
17779.32	ERPLGRXKLG-S2	2/12/2025	8:53	SED	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-S1	2/12/2025	11:23	SED	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-S2	2/12/2025	13:22	SED	Frozen	1	1	1	1	1	1
17779.32	ERREF2-A-SW-1	2/12/2025	17:30	SED	Frozen	1	1	1	1	1	1
17779.32	ERREF2-B	2/12/2025	17:37	SED	Frozen	1	1	1	1	1	1
17779.32	ERREF2-C	2/12/2025	17:59	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E1	2/22/2025	22:20	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E2	2/22/2025	22:26	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1	2/22/2025	18:10	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M2	2/22/2025	16:24	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M3	2/22/2025	18:19	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M4	2/22/2025	19:31	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1	2/22/2025	13:44	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-W2	2/22/2025	18:55	OCED	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-EQ	2/12/2025	6:10	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-1	2/12/2025	9:17	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-20	2/12/2025	9:25	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-40	2/12/2025	9:36	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-8	2/12/2025	9:47	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-1	2/12/2025	6:57	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-20	2/12/2025	7:05	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-40	2/12/2025	7:17	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-8	2/12/2025	7:28	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-1	2/12/2025	12:20	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-1-FO	2/12/2025	12:25	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-20	2/12/2025	12:31	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-40	2/12/2025	12:39	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-8	2/12/2025	12:50	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-SVB	2/12/2025	8:56	SW	Frozen	1	1	1	1	1	1
17779.32	ERREF2-A-SW-1	2/12/2025	16:21	SW	Frozen	1	1	1	1	1	1
17779.32	ERREF2-A-SW-20	2/12/2025	16:31	SW	Frozen	1	1	1	1	1	1
17779.32	ERREF2-A-SW-40	2/12/2025	16:38	SW	Frozen	1	1	1	1	1	1
17779.32	ERREF2-A-SW-8	2/12/2025	16:48	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E2-SW-1	2/22/2025	21:09	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E2-SW-20	2/22/2025	21:15	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E2-SW-40	2/22/2025	21:22	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E2-SW-8	2/22/2025	21:33	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-EQ	2/22/2025	12:14	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1-SW-1	2/22/2025	15:13	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1-SW-20	2/22/2025	15:18	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1-SW-40	2/22/2025	15:26	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1-SW-8	2/22/2025	15:36	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M2-SW-1	2/22/2025	16:01	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M4-SW-20	2/22/2025	16:09	SW	Frozen	1	1	1	1	1	1

11 of 12

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 A	Dry Weight	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
	JKPLC1LM-SW-40	2/22/2025	18:17	SW	Frozen					
	JKPLC1LM-SW-B	2/22/2025	18:27	SW	Frozen					
	JKPLC1NQ-SW-1	2/22/2025	12:25	SW	Frozen					
	JKPLC1NS-SW-30	2/22/2025	12:31	SW	Frozen					
	JKPLC1NQ-SW-20-FP	2/22/2025	12:37	SW	Frozen					
	JKPLC1NQ-SW-40	2/22/2025	12:44	SW	Frozen					
	JKPLC1NS-SW-B	2/22/2025	12:54	SW	Frozen					
	JKPLC1NQ-SW-40	2/22/2025	12:58	SW	Frozen					

Relinquished by: _____
Received by: Jesse Sy (CC-TN)
3/1/25
18:38

Tetratech 3/6/25

- received 18:30 3/6/25

Teste S_{yl} (GETN)

Tick#: 7723 4786 9328

Therm. ID: 000 Cust. Seal: Y/N
Uncorr./Corr. Temp: 7.6/-8.2C
Delivery: UPS FEDEX / Other: _____
Ice Type: Blue Dr / Wet / NoIce
Label Ver: 06 / SWTS Packing: _____

Box # 25

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: ~~6.4~~ / ~~6.6~~ C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue / Dry / Wet / None
Label Ver: 04 / 0000 Packing: _____

Box #14

Therm. ID: 550 Cust. Seal: Y / N
Uncorr./Corr. Temp: 6.5 °C
Delivery: UPS FedEx Other: _____
Ice Type: Blue Dry Wet / None
Label Ver. C65 Shirts Packing: _____

Box 21

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: 15.2/15.4
Delivery: UPS FedEx/ Other:
Ice Type: Blue Dry Wet / None
Label Ver.: Gel Icons Packing:

Box #18

Therm. ID: 555 Cust. Seal: Y / N
Uncorr./Corr. Temp: 15 / 15.6
Delivery: UPS / FedEx Other: _____
Ice Type: Blue / Dry / Wet / None

Box # 37

Label Ver.: 1.0 Packing: 1

1997

5 mL addition \Rightarrow 5 mL aliquoted
 < 5 mL addition \Rightarrow ~~100-500~~ MP-1000 pipette



Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	53366
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)	Percent (%)	Comments
350-1019-B-112	A	Y	5/2	45/2	
350-1019-B-113	A	Y	5/2		
350-1019-B-114	A	Y	5/2		
350-1019-B-115	A	Y	5/2		
350-1019-B-116	A	Y	5/2		
350-1019-B-117	A	Y	5/2		
350-1019-B-118	A	Y	4.5/2		
350-1019-B-119	A	Y	5/2		
350-1019-B-120	A	Y	5/2		
350-1019-B-121	A	Y	5/2		
350-1019-B-122	A	Y	5/2		
350-1019-B-123	A	Y	5/2		
350-1019-B-124	A	Y	5/2		
350-1019-B-125	A	Y	5/2		
350-1019-B-126	A	Y	5/2		
350-1019-B-127	A	Y	5/2		
350-1019-B-128	A	Y	5/2		
350-1019-B-129	A	Y	5/2		
350-1019-B-130	A	Y	5/2		
350-1019-B-131	A	Y	5/2		
350-1019-B-132	A	Y	5/2		
350-1019-B-133	A	Y	5/2		
350-1019-B-134	A	Y	5/2		
350-1019-B-135	A	Y	5/2		
350-1019-B-136	A	Y	4.5/2		
350-1019-B-137	A	Y	5/2		
350-1019-B-138	A	Y	4.5/2		
350-1019-B-139	A	Y	5/2		
350-1019-B-140	A	Y	5/2		
350-1019-B-141	A	Y	5/2		
350-1019-B-142	A	Y	5/2		
350-1019-B-143	A	Y	5/2		
350-1019-B-144	A	Y	3.5/2		
350-1019-B-145	A	Y	3.5/2		
350-1019-B-146	A	Y	5/2		

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5376
#####	#####	#####
#####	#####	#####
#####	#####	#####
#####	#####	#####

Sample ID	Pres. Used (ID)	Outlized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1010-145				
350-1010-146				JS 3/10/25
350-1010-147	A	Y	5/2	
350-1010-148	A	Y	5/2	
350-1010-149	A	Y	5/2	
350-1010-150	A	Y	5/2	
350-1010-151	A	Y	5/2	
350-1010-152	A	Y	5/2	
350-1010-153	A	Y	5/2	
350-1010-154	A	Y	5/2	
350-1010-155	A	Y	5/2	
350-1010-156	A	Y	5/2	
350-1010-157	A	Y	5/2	
350-1010-158	A	Y	5/2	
350-1010-159	A	Y	5/2	
350-1010-160	A	Y	5/2	
350-1010-161	A	Y	5/2	
350-1010-162	A	Y	5/2	
350-1010-163	A	Y	5/2	
350-1010-164	A	Y	4.5/2	
350-1010-165	A	Y	4.5/2	
350-1010-166	A	Y	5/2	
350-1010-167	A	Y	5/2	
350-1010-168	A	Y	4.5/2	
350-1010-169	A	Y	5/2	
350-1010-170	A	Y	5/2	
350-1010-171	A	Y	5/2	
350-1010-172	A	Y	5/2	
350-1010-173	A	Y	5/2	
350-1010-174	A	Y	5/2	
350-1010-175	A	Y	5/2	
350-1010-176	A	Y	5/2	
350-1010-177	A	Y	5/2	
350-1010-178	A	Y	5/2	
350-1010-179	A	Y	5/2	

Date: 3/11/2025
End Time: 13:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	57368

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-178	A	Y	5/2	
350-1619-B-180	A	Y	5/2	
350-1619-B-181	A	Y	5/2	
350-1619-B-182	A	Y	5/2	
350-1619-B-183	A	Y	5/2	
350-1619-B-184	A	Y	5/2	
350-1619-B-186	A	Y	5/2	
350-1619-B-188	A	Y	5/2	
350-1619-B-189	A	Y	5/2	
350-1619-B-190	A	Y	5/2	
350-1619-B-191	A	Y	5/2	
350-1619-B-192	A	Y	5/2	
350-1619-B-193	A	Y	5/2	
350-1619-B-194	A	Y	5/2	
350-1619-B-195	A	Y	5/2	
350-1619-B-196	A	Y	5/2	
350-1619-B-197	A	Y	5/2	
350-1619-B-198	A	Y	5/2	
350-1619-B-199	A	Y	5/2	
350-1619-B-200	A	Y	5/2	
350-1619-B-201	A	Y	5/2	
350-1619-B-202	A	Y	5/2	
350-1619-B-203	A	Y	5/2	
350-1619-B-204	A	Y	5/2	
350-1619-B-205	A	Y	5/2	
350-1619-B-206	A	Y	5/2	
350-1619-B-207	A	Y	5/2	
350-1619-B-208	A	Y	5/2	
350-1619-B-209	A	Y	5/2	
350-1619-B-210	A	Y	5/2	
350-1619-B-211	A	Y	5/2	
350-1619-B-212	A	Y	5/2	

Total Mercury Preservation Log

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Login Number: 57232625

Date: 3/11/2025
End Time: 13:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	57368

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-211	A	Y	5/2	
350-1619-B-212	A	Y	5/2	
350-1619-B-214	A	Y	5/2	
350-1619-B-215	A	Y	5/2	
350-1619-B-216	A	Y	5/2	
350-1619-B-217	A	Y	5/2	
350-1619-B-218	A	Y	5/2	
350-1619-B-219	A	Y	5/2	
350-1619-B-220	A	Y	5/2	
350-1619-B-221	A	Y	5/2	
350-1619-B-222	A	Y	5/2	
350-1619-B-223	A	Y	5/2	
350-1619-B-224	A	Y	5/2	
350-1619-B-225	A	Y	5/2	
350-1619-B-226	A	Y	5/2	
350-1619-B-227	A	Y	5/2	
350-1619-B-228	A	Y	5/2	
350-1619-B-229	A	Y	5/2	
350-1619-B-230	A	Y	5/2	
350-1619-B-231	A	Y	5/2	
350-1619-B-232	A	Y	5/2	
350-1619-B-233	A	Y	5/2	
350-1619-B-234	A	Y	5/2	
350-1619-B-235	A	Y	5/2	
350-1619-B-236	A	Y	5/2	
350-1619-B-237	A	Y	5/2	
350-1619-B-238	A	Y	5/2	
350-1619-B-239	A	Y	5/2	
350-1619-B-240	A	Y	5/2	
350-1619-B-241	A	Y	5/2	
350-1619-B-242	A	Y	5/2	
350-1619-B-243	A	Y	5/2	
350-1619-B-244	A	Y	5/2	
350-1619-B-245	A	Y	5/2	

Total Mercury Preservation Log

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Login Number: 57232625

Date: 3/11/2025
End Time: 13:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	57368

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-259	A	Y	5/2	
350-1619-B-260	A	Y	5/2	
350-1619-B-261	A	Y	5/2	
350-1619-B-262	A	Y	5/2	
350-1619-B-263	A	Y	5/2	
350-1619-B-264	A	Y	5/2	
350-1619-B-265	A	Y	5/2	
350-1619-B-266	A	Y	5/2	
350-1619-B-267	A	Y	5/2	
350-1619-B-268	A	Y	5/2	
350-1619-B-269	A	Y	5/2	
350-1619-B-270	A	Y	5/2	
350-1619-B-271	A	Y	5/2	
350-1619-B-272	A	Y	5/2	
350-1619-B-273	A	Y	5/2	
350-1619-B-274	A	Y	5/2	
350-1619-B-275	A	Y	5/2	
350-1619-B-276	A	Y	5/2	
350-1619-B-277	A	Y	5/2	
350-1619-B-278	A	Y	5/2	
350-1619-B-279	A	Y	5/2	
350-1619-B-280	A	Y	5/2	
350-1619-B-281	A	Y	5/2	
350-1619-B-282	A	Y	5/2	
350-1619-B-283	A	Y	5/2	
350-1619-B-284	A	Y	5/2	
350-1619-B-285	A	Y	5/2	
350-1619-B-286	A	Y	5/2	
350-1619-B-287	A	Y	5/2	
350-1619-B-288	A	Y	5/2	
350-1619-B-289	A	Y	5/2	
350-1619-B-290	A	Y	5/2	
350-1619-B-291	A	Y	5/2	
350-1619-B-292	A	Y	5/2	
350-1619-B-293	A	Y	5/2	
350-1619-B-294	A	Y	5/2	
350-1619-B-295	A	Y	5/2	
350-1619-B-296	A	Y	5/2	
350-1619-B-297	A	Y	5/2	
350-1619-B-298	A	Y	5/2	
350-1619-B-299	A	Y	5/2	
350-1619-B-300	A	Y	5/2	
350-1619-B-301	A	Y	5/2	
350-1619-B-302	A	Y	5/2	
350-1619-B-303	A	Y	5/2	
350-1619-B-304	A	Y	5/2	
350-1619-B-305	A	Y	5/2	
350-1619-B-306	A	Y	5/2	
350-1619-B-307	A	Y	5/2	
350-1619-B-308	A	Y	5/2	
350-1619-B-309	A	Y	5/2	
350-1619-B-310	A	Y	5/2	
350-1619-B-311	A	Y	5/2	
350-1619-B-312	A	Y	5/2	
350-1619-B-313	A	Y	5/2	
350-1619-B-314	A	Y	5/2	
350-1619-B-315	A	Y	5/2	
350-1619-B-316	A	Y	5/2	
350-1619-B-317	A	Y	5/2	

Total Mercury Preservation Log

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Login Number: 57232625

Date: 3/11/2025
End Time: 13:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	57368

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-383	A	Y	5/2	
350-1619-B-384	A	Y	5/2	
350-1619-B-385	A	Y	5/2	
350-1619-B-386	A	Y	5/2	
350-1619-B-387	A	Y	5/2	
350-1619-B-388	A	Y	5/2	
350-1619-B-389	A	Y	5/2	
350-1619-B-390	A	Y	5/2	
350-1619-B-391	A	Y	5/2	
350-1619-B-392	A	Y	5/2	
350-1619-B-393	A	Y	5/2	
350-1619-B-394	A	Y	5/2	
350-1619-B-395	A	Y	5/2	
350-1619-B-396	A	Y	5/2	
350-1619-B-397	A	Y	5/2	
350-1619-B-398	A	Y	5/2	
350-1619-B-399	A	Y	5/2	
350-1619-B-400	A	Y	5/2	
350-1619-B-401	A	Y	5/2	
350-1619-B-402	A	Y	5/2	
350-1619-B-403	A	Y	5/2	
350-1619-B-404	A	Y	5/2	
350-1619-B-405	A	Y	5/2	
350-1619-B-406	A	Y	5/2	
350-1619-B-407	A	Y	5/2	
350-1619-B-408	A	Y	5/2	
350-1619-B-409	A	Y	5/2	
350-1619-B-410	A	Y	5/2	
350-1619-B-411	A	Y	5/2	
350-1619-B-412	A	Y	5/2	
350-1619-B-413	A	Y	5/2	
350-1619-B-414	A	Y	5/2	
350-1619-B-415	A	Y	5/2	
350-1619-B-416	A	Y	5/2	
350-1619-B-417	A	Y	5/2	

Total Mercury Preservation Log

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Login Number: 57232625

Date:	3/1/2025
End Time:	17:31
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	53115
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1819-B-418	A	Y	5/2	JS 3/1/25
350-1819-B-419	A	Y	5/2	
350-1819-B-420	A	Y	5/2	
350-1819-B-421	A	Y	5/2	
350-1819-B-422	A	Y	5/2	
350-1819-B-423	A	Y	5/2	
350-1819-B-424	A	Y	5/2	
350-1819-B-425	A	Y	5/2	
350-1819-B-426	A	Y	3.5/2	
350-1819-B-445	A	Y	4.5/2	
350-1819-B-446	A	Y	5/2	
350-1819-B-447	A	Y	5/2	
350-1819-B-448	A	Y	5/2	
350-1819-B-449	A	Y	5/2	
350-1819-B-450	A	Y	5/2	
350-1819-B-451	A	Y	4.5/2	
350-1819-B-452	A	Y	4.5/2	
350-1819-B-453	A	Y	5/2	
350-1819-B-454	A	Y	5/2	
350-1819-B-455	A	Y	5/2	
350-1819-B-456	A	Y	5/2	
350-1819-B-457	A	Y	5/2	
350-1819-B-458	A	Y	5/2	
350-1819-B-459	A	Y	3.5/2	
350-1819-B-460	A	Y	5/2	
350-1819-B-461	A	Y	5/2	
350-1819-B-462	A	Y	5/2	
350-1819-B-463	A	Y	5/2	
350-1819-B-464	A	Y	5/2	
350-1819-B-465	A	Y	5/2	
350-1819-B-466	A	Y	5/2	
350-1819-B-467	A	Y	5/2	
350-1819-B-468	A	Y	4/2	JS 3/1/25

Date:	3/1/2025
End Time:	17:31
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	53115
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1819-B-467	A	Y	5/2	JS 3/1/25
350-1819-B-468	A	Y	5/2	
350-1819-B-470	A	Y	5/2	
350-1819-B-471	A	Y	5/2	
350-1819-B-472	A	Y	5/2	
350-1819-B-473	A	Y	5/2	
350-1819-B-474	A	Y	5/2	
350-1819-B-475	A	Y	5/2	
350-1819-B-476	A	Y	5/2	
350-1819-B-477	A	Y	5/2	
350-1819-B-478	A	Y	5/2	
350-1819-B-479	A	Y	5/2	
350-1819-B-480	A	Y	5/2	
350-1819-B-481	A	Y	5/2	
350-1819-B-482	A	Y	3.5/2	
350-1819-B-484	A	Y	5/2	
350-1819-B-485	A	Y	5/2	
350-1819-B-486	A	Y	5/2	
350-1819-B-487	A	Y	5/2	



Date:	3/1/2025
End Time:	17:31
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	53116
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1819-A-112	7.2	6.2	A	6.25	
350-1819-A-113	7.2	6.2	A	5.62	
350-1819-A-114	7.2	6.2	A	6.25	
350-1819-A-115	7.2	6.2	A	6.25	
350-1819-A-116	7.2	6.2	A	6.25	
350-1819-A-117	7.2	6.2	A	6.25	
350-1819-A-118	7.2	6.2	A	6.25	
350-1819-A-119	7.2	6.2	A	6.25	
350-1819-A-120	7.2	6.2	A	6.25	
350-1819-A-121	7.2	6.2	A	6.25	
350-1819-A-122	7.2	6.2	A	6.25	
350-1819-A-123	7.2	6.2	A	6.25	
350-1819-A-124	7.2	6.2	A	6.25	
350-1819-A-125	7.2	6.2	A	6.25	
350-1819-A-126	7.2	6.2	A	6.25	
350-1819-A-127	7.2	6.2	A	6.25	
350-1819-A-128	7.2	6.2	A	6.25	
350-1819-A-129	7.2	6.2	A	6.25	
350-1819-A-130	7.2	6.2	A	6.25	
350-1819-A-131	7.2	6.2	A	6.25	
350-1819-A-132	7.2	6.2	A	6.25	
350-1819-A-133	7.2	6.2	A	5.62	
350-1819-A-134	7.2	6.2	A	6.25	
350-1819-A-135	7.2	6.2	A	6.25	
350-1819-A-136	7.2	6.2	A	6.25	
350-1819-A-137	7.2	6.2	A	6.25	
350-1819-A-138	7.2	6.2	A	6.25	
350-1819-A-139	7.2	6.2	A	6.25	
350-1819-A-140	7.2	6.2	A	6.25	
350-1819-A-141	7.2	6.2	A	6.25	
350-1819-A-142	7.2	6.2	A	6.25	
350-1819-A-143	7.2	6.2	A	6.25	
350-1819-A-144	7.2	6.2	A	4.37	
350-1819-A-145	7.2	6.2	A	4.37	
350-1819-A-146	7.2	6.2	A	6.25	JS 3/1/25

Date:	3/1/2025
End Time:	17:31
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	53116
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1819-A-145	7.2	6.2	A	6.25	JS 3/1/25
350-1819-A-146	7.2	6.2	A	6.25	JS 3/1/25
350-1819-A-147	7.2	6.2	A	6.25	
350-1819-A-148	7.2	6.2	A	6.25	
350-1819-A-149	7.2	6.2	A	6.25	
350-1819-A-150	7.2	6.2	A	6.25	
350-1819-A-151	7.2	6.2	A	6.25	
350-1819-A-152	7.2	6.2	A	6.25	
350-1819-A-153	7.2	6.2	A	6.25	
350-1819-A-154	7.2	6.2	A	6.25	
350-1819-A-155	7.2	6.2	A	6.25	
350-1819-A-156	7.2	6.2	A	6.25	
350-1819-A-157	7.2	6.2	A	6.25	
350-1819-A-158	7.2	6.2	A	6.25	
350-1819-A-159	7.2	6.2	A	6.25	
350-1819-A-160	7.2	6.2	A	6.25	
350-1819-A-161	7.2	6.2	A	6.25	
350-1819-A-162	7.2	6.2	A	6.25	
350-1819-A-163	7.2	6.2	A	6.25	
350-1819-A-164	7.2	6.2	A	6.25	
350-1819-A-165	7.2	6.2	A	6.25	
350-1819-A-166	7.2	6.2	A	6.25	
350-1819-A-167	7.2	6.2	A	6.25	
350-1819-A-168	7.2	6.2	A	6.25	
350-1819-A-169	7.2	6.2	A	6.25	
350-1819-A-170	7.2	6.2	A	6.25	
350-1819-A-171	7.2	6.2	A	6.25	
350-1819-A-172	7.2	6.2	A	6.25	
350-1819-A-173	7.2	6.2	A	6.25	
350-1819-A-174	7.2	6.2	A	6.25	
350-1819-A-175	7.2	6.2	A	6.25	
350-1819-A-176	7.2	6.2	A	6.25	
350-1819-A-177	7.2	6.2	A	6.25	
350-1819-A-178	7.2	6.2	A	6.25	
350-1819-A-179	7.2	6.2	A	6.25	JS 3/1/25

31/01/25 JS 31/01/25

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	5168
//////////	//////////	//////////
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MP-trial pipeite

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	528
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////

mp - turb pipette

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
150-1618-A-211	7.2	<2	A		
150-1618-A-212	7.2	<2	A		
150-1618-A-213	7.2	<2	A	6.5	JS 3/17/25 repeated
150-1618-A-214	7.2	<2	A	6.5	
150-1618-A-215	7.2	<2	A	5.62	
150-1618-A-216	7.2	<2	A	6.25	
150-1618-A-217	7.2	<2	A	5.62	
150-1618-A-218	7.2	<2	A	6.5	
150-1618-A-219	7.2	<2	A	6.25	
150-1618-A-220	7.2	<2	A	6.25	
150-1618-A-221	7.2	<2	A	6.5	
150-1618-A-222	7.2	<2	A	6.5	
150-1618-A-223	7.2	<2	A	6.5	
150-1618-A-224	7.2	<2	A	5.62	
150-1618-A-225	7.2	<2	A	5.62	
150-1618-A-226	7.2	<2	A	6.25	
150-1618-A-227	7.2	<2	A	6.5	
150-1618-A-228	7.2	<2	A	6.25	
150-1618-A-229	7.2	<2	A	6.5	
150-1618-A-230	7.2	<2	A	6.5	
150-1618-A-231	7.2	<2	A	6.5	
150-1618-A-232	7.2	<2	A	6.25	
150-1618-A-233	7.2	<2	A	6.5	
150-1618-A-234	7.2	<2	A	6.5	
150-1618-A-235	7.2	<2	A	6.5	
150-1618-A-236	7.2	<2	A	6.25	
150-1618-A-237	7.2	<2	A	6.5	
150-1618-A-238	7.2	<2	A	6.5	
150-1618-A-239	7.2	<2	A	6.5	
150-1618-A-240	7.2	<2	A	6.5	
150-1618-A-241	7.2	<2	A	6.25	
150-1618-A-242	7.2	<2	A	6.5	
150-1618-A-243	7.2	<2	A	6.25	
150-1618-A-244	7.2	<2	A	5.62	
150-1618-A-245	7.2	<2	A	4.97	JS 3/17/25

3/19/25 Jr. 2045

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	6368
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100

[illegible]

MD-TMAB probe

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (g/L)	Comments
350-1019-A-376	7.2	< 2	A	6.5	
350-1019-A-377	7.2	< 2	A	6.5	
350-1019-A-378	7.2	< 2	A	4.37	
350-1019-A-379	7.2	< 2	A	6.5	
350-1019-A-380	7.2	< 2	A	6.5	
350-1019-A-381	7.2	< 2	A	6.5	
350-1019-A-382	7.2	< 2	A	6.5	
350-1019-A-383	7.2	< 2	A	6.5	
350-1019-A-384	7.2	< 2	A	6.5	
350-1019-A-385	7.2	< 2	A	6.5	
350-1019-A-386	7.2	< 2	A	6.5	
350-1019-A-387	7.2	< 2	A	4.37	
350-1019-A-388	7.2	< 2	A	6.5	
350-1019-A-389	7.2	< 2	A	6.5	
350-1019-A-390	7.2	< 2	A	6.5	
350-1019-A-391	7.2	< 2	A	6.5	
350-1019-A-392	7.2	< 2	A	6.5	
350-1019-A-393	7.2	< 2	A	6.5	
350-1019-A-394	7.2	< 2	A	6.5	
350-1019-A-395	7.2	< 2	A	6.5	
350-1019-A-396	7.2	< 2	A	6.5	
350-1019-A-397	7.2	< 2	A	6.5	
350-1019-A-398	7.2	< 2	A	6.5	
350-1019-A-399	7.2	< 2	A	6.5	
350-1019-A-400	7.2	< 2	A	6.5	
350-1019-A-401	7.2	< 2	A	4.37	
350-1019-A-402	7.2	< 2	A	4.37	
350-1019-A-403	7.2	< 2	A	6.5	
350-1019-A-404	7.2	< 2	A	6.5	
350-1019-A-405	7.2	< 2	A	6.5	
350-1019-A-406	7.2	< 2	A	6.5	
350-1019-A-407	7.2	< 2	A	6.5	
350-1019-A-408	7.2	< 2	A	6.5	
350-1019-A-409	7.2	< 2	A	6.5	
350-1019-A-410	7.2	< 2	A	6.5	

3/19/25 3:30 PM

Date:	3/11/2025
End Time:	3:30 PM
pH Paper Lot:	11041704
Analysis:	MS-TM-06 pHe

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	5365

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-409					3/19/25 repeated
350-1619-A-410					
350-1619-A-411	<2	>2	A	6.5	
350-1619-A-412	<2	>2	A	6.5	
350-1619-A-413	<2	>2	A	6.5	
350-1619-A-414	<2	>2	A	6.5	
350-1619-A-415	<2	>2	A	6.5	
350-1619-A-416	<2	>2	A	4.97	
350-1619-A-417	<2	>2	A	6.5	
350-1619-A-418	<2	>2	A	6.5	
350-1619-A-419	<2	>2	A	6.5	
350-1619-A-420	<2	>2	A	6.5	
350-1619-A-421	<2	>2	A	6.5	
350-1619-A-422	<2	>2	A	6.5	
350-1619-A-423	<2	>2	A	6.5	
350-1619-A-424	<2	>2	A	6.5	
350-1619-A-425	<2	>2	A	6.5	
350-1619-A-426	<2	>2	A	3.75	
350-1619-A-445	<2	>2	A	6.5	
350-1619-A-446	<2	>2	A	5.62	
350-1619-A-447	<2	>2	A	6.5	
350-1619-A-448	<2	>2	A	6.5	
350-1619-A-449	<2	>2	A	6.5	
350-1619-A-450	<2	>2	A	6.5	
350-1619-A-451	<2	>2	A	6.5	
350-1619-A-452	<2	>2	A	6.5	
350-1619-A-453	<2	>2	A	6.5	
350-1619-A-454	<2	>2	A	6.5	
350-1619-A-455	<2	>2	A	6.5	
350-1619-A-456	<2	>2	A	6.5	
350-1619-A-457	<2	>2	A	6.5	
350-1619-A-458	<2	>2	A	6.5	
350-1619-A-459	<2	>2	A	5.62	
350-1619-A-460	<2	>2	A	6.5	
350-1619-A-461	<2	>2	A	6.5	

JS 3/19/25

pH Verification Log

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Login Number: 350-1619

3/19/25 3:30 PM

Date:	3/11/2025
End Time:	3:30 PM
pH Paper Lot:	11041704
Analysis:	MS-TM-06 pHe

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	5365

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-450					3/19/25 repeated
350-1619-A-461					
350-1619-A-462	>2	<2	A	6.5	
350-1619-A-463	>2	<2	A	6.5	
350-1619-A-464	>2	<2	A	6.5	
350-1619-A-465	>2	<2	A	6.5	
350-1619-A-466	>2	<2	A	6.5	
350-1619-A-467	>2	<2	A	6.5	
350-1619-A-468	>2	<2	A	4.97	
350-1619-A-469	>2	<2	A	6.5	
350-1619-A-470	>2	<2	A	6.5	
350-1619-A-471	>2	<2	A	6.5	
350-1619-A-472	>2	<2	A	6.5	
350-1619-A-473	>2	<2	A	6.5	
350-1619-A-474	>2	<2	A	6.5	
350-1619-A-475	>2	<2	A	6.5	
350-1619-A-476	>2	<2	A	6.5	
350-1619-A-477	>2	<2	A	6.5	
350-1619-A-478	>2	<2	A	6.5	
350-1619-A-479	>2	<2	A	6.5	
350-1619-A-480	>2	<2	A	6.5	
350-1619-A-481	>2	<2	A	6.5	
350-1619-A-482	>2	<2	A	4.97	
350-1619-A-484	>2	<2	A	6.5	
350-1619-A-485	>2	<2	A	5.62	
350-1619-A-486	>2	<2	A	6.5	
350-1619-A-487	>2	<2	A	6.5	

JS 3/19/25

pH Verification Log

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Login Number: 350-1619

Login Sample Receipt Checklist

Client: Tetra Tech Inc

Job Number: 350-1619-1

Login Number: 1619

List Source: Eurofins Seattle Specialty Metals

List Number: 1

Creator: LaCount, Lilly-Anna E

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Not requested on COC.
There are no discrepancies between the containers received and the COC.	False	See email attachment
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Seattle Specialty Metals

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5/23/2025

ANALYTICAL REPORT

PREPARED FOR

Attn: Ted Donn
Tetra Tech Inc
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, California 94549
Generated 5/23/2025 7:49:47 AM

JOB DESCRIPTION

Gulf of Thailand - 2025

JOB NUMBER

350-1619-2

Eurofins Seattle Specialty Metals
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

Page 1 of 88

Eurofins Seattle Specialty Metals

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Generated
5/23/2025 7:49:47 AM

Authorized for release by
Lilly-Anna LaCount, Project Manager
Lilly-Anna.LaCount@et.eurofinsus.com
(253)922-2310

Definitions/Glossary	
Client: Tetra Tech Inc Project/Site: Gulf of Thailand - 2025	Job ID: 350-1619-2
Qualifiers	
Metals	
Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
☐	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Laboratory Job ID: 350-1619-2

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Case Narrative	
Client: Tetra Tech Inc Project: Gulf of Thailand - 2025	Job ID: 350-1619-2
Eurofins Seattle Specialty Metals	
Job ID: 350-1619-2	
Job Narrative 350-1619-2	
Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.	
<ul style="list-style-type: none">Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.	
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.	
Receipt The samples were received on 3/6/2025 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 15 coolers at receipt time were -16.2°C, -16.4°C, -15.2°C, -15.2°C, -12.4°C, -12.2°C, -12.2°C, -12.0°C, -7.8°C, -6.8°C, -6.7°C, -6.6°C, -6.4°C, -5.9°C and -1.3°C.	
Receipt Exceptions multiple sample(s) did not match the information listed on the Chain-of-Custody (COC). Most discrepancies were noted in the reporting limit (RL). The client was contacted, to update them accordingly. All samples were updated in TALS. Please see email attachments for details.	
Metals Method 1631E: The following samples were analyzed outside of analytical holding time due to the samples being received outside of analytical holding time, Method 1638: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 350-5673 and analytical batch 350-6893 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. Method 1638: The method blank for preparation batch 350-5673 and analytical batch 350-6893 contained Manganese above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank. Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 350-5807, 350-5995 and 350-5997 and analytical batch 350-6066 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. Method 1640: The following samples were analyzed outside of analytical holding time due to the samples being received outside of analytical holding time: MGWA-3B2X-SW-1 (350-1619-267), MGWA-3B2X-SW-20 (350-1619-268), MGWA-3B2X-SW-40 (350-1619-269), MGWA-3B2X-SW-B (350-1619-270), MGWA-3CP2-SW-1 (350-1619-271), MGWA-3CP2-SW-20 (350-1619-272), MGWA-3CP2-SW-40 (350-1619-273), MGWA-3CP2-SW-40-FD (350-1619-274) and MGWA-3CP2-SW-B (350-1619-275). Method 1640: The following samples were analyzed outside of analytical holding time due to being received outside of analytical holding time.	
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.	
General Chemistry No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.	

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-2				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: MGWA-1B2Y					Lab Sample ID: 350-1619-246				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	50000		1100	550 ng/g	10000	□	1631B	Total/NA	
Arsenic	9.5		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	25000	B	42	0.085 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.12		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	43		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	15	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	18000	B	42	8.5 mg/Kg	1	□	1638	Total/NA	
Manganese	440	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	23	B	0.85	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	35	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	68		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-1C2									
					Lab Sample ID: 350-1619-247				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	490		13	6.1 ng/g	100	□	1631B	Total/NA	
Arsenic	7.3		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	19000	B	42	0.084 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.081		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	49		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	14	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	21000	B	42	8.4 mg/Kg	1	□	1638	Total/NA	
Manganese	510	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	25	B	0.84	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	26	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	61		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-1CP2									
					Lab Sample ID: 350-1619-248				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	150		24	11 ng/g	200	□	1631B	Total/NA	
Arsenic	5.8		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	4100	B	42	0.085 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.065		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	47		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	13	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	20000	B	42	8.5 mg/Kg	1	□	1638	Total/NA	
Manganese	640	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	25	B	0.85	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	21	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	48		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-1D2									
					Lab Sample ID: 350-1619-249				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	58		3.8	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	5.9		0.46	0.14 mg/Kg	1	□	1638	Total/NA	
Barium	1900	B	46	0.092 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.068		0.046	0.0046 mg/Kg	1	□	1638	Total/NA	
Chromium	50		0.46	0.46 mg/Kg	1	□	1638	Total/NA	
Copper	13	B	0.23	0.028 mg/Kg	1	□	1638	Total/NA	
Iron	21000	B	46	9.2 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-2				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: MGWA-1D2 (Continued)					Lab Sample ID: 350-1619-249				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Manganese	880	B	0.23	0.023 mg/Kg	1	□	1638	Total/NA	
Nickel	27	B	0.92	0.037 mg/Kg	1	□	1638	Total/NA	
Lead	20	B	0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Zinc	49		4.6	2.3 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-2B2X									
					Lab Sample ID: 350-1619-250				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	348		3.4	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.0		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	3300	B	40	0.080 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.061		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	41		0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	17000	B	40	8.0 mg/Kg	1	□	1638	Total/NA	
Manganese	560	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	22	B	0.80	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	41		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-2B2X-FD									
					Lab Sample ID: 350-1619-251				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	220		25	12 ng/g	200	□	1631B	Total/NA	
Arsenic	5.3		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	4400	B	42	0.084 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.063		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	45		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	19000	B	42	8.4 mg/Kg	1	□	1638	Total/NA	
Manganese	600	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	23	B	0.84	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	19	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	46		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-2C2									
					Lab Sample ID: 350-1619-252				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	53		3.4	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.39	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1100	B	39	0.078 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.039	0.0039 mg/Kg	1	□	1638	Total/NA	
Chromium	46		0.39	0.39 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	18000	B	39	7.8 mg/Kg	1	□	1638	Total/NA	
Manganese	560	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	24	B	0.78	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	42		3.9	2.0 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-2				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: MGWA-3B2X					Lab Sample ID: 350-1619-253				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	1000		24	12 ng/g	200	□	1631B	Total/NA	
Arsenic	6.3		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	18000	B	38	0.076 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.084		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	46		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	15	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	18000	B	38	7.6 mg/Kg	1	□	1638	Total/NA	
Manganese	490	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	23	B	0.76	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	26	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	54		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-3C2									
					Lab Sample ID: 350-1619-254				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	150		23	11 ng/g	200	□	1631B	Total/NA	
Arsenic	5.7		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	6400	B	41	0.082 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.097		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	53		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	16	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	20000	B	41	8.2 mg/Kg	1	□	1638	Total/NA	
Manganese	550	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	28	B	0.82	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	22	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	50		4.1	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-3CP2					Lab Sample ID: 350-1619-255				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	69		4.6	2.2 ng/g	40	□	1631B	Total/NA	
Arsenic	0.43		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	1900	B	43	0.085 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.070		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	57		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	15	B	0.21	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	23000	B	43	8.5 mg/Kg	1	□	1638	Total/NA	
Manganese	76	F1 B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	30	B	0.85	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	23	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	53	B	4.3	2.1 mg/Kg	1	□	1638	Total/NA	

Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-2					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: MGWA-1B2Y-SW-20 (Continued)					Lab Sample ID: 350-1619-260					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Arsenic	1.9		0.70	0.63 ug/L	1		1640	Total/NA		6
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA		7
Nickel	0.19 J		0.50	0.15 ug/L	1		1640	Total/NA		8
Zinc	0.46 J B		1.0	0.31 ug/L	1		1640	Total/NA		9
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		10
Iron	2.2 J		5.0	0.81 ug/L	1		1640	Total/NA		11
Manganese	0.38		0.050	0.030 ug/L	1		1640	Total/NA		12
Client Sample ID: MGWA-1B2Y-SW-40					Lab Sample ID: 350-1619-261					13
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		14
Mercury	1.0		0.50	0.20 ng/L	1		1631E	Total/NA		15
Arsenic	1.8		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.18 J		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.51 J B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	1.2 J		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.36		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-1B2Y-SW-B					Lab Sample ID: 350-1619-262					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.76		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	2.0		0.70	0.63 ug/L	1		1640	Total/NA		
Cadmium	0.020		0.020	0.013 ug/L	1		1640	Total/NA		
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.18 J		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.46 J B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	17		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	1.1		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-1CP2-SW-1					Lab Sample ID: 350-1619-263					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.79		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.9		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA		
Lead	1.1		0.050	0.023 ug/L	1		1640	Total/NA		
Nickel	0.18 J		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.56 J B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	9.7		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.75		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-1CP2-SW-20					Lab Sample ID: 350-1619-264					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.64		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	2.0		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.16 J		0.50	0.15 ug/L	1		1640	Total/NA		

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-2					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: MGWA-1CP2-SW-20 (Continued)					Lab Sample ID: 350-1619-264					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Zinc	0.56 J B		1.0	0.31 ug/L	1		1640	Total/NA		6
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		7
Iron	0.97 J		5.0	0.81 ug/L	1		1640	Total/NA		8
Manganese	0.39		0.050	0.030 ug/L	1		1640	Total/NA		9
Client Sample ID: MGWA-1CP2-SW-40					Lab Sample ID: 350-1619-265					10
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		11
Mercury	0.67		0.50	0.20 ng/L	1		1631E	Total/NA		12
Arsenic	1.9		0.70	0.63 ug/L	1		1640	Total/NA		13
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA		14
Nickel	0.15 J		0.50	0.15 ug/L	1		1640	Total/NA		15
Zinc	0.37 J B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	1.7 J		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.35		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-1CP2-SW-B					Lab Sample ID: 350-1619-266					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.0		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.8		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.16 J		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.40 J B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	1.2 J		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.37		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-3B2X-SW-1					Lab Sample ID: 350-1619-267					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.62 H H3		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.9 H H3		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.1 H H3		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.18 J H H3		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.50 J H H3 B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11 H H3		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	0.91 J H H3		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.38 H H3		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-3B2X-SW-20					Lab Sample ID: 350-1619-268					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.0 H H3		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.9 H H3		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.2 H H3		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.16 J H H3		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.39 J H H3 B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11 H H3		0.50	0.088 ug/L	1		1640	Total/NA		
Manganese	0.37 H H3		0.050	0.030 ug/L	1		1640	Total/NA		

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary										Client: Tetra Tech Inc	Job ID: 350-1619-2
Project/Site: Gulf of Thailand - 2025											
Client Sample ID: MGWA-3B2X-SW-40					Lab Sample ID: 350-1619-269						
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type			
Mercury	0.51 H H3		0.50	0.20 ng/L	1		1631E	Total/NA			
Arsenic	1.7 H H3		0.70	0.63 ug/L	1		1640	Total/NA			
Chromium	1.2 H H3		1.0	0.11 ug/L	1		1640	Total/NA			
Lead	0.11 H H3		0.050	0.023 ug/L	1		1640	Total/NA			
Nickel	0.16 J H H3		0.50	0.15 ug/L	1		1640	Total/NA			
Zinc	0.41 J H H3 B		1.0	0.31 ug/L	1		1640	Total/NA			
Barium	11 H H3		0.50	0.088 ug/L	1		1640	Total/NA			
Iron	0.95 J H H3		5.0	0.81 ug/L	1		1640	Total/NA			
Manganese	0.36 H H3		0.050	0.030 ug/L	1		1640	Total/NA			
Client Sample ID: MGWA-3B2X-SW-B					Lab Sample ID: 350-1619-270						
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type			
Mercury	0.55 H H3		0.50	0.20 ng/L	1		1631E	Total/NA			
Arsenic	2.1 H H3		0.70	0.63 ug/L	1		1640	Total/NA			
Chromium	1.2 H H3		1.0	0.11 ug/L	1		1640	Total/NA			
Lead	0.036 J H H3		0.050	0.023 ug/L	1		1640	Total/NA			
Nickel	0.19 J H H3		0.50	0.15 ug/L	1		1640	Total/NA			
Zinc	0.59 J H H3 B		1.0	0.31 ug/L	1		1640	Total/NA			
Barium	11 H H3		0.50	0.088 ug/L	1		1640	Total/NA			
Iron	35 H H3		5.0	0.81 ug/L	1		1640	Total/NA			
Manganese	1.9 H H3		0.050	0.030 ug/L	1		1640	Total/NA			
Client Sample ID: MGWA-3CP2-SW-1					Lab Sample ID: 350-1619-271						
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type			
Mercury	0.49 J H H3		0.50	0.20 ng/L	1		1631E	Total/NA			
Arsenic	1.9 H H3		0.70	0.63 ug/L	1		1640	Total/NA			
Chromium	1.2 H H3		1.0	0.11 ug/L	1		1640	Total/NA			
Nickel	0.17 J H H3		0.50	0.15 ug/L	1		1640	Total/NA			
Zinc	0.52 J H H3 B		1.0	0.31 ug/L	1		1640	Total/NA			
Barium	11 H H3		0.50	0.088 ug/L	1		1640	Total/NA			
Iron	2.3 J H H3		5.0	0.81 ug/L	1		1640	Total/NA			
Manganese	0.38 H H3		0.050	0.030 ug/L	1		1640	Total/NA			
Client Sample ID: MGWA-3CP2-SW-20					Lab Sample ID: 350-1619-272						
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type			
Mercury	0.51 H H3		0.50	0.20 ng/L	1		1631E	Total/NA			
Arsenic	2.0 H H3		0.70	0.63 ug/L	1		1640	Total/NA			
Chromium	1.1 H H3		1.0	0.11 ug/L	1		1640	Total/NA			
Nickel	0.20 J H H3		0.50	0.15 ug/L	1		1640	Total/NA			
Zinc	0.44 J H H3 B		1.0	0.31 ug/L	1		1640	Total/NA			
Barium	11 H H3		0.50	0.088 ug/L	1		1640	Total/NA			
Iron	0.89 J H H3		5.0	0.81 ug/L	1		1640	Total/NA			
Manganese	0.36 H H3		0.050	0.030 ug/L	1		1640	Total/NA			
Client Sample ID: MGWA-3CP2-SW-40					Lab Sample ID: 350-1619-273						
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type			
Mercury	0.53 H H3		0.50	0.20 ng/L	1		1631E	Total/NA			
Arsenic	2.0 H H3		0.70	0.63 ug/L	1		1640	Total/NA			
Cadmium	0.013 J H H3		0.020	0.013 ug/L	1		1640	Total/NA			

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Client Sample ID: MGWA-1B2Y

Date Collected: 02/04/25 13:36

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-246

Matrix: Solid

Percent Solids: 48.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	50000		1100	550	ng/g	⊖	04/03/25 20:27	05/14/25 16:11	10000	

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Arsenic	9.5		0.42	0.13	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1	
Barium	25000	B	42	0.085	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1	
Cadmium	0.12		0.042	0.0042	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1	
Chromium	43		0.42	0.42	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1	
Copper	15	B	0.21	0.025	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1	
Iron	18000	B	42	8.5	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1	
Manganese	440	B	0.21	0.021	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1	
Nickel	23	B	0.85	0.034	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1	
Lead	35	B	0.17	0.017	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1	
Zinc	68		4.2	2.1	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1	

Client Sample ID: MGWA-1C2

Date Collected: 02/04/25 05:24

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-247

Matrix: Solid

Percent Solids: 45.3

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	490		13	6.1	ng/g	⊖	04/03/25 20:27	05/06/25 16:16	100	

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Arsenic	7.3		0.42	0.13	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Barium	19000	B	42	0.084	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Cadmium	0.081		0.042	0.0042	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Chromium	49		0.42	0.42	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Copper	14	B	0.21	0.025	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Iron	21000	B	42	8.4	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Manganese	510	B	0.21	0.021	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Nickel	25	B	0.84	0.033	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Lead	26	B	0.17	0.017	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Zinc	61		4.2	2.1	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	

Client Sample ID: MGWA-1CP2

Date Collected: 02/04/25 03:52

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-248

Matrix: Solid

Percent Solids: 45.5

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	150		24	11	ng/g	⊖	04/03/25 20:27	05/06/25 16:20	200	

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Arsenic	5.8		0.42	0.13	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1	
Barium	4100	B	42	0.085	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1	
Cadmium	0.065		0.042	0.0042	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1	
Chromium	47		0.42	0.42	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1	
Copper	13	B	0.21	0.025	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1	

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Client: Tetra Tech Inc											Job ID: 350-1619-2		
Project/Site: Gulf of Thailand - 2025													
Client Sample ID: MGWA-1CP2							Lab Sample ID: 350-1619-248						
Date Collected: 02/04/25 03:52							Matrix: Solid						
Date Received: 03/06/25 10:30							Percent Solids: 45.5						
Method: EPA 1638 - Metals (ICP/MS) (Continued)													
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac			
Iron	20000	B	42	8.5	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1				
Manganese	640	B	0.21	0.021	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1				
Nickel	25	B	0.85	0.034	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1				
Lead	21	B	0.17	0.017	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1				
Zinc	48		4.2	2.1	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1				
Client Sample ID: MGWA-1D2							Lab Sample ID: 350-1619-249						
Date Collected: 02/04/25 04:31							Matrix: Solid						
Date Received: 03/06/25 10:30							Percent Solids: 44.9						
Method: EPA 1631B - Mercury, Low Level (CVAFS)													
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac			
Mercury	58		3.8	1.8	ng/g	⊖	04/03/25 20:27	05/06/25 19:19	30				
Method: EPA 1638 - Metals (ICP/MS)													
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac			
Arsenic	5.9		0.46	0.14	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1				
Barium	1900	B	46	0.092	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1				
Cadmium	0.068		0.046	0.0046	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1				
Chromium	50		0.46	0.46	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1				
Copper	13	B	0.23	0.028	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1				
Iron	21000	B	46	9.2	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1				
Manganese	680	B	0.23	0.023	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1				
Nickel	27	B	0.92	0.037	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1				
Lead	20	B	0.18	0.018	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1				
Zinc	49		4.6	2.3	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1				
Client Sample ID: MGWA-2B2X							Lab Sample ID: 350-1619-250						
Date Collected: 02/04/25 14:19							Matrix: Solid						
Date Received: 03/06/25 10:30							Percent Solids: 47.6						
Method: EPA 1631B - Mercury, Low Level (CVAFS)													
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac			
Mercury	340		3.4	1.7	ng/g	⊖	04/03/25 20:27	05/06/25 13:32	30				
Method: EPA 1638 - Metals (ICP/MS)													
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac			
Arsenic	4.8		0.40	0.12	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1				
Barium	3300	B	40	0.080	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1				
Cadmium	0.061		0.040	0.0040	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1				
Chromium	41		0.40	0.40	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1				
Copper	12	B	0.20	0.024	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1				
Iron	17000	B	40	8.0	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1				
Manganese	560	B	0.20	0.020	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1				
Nickel	22	B	0.80	0.032	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1				
Lead	18	B	0.16	0.016	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1				
Zinc	41		4.0	2.0	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1				
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Client Sample Results											Job ID: 350-1619-2	
Client: Tetra Tech Inc Project/Site: Gulf of Thailand - 2025						Lab Sample ID: 350-1619-256 Matrix: Solid Percent Solids: 48.5						
Client Sample ID: MGWA-3D2 Date Collected: 02/03/25 22:49 Date Received: 03/06/25 10:30												
Method: EPA 1631B - Mercury, Low Level (CVAFS)												
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac		
Mercury	82		4.5	2.2	ng/g	□	04/04/25 17:33	05/06/25 19:05	40			
Method: EPA 1638 - Metals (ICP/MS)												
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac		
Arsenic	5.7		0.40	0.12	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1			
Barium	770	B	40	0.080	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1			
Cadmium	0.053		0.040	0.0040	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1			
Chromium	49		0.40	0.40	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1			
Copper	12	B	0.20	0.024	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1			
Iron	20000	B	40	8.0	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1			
Manganese	580	B	0.20	0.020	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1			
Nickel	25	B	0.80	0.032	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1			
Lead	19	B	0.16	0.016	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1			
Zinc	45		4.0	2.0	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1			
Client Sample ID: MGWA-4B2X Date Collected: 02/04/25 12:44 Date Received: 03/06/25 10:30						Lab Sample ID: 350-1619-257 Matrix: Solid Percent Solids: 49.8						
Method: EPA 1631B - Mercury, Low Level (CVAFS)												
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac		
Mercury	120		4.4	2.1	ng/g	□	04/04/25 17:33	05/06/25 18:27	40			
Method: EPA 1638 - Metals (ICP/MS)												
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac		
Arsenic	5.4		0.38	0.11	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1			
Barium	7400	B	38	0.075	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1			
Cadmium	0.079		0.038	0.0038	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1			
Chromium	40		0.38	0.38	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1			
Copper	11	B	0.19	0.023	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1			
Iron	17000	B	38	7.5	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1			
Manganese	560	B	0.19	0.019	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1			
Nickel	21	B	0.75	0.030	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1			
Lead	20	B	0.15	0.015	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1			
Zinc	43		3.8	1.9	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1			
Client Sample ID: MGWA-4C2 Date Collected: 02/03/25 23:24 Date Received: 03/06/25 10:30						Lab Sample ID: 350-1619-258 Matrix: Solid Percent Solids: 46.1						
Method: EPA 1631B - Mercury, Low Level (CVAFS)												
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac		
Mercury	58		4.7	2.3	ng/g	□	04/04/25 17:33	05/06/25 19:09	40			
Method: EPA 1638 - Metals (ICP/MS)												
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac		
Arsenic	5.1		0.41	0.12	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1			
Barium	2000	B	41	0.082	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1			
Cadmium	0.056		0.041	0.0041	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1			
Chromium	46		0.41	0.41	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1			
Copper	12	B	0.21	0.025	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1			
Eurofins Seattle Specialty Metals												

Client Sample Results														Job ID: 350-1619-2	
Client: Tetra Tech Inc															
Project/Site: Gulf of Thailand - 2025															
Client Sample ID: MGWA-4C2										Lab Sample ID: 350-1619-258					
Date Collected: 02/03/25 23:24										Matrix: Solid					
Date Received: 03/06/25 10:30										Percent Solids: 46.1					
Method: EPA 1638 - Metals (ICP/MS) (Continued)															
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac					
Iron	18000	B	41	8.2	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1						
Manganese	620	B	0.21	0.021	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1						
Nickel	24	B	0.82	0.033	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1						
Lead	18	B	0.16	0.016	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1						
Zinc	42		4.1	2.1	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1						
Client Sample ID: MGWA-1B2Y-SW-1										Lab Sample ID: 350-1619-259					
Date Collected: 02/04/25 00:46										Matrix: Water					
Date Received: 03/06/25 10:30															
Method: EPA 1631E - Mercury, Low Level (CVAFS)															
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac					
Mercury	0.77		0.50	0.20	ng/L	□		04/25/25 12:06							
Method: EPA 1640 - Metals (ICPMS)															
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac					
Arsenic	1.9		0.70	0.63	ug/L	□	04/03/25 16:39	04/03/25 22:24	1						
Cadmium	0.016	J	0.020	0.013	ug/L	□	04/03/25 16:39	04/03/25 22:24	1						
Chromium	0.93	J	1.0	0.11	ug/L	□	04/03/25 16:39	04/03/25 22:24	1						
Copper	ND		0.50	0.43	ug/L	□	04/03/25 16:39	04/03/25 22:24	1						
Lead	0.41		0.050	0.023	ug/L	□	04/03/25 16:39	04/03/25 22:24	1						
Nickel	0.20	J	0.50	0.15	ug/L	□	04/03/25 16:39	04/03/25 22:24	1						
Zinc	0.51	J B	1.0	0.31	ug/L	□	04/03/25 16:39	04/03/25 22:24	1						
Barium	12		0.50	0.088	ug/L	□	04/03/25 16:39	04/03/25 22:24	1						
Iron	5.5		5.0	0.81	ug/L	□	04/03/25 16:39	04/05/25 00:49	1						
Manganese	0.45		0.050	0.030	ug/L	□	04/03/25 16:39	04/03/25 22:24	1						
Client Sample ID: MGWA-1B2Y-SW-20										Lab Sample ID: 350-1619-260					
Date Collected: 02/04/25 00:52										Matrix: Water					
Date Received: 03/06/25 10:30															
Method: EPA 1631E - Mercury, Low Level (CVAFS)															
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac					
Mercury	1.0		0.50	0.20	ng/L	□		04/25/25 12:10							
Method: EPA 1640 - Metals (ICPMS)															
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac					
Arsenic	1.9		0.70	0.63	ug/L	□	04/03/25 16:39	04/04/25 03:07	1						
Cadmium	ND		0.020	0.013	ug/L	□	04/03/25 16:39	04/04/25 03:07	1						
Chromium	1.2		1.0	0.11	ug/L	□	04/03/25 16:39	04/04/25 03:07	1						
Copper	ND		0.50	0.43	ug/L	□	04/03/25 16:39	04/04/25 03:07	1						
Lead	ND		0.050	0.023	ug/L	□	04/03/25 16:39	04/04/25 03:07	1						
Nickel	0.19	J	0.50	0.15	ug/L	□	04/03/25 16:39	04/04/25 03:07	1						
Zinc	0.46	J B	1.0	0.31	ug/L	□	04/03/25 16:39	04/04/25 03:07	1						
Barium	11		0.50	0.088	ug/L	□	04/03/25 16:39	04/04/25 03:07	1						
Iron	2.2	J	5.0	0.81	ug/L	□	04/03/25 16:39	04/05/25 04:35	1						
Manganese	0.38		0.050	0.030	ug/L	□	04/03/25 16:39	04/04/25 03:07	1						

Client Sample ID: MGWA-1CP2-SW-B
Date Collected: 02/04/23 02:35
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-266
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Mercury 1.0 0.50 0.20 ng/L 04/25/25 12:35 1

Method: EPA 1640 - Metals (ICPMS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Arsenic 1.8 0.70 0.63 ug/L 04/03/25 16:39 04/04/25 05:00 1
Cadmium ND H H3 0.020 0.013 ug/L 04/03/25 16:39 04/04/25 05:00 1
Chromium 1.1 1.0 0.11 ug/L 04/03/25 16:39 04/04/25 05:00 1
Copper ND H H3 0.50 0.43 ug/L 04/03/25 16:39 04/04/25 05:00 1
Lead ND H H3 0.050 0.023 ug/L 04/03/25 16:39 04/04/25 05:00 1
Nickel 0.16 J 0.50 0.15 ug/L 04/03/25 16:39 04/04/25 05:00 1
Zinc 0.40 J B 1.0 0.31 ug/L 04/03/25 16:39 04/04/25 05:00 1
Barium 11 0.50 0.088 ug/L 04/03/25 16:39 04/04/25 05:00 1
Iron 1.2 J 5.0 0.81 ug/L 04/03/25 16:39 04/05/25 06:28 1
Manganese 0.37 0.050 0.030 ug/L 04/03/25 16:39 04/04/25 05:00 1

Client Sample ID: MGWA-3B2X-SW-1
Date Collected: 02/03/23 19:23
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-267
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Mercury 0.62 H H3 0.50 0.20 ng/L 04/25/25 12:39 1

Method: EPA 1640 - Metals (ICPMS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Arsenic 1.8 H H3 0.70 0.63 ug/L 04/03/25 16:39 04/04/25 05:14 1
Cadmium ND H H3 0.020 0.013 ug/L 04/03/25 16:39 04/04/25 05:14 1
Chromium 1.1 H H3 1.0 0.11 ug/L 04/03/25 16:39 04/04/25 05:14 1
Copper ND H H3 0.50 0.43 ug/L 04/03/25 16:39 04/04/25 05:14 1
Lead ND H H3 0.050 0.023 ug/L 04/03/25 16:39 04/04/25 05:14 1
Nickel 0.18 J H H3 0.50 0.15 ug/L 04/03/25 16:39 04/04/25 05:14 1
Zinc 0.50 J H H3 B 1.0 0.31 ug/L 04/03/25 16:39 04/04/25 05:14 1
Barium 11 H H3 0.50 0.088 ug/L 04/03/25 16:39 04/04/25 05:14 1
Iron 0.91 J H H3 5.0 0.81 ug/L 04/03/25 16:39 04/05/25 06:42 1
Manganese 0.38 H H3 0.050 0.030 ug/L 04/03/25 16:39 04/04/25 05:14 1

Client Sample ID: MGWA-3B2X-SW-20
Date Collected: 02/03/23 19:33
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-268
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Mercury 1.0 H H3 0.50 0.20 ng/L 04/25/25 12:52 1

Method: EPA 1640 - Metals (ICPMS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Arsenic 1.9 H H3 0.70 0.63 ug/L 04/03/25 16:39 04/04/25 05:28 1
Cadmium ND H H3 0.020 0.013 ug/L 04/03/25 16:39 04/04/25 05:28 1
Chromium 1.2 H H3 1.0 0.11 ug/L 04/03/25 16:39 04/04/25 05:28 1
Copper ND H H3 0.50 0.43 ug/L 04/03/25 16:39 04/04/25 05:28 1
Lead ND H H3 0.050 0.023 ug/L 04/03/25 16:39 04/04/25 05:28 1

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Client Sample ID: MGWA-3B2X-SW-20
Date Collected: 02/03/23 19:33
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-268
Matrix: Water

Method: EPA 1640 - Metals (ICPMS) (Continued)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Nickel 0.16 J H H3 0.50 0.15 ug/L 04/03/25 16:39 04/04/25 05:28 1
Zinc 0.39 J H H3 B 1.0 0.31 ug/L 04/03/25 16:39 04/04/25 05:28 1
Barium 11 H H3 0.50 0.088 ug/L 04/03/25 16:39 04/04/25 05:28 1
Iron ND H H3 5.0 0.81 ug/L 04/03/25 16:39 04/05/25 06:56 1
Manganese 0.37 H H3 0.050 0.030 ug/L 04/03/25 16:39 04/04/25 05:28 1

Client Sample ID: MGWA-3B2X-SW-40
Date Collected: 02/03/23 19:41
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-269
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Mercury 0.51 H H3 0.50 0.20 ng/L 04/25/25 12:56 1

Method: EPA 1640 - Metals (ICPMS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Arsenic 1.7 H H3 0.70 0.63 ug/L 04/03/25 16:39 04/04/25 05:42 1
Cadmium ND H H3 0.020 0.013 ug/L 04/03/25 16:39 04/04/25 05:42 1
Chromium 1.2 H H3 1.0 0.11 ug/L 04/03/25 16:39 04/04/25 05:42 1
Copper ND H H3 0.50 0.43 ug/L 04/03/25 16:39 04/04/25 05:42 1
Lead 0.11 H H3 0.050 0.023 ug/L 04/03/25 16:39 04/04/25 05:42 1
Nickel 0.16 J H H3 0.50 0.15 ug/L 04/03/25 16:39 04/04/25 05:42 1
Zinc 0.41 J H H3 B 1.0 0.31 ug/L 04/03/25 16:39 04/04/25 05:42 1
Barium 11 H H3 0.50 0.088 ug/L 04/03/25 16:39 04/04/25 05:42 1
Iron 0.95 J H H3 5.0 0.81 ug/L 04/03/25 16:39 04/05/25 07:10 1
Manganese 0.36 H H3 0.050 0.030 ug/L 04/03/25 16:39 04/04/25 05:42 1

Client Sample ID: MGWA-3B2X-SW-B
Date Collected: 02/03/23 19:51
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-270
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Mercury 0.55 H H3 0.50 0.20 ng/L 04/25/25 13:00 1

Method: EPA 1640 - Metals (ICPMS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Arsenic 2.1 H H3 0.70 0.63 ug/L 04/03/25 16:39 04/04/25 05:56 1
Cadmium ND H H3 0.020 0.013 ug/L 04/03/25 16:39 04/04/25 05:56 1
Chromium 1.2 H H3 1.0 0.11 ug/L 04/03/25 16:39 04/04/25 05:56 1
Copper ND H H3 0.50 0.43 ug/L 04/03/25 16:39 04/04/25 05:56 1
Lead 0.036 J H H3 0.050 0.023 ug/L 04/03/25 16:39 04/04/25 05:56 1
Nickel 0.19 J H H3 0.50 0.15 ug/L 04/03/25 16:39 04/04/25 05:56 1
Zinc 0.59 J H H3 B 1.0 0.31 ug/L 04/03/25 16:39 04/04/25 05:56 1
Barium 11 H H3 0.50 0.088 ug/L 04/03/25 16:39 04/04/25 05:56 1
Iron 35 H H3 5.0 0.81 ug/L 04/03/25 16:39 04/05/25 07:24 1
Manganese 1.9 H H3 0.050 0.030 ug/L 04/03/25 16:39 04/04/25 05:56 1

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Client Sample ID: MGWA-3CP2-SW-1
Date Collected: 02/03/23 16:23
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-271
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Mercury 0.49 J H H3 0.50 0.20 ng/L 04/25/25 13:04 1

Method: EPA 1640 - Metals (ICPMS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Arsenic 1.9 H H3 0.70 0.63 ug/L 04/03/25 16:39 04/04/25 06:11 1
Cadmium ND H H3 0.020 0.013 ug/L 04/03/25 16:39 04/04/25 06:11 1
Chromium 1.2 H H3 1.0 0.11 ug/L 04/03/25 16:39 04/04/25 06:11 1
Copper ND H H3 0.50 0.43 ug/L 04/03/25 16:39 04/04/25 06:11 1
Lead ND H H3 0.050 0.023 ug/L 04/03/25 16:39 04/04/25 06:11 1
Nickel 0.17 J H H3 0.50 0.15 ug/L 04/03/25 16:39 04/04/25 06:11 1
Zinc 0.52 J H H3 B 1.0 0.31 ug/L 04/03/25 16:39 04/04/25 06:11 1
Barium 11 H H3 0.50 0.088 ug/L 04/03/25 16:39 04/04/25 06:11 1
Iron 2.3 J H H3 5.0 0.81 ug/L 04/03/25 16:39 04/05/25 07:38 1
Manganese 0.38 H H3 0.050 0.030 ug/L 04/03/25 16:39 04/04/25 06:11 1

Client Sample ID: MGWA-3CP2-SW-20
Date Collected: 02/03/23 16:31
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-272
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Mercury 0.51 H H3 0.50 0.20 ng/L 04/25/25 13:08 1

Method: EPA 1640 - Metals (ICPMS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Arsenic 2.0 H H3 0.70 0.63 ug/L 04/03/25 16:39 04/04/25 06:25 1
Cadmium ND H H3 0.020 0.013 ug/L 04/03/25 16:39 04/04/25 06:25 1
Chromium 1.1 H H3 1.0 0.11 ug/L 04/03/25 16:39 04/04/25 06:25 1
Copper ND H H3 0.50 0.43 ug/L 04/03/25 16:39 04/04/25 06:25 1
Lead ND H H3 0.050 0.023 ug/L 04/03/25 16:39 04/04/25 06:25 1
Nickel 0.20 J H H3 0.50 0.15 ug/L 04/03/25 16:39 04/04/25 06:25 1
Zinc 0.44 J H H3 B 1.0 0.31 ug/L 04/03/25 16:39 04/04/25 06:25 1
Barium 11 H H3 0.50 0.088 ug/L 04/03/25 16:39 04/04/25 06:25 1
Iron 0.89 J H H3 5.0 0.81 ug/L 04/03/25 16:39 04/05/25 07:52 1
Manganese 0.36 H H3 0.050 0.030 ug/L 04/03/25 16:39 04/04/25 06:25 1

Client Sample ID: MGWA-3CP2-SW-40
Date Collected: 02/03/23 16:39
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-273
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Mercury 0.53 H H3 0.50 0.20 ng/L 04/25/25 13:54 1

Method: EPA 1640 - Metals (ICPMS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Arsenic 2.0 H H3 0.70 0.63 ug/L 04/03/25 16:39 04/04/25 06:39 1
Cadmium 0.013 J H H3 0.020 0.013 ug/L 04/03/25 16:39 04/04/25 06:39 1
Chromium 1.1 H H3 1.0 0.11 ug/L 04/03/25 16:39 04/04/25 06:39 1
Copper ND H H3 0.50 0.43 ug/L 04/03/25 16:39 04/04/25 06:39 1
Lead ND H H3 0.050 0.023 ug/L 04/03/25 16:39 04/04/25 06:39 1

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Client Sample ID: MGWA-3CP2-SW-40
Date Collected: 02/03/23 16:39
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-273
Matrix: Water

Method: EPA 1640 - Metals (ICPMS) (Continued)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Nickel 0.16 J H H3 0.50 0.15 ug/L 04/03/25 16:39 04/04/25 06:39 1
Zinc 0.41 J H H3 B 1.0 0.31 ug/L 04/03/25 16:39 04/04/25 06:39 1
Barium 11 H H3 0.50 0.088 ug/L 04/03/25 16:39 04/04/25 06:39 1
Iron ND H H3 5.0 0.81 ug/L 04/03/25 16:39 04/05/25 08:07 1
Manganese 0.36 H H3 0.050 0.030 ug/L 04/03/25 16:39 04/04/25 06:39 1

Client Sample ID: MGWA-3CP2-SW-40-FD
Date Collected: 02/03/23 16:49
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-274
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Mercury 0.43 J H H3 0.50 0.20 ng/L 04/25/25 13:58 1

Method: EPA 1640 - Metals (ICPMS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Arsenic 1.7 H H3 F1 0.70 0.63 ug/L 04/03/25 16:43 04/04/25 00:17 1
Cadmium ND H H3 0.020 0.013 ug/L 04/03/25 16:43 04/04/25 00:17 1
Chromium 1.1 H H3 1.0 0.11 ug/L 04/03/25 16:43 04/04/25 00:17 1
Copper ND H H3 0.50 0.43 ug/L 04/03/25 16:43 04/04/25 00:17 1
Lead ND H H3 0.050 0.023 ug/L 04/03/25 16:43 04/04/25 00:17 1
Nickel 0.17 J H H3 0.50 0.15 ug/L 04/03/25 16:43 04/04/25 00:17 1
Zinc 0.37 J H H3 B 1.0 0.31 ug/L 04/03/25 16:43 04/04/25 00:17 1
Barium 9.7 H H3 0.50 0.088 ug/L 04/03/25 16:43 04/04/25 00:17 1
Iron 1.4 J H H3 B 5.0 0.81 ug/L 04/03/25 16:43 04/05/25 02:42 1
Manganese 0.34 H H3 0.050 0.030 ug/L 04/03/25 16:43 04/04/25 00:17 1

Client Sample ID: MGWA-3CP2-SW-B
Date Collected: 02/03/23 16:59
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-275
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Mercury 0.60 H H3 0.50 0.20 ng/L 04/25/25 14:02 1

Method: EPA 1640 - Metals (ICPMS)
Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac
Arsenic 2.0 H H3 F1 0.70 0.63 ug/L 04/03/25 16:43 04/04/25 01:00 1
Cadmium 0.013 J H H3 0.020 0.013 ug/L 04/03/25 16:43 04/04/25 01:00 1
Chromium 1.2 H H3 1.0 0.11 ug/L 04/03/25 16:43 04/04/25 01:00 1
Copper ND H H3 0.50 0.43 ug/L 04/03/25 16:43 04/04/25 01:00 1
Lead 0.047 J H H3 0.050 0.023 ug/L 04/03/25 16:43 04/04/25 01:00 1
Nickel 0.25 J H H3 0.50 0.15 ug/L 04/03/25 16:43 04/04/25 01:00 1
Zinc 0.55 J H H3 B 1.0 0.31 ug/L 04/03/25 16:43 04/04/25 01:00 1
Barium 11 H H3 0.50 0.088 ug/L 04/03/25 16:43 04/04/25 01:00 1
Iron 36 H H3 B 5.0 0.81 ug/L 04/03/25 16:43 04/05/25 03:24 1
Manganese 2.0 H H3 0.050 0.030 ug/L 04/03/25 16:43 04/04/25 01:00 1

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QC Sample Results														
Client: Tetra Tech Inc										Job ID: 350-1619-2				
Project/Site: Gulf of Thailand - 2025														
Method: 1631E - Mercury, Low Level (CVAFS) (Continued)														
Lab Sample ID: MB 350-6%N# 45										Client Sample ID: Method Blank				
Matr'l : Gater										xrep Pype: Pota4# A				
Analysis Batch: 6%N														
Analyte		MB	MB			RL	MDL	z nit	D	xprepared	Analy2ed	Dil Fac		
Mercury		Result	Qualifier			0.50	0.20	ng/L			04/25/25 10:39	1		
Lab Sample ID: MB 350-6%N# 46										Client Sample ID: Method Blank				
Matr'l : Gater										xrep Pype: Pota4# A				
Analysis Batch: 6%N														
Analyte		MB	MB			RL	MDL	z nit	D	xprepared	Analy2ed	Dil Fac		
Mercury		Result	Qualifier			0.50	0.20	ng/L			04/25/25 10:43	1		
Lab Sample ID: LCS 350-6%N# 40										Client Sample ID: Lab Control Sample				
Matr'l : Gater										xrep Pype: Pota4# A				
Analysis Batch: 6%N														
Analyte				Spike		LCS	LCS	z nit	D	9 Rec	9 Rec			
Mercury				Added		Result	Qualifier	ng/L		105	77 - 123			
Lab Sample ID: LCS 350-6%N# 46										Client Sample ID: Lab Control Sample				
Matr'l : Gater										xrep Pype: Pota4# A				
Analysis Batch: 6%N														
Analyte				Spike		LCS	LCS	z nit	D	9 Rec	9 Rec			
Mercury				Added		Result	Qualifier	ng/L		103	77 - 123			
Lab Sample ID: LCSD 350-6%N# 43										Client Sample ID: Lab Control Sample Dup				
Matr'l : Gater										xrep Pype: Pota4# A				
Analysis Batch: 6%N														
Analyte				Spike		LCSD	LCSD	z nit	D	9 Rec	9 Rec	RxD	RxD	
Mercury				Added		Result	Qualifier	ng/L		104	77 - 123	2	24	
Lab Sample ID: LCSD 350-6%N# 43										Client Sample ID: Lab Control Sample Dup				
Matr'l : Gater										xrep Pype: Pota4# A				
Analysis Batch: 6%N														
Analyte				Spike		LCSD	LCSD	z nit	D	9 Rec	9 Rec	RxD	RxD	
Mercury				Added		Result	Qualifier	ng/L		100	77 - 123	2	24	
Lab Sample ID: 350-1618-f N3 MS										Client Sample ID: MWGA-3Cxf-SG -%D				
Matr'l : Gater										xrep Pype: Pota4# A				
Analysis Batch: 6%N														
Analyte		Sample	Sample	Spike		MS	MS	z nit	D	9 Rec	9 Rec			
Mercury		Result	Qualifier	Added		Result	Qualifier	ng/L		95	71 - 125			
Lab Sample ID: 350-1618-f N3 MSD										Client Sample ID: MWGA-3Cxf-SG -%D				
Matr'l : Gater										xrep Pype: Pota4# A				
Analysis Batch: 6%N														
Analyte		Sample	Sample	Spike		MSD	MSD	z nit	D	9 Rec	9 Rec	RxD	RxD	
Mercury		Result	Qualifier	Added		Result	Qualifier	ng/L		96	71 - 125	1	24	

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QC Sample Results														
Client: Tetra Tech Inc										Job ID: 350-1619-2				
Project/Site: Gulf of Thailand - 2025														
Method: 1637 - Metals (ICx4MS) (Continued)														
Lab Sample ID: LCS 350-56N34-A							Client Sample ID: Lab Control Sample							
Matr'l : Solid							xrep Pype: Pota4# A							
Analysis Batch: 6783							xrep Batch: 56N3							
Analyte			Spike		LCS	LCS	z nit	D	9 Rec	9 Rec				
			Added		Result	Qualifier				Limits				
Cadmium			20.0		18.0		mg/Kg		90	75 - 125				
Chromium			100		88.0		mg/Kg		88	75 - 125				
Copper			100		99.2		mg/Kg		99	75 - 125				
Iron			2500		2370		mg/Kg		95	75 - 125				
Manganese			100		90.6		mg/Kg		91	75 - 125				
Nickel			100		94.2		mg/Kg		94	75 - 125				
Lead			100		91.7		mg/Kg		92	75 - 125				
Zinc			100		92.0		mg/Kg		92	75 - 125				
Lab Sample ID: LCSD 350-56N34-A							Client Sample ID: Lab Control Sample Dup							
Matr'l : Solid							xrep Pype: Pota4# A							
Analysis Batch: 6783							xrep Batch: 56N3							
Analyte			Spike		LCSD	LCSD	z nit	D	9 Rec	9 Rec	RxD	RxD		
			Added		Result	Qualifier				Limits		Limit		
Arsenic			100		91.4		mg/Kg		91	75 - 125	1	20		
Barium			100		102 J		mg/Kg		102	75 - 125	2	20		
Cadmium			20.0		18.3		mg/Kg		91	75 - 125	2	20		
Chromium			100		88.7		mg/Kg		89	75 - 125	1	20		
Copper			100		102		mg/Kg		102	75 - 125	2	20		
Iron			2500		2420		mg/Kg		97	75 - 125	2	20		
Manganese			100		92.1		mg/Kg		92	75 - 125	2	20		
Nickel			100		95.9		mg/Kg		96	75 - 125	2	20		
Lead			100		96.7		mg/Kg		97	75 - 125	5	20		
Zinc			100		93.4		mg/Kg		93	75 - 125	1	20		
Lab Sample ID: 350-1618-f 55 MS							Client Sample ID: MWGA-3Cxf							
Matr'l : Solid							xrep Pype: Pota4# A							
Analysis Batch: 6783							xrep Batch: 56N3							
Analyte		Sample	Sample	Spike		MS	MS	z nit	D	9 Rec	9 Rec			
		Result	Qualifier	Added		Result	Qualifier				Limits			
Arsenic		6.7		207		207		mg/Kg		97	75 - 125			
Barium		1900 B		207		1470 4		mg/Kg		97	75 - 125			
Cadmium		0.070		207		40.5		mg/Kg		98	75 - 125			
Chromium		57		207		241		mg/Kg		89	75 - 125			
Copper		15 B		207		227		mg/Kg		103	70 - 130			
Iron		23000 B		207		23600 4		mg/Kg		19	75 - 125			
Manganese		780 F1 B		207		780 F1		mg/Kg		11	75 - 125			
Nickel		30 B		207		232		mg/Kg		98	75 - 125			
Lead		23 B		207		227		mg/Kg		99	75 - 125			
Zinc		53		207		245		mg/Kg		93	65 - 135			
Lab Sample ID: 350-1618-f 55 MSD							Client Sample ID: MWGA-3Cxf							
Matr'l : Solid							xrep Pype: Pota4# A							
Analysis Batch: 6783							xrep Batch: 56N3							
Analyte		Sample	Sample	Spike		MSD	MSD	z nit	D	9 Rec	9 Rec	RxD	RxD	
		Result	Qualifier	Added		Result	Qualifier				Limits		Limit	
Arsenic		6.7		206		198		mg/Kg		93	75 - 125	5	20	
Barium		1900 B		206		1350 4		mg/Kg		97	75 - 125	9	20	
Cadmium		0.070		41.2		38.2		mg/Kg		93	75 - 125	6	20	

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Method: 16% Φ - Metals (ICxMS) (Continued)

Lab Sample ID: MB 350-58854-A

Matr'l : Gater

Analysis Batch: 607%

Client Sample ID: Method Blank

x rep Pype: Potal4 A

x rep Batch: 5885

Analyte	MB Result	MB Qualifier	RL	MDL	z nit	D	x prepared	Analyt2ed	Dil Fac
Iron	ND		5.0	0.81	ug/L		04/03/25 16:39	04/04/25 23:10	1

Lab Sample ID: LCS 350-58854-A

Matr'l : Gater

Analysis Batch: 6066

Client Sample ID: Lab Control Sample

x rep Pype: Potal4 A

x rep Batch: 5885

Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	9 Rec	9 Rec Limits
Arsenic	12.5	12.8		ug/L		102	70 - 130
Cadmium	1.25	1.15		ug/L		92	70 - 130
Chromium	12.5	12.5		ug/L		100	70 - 130
Copper	12.5	12.4		ug/L		99	70 - 130
Lead	2.50	2.18		ug/L		87	70 - 130
Nickel	12.5	11.7		ug/L		93	70 - 130
Zinc	12.5	12.4		ug/L		99	70 - 130
Barium	12.5	11.7		ug/L		93	70 - 130
Manganese	12.5	12.5		ug/L		100	70 - 130

Lab Sample ID: LCS 350-58854-A

Matr'l : Gater

Analysis Batch: 607%

Client Sample ID: Lab Control Sample

x rep Pype: Potal4 A

x rep Batch: 5885

Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	9 Rec	9 Rec Limits
Iron	62.5	63.9		ug/L		102	70 - 130

Lab Sample ID: LCSD 350-58854-A

Matr'l : Gater

Analysis Batch: 6066

Client Sample ID: Lab Control Sample Dup

x rep Pype: Potal4 A

x rep Batch: 5885

Analyte	Spike Added	LCSD Result	LCSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit
Arsenic	12.5	12.7		ug/L		102	70 - 130	0	20
Cadmium	1.25	1.18		ug/L		95	70 - 130	3	20
Chromium	12.5	12.9		ug/L		103	70 - 130	3	20
Copper	12.5	12.5		ug/L		100	70 - 130	1	20
Lead	2.50	2.28		ug/L		91	70 - 130	4	20
Nickel	12.5	11.6		ug/L		93	70 - 130	1	20
Zinc	12.5	12.3		ug/L		99	70 - 130	0	20
Barium	12.5	12.1		ug/L		97	70 - 130	3	20
Manganese	12.5	12.8		ug/L		102	70 - 130	2	20

Lab Sample ID: LCSD 350-58854-A

Matr'l : Gater

Analysis Batch: 607%

Client Sample ID: Lab Control Sample Dup

x rep Pype: Potal4 A

x rep Batch: 5885

Analyte	Spike Added	LCSD Result	LCSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit
Iron	62.5	59.0		ug/L		94	70 - 130	8	20

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Client: Tetra Tech Inc

Job ID: 350-1619-2

Project/Site: Gulf of Thailand - 2025

QC Sample Results

Method: 16% - Metals (ICxMS) (Continued)

Lab Sample ID: 350-1618-f 58 MS
Matr'l : Gater
Analysis Batch: 6066

Client Sample ID: MWGA-1BfY-SG-1
x rep Pype: Potal4 A
x rep Batch: 5885

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	9 Rec	9 Rec Limits		
Arsenic	1.9		12.5	20.4		ug/L		148	50 - 150		
Cadmium	0.016 J		1.25	1.19		ug/L		94	50 - 150		
Chromium	0.93 J		12.5	14.6		ug/L		109	50 - 150		
Copper	ND		12.5	12.4		ug/L		99	50 - 150		
Lead	0.41		2.50	2.73		ug/L		93	50 - 150		
Nickel	0.20 J		12.5	12.1		ug/L		95	50 - 150		
Zinc	0.51 B		12.5	12.8		ug/L		98	50 - 150		
Barium	12		12.5	29.0		ug/L		138	50 - 150		
Manganese	0.45		12.5	13.2		ug/L		102	50 - 150		

Lab Sample ID: 350-1618-f 58 MS
Matr'l : Gater
Analysis Batch: 607%

Client Sample ID: MWGA-1BfY-SG-1
x rep Pype: Potal4 A
x rep Batch: 5885

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	9 Rec	9 Rec Limits		
Iron	5.5		62.5	86.1		ug/L		129	50 - 150		

Lab Sample ID: 350-1618-f 58 MSD
Matr'l : Gater
Analysis Batch: 6066

Client Sample ID: MWGA-1BfY-SG-1
x rep Pype: Potal4 A
x rep Batch: 5885

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	Limit
Arsenic	1.9		12.5	21.0		ug/L		153	50 - 150	3	20
Cadmium	0.016 J		1.25	1.19		ug/L		94	50 - 150	0	20
Chromium	0.93 J		12.5	14.4		ug/L		107	50 - 150	2	20
Copper	ND		12.5	12.8		ug/L		102	50 - 150	3	20
Lead	0.41		2.50	2.70		ug/L		92	50 - 150	1	20
Nickel	0.20 J		12.5	12.3		ug/L		96	50 - 150	2	20
Zinc	0.51 J B		12.5	12.9		ug/L		99	50 - 150	1	20
Barium	12		12.5	30.1		ug/L		147	50 - 150	4	20
Manganese	0.45		12.5	13.4		ug/L		103	50 - 150	1	20

Lab Sample ID: 350-1618-f 58 MSD
Matr'l : Gater
Analysis Batch: 607%

Client Sample ID: MWGA-1BfY-SG-1
x rep Pype: Potal4 A
x rep Batch: 5885

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	Limit
Iron	5.5		62.5	85.0		ug/L		127	50 - 150	1	20

Lab Sample ID: MB 350-588N-A
Matr'l : Gater
Analysis Batch: 6066

Client Sample ID: Method Blank
x rep Pype: Potal4 A
x rep Batch: 588N

Analyte	MB Result	MB Qualifier	RL	MDL	z nit	D	x prepared	Analy2ed	Dil Fac
Arsenic	ND		0.70	0.63	ug/L		04/03/25 16:43	04/03/25 21:28	1
Cadmium	ND		0.020	0.013	ug/L		04/03/25 16:43	04/03/25 21:28	1
Chromium	ND		1.0	0.11	ug/L		04/03/25 16:43	04/03/25 21:28	1
Copper	ND		0.50	0.43	ug/L		04/03/25 16:43	04/03/25 21:28	1
Lead	ND		0.050	0.023	ug/L		04/03/25 16:43	04/03/25 21:28	1

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QC Sample Results			
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QC Sample Results													1
Client: Tetra Tech Inc													2
Project/Site: Gulf of Thailand - 2025													3
Method: 1670 - Metals (ICxMS) (Continued)													4
Lab Sample ID: 350-1618-f N%MSD Client Sample ID: MWGA-3Cxf -SG -90-FD													5
Matr'l : Gater xrep Pype: Potal4 A													6
Analysis Batch: 6066 xrep Batch: 588N													7
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit		8
Arsenic	1.7	H H3 F1	12.5	21.1		ug/L		155	50 - 150	1	20		9
Cadmium	ND	H H3	1.25	1.24		ug/L		100	50 - 150	4	20		10
Chromium	1.1	H H3	12.5	14.9		ug/L		110	50 - 150	0	20		11
Copper	ND	H H3	12.5	13.4		ug/L		107	50 - 150	2	20		12
Lead	ND	H H3	2.50	2.37		ug/L		95	50 - 150	0	20		13
Nickel	0.17	J H H3	12.5	12.7		ug/L		100	50 - 150	3	20		14
Zinc	0.37	J H H3 B	12.5	13.6		ug/L		106	50 - 150	5	20		15
Barium	9.7	H H3	12.5	27.4		ug/L		141	50 - 150	1	20		16
Manganese	0.34	H H3	12.5	14.2		ug/L		111	50 - 150	3	20		17
Lab Sample ID: 350-1618-f N%MSD Client Sample ID: MWGA-3Cxf -SG -90-FD													18
Matr'l : Gater xrep Pype: Potal4 A													19
Analysis Batch: 607% xrep Batch: 588N													20
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit		21
Iron	1.4	J H H3 B	62.5	83.2		ug/L		131	50 - 150	1	20		22
Lab Sample ID: 350-1618-f N5 MS Client Sample ID: MWGA-3Cxf -SG -B													23
Matr'l : Gater xrep Pype: Potal4 A													24
Analysis Batch: 6066 xrep Batch: 588N													25
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit		26
Arsenic	2.0	H H3 F1	12.5	21.2	F1	ug/L		154	50 - 150				27
Cadmium	0.013	J H H3	1.25	1.22		ug/L		97	50 - 150				28
Chromium	1.2	H H3	12.5	15.4		ug/L		114	50 - 150				29
Copper	ND	H H3	12.5	13.4		ug/L		107	50 - 150				30
Lead	0.047	J H H3	2.50	2.42		ug/L		95	50 - 150				31
Nickel	0.25	J H H3	12.5	12.7		ug/L		99	50 - 150				32
Zinc	0.55	J H H3 B	12.5	13.8		ug/L		106	50 - 150				33
Barium	11	H H3	12.5	28.7		ug/L		145	50 - 150				34
Manganese	2.0	H H3	12.5	15.3		ug/L		107	50 - 150				35
Lab Sample ID: 350-1618-f N5 MS Client Sample ID: MWGA-3Cxf -SG -B													36
Matr'l : Gater xrep Pype: Potal4 A													37
Analysis Batch: 607% xrep Batch: 588N													38
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit		39
Iron	36	H H3 B	62.5	117		ug/L		129	50 - 150				40
Lab Sample ID: 350-1618-f N5 MSD Client Sample ID: MWGA-3Cxf -SG -B													41
Matr'l : Gater xrep Pype: Potal4 A													42
Analysis Batch: 6066 xrep Batch: 588N													43
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit		44
Arsenic	2.0	H H3 F1	12.5	21.3	F1	ug/L		154	50 - 150	0	20		45
Cadmium	0.013	J H H3	1.25	1.24		ug/L		98	50 - 150	1	20		46
Chromium	1.2	H H3	12.5	15.0		ug/L		111	50 - 150	3	20		47
Copper	ND	H H3	12.5	12.9		ug/L		103	50 - 150	4	20		48
Lead	0.047	J H H3	2.50	2.39		ug/L		94	50 - 150	1	20		49
Eurofins Seattle Specialty Metals													50

QC Sample Results													1
Client: Tetra Tech Inc													2
Project/Site: Gulf of Thailand - 2025													3
Method: 1670 - Metals (ICxMS) (Continued)													4
Lab Sample ID: 350-1618-f N5 MSD Client Sample ID: MWGA-3Cxf -SG -B													5
Matr'l : Gater xrep Pype: Potal4 A													6
Analysis Batch: 6066 xrep Batch: 588N													7
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit		8
Nickel	0.25	J H H3	12.5	12.2		ug/L		95	50 - 150	4	20		9
Zinc	0.55	J H H3 B	12.5	13.3		ug/L		102	50 - 150	4	20		10
Barium	11	H H3	12.5	29.2		ug/L		148	50 - 150	2	20		11
Manganese	2.0	H H3	12.5	15.3		ug/L		107	50 - 150	0	20		12
Lab Sample ID: 350-1618-f N5 MSD Client Sample ID: MWGA-3Cxf -SG -B													13
Matr'l : Gater xrep Pype: Potal4 A													14
Analysis Batch: 607% xrep Batch: 588N													15
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit		16
Iron	36	H H3 B	62.5	115		ug/L		126	50 - 150	2	20		17
Eurofins Seattle Specialty Metals													18

QC Association Summary													1
Client: Tetra Tech Inc													2
Project/Site: Gulf of Thailand - 2025													3
Metals													4
Prep Batch: 572L													5
bal Sample ID	Client Sample ID	Prep xype	Matrid	Metho8	Prep Batch								6
350-1619-246	MGWA-1B2Y	Total/NA	Solid	HF Bomb Prep									7
350-1619-247	MGWA-1C2	Total/NA	Solid	HF Bomb Prep									8
350-1619-248	MGWA-1CP2	Total/NA	Solid	HF Bomb Prep									9
350-1619-249	MGWA-1D2	Total/NA	Solid	HF Bomb Prep									10
350-1619-250	MGWA-2B2X	Total/NA	Solid	HF Bomb Prep									11
350-1619-251	MGWA-2B2X-FD	Total/NA	Solid	HF Bomb Prep									12
350-1619-252	MGWA-2C2	Total/NA	Solid	HF Bomb Prep									13
350-1619-253	MGWA-3B2X	Total/NA	Solid	HF Bomb Prep									14
350-1619-254	MGWA-3C2	Total/NA	Solid	HF Bomb Prep									15
350-1619-255	MGWA-3CP2	Total/NA	Solid	HF Bomb Prep									16
350-1619-256	MGWA-3D2	Total/NA	Solid	HF Bomb Prep									17
350-1619-257	MGWA-4B2X	Total/NA	Solid	HF Bomb Prep									18
350-1619-258	MGWA-4C2	Total/NA	Solid	HF Bomb Prep									19
MB 350-5673/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep									20
MB 350-5673/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep									21
LCS 350-5673/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep									22
LCS 350-5673/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep									23
350-1619-255 MS	MGWA-3CP2	Total/NA	Solid	HF Bomb Prep									24
350-1619-255 MSD	MGWA-3CP2	Total/NA	Solid	HF Bomb Prep									25
Prep Batch: 5470													26
bal Sample ID	Client Sample ID	Prep xype	Matrid	Metho8	Prep Batch								27
350-1619-246	MGWA-1B2Y	Total/NA	Solid	1631B CAR									28
350-1619-247	MGWA-1C2	Total/NA	Solid	1631B CAR									29
350-1619-248	MGWA-1CP2	Total/NA	Solid	1631B CAR									30
350-1619-249	MGWA-1D2	Total/NA	Solid	1631B CAR									31
350-1619-250	MGWA-2B2X	Total/NA	Solid	1631B CAR									32
350-1619-251	MGWA-2B2X-FD	Total/NA	Solid	1631B CAR									33
350-1619-252	MGWA-2C2	Total/NA	Solid	1631B CAR									34
350-1619-253	MGWA-3B2X	Total/NA	Solid	1631B CAR									35
350-1619-254	MGWA-3C2	Total/NA	Solid	1631B CAR									36
MB 350-5961/1-A	Method Blank	Total/NA	Solid	1631B CAR									37
MB 350-5961/2-A	Method Blank	Total/NA	Solid	1631B CAR									38
MB 350-5961/3-A	Method Blank	Total/NA	Solid	1631B CAR									39
LCS 350-5961/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR									40
LCS 350-5961/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR									41
350-1619-250 MS	MGWA-2B2X	Total/NA	Solid	1631B CAR									42
350-1619-250 MSD	MGWA-2B2X	Total/NA	Solid	1631B CAR									43

Metals

Prep Batch: 7()

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-255	MGWA-3CP2	Total/NA	Solid	1631B CAR	
				Prep	
350-1619-256	MGWA-3D2	Total/NA	Solid	1631B CAR	
				Prep	
350-1619-257	MGWA-4B2X	Total/NA	Solid	1631B CAR	
				Prep	
350-1619-258	MGWA-4C2	Total/NA	Solid	1631B CAR	
				Prep	
MB 350-6022/1-A	Method Blank	Total/NA	Solid	1631B CAR	
				Prep	
MB 350-6022/2-A	Method Blank	Total/NA	Solid	1631B CAR	
				Prep	
MB 350-6022/3-A	Method Blank	Total/NA	Solid	1631B CAR	
				Prep	
LCS 350-6022/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
				Prep	
LCSD 350-6022/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	
				Prep	
350-1619-257 MS	MGWA-4B2X	Total/NA	Solid	1631B CAR	
				Prep	
350-1619-257 MSD	MGWA-4B2X	Total/NA	Solid	1631B CAR	
				Prep	

Analysis Batch: 7(77

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-259	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995
350-1619-260	MGWA-1B2Y-SW-20	Total/NA	Water	1640	5995
350-1619-261	MGWA-1B2Y-SW-40	Total/NA	Water	1640	5995
350-1619-262	MGWA-1B2Y-SW-8	Total/NA	Water	1640	5995
350-1619-263	MGWA-1CP2-SW-1	Total/NA	Water	1640	5995
350-1619-264	MGWA-1CP2-SW-20	Total/NA	Water	1640	5995
350-1619-265	MGWA-1CP2-SW-40	Total/NA	Water	1640	5995
350-1619-266	MGWA-1CP2-SW-8	Total/NA	Water	1640	5995
350-1619-267	MGWA-3B2X-SW-1	Total/NA	Water	1640	5995
350-1619-268	MGWA-3B2X-SW-20	Total/NA	Water	1640	5995
350-1619-269	MGWA-3B2X-SW-40	Total/NA	Water	1640	5995
350-1619-270	MGWA-3B2X-SW-8	Total/NA	Water	1640	5995
350-1619-271	MGWA-3CP2-SW-1	Total/NA	Water	1640	5995
350-1619-272	MGWA-3CP2-SW-20	Total/NA	Water	1640	5995
350-1619-273	MGWA-3CP2-SW-40	Total/NA	Water	1640	5995
350-1619-274	MGWA-3CP2-SW-40-FD	Total/NA	Water	1640	5997
350-1619-275	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997
350-1619-276	MGWA-EQ	Total/NA	Water	1640	5997
350-1619-277	MGWA-WB	Total/NA	Water	1640	5997
MB 350-5995/1-A	Method Blank	Total/NA	Water	1640	5995
MB 350-5995/2-A	Method Blank	Total/NA	Water	1640	5995
MB 350-5997/1-A	Method Blank	Total/NA	Water	1640	5997
MB 350-5997/2-A	Method Blank	Total/NA	Water	1640	5997
LCS 350-5995/3-A	Lab Control Sample	Total/NA	Water	1640	5995
LCS 350-5997/3-A	Lab Control Sample	Total/NA	Water	1640	5997
LCSD 350-5995/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5995
LCSD 350-5997/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5997
350-1619-259 MS	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995
350-1619-259 MSD	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995

Eurofins Seattle Specialty Metals

Metals 9Continue81

Analysis Batch: 732) 9Continue81

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-267	MGWA-3B2X-SW-1	Total/NA	Water	1631E	
350-1619-268	MGWA-3B2X-SW-20	Total/NA	Water	1631E	
350-1619-269	MGWA-3B2X-SW-40	Total/NA	Water	1631E	
350-1619-270	MGWA-3B2X-SW-8	Total/NA	Water	1631E	
350-1619-271	MGWA-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-272	MGWA-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-273	MGWA-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-274	MGWA-3CP2-SW-40-FD	Total/NA	Water	1631E	
350-1619-275	MGWA-3CP2-SW-8	Total/NA	Water	1631E	
350-1619-276	MGWA-EQ	Total/NA	Water	1631E	
350-1619-277	MGWA-WB	Total/NA	Water	1631E	
MB 350-5961/2-A	Method Blank	Total/NA	Water	1631E	
MB 350-5979/1-A	Method Blank	Total/NA	Water	1631E	
MB 350-5979/2-A	Method Blank	Total/NA	Water	1631E	
MB 350-5979/3-A	Method Blank	Total/NA	Water	1631E	
LCS 350-5961/4-A	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-5979/4-A	Lab Control Sample Dup	Total/NA	Water	1631E	
350-1619-259 MS	MGWA-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-273 MSD	MGWA-3CP2-SW-40-FD	Total/NA	Water	1631E	
350-1619-274 MS	MGWA-3CP2-SW-40-FD	Total/NA	Water	1631E	
350-1619-274 MSD	MGWA-3CP2-SW-40-FD	Total/NA	Water	1631E	

Analysis Batch: 7765

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-255	MGWA-3CP2	Total/NA	Solid	1631B	6022
350-1619-256	MGWA-3D2	Total/NA	Solid	1631B	6022
350-1619-257	MGWA-4B2X	Total/NA	Solid	1631B	6022
350-1619-258	MGWA-4C2	Total/NA	Solid	1631B	6022
MB 350-6022/1-A	Method Blank	Total/NA	Solid	1631B	6022
MB 350-6022/2-A	Method Blank	Total/NA	Solid	1631B	6022
MB 350-6022/3-A	Method Blank	Total/NA	Solid	1631B	6022
LCS 350-6022/4-A	Lab Control Sample	Total/NA	Solid	1631B	6022
LCSD 350-6022/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	6022
350-1619-257 MS	MGWA-4B2X	Total/NA	Solid	1631B	6022
350-1619-257 MSD	MGWA-4B2X	Total/NA	Solid	1631B	6022

Analysis Batch: 72L7

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-247	MGWA-1C2	Total/NA	Solid	1631B	5961
350-1619-248	MGWA-1CP2	Total/NA	Solid	1631B	5961
350-1619-249	MGWA-1D2	Total/NA	Solid	1631B	5961
350-1619-250	MGWA-2B2X	Total/NA	Solid	1631B	5961
350-1619-251	MGWA-2B2X-FD	Total/NA	Solid	1631B	5961
350-1619-252	MGWA-2C2	Total/NA	Solid	1631B	5961
350-1619-253	MGWA-3B2X	Total/NA	Solid	1631B	5961
350-1619-254	MGWA-3C2	Total/NA	Solid	1631B	5961
MB 350-5961/1-A	Method Blank	Total/NA	Solid	1631B	5961

Eurofins Seattle Specialty Metals

Metals 9Continue81

Analysis Batch: 7(77 9Continue81

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-274 MS	MGWA-3CP2-SW-40-FD	Total/NA	Water	1640	5997
350-1619-274 MSD	MGWA-3CP2-SW-40-FD	Total/NA	Water	1640	5997
350-1619-275 MS	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997
350-1619-275 MSD	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997

Analysis Batch: 7(63

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-259	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995
350-1619-260	MGWA-1B2Y-SW-20	Total/NA	Water	1640	5995
350-1619-261	MGWA-1B2Y-SW-40	Total/NA	Water	1640	5995
350-1619-262	MGWA-1B2Y-SW-8	Total/NA	Water	1640	5995
350-1619-263	MGWA-1CP2-SW-1	Total/NA	Water	1640	5995
350-1619-264	MGWA-1CP2-SW-20	Total/NA	Water	1640	5995
350-1619-265	MGWA-1CP2-SW-40	Total/NA	Water	1640	5995
350-1619-266	MGWA-1CP2-SW-8	Total/NA	Water	1640	5995
350-1619-267	MGWA-3B2X-SW-1	Total/NA	Water	1640	5995
350-1619-268	MGWA-3B2X-SW-20	Total/NA	Water	1640	5995
350-1619-269	MGWA-3B2X-SW-40	Total/NA	Water	1640	5995
350-1619-270	MGWA-3B2X-SW-8	Total/NA	Water	1640	5995
350-1619-271	MGWA-3CP2-SW-1	Total/NA	Water	1640	5995
350-1619-272	MGWA-3CP2-SW-20	Total/NA	Water	1640	5995
350-1619-273	MGWA-3CP2-SW-40	Total/NA	Water	1640	5995
350-1619-274	MGWA-3CP2-SW-40-FD	Total/NA	Water	1640	5997
350-1619-275	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997
350-1619-276	MGWA-EQ	Total/NA	Water	1640	5997
350-1619-277	MGWA-WB	Total/NA	Water	1640	5997
MB 350-5995/1-A	Method Blank	Total/NA	Water	1640	5995
MB 350-5997/1-A	Method Blank	Total/NA	Water	1640	5997
MB 350-5997/2-A	Method Blank	Total/NA	Water	1640	5997
LCS 350-5995/3-A	Lab Control Sample	Total/NA	Water	1640	5995
LCS 350-5997/3-A	Lab Control Sample	Total/NA	Water	1640	5997
LCSD 350-5995/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5995
LCSD 350-5997/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5997
350-1619-259 MS	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995
350-1619-259 MSD	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995
350-1619-274 MS	MGWA-3CP2-SW-40-FD	Total/NA	Water	1640	5997
350-1619-275 MS	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997
350-1619-275 MSD	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997

Analysis Batch: 732)

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-259	MGWA-1B2Y-SW-1	Total/NA	Water	1631E	
350-1619-260	MGWA-1B2Y-SW-20	Total/NA	Water	1631E	
350-1619-261	MGWA-1B2Y-SW-40	Total/NA	Water	1631E	
350-1619-262	MGWA-1B2Y-SW-8	Total/NA	Water	1631E	
350-1619-263	MGWA-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-264	MGWA-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-265	MGWA-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-266	MGWA-1CP2-SW-8	Total/NA	Water	1631E	

Eurofins Seattle Specialty Metals

Metals 9Continue81

Analysis Batch: 72L7 9Continue81

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
MB 350-5961/2-A	Method Blank	Total/NA	Solid	1631B	5961
MB 350-5961/3-A	Method Blank	Total/NA	Solid	1631B	5961
MB 350-5979/1-A	Method Blank	Total/NA	Solid	1631B	5979
MB 350-5979/2-A	Method Blank	Total/NA	Solid	1631B	5979
MB 350-5979/3-A	Method Blank	Total/NA	Solid	1631B	5979
LCS 350-5961/4-A	Lab Control Sample	Total/NA	Solid	1631B	5961
LCS 350-5979/4-A	Lab Control Sample	Total/NA	Solid	1631B	5979
LCSD 350-5961/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5961
LCSD 350-5979/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5979
350-1619-250 MS	MGWA-2B2X	Total/NA	Solid	1631B	5961
350-1619-250 MSD	MGWA-2B2X	Total/NA	Solid	1631B	5961

Analysis Batch: 76) 0

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-248	MGWA-1B2Y	Total/NA	Solid	1631B	5961

Analysis Batch: 764L

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-246	MGWA-1B2Y	Total/NA	Solid	1638	5673
350-1619-247	MGWA-1C2	Total/NA	Solid	1638	5673
350-1619-248	MGWA-1CP2	Total/NA	Solid	1638	5673
350-1619-249	MGWA-1D2	Total/NA	Solid	1638	5673
350-1619-250	MGWA-2B2X	Total/NA	Solid	1638	5673
350-1619-251	MGWA-2B2X-FD	Total/NA	Solid	1638	5673
350-1619-252	MGWA-2C2	Total/NA	Solid	1638	5673
350-1619-253	MGWA-3B2X	Total/NA	Solid	1638	5673
350-1619-254	MGWA-3C2	Total/NA	Solid	1638	5673
350-1619-255	MGWA-3CP2	Total/NA	Solid	1638	5673
350-1619-256	MGWA-3D2	Total/NA	Solid	1638	5673
350-1619-257	MGWA-4B2X	Total/NA	Solid	1638	5673
350-1619-258	MGWA-4C2	Total/NA	Solid	1638	5673
MB 350-5673/1-A	Method Blank	Total/NA	Solid	1638	5673
MB 350-5673/2-A	Method Blank	Total/NA	Solid	1638	5673
LCS 350-5673/3-A	Lab Control Sample	Total/NA	Solid	1638	5673
LCSD 350-5673/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5673
350-1619-255 MS	MGWA-3CP2	Total/NA	Solid	1638	5673
350-1619-255 MSD	MGWA-3CP2	Total/NA	Solid	1638	5673

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

QC Association Summary

Job ID: 350-1619-2

General Chemistry 9Continue81

Analysis Batch: 7(2) 9Continue81

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-248	MGWA-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-249	MGWA-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-250	MGWA-2B2X	Total/NA	Solid	Moisture - 2540	
350-1619-251	MGWA-2B2X-FD	Total/NA	Solid	Moisture - 2540	
350-1619-252	MGWA-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-253	MGWA-3B2X	Total/NA	Solid	Moisture - 2540	
350-1619-254	MGWA-3C2	Total/NA	Solid	Moisture - 2540	

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Client Sample ID: NP - 1 35D6

Date CollecteT: d6yR6x dRM6

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36R

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu6eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35D6

Date CollecteT: d6yR6x dRM6

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36R

Nativr: SolIT

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu6eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6736 CL	EET SSM	05/06/25 19:19
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:27

Client Sample ID: NP - 1 35D6W

Date CollecteT: d6yR6x 5R/5

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36x

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu6eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35D6W

Date CollecteT: d6yR6x 5R/5

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36x

Nativr: SolIT

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu6eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6736 CL	EET SSM	05/06/25 13:32
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:30

Client Sample ID: NP - 1 35D6WBD

Date CollecteT: d6yR6x 5R/M

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36x5

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu6eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35D6WBD

Date CollecteT: d6yR6x 5R/M

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36x5

Nativr: SolIT

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu6eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		200	6736 CL	EET SSM	05/06/25 16:28
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:32

Client: Tetra Tech Inc

Job ID: 350-1619-2

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NP - 1 35D69

Lab Sample ID: Mkd3525/ 36R2

Date CollecteT: d6yR6x 5MM2

Nativr: SolIT

Date BeceIAeT: dMj2y6x 5d:Mt

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 naluTeT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35D69

Lab Sample ID: Mkd3525/ 36R2

Date CollecteT: d6yR6x 5MM2

Nativr: SolIT

Date BeceIAeT: dMj2y6x 5d:Mt

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 naluTeT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		10000	6821 COW	EET SSM	05/14/25 16:11
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:20

Client Sample ID: NP - 1 35C6

Lab Sample ID: Mkd3525/ 36R6

Date CollecteT: d6yR6x dx:6R

Nativr: SolIT

Date BeceIAeT: dMj2y6x 5d:Mt

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 naluTeT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35C6

Lab Sample ID: Mkd3525/ 36R6

Date CollecteT: d6yR6x dx:6R

Nativr: SolIT

Date BeceIAeT: dMj2y6x 5d:Mt

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 naluTeT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35C6

Lab Sample ID: Mkd3525/ 36R7

Date CollecteT: d6yR6x dx:6R

Nativr: SolIT

Date BeceIAeT: dMj2y6x 5d:Mt

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 naluTeT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		200	6736 CL	EET SSM	04/03/25 20:27
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:25

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-2

Client Sample ID: NP - 1 35C6

Date CollecteT: d6yR6x 5x:d2

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36x6

Nativr: SolIT

z rep supe

0 atch supe

0 atch NethoT

B. n

Dil. tion

0 atch

1 naluFt

Lab

z repaerT

Total/NA

Analysis

Moisture - 2540

1

6070 JS

EET SSM

04/07/25 20:29

Client Sample ID: NP - 1 35C6

Date CollecteT: d6yR6x 5x:d2

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36x6

Nativr: SolIT

z ercent SolITF: RGE

z rep supe

0 atch supe

0 atch NethoT

B. n

Dil. tion

0 atch

1 naluFt

Lab

z repaerT

Total/NA

Prep

1631B CAR Prep

5961 JS

EET SSM

04/03/25 20:27

Total/NA

Analysis

1631B

30

6736 CL

EET SSM

05/06/25 19:23

Total/NA

Prep

HF Bomb Prep

5673 JS

EET SSM

03/19/25 17:28

Total/NA

Analysis

1638

1

6893 COW

EET SSM

05/14/25 16:35

Client Sample ID: NP - 1 35D6W

Date CollecteT: d6yM6x 6d:M6

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36xM

Nativr: SolIT

z rep supe

0 atch supe

0 atch NethoT

B. n

Dil. tion

0 atch

1 naluFt

Lab

z repaerT

Total/NA

Analysis

Moisture - 2540

1

6070 JS

EET SSM

04/07/25 20:29

Client Sample ID: NP - 1 35D6W

Date CollecteT: d6yM6x 6d:M6

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36xM

Nativr: SolIT

z ercent SolITF: RGE

z rep supe

0 atch supe

0 atch NethoT

B. n

Dil. tion

0 atch

1 naluFt

Lab

z repaerT

Total/NA

Prep

1631B CAR Prep

200

6736 CL

EET SSM

04/03/25 20:27

Total/NA

Analysis

1631B

5961 JS

EET SSM

05/06/25 16:45

Total/NA

Prep

HF Bomb Prep

5673 JS

EET SSM

03/19/25 17:28

Total/NA

Analysis

1638

1

6893 COW

EET SSM

05/14/25 16:37

Client Sample ID: NP - 1 35C6

Date CollecteT: d6yM6x 65:6R

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36xR

Nativr: SolIT

z rep supe

0 atch supe

0 atch NethoT

B. n

Dil. tion

0 atch

1 naluFt

Lab

z repaerT

Total/NA

Analysis

Moisture - 2540

1

6070 JS

EET SSM

04/07/25 20:29

Client Sample ID: NP - 1 35C6

Date CollecteT: d6yM6x 65:6R

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36xR

Nativr: SolIT

z ercent SolITF: RGE

z rep supe

0 atch supe

0 atch NethoT

B. n

Dil. tion

0 atch

1 naluFt

Lab

z repaerT

Total/NA

Prep

1631B CAR Prep

5961 JS

EET SSM

04/03/25 20:27

Total/NA

Analysis

1631B

200

6736 CL

EET SSM

05/06/25 16:49

Total/NA

Prep

HF Bomb Prep

5673 JS

EET SSM

03/19/25 17:28

Total/NA

Analysis

1638

1

6893 COW

EET SSM

05/14/25 16:40

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-2

Client Sample ID: NP - 1 3Mz 6

Date CollecteT: d6ydM6x 66:5d

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 3xx

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion	0 atch X. mber	1 naluFt	Lab	z repareT or 1 nalu4eT
TotalNA	Analysis	Moisture - 2540		1	6015	JS	EET SSM	04/04/25 14:51

Client Sample ID: NP - 1 3Mz 6

Date CollecteT: d6ydM6x 66:5d

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 3xx

Nativr: SolIT

z ercent SolITF: R2B

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion	0 atch X. mber	1 naluFt	Lab	z repareT or 1 nalu4eT
TotalNA	Prep	1631B CAR Prep			6022	AJD	EET SSM	04/04/25 17:33
TotalNA	Analysis	1631B		40	6685	CL	EET SSM	05/06/25 19:00
TotalNA	Prep	HF Bomb Prep			5673	JS	EET SSM	03/19/25 17:28
TotalNA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 15:59

Client Sample ID: NP - 1 3M6

Date CollecteT: d6ydM6x 66:R

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 3x2

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion	0 atch X. mber	1 naluFt	Lab	z repareT or 1 nalu4eT
TotalNA	Analysis	Moisture - 2540		1	6015	JS	EET SSM	04/04/25 14:51

Client Sample ID: NP - 1 3M6

Date CollecteT: d6ydM6x 66:R

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 3x2

Nativr: SolIT

z ercent SolITF: R2B

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion	0 atch X. mber	1 naluFt	Lab	z repareT or 1 nalu4eT
TotalNA	Prep	1631B CAR Prep			6022	AJD	EET SSM	04/04/25 17:33
TotalNA	Analysis	1631B		40	6685	CL	EET SSM	05/06/25 19:00
TotalNA	Prep	HF Bomb Prep			5673	JS	EET SSM	03/19/25 17:28
TotalNA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 15:59

Client Sample ID: NP - 1 3M6W

Date CollecteT: d6ydR6x 56:RR

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 3xG

Nativr: SolIT

z ercent SolITF: R 2B

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion	0 atch X. mber	1 naluFt	Lab	z repareT or 1 nalu4eT
TotalNA	Analysis	Moisture - 2540		1	6015	JS	EET SSM	04/04/25 14:51

Client Sample ID: NP - 1 3M6W

Date CollecteT: d6ydR6x 56:RR

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 3xG

Nativr: SolIT

z ercent SolITF: R 2B

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion	0 atch X. mber	1 naluFt	Lab	z repareT or 1 nalu4eT
TotalNA	Prep	1631B CAR Prep			6022	AJD	EET SSM	04/04/25 17:33
TotalNA	Analysis	1631B		40	6685	CL	EET SSM	05/06/25 18:27
TotalNA	Prep	HF Bomb Prep			5673	JS	EET SSM	03/19/25 17:28
TotalNA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 16:50

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Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Client Sample ID: NP - 1 3RC6

Lab Sample ID: Mkd3525/ 3x7

Date CollecteT: d6ydM6x 6M6R

Nativr: SolIT

Date BeceIAeT: dMj2y6x 5d:Mt

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
TotalNA	Analysis	Moisture - 2540		1	6015 JS	EET SSM	04/04/25 14:51

Client Sample ID: NP - 1 3RC6

Lab Sample ID: Mkd3525/ 3x7

Date CollecteT: d6ydM6x 6M6R

Nativr: SolIT

Date BeceIAeT: dMj2y6x 5d:Mt

z ercent SolITF: R2B

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
TotalNA	Prep	1631B CAR Prep			6022 AJD	EET SSM	04/04/25 17:33
TotalNA	Analysis	1631B		40	6685 CL	EET SSM	05/06/25 19:09
TotalNA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
TotalNA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:53

Client Sample ID: NP - 1 350 69 3S- 3S

Lab Sample ID: Mkd3525/ 3x/

Date CollecteT: d6ydR6x dd:R2

Nativr: - ater

Date BeceIAeT: dMj2y6x 5d:Mt

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
TotalNA	Analysis	1631E		1	6472 CL	EET SSM	04/25/25 12:06
TotalNA	Prep	1640			5995 COW	EET SSM	04/03/25 16:39
TotalNA	Analysis	1640		1	6066 COW	EET SSM	04/03/25 22:24
TotalNA	Prep	1640			5995 COW	EET SSM	04/03/25 16:39
TotalNA	Analysis	1640		1	6084 COW	EET SSM	04/05/25 00:49

Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Client Sample ID: NP- 1 3Mz 63S- 3d
Date CollecteT: d6ydM6M52:R
Date BeceAeT: dMj2y6x 5d:Mi

Lab Sample ID: Mkd3525/ 3Gd
Nativr: - ater

z rep supe	0atch supe	0atch NethoT	B. n	Dil. tion 8actor	0atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Prep	1640			5995 COW	EET SSM	04/03/25 16:39
Total/NA	Analysis	1640		1	6066 COW	EET SSM	04/04/25 05:56
Total/NA	Prep	1640			5995 COW	EET SSM	04/03/25 16:39
Total/NA	Analysis	1640		1	6084 COW	EET SSM	04/05/25 07:24

Client Sample ID: NP- 1 3Mz 63S- 3d
Date CollecteT: d6ydM6M52:5M
Date BeceAeT: dMj2y6x 5d:Mi

Lab Sample ID: Mkd3525/ 3G6
Nativr: - ater

z rep supe	0atch supe	0atch NethoT	B. n	Dil. tion 8actor	0atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	1631E		1	6472 CL	EET SSM	04/25/25 13:04
Total/NA	Prep	1640			5995 COW	EET SSM	04/03/25 16:39
Total/NA	Analysis	1640		1	6066 COW	EET SSM	04/04/25 06:11
Total/NA	Prep	1640			5995 COW	EET SSM	04/03/25 16:39
Total/NA	Analysis	1640		1	6084 COW	EET SSM	04/05/25 07:38

Client Sample ID: NP- 1 3Mz 63S- 3d
Date CollecteT: d6ydM6M52:M
Date BeceAeT: dMj2y6x 5d:Mi

Lab Sample ID: Mkd3525/ 3G6
Nativr: - ater

z rep supe	0atch supe	0atch NethoT	B. n	Dil. tion 8actor	0atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	1631E		1	6472 CL	EET SSM	04/25/25 13:06
Total/NA	Prep	1640			5995 COW	EET SSM	04/03/25 16:39
Total/NA	Analysis	1640		1	6066 COW	EET SSM	04/04/25 06:25
Total/NA	Prep	1640			5995 COW	EET SSM	04/03/25 16:39
Total/NA	Analysis	1640		1	6084 COW	EET SSM	04/05/25 07:52

Client Sample ID: NP- 1 3Mz 63S- 3d
Date CollecteT: d6ydM6M52:M
Date BeceAeT: dMj2y6x 5d:Mi

Lab Sample ID: Mkd3525/ 3Gd
Nativr: - ater

z rep supe	0atch supe	0atch NethoT	B. n	Dil. tion 8actor	0atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	1631E		1	6472 CL	EET SSM	04/25/25 13:54
Total/NA	Prep	1640			5995 COW	EET SSM	04/03/25 16:39
Total/NA	Analysis	1640		1	6066 COW	EET SSM	04/04/25 06:39
Total/NA	Prep	1640			5995 COW	EET SSM	04/03/25 16:39
Total/NA	Analysis	1640		1	6084 COW	EET SSM	04/05/25 08:07

Client Sample ID: NP- 1 3Mz 63S- 3d
Date CollecteT: d6ydM6M52:R
Date BeceAeT: dMj2y6x 5d:Mi

Lab Sample ID: Mkd3525/ 3G6
Nativr: - ater

z rep supe	0atch supe	0atch NethoT	B. n	Dil. tion 8actor	0atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	1631E		1	6472 CL	EET SSM	04/25/25 13:58

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Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Client Sample ID: NP- 1 3Mz 63S- 3d
Date CollecteT: d6ydM6M52:R
Date BeceAeT: dMj2y6x 5d:Mi

Lab Sample ID: Mkd3525/ 3Gd
Nativr: - ater

z rep supe	0atch supe	0atch NethoT	B. n	Dil. tion 8actor	0atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Prep	1640			5997 COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6066 COW	EET SSM	04/04/25 00:17
Total/NA	Prep	1640			5997 COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6084 COW	EET SSM	04/05/25 02:42

Client Sample ID: NP- 1 3Mz 63S- 3d
Date CollecteT: d6ydM6M52:x/
Date BeceAeT: dMj2y6x 5d:Mi

Lab Sample ID: Mkd3525/ 3G6
Nativr: - ater

z rep supe	0atch supe	0atch NethoT	B. n	Dil. tion 8actor	0atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	1631E		1	6472 CL	EET SSM	04/25/25 14:02
Total/NA	Prep	1640			5997 COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6066 COW	EET SSM	04/04/25 01:00
Total/NA	Prep	1640			5997 COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6084 COW	EET SSM	04/05/25 03:24

Client Sample ID: NP- 1 3/Q
Date CollecteT: d6ydM6x dGRx
Date BeceAeT: dMj2y6x 5d:Mi

Lab Sample ID: Mkd3525/ 3G6
Nativr: - ater

z rep supe	0atch supe	0atch NethoT	B. n	Dil. tion 8actor	0atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	1631E		1	6472 CL	EET SSM	04/25/25 14:06
Total/NA	Prep	1640			5997 COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6066 COW	EET SSM	04/04/25 06:53
Total/NA	Prep	1640			5997 COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6084 COW	EET SSM	04/05/25 08:21

Client Sample ID: NP- 1 3- 0
Date CollecteT: d6ydM6x dGRd
Date BeceAeT: dMj2y6x 5d:Mi

Lab Sample ID: Mkd3525/ 3Gd
Nativr: - ater

z rep supe	0atch supe	0atch NethoT	B. n	Dil. tion 8actor	0atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	1631E		1	6472 CL	EET SSM	04/25/25 14:11
Total/NA	Prep	1640			5997 COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6066 COW	EET SSM	04/04/25 07:35
Total/NA	Prep	1640			5997 COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6084 COW	EET SSM	04/05/25 09:03

Laboratoru ReferenceF:
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

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Accreditation/Certification Summary

Client: Tetra Tech Inc
Project/Site: u f l d dThailan2 - POP5

Job ID: 350-1619-P

Laboratory: Eurofins Seattle Specialty Metals

All accre2itations&ertifications hel2 by this laboratory are liste2. Not all accre2itations&ertifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UGT)	Glate	P0-004	0P-19-P7
ANAB	Dept. odDeaInse ELA]	LFP36	01-19-P7
ANAB	Dept. odEnergy	LFP36.01	01-19-P7
ANAB	IGOSEC 170P5	LFP36	01-19-P7
California	Glate	P954	07-08-P6
Florida	NELA]	E87575	06-30-P5
Lof isiana (All)	NELA]	03073	06-30-P5
Maine	Glate	WA01P73	05-0P-P6
New Jersey	NELA]	WA014	06-30-P5
New York	NELA]	1166P	04-01-P6
Oregon	NELA]	4167-008	07-07-P6
UG Fish & Wi2li2	UG Fe2eral j rograms	AP0571	06-30-P5
UGDA	UG Fe2eral j rograms	SP5-P3-4-PP573	01-R4-P8
Washington	Glate	C788-P3a	07-13-P5
Wisconsin	Glate	399133460	07-31-P5

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Method Summary

Client TrnTic rnhP lth
j a6/nhT3525: u f l d d r d Poct 2 - C0C5

Job ID: 350-1619-C

Method	Method Description	Protocol	Laboratory
1631B	Mndrf ay, Low Lnmvii (I VAFG)	Ej A	EER GGM
1631E	Mndrf ay, Low Lnmvii (I VAFG)	Ej A	EER GGM
1638	MnTis (II j 3MG)	Ej A	EER GGM
1640	MnTis (II j MG)	Ej A	EER GGM
MoeT an - C540	j ndmT MoeT an	GM	EER GGM
1631B j AR j anp	j anpca:Tel odGoId2s, Mo2m2 l o2 Adf c-Rnge	Lcb GOJ	EER GGM
1640	j anpca:Tel , roT2 Rhnmvncabin MnTis	Ej A	EER GGM
HF Bomb j anp	HF3HNO3SH j Bomb Dgn2Tel odGoId2s dbaroT2 MnTis	Lcb GOJ	EER GGM

Protocol References:
Ej A = UGEl vaot mint T2 j a6TnT2et Agnt hy
Lcb GOJ = Lcbca:Bay GEl 2ca2 OpnaT2 g j a6h2f an
GM = "GEl 2ca2 MnPo2s Foar Ph Excm2 cTel OdWcThaAt 2 WcsThwcTha"

Laboratory References:
EER GGM = Ej a6d2 s GncTh GpnhaT2 MnTis, 5755 8P GlnT2EcsT rchome, WA 98404, r EL (C33)90C-G310

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1619-246	MGWA-1B2Y	Solid	02/04/25 13:36	03/06/25 10:30
350-1619-247	MGWA-1C2	Solid	02/04/25 05:24	03/06/25 10:30
350-1619-248	MGWA-1CP2	Solid	02/04/25 03:52	03/06/25 10:30
350-1619-249	MGWA-1D2	Solid	02/04/25 04:31	03/06/25 10:30
350-1619-250	MGWA-2B2X	Solid	02/04/25 14:19	03/06/25 10:30
350-1619-251	MGWA-2B2X-FD	Solid	02/04/25 14:38	03/06/25 10:30
350-1619-252	MGWA-2C2	Solid	02/04/25 15:06	03/06/25 10:30
350-1619-253	MGWA-3B2X	Solid	02/03/25 20:31	03/06/25 10:30
350-1619-254	MGWA-3C2	Solid	02/03/25 21:24	03/06/25 10:30
350-1619-255	MGWA-3CP2	Solid	02/03/25 22:10	03/06/25 10:30
350-1619-256	MGWA-3D2	Solid	02/03/25 22:49	03/06/25 10:30
350-1619-257	MGWA-4B2X	Solid	02/04/25 12:44	03/06/25 10:30
350-1619-258	MGWA-4C2	Solid	02/03/25 23:24	03/06/25 10:30
350-1619-259	MGWA-1B2Y-SW-1	Water	02/04/25 00:46	03/06/25 10:30
350-1619-260	MGWA-1B2Y-SW-20	Water	02/04/25 00:52	03/06/25 10:30
350-1619-261	MGWA-1B2Y-SW-40	Water	02/04/25 01:01	03/06/25 10:30
350-1619-262	MGWA-1B2Y-SW-B	Water	02/04/25 01:13	03/06/25 10:30
350-1619-263	MGWA-1CP2-SW-1	Water	02/04/25 02:04	03/06/25 10:30
350-1619-264	MGWA-1CP2-SW-14	Water	02/04/25 02:14	03/06/25 10:30
350-1619-265	MGWA-1CP2-SW-40	Water	02/04/25 02:22	03/06/25 10:30
350-1619-266	MGWA-1CP2-SW-B	Water	02/04/25 02:35	03/06/25 10:30
350-1619-267	MGWA-3B2X-SW-1	Water	02/03/23 19:23	03/06/25 10:30
350-1619-268	MGWA-3B2X-SW-20	Water	02/03/23 19:33	03/06/25 10:30
350-1619-269	MGWA-3B2X-SW-40	Water	02/03/23 19:41	03/06/25 10:30
350-1619-270	MGWA-3B2X-SW-B	Water	02/03/23 19:51	03/06/25 10:30
350-1619-271	MGWA-3CP2-SW-1	Water	02/03/23 16:23	03/06/25 10:30
350-1619-272	MGWA-3CP2-SW-20	Water	02/03/23 16:31	03/06/25 10:30
350-1619-273	MGWA-3CP2-SW-40	Water	02/03/23 16:39	03/06/25 10:30
350-1619-274	MGWA-3CP2-SW-40-FD	Water	02/03/23 16:49	03/06/25 10:30
350-1619-275	MGWA-3CP2-SW-B	Water	02/03/23 16:59	03/06/25 10:30
350-1619-276	MGWA-EQ	Water	02/03/25 07:45	03/06/25 10:30
350-1619-277	MGWA-WB	Water	02/03/25 07:40	03/06/25 10:30

Ship To:
Lilly-Anna Account
Eurofins Specialty Metals Testing
5755 8th St. E
Fife, WA 98424
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, Ca
ted.donn@tetratech.com

General Notes:

Each Project Specifies a different set of metals
Please report all results to the MCL, J-flag results between MDL and RL
Please report results and include separately for each Project ID
Please report results in pdf format with Excel EDO deliverable
Standard Processing

250-1819 Chain of Custody

Project	Sample ID	Date	Time	Medium	Preserve	Sediment		Seawater	
						10 Metals (As, Ba, Cd, Cr, Cu, Fe, Hg, Mn, Pb, Zn) EPA 1631 M	EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Hg, Mn, Pb, Zn) EPA 1640	9 Metals (As, Ba, Cd, Cr, Cu, Fe, Hg, Mn, Pb) EPA 1640
							Day Weight		
1779-27	NPCPP-1C1	2/16/2025	2:55	SED	Frozen	1	1	1	1
1779-27	NPCPP-1C1-FD	2/16/2025	4:14	SED	Frozen	1	1	1	1
1779-27	NPCPP-1C2X	2/16/2025	2:53	SED	Frozen	1	1	1	1
1779-27	NPCPP-1C1P1	2/16/2025	8:12	SED	Frozen	1	1	1	1
1779-27	NPCPP-1C1P2	2/16/2025	7:36	SED	Frozen	1	1	1	1
1779-27	NPCPP-1C1P3X	2/16/2025	5:55	SED	Frozen	1	1	1	1
1779-27	NPCPP-1P1	2/15/2025	1:45	SED	Frozen	1	1	1	1
1779-27	NPCPP-1E2	2/19/2025	1:05	SED	Frozen	1	1	1	1
1779-27	NPCPP-1F2	2/19/2025	0:22	SED	Frozen	1	1	1	1
1779-27	NPCPP-1P2	2/14/2025	22:53	SED	Frozen	1	1	1	1
1779-27	NPCPP-2C1X	2/16/2025	4:54	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C2	2/16/2025	5:23	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C2P	2/19/2025	8:43	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C2	2/16/2025	8:52	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C1	2/14/2024	8:55	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C2	2/15/2025	22:58	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C1X	2/15/2025	20:36	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C1M-FD	2/15/2025	20:54	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C1P1	2/19/2025	17:01	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C2P	2/19/2025	11:07	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C1P3X	2/19/2025	16:23	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C2	2/16/2025	9:50	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C2	2/16/2025	10:28	SED	Frozen	1	1	1	1
1779-27	NPCPP-3F2X	2/16/2025	11:05	SED	Frozen	1	1	1	1
1779-27	NPCPP-3C2	2/16/2025	13:04	SED	Frozen	1	1	1	1
1779-27	NPCPP-4C2	2/15/2025	19:59	SED	Frozen	1	1	1	1
1779-27	NPCPP-4C2P	2/15/2025	19:27	SED	Frozen	1	1	1	1
1779-27	NPCPP-4C2	2/14/2025	18:54	SED	Frozen	1	1	1	1
1779-27	NPREF-A	2/19/2025	21:54	SED	Frozen	1	1	1	1
1779-27	NPREF-B	2/19/2025	22:27	SED	Frozen	1	1	1	1
1779-27	NPREF-B-FD	2/19/2025	22:47	SED	Frozen	1	1	1	1
1779-27	NPREF-C	2/15/2025	23:16	SED	Frozen	1	1	1	1
1779-27	NPW1B-1C2	2/14/2025	4:51	SED	Frozen	1	1	1	1
1779-27	NPW1B-1C1-FD	2/14/2025	5:13	SED	Frozen	1	1	1	1
1779-27	NPW1B-1C2	2/14/2025	3:50	SED	Frozen	1	1	1	1
1779-27	NPW1B-1P2	2/14/2025	4:08	SED	Frozen	1	1	1	1
1779-27	NPW1B-2B3	2/14/2025	18:54	SED	Frozen	1			

Ship To:		CHAIN OF CUSTODY				Report to:					
Lily-Arena Lacombe						Dr. Ted Donn					
Eurofins Specialty Metals Testing						Tetra Tech Inc.					
5755 8th St. E						Lafayette, CA					
WFA, WA 98474						tdd.donn@tetratech.com					
USA											
Project	Sample ID	Date	Time	Medium	Preserve	Hg EPA 1631 B) <th>10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, H, Pb, Zn) EPA 1631 M</th> <th>Dry Weight</th> <th>Hg EPA 1631 E)<th>10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, H, Pb, Zn) EPA 1640</th><th>10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, H, Pb, Zn) EPA 1640</th></th>	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, H, Pb, Zn) EPA 1631 M	Dry Weight	Hg EPA 1631 E) <th>10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, H, Pb, Zn) EPA 1640</th> <th>10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, H, Pb, Zn) EPA 1640</th>	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, H, Pb, Zn) EPA 1640	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, H, Pb, Zn) EPA 1640
1778.27	NPWB-3C2X	2/14/2025	5:33	SED	Frozen	1	1	1	1	1	1
1778.27	NPWB-3B2	2/14/2025	18:29	SED	Frozen	1	1	1	1	1	1
1778.27	NPWB-3C2	2/14/2025	20:22	SED	Frozen	1	1	1	1	1	1
1778.27	NPWB-3CP2	2/14/2025	21:24	SED	Frozen	1	1	1	1	1	1
1778.27	NPWB-3D2	2/14/2025	21:55	SED	Frozen	1	1	1	1	1	1
1778.27	NPWB-4B3X	2/14/2025	19:19	SED	Frozen	1	1	1	1	1	1
1778.27	NPWB-4C2	2/14/2025	19:52	SED	Frozen	1	1	1	1	1	1
1778.27	NPWB-1B2X	2/17/2025	10:17	SED	Frozen	1	1	1	1	1	1
1778.27	NPWG-1B2X_F0	2/17/2025	10:42	SED	Frozen	1	1	1	1	1	1
1778.27	NPWG-1C2	2/17/2025	5:05	SED	Frozen	1	1	1	1	1	1
1778.27	NPWG-1CP2	2/17/2025	2:37	SED	Frozen	1	1	1	1	1	1
1778.27	NPWB-1D2	2/17/2025	4:14	SED	Frozen	1	1	1	1	1	1
1778.27	NPWG-2B2X	2/16/2025	22:45	SED	Frozen	1	1	1	1	1	1
1778.27	NPWG-2C2	2/16/2025	20:56	SED	Frozen	1	1	1	1	1	1
1778.27	NPWB-3B2X	2/17/2025	15:36	SED	Frozen	1	1	1	1	1	1
1778.27	NPWG-3C2	2/17/2025	14:17	SED	Frozen	1	1	1	1	1	1
1778.27	NPWG-3CP2	2/16/2025	16:47	SED	Frozen	1	1	1	1	1	1
1778.27	NPWB-3D2	2/16/2025	17:16	SED	Frozen	1	1	1	1	1	1
1778.27	NPWB-4B2X	2/17/2025	16:30	SED	Frozen	1	1	1	1	1	1
1778.27	NPWG-4C2	2/17/2025	16:50	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-1C1	2/19/2025	0:48	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-1C2A	2/17/2025	22:45	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-1C3X	2/19/2025	1:32	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-1CP1	2/17/2025	16:41	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-1CP2	2/17/2025	23:19	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-1D2	2/18/2025	11:23	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-1D2	2/18/2025	21:28	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-1E2	2/18/2025	20:52	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-1F2	2/18/2025	20:16	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-1G2	2/18/2025	19:39	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-2C2	2/19/2025	2:14	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-3CP2	2/19/2025	23:14	SED	Frozen	1	1	1	1	1	1
1778.27	PACPP-3D2	2/18/2025	22:32	SED	Frozen	1	1	1			

Ship To: Lilly Anna Saout Eurofins Specialty Metals Testing 5755 8th St. E Fife, WA 98424 USA		CHAIN OF CUSTODY				Report To: Dr. Ted Donnelly Tetra Tech Inc Lafayette, CA tcd.donnelly@tetra-tech.com			
Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA TEST B)	As (EPA 1631) Cd (EPA 1631) Pb (EPA 1631) Mn (EPA 1631) Ni (EPA 1631) Se (EPA 1631) Zn (EPA 1631)	Cr (EPA 1631) Cu (EPA 1631) Fe (EPA 1631) Mg (EPA 1631) Mo (EPA 1631) S (EPA 1631) V (EPA 1631)	Co (EPA 1631) Mn (EPA 1631) Ni (EPA 1631) Pb (EPA 1631) Se (EPA 1631) Zn (EPA 1631)
1779.27	PACPR-4CXZ-FD	2/18/2025	4:22	SED	Frozen	1	1	1	1
1779.27	PACPR-4Q2P2	2/18/2025	4:56	SED	Frozen	1	1	1	1
1779.27	PACPR-4Q2P2	2/18/2025	4:49	SED	Frozen	1	1	1	1
1779.27	PAREF-A	2/13/2025	19:06	SED	Frozen	1	1	1	1
1779.27	PAREF-B	2/13/2025	19:30	SED	Frozen	1	1	1	1
1779.27	PAREF-C	2/13/2025	19:59	SED	Frozen	1	1	1	1
1779.27	PAWB-1C2	2/20/2025	23:07	SED	Frozen	1	1	1	1
1779.27	PAWB-1CP2	2/20/2025	22:25	SED	Frozen	1	1	1	1
1779.27	PAWB-1Q2	2/20/2025	21:40	SED	Frozen	1	1	1	1
1779.27	PAWB-2B1X	2/21/2025	16:23	SED	Frozen	1	1	1	1
1779.27	PAWB-2C2	2/21/2025	16:59	SED	Frozen	1	1	1	1
1779.27	PAWB-3B2	2/21/2025	14:36	SED	Frozen	1	1	1	1
1779.27	PAWB-3C2	2/21/2025	8:40	SED	Frozen	1	1	1	1
1779.27	PAWB-3CP2	2/21/2025	1:46	SED	Frozen	1	1	1	1
1779.27	PAWB-3Q2	2/21/2025	4:19	SED	Frozen	1	1	1	1
1779.27	PAWB-4B2X	2/21/2025	15:54	SED	Frozen	1	1	1	1
1779.27	PAWB-4C2	2/21/2025	19:24	SED	Frozen	1	1	1	1
1779.27	PAWB-1B1	2/20/2025	17:12	SED	Frozen	1	1	1	1
1779.27	PAWB-1C2	2/20/2025	1:40	SED	Frozen	1	1	1	1
1779.27	PAWB-1CP2	2/20/2025	2:23	SED	Frozen	1	1	1	1
1779.27	PAWB-1Q2	2/20/2025	3:56	SED	Frozen	1	1	1	1
1779.27	PAWB-3B3	2/20/2025	17:56	SED	Frozen	1	1	1	1
1779.27	PAWB-3C2	2/20/2025	4:25	SED	Frozen	1	1	1	1
1779.27	PAWB-3C2-FD	2/20/2025	4:56	SED	Frozen	1	1	1	1
1779.27	PAWB-3B3	2/20/2025	16:43	SED	Frozen	1	1	1	1
1779.27	PAWB-3C2	2/20/2025	17:13	SED	Frozen	1	1	1	1
1779.27	PAWB-3CP2	2/20/2025	16:47	SED	Frozen	1	1	1	1
1779.27	PAWB-3Q2	2/20/2025	19:49	SED	Frozen	1	1	1	1
1779.27	PAWB-4B2	2/20/2025	16:25	SED	Frozen	1	1	1	1
1779.27	PAWB-4C2	2/20/2025	1:59	SED	Frozen	1	1	1	1
1779.27	NPCPP-1C2X-SW-1	2/16/2025	1:52	SW	Frozen	1	1	1	1
1779.27	NPCPP-1C2X-SW-20	2/16/2025	1:56	SW	Frozen	1	1	1	1
1779.27	NPCPP-1C2X-SW-40	2/16/2025	2:06	SW	Frozen	1	1	1	1
1779.27	NPCPP-1C2X-SW-B	2/16/2025	2:17	SW	Frozen	1	1	1	1
1779.27	NPCPP-1CP2-SW-1	2/15/2025	2:45	SW	Frozen	1	1	1	1
1779.27	NPCPP-1CP2-SW-20	2/15/2025	2:51	SW	Frozen	1	1	1	1
1779.27	NPCPP-1CP2-SW-40	2/15/2025	2:59	SW	Frozen	1	1	1	1
1779.27	NPCPP-1CP2-SW-B	2/15/2025	1:12	SW	Frozen	1	1	1	1
1779.27	NPCPP-2C2-SW-1	2/16/2025	0:12	SW	Frozen	1	1	1	1
1779.27	NPCPP-2C2-SW-20	2/16/2025	0:18	SW	Frozen	1	1	1	1
1779.27	NPCPP-2C2-S								

[illegible]

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Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)		Hg (EPA 1631 E)		Hg (EPA 1631 F)	
						100 Meq (AA, BA, CA, CD, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 B	100 Meq (AA, BA, CA, CD, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 E	100 Meq (AA, BA, CA, CD, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 F	100 Meq (AA, BA, CA, CD, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640		
							-Dry Weight				
T779-28	MGWA-40X	2/4/2025	12:24	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-4C2	2/3/2025	23:24	SED	Frozen	1	1	1	1	1	1
T779-28	MGWA-18Y-SW-1	2/4/2025	0:46	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-18Y-SW-20	2/4/2025	0:53	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-18Y-SW-8	2/4/2025	1:01	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-18Y-SW-8	2/4/2025	1:13	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-1CP-SW-1	2/4/2025	2:04	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-1CP-SW-20	2/4/2025	2:14	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-1CP-SW-40	2/4/2025	2:22	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-1CP-SW-8	2/4/2025	2:35	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-3CP-SW-1	2/1/2025	19:21	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-3CP-SW-20	2/1/2025	19:14	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-3CP-SW-40	2/1/2025	19:41	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-3CP-SW-8	2/1/2025	19:41	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-3CP-SW-1	2/1/2025	16:21	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-3CP-SW-20	2/1/2025	16:11	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-3CP-SW-40	2/1/2025	16:19	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-3CP-SW-40-FD	2/1/2025	16:48	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-3CP-SW-8	2/1/2025	16:59	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-EQ	2/3/2025	7:45	SW	Frozen	1	1	1	1	1	1
T779-28	MGWA-WB	2/3/2025	7:40	SW	Frozen	1	1	1	1	1	1
T779-31-8	BAPLHM1	2/22/2025	2:03	SED	Frozen	1	1	1	1	1	1
T779-31-8	BAPLHM2	2/22/2025	2:36	SED	Frozen	1	1	1	1	1	1
T779-31-8	BAPLHM3	2/22/2025	4:45	SED	Frozen	1	1	1	1	1	1
T779-31-8	BAPLHM4	2/22/2025	6:31	SED	Frozen	1	1	1	1	1	1
T779-31-8	BAPLHM5	2/22/2025	8:09	SED	Frozen	1	1	1	1	1	1
T779-31-8	BAPLHM6	2/22/2025	8:36	SED	Frozen	1	1	1	1	1	1
T779-31-8	BAPLHM7	2/22/2025	9:18	SED	Frozen	1	1	1	1	1	1
T779-31-8	BAPLHM2	2/22/2025	9:50	SED	Frozen	1	1	1	1	1	1
T779-31-8	BAPLHM1	2/22/2025	0:42	SED	Frozen	1	1	1	1	1	1
T779-31-8	POPLB-M2	2/22/2025	1:18	SED	Frozen	1	1	1	1	1	1
T779-31-8	POPLB-M1	2/11/2025	22:54	SED	Frozen	1	1	1	1	1	1
T779-31-8	POPLB-M2	2/11/2025	22:41	SED	Frozen	1	1	1	1	1	1
T779-31-8	POPLB-M3	2/11/2025	20:17	SED	Frozen	1	1	1	1	1	1
T779-31-8	POPLB-M4	2/11/2025	20:36	SED	Frozen	1	1	1	1	1	1
T779-31-8	POPLB-M1	2/11/2025	17:17	SED	Frozen	1	1	1	1	1	1
T779-31-8	POPLB-M2	2/11/2025	17:36	SED	Frozen	1	1	1	1	1	1
T779-31-8	POPLB-S1	2/12/2025	2:10	SED	Frozen	1	1	1	1	1	1
T779-31-8	POPLB-S2	2/12/2025	1:53	SED	Frozen	1	1	1	1	1	1
T779-31-8	PMWH-182X-C1	2/19/2025	22:36	SED	Frozen	1	1	1	1	1	1
T779-31-8	PMWH-182X-C2	2/19/2025	22:35	SED	Frozen	1	1	1	1	1	1
T779-31-8	PMWH-182X-C3	2/19/2025	22:43	SED	Frozen	1	1	1	1	1	1
T779-31-8	PMWH-182X-C(-0-5)	2/11/2025	8:41	SED	Frozen	1	1	1	1	1	1

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Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Ng (EPA 821 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 821 B	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 821 E	Ng (EPA 821 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 821 E
1779-31-B	PMNH-Center-C1	2/11/2025	5:34	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-C2	2/11/2025	5:48	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-C3	2/11/2025	5:57	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-X-(8-5)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-X-(15-15)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-X-(15-20)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1
1779-31-B	PMNH-Center-X-(6-10)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1
1779-31-B	SAREF-A	2/11/2025	14:53	SED	Frozen	1	1	1	1	1
1779-31-B	SAREF-B	2/11/2025	15:19	SED	Frozen	1	1	1	1	1
1779-31-B	SAREF-C	2/11/2025	16:45	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-M1	2/23/2025	2:31	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-M2	2/23/2025	2:39	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-M3	2/23/2025	6:31	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-M4	2/23/2025	8:42	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-M1	2/23/2025	9:20	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-N2	2/23/2025	9:42	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-S1	2/23/2025	0:53	SED	Frozen	1	1	1	1	1
1779-31-B	STPLB-S2	2/23/2025	1:21	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-E1	2/23/2025	17:33	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-E2	2/23/2025	17:49	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-M1	2/23/2025	15:12	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-S2	2/23/2025	16:51	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-W1	2/23/2025	12:47	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-W1-FD	2/23/2025	12:36	SED	Frozen	1	1	1	1	1
1779-31-B	TRALA-W2	2/23/2025	13:16	SED	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-1	2/22/2025	3:35	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-20	2/22/2025	3:41	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-40	2/22/2025	3:49	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-6	2/22/2025	4:01	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-1	2/22/2025	5:19	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-1-FD	2/22/2025	5:24	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-20	2/22/2025	5:30	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-40	2/22/2025	5:38	SW	Frozen	1	1	1	1	1
1779-31-B	BARHAM-SW-6	2/22/2025	5:49	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-EQ	2/11/2025	19:07	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-1	2/11/2025	21:36	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-20	2/11/2025	21:30	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-40	2/11/2025	21:30	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-6	2/11/2025	21:19	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-1	2/11/2025	19:16	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-20	2/11/2025	19:22	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-40	2/11/2025	19:29	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-M2-SW-6	2/11/2025	19:40	SW	Frozen	1	1	1	1	1
1779-31-B	POPLB-SW-1	2/11/2025	19:07	SW	Frozen	1	1	1	1	1

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Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)		Hg (EPA 1631 E)		Hg (EPA 1631 F)	
						10 Metals (Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn)	18 Metals (Al, Ba, Cd, Cu, Fe, Pb, Ni, P, Zn)	18 Metals (Al, Ba, Cd, Cu, Fe, Pb, Ni, P, Zn)	18 Metals (Al, Ba, Cd, Cu, Fe, Pb, Ni, P, Zn)		
17779.32	ERPLGRXKLG-S2	2/12/2025	8:53	SED	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-S1	2/12/2025	11:23	SED	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-S2	2/12/2025	13:22	SED	Frozen	1	1	1	1	1	1
17779.32	ERREF2-A-SW-1	2/12/2025	17:30	SED	Frozen	1	1	1	1	1	1
17779.32	ERREF2-B	2/12/2025	17:37	SED	Frozen	1	1	1	1	1	1
17779.32	ERREF2-C	2/12/2025	17:59	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E1	2/22/2025	22:20	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E2	2/22/2025	22:26	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1	2/22/2025	18:10	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M2	2/22/2025	16:24	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M3	2/22/2025	18:19	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M4	2/22/2025	19:31	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1	2/22/2025	13:44	SED	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-W2	2/22/2025	18:55	OCED	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-EQ	2/12/2025	6:10	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-1	2/12/2025	9:17	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-20	2/12/2025	9:25	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-40	2/12/2025	9:36	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-8	2/12/2025	9:47	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-1	2/12/2025	6:57	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-20	2/12/2025	7:05	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-40	2/12/2025	7:17	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-8	2/12/2025	7:28	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-1	2/12/2025	12:20	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-1-FD	2/12/2025	12:25	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-20	2/12/2025	12:31	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-40	2/12/2025	12:39	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-GM-SW-8	2/12/2025	12:50	SW	Frozen	1	1	1	1	1	1
17779.32	ERPLGRXKLG-SVB	2/12/2025	8:56	SW	Frozen	1	1	1	1	1	1
17779.32	ERREF2-A-SW-1	2/12/2025	16:21	SW	Frozen	1	1	1	1	1	1
17779.32	ERREF2-A-SW-20	2/12/2025	16:31	SW	Frozen	1	1	1	1	1	1
17779.32	ERREF2-A-SW-40	2/12/2025	16:38	SW	Frozen	1	1	1	1	1	1
17779.32	ERREF2-A-SW-8	2/12/2025	16:48	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E2-SW-1	2/22/2025	21:09	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E2-SW-20	2/22/2025	21:15	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E2-SW-40	2/22/2025	21:22	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-E2-SW-8	2/22/2025	21:33	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-EQ	2/22/2025	12:14	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1-SW-1	2/22/2025	15:13	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1-SW-20	2/22/2025	15:18	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1-SW-40	2/22/2025	15:26	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M1-SW-8	2/22/2025	15:36	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M2-SW-1	2/22/2025	16:01	SW	Frozen	1	1	1	1	1	1
17779.32	JWPLCL-M4-SW-20	2/22/2025	16:09	SW	Frozen	1	1	1	1	1	1

11 of 12

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Co, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 B	10 Metals (As, Ba, Cd, Co, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Co, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.32	JKPLC1-M-SW-40	2/22/2025	18:17	SW	Frozen						
1779.32	JKPLC1-M-SW-8	2/22/2025	18:27	SW	Frozen						
1779.32	JKPLC1-M-SW-1	2/22/2025	12:25	SW	Frozen						
1779.32	JKPLC1-M-SW-20	2/22/2025	12:31	SW	Frozen						
1779.32	JKPLC1-M-SW-20-FB	2/22/2025	12:37	SW	Frozen						
1779.32	JKPLC1-M-SW-40	2/22/2025	12:44	SW	Frozen						
1779.32	JKPLC1-M-SW-8	2/22/2025	12:54	SW	Frozen						
1779.32	JKPLC1-M-SW	2/22/2025	12:58	SW	Frozen						

Relinquished by: *ASD*
26 FEB 2025

Relinquished by:

Received by: *Jerre Syl (CETN)*
3/11/25
18:38

12 of 12

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -11.43C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #22

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -12.44C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #24

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -5.75C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #29

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -6.32C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #28

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -15.44C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #19

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -6.26C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #13

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -12.24C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #27

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -12.24C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #21

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -11.82C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #20

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -16.16C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #17

Tetra Tech 3/16/25
revised 18:38 3/16/25
Jerre Syl (CETN)
Trk#: 7723 4786 9328

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -6.82C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #25

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -6.82C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #14

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -6.53C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #26

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -5.25C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #18

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -15.15C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: *6-31116* Packing:

Box #23

5 mL aliquots -> 5 mL aliquots
CSM aliquots -> 100-1000 MP-1000 pipette

Date:	3/11/2025
End Time:	17:36
ID Number:	1018
Analyst:	JS

Preservative ID	Preservative Type	Container ID
1	Bromine Monochloride (0.2N)	53116
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1618-B-112	A	Y	5/2	
350-1618-B-113	A	Y	5/2	
350-1618-B-114	A	Y	5/2	
350-1618-B-115	A	Y	5/2	
350-1618-B-116	A	Y	5/2	
350-1618-B-117	A	Y	5/2	
350-1618-B-118	A	Y	4.5/2	
350-1618-B-119	A	Y	5/2	
350-1618-B-120	A	Y	5/2	
350-1618-B-121	A	Y	5/2	
350-1618-B-122	A	Y	5/2	
350-1618-B-123	A	Y	5/2	
350-1618-B-124	A	Y	5/2	
350-1618-B-125	A	Y	5/2	
350-1618-B-126	A	Y	5/2	
350-1618-B-127	A	Y	5/2	
350-1618-B-128	A	Y	5/2	
350-1618-B-129	A	Y	5/2	
350-1618-B-130	A	Y	5/2	
350-1618-B-131	A	Y	5/2	
350-1618-B-132	A	Y	5/2	
350-1618-B-133	A	Y	5/2	
350-1618-B-134	A	Y	5/2	
350-1618-B-135	A	Y	5/2	
350-1618-B-136	A	Y	4.5/2	
350-1618-B-137	A	Y	5/2	
350-1618-B-138	A	Y	4.5/2	
350-1618-B-139	A	Y	5/2	
350-1618-B-140	A	Y	5/2	
350-1618-B-141	A	Y	5/2	
350-1618-B-142	A	Y	5/2	
350-1618-B-143	A	Y	5/2	
350-1618-B-144	A	Y	3.5/2	
350-1618-B-145	A	Y	2.5/2	
350-1618-B-146	A	Y	5/2	

JS 3/11/25

euoifins Environment Testing

Date:	3/11/2025
End Time:	17:36
ID Number:	1018
Analyst:	JS

Preservative ID	Preservative Type	Container ID
1	Bromine Monochloride (0.2N)	53116
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1618-B-145				
350-1618-B-146				
350-1618-B-147	A	Y	5/2	
350-1618-B-148	A	Y	5/2	
350-1618-B-149	A	Y	5/2	
350-1618-B-150	A	Y	5/2	
350-1618-B-151	A	Y	5/2	
350-1618-B-152	A	Y	5/2	
350-1618-B-153	A	Y	5/2	
350-1618-B-154	A	Y	5/2	
350-1618-B-155	A	Y	5/2	
350-1618-B-156	A	Y	5/2	
350-1618-B-157	A	Y	5/2	
350-1618-B-158	A	Y	5/2	
350-1618-B-159	A	Y	5/2	
350-1618-B-160	A	Y	5/2	
350-1618-B-161	A	Y	5/2	
350-1618-B-162	A	Y	5/2	
350-1618-B-163	A	Y	5/2	
350-1618-B-164	A	Y	4.5/2	
350-1618-B-165	A	Y	4.5/2	
350-1618-B-166	A	Y	5/2	
350-1618-B-167	A	Y	5/2	
350-1618-B-168	A	Y	5/2	
350-1618-B-169	A	Y	4.5/2	
350-1618-B-170	A	Y	5/2	
350-1618-B-171	A	Y	5/2	
350-1618-B-172	A	Y	5/2	
350-1618-B-173	A	Y	5/2	
350-1618-B-174	A	Y	5/2	
350-1618-B-175	A	Y	5/2	
350-1618-B-176	A	Y	5/2	
350-1618-B-177	A	Y	5/2	
350-1618-B-178	A	Y	5/2	
350-1618-B-179	A	Y	5/2	

JS 3/11/25

Date: 3/11/2025
End Time: 13:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	57368
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-178	A	Y	5/2	JS 3/10/25
350-1619-B-180	A	Y	5/2	
350-1619-B-181	A	Y	5/2	
350-1619-B-182	A	Y	3.5/2	
350-1619-B-183	A	Y	3.5/2	
350-1619-B-184	A	Y	5/2	
350-1619-B-186	A	Y	5/2	
350-1619-B-188	A	Y	5/2	
350-1619-B-189	A	Y	5/2	
350-1619-B-190	A	Y	5/2	
350-1619-B-191	A	Y	5/2	
350-1619-B-192	A	Y	5/2	
350-1619-B-193	A	Y	5/2	
350-1619-B-194	A	Y	5/2	
350-1619-B-195	A	Y	5/2	
350-1619-B-196	A	Y	5/2	
350-1619-B-197	A	Y	5/2	
350-1619-B-198	A	Y	5/2	
350-1619-B-199	A	Y	5/2	
350-1619-B-200	A	Y	5/2	
350-1619-B-201	A	Y	5/2	
350-1619-B-202	A	Y	5/2	
350-1619-B-203	A	Y	5/2	
350-1619-B-204	A	Y	5/2	
350-1619-B-205	A	Y	5/2	
350-1619-B-206	A	Y	5/2	
350-1619-B-207	A	Y	5/2	
350-1619-B-208	A	Y	5/2	
350-1619-B-209	A	Y	3.5/2	
350-1619-B-210	A	Y	3/2	
350-1619-B-211	A	Y	5/2	
350-1619-B-212	A	Y	5/2	JS 3/11/25

Total Mercury Preservation Log

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Login Number: 59232625

Date: 3/11/2025
End Time: 13:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	57368
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-211	A	Y	5/2	JS 3/11/25
350-1619-B-212	A	Y	5/2	
350-1619-B-214	A	Y	5/2	
350-1619-B-215	A	Y	5/2	
350-1619-B-216	A	Y	5/2	
350-1619-B-217	A	Y	4.5/2	
350-1619-B-218	A	Y	5/2	
350-1619-B-219	A	Y	5/2	
350-1619-B-220	A	Y	5/2	
350-1619-B-221	A	Y	5/2	
350-1619-B-222	A	Y	5/2	
350-1619-B-223	A	Y	4.5/2	
350-1619-B-224	A	Y	5/2	
350-1619-B-225	A	Y	5/2	
350-1619-B-226	A	Y	4.5/2	
350-1619-B-227	A	Y	5/2	
350-1619-B-228	A	Y	5/2	
350-1619-B-229	A	Y	5/2	
350-1619-B-230	A	Y	5/2	
350-1619-B-231	A	Y	5/2	
350-1619-B-232	A	Y	5/2	
350-1619-B-233	A	Y	5/2	
350-1619-B-234	A	Y	5/2	
350-1619-B-235	A	Y	5/2	
350-1619-B-236	A	Y	5/2	
350-1619-B-237	A	Y	5/2	
350-1619-B-238	A	Y	5/2	
350-1619-B-239	A	Y	5/2	
350-1619-B-240	A	Y	5/2	
350-1619-B-241	A	Y	5/2	
350-1619-B-242	B	Y	5/2	
350-1619-B-243	B	Y	5/2	
350-1619-B-244	A	Y	4/2	
350-1619-B-245	A	Y	4/2	JS 3/11/25

Total Mercury Preservation Log

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Login Number: 59232625

Date: 3/11/2025
End Time: 13:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	57368
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-259	A	Y	5/2	
350-1619-B-260	A	Y	5/2	
350-1619-B-261	A	Y	5/2	
350-1619-B-262	A	Y	5/2	
350-1619-B-263	A	Y	5/2	
350-1619-B-264	A	Y	5/2	
350-1619-B-265	A	Y	5/2	
350-1619-B-266	A	Y	5/2	
350-1619-B-267	A	Y	5/2	
350-1619-B-268	A	Y	5/2	
350-1619-B-269	A	Y	5/2	
350-1619-B-270	A	Y	5/2	
350-1619-B-271	A	Y	5/2	
350-1619-B-272	A	Y	5/2	
350-1619-B-273	A	Y	5/2	
350-1619-B-274	A	Y	5/2	
350-1619-B-275	A	Y	5/2	
350-1619-B-276	A	Y	3/2	
350-1619-B-277	A	Y	3/2	
350-1619-B-278	A	Y	5/2	
350-1619-B-279	A	Y	4.5/2	
350-1619-B-280	A	Y	5/2	
350-1619-B-281	A	Y	5/2	
350-1619-B-282	A	Y	5/2	
350-1619-B-283	A	Y	5/2	
350-1619-B-284	A	Y	5/2	
350-1619-B-285	A	Y	5/2	
350-1619-B-286	A	Y	5/2	
350-1619-B-287	A	Y	5/2	
350-1619-B-288	A	Y	5/2	
350-1619-B-289	A	Y	5/2	
350-1619-B-290	A	Y	5/2	
350-1619-B-291	A	Y	5/2	
350-1619-B-292	A	Y	5/2	
350-1619-B-293	A	Y	5/2	
350-1619-B-294	A	Y	5/2	
350-1619-B-295	A	Y	5/2	
350-1619-B-296	A	Y	5/2	
350-1619-B-297	A	Y	5/2	
350-1619-B-298	A	Y	5/2	
350-1619-B-299	A	Y	5/2	
350-1619-B-300	A	Y	5/2	
350-1619-B-301	A	Y	5/2	
350-1619-B-302	A	Y	5/2	
350-1619-B-303	A	Y	5/2	
350-1619-B-304	A	Y	5/2	
350-1619-B-305	A	Y	5/2	
350-1619-B-306	A	Y	5/2	
350-1619-B-307	A	Y	5/2	
350-1619-B-308	A	Y	5/2	
350-1619-B-309	A	Y	5/2	
350-1619-B-310	A	Y	5/2	
350-1619-B-311	A	Y	5/2	
350-1619-B-312	A	Y	5/2	
350-1619-B-313	A	Y	5/2	
350-1619-B-314	A	Y	5/2	
350-1619-B-315	A	Y	5/2	
350-1619-B-316	A	Y	3.5/2	
350-1619-B-317	A	Y	5/2	JS 3/11/25

Total Mercury Preservation Log

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Login Number: 59232625

Date: 3/11/2025
End Time: 13:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	57368
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-383	A	Y	5/2	JS 3/11/25
350-1619-B-384	A	Y	5/2	
350-1619-B-385	A	Y	5/2	
350-1619-B-386	A	Y	3.5/2	
350-1619-B-387	A	Y	5/2	
350-1619-B-388	A	Y	5/2	
350-1619-B-389	A	Y	5/2	
350-1619-B-390	A	Y	5/2	
350-1619-B-391	A	Y	5/2	
350-1619-B-392	A	Y	5/2	
350-1619-B-393	A	Y	5/2	
350-1619-B-394	A	Y	5/2	
350-1619-B-395	A	Y	5/2	
350-1619-B-396	A	Y	5/2	
350-1619-B-397	A	Y	5/2	
350-1619-B-398	A	Y	5/2	
350-1619-B-399	A	Y	5/2	
350-1619-B-400	A	Y	5/2	
350-1619-B-401	A	Y	4/2	
350-1619-B-402	A	Y	3.5/2	
350-1619-B-403	A	Y	5/2	
350-1619-B-404	A	Y	5/2	
350-1619-B-405	A	Y	5/2	
350-1619-B-406	A	Y	5/2	
350-1619-B-407	A	Y	4.5/2	
350-1619-B-408	A	Y	5/2	
350-1619-B-409	A	Y	5/2	
350-1619-B-410	A	Y	5/2	
350-1619-B-411	A	Y	5/2	
350-1619-B-412	A	Y	5/2	
350-1619-B-413	A	Y	5/2	
350-1619-B-414	A	Y	5/2	
350-1619-B-415	A	Y	5/2	
350-1619-B-416	A	Y	3.5/2	
350-1619-B-417	A	Y	5/2	JS 3/11/25

Total Mercury Preservation Log

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Login Number: 59232625

Date:	3/1/2025
End Time:	17:31
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	53115
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1819-B-418	A	Y	5/2	JS 3/1/25
350-1819-B-419	A	Y	5/2	
350-1819-B-420	A	Y	5/2	
350-1819-B-421	A	Y	5/2	
350-1819-B-422	A	Y	5/2	
350-1819-B-423	A	Y	5/2	
350-1819-B-424	A	Y	5/2	
350-1819-B-425	A	Y	5/2	
350-1819-B-426	A	Y	3.5/2	
350-1819-B-445	A	Y	4.5/2	
350-1819-B-446	A	Y	5/2	
350-1819-B-447	A	Y	5/2	
350-1819-B-448	A	Y	5/2	
350-1819-B-449	A	Y	5/2	
350-1819-B-450	A	Y	5/2	
350-1819-B-451	A	Y	4.5/2	
350-1819-B-452	A	Y	4.5/2	
350-1819-B-453	A	Y	5/2	
350-1819-B-454	A	Y	5/2	
350-1819-B-455	A	Y	5/2	
350-1819-B-456	A	Y	5/2	
350-1819-B-457	A	Y	5/2	
350-1819-B-458	A	Y	5/2	
350-1819-B-459	A	Y	3.5/2	
350-1819-B-460	A	Y	5/2	
350-1819-B-461	A	Y	5/2	
350-1819-B-462	A	Y	5/2	
350-1819-B-463	A	Y	5/2	
350-1819-B-464	A	Y	5/2	
350-1819-B-465	A	Y	5/2	
350-1819-B-466	A	Y	5/2	
350-1819-B-467	A	Y	5/2	
350-1819-B-468	A	Y	4/2	JS 3/1/25

Date:	3/1/2025
End Time:	17:31
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	53115
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1819-B-467	A	Y	5/2	JS 3/1/25
350-1819-B-468	A	Y	5/2	
350-1819-B-470	A	Y	5/2	
350-1819-B-471	A	Y	5/2	
350-1819-B-472	A	Y	5/2	
350-1819-B-473	A	Y	5/2	
350-1819-B-474	A	Y	5/2	
350-1819-B-475	A	Y	5/2	
350-1819-B-476	A	Y	5/2	
350-1819-B-477	A	Y	5/2	
350-1819-B-478	A	Y	5/2	
350-1819-B-479	A	Y	5/2	
350-1819-B-480	A	Y	5/2	
350-1819-B-481	A	Y	5/2	
350-1819-B-482	A	Y	3.5/2	
350-1819-B-484	A	Y	5/2	
350-1819-B-485	A	Y	5/2	
350-1819-B-486	A	Y	5/2	
350-1819-B-487	A	Y	5/2	



Date:	3/1/2025
End Time:	17:31
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	53116
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1819-A-112	7.2	6.2	A	6.25	
350-1819-A-113	7.2	6.2	A	5.62	
350-1819-A-114	7.2	6.2	A	6.25	
350-1819-A-115	7.2	6.2	A	6.25	
350-1819-A-116	7.2	6.2	A	6.25	
350-1819-A-117	7.2	6.2	A	6.25	
350-1819-A-118	7.2	6.2	A	6.25	
350-1819-A-119	7.2	6.2	A	6.25	
350-1819-A-120	7.2	6.2	A	6.25	
350-1819-A-121	7.2	6.2	A	6.25	
350-1819-A-122	7.2	6.2	A	6.25	
350-1819-A-123	7.2	6.2	A	6.25	
350-1819-A-124	7.2	6.2	A	6.25	
350-1819-A-125	7.2	6.2	A	6.25	
350-1819-A-126	7.2	6.2	A	6.25	
350-1819-A-127	7.2	6.2	A	6.25	
350-1819-A-128	7.2	6.2	A	6.25	
350-1819-A-129	7.2	6.2	A	6.25	
350-1819-A-130	7.2	6.2	A	6.25	
350-1819-A-131	7.2	6.2	A	6.25	
350-1819-A-132	7.2	6.2	A	6.25	
350-1819-A-133	7.2	6.2	A	5.62	
350-1819-A-134	7.2	6.2	A	6.25	
350-1819-A-135	7.2	6.2	A	6.25	
350-1819-A-136	7.2	6.2	A	6.25	
350-1819-A-137	7.2	6.2	A	6.25	
350-1819-A-138	7.2	6.2	A	6.25	
350-1819-A-139	7.2	6.2	A	6.25	
350-1819-A-140	7.2	6.2	A	6.25	
350-1819-A-141	7.2	6.2	A	6.25	
350-1819-A-142	7.2	6.2	A	6.25	
350-1819-A-143	7.2	6.2	A	6.25	
350-1819-A-144	7.2	6.2	A	4.37	
350-1819-A-145	7.2	6.2	A	4.37	
350-1819-A-146	7.2	6.2	A	6.25	JS 3/1/25

Date:	3/1/2025
End Time:	17:31
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	53116
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1819-A-145	7.2	6.2	A	6.25	JS 3/1/25
350-1819-A-146	7.2	6.2	A	6.25	Repeat sample
350-1819-A-147	7.2	6.2	A	6.25	
350-1819-A-148	7.2	6.2	A	6.25	
350-1819-A-149	7.2	6.2	A	6.25	
350-1819-A-150	7.2	6.2	A	6.25	
350-1819-A-151	7.2	6.2	A	6.25	
350-1819-A-152	7.2	6.2	A	6.25	
350-1819-A-153	7.2	6.2	A	6.25	
350-1819-A-154	7.2	6.2	A	6.25	
350-1819-A-155	7.2	6.2	A	6.25	
350-1819-A-156	7.2	6.2	A	6.25	
350-1819-A-157	7.2	6.2	A	6.25	
350-1819-A-158	7.2	6.2	A	6.25	
350-1819-A-159	7.2	6.2	A	6.25	
350-1819-A-160	7.2	6.2	A	6.25	
350-1819-A-161	7.2	6.2	A	6.25	
350-1819-A-162	7.2	6.2	A	6.25	
350-1819-A-163	7.2	6.2	A	6.25	
350-1819-A-164	7.2	6.2	A	6.25	
350-1819-A-165	7.2	6.2	A	6.25	
350-1819-A-166	7.2	6.2	A	6.25	
350-1819-A-167	7.2	6.2	A	6.25	
350-1819-A-168	7.2	6.2	A	6.25	
350-1819-A-169	7.2	6.2	A	6.25	
350-1819-A-170	7.2	6.2	A	6.25	
350-1819-A-171	7.2	6.2	A	6.25	
350-1819-A-172	7.2	6.2	A	6.25	
350-1819-A-173	7.2	6.2	A	6.25	
350-1819-A-174	7.2	6.2	A	6.25	
350-1819-A-175	7.2	6.2	A	6.25	
350-1819-A-176	7.2	6.2	A	6.25	
350-1819-A-177	7.2	6.2	A	6.25	
350-1819-A-178	7.2	6.2	A	6.25	
350-1819-A-179	7.2	6.2	A	6.25	JS 3/1/25

31/01/25 JS 31/01/25

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	5168
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////

MP-trial pipeite

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	528
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////

mp - turbid pipette

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
150-1618-A-211	7.2	<2	A		
150-1618-A-212	7.2	<2	A		
150-1618-A-213	7.2	<2	A	6.5	JS 3/17/25 repeated
150-1618-A-214	7.2	<2	A	6.5	
150-1618-A-215	7.2	<2	A	5.62	
150-1618-A-216	7.2	<2	A	6.25	
150-1618-A-217	7.2	<2	A	5.62	
150-1618-A-218	7.2	<2	A	6.5	
150-1618-A-219	7.2	<2	A	6.25	
150-1618-A-220	7.2	<2	A	6.25	
150-1618-A-221	7.2	<2	A	6.5	
150-1618-A-222	7.2	<2	A	6.5	
150-1618-A-223	7.2	<2	A	6.5	
150-1618-A-224	7.2	<2	A	5.62	
150-1618-A-225	7.2	<2	A	5.62	
150-1618-A-226	7.2	<2	A	6.25	
150-1618-A-227	7.2	<2	A	6.5	
150-1618-A-228	7.2	<2	A	6.25	
150-1618-A-229	7.2	<2	A	6.5	
150-1618-A-230	7.2	<2	A	6.5	
150-1618-A-231	7.2	<2	A	6.5	
150-1618-A-232	7.2	<2	A	6.25	
150-1618-A-233	7.2	<2	A	6.5	
150-1618-A-234	7.2	<2	A	6.5	
150-1618-A-235	7.2	<2	A	6.5	
150-1618-A-236	7.2	<2	A	6.25	
150-1618-A-237	7.2	<2	A	6.5	
150-1618-A-238	7.2	<2	A	6.5	
150-1618-A-239	7.2	<2	A	6.5	
150-1618-A-240	7.2	<2	A	6.5	
150-1618-A-241	7.2	<2	A	6.25	
150-1618-A-242	7.2	<2	A	6.5	
150-1618-A-243	7.2	<2	A	6.25	
150-1618-A-244	7.2	<2	A	5.62	
150-1618-A-245	7.2	<2	A	4.97	JS 3/17/25

3/19/25 Jr. 2045

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	6368
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////

31

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	51011
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////

MP. Tmab pipette

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (g/L)	Comments
350-1619-A-376	>2	<2	A	615	
350-1619-A-377	>2	<2	A	615	
350-1619-A-378	>2	<2	A	437	
350-1619-A-379	>2	<2	A	615	
350-1619-A-380	>2	<2	A	615	
350-1619-A-381	>2	<2	A	615	
350-1619-A-382	>2	<2	A	615	
350-1619-A-383	>2	<2	A	615	
350-1619-A-384	>2	<2	A	615	
350-1619-A-385	>2	<2	A	615	
350-1619-A-386	>2	<2	A	615	
350-1619-A-387	>2	<2	A	437	
350-1619-A-388	>2	<2	A	615	
350-1619-A-389	>2	<2	A	615	
350-1619-A-390	>2	<2	A	615	
350-1619-A-391	>2	<2	A	615	
350-1619-A-392	>2	<2	A	615	
350-1619-A-393	>2	<2	A	615	
350-1619-A-394	>2	<2	A	615	
350-1619-A-395	>2	<2	A	615	
350-1619-A-396	>2	<2	A	615	
350-1619-A-397	>2	<2	A	615	
350-1619-A-398	>2	<2	A	615	
350-1619-A-399	>2	<2	A	615	
350-1619-A-400	>2	<2	A	615	
350-1619-A-401	>2	<2	A	437	
350-1619-A-402	>2	<2	A	437	
350-1619-A-403	>2	<2	A	615	
350-1619-A-404	>2	<2	A	615	
350-1619-A-405	>2	<2	A	615	
350-1619-A-406	>2	<2	A	615	
350-1619-A-407	>2	<2	A	615	
350-1619-A-408	>2	<2	A	615	
350-1619-A-409	>2	<2	A	615	
350-1619-A-410	>2	<2	A	615	

3/19/25 JS JHNS

Date: 3/11/2025
End Time: 1:59
pH Paper Lot: HCN41784
Analysis: JS

MD-TM-06 p/ete

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-409					
350-1619-A-410					
350-1619-A-411	<2	>2	A	615	JS 3/19/25 repeated
350-1619-A-412	<2	>2	A	615	
350-1619-A-413	<2	>2	A	615	
350-1619-A-414	<2	>2	A	615	
350-1619-A-415	<2	>2	A	615	
350-1619-A-416	<2	>2	A	437	
350-1619-A-417	<2	>2	A	615	
350-1619-A-418	<2	>2	A	615	
350-1619-A-419	<2	>2	A	615	
350-1619-A-420	<2	>2	A	615	
350-1619-A-421	<2	>2	A	615	
350-1619-A-422	<2	>2	A	615	
350-1619-A-423	<2	>2	A	615	
350-1619-A-424	<2	>2	A	615	
350-1619-A-425	<2	>2	A	615	
350-1619-A-426	<2	>2	A	375	
350-1619-A-445	<2	>2	A	615	
350-1619-A-446	<2	>2	A	562	
350-1619-A-447	<2	>2	A	615	
350-1619-A-448	<2	>2	A	615	
350-1619-A-449	<2	>2	A	615	
350-1619-A-450	<2	>2	A	615	
350-1619-A-451	<2	>2	A	615	
350-1619-A-452	<2	>2	A	615	
350-1619-A-453	<2	>2	A	615	
350-1619-A-454	<2	>2	A	615	
350-1619-A-455	<2	>2	A	615	
350-1619-A-456	<2	>2	A	615	
350-1619-A-457	<2	>2	A	615	
350-1619-A-458	<2	>2	A	615	
350-1619-A-459	<2	>2	A	562	
350-1619-A-460	<2	>2	A	615	
350-1619-A-461	<2	>2	A	615	

JS 3/19/25

pH Verification Log

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Login Number: 350-1619-2

3/19/25 JS JHNS

Date: 3/11/2025
End Time: 1:59
pH Paper Lot: HCN41784
Analysis: JS

MD-TM-06 p/ete

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-450					
350-1619-A-461					
350-1619-A-462	>2	<2	A	615	JS 3/19/25 repeated
350-1619-A-463	>2	<2	A	615	
350-1619-A-464	>2	<2	A	615	
350-1619-A-465	>2	<2	A	615	
350-1619-A-466	>2	<2	A	615	
350-1619-A-467	>2	<2	A	615	
350-1619-A-468	>2	<2	A	437	
350-1619-A-469	>2	<2	A	615	
350-1619-A-470	>2	<2	A	615	
350-1619-A-471	>2	<2	A	615	
350-1619-A-472	>2	<2	A	615	
350-1619-A-473	>2	<2	A	615	
350-1619-A-474	>2	<2	A	615	
350-1619-A-475	>2	<2	A	615	
350-1619-A-476	>2	<2	A	615	
350-1619-A-477	>2	<2	A	615	
350-1619-A-478	>2	<2	A	615	
350-1619-A-479	>2	<2	A	615	
350-1619-A-480	>2	<2	A	615	
350-1619-A-481	>2	<2	A	615	
350-1619-A-482	>2	<2	A	437	
350-1619-A-484	>2	<2	A	615	
350-1619-A-485	>2	<2	A	562	
350-1619-A-486	>2	<2	A	615	
350-1619-A-487	>2	<2	A	615	

JS 3/19/25

pH Verification Log

Page 87 of 88

Login Number: 350-1619-2

Login Sample Receipt Checklist

Client: Tetra Tech Inc

Job Number: 350-1619-2

Login Number: 1619

List Source: Eurofins Seattle Specialty Metals

List Number: 1

Creator: LaCount, Lilly-Anna E

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Not requested on COC.
There are no discrepancies between the containers received and the COC.	False	See email attachment
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	

May 29, 2025

Dr. Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd., Suite 150, Lafayette, CA 94549

RE: Submittal of laboratory analysis report for Project T779.27, DDPH Analysis of seawater

This cover letter is to submit the laboratory analysis report for Project T779.27, DDPH Analysis of seawater service provided according to the UAE Quotation No. 2025-002376 dated March 6th, 2025.

It includes analysis results, chain of custody records, and case narrative for this service. Overall, the service fully complies with the customer's requirements for traceability, and quality control and assurance.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Piyapat S.

Mrs Piyapat Suttamanutwong
Laboratory and Research Development Manager

APPENDIX B SEAWATER ANALYTICAL LABORATORY REPORTS

Ship To:
Piyapat Suttamanutwong
UAE Consultant Co., Ltd.
3 Sopi Udomsuk 41, Sukhumvit Rd
Bangchak, Bangkok 10260

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Ship To:
Piyapat Suttamanutwong
UAE Consultant Co., Ltd.
3 Sopi Udomsuk 41, Sukhumvit Rd
Bangchak, Bangkok 10260

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

General Notes:

Please report all results to the MDL, J-flag results between MDL and RL.

Please report results and invoice separately for each Project ID

Please report results in pdf format with Excel EDO deliverable

Standard Processing

Project	Sample ID	Date	Time	Medium	Preserve	DDPH
T779.27	NPCPP-1C2X-SW-1	2/16/2025	1:52	SW	Hexane	1
T779.27	NPCPP-1C2X-SW-20	2/16/2025	1:58	SW	Hexane	1
T779.27	NPCPP-1C2X-SW-40	2/16/2025	2:06	SW	Hexane	1
T779.27	NPCPP-1C2X-SW-B	2/16/2025	2:17	SW	Hexane	1
T779.27	NPCPP-1CP2-SW-1	2/15/2025	2:45	SW	Hexane	1
T779.27	NPCPP-1CP2-SW-20	2/15/2025	2:51	SW	Hexane	1
T779.27	NPCPP-1CP2-SW-40	2/15/2025	2:59	SW	Hexane	1
T779.27	NPCPP-1CP2-SW-40-LD	2/15/2025	2:59	SW	Hexane	1
T779.27	NPCPP-1CP2-SW-B	2/15/2025	3:12	SW	Hexane	1
T779.27	NPCPP-2C2-SW-1	2/16/2025	0:35	SW	Hexane	1
T779.27	NPCPP-2C2-SW-20	2/16/2025	0:38	SW	Hexane	1
T779.27	NPCPP-2C2-SW-40	2/16/2025	0:46	SW	Hexane	1
T779.27	NPCPP-2C2-SW-40-FD	2/16/2025	0:56	SW	Hexane	1
T779.27	NPCPP-2C2-SW-B	2/16/2025	1:06	SW	Hexane	1
T779.27	NPCPP-3C2-SW-1	2/15/2025	22:02	SW	Hexane	1
T779.27	NPCPP-3C2-SW-20	2/15/2025	22:09	SW	Hexane	1
T779.27	NPCPP-3C2-SW-40	2/15/2025	22:17	SW	Hexane	1
T779.27	NPCPP-3C2-SW-B	2/15/2025	22:27	SW	Hexane	1
T779.27	NPCPP-3CP2-SW-1	2/15/2025	15:12	SW	Hexane	1
T779.27	NPCPP-3CP2-SW-20	2/15/2025	15:18	SW	Hexane	1
T779.27	NPCPP-3CP2-SW-40	2/15/2025	15:26	SW	Hexane	1
T779.27	NPCPP-3CP2-SW-B	2/15/2025	15:26	SW	Hexane	1
T779.27	NPCPP-3CP2-SW-40-MS	2/15/2025	15:26	SW	Hexane	1
T779.27	NPCPP-3CP2-SW-40-MSD	2/15/2025	15:26	SW	Hexane	1
T779.27	NPCPP-3CP2-SW-B	2/15/2025	15:39	SW	Hexane	1
T779.27	NPCPP-4C2-SW-1	2/15/2025	4:20	SW	Hexane	1
T779.27	NPCPP-4C2-SW-20	2/15/2025	4:26	SW	Hexane	1
T779.27	NPCPP-4C2-SW-40	2/15/2025	4:34	SW	Hexane	1
T779.27	NPCPP-4C2-SW-B	2/15/2025	4:45	SW	Hexane	1
T779.27	NPCPP-EQ	2/15/2025	20:00	SW	Hexane	1
T779.27	NPCPP-WB	2/15/2025	20:07	SW	Hexane	1
T779.27	NPREF-A-SW-1	2/12/2025	20:54	SW	Hexane	1
T779.27	NPREF-A-SW-1-FD	2/12/2025	20:59	SW	Hexane	1
T779.27	NPREF-A-SW-20	2/12/2025	21:05	SW	Hexane	1
T779.27	NPREF-A-SW-40	2/12/2025	21:13	SW	Hexane	1
T779.27	NPREF-A-SW-B	2/12/2025	21:23	SW	Hexane	1
T779.27	NPREF-EQ	2/12/2025	20:07	SW	Hexane	1
T779.27	NPREF-WB	2/12/2025	20:00	SW	Hexane	1
T779.27	NPWB-1C2-SW-1	2/14/2025	0:47	SW	Hexane	1

Relinquished by:

Chongchai Vithayapornchai

26 FEB 25

Received by:
Piyapat S.
16 MAR 25

Relinquished by:

Received by:

Project	Sample ID	Date	Time	Medium	Preserve	DDPH
T779.27	NPWB-1C2-SW-20	2/14/2025	0:54	SW	Hexane	1
T779.27	NPWB-1C2-SW-40	2/14/2025	1:02	SW	Hexane	1
T779.27	NPWB-1C2-SW-B	2/14/2025	1:13	SW	Hexane	1
T779.27	NPWB-1CP2-SW-1	2/14/2025	1:51	SW	Hexane	1
T779.27	NPWB-1CP2-SW-20	2/14/2025	1:57	SW	Hexane	1
T779.27	NPWB-1CP2-SW-20-MS	2/14/2025	1:57	SW	Hexane	1
T779.27	NPWB-1CP2-SW-20-MSD	2/14/2025	1:57	SW	Hexane	1
T779.27	NPWB-1CP2-SW-40	2/14/2025	2:09	SW	Hexane	1
T779.27	NPWB-1CP2-SW-B	2/14/2025	2:20	SW	Hexane	1
T779.27	NPWB-3B2-SW-20-LD	2/14/2025	15:57	SW	Hexane	1
T779.27	NPWB-3B2-SW-1	2/14/2025	15:52	SW	Hexane	1
T779.27	NPWB-3B2-SW-20	2/14/2025	15:57	SW	Hexane	1
T779.27	NPWB-3B2-SW-40	2/14/2025	16:08	SW	Hexane	1
T779.27	NPWB-3B2-SW-B	2/14/2025	16:18	SW	Hexane	1
T779.27	NPWB-3CP2-SW-1	2/14/2025	14:33	SW	Hexane	1
T779.27	NPWB-3CP2-SW-20	2/14/2025	14:38	SW	Hexane	1
T779.27	NPWB-3CP2-SW-20-FD	2/14/2025	14:45	SW	Hexane	1
T779.27	NPWB-3CP2-SW-40	2/14/2025	14:53	SW	Hexane	1
T779.27	NPWB-3CP2-SW-B	2/14/2025	13:02	SW	Hexane	1
T779.27	NPWB-EQ	2/14/2025	0:15	SW	Hexane	1
T779.27	NPWB-WB	2/14/2025	0:10	SW	Hexane	1
T779.27	NPWG-1B2X-SW-1	2/17/2025	0:57	SW	Hexane	1
T779.27	NPWG-1B2X-SW-20	2/17/2025	1:03	SW	Hexane	1
T779.27	NPWG-1B2X-SW-40	2/17/2025	1:12	SW	Hexane	1
T779.27	NPWG-1B2X-SW-B	2/17/2025	1:22	SW	Hexane	1
T779.27	NPWG-1B2X-SW-B-MS	2/17/2025	1:22	SW	Hexane	1
T779.27	NPWG-1B2X-SW-B-MSD	2/17/2025	1:22	SW	Hexane	1
T779.27	NPWG-1CP2-SW-1	2/17/2025	2:01	SW	Hexane	1
T779.27	NPWG-1CP2-SW-20	2/17/2025	2:10	SW	Hexane	1
T779.27	NPWG-1CP2-SW-40	2/17/2025	2:18	SW	Hexane	1
T779.27	NPWG-1CP2-SW-B	2/17/2025	2:29	SW	Hexane	1
T779.27	NPWG-3B2X-SW-1	2/16/2025	20:30	SW	Hexane	1
T779.27	NPWG-3B2X-SW-20	2/16/2025	20:36	SW	Hexane	1
T779.27	NPWG-3B2X-SW-40	2/16/2025	20:43	SW	Hexane	1
T779.27	NPWG-3B2X-SW-B	2/16/2025	20:53	SW	Hexane	1
T779.27	NPWG-3B2X-SW-B-FD	2/16/2025	21:03	SW	Hexane	1
T779.27	NPWG-3CP2-SW-1	2/16/2025	19:16	SW	Hexane	1
T779.27	NPWG-3CP2-SW-20	2/16/2025	19:22	SW	Hexane	1
T779.27	NPWG-3CP2-SW-40	2/16/2025	19:30	SW	Hexane	1
T779.27	NPWG-3CP2-SW-B	2/16/2025	19:40	SW	Hexane	1
T779.27	NPWG-3CP2-SW-B-LD	2/16/2025	19:40	SW	Hexane	1
T779.27	NPWG-EQ	2/16/2025	19:06	SW	Hexane	1
T779.27	NPWG-WB	2/16/2025	19:00	SW	Hexane	1
T779.27	PACPP-1C2X-SW-1	2/12/2025	20:01	SW	Hexane	1

Relinquished by:

Chongchai Vithayapornchai

26 FEB 25

Received by:
Piyapat S.
16 MAR 25

Received by:

Ship To:
Piyapat Suttamanutwong
UAE Consultant Co., Ltd.
3 Sopi Udomsuk 41, Sukhumvit Rd
Bangchak, Bangkok 10260

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	DDPH
T779.27	PACPP-1C2X-SW-20	2/17/2025	20:06	SW	Hexane	1
T779.27	PACPP-1C2X-SW-40	2/17/2025	20:14	SW	Hexane	1
T779.27	PACPP-1C2X-SW-B	2/17/2025	20:24	SW	Hexane	1
T779.27	PACPP-1CP2X-SW-1	2/17/2025	21:01	SW	Hexane	1
T779.27	PACPP-1CP2X-SW-1-MS	2/17/2025	21:01	SW	Hexane	1
T779.27	PACPP-1CP2X-SW-1-MSD	2/17/2025	21:01	SW	Hexane	1
T779.27	PACPP-1CP2X-SW-20	2/17/2025	21:11	SW	Hexane	1
T779.27	PACPP-1CP2X-SW-40	2/17/2025	21:19	SW	Hexane	1

Relinquished by:

Chayapong Wattanasri
26 FEB 25

Relinquished by:

Received by:

Papanyut P
18 MAR 26

Received by:

3 of 14

Ship To:
Piyapat Suttamanutwong
UAE Consultant Co., Ltd.
3 Sopi Udomsuk 41, Sukhumvit Rd
Bangchak, Bangkok 10260

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	DDPH
T779.27	PACPP-1CP2X-SW-B	2/17/2025	21:29	SW	Hexane	1
T779.27	PACPP-2C2-SW-1	2/18/2025	17:05	SW	Hexane	1
T779.27	PACPP-2C2-SW-20	2/18/2025	17:10	SW	Hexane	1
T779.27	PACPP-2C2-SW-40	2/18/2025	17:19	SW	Hexane	1
T779.27	PACPP-2C2-SW-B	2/18/2025	17:29	SW	Hexane	1
T779.27	PACPP-3C2Y-SW-1	2/18/2025	0:59	SW	Hexane	1
T779.27	PACPP-3C2Y-SW-20	2/18/2025	1:06	SW	Hexane	1
T779.27	PACPP-3C2Y-SW-40	2/18/2025	1:15	SW	Hexane	1
T779.27	PACPP-3C2Y-SW-B	2/18/2025	1:26	SW	Hexane	1
T779.27	PACPP-3CP2-SW-1	2/18/2025	2:07	SW	Hexane	1
T779.27	PACPP-3CP2-SW-1-LD	2/17/2025	2:17	SW	Hexane	1
T779.27	PACPP-3CP2-SW-20	2/18/2025	2:17	SW	Hexane	1
T779.27	PACPP-3CP2-SW-40	2/18/2025	2:25	SW	Hexane	1
T779.27	PACPP-3CP2-SW-B	2/18/2025	2:36	SW	Hexane	1
T779.27	PACPP-4C2X-SW-1	2/18/2025	15:47	SW	Hexane	1
T779.27	PACPP-4C2X-SW-1-FD	2/18/2025	15:52	SW	Hexane	1
T779.27	PACPP-4C2X-SW-20	2/18/2025	15:58	SW	Hexane	1
T779.27	PACPP-4C2X-SW-40	2/18/2025	16:06	SW	Hexane	1
T779.27	PACPP-4C2X-SW-B	2/18/2025	16:15	SW	Hexane	1
T779.27	PACPP-EO	2/17/2025	19:07	SW	Hexane	1
T779.27	PACPP-WB	2/17/2025	19:02	SW	Hexane	1
T779.27	PAW-B-SW-1	2/13/2025	16:23	SW	Hexane	1
T779.27	PAW-B-SW-1-MS	2/13/2025	16:23	SW	Hexane	1
T779.27	PAW-B-SW-1-MSD	2/13/2025	16:23	SW	Hexane	1
T779.27	PAW-B-SW-20	2/13/2025	16:33	SW	Hexane	1
T779.27	PAW-B-SW-40	2/13/2025	16:41	SW	Hexane	1
T779.27	PAW-B-SW-B	2/13/2025	16:51	SW	Hexane	1
T779.27	PAW-B-1CP2-SW-1	2/21/2025	0:43	SW	Hexane	1
T779.27	PAW-B-1CP2-SW-20	2/21/2025	0:50	SW	Hexane	1
T779.27	PAW-B-1CP2-SW-40	2/21/2025	0:58	SW	Hexane	1
T779.27	PAW-B-1CP2-SW-40-LD	2/21/2025	0:58	SW	Hexane	1
T779.27	PAW-B-1CP2-SW-B	2/21/2025	1:13	SW	Hexane	1
T779.27	PAW-B-3B2-SW-1	2/21/2025	13:45	SW	Hexane	1
T779.27	PAW-B-3B2-SW-20	2/21/2025	13:51	SW	Hexane	1
T779.27	PAW-B-3B2-SW-40	2/21/2025	13:58	SW	Hexane	1
T779.27	PAW-B-3B2-SW-B	2/21/2025	14:09	SW	Hexane	1
T779.27	PAW-B-3CP2-SW-1	2/21/2025	2:18	SW	Hexane	1
T779.27	PAW-B-3CP2-SW-20	2/21/2025	2:25	SW	Hexane	1
T779.27	PAW-B-3CP2-SW-40	2/21/2025	2:34	SW	Hexane	1
T779.27	PAW-B-3CP2-SW-40-MS	2/21/2025	2:34	SW	Hexane	1
T779.27	PAW-B-3CP2-SW-40-MSD	2/21/2025	2:34	SW	Hexane	1
T779.27	PAW-B-3CP2-SW-B	2/21/2025	2:49	SW	Hexane	1
T779.27	PAWE-1B1-SW-1	2/20/2025	14:05	SW	Hexane	1
T779.27	PAWE-1B1-SW-20	2/20/2025	14:11	SW	Hexane	1

Received by:

Chayapong Wattanasri
26 FEB 25
Papanyut P
18 MAR 26

Received by:

1 of 14

Ship To:
Piyapat Suttamanutwong
UAE Consultant Co., Ltd.
3 Sopi Udomsuk 41, Sukhumvit Rd
Bangchak, Bangkok 10260

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
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Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	DDPH
T779.27	PAWE-1B1-SW-40	2/20/2025	14:19	SW	Hexane	1
T779.27	PAWE-1B1-SW-B	2/20/2025	14:29	SW	Hexane	1
T779.27	PAWE-1CP2-SW-1	2/19/2025	21:11	SW	Hexane	1
T779.27	PAWE-1CP2-SW-20	2/19/2025	21:16	SW	Hexane	1

Relinquished by:

Chayapong Wattanasri
26 FEB 25

Relinquished by:

Received by:

Papanyut P
18 MAR 26

Received by:

5 of 14

Ship To:
Piyapat Suttamanutwong
UAE Consultant Co., Ltd.
3 Sopi Udomsuk 41, Sukhumvit Rd
Bangchak, Bangkok 10260

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	DDPH
T779.27	PAWE-1CP2-SW-20-LD	2/19/2025	21:16	SW	Hexane	1
T779.27	PAWE-1CP2-SW-40	2/19/2025	21:27	SW	Hexane	1
T779.27	PAWE-1CP2-SW-B	2/19/2025	21:37	SW	Hexane	1
T779.27	PAWE-3B3-SW-1	2/20/2025	12:55	SW	Hexane	1
T779.27	PAWE-3B3-SW-20	2/20/2025	13:01	SW	Hexane	1
T779.27	PAWE-3B3-SW-20-MS	2/20/2025	13:01	SW	Hexane	1
T779.27	PAWE-3B3-SW-20-MSD	2/20/2025	13:01	SW	Hexane	1
T779.27	PAWE-3B3-SW-40	2/20/2025	13:13	SW	Hexane	1
T779.27	PAWE-3B3-SW-B	2/20/2025	13:23	SW	Hexane	1
T779.27	PAWE-3CP2-SW-1	2/19/2025	19:28	SW	Hexane	1
T779.27	PAWE-3CP2-SW-20	2/19/2025	19:34	SW	Hexane	1
T779.27	PAWE-3CP2-SW-20-FD	2/19/2025	19:41	SW	Hexane	1
T779.27	PAWE-3CP2-SW-40	2/19/2025	19:48	SW	Hexane	1
T779.27	PAWE-3CP2-SW-B	2/19/2025	19:58	SW	Hexane	1
T779.27	PAWE-EO	2/19/2025	19:06	SW	Hexane	1
T779.27	PAWE-WB	2/19/2025	19:00	SW	Hexane	1

Relinquished by:

Chayapong Wattanasri
26 FEB 25
Papanyut P
18 MAR 26

Relinquished by:

Received by:

5 of 14

1/13

หมายเลขหนังสือ..... 2/19

WIRTSCHAFTS UNIVERSITÄT WIEN 113

4/13

ข้อมูลทั่วไป เลขที่ใบแจ้งหนี้ : เลขที่ใบแจ้งหนี้ 39/1 วันที่ออกใบแจ้งหนี้ : 17 กรกฎาคม 2561 เลขที่ใบแจ้งหนี้ : 089-944-6699 ที่อยู่ : 103 ซอยบางนาแสด เขตคลองเตย กรุงเทพมหานคร 10260 ชื่อ : (Mr. Chongkarn Vathanyapich) เลขประจำตัวประชาชน : (1-1-1) โทรศัพท์ : อีเมล :		หมายเลขบัญชีการชำระเงิน เลขที่บัญชีการชำระเงิน : 5 9 1 2 5 6 0 5 9 เลขประจำตัวธนาคาร : 2025-02376-01 สาขา : สาขา : สาขา : สาขา :		วันที่การชำระเงิน วันที่การชำระเงิน : 25-09-2021 วันที่ใบแจ้งหนี้ วันที่ใบแจ้งหนี้ : Customer วันที่ออกใบแจ้งหนี้ วันที่ออกใบแจ้งหนี้ :		รหัสลูกค้า รหัสลูกค้า : 16-00432			
รายละเอียดการชำระเงิน รายการ : Analysis For T779.27 (134 sample) จำนวน :									
ลำดับ	หมายเลขบัญชีการชำระเงิน (สาขา/บัญชี)	ชื่อผู้รับเงิน	วันรับเงิน	วงเงินรับ	ชนิดผู้รับเงิน	วิธีรับเงิน	การชำระเงิน	จำนวน	พิกัดบัญชี
49	5-11	NPWS-SCF2 SW-20	14 ตุลาคม 2561	1445	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย
50	5-12	NPWS-SCF2 SW-40	14 ตุลาคม 2561	1451	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย
51	5-13	NPWS-SCF2 SW-60	14 ตุลาคม 2561	1462	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย
52	5-14	NPWS-SCF2 SW-80	14 ตุลาคม 2561	0013	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย
53	5-15	NPWS-SCF2 SW-99	14 ตุลาคม 2561	0010	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย
54	5-16	NPWS-IBEX SW-1	17 ตุลาคม 2561	0058	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย
55	5-17	NPWS-IBEX SW-20	17 ตุลาคม 2561	0101	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย
56	5-18	NPWS-IBEX SW-40	17 ตุลาคม 2561	0152	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย
57	5-19	NPWS-IBEX SW-60	17 ตุลาคม 2561	0192	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย
58	5-20	NPWS-SCF2 SW-1	17 ตุลาคม 2561	0201	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย
59	5-21	NPWS-SCF2 SW-20	17 ตุลาคม 2561	0210	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย
60	5-22	NPWS-SCF2 SW-40	17 ตุลาคม 2561	0238	ผู้รับเงิน	เงินสด	เงินสด (USD) 4 8 0	3	ธนาคารกรุงไทย

[illegible]

ข้อมูลทั่วไป เลขที่ใบแจ้ง : เลขที่ใบแจ้ง 001 วันที่ออกใบแจ้ง : 17 ตุลาคม 2561 ที่อยู่ : 133 หมู่ 10 ตำบลบ้านใหม่ อำเภอเมืองจันทบุรี 15260 โทรศัพท์ : 089-964-4999 อีเมล : info@chaengnong.com Website : chaengnong.com		หมายเลขใบแจ้ง หมายเลขใบแจ้ง : T-B&A/039 เลขที่ใบแจ้ง : 2025-00376-01 เลขที่ใบแจ้ง : 1/1 เลขที่ใบแจ้ง : เลขที่ใบแจ้ง :		วันที่ออกใบแจ้ง วันที่ออกใบแจ้ง : 25-09-03 วันที่ออกใบแจ้ง : Customer วันที่ออกใบแจ้ง : วันที่ออกใบแจ้ง :	
วิเคราะห์ (ตัว) Analysis for T77927 (134 samples)					

ลำดับ	รายละเอียดการวิเคราะห์ (ตัว)	วันที่รับ	เวลา	วันที่ส่ง	วันที่รับ	ผลการตรวจ	จำนวน	หมายเหตุ
73	25	PACPR-1C25-SW-1	17 ตุลาคม 2561	20:51	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล
74	25	PACPR-1C25-SW-2	17 ตุลาคม 2561	20:57	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล
75	25	PACPR-1C25-SW-3	17 ตุลาคม 2561	20:18	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล
76	25	PACPR-1C25-SW-4	17 ตุลาคม 2561	20:54	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล
77	25	PACPR-1C25-SW-5	17 ตุลาคม 2561	21:03	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล
78	25	PACPR-1C25-SW-6	17 ตุลาคม 2561	21:11	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล
79	25	PACPR-1C25-SW-8	17 ตุลาคม 2561	21:19	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล
80	25	PACPR-1C25-SW-8	18 ตุลาคม 2561	21:29	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล
81	25	PACPR-2C3-SW-1	18 ตุลาคม 2561	17:05	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล
82	25	PACPR-2C3-SW-2	18 ตุลาคม 2561	17:11	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล
83	25	PACPR-2C3-SW-4b	18 ตุลาคม 2561	17:19	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล
84	25	PACPR-2C3-SW-8	18 ตุลาคม 2561	17:09	01 ตุลาคม	พบเชื้อ (G) 4 ผล	1	พบเชื้อ (G) 4 ผล

ข้อมูลทั่วไป เลขที่ใบแจ้งหนี้ : 001 ที่อยู่ : 77 ซอยสุขุมวิท 39/1 ถนนสุขุมวิท 103 แขวงคลองเตย เขตคลองเตย กรุงเทพมหานคร 10160 โทรศัพท์ : 089-964-6499 อีเมล : info@chongkarn.com (Chongkarn Wathanyasathit)		รายละเอียดการบริการ หมายเลขใบแจ้งหนี้ : T-82AF/391 เลขที่ใบแจ้งหนี้ : 2025-002376-R1 วันที่ออกใบแจ้งหนี้ : 1 / 1 ชื่อลูกค้า : บริษัท ช. หนองปรือ จำกัด ที่อยู่ : -		วันที่ออกใบแจ้งหนี้ : 25-05-103 วันถึงกำหนดชำระ : 10-06-103 ผู้รับใบแจ้งหนี้ : Customer หมายเหตุ : -					
รายละเอียดการวิเคราะห์ Analysis for T77927 (134 samples)									
ลำดับ	หมายเลขใบแจ้งหนี้ (สำหรับลูกค้า)	ชื่อผลิตภัณฑ์	วันที่รับ	เวลาเก็บ	จุดเก็บตัวอย่าง	วิธีเก็บ	การขนส่ง	จำนวน	หมายเหตุอื่น
85	8-5	PACFP-3C27-W01	18 กุมภาพันธ์ 2568	05:59	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
86	8-6	PACFP-3C27-W02	18 กุมภาพันธ์ 2568	01:04	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
87	8-7	PACFP-3C27-W03	18 กุมภาพันธ์ 2568	01:11	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
88	8-8	PACFP-3C27-W04	18 กุมภาพันธ์ 2568	02:07	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
89	8-9	PACFP-3C29-W01	18 กุมภาพันธ์ 2568	02:07	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
90	8-10	PACFP-3C29-W02	18 กุมภาพันธ์ 2568	02:17	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
91	8-11	PACFP-3C29-W03	18 กุมภาพันธ์ 2568	02:23	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
92	8-12	PACFP-3C29-W04	18 กุมภาพันธ์ 2568	03:08	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
93	8-13	PACFP-4C23-W01	18 กุมภาพันธ์ 2568	13:41	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
94	8-14	PACFP-4C23-W1-1FD	18 กุมภาพันธ์ 2568	15:52	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
95	8-15	PACFP-4C23-W02	18 กุมภาพันธ์ 2568	15:58	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
96	8-16	PACFP-4C23-W03	18 กุมภาพันธ์ 2568	16:06	ข้างถนน	รถจักรยาน	ขนส่งพิเศษ (ISO 4.5 ชั้น)	1	ตรวจสอบเอกสาร
บันทึกการรับส่งตัวอย่าง ชื่อ - นามสกุล : นาย ที่อยู่ : โทรศัพท์ : วันที่ : 25/5/2568 เวลา : 16.30									
วิธีการตรวจสอบ ○ วิเคราะห์ด้วยเครื่อง ○ วิเคราะห์ด้วยสายตา		วิธีการตรวจสอบเอกสาร ○ ตรวจสอบกับวิธีวิเคราะห์เอกสาร ○ ตรวจสอบกับวิธี : วิธีการตาม.....		ผลการวิเคราะห์ตัวอย่าง ○ ผ่าน ○ ไม่ผ่าน (แจ้งกับฝ่ายที่เกี่ยวข้องภายในเวลา 12 ชม.)		ผลการดำเนินการตามข้อกำหนดด้านความปลอดภัย ○ ติดต่อกับ 1. ผู้รับเอกสาร, 2. บริษัทขนส่ง, 3. บริษัทประกันภัย ○ ไม่ดำเนินการ		หมายเหตุ -	
มาตรฐาน ISO/IEC 17025									

[illegible]

ข้อมูลลูกค้า				วันที่อนุมัติ 2025-06-23/06-31					
ชื่อลูกค้า	เชลล์ บม จำกัด	หมายเลขอนุมัติ	10547039	ผลิตภัณฑ์	250103	รหัสลูกค้า	16-00432		
ที่อยู่	177 หมู่สองซอย 39/1 ถนนพหลโยธิน 103 แขวงจตุจักร เขตจตุจักร กรุงเทพมหานคร 10260	เลขที่ใบเสนอราคา	2025-003276-R1	ผู้ให้บริการ	Customer				
โทรศัพท์	02-00004997	อีเมล	chellab@shell.com	สาขา	1				
ผู้ติดต่อ	Uthair Chayapongse	ชื่อพนักงาน	11/1	สถานะการดำเนินงาน	1				
โครงการ (ชื่อ)	Valleygarth	ฝ่าย	1						
	Analyst for T779-27 (134 samples)								
ลำดับ	หมายเลขผลิตภัณฑ์ (ชื่อผลิตภัณฑ์)	ชื่อตัวอย่าง	วันที่เก็บ	เวลาเก็บ	ชนิดตัวอย่าง	ปริมาณ	การตรวจ	จำนวน	พารามิเตอร์
109	PANW-SB2-SW-20	21 กุมภาพันธ์ 2020	13:51	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		
110	PANW-SB2-SW-40	21 กุมภาพันธ์ 2020	13:57	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		
111	PANW-SB2-SW-60	21 กุมภาพันธ์ 2020	14:09	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		
112	PANW-SCG-SW-1	21 กุมภาพันธ์ 2020	10:18	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		
113	PANW-SCG-SW-30	21 กุมภาพันธ์ 2020	02:25	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		
114	PANW-SCG-SW-60	21 กุมภาพันธ์ 2020	02:34	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		
115	PANW-SCG-SW-80	21 กุมภาพันธ์ 2020	02:49	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		
116	PANW-1B3-SW-1	20 กุมภาพันธ์ 2020	14:05	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		
117	PANW-1B3-SW-20	20 กุมภาพันธ์ 2020	14:11	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		
118	PANW-1B3-SW-60	20 กุมภาพันธ์ 2020	14:19	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		
119	PANW-1B3-SW-80	20 กุมภาพันธ์ 2020	14:29	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		
120	PANW-SCG-SW-1	19 กุมภาพันธ์ 2020	21:11	น้ำมัน	จากผลิตภัณฑ์ (SW) 4 ลิตร	1	ตามผลการตรวจ		

ข้อมูลทั่วไป เลขที่ใบแจ้ง : เลขที่ใบแจ้ง 010 วันที่ : 17 ตุลาคม 2561 ณ กรุงเทพมหานคร 103 เขตราชเทวี กรุงเทพมหานคร 10300 โทร : 02-000-0000 โทรสาร : E-Mail : Chongkarn@...		หมายเลขใบแจ้ง : 7854P039 หมายเลขใบแจ้ง : 2025-002376-01 เลขที่ใบแจ้ง : 13 / 1 ผู้รับใบแจ้ง : นายสมชาย ที่อยู่ : อีเมล :		วันที่ออกใบแจ้ง : 25-09-03 วันที่รับใบแจ้ง : Customer หน้า : เลขที่ใบแจ้ง : วันที่ :		รหัสลูกค้า : 16-00032			
โครงการ (ถ้ามี) : Analysis for 1779.27 (134 samples)									
ลำดับ	หมายเลขใบแจ้ง (รหัสลูกค้า)	ชื่อลูกค้า	วันที่รับ	เวลา	ชนิดการวิเคราะห์	วิธีการ	สถานะการวิเคราะห์	จำนวน	ราคา (บาท)
121	1779-134	PAWS-KCP5-SW-20	19 ตุลาคม 2561	21:01	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
122	1779-134	PAWS-KCP5-SW-20	19 ตุลาคม 2561	21:07	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
123	1779-134	PAWS-KCP5-SW-20	19 ตุลาคม 2561	21:07	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
124	1779-134	PAWS-SWS-SW-1	20 ตุลาคม 2561	12:00	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
125	1779-134	PAWS-SWS-SW-20	20 ตุลาคม 2561	13:01	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
126	1779-134	PAWS-SWS-SW-20	20 ตุลาคม 2561	13:14	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
127	1779-134	PAWS-SWS-SW-8	20 ตุลาคม 2561	13:23	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
128	1779-134	PAWS-KCP5-SW-1	19 ตุลาคม 2561	18:26	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
129	1779-134	PAWS-KCP5-SW-20	19 ตุลาคม 2561	18:34	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
130	1779-134	PAWS-KCP5-SW-20-FTD	19 ตุลาคม 2561	18:41	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
131	1779-134	PAWS-KCP5-SW-40	19 ตุลาคม 2561	18:48	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
132	1779-134	PAWS-KCP5-SW-60	19 ตุลาคม 2561	18:58	วิเคราะห์	วิเคราะห์ (SW) 4 สัปดาห์	วิเคราะห์ (SW) 4 สัปดาห์	1	ตรวจสอบสถานะ
วันที่ การรับส่งเอกสาร : 17/10/2561		ชื่อ - นามสกุล นายสมชาย	อาชีพ ...	วันที่ 10/10/2561	เวลา 16.30	การส่งเอกสาร ...	การรับเอกสาร ...	สถานะการรับเอกสาร ...	
วิธีการชำระเงิน ...		วิธีการชำระเงินลูกค้า ...		ผลการวิเคราะห์และดำเนินการ ...		ผลการวิเคราะห์และดำเนินการ ...		หมายเหตุ ...	

ข้อมูลลูกค้า			หมายเลขบัญชีเปิดการ : TFS4T 034		วันที่อนุมัติ : 2025-02-27-01 / 1		วันหมดอายุ : 16-06-82		
ชื่อบริษัท	เชลวารี เทค จำกัด		เลขที่ขึ้นทะเบียนการค้า :				ผู้รับบริการ : Customer		
ที่อยู่	77 ซอยสุขุมวิท 39/1 ถนนสุขุมวิท เขตคลองเตย กรุงเทพมหานคร 10160		เอกสารกำกับใบ :		() / 1		ประเภท :		
โทรศัพท์	(08) 994-4499	โทรสาร :					สาขาที่มีให้บริการ :		
เว็บไซต์	http://www.Chelwari.com/Vallhuynapach	อีเมล :					สถานที่ตั้งสำนักงาน :		
โครงการ (ชื่อ)	A Analysis for TFR9.27 (134 samples)	ฝ่าย :							
จำนวน	หมายเลขบัญชีเปิดการ (สำหรับวิเคราะห์)	ชื่อตัวงาน	วันรับเข้า	วันออกใบ	ชนิดตัวอย่าง	วิธีเก็บ	ลักษณะบรรจุ	จำนวน	หมายเหตุ
133	-133-	PWMEQ	19 กุมภาพันธ์ 2568	19/06	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ
134	-134-	PWMEQ	19 กุมภาพันธ์ 2568	19/06	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ
135	-135-	NPCP-WCTF-SM-40-LD	15 กุมภาพันธ์ 2568	15/06	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ
136	-136-	NPCP-WCTF-SM-40-LD	15 กุมภาพันธ์ 2568	15/06	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ
137	-137-	NPCP-WCTF-SM-40-LD	15 กุมภาพันธ์ 2568	15/06	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ
138	-138-	NPMB-WCTF-SM-20-M5	14 กุมภาพันธ์ 2568	15/07	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ
139	-139-	NPMB-WCTF-SM-20-M5O	14 กุมภาพันธ์ 2568	15/07	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ
140	-140-	NPMB-WCTF-SM-20-LD	14 กุมภาพันธ์ 2568	15/07	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ
141	-141-	NPMW-BEZX-SM-8-BD	17 กุมภาพันธ์ 2568	01/02	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ
142	-142-	NPMW-BEZX-SM-8-BMD	17 กุมภาพันธ์ 2568	01/02	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ
143	-143-	NPMW-WCTF-SM-8-LD	16 กุมภาพันธ์ 2568	19/06	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ
144	-144-	PACMP-WCTF-SM-1-LAS	17 กุมภาพันธ์ 2568	21/05	น้ำดื่ม	น้ำดื่ม	ขวดพลาสติก (GPA 8 ลิตร)	3	ส่งผลการตรวจ

ลำดับ การประเมินความเสี่ยง	ชื่อ - นามสกุล	ตำแหน่ง	วันที่	เวลา	การให้สัตยาบัน	การรับใช้เอกสาร	หมายเหตุ
1				16/06	10.30		<ul style="list-style-type: none"> ส่งเอกสาร ไปดูแลเรื่อง (mg.) ส่งเอกสาร ไปดูแลเรื่อง (mg.) ส่งเอกสาร ไปดูแลเรื่อง (mg.)

วิธีการตรวจสอบ	วิธีการตรวจสอบแบบใดทาง	สถานะการให้สัตยาบันโดยนักวิทยาศาสตร์	ดำเนินการตามข้อกำหนดในการบริหารความเสี่ยงหรือไม่	ดำเนินการตามข้อกำหนดในการบริหารความเสี่ยงหรือไม่	หมายเหตุ
<input type="checkbox"/> ตรวจสอบแบบสุ่ม <input type="checkbox"/> ตรวจสอบแบบเฉพาะเจาะจง	<input type="checkbox"/> เข้าทำบันทึก/พิจารณา/แปลเอกสาร <input type="checkbox"/> ถูกปรับ/เพิ่ม/ลบ/แก้ไข	<input type="checkbox"/> ไม่มีการ <input type="checkbox"/> มีการ (ถ้าระบุว่ามีข้อจำกัดอย่างไรต้องแจ้งเป็นข้อจำกัด 12 วัน)	<input type="checkbox"/> ไม่มีการ <input type="checkbox"/> มีการ	<input type="checkbox"/> ไม่มีการ <input checked="" type="checkbox"/> มีการ	ขอรับรองว่า ISO/IEC 17025

Attachment

CLIENT ID : 16-00433

COC ID : 1



2025-002376-R1

ITEM	SAMPLE NAME	REQUIRED PARAMETER
125	PAWE-3B3-SW-20	TPH
126	PAWE-3B3-SW-40	TPH
127	PAWE-3B3-SW-8	TPH
128	PAWE-3CP2-SW-1	TPH
129	PAWE-3CP2-SW-20	TPH
130	PAWE-3CP2-SW-20-FD	TPH
131	PAWE-3CP2-SW-40	TPH
132	PAWE-3CP2-SW-8	TPH
133	PAWE-EQ	TPH
134	PAWE-WB	TPH
135	NPGRP-1CP2-SW-40-LD	TPH
136	NPGRP-3CP2-SW-40-MS	TPH
137	NPGRP-3CP2-SW-40-MSD	TPH
138	NPWB-1CP2-SW-20-MS	TPH
139	NPWB-1CP2-SW-20-MSD	TPH
140	NPWB-3B3-SW-20-LD	TPH
141	NPWG-1B2X-SW-8-MS	TPH
142	NPWG-1B2X-SW-8-MSD	TPH
143	NPWG-3CP2-SW-8-LD	TPH
144	PACPP-1CP2X-SW-1-MS	TPH
145	PACPP-1CP2X-SW-1-MSD	TPH
146	PACPP-3CP2-SW-1-LD	TPH
147	PARIF-A-SW-1-MS	TPH
148	PARIF-A-SW-1-MSD	TPH
149	PAWB-1CP2-SW-40-LD	TPH
150	PAWB-3CP2-SW-40-MS	TPH
151	PAWB-3CP2-SW-40-MSD	TPH
152	PAWE-1CP2-SW-20-LD	TPH
153	PAWE-3B3-SW-20-MS	TPH
154	PAWE-3B3-SW-20-MSD	TPH

Internal Note : Existing Business

Remark :

Exported by	Checked by
TASSANEE.O	
06/03/25 18:13:21	

ANALYSIS REPORT

PROJECT NAME : CHEVRON ENVIRONMENTAL MONITORING CAMPAIGN DURING 1 – 25 FEBRUARY 2025.
CUSTOMER NAME : TETRA TECH INC.
ADDRESS : 77 SOI UDOMSUK 39/1, SUKHUMVIT 103 ROAD, BANGCHAK, PRAKHANONG, BANGKOK 10260.
TEL 0 2361 3767 FAX 0 2361 3768

SAMPLING SOURCE : -
SAMPLE TYPE : SEAWATER
SAMPLING DATE : *
SAMPLING TIME : *
SAMPLING METHOD : -
ANALYZED BY : MIR PRAPANVUT PHAUNGANG

RECEIVED DATE : 10 March, 2025
ANALYTICAL DATE : 10 - 24 April, 2025
ANALYSIS NO. : **
WORK NO. : 2025-002376
REPORT NO. : 2025-U043103

PROJECT	SAMPLE NAME	ANALYSIS NO.**	MATRIX	SAMPLING DATE*
7779.27	NPGRP-1C2X-SW-1	T25AF039-0001	SEAWATER	16-02-2025 01:52:00
7779.27	NPGRP-1C2X-SW-20	T25AF039-0002	SEAWATER	16-02-2025 01:58:00
7779.27	NPGRP-1C2X-SW-40	T25AF039-0003	SEAWATER	16-02-2025 02:06:00
7779.27	NPGRP-1C2X-SW-8	T25AF039-0004	SEAWATER	16-02-2025 02:17:00
7779.27	NPGRP-1CP2-SW-1	T25AF039-0005	SEAWATER	15-02-2025 02:45:00
7779.27	NPGRP-1CP2-SW-20	T25AF039-0006	SEAWATER	15-02-2025 02:51:00
7779.27	NPGRP-1CP2-SW-40	T25AF039-0007	SEAWATER	15-02-2025 02:59:00
7779.27	NPGRP-1CP2-SW-8	T25AF039-0008	SEAWATER	15-02-2025 03:12:00
7779.27	NPGRP-2C2-SW-1	T25AF039-0009	SEAWATER	16-02-2025 00:32:00
7779.27	NPGRP-2C2-SW-20	T25AF039-0010	SEAWATER	16-02-2025 00:38:00
7779.27	NPGRP-2C2-SW-40	T25AF039-0011	SEAWATER	16-02-2025 00:46:00
7779.27	NPGRP-2C2-SW-40-FD	T25AF039-0012	SEAWATER	16-02-2025 00:56:00
7779.27	NPGRP-2C2-SW-8	T25AF039-0013	SEAWATER	16-02-2025 01:06:00
7779.27	NPGRP-3C2-SW-1	T25AF039-0014	SEAWATER	15-02-2025 22:02:00
7779.27	NPGRP-3C2-SW-20	T25AF039-0015	SEAWATER	15-02-2025 22:09:00
7779.27	NPGRP-3C2-SW-40	T25AF039-0016	SEAWATER	15-02-2025 22:17:00
7779.27	NPGRP-3C2-SW-8	T25AF039-0017	SEAWATER	15-02-2025 22:27:00
7779.27	NPGRP-3CP2-SW-1	T25AF039-0018	SEAWATER	15-02-2025 15:12:00
7779.27	NPGRP-3CP2-SW-20	T25AF039-0019	SEAWATER	15-02-2025 15:18:00
7779.27	NPGRP-3CP2-SW-40	T25AF039-0020	SEAWATER	15-02-2025 15:26:00
7779.27	NPGRP-3CP2-SW-8	T25AF039-0021	SEAWATER	15-02-2025 15:39:00
7779.27	NPGRP-4C2-SW-1	T25AF039-0022	SEAWATER	15-02-2025 04:20:00
7779.27	NPGRP-4C2-SW-20	T25AF039-0023	SEAWATER	15-02-2025 04:26:00
7779.27	NPGRP-4C2-SW-40	T25AF039-0024	SEAWATER	15-02-2025 04:34:00
7779.27	NPGRP-4C2-SW-8	T25AF039-0025	SEAWATER	15-02-2025 04:45:00
7779.27	NPGRP-EQ	T25AF039-0026	SEAWATER	15-02-2025 02:20:00
7779.27	NPGRP-WB	T25AF039-0027	SEAWATER	15-02-2025 02:15:00
7779.27	NPREF-A-SW-1	T25AF039-0028	SEAWATER	12-02-2025 20:54:00

CASE NARRATIVE

Project T779.27 :-

All water samples were received and registered by United Analyst and Engineering Consultant Co., Ltd. on March 7, 2025, in a proper preservation condition, a sealed cooler maintained at a temperature of 6 °C. Sample conditions are ready for sample testing according to agreed standard test method. The samples were prepared and analyzed by pre-concentration and fluorescence Spectrophotometric method in accordance with required international test method referred to Intergovernmental Oceanographic Commission (MARPOLMON-P). Analytical batches are in quality control status and trend. Analysis results are measured correctly and precisely against established acceptance criteria. Overall, the analysis results are traceable, accurate and precise to meet customer's needs and requirement. Non-compliance has not been observed.

PROJECT	SAMPLE NAME	ANALYSIS NO.**	MATRIX	SAMPLING DATE*
7779.27	NPREF-A-SW-1-FD	T25AF039-0029	SEAWATER	12-02-2025 20:59:00
7779.27	NPREF-A-SW-20	T25AF039-0030	SEAWATER	12-02-2025 21:05:00
7779.27	NPREF-A-SW-40	T25AF039-0031	SEAWATER	12-02-2025 21:13:00
7779.27	NPREF-A-SW-8	T25AF039-0032	SEAWATER	12-02-2025 21:23:00
7779.27	NPREF-EQ	T25AF039-0033	SEAWATER	12-02-2025 20:07:00
7779.27	NPREF-WB	T25AF039-0034	SEAWATER	12-02-2025 20:00:00
7779.27	NPWB-1C2-SW-1	T25AF039-0035	SEAWATER	14-02-2025 00:47:00
7779.27	NPWB-1C2-SW-20	T25AF039-0036	SEAWATER	14-02-2025 00:54:00
7779.27	NPWB-1C2-SW-40	T25AF039-0037	SEAWATER	14-02-2025 01:02:00
7779.27	NPWB-1C2-SW-8	T25AF039-0038	SEAWATER	14-02-2025 01:13:00
7779.27	NPWB-1CP2-SW-1	T25AF039-0039	SEAWATER	14-02-2025 01:51:00
7779.27	NPWB-1CP2-SW-20	T25AF039-0040	SEAWATER	14-02-2025 01:57:00
7779.27	NPWB-1CP2-SW-40	T25AF039-0041	SEAWATER	14-02-2025 02:09:00
7779.27	NPWB-1CP2-SW-8	T25AF039-0042	SEAWATER	14-02-2025 02:20:00
7779.27	NPWB-3B2-SW-1	T25AF039-0043	SEAWATER	14-02-2025 15:52:00
7779.27	NPWB-3B2-SW-20	T25AF039-0044	SEAWATER	14-02-2025 15:57:00
7779.27	NPWB-3B2-SW-40	T25AF039-0045	SEAWATER	14-02-2025 16:08:00
7779.27	NPWB-3B2-SW-8	T25AF039-0046	SEAWATER	14-02-2025 16:18:00
7779.27	NPWB-3CP2-SW-1	T25AF039-0047	SEAWATER	14-02-2025 14:33:00
7779.27	NPWB-3CP2-SW-20	T25AF039-0048	SEAWATER	14-02-2025 14:38:00
7779.27	NPWB-3CP2-SW-20-FD	T25AF039-0049	SEAWATER	14-02-2025 14:45:00
7779.27	NPWB-3CP2-SW-40	T25AF039-0050	SEAWATER	14-02-2025 14:53:00
7779.27	NPWB-3CP2-SW-8	T25AF039-0051	SEAWATER	14-02-2025 15:02:00
7779.27	NPWB-EQ	T25AF039-0052	SEAWATER	14-02-2025 00:15:00
7779.27	NPWB-WB	T25AF039-0053	SEAWATER	14-02-2025 00:10:00
7779.27	NPWG-1B2X-SW-1	T25AF039-0054	SEAWATER	17-02-2025 00:57:00
7779.27	NPWG-1B2X-SW-20	T25AF039-0055	SEAWATER	17-02-2025 01:03:00
7779.27	NPWG-1B2X-SW-40	T25AF039-0056	SEAWATER	17-02-2025 01:12:00
7779.27	NPWG-1B2X-SW-8	T25AF039-0057	SEAWATER	17-02-2025 01:22:00
7779.27	NPWG-1CP2-SW-1	T25AF039-0058	SEAWATER	17-02-2025 02:03:00
7779.27	NPWG-1CP2-SW-20	T25AF039-0059	SEAWATER	17-02-2025 02:10:00
7779.27	NPWG-1CP2-SW-40	T25AF039-0060	SEAWATER	17-02-2025 02:18:00
7779.27	NPWG-1CP2-SW-8	T25AF039-0061	SEAWATER	17-02-2025 02:29:00
7779.27	NPWG-3B2X-SW-1	T25AF039-0062	SEAWATER	16-02-2025 20:36:00
7779.27	NPWG-3B2X-SW-20	T25AF039-0063	SEAWATER	16-02-2025 20:43:00
7779.27	NPWG-3B2X-SW-40	T25AF039-0064	SEAWATER	16-02-2025 20:53:00
7779.27	NPWG-3B2X-SW-8	T25AF039-0065	SEAWATER	16-02-2025 20:53:00
7779.27	NPWG-3B2X-SW-8-FD	T25AF039-0066	SEAWATER	16-02-2025 21:03:00
7779.27	NPWG-3CP2-SW-1	T25AF039-0067	SEAWATER	16-02-2025 19:16:00
7779.27	NPWG-3CP2-SW-20	T25AF039-0068	SEAWATER	16-02-2025 19:22:00

PROJECT	SAMPLE NAME	ANALYSIS NO.**	MATRIX	SAMPLING DATE*
T779.27	NPWG-3CP2-SW-40	T25AF039-0069	SEAWATER	16-02-2025 19:30:00
T779.27	NPWG-3CP2-SW-8	T25AF039-0070	SEAWATER	16-02-2025 19:40:00
T779.27	NPWG-EQ	T25AF039-0071	SEAWATER	16-02-2025 19:06:00
T779.27	NPWG-WB	T25AF039-0072	SEAWATER	16-02-2025 19:00:00
T779.27	PACPP-1C2X-SW-1	T25AF039-0073	SEAWATER	17-02-2025 20:01:00
T779.27	PACPP-1C2X-SW-20	T25AF039-0074	SEAWATER	17-02-2025 20:06:00
T779.27	PACPP-1C2X-SW-40	T25AF039-0075	SEAWATER	17-02-2025 20:14:00
T779.27	PACPP-1C2X-SW-8	T25AF039-0076	SEAWATER	17-02-2025 20:24:00
T779.27	PACPP-1CP2X-SW-1	T25AF039-0077	SEAWATER	17-02-2025 21:01:00
T779.27	PACPP-1CP2X-SW-20	T25AF039-0078	SEAWATER	17-02-2025 21:11:00
T779.27	PACPP-1CP2X-SW-40	T25AF039-0079	SEAWATER	17-02-2025 21:19:00
T779.27	PACPP-1CP2X-SW-8	T25AF039-0080	SEAWATER	17-02-2025 21:29:00
T779.27	PACPP-2C2-SW-1	T25AF039-0081	SEAWATER	18-02-2025 17:05:00
T779.27	PACPP-2C2-SW-20	T25AF039-0082	SEAWATER	18-02-2025 17:10:00
T779.27	PACPP-2C2-SW-40	T25AF039-0083	SEAWATER	18-02-2025 17:19:00
T779.27	PACPP-2C2-SW-8	T25AF039-0084	SEAWATER	18-02-2025 17:29:00
T779.27	PACPP-3C2Y-SW-1	T25AF039-0085	SEAWATER	18-02-2025 00:59:00
T779.27	PACPP-3C2Y-SW-20	T25AF039-0086	SEAWATER	18-02-2025 01:06:00
T779.27	PACPP-3C2Y-SW-40	T25AF039-0087	SEAWATER	18-02-2025 01:15:00
T779.27	PACPP-3C2Y-SW-8	T25AF039-0088	SEAWATER	18-02-2025 01:26:00
T779.27	PACPP-3CP2-SW-1	T25AF039-0089	SEAWATER	18-02-2025 02:07:00
T779.27	PACPP-3CP2-SW-20	T25AF039-0090	SEAWATER	18-02-2025 02:17:00
T779.27	PACPP-3CP2-SW-40	T25AF039-0091	SEAWATER	18-02-2025 02:25:00
T779.27	PACPP-3CP2-SW-8	T25AF039-0092	SEAWATER	18-02-2025 02:36:00
T779.27	PACPP-4C2X-SW-1	T25AF039-0093	SEAWATER	18-02-2025 15:47:00
T779.27	PACPP-4C2X-SW-1-FD	T25AF039-0094	SEAWATER	18-02-2025 15:52:00
T779.27	PACPP-4C2X-SW-20	T25AF039-0095	SEAWATER	18-02-2025 15:58:00
T779.27	PACPP-4C2X-SW-40	T25AF039-0096	SEAWATER	18-02-2025 16:06:00
T779.27	PACPP-4C2X-SW-8	T25AF039-0097	SEAWATER	18-02-2025 16:15:00
T779.27	PACPP-EQ	T25AF039-0098	SEAWATER	17-02-2025 19:07:00
T779.27	PACPP-WB	T25AF039-0099	SEAWATER	17-02-2025 19:02:00
T779.27	PAREF-A-SW-1	T25AF039-0100	SEAWATER	13-02-2025 16:23:00
T779.27	PAREF-A-SW-20	T25AF039-0101	SEAWATER	13-02-2025 16:33:00
T779.27	PAREF-A-SW-40	T25AF039-0102	SEAWATER	13-02-2025 16:40:00
T779.27	PAREF-A-SW-8	T25AF039-0103	SEAWATER	13-02-2025 16:51:00
T779.27	PAWB-1CP2-SW-1	T25AF039-0104	SEAWATER	21-02-2025 00:43:00
T779.27	PAWB-1CP2-SW-20	T25AF039-0105	SEAWATER	21-02-2025 00:50:00
T779.27	PAWB-1CP2-SW-40	T25AF039-0106	SEAWATER	21-02-2025 00:58:00
T779.27	PAWB-1CP2-SW-8	T25AF039-0107	SEAWATER	21-02-2025 01:13:00
T779.27	PAWB-3B2-SW-1	T25AF039-0108	SEAWATER	21-02-2025 13:45:00

PROJECT	SAMPLE NAME	ANALYSIS NO.**	MATRIX	SAMPLING DATE*
T779.27	PAWB-3B2-SW-20	T25AF039-0109	SEAWATER	21-02-2025 13:51:00
T779.27	PAWB-3B2-SW-40	T25AF039-0110	SEAWATER	21-02-2025 13:58:00
T779.27	PAWB-3B2-SW-8	T25AF039-0111	SEAWATER	21-02-2025 14:09:00
T779.27	PAWB-3CP2-SW-1	T25AF039-0112	SEAWATER	21-02-2025 02:18:00
T779.27	PAWB-3CP2-SW-20	T25AF039-0113	SEAWATER	21-02-2025 02:25:00
T779.27	PAWB-3CP2-SW-40	T25AF039-0114	SEAWATER	21-02-2025 02:34:00
T779.27	PAWB-3CP2-SW-8	T25AF039-0115	SEAWATER	21-02-2025 02:49:00
T779.27	PAWE-1B1-SW-1	T25AF039-0116	SEAWATER	20-02-2025 14:05:00
T779.27	PAWE-1B1-SW-20	T25AF039-0117	SEAWATER	20-02-2025 14:11:00
T779.27	PAWE-1B1-SW-40	T25AF039-0118	SEAWATER	20-02-2025 14:19:00
T779.27	PAWE-1B1-SW-8	T25AF039-0119	SEAWATER	20-02-2025 14:29:00
T779.27	PAWE-1CP2-SW-1	T25AF039-0120	SEAWATER	19-02-2025 21:11:00
T779.27	PAWE-1CP2-SW-20	T25AF039-0121	SEAWATER	19-02-2025 21:16:00
T779.27	PAWE-1CP2-SW-40	T25AF039-0122	SEAWATER	19-02-2025 21:27:00
T779.27	PAWE-1CP2-SW-8	T25AF039-0123	SEAWATER	19-02-2025 21:37:00
T779.27	PAWE-3B3-SW-1	T25AF039-0124	SEAWATER	20-02-2025 12:55:00
T779.27	PAWE-3B3-SW-20	T25AF039-0125	SEAWATER	20-02-2025 13:01:00
T779.27	PAWE-3B3-SW-40	T25AF039-0126	SEAWATER	20-02-2025 13:13:00
T779.27	PAWE-3B3-SW-8	T25AF039-0127	SEAWATER	20-02-2025 13:23:00
T779.27	PAWE-3CP2-SW-1	T25AF039-0128	SEAWATER	19-02-2025 19:28:00
T779.27	PAWE-3CP2-SW-20	T25AF039-0129	SEAWATER	19-02-2025 19:34:00
T779.27	PAWE-3CP2-SW-20-FD	T25AF039-0130	SEAWATER	19-02-2025 19:41:00
T779.27	PAWE-3CP2-SW-40	T25AF039-0131	SEAWATER	19-02-2025 19:48:00
T779.27	PAWE-3CP2-SW-8	T25AF039-0132	SEAWATER	19-02-2025 19:58:00
T779.27	PAWE-EQ	T25AF039-0133	SEAWATER	19-02-2025 19:06:00
T779.27	PAWE-WB	T25AF039-0134	SEAWATER	19-02-2025 19:00:00
T779.27	NPCCP-1CP2-SW-40-LD	T25AF039-0135	SEAWATER	15-02-2025 02:59:00
T779.27	NPCCP-3CP2-SW-40-MS	T25AF039-0136	SEAWATER	15-02-2025 15:26:00
T779.27	NPCCP-3CP2-SW-40-MSD	T25AF039-0137	SEAWATER	15-02-2025 15:26:00
T779.27	NPWB-1CP2-SW-20-MS	T25AF039-0138	SEAWATER	14-02-2025 01:57:00
T779.27	NPWB-1CP2-SW-20-MSD	T25AF039-0139	SEAWATER	14-02-2025 01:57:00
T779.27	NPWB-3B2-SW-20-LD	T25AF039-0140	SEAWATER	14-02-2025 15:57:00
T779.27	NPWG-1B2X-SW-8-MS	T25AF039-0141	SEAWATER	17-02-2025 01:22:00
T779.27	NPWG-1B2X-SW-8-MSD	T25AF039-0142	SEAWATER	17-02-2025 01:22:00
T779.27	NPWG-3CP2-SW-8-LD	T25AF039-0143	SEAWATER	16-02-2025 19:40:00
T779.27	PACPP-1CP2X-SW-1-MS	T25AF039-0144	SEAWATER	17-02-2025 21:01:00
T779.27	PACPP-1CP2X-SW-1-MSD	T25AF039-0145	SEAWATER	17-02-2025 21:01:00
T779.27	PACPP-3CP2-SW-1-LD	T25AF039-0146	SEAWATER	18-02-2025 02:07:00
T779.27	PAREF-A-SW-1-MS	T25AF039-0147	SEAWATER	13-02-2025 16:23:00
T779.27	PAREF-A-SW-1-MSD	T25AF039-0148	SEAWATER	13-02-2025 16:23:00
T779.27	PAWB-1CP2-SW-40-LD	T25AF039-0149	SEAWATER	21-02-2025 00:58:00
T779.27	PAWB-3CP2-SW-40-MS	T25AF039-0150	SEAWATER	21-02-2025 02:34:00
T779.27	PAWB-3CP2-SW-40-MSD	T25AF039-0151	SEAWATER	21-02-2025 02:34:00
T779.27	PAWE-1CP2-SW-20-LD	T25AF039-0152	SEAWATER	19-02-2025 21:16:00
T779.27	PAWE-3B3-SW-20-MS	T25AF039-0153	SEAWATER	20-02-2025 13:01:00
T779.27	PAWE-3B3-SW-20-MSD	T25AF039-0154	SEAWATER	20-02-2025 13:01:00

PROJECT		T779.27											
ANALYTE		METHOD											
DISSOLVED/DISPersed PETROLEUM HYDROCARBON		IOC MARPOLMON-P											
SAMPLE NAME	ANALYSIS NO.	PREPARED	ANALYZED	BATCH	RESULT	MDL	RL	UNITS	DILUTION	NOTES			
NPCCP-1C2X-SW-1	T25AF039-0001	16-02-2025	10-04-2025	539214	0.12	0.04	0.10	ug/L as Chrysene	1				
NPCCP-1C2X-SW-1	T25AF039-0002	16-02-2025	10-04-2025	539214	0.25	0.04	0.10	ug/L as Chrysene	1				
NPCCP-1C2X-SW-20	T25AF039-0003	16-02-2025	10-04-2025	539214	0.08	0.04	0.10	ug/L as Chrysene	1	J			
NPCCP-1C2X-SW-8	T25AF039-0004	16-02-2025	10-04-2025	539214	0.22	0.04	0.10	ug/L as Chrysene	1				
NPCCP-1CP2-SW-1	T25AF039-0005	15-02-2025	10-04-2025	539214	0.13	0.04	0.10	ug/L as Chrysene	1				
NPCCP-1CP2-SW-20	T25AF039-0006	15-02-2025	10-04-2025	539214	0.29	0.04	0.10	ug/L as Chrysene	1				
NPCCP-1CP2-SW-40	T25AF039-0007	15-02-2025	10-04-2025	539214	0.13	0.04	0.10	ug/L as Chrysene	1				
NPCCP-1CP2-SW-8	T25AF039-0008	15-02-2025	10-04-2025	539214	0.17	0.04	0.10	ug/L as Chrysene	1				
NPCCP-2C2-SW-1	T25AF039-0009	16-02-2025	10-04-2025	539214	0.09	0.04	0.10	ug/L as Chrysene	1	J			
NPCCP-2C2-SW-20	T25AF039-0010	16-02-2025	10-04-2025	539214	0.12	0.04	0.10	ug/L as Chrysene	1				
NPCCP-2C2-SW-40	T25AF039-0011	16-02-2025	10-04-2025	539214	0.84	0.04	0.10	ug/L as Chrysene	1				
NPCCP-2C2-SW-40-FD	T25AF039-0012	16-02-2025	10-04-2025	539214	0.69	0.04	0.10	ug/L as Chrysene	1				
NPCCP-2C2-SW-8	T25AF039-0013	16-02-2025	10-04-2025	539214	0.12	0.04	0.10	ug/L as Chrysene	1				
NPCCP-3C2-SW-1	T25AF039-0014	15-02-2025	10-04-2025	539214	0.08	0.04	0.10	ug/L as Chrysene	1	J			
NPCCP-3C2-SW-20	T25AF039-0015	15-02-2025	10-04-2025	539214	0.10	0.04	0.10	ug/L as Chrysene	1	J			
NPCCP-3C2-SW-40	T25AF039-0016	15-02-2025	10-04-2025	539214	0.16	0.04	0.10	ug/L as Chrysene	1				
NPCCP-3C2-SW-8	T25AF039-0017	15-02-2025	10-04-2025	539214	0.20	0.04	0.10	ug/L as Chrysene	1				
NPCCP-3CP2-SW-1	T25AF039-0018	15-02-2025	10-04-2025	539214	0.04	0.04	0.10	ug/L as Chrysene	1	J			
NPCCP-3CP2-SW-20	T25AF039-0019	15-02-2025	10-04-2025	539214	0.10	0.04	0.10	ug/L as Chrysene	1	J			
NPCCP-3CP2-SW-40	T25AF039-0020	15-02-2025	10-04-2025	539214	0.18	0.04	0.10	ug/L as Chrysene	1				
NPCCP-3CP2-SW-8	T25AF039-0021	15-02-2025	10-04-2025	539214	0.30	0.04	0.10	ug/L as Chrysene	1				
NPCCP-4C2-SW-1	T25AF039-0022	15-02-2025	10-04-2025	539216	0.27	0.04	0.10	ug/L as Chrysene	1				
NPCCP-4C2-SW-20	T25AF039-0023	15-02-2025	10-04-2025	539216	0.07	0.04	0.10	ug/L as Chrysene	1	J			
NPCCP-4C2-SW-40	T25AF039-0024	15-02-2025	10-04-2025	539216	0.13	0.04	0.10	ug/L as Chrysene	1				
NPCCP-4C2-SW-8	T25AF039-0025	15-02-2025	10-04-2025	539216	0.13	0.04	0.10	ug/L as Chrysene	1				
NPCCP-EQ	T25AF039-0026	15-02-2025	10-04-2025	539216	ND	0.04	0.10	ug/L as Chrysene	1				
NPCCP-WB	T25AF039-0027	15-02-2025	10-04-2025	539216	ND	0.04	0.10	ug/L as Chrysene	1				
NPREF-A-SW-1	T25AF039-0028	12-02-2025	27-04-2025	539203	0.16	0.04	0.10	ug/L as Chrysene	1				
NPREF-A-SW-1-FD	T25AF039-0029	12-02-2025	27-04-2025	539203	0.14	0.04	0.10	ug/L as Chrysene	1				
NPREF-A-SW-20	T25AF039-0030	12-02-2025	27-04-2025	539203	0.21	0.04	0.10	ug/L as Chrysene	1				
NPREF-A-SW-40	T25AF039-0031	12-02-2025	27-04-2025	539203	0.29	0.04	0.10	ug/L as Chrysene	1				
NPREF-A-SW-8	T25AF039-0032	12-02-2025	27-04-2025	539203	0.14	0.04	0.10	ug/L as Chrysene	1				
NPREF-EQ	T25AF039-0033	12-02-2025	27-04-2025	539203	ND	0.04	0.10	ug/L as Chrysene	1				
NPREF-WB	T25AF039-0034	12-02-2025	27-04-2025	539203	ND	0.04	0.10	ug/L as Chrysene	1				
NPWB-1C2-SW-1	T25AF039-0035	14-02-2025	27-04-2025	539203	0.14	0.04	0.10	ug/L as Chrysene	1				
NPWB-1C2-SW-20	T25AF039-0036	14-02-2025	27-04-2025	539203	0.14	0.04	0.10	ug/L as Chrysene	1				
NPWB-1C2-SW-40	T25AF039-0037	14-02-2025	27-04-2025	539203	0.18	0.04	0.10	ug/L as Chrysene	1				
NPWB-1C2-SW-8	T25AF039-0038	14-02-2025	27-04-2025	539203	0.25	0.04	0.10	ug/L as Chrysene	1				
NPWB-1CP2-SW-1	T25AF039-0039	14-02-2025	10-04-2025	539216	0.12	0.04	0.10	ug/L as Chrysene	1				
NPWB-1CP2-SW-20	T25AF039-0040	14-02-2025	10-04-2025	539216	0.18	0.04	0.10	ug/L as Chrysene	1				
NPWB-1CP2-SW-40	T25AF039-0041	14-02-2025	10-04-2025	539216	0.13	0.04	0.10	ug/L as Chrysene	1				
NPWB-1CP2-SW-8	T25AF039-0042	14-02-2025	10-04-2025	539216	0.24	0.04	0.10	ug/L as Chrysene	1				

PROJECT		T779.27										
ANALYTE		METHOD										
DISSOLVED/DISPERSED PETROLEUM HYDROCARBON		IOC MARPOLMON-P										
SAMPLE NAME	ANALYSIS NO.	PREPARED	ANALYZED	BATCH	RESULT	MDL	RL	UNITS	DILUTION	NOTES		
PACPP-3C2X-SW-40	T2SAF039-0087	18-02-2025	13-04-2025	539225	0.22	0.04	0.10	ug/L as Chrysene	1			
PACPP-3C2Y-SW-8	T2SAF039-0088	18-02-2025	13-04-2025	539225	0.10	0.04	0.10	ug/L as Chrysene	1	J		
PACPP-3C2Z-SW-1	T2SAF039-0089	18-02-2025	13-04-2025	539225	0.17	0.04	0.10	ug/L as Chrysene	1			
PACPP-3C2Z-SW-20	T2SAF039-0090	18-02-2025	13-04-2025	539225	0.17	0.04	0.10	ug/L as Chrysene	1			
PACPP-3C2Z-SW-40	T2SAF039-0091	18-02-2025	13-04-2025	539225	0.12	0.04	0.10	ug/L as Chrysene	1			
PACPP-3C2Z-SW-8	T2SAF039-0092	18-02-2025	13-04-2025	539225	0.13	0.04	0.10	ug/L as Chrysene	1			
PACPP-4C2X-SW-1	T2SAF039-0093	18-02-2025	13-04-2025	539218	0.27	0.04	0.10	ug/L as Chrysene	1			
PACPP-4C2X-SW-1-FD	T2SAF039-0094	18-02-2025	13-04-2025	539218	0.26	0.04	0.10	ug/L as Chrysene	1			
PACPP-4C2X-SW-20	T2SAF039-0095	18-02-2025	13-04-2025	539218	0.42	0.04	0.10	ug/L as Chrysene	1			
PACPP-4C2X-SW-40	T2SAF039-0096	18-02-2025	13-04-2025	539218	0.11	0.04	0.10	ug/L as Chrysene	1			
PACPP-4C2X-SW-8	T2SAF039-0097	18-02-2025	13-04-2025	539218	0.32	0.04	0.10	ug/L as Chrysene	1			
PACPP-EQ	T2SAF039-0098	17-02-2025	13-04-2025	539225	ND	0.04	0.10	ug/L as Chrysene	1			
PACPP-WB	T2SAF039-0099	17-02-2025	13-04-2025	539225	ND	0.04	0.10	ug/L as Chrysene	1			
PAREF-A-SW-1	T2SAF039-0100	13-02-2025	27-04-2025	539203	0.08	0.04	0.10	ug/L as Chrysene	1	J		
PAREF-A-SW-20	T2SAF039-0101	13-02-2025	27-04-2025	539203	0.11	0.04	0.10	ug/L as Chrysene	1			
PAREF-A-SW-40	T2SAF039-0102	13-02-2025	27-04-2025	539203	0.10	0.04	0.10	ug/L as Chrysene	1	J		
PAREF-A-SW-8	T2SAF039-0103	13-02-2025	27-04-2025	539203	0.05	0.04	0.10	ug/L as Chrysene	1	J		
PAWB-1CP2-SW-1	T2SAF039-0104	21-02-2025	14-04-2025	539224	0.16	0.04	0.10	ug/L as Chrysene	1			
PAWB-1CP2-SW-20	T2SAF039-0105	21-02-2025	14-04-2025	539224	0.16	0.04	0.10	ug/L as Chrysene	1			
PAWB-1CP2-SW-40	T2SAF039-0106	21-02-2025	14-04-2025	539224	0.13	0.04	0.10	ug/L as Chrysene	1			
PAWB-1CP2-SW-8	T2SAF039-0107	21-02-2025	14-04-2025	539224	0.17	0.04	0.10	ug/L as Chrysene	1			
PAWB-3B2-SW-1	T2SAF039-0108	21-02-2025	14-04-2025	539224	0.07	0.04	0.10	ug/L as Chrysene	1	J		
PAWB-3B2-SW-20	T2SAF039-0109	21-02-2025	14-04-2025	539224	0.08	0.04	0.10	ug/L as Chrysene	1	J		
PAWB-3B2-SW-40	T2SAF039-0110	21-02-2025	14-04-2025	539224	0.06	0.04	0.10	ug/L as Chrysene	1	J		
PAWB-3B2-SW-8	T2SAF039-0111	21-02-2025	14-04-2025	539224	0.18	0.04	0.10	ug/L as Chrysene	1			
PAWB-3CP2-SW-1	T2SAF039-0112	21-02-2025	14-04-2025	539224	0.26	0.04	0.10	ug/L as Chrysene	1			
PAWB-3CP2-SW-20	T2SAF039-0113	21-02-2025	14-04-2025	539224	0.20	0.04	0.10	ug/L as Chrysene	1			
PAWB-3CP2-SW-40	T2SAF039-0114	21-02-2025	14-04-2025	539224	0.14	0.04	0.10	ug/L as Chrysene	1			
PAWB-3CP2-SW-8	T2SAF039-0115	21-02-2025	14-04-2025	539224	0.11	0.04	0.10	ug/L as Chrysene	1			
PAWE-1B1-SW-1	T2SAF039-0116	20-02-2025	14-04-2025	539224	0.19	0.04	0.10	ug/L as Chrysene	1			
PAWE-1B1-SW-20	T2SAF039-0117	20-02-2025	14-04-2025	539224	0.04	0.04	0.10	ug/L as Chrysene	1	J		
PAWE-1B1-SW-40	T2SAF039-0118	20-02-2025	14-04-2025	539224	0.11	0.04	0.10	ug/L as Chrysene	1			
PAWE-1B1-SW-8	T2SAF039-0119	20-02-2025	14-04-2025	539224	0.18	0.04	0.10	ug/L as Chrysene	1			
PAWE-1CP2-SW-1	T2SAF039-0120	19-02-2025	13-04-2025	539218	0.10	0.04	0.10	ug/L as Chrysene	1	J		
PAWE-1CP2-SW-20	T2SAF039-0121	19-02-2025	13-04-2025	539218	0.19	0.04	0.10	ug/L as Chrysene	1			
PAWE-1CP2-SW-40	T2SAF039-0122	19-02-2025	13-04-2025	539218	0.10	0.04	0.10	ug/L as Chrysene	1	J		
PAWE-1CP2-SW-8	T2SAF039-0123	19-02-2025	13-04-2025	539218	0.13	0.04	0.10	ug/L as Chrysene	1			
PAWE-3B3-SW-1	T2SAF039-0124	20-02-2025	13-04-2025	539218	0.16	0.04	0.10	ug/L as Chrysene	1			
PAWE-3B3-SW-20	T2SAF039-0125	20-02-2025	13-04-2025	539218	0.16	0.04	0.10	ug/L as Chrysene	1			
PAWE-3B3-SW-40	T2SAF039-0126	20-02-2025	13-04-2025	539218	0.09	0.04	0.10	ug/L as Chrysene	1	J		
PAWE-3B3-SW-8	T2SAF039-0127	20-02-2025	13-04-2025	539218	0.40	0.04	0.10	ug/L as Chrysene	1			
PAWE-3CP2-SW-1	T2SAF039-0128	19-02-2025	13-04-2025	539218	0.08	0.04	0.10	ug/L as Chrysene	1	J		
PAWE-3CP2-SW-20	T2SAF039-0129	19-02-2025	13-04-2025	539218	0.08	0.04	0.10	ug/L as Chrysene	1	J		
PAWE-3CP2-SW-20-FD	T2SAF039-0130	19-02-2025	13-04-2025	539218	0.09	0.04	0.10	ug/L as Chrysene	1	J		

QUALITY CONTROL

PROJECT		T779.27										
ANALYTE		METHOD										
DISSOLVED/DISPERSED PETROLEUM HYDROCARBON		IOC MARPOLMON-P										
BATCH 539216	PREPARED 14-02-2025	ANALYZED 10-04-2025										
QC TYPE	ANALYSIS NO.	RESULT	MDL	RL	UNITS	SOURCE RESULT	SPIKE LEVEL	%REC LIMITS	RPD	RPD LIMIT	NOTES	
Blank		ND	0.04	0.10	ug/L as Chrysene							
CCS		0.50	0.04	0.10	ug/L as Chrysene		0.50	100	90-110			
CCV		0.50	0.04	0.10	ug/L as Chrysene		0.50	100	90-110			
LCS		0.60	0.04	0.10	ug/L as Chrysene		0.58	102	80-120			
LCS Dup		0.55	0.04	0.10	ug/L as Chrysene		0.58	93	80-120	8.7	20	
Sample	T2SAF039-0044	0.06	0.04	0.10	ug/L as Chrysene						J	
Sample LabDup	T2SAF039-0140	0.06	0.04	0.10	ug/L as Chrysene				0	20	J	
Matrix Spike	T2SAF039-0138	0.67	0.04	0.10	ug/L as Chrysene	0.18	0.58	84	80-120			
Matrix Spike Dup	T2SAF039-0139	0.66	0.04	0.10	ug/L as Chrysene	T2SAF039-0040	0.58	83	80-120	1.5	20	
BATCH 539214	PREPARED 15-02-2025	ANALYZED 10-04-2025										
QC TYPE	ANALYSIS NO.	RESULT	MDL	RL	UNITS	SOURCE RESULT	SPIKE LEVEL	%REC LIMITS	RPD	RPD LIMIT	NOTES	
Blank		ND	0.04	0.10	ug/L as Chrysene							
CCS		0.49	0.04	0.10	ug/L as Chrysene		0.50	98	90-110			
CCV		0.50	0.04	0.10	ug/L as Chrysene		0.50	99	90-110			
LCS		0.67	0.04	0.10	ug/L as Chrysene		0.58	114	80-120			
LCS Dup		0.58	0.04	0.10	ug/L as Chrysene		0.58	98	80-120	14.4	20	
Sample	T2SAF039-0007	0.13	0.04	0.10	ug/L as Chrysene							
Sample LabDup	T2SAF039-0135	0.15	0.04	0.10	ug/L as Chrysene					14.3	20	
Matrix Spike	T2SAF039-0136	0.69	0.04	0.10	ug/L as Chrysene	0.18	0.58	88	80-120			
Matrix Spike Dup	T2SAF039-0137	0.69	0.04	0.10	ug/L as Chrysene	T2SAF039-0020	0.58	88	80-120	0	20	
BATCH 539211	PREPARED 16-17-02-2025	ANALYZED 11-04-2025										
QC TYPE	ANALYSIS NO.	RESULT	MDL	RL	UNITS	SOURCE RESULT	SPIKE LEVEL	%REC LIMITS	RPD	RPD LIMIT	NOTES	
Blank		ND	0.04	0.10	ug/L as Chrysene							
CCS		0.52	0.04	0.10	ug/L as Chrysene		0.50	104	90-110			
CCV		0.52	0.04	0.10	ug/L as Chrysene		0.50	104	90-110			
LCS		0.59	0.04	0.10	ug/L as Chrysene		0.59	98	80-120			
LCS Dup		0.58	0.04	0.10	ug/L as Chrysene		0.58	98	80-120	1.7	20	
Sample	T2SAF039-0070	0.18	0.04	0.10	ug/L as Chrysene							
Sample LabDup	T2SAF039-0143	0.18	0.04	0.10	ug/L as Chrysene					0	20	
Matrix Spike	T2SAF039-0141	0.86	0.04	0.10	ug/L as Chrysene	0.27	0.58	102	80-120			
Matrix Spike Dup	T2SAF039-0142	0.74	0.04	0.10	ug/L as Chrysene	T2SAF039-0057	0.58	81	80-120	15.0	20	

PROJECT		T779.27										
ANALYTE		METHOD										
DISSOLVED/DISPERSED PETROLEUM HYDROCARBON		IOC MARPOLMON-P										
SAMPLE NAME	ANALYSIS NO.	PREPARED	ANALYZED	BATCH	RESULT	MDL	RL	UNITS	DILUTION	NOTES		
PAWE-3CP2-SW-40	T2SAF039-0131	19-02-2025	13-04-2025	539218	0.18	0.04	0.10	ug/L as Chrysene	1			
PAWE-3CP2-SW-8	T2SAF039-0132	19-02-2025	13-04-2025	539218	0.14	0.04	0.10	ug/L as Chrysene	1			
PAWE-EQ	T2SAF039-0133	19-02-2025	13-04-2025	539218	ND	0.04	0.10	ug/L as Chrysene	1			
PAWE-WB	T2SAF039-0134	19-02-2025	13-04-2025	539218	ND	0.04	0.10	ug/L as Chrysene	1			
PCPWP-1CP2-SW-40-LD	T2SAF039-0135	15-02-2025	10-04-2025	539214	0.15	0.04	0.10	ug/L as Chrysene	1			
PCPWP-3CP2-SW-40-MS	T2SAF039-0136	15-02-2025	10-04-2025	539214	0.69	0.04	0.10	ug/L as Chrysene	1			
PCPWP-3CP2-SW-40-MSD	T2SAF039-0137	15-02-2025	10-04-2025	539214	0.69	0.04	0.10	ug/L as Chrysene	1			
NPWB-1CP2-SW-20-MS	T2SAF039-0138	14-02-2025	10-04-2025	539216	0.67	0.04	0.10	ug/L as Chrysene	1			
NPWB-1CP2-SW-20-MSD	T2SAF039-0139	14-02-2025	10-04-2025	539216	0.66	0.04	0.10	ug/L as Chrysene	1			
NPWB-3B2-SW-20-LD	T2SAF039-0140	14-02-2025	10-04-2025	539216	0.06	0.04	0.10	ug/L as Chrysene	1			
NPWG-1B2X-SW-8-MS	T2SAF039-0141	17-02-2025	11-04-2025	539211	0.86	0.04	0.10	ug/L as Chrysene	1			
NPWG-1B2X-SW-8-MSD	T2SAF039-0142	17-02-2025	11-04-2025	539211	0.74	0.04	0.10	ug/L as Chrysene	1			
NPWG-3CP2-SW-8-LD	T2SAF039-0143	16-02-2025	11-04-2025	539211	0.16	0.04	0.10	ug/L as Chrysene	1			
PCPWP-1CP2X-SW-1-MS	T2SAF039-0144	17-02-2025	13-04-2025	539225	0.72	0.04	0.10	ug/L as Chrysene	1			
PCPWP-1CP2X-SW-1-MSD	T2SAF039-0145	17-02-2025	13-04-2025	539225	0.81	0.04	0.10	ug/L as Chrysene	1			
PCPWP-3CP2-SW-1-LD	T2SAF039-0146	18-02-2025	13-04-2025	539225	0.14	0.04	0.10	ug/L as Chrysene	1			
PAEF-A-SW-1-MS	T2SAF039-0147	13-02-2025	27-04-2025	539203	0.59	0.04	0.10	ug/L as Chrysene	1			
PAEF-A-SW-1-MSD	T2SAF039-0148	13-02-2025	27-04-2025	539203	0.56	0.04	0.10	ug/L as Chrysene	1			
PAWB-1CP2-SW-40-LD	T2SAF039-0149	21-02-2025	14-04-2025	539224	0.11	0.04	0.10	ug/L as Chrysene	1			
PAWB-3CP2-SW-40-MS	T2SAF039-0150	21-02-2025	14-04-2025	539224	0.73	0.04	0.10	ug/L as Chrysene	1			
PAWB-3CP2-SW-40-MSD	T2SAF039-0151	21-02-2025	14-04-2025	539224	0.74	0.04	0.10	ug/L as Chrysene	1			
PAWE-1CP2-SW-20-LD	T2SAF039-0152	19-02-2025	13-04-2025	539218	0.19	0.04	0.10	ug/L as Chrysene	1			
PAWE-3B3-SW-20-MS	T2SAF039-0153	20-02-2025	13-04-2025	539218	0.79	0.04	0.10	ug/L as Chrysene	1			
PAWE-3B3-SW-20-MSD	T2SAF039-0154	20-02-2025	13-04-2025	539218	0.77	0.04	0.10	ug/L as Chrysene	1			

QUALITY CONTROL

PROJECT T779.27

ANALYTE					METHOD							
DISSOLVED/DISPERSED PETROLEUM HYDROCARBON					IDC MARPOLMON-P							
BATCH 539224		PREPARED 20-21-02-2025			ANALYZED		14-04-2025					
QC TYPE	ANALYSIS NO.	RESULT	MDL	RL	UNITS	SOURCE RESULT	SPIKE LEVEL	%REC	%REC LIMITS	RPD	RPD LIMIT	NOTES
Blank		0.00	0.04	0.10	ug/L as Chrysene							
CCS		0.51	0.04	0.10	ug/L as Chrysene		0.50	101	90-110			
CCV		0.51	0.04	0.10	ug/L as Chrysene		0.50	101	90-110			
LC5		0.65	0.04	0.10	ug/L as Chrysene		0.59	108	80-120			
LC5 Dup		0.68	0.04	0.10	ug/L as Chrysene		0.58	116	80-120			
Sample	T25AF039-0106	0.13	0.04	0.10	ug/L as Chrysene							
Sample LabDup	T25AF039-0149	0.11	0.04	0.10	ug/L as Chrysene							
Matrix Spike	T25AF039-0150	0.73	0.04	0.10	ug/L as Chrysene	0.14	0.58	102	80-120	16.7	2.0	
Matrix Spike Dup	T25AF039-0151	0.74	0.04	0.10	ug/L as Chrysene	T25AF039-0114	0.58	103	80-120	1.4	2.0	

BATCH 539201		PREPARED 12-20-2025		ANALYZED		27-04-2025					
QC TYPE	ANALYSIS NO.	RESULT	MDL	RL	UNITS	SOURCE RESULT	SPIKE LEVEL	%REC	%REC LIMITS	RPD	NOTES
Blank		ND	0.04	0.10	ug/L as Chrysene						
LCS		0.49	0.04	0.10	ug/L as Chrysene		0.50	98	90-110		
CCV		0.49	0.04	0.10	ug/L as Chrysene		0.50	98	90-110		
LCS		0.65	0.04	0.10	ug/L as Chrysene		0.59	108	80-120		
LCS Dup		0.65	0.04	0.10	ug/L as Chrysene		0.58	110	80-120	0	20
Sample	T25AF038-0016	0.15	0.04	0.10	ug/L as Chrysene						
LCS Dup LabDup	T25AF038-0039	0.15	0.04	0.10	ug/L as Chrysene					0	20
Matrix Spike	T25AF039-0147	0.59	0.04	0.10	ug/L as Chrysene	0.08	0.58	83	80-120		
Matrix Spike Dup	T25AF039-0148	0.56	0.04	0.10	ug/L as Chrysene	T25AF039-0100	0.58	89	80-120	2.6	20

NOTES AND DEFINITIONS :

ND Analyte NOT DETECTED at or above the MDL
J Estimated Value. Analyte Detected above the minimum detection limit (MDL) but at or below the minimum reporting limit (MRL)

Karnphong B.

(MR KARNPHONG BOONPUANG)
TECHNICAL MANAGEMENT
29-05-2025

Proprietor S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
29-05-2025

DO NOT COPY PARTIAL OF THIS ANALYSIS REPORT WITHOUT OFFICIAL APPROVAL.
REPORTED ANALYSIS REFERS TO SUBMITTED SAMPLE ONLY.

APRIL 28, 2025

Dr. Ted Donn

Tetra Tech, Inc.

3697 Mt. Diablo Blvd., Suite 150, Lafayette, CA 94549

RE: Submittal of laboratory analysis report for Project T779.28, DDPH Analysis of seawater

This cover letter is to submit the laboratory analysis report for Project T779.28, DDPH Analysis of seawater service provided according to the UAE Quotation No. 2025-002381 dated March 6th, 2025.

It includes analysis results, chain of custody records, and case narrative for this service. Overall, the service fully complies with the customer's requirements for traceability, and quality control and assurance.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Pyropal S.

Mrs Piyapat Suttamanutwong

Laboratory and Research Development Manager

Ship To:
Piyapat Suttamanutwong
UAE Consultant Co., Ltd.
3 Sopi Udornsuk 41, Sukhumvit Rd
Bangchak, Bangkok 10260

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
t.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	DOPH
T779.28	MGWA-1CP2-14-D	2/4/2025	2:05	SW	Hexane	1
T779.28	MGWA-1B2Y-SW-1	2/4/2025	0:45	SW	Hexane	1
T779.28	MGWA-1B2Y-SW-20	2/4/2025	0:53	SW	Hexane	1
T779.28	MGWA-1B2Y-SW-40	2/4/2025	1:02	SW	Hexane	1
T779.28	MGWA-1B2Y-SW-B	2/4/2025	1:13	SW	Hexane	1
T779.28	MGWA-1CP2-SW-1	2/4/2025	2:05	SW	Hexane	1
T779.28	MGWA-1CP2-SW-20	2/4/2025	2:14	SW	Hexane	1
T779.28	MGWA-1CP2-SW-40	2/4/2025	2:23	SW	Hexane	1
T779.28	MGWA-1CP2-SW-B	2/4/2025	2:35	SW	Hexane	1
T779.28	MGWA-3B2X-SW-1	2/3/2025	19:23	SW	Hexane	1
T779.28	MGWA-3B2X-SW-1-MS	2/3/2025	19:23	SW	Hexane	1
T779.28	MGWA-3B2X-SW-1-MSD	2/3/2025	19:23	SW	Hexane	1
T779.28	MGWA-3B2X-SW-20	2/3/2025	19:34	SW	Hexane	1
T779.28	MGWA-3B2X-SW-40	2/3/2025	19:41	SW	Hexane	1
T779.28	MGWA-3B2X-SW-B	2/3/2025	19:51	SW	Hexane	1
T779.28	MGWA-3CP2-SW-1	2/3/2025	16:23	SW	Hexane	1
T779.28	MGWA-3CP2-SW-20	2/3/2025	16:31	SW	Hexane	1
T779.28	MGWA-3CP2-SW-40	2/3/2025	16:39	SW	Hexane	1
T779.28	MGWA-3CP2-SW-40-FD	2/3/2025	16:49	SW	Hexane	1
T779.28	MGWA-3CP2-SW-B	2/3/2025	16:59	SW	Hexane	1
T779.28	MGWA-EQ	2/3/2025	7:15	SW	Hexane	1
T779.28	MGWA-WB	2/3/2025	7:27	SW	Hexane	1
T779.30	SRWB-WB	2/9/2025	0:35	SW	Hexane	1
T779.30	SRWB-EQ	2/9/2025	0:46	SW	Hexane	1
T779.30	SRWB-1CP2-1	2/9/2025	1:06	SW	Hexane	1
T779.30	SRWB-1CP2-P20	2/9/2025	1:12	SW	Hexane	1
T779.30	SRWB-1CP2-40	2/9/2025	1:20	SW	Hexane	1
T779.30	SRWB-1CP2-40-FD	2/9/2025	1:30	SW	Hexane	1
T779.30	SRWB-1CP2-B	2/9/2025	1:41	SW	Hexane	1
T779.30	SRWB-3CP2-1	2/9/2025	2:40	SW	Hexane	1
T779.30	SRWB-3CP2-20	2/9/2025	2:46	SW	Hexane	1
T779.30	SRWB-3CP2-40	2/9/2025	2:54	SW	Hexane	1
T779.30	SRWB-3CP2-B	2/9/2025	3:06	SW	Hexane	1
T779.30	SRWB-3CP2-B-MS	2/9/2025	3:06	SW	Hexane	1
T779.30	SRWB-3CP2-B-MSD	2/9/2025	3:05	SW	Hexane	1
T779.30	G4/43REF-A-SW-1	2/10/2025	1:01	SW	Hexane	1
T779.30	G4/43REF-A-SW-10	2/10/2025	1:07	SW	Hexane	1
T779.30	G4/43REF-A-SW-40	2/10/2025	1:13	SW	Hexane	1
T779.30	G4/43REF-A-SW-B	2/10/2025	1:26	SW	Hexane	1



บริษัท ยโนเค็ด แอนนาลิสต์ แอนด์ เอ็นจิเนียริง คอนซัลแตนท์ จำกัด

LINE ITEM 7.4.D01-11SV3-APR-2026

3 ซอยสุขุมวิท 41 ถ.สุขุมวิท แขวงบางจาก เขตพระโขนง กรุงเทพฯ 10260 โทรศัพท์: 0-2763-2828 โทรสาร: 0-2763-2800
 อีเมล: lab@uaeconsultant.com <<mailto:lab@uaeconsultant.com>> <<http://www.uaeconsultant.com>>

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ลำดับ	พยานหลักฐาน สำคัญ	ชนิดของยา	วันที่รับ	เวลาเก็บ	ชนิดของยา	วิธีเก็บ	ภาชนะบรรจุ	จำนวน	พยานผู้รับ
1	1	MOWA-ICPQ 4-LD	01 ตุลาคม 2560	02:00	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์
2	2	MOWA-IBZY-5W-1	04 ตุลาคม 2560	00:46	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์
3	3	MOWA-IBZY-5W-2D	04 ตุลาคม 2560	00:53	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์
4	4	MOWA-IBZY-5W-4D	04 ตุลาคม 2560	01:02	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์
5	5	MOWA-IBZY-5W-6	04 ตุลาคม 2560	01:13	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์
6	6	MOWA-ICPQ-5L1	04 ตุลาคม 2560	02:05	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์
7	7	MOWA-ICPQ-5W-2D	04 ตุลาคม 2560	14:14	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์
8	8	MOWA-ICPQ-5W-4D	04 ตุลาคม 2560	16:23	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์
9	9	MOWA-ICPQ-5W-B	04 ตุลาคม 2560	02:35	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์
10	10	MOWA-IBZY-5W-1	01 ตุลาคม 2560	19:23	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์
11	11	MOWA-IBZY-5W-14S	01 ตุลาคม 2560	19:23	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์
12	12	MOWA-IBZY-5W-14S5D	01 ตุลาคม 2560	19:23	ปัสสาวะ		ขวานเกล็ด (50) x 8 ลิตร	1	ศาสตราจารย์นายแพทย์

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การวัดผลตามเกณฑ์ในแบบฝึกหัด

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QUALITY CONTROL

PROJECT T779.28

ANALYTE	METHOD
DISSOLVED/DISPERSED PETROLEUM HYDROCARBON	IOC MARPOLMON-P

SAMPLE NAME	ANALYSIS NO.	PREPARED	ANALYZED	BATCH	RESULT	MDL	RL	UNITS	DILUTION	NOTES
MGWA-1CP2-1-LD	T24AWS28-0001	04-02-2025	04-24-2025	534036	0.28	0.04	0.10	ug/L as Chrysene	1	
MGWA-1B2Y-SW-1	T24AWS28-0002	04-02-2025	04-24-2025	534036	0.46	0.04	0.10	ug/L as Chrysene	1	
MGWA-1B2Y-SW-20	T24AWS28-0003	04-02-2025	04-24-2025	534036	0.22	0.04	0.10	ug/L as Chrysene	1	
MGWA-1B2Y-SW-40	T24AWS28-0004	04-02-2025	04-24-2025	534036	0.12	0.04	0.10	ug/L as Chrysene	1	
MGWA-1B2Y-SW-8	T24AWS28-0005	04-02-2025	04-24-2025	534036	0.47	0.04	0.10	ug/L as Chrysene	1	
MGWA-1CP2-SW-1	T24AWS28-0006	04-02-2025	04-24-2025	534036	0.27	0.04	0.10	ug/L as Chrysene	1	
MGWA-1CP2-SW-20	T24AWS28-0007	04-02-2025	04-24-2025	534036	0.40	0.04	0.10	ug/L as Chrysene	1	
MGWA-1CP2-SW-40	T24AWS28-0008	04-02-2025	04-24-2025	534036	0.19	0.04	0.10	ug/L as Chrysene	1	
MGWA-1CP2-SW-8	T24AWS28-0009	04-02-2025	04-24-2025	534036	0.14	0.04	0.10	ug/L as Chrysene	1	
MGWA-3B2X-SW-1	T24AWS28-0010	03-02-2025	04-24-2025	534036	0.09	0.04	0.10	ug/L as Chrysene	1	J
MGWA-3B2X-SW-1-MS	T24AWS28-0011	03-02-2025	04-24-2025	534036	0.62	0.04	0.10	ug/L as Chrysene	1	
MGWA-3B2X-SW-1-MSD	T24AWS28-0012	03-02-2025	04-24-2025	534036	0.64	0.04	0.10	ug/L as Chrysene	1	
MGWA-3B2X-SW-10	T24AWS28-0013	03-02-2025	04-24-2025	534036	0.32	0.04	0.10	ug/L as Chrysene	1	
MGWA-3B2X-SW-40	T24AWS28-0014	03-02-2025	04-24-2025	534036	0.09	0.04	0.10	ug/L as Chrysene	1	J
MGWA-3B2X-SW-8	T24AWS28-0015	03-02-2025	04-24-2025	534036	0.15	0.04	0.10	ug/L as Chrysene	1	
MGWA-3CP2-SW-1	T24AWS28-0016	03-02-2025	04-24-2025	534036	0.12	0.04	0.10	ug/L as Chrysene	1	
MGWA-3CP2-SW-20	T24AWS28-0017	03-02-2025	04-24-2025	534036	0.12	0.04	0.10	ug/L as Chrysene	1	
MGWA-3CP2-SW-40	T24AWS28-0018	03-02-2025	04-24-2025	534036	0.14	0.04	0.10	ug/L as Chrysene	1	
MGWA-3CP2-SW-40-FD	T24AWS28-0019	03-02-2025	04-24-2025	534036	0.12	0.04	0.10	ug/L as Chrysene	1	
MGWA-3CP2-SW-8	T24AWS28-0020	03-02-2025	04-24-2025	534036	0.11	0.04	0.10	ug/L as Chrysene	1	
MGWA-EQ	T24AWS28-0021	03-02-2025	04-24-2025	534036	ND	0.04	0.10	ug/L as Chrysene	1	
MGWA-WB	T24AWS28-0022	03-02-2025	04-24-2025	534036	ND	0.04	0.10	ug/L as Chrysene	1	

PROJECT T779.28

ANALYTE	METHOD
DISSOLVED/DISPERSED PETROLEUM HYDROCARBON	IOC MARPOLMON-P

BATCH	PREPARED	ANALYZED	QC TYPE	ANALYSIS NO.	RESULT	MDL	RL	UNITS	SOURCE RESULT	SPIKE LEVEL	%REC	%REC LIMITS	RPD	RPD LIMIT	NOTES
534036	03-04-02-2025	24-04-2025	Blank		ND	0.04	0.10	ug/L as Chrysene							
			CCS		0.53	0.04	0.10	ug/L as Chrysene		0.50	105	90-110			
			CCV		0.50	0.04	0.10	ug/L as Chrysene		0.50	99	90-110			
			LCS		0.64	0.04	0.10	ug/L as Chrysene		0.58	109	80-120			
			LCS Dup		0.62	0.04	0.10	ug/L as Chrysene		0.58	105	80-120	3.2	20	
			Sample	T25AE931-0006	0.27	0.04	0.10	ug/L as Chrysene							
			Sample Lab/Dup	T25AE931-0001	0.28	0.04	0.10	ug/L as Chrysene					3.6	20	
			Matrix Spike	T25AE931-0011	0.62	0.04	0.10	ug/L as Chrysene	0.09	0.58	91	80-120			J
			Matrix Spike Dup	T25AE931-0012	0.67	0.04	0.10	ug/L as Chrysene	T25AE931-0010	0.58	100	80-120	9.0	20	

NOTES AND DEFINITIONS :

ND Analyte NOT DETECTED at or above the MDL

J Estimated Value, Analyte Detected above the minimum detection limit (MDL) but at or below the minimum reporting limit (MRL)

Karnphong B.

(MR KARNPHONG BOONPLANG)
TECHNICAL MANAGEMENT
28-04-2025

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
28-04-2025

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Analysis / Test Report

Report to : Tetra Tech Inc.

77 Soi Udomsuk 39/1, Sukhumvit 103, Bangkok, Prakhong, Bangkok Thailand 10260

P/O :

Project Name : T779.27

Project Location :

Lot ID: 2519690

Date Received : Feb 27, 2025

Date Reported : Mar 03, 2025

Report Number : 3245641-1

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Summary Samples

Sample Location	ALS Sample ID	Sample Description	Sampling Date / Time	Received Date / Time
NPWP-1C2X-SW-1	2519690-1	Seawater	Feb 16, 2025 01:52 AM	Feb 27, 2025 01:00 PM
NPWP-1C2X-SW-20	2519690-2	Seawater	Feb 16, 2025 01:58 AM	Feb 27, 2025 01:00 PM
NPWP-1C2X-SW-40	2519690-3	Seawater	Feb 16, 2025 02:06 AM	Feb 27, 2025 01:00 PM
NPWP-1C2X-SW-8	2519690-4	Seawater	Feb 16, 2025 02:17 AM	Feb 27, 2025 01:00 PM
NPWP-1CP2-SW-1	2519690-5	Seawater	Feb 15, 2025 02:45 AM	Feb 27, 2025 01:00 PM
NPWP-1CP2-SW-20	2519690-6	Seawater	Feb 15, 2025 02:51 AM	Feb 27, 2025 01:00 PM
NPWP-1CP2-SW-40	2519690-7	Seawater	Feb 15, 2025 02:59 AM	Feb 27, 2025 01:00 PM
NPWP-1CP2-SW-8	2519690-8	Seawater	Feb 15, 2025 01:12 AM	Feb 27, 2025 01:00 PM
NPWP-2C2-SW-1	2519690-9	Seawater	Feb 16, 2025 12:12 AM	Feb 27, 2025 01:00 PM
NPWP-2C2-SW-20	2519690-10	Seawater	Feb 16, 2025 12:18 AM	Feb 27, 2025 01:00 PM
NPWP-2C2-SW-40	2519690-11	Seawater	Feb 16, 2025 12:46 AM	Feb 27, 2025 01:00 PM
NPWP-2C2-SW-8	2519690-12	Seawater	Feb 16, 2025 12:58 AM	Feb 27, 2025 01:00 PM
NPWP-3C2-SW-1	2519690-13	Seawater	Feb 16, 2025 01:06 AM	Feb 27, 2025 01:00 PM
NPWP-3C2-SW-20	2519690-14	Seawater	Feb 15, 2025 10:02 PM	Feb 27, 2025 01:00 PM
NPWP-3C2-SW-40	2519690-15	Seawater	Feb 15, 2025 10:09 PM	Feb 27, 2025 01:00 PM
NPWP-3C2-SW-8	2519690-16	Seawater	Feb 15, 2025 10:17 PM	Feb 27, 2025 01:00 PM
NPWP-3CP2-SW-1	2519690-17	Seawater	Feb 15, 2025 10:27 PM	Feb 27, 2025 01:00 PM
NPWP-3CP2-SW-20	2519690-18	Seawater	Feb 15, 2025 03:13 PM	Feb 27, 2025 01:00 PM
NPWP-3CP2-SW-40	2519690-19	Seawater	Feb 15, 2025 03:18 PM	Feb 27, 2025 01:00 PM
NPWP-3CP2-SW-8	2519690-20	Seawater	Feb 15, 2025 03:26 PM	Feb 27, 2025 01:00 PM
NPWP-4C2-SW-1	2519690-21	Seawater	Feb 15, 2025 03:39 PM	Feb 27, 2025 01:00 PM
NPWP-4C2-SW-20	2519690-22	Seawater	Feb 15, 2025 04:20 AM	Feb 27, 2025 01:00 PM
NPWP-4C2-SW-40	2519690-23	Seawater	Feb 15, 2025 04:26 AM	Feb 27, 2025 01:00 PM
NPWP-4C2-SW-8	2519690-24	Seawater	Feb 15, 2025 04:14 AM	Feb 27, 2025 01:00 PM
NPWP-4C2-SW-8	2519690-25	Seawater	Feb 15, 2025 04:45 AM	Feb 27, 2025 01:00 PM
NPWP-4C2-SW-8	2519690-26	Seawater	Feb 15, 2025 08:54 PM	Feb 27, 2025 01:00 PM
NPWP-4C2-SW-8	2519690-27	Seawater	Feb 15, 2025 08:59 PM	Feb 27, 2025 01:00 PM
NPWP-4C2-SW-8	2519690-28	Seawater	Feb 12, 2025 09:25 PM	Feb 27, 2025 01:00 PM
NPWP-4C2-SW-8	2519690-29	Seawater	Feb 12, 2025 09:11 PM	Feb 27, 2025 01:00 PM
NPWP-4C2-SW-8	2519690-30	Seawater	Feb 12, 2025 09:21 PM	Feb 27, 2025 01:00 PM
NPWP-1C2-SW-1	2519690-31	Seawater	Feb 14, 2025 12:47 AM	Feb 27, 2025 01:00 PM
NPWP-1C2-SW-20	2519690-32	Seawater	Feb 14, 2025 12:14 AM	Feb 27, 2025 01:00 PM
NPWP-1C2-SW-40	2519690-33	Seawater	Feb 14, 2025 01:02 AM	Feb 27, 2025 01:00 PM
NPWP-1C2-SW-8	2519690-34	Seawater	Feb 14, 2025 01:11 AM	Feb 27, 2025 01:00 PM
NPWP-1CP2-SW-1	2519690-35	Seawater	Feb 14, 2025 01:51 AM	Feb 27, 2025 01:00 PM
NPWP-1CP2-SW-20	2519690-36	Seawater	Feb 14, 2025 01:57 AM	Feb 27, 2025 01:00 PM
NPWP-1CP2-SW-40	2519690-37	Seawater	Feb 14, 2025 02:09 AM	Feb 27, 2025 01:00 PM
NPWP-1CP2-SW-8	2519690-38	Seawater	Feb 14, 2025 02:20 AM	Feb 27, 2025 01:00 PM
NPWP-3B2-SW-1	2519690-39	Seawater	Feb 14, 2025 03:52 PM	Feb 27, 2025 01:00 PM
NPWP-3B2-SW-20	2519690-40	Seawater	Feb 14, 2025 03:57 PM	Feb 27, 2025 01:00 PM
NPWP-3B2-SW-40	2519690-41	Seawater	Feb 14, 2025 04:08 PM	Feb 27, 2025 01:00 PM
NPWP-3B2-SW-8	2519690-42	Seawater	Feb 14, 2025 04:18 PM	Feb 27, 2025 01:00 PM
NPWP-3CP2-SW-1	2519690-43	Seawater	Feb 14, 2025 02:11 PM	Feb 27, 2025 01:00 PM
NPWP-3CP2-SW-20	2519690-44	Seawater	Feb 14, 2025 02:19 PM	Feb 27, 2025 01:00 PM
NPWP-3CP2-SW-40	2519690-45	Seawater	Feb 14, 2025 02:45 PM	Feb 27, 2025 01:00 PM

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Siruluk P.

Siruluk Buranok
Section Head



Analysis / Test Report

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77 Soi Udomsuk 39/1, Sukhumvit 103, Bangkok, Prakhong, Bangkok Thailand 10260

P/O :

Project Name : T779.27

Project Location :

Lot ID: 2519690

Date Received : Feb 27, 2025

Date Reported : Mar 03, 2025

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Summary Samples

Sample Location	ALS Sample ID	Sample Description	Sampling Date / Time	Received Date / Time
NPWB-3CP2-SW-40	2519690-46	Seawater	Feb 14, 2025 02:53 PM	Feb 27, 2025 01:00 PM
NPWB-3CP2-SW-8	2519690-47	Seawater	Feb 14, 2025 01:02 PM	Feb 27, 2025 01:00 PM
NPWG-1B2X-SW-1	2519690-48	Seawater	Feb 17, 2025 12:58 AM	Feb 27, 2025 01:00 PM
NPWG-1B2X-SW-20	2519690-49	Seawater	Feb 17, 2025 01:01 AM	Feb 27, 2025 01:00 PM
NPWG-1B2X-SW-40	2519690-50	Seawater	Feb 17, 2025 01:12 AM	Feb 27, 2025 01:00 PM
NPWG-1B2X-SW-8	2519690-51	Seawater	Feb 17, 2025 01:22 AM	Feb 27, 2025 01:00 PM
NPWG-1CP2-SW-1	2519690-52	Seawater	Feb 17, 2025 02:01 AM	Feb 27, 2025 01:00 PM
NPWG-1CP2-SW-20	2519690-53	Seawater	Feb 17, 2025 02:10 AM	Feb 27, 2025 01:00 PM
NPWG-1CP2-SW-40	2519690-54	Seawater	Feb 17, 2025 02:18 AM	Feb 27, 2025 01:00 PM
NPWG-1CP2-SW-8	2519690-55	Seawater	Feb 17, 2025 02:29 AM	Feb 27, 2025 01:00 PM
NPWG-3B2X-SW-1	2519690-56	Seawater	Feb 16, 2025 08:10 PM	Feb 27, 2025 01:00 PM
NPWG-3B2X-SW-20	2519690-57	Seawater	Feb 16, 2025 08:16 PM	Feb 27, 2025 01:00 PM
NPWG-3B2X-SW-40	2519690-58	Seawater	Feb 16, 2025 08:41 PM	Feb 27, 2025 01:00 PM
NPWG-3B2X-SW-8	2519690-59	Seawater	Feb 16, 2025 08:51 PM	Feb 27, 2025 01:00 PM
NPWG-3B2X-SW-8-FD	2519690-60	Seawater	Feb 16, 2025 09:04 PM	Feb 27, 2025 01:00 PM
NPWG-3CP2-SW-1	2519690-61	Seawater	Feb 16, 2025 07:16 PM	Feb 27, 2025 01:00 PM
NPWG-3CP2-SW-20	2519690-62	Seawater	Feb 16, 2025 07:22 PM	Feb 27, 2025 01:00 PM
NPWG-3CP2-SW-40	2519690-63	Seawater	Feb 16, 2025 07:10 PM	Feb 27, 2025 01:00 PM
NPWG-3CP2-SW-8	2519690-64	Seawater	Feb 16, 2025 07:40 PM	Feb 27, 2025 01:00 PM

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Analysis / Test Report

Report to : Tetra Tech Inc.
77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
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General Comments

Analysis Test Report contains Summary samples, General Comments and Analytical Results. Quality Control Report will be found in the following separate attachments. The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.
Where the LOD and LOQ of a reported result differs from standard, this may be due to high moisture content or matrix interference.
When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

LOD : Limit of detection.
LOQ : Limit of Quantitation.
ND : The result is not detected.
U : Indicates the result is less than LOD.
J : Indicates an estimated value. The reported value was obtained from a reading that was less than the LOQ but greater than or equal to the LOD.

The samples received on Feb 27, 2025 were intact, on-ice within 8 sealed cooler at

Cooler 1 : Temperature 1.5 degree C
Cooler 2 : Temperature 2.2 degree C
Cooler 3 : Temperature 3.1 degree C
Cooler 4 : Temperature 1.9 degree C
Cooler 5 : Temperature 1.6 degree C
Cooler 6 : Temperature 2.0 degree C
Cooler 7 : Temperature 3.3 degree C
Cooler 8 : Temperature 1.7 degree C

Sample Preparation and Analysis

Total suspended solids

A well-mixed sample is filtered through a weighed 1.2 µm pore size glass fibre filter paper and the residue retained on the filter is dried at 103-105 degree C. The increase in the weight of the filter paper represents the total suspended solids.



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Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
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Reference Number	2519690-1									
Sampling Date	Feb 16, 2025 1:52 AM									
Sample Description	Seawater									
Location	NPCPP-1C2X-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04774	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Siriluk P.

Siriluk Buranik
Section Head

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77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245641-1

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Reference Number	2519690-2									
Sampling Date	Feb 16, 2025 1:58 AM									
Sample Description	Seawater									
Location	NPCPP-1C2X-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04774	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245641-1

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Reference Number	2519690-4									
Sampling Date	Feb 16, 2025 2:17 AM									
Sample Description	Seawater									
Location	NPCPP-1C2X-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04774	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



Analysis / Test Report

Report to : Tetra Tech Inc.
77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanhong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
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Reference Number	2519690-5									
Sampling Date	Feb 15, 2025 2:45 AM									
Sample Description	Seawater									
Location	NPCPP-1CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04774	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
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Reference Number	2519690-6									
Sampling Date	Feb 15, 2025 2:51 AM									
Sample Description	Seawater									
Location	NPCPP-1CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04774	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



Analysis / Test Report

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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
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Reference Number	2519690-7									
Sampling Date	Feb 15, 2025 2:59 AM									
Sample Description	Seawater									
Location	NPCPP-1CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04774	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-8									
Sampling Date	Feb 15, 2025 1:12 AM									
Sample Description	Seawater									
Location	NPCPP-1C92-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.4	0.3	1	mg/L	1	WL25/04774	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Lot ID: 2519690
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Reference Number	2519690-9									
Sampling Date	Feb 16, 2025 12:12 AM									
Sample Description	Seawater									
Location	NPCPP-2C2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04774	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-10									
Sampling Date	Feb 16, 2025 12:18 AM									
Sample Description	Seawater									
Location	NPCPP-2C2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04774	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-11									
Sampling Date	Feb 16, 2025 12:46 AM									
Sample Description	Seawater									
Location	NPCPP-2C2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04775	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-12									
Sampling Date	Feb 16, 2025 12:58 AM									
Sample Description	Seawater									
Location	NPCPP-2C2-SW-40-FD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04775	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-13									
Sampling Date	Feb 16, 2025 1:06 AM									
Sample Description	Seawater									
Location	NPCPP-2C2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.4	0.3	1	mg/L	1	WL25/04775	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Reference Number	2519690-14									
Sampling Date	Feb 15, 2025 10:02 PM									
Sample Description	Seawater									
Location	NPCPP-3C2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04775	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-15									
Sampling Date	Feb 15, 2025 10:09 PM									
Sample Description	Seawater									
Location	NPCPP-3C2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04775	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-16									
Sampling Date	Feb 15, 2025 10:17 PM									
Sample Description	Seawater									
Location	NPCPP-3C2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04775	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-17									
Sampling Date	Feb 15, 2025 10:27 PM									
Sample Description	Seawater									
Location	NPCPP-3C2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04775	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-18									
Sampling Date	Feb 15, 2025 3:13 PM									
Sample Description	Seawater									
Location	NPCPP-3C2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04775	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-19									
Sampling Date	Feb 15, 2025 3:18 PM									
Sample Description	Seawater									
Location	NPCPP-3C2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04775	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-20									
Sampling Date	Feb 15, 2025 3:26 PM									
Sample Description	Seawater									
Location	NPCPP-3CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04775	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-21									
Sampling Date	Feb 15, 2025 3:39 PM									
Sample Description	Seawater									
Location	NPCPP-3CP2-SW-B									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.4	0.3	1	mg/L	1	WL25/04777	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Reference Number	2519690-22									
Sampling Date	Feb 15, 2025 4:20 AM									
Sample Description	Seawater									
Location	NPCPP-4C2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04777	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-23									
Sampling Date	Feb 15, 2025 4:26 AM									
Sample Description	Seawater									
Location	NPCPP-4C2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04777	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Analysis / Test Report

Report to : Tetra Tech Inc.
77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
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Reference Number	2519690-24									
Sampling Date	Feb 15, 2025 4:14 AM									
Sample Description	Seawater									
Location	NPCP-AC2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04777	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
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Reference Number	2519690-25									
Sampling Date	Feb 15, 2025 4:45 AM									
Sample Description	Seawater									
Location	NPCP-AC2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04777	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
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Reference Number	2519690-26									
Sampling Date	Feb 12, 2025 8:54 PM									
Sample Description	Seawater									
Location	NPREF-A-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04777	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Name : T779.27
Project Location :

Lot ID: 2519690
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Reference Number	2519690-27									
Sampling Date	Feb 12, 2025 8:59 PM									
Sample Description	Seawater									
Location	NPREF-A-SW-1-FD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04777	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Project Name : T779.27
Project Location :

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Reference Number	2519690-28									
Sampling Date	Feb 12, 2025 9:05 PM									
Sample Description	Seawater									
Location	NPREF-A-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04777	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Name : T779.27
Project Location :

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Reference Number	2519690-29									
Sampling Date	Feb 12, 2025 9:11 PM									
Sample Description	Seawater									
Location	NPREF-A-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04777	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-30									
Sampling Date	Feb 12, 2025 9:21 PM									
Sample Description	Seawater									
Location	NPREF-A-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04777	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-31									
Sampling Date	Feb 14, 2025 12:47 AM									
Sample Description	Seawater									
Location	NPWB-IC2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04778	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-32									
Sampling Date	Feb 14, 2025 12:14 AM									
Sample Description	Seawater									
Location	NPWB-1C2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04778	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
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Reference Number	2519690-33									
Sampling Date	Feb 14, 2025 1:02 AM									
Sample Description	Seawater									
Location	NPWB-1C2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04778	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Lot ID: 2519690
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Reference Number	2519690-34									
Sampling Date	Feb 14, 2025 1:11 AM									
Sample Description	Seawater									
Location	NPWB-1C2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04778	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Project Name : T779.27
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Lot ID: 2519690
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Reference Number	2519690-35									
Sampling Date	Feb 14, 2025 1:51 AM									
Sample Description	Seawater									
Location	NPWB-1CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04778	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-36									
Sampling Date	Feb 14, 2025 1:57 AM									
Sample Description	Seawater									
Location	NPWB-1CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04778	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Lot ID: 2519690
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Reference Number	2519690-37									
Sampling Date	Feb 14, 2025 2:09 AM									
Sample Description	Seawater									
Location	NPWB-1CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04778	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Reference Number	2519690-38									
Sampling Date	Feb 14, 2025 2:20 AM									
Sample Description	Seawater									
Location	NPWB-1CP2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04778	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-39									
Sampling Date	Feb 14, 2025 3:52 PM									
Sample Description	Seawater									
Location	NPWB-3B2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04778	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-40									
Sampling Date	Feb 14, 2025 3:57 PM									
Sample Description	Seawater									
Location	NPWB-3B2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04778	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-41									
Sampling Date	Feb 14, 2025 4:08 PM									
Sample Description	Seawater									
Location	NPWB-3B2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04779	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Project Location :

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Reference Number	2519690-42									
Sampling Date	Feb 14, 2025 4:18 PM									
Sample Description	Seawater									
Location	NPWB-3B2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04779	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Location :

Lot ID: 2519690
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Reference Number	2519690-43									
Sampling Date	Feb 14, 2025 2:11 PM									
Sample Description	Seawater									
Location	NPWB-3CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04779	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-44									
Sampling Date	Feb 14, 2025 2:19 PM									
Sample Description	Seawater									
Location	NPWB-3CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04779	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-45									
Sampling Date	Feb 14, 2025 2:45 PM									
Sample Description	Seawater									
Location	NPWB-3CP2-SW-20-FD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04779	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-46									
Sampling Date	Feb 14, 2025 2:51 PM									
Sample Description	Seawater									
Location	NPWB-3CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.4	0.3	1	mg/L	1	WL25/04779	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Lot ID: 2519690
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Reference Number	2519690-47									
Sampling Date	Feb 14, 2025 1:02 PM									
Sample Description	Seawater									
Location	NPWB-3CP2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04779	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-48									
Sampling Date	Feb 17, 2025 12:58 AM									
Sample Description	Seawater									
Location	NPWG-1B2X-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04779	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-49									
Sampling Date	Feb 17, 2025 1:01 AM									
Sample Description	Seawater									
Location	NPWG-1B2X-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04779	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-50									
Sampling Date	Feb 17, 2025 1:12 AM									
Sample Description	Seawater									
Location	NPWG-1B2X-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04779	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-51									
Sampling Date	Feb 17, 2025 1:22 AM									
Sample Description	Seawater									
Location	NPWG-1B2X-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04780	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-52									
Sampling Date	Feb 17, 2025 2:01 AM									
Sample Description	Seawater									
Location	NPWG-1CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04780	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Location :

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Reference Number	2519690-53									
Sampling Date	Feb 17, 2025 2:10 AM									
Sample Description	Seawater									
Location	NPWG-1CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04780	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-54									
Sampling Date	Feb 17, 2025 2:18 AM									
Sample Description	Seawater									
Location	NPWG-1CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04780	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Lot ID: 2519690
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Reference Number	2519690-55									
Sampling Date	Feb 17, 2025 2:29 AM									
Sample Description	Seawater									
Location	NPWG-1CP2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04780	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519690-56									
Sampling Date	Feb 16, 2025 8:10 PM									
Sample Description	Seawater									
Location	NPWG-3B2X-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04780	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519690-57									
Sampling Date	Feb 16, 2025 8:16 PM									
Sample Description	Seawater									
Location	NPWG-3B2X-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04780	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Report to : Tetra Tech Inc.
77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanhong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245641-1

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Reference Number	2519690-58									
Sampling Date	Feb 16, 2025 8:41 PM									
Sample Description	Seawater									
Location	NPWG-3B2X-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04780	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



Analysis / Test Report

Report to : Tetra Tech Inc.
77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanhong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245641-1

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Reference Number	2519690-59									
Sampling Date	Feb 16, 2025 8:51 PM									
Sample Description	Seawater									
Location	NPWG-3B2X-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04780	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Siriluk P.

Siriluk Buranok
Section Head

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Analysis / Test Report

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77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245641-1

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Reference Number	2519690-60									
Sampling Date	Feb 16, 2025 9:04 PM									
Sample Description	Seawater									
Location	NPWG-3B2X-SW-B-FD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04780	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



Analysis / Test Report

Report to : Tetra Tech Inc.
77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245641-1

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Reference Number	2519690-61									
Sampling Date	Feb 16, 2025 7:16 PM									
Sample Description	Seawater									
Location	NPWG-3CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.4	0.3	1	mg/L	1	WL25/04781	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245641-1

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Reference Number	2519690-62									
Sampling Date	Feb 16, 2025 7:22 PM									
Sample Description	Seawater									
Location	NPWG-3CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04781	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



Analysis / Test Report

Report to : Tetra Tech Inc.
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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245641-1

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Reference Number	2519690-63									
Sampling Date	Feb 16, 2025 7:10 PM									
Sample Description	Seawater									
Location	NPWG-3CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04781	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number: 3245641-1

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Reference Number	2519690-64									
Sampling Date	Feb 16, 2025 7:40 PM									
Sample Description	Seawater									
Location	NPWG-3CP2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04781	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanhong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number: 3245655-1

Page 1 of 67

Summary Samples					
Sample Location	ALS Sample ID	Sample Description	Sampling Date / Time	Received Date / Time	
NPWP-1CP2-SW-40-LD	2519692-59	Seawater	Feb 15, 2025 02:39 AM	Feb 27, 2025 01:00 PM	
NPWB-3B2-SW-20-LD	2519692-60	Seawater	Feb 14, 2025 03:57 PM	Feb 27, 2025 01:00 PM	
NPWG-3CP2-SW-8-LD	2519692-61	Seawater	Feb 16, 2025 07:40 PM	Feb 27, 2025 01:00 PM	
PACPR-1C2X-SW-1	2519692-1	Seawater	Feb 17, 2025 08:01 PM	Feb 27, 2025 01:00 PM	
PACPR-1C2X-SW-20	2519692-2	Seawater	Feb 17, 2025 08:07 PM	Feb 27, 2025 01:00 PM	
PACPR-1C2X-SW-40	2519692-3	Seawater	Feb 17, 2025 08:14 PM	Feb 27, 2025 01:00 PM	
PACPR-1C2X-SW-8	2519692-4	Seawater	Feb 17, 2025 08:24 PM	Feb 27, 2025 01:00 PM	
PACPR-1CP2X-SW-1	2519692-5	Seawater	Feb 17, 2025 09:01 PM	Feb 27, 2025 01:00 PM	
PACPR-1CP2X-SW-20	2519692-6	Seawater	Feb 17, 2025 09:11 PM	Feb 27, 2025 01:00 PM	
PACPR-1CP2X-SW-40	2519692-7	Seawater	Feb 17, 2025 09:19 PM	Feb 27, 2025 01:00 PM	
PACPR-1CP2X-SW-8	2519692-8	Seawater	Feb 17, 2025 09:29 PM	Feb 27, 2025 01:00 PM	
PACPR-2C2-SW-1	2519692-9	Seawater	Feb 18, 2025 05:05 PM	Feb 27, 2025 01:00 PM	
PACPR-2C2-SW-20	2519692-10	Seawater	Feb 18, 2025 05:11 PM	Feb 27, 2025 01:00 PM	
PACPR-2C2-SW-40	2519692-11	Seawater	Feb 18, 2025 05:19 PM	Feb 27, 2025 01:00 PM	
PACPR-2C2-SW-8	2519692-12	Seawater	Feb 18, 2025 05:09 PM	Feb 27, 2025 01:00 PM	
PACPR-3C2Y-SW-1	2519692-13	Seawater	Feb 18, 2025 12:59 AM	Feb 27, 2025 01:00 PM	
PACPR-3C2Y-SW-20	2519692-14	Seawater	Feb 18, 2025 01:06 AM	Feb 27, 2025 01:00 PM	
PACPR-3C2Y-SW-40	2519692-15	Seawater	Feb 18, 2025 01:15 AM	Feb 27, 2025 01:00 PM	
PACPR-3C2Y-SW-8	2519692-16	Seawater	Feb 18, 2025 01:25 AM	Feb 27, 2025 01:00 PM	
PACPR-3CP2-SW-1	2519692-17	Seawater	Feb 18, 2025 02:07 AM	Feb 27, 2025 01:00 PM	
PACPR-3CP2-SW-1-LD	2519692-62	Seawater	Feb 17, 2025 02:17 AM	Feb 27, 2025 01:00 PM	
PACPR-3CP2-SW-20	2519692-18	Seawater	Feb 18, 2025 02:17 AM	Feb 27, 2025 01:00 PM	
PACPR-3CP2-SW-40	2519692-19	Seawater	Feb 18, 2025 02:25 AM	Feb 27, 2025 01:00 PM	
PACPR-3CP2-SW-8	2519692-20	Seawater	Feb 18, 2025 02:36 AM	Feb 27, 2025 01:00 PM	
PACPR-4C2X-SW-1	2519692-21	Seawater	Feb 18, 2025 01:47 PM	Feb 27, 2025 01:00 PM	
PACPR-4C2X-SW-1-FO	2519692-22	Seawater	Feb 18, 2025 01:52 PM	Feb 27, 2025 01:00 PM	
PACPR-4C2X-SW-20	2519692-23	Seawater	Feb 18, 2025 01:58 PM	Feb 27, 2025 01:00 PM	
PACPR-4C2X-SW-40	2519692-24	Seawater	Feb 18, 2025 04:06 PM	Feb 27, 2025 01:00 PM	
PACPR-4C2X-SW-8	2519692-25	Seawater	Feb 18, 2025 04:16 PM	Feb 27, 2025 01:00 PM	
PAEPF-A-SW-1	2519692-26	Seawater	Feb 11, 2025 04:21 PM	Feb 27, 2025 01:00 PM	
PAEPF-A-SW-20	2519692-27	Seawater	Feb 11, 2025 04:11 PM	Feb 27, 2025 01:00 PM	
PAEPF-A-SW-40	2519692-28	Seawater	Feb 11, 2025 04:41 PM	Feb 27, 2025 01:00 PM	
PAEPF-A-SW-8	2519692-29	Seawater	Feb 11, 2025 04:51 PM	Feb 27, 2025 01:00 PM	
PAWB-1CP2-SW-1	2519692-30	Seawater	Feb 21, 2025 12:41 AM	Feb 27, 2025 01:00 PM	
PAWB-1CP2-SW-20	2519692-31	Seawater	Feb 21, 2025 12:50 AM	Feb 27, 2025 01:00 PM	
PAWB-1CP2-SW-40	2519692-32	Seawater	Feb 21, 2025 12:58 AM	Feb 27, 2025 01:00 PM	
PAWB-1CP2-SW-40-LD	2519692-63	Seawater	Feb 21, 2025 12:58 AM	Feb 27, 2025 01:00 PM	
PAWB-1CP2-SW-8	2519692-33	Seawater	Feb 21, 2025 01:11 AM	Feb 27, 2025 01:00 PM	
PAWB-3B2-SW-1	2519692-34	Seawater	Feb 21, 2025 01:45 PM	Feb 27, 2025 01:00 PM	
PAWB-3B2-SW-20	2519692-35	Seawater	Feb 21, 2025 01:51 PM	Feb 27, 2025 01:00 PM	
PAWB-3B2-SW-40	2519692-36	Seawater	Feb 21, 2025 01:59 PM	Feb 27, 2025 01:00 PM	
PAWB-3B2-SW-8	2519692-37	Seawater	Feb 21, 2025 02:09 PM	Feb 27, 2025 01:00 PM	
PAWB-3CP2-SW-1	2519692-38	Seawater	Feb 21, 2025 02:18 AM	Feb 27, 2025 01:00 PM	
PAWB-3CP2-SW-20	2519692-39	Seawater	Feb 21, 2025 02:25 AM	Feb 27, 2025 01:00 PM	
PAWB-3CP2-SW-40	2519692-40	Seawater	Feb 21, 2025 02:14 AM	Feb 27, 2025 01:00 PM	

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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519690
Date Received : Feb 27, 2025
Date Reported : Mar 10, 2025
Report Number: 3245641-1

Page 1 of 1

Quality Control Data										
QC Type	Parent	Result	LOD	LOQ	Unit	Parent Result	Spike Level	%Rec	%Rec Limit	Note
Water Testing : WL25/04774 : Total Suspended Solids										
Blank		ND	0.3	1	mg/L					U
Duplicate	2519690-10	ND	0.3	1	mg/L	ND				n/a 5 U
LCS		99.6	0.3	1	mg/L		100	99.6	90 - 110	
Water Testing : WL25/04775 : Total Suspended Solids										
Blank		ND	0.3	1	mg/L					U
Duplicate	2519690-20	ND	0.3	1	mg/L	ND				n/a 5 U
LCS		101	0.3	1	mg/L		100	101.0	90 - 110	
Water Testing : WL25/04777 : Total Suspended Solids										
Blank		ND	0.3	1	mg/L					U
Duplicate	2519690-30	ND	0.3	1	mg/L	ND				n/a 5 U
LCS		101	0.3	1	mg/L		100	101.0	90 - 110	
Water Testing : WL25/04778 : Total Suspended Solids										
Blank		ND	0.3	1	mg/L					U
Duplicate	2519690-40	ND	0.3	1	mg/L	ND				n/a 5 U
LCS		99	0.3	1	mg/L		100	99.0	90 - 110	
Water Testing : WL25/04779 : Total Suspended Solids										
Blank		ND	0.3	1	mg/L					U
Duplicate	2519690-50	ND	0.3	1	mg/L	ND				n/a 5 U
LCS		100	0.3	1	mg/L		100	100.0	90 - 110	
Water Testing : WL25/04780 : Total Suspended Solids										
Blank		ND	0.3	1	mg/L					U
Duplicate	2519690-60	ND	0.3	1	mg/L	ND				n/a 5 U
LCS		99.8	0.3	1	mg/L		100	99.8	90 - 110	
Water Testing : WL25/04781 : Total Suspended Solids										
Blank		ND	0.3	1	mg/L					U
Duplicate	2519692-6	ND	0.3	1	mg/L	ND				n/a 5 U
LCS		99	0.3	1	mg/L		100	99.0	90 - 110	

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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number: 3245655-1

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Summary Samples					
Sample Location	ALS Sample ID	Sample Description	Sampling Date / Time	Received Date / Time	
PAWB-3CP2-SW-8	2519692-41	Seawater	Feb 21, 2025 02:49 AM	Feb 27, 2025 01:00 PM	
PAWE-1B1-SW-1	2519692-42	Seawater	Feb 20, 2025 02:05 PM	Feb 27, 2025 01:00 PM	
PAWE-1B1-SW-20	2519692-43	Seawater	Feb 20, 2025 02:11 PM	Feb 27, 2025 01:00 PM	
PAWE-1B1-SW-40	2519692-44	Seawater	Feb 20, 2025 02:19 PM	Feb 27, 2025 01:00 PM	
PAWE-1B1-SW-8	2519692-45	Seawater	Feb 20, 2025 02:29 PM	Feb 27, 2025 01:00 PM	
PAWE-1CP2-SW-1	2519692-46	Seawater	Feb 19, 2025 09:11 PM	Feb 27, 2025 01:00 PM	
PAWE-1CP2-SW-20	2519692-47	Seawater	Feb 19, 2025 09:16 PM	Feb 27, 2025 01:00 PM	
PAWE-1CP2-SW-20-LD	2519692-48	Seawater	Feb 19, 2025 09:16 PM	Feb 27, 2025 01:00 PM	
PAWE-1CP2-SW-40	2519692-49	Seawater	Feb 19, 2025 09:17 PM	Feb 27, 2025 01:00 PM	
PAWE-1CP2-SW-8	2519692-50	Seawater	Feb 19, 2025 09:17 PM	Feb 27, 2025 01:00 PM	
PAWE-3B3-SW-1	2519692-51	Seawater	Feb 20, 2025 12:55 PM	Feb 27, 2025 01:00 PM	
PAWE-3B3-SW-20	2519692-52	Seawater	Feb 20, 2025 01:01 PM	Feb 27, 2025 01:00 PM	
PAWE-3B3-SW-40	2519692-53	Seawater	Feb 20, 2025 01:14 PM	Feb 27, 2025 01:00 PM	
PAWE-3B3-SW-8	2519692-54	Seawater	Feb 20, 2025 01:24 PM	Feb 27, 2025 01:00 PM	
PAWE-3CP2-SW-1	2519692-55	Seawater	Feb 19, 2025 07:28 PM	Feb 27, 2025 01:00 PM	
PAWE-3CP2-SW-20	2519692-56	Seawater	Feb 19, 2025 07:14 PM	Feb 27, 2025 01:00 PM	
PAWE-3CP2-SW-20-FO	2519692-57	Seawater	Feb 19, 2025 07:41 AM	Feb 27, 2025 01:00 PM	
PAWE-3CP2-SW-40	2519692-58	Seawater	Feb 19, 2025 07:48 PM	Feb 27, 2025 01:00 PM	
PAWE-3CP2-SW-8	2519692-59	Seawater	Feb 19, 2025 07:58 PM	Feb 27, 2025 01:00 PM	

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77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanhong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245655-1

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General Comments

Analysis Test Report contains Summary samples, General Comments and Analytical Results. Quality Control Report will be found in the following separate attachments. The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where the LOD and LOQ of a reported result differs from standard, this may be due to high moisture content or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

LOD : Limit of detection.
LOQ : Limit of Quantitation.
ND : The result is not detected.
U : Indicates the result is less than LOD.
J : Indicates an estimated value. The reported value was obtained from a reading that was less than the LOQ but greater than or equal to the LOD.

The samples received on Feb 27, 2025 were intact, on-ice within 8 sealed cooler at

Cooler 1 : Temperature 1.0 degree C
Cooler 2 : Temperature 0.7 degree C
Cooler 3 : Temperature 2.6 degree C
Cooler 4 : Temperature 3.9 degree C
Cooler 5 : Temperature 2.7 degree C
Cooler 6 : Temperature 1.5 degree C
Cooler 7 : Temperature 0.9 degree C
Cooler 8 : Temperature 1.4 degree C

Sample Preparation and Analysis

Total suspended solids

A well-mixed sample is filtered through a weighed 1.2 µm pore size glass fibre filter paper and the residue retained on the filter is dried at 103-105 degree C. The increase in the weight of the filter paper represents the total suspended solids.



Analysis / Test Report

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P/O :
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Lot ID: 2519692
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Reference Number	2519692-1									
Sampling Date	Feb 17, 2025 8:01 PM									
Sample Description	Seawater									
Location	PACPP-1C2X-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04781	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Project Name : T779.27
Project Location :

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Reference Number	2519692-2									
Sampling Date	Feb 17, 2025 8:07 PM									
Sample Description	Seawater									
Location	PACPP-1C2X-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04781	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-4									
Sampling Date	Feb 17, 2025 8:24 PM									
Sample Description	Seawater									
Location	PACPP-1CP2X-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04781	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-5									
Sampling Date	Feb 17, 2025 9:01 PM									
Sample Description	Seawater									
Location	PACPP-1CP2X-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04781	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-6									
Sampling Date	Feb 17, 2025 9:11 PM									
Sample Description	Seawater									
Location	PACPP-1CP2X-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04781	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-7									
Sampling Date	Feb 17, 2025 9:19 PM									
Sample Description	Seawater									
Location	PACPP-1CP2X-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04782	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-8									
Sampling Date	Feb 17, 2025 9:29 PM									
Sample Description	Seawater									
Location	PACPP-1CP2X-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04782	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Reference Number	2519692-9									
Sampling Date	Feb 18, 2025 5:05 PM									
Sample Description	Seawater									
Location	PACPP-2C2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04782	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-10									
Sampling Date	Feb 18, 2025 5:11 PM									
Sample Description	Seawater									
Location	PACPP-2C2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04782	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-11									
Sampling Date	Feb 18, 2025 5:19 PM									
Sample Description	Seawater									
Location	PACPP-2C2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04782	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-12									
Sampling Date	Feb 18, 2025 5:09 PM									
Sample Description	Seawater									
Location	PACPP-3C2Y-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.4	0.3	1	mg/L	1	WL25/04782	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Reference Number	2519692-13									
Sampling Date	Feb 18, 2025 12:59 AM									
Sample Description	Seawater									
Location	PACPP-3C2Y-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04782	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-14									
Sampling Date	Feb 18, 2025 1:06 AM									
Sample Description	Seawater									
Location	PACPP-3C2Y-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04782	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Reference Number	2519692-15									
Sampling Date	Feb 18, 2025 1:15 AM									
Sample Description	Seawater									
Location	PACPP-3C2Y-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04782	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-16									
Sampling Date	Feb 18, 2025 1:25 AM									
Sample Description	Seawater									
Location	PACPP-3CP2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04782	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-17									
Sampling Date	Feb 18, 2025 2:07 AM									
Sample Description	Seawater									
Location	PACPP-3CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04783	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519692
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Reference Number	2519692-18									
Sampling Date	Feb 18, 2025 2:17 AM									
Sample Description	Seawater									
Location	PACPP-3CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04783	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Lot ID: 2519692
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Reference Number	2519692-19									
Sampling Date	Feb 18, 2025 2:25 AM									
Sample Description	Seawater									
Location	PACPP-3CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04783	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-20									
Sampling Date	Feb 18, 2025 2:36 AM									
Sample Description	Seawater									
Location	PACPP-3CP2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04783	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Reference Number	2519692-21									
Sampling Date	Feb 18, 2025 1:47 PM									
Sample Description	Seawater									
Location	PACPP-4C2X-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04783	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Reference Number	2519692-22									
Sampling Date	Feb 18, 2025 1:52 PM									
Sample Description	Seawater									
Location	PACPP-4C2X-SW-1-FD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.4	0.3	1	mg/L	1	WL25/04783	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Reference Number	2519692-23									
Sampling Date	Feb 18, 2025 1:58 PM									
Sample Description	Seawater									
Location	PACPP-4C2X-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04783	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-24									
Sampling Date	Feb 19, 2025 4:06 PM									
Sample Description	Seawater									
Location	PACPP-4C2X-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04783	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-25									
Sampling Date	Feb 19, 2025 4:16 PM									
Sample Description	Seawater									
Location	PACPP-4C2X-SW-B									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04783	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Reference Number	2519692-26									
Sampling Date	Feb 11, 2025 4:21 PM									
Sample Description	Seawater									
Location	PAREF-A-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04783	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-27									
Sampling Date	Feb 11, 2025 4:11 PM									
Sample Description	Seawater									
Location	PAREF-A-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.4	0.3	1	mg/L	1	WL25/04784	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Reference Number	2519692-28									
Sampling Date	Feb 11, 2025 4:41 PM									
Sample Description	Seawater									
Location	PAREF-A-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.5	0.3	1	mg/L	1	WL25/04784	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Reference Number	2519692-29									
Sampling Date	Feb 11, 2025 4:51 PM									
Sample Description	Seawater									
Location	PAREF-A-SW-B									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04784	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Reference Number	2519692-30									
Sampling Date	Feb 21, 2025 12:41 AM									
Sample Description	Seawater									
Location	PAWB-1CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04784	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-31									
Sampling Date	Feb 21, 2025 12:50 AM									
Sample Description	Seawater									
Location	PAWB-1CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.4	0.3	1	mg/L	1	WL25/04784	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Reference Number	2519692-32									
Sampling Date	Feb 21, 2025 12:58 AM									
Sample Description	Seawater									
Location	PAWB-1CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04784	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-33									
Sampling Date	Feb 21, 2025 1:11 AM									
Sample Description	Seawater									
Location	PAWB-1CP2-SW-B									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04784	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Reference Number	2519692-34									
Sampling Date	Feb 21, 2025 1:45 PM									
Sample Description	Seawater									
Location	PAWB-3B2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04784	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-35									
Sampling Date	Feb 21, 2025 1:51 PM									
Sample Description	Seawater									
Location	PAWB-3B2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04784	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Report to : Tetra Tech Inc.
77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanhong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519692
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Reference Number	2519692-36									
Sampling Date	Feb 21, 2025 1:59 PM									
Sample Description	Seawater									
Location	PAWB-3B2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04784	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
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Reference Number	2519692-37									
Sampling Date	Feb 21, 2025 2:09 PM									
Sample Description	Seawater									
Location	PAWB-3B2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.5	0.3	1	mg/L	1	WL25/04785	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Lot ID: 2519692
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Reference Number	2519692-38									
Sampling Date	Feb 21, 2025 2:18 AM									
Sample Description	Seawater									
Location	PAWB-3CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04785	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Name : T779.27
Project Location :

Lot ID: 2519692
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Reference Number	2519692-39									
Sampling Date	Feb 21, 2025 2:25 AM									
Sample Description	Seawater									
Location	PAWB-3CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04785	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Project Name : T779.27
Project Location :

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Reference Number	2519692-40									
Sampling Date	Feb 21, 2025 2:14 AM									
Sample Description	Seawater									
Location	PAWB-3CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04785	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Project Name : T779.27
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Reference Number	2519692-41									
Sampling Date	Feb 21, 2025 2:49 AM									
Sample Description	Seawater									
Location	PAWB-3CP2-SW-B									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04785	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Reference Number	2519692-42									
Sampling Date	Feb 20, 2025 2:05 PM									
Sample Description	Seawater									
Location	PAWE-1B1-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04785	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-43									
Sampling Date	Feb 20, 2025 2:11 PM									
Sample Description	Seawater									
Location	PAWE-1B1-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04785	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-44									
Sampling Date	Feb 20, 2025 2:19 PM									
Sample Description	Seawater									
Location	PAWE-1B1-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04785	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Location :

Lot ID: 2519692
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Reference Number	2519692-45									
Sampling Date	Feb 20, 2025 2:29 PM									
Sample Description	Seawater									
Location	PAWE-1B1-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.4	0.3	1	mg/L	1	WL25/04785	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Project Location :

Lot ID: 2519692
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Reference Number	2519692-46									
Sampling Date	Feb 19, 2025 9:11 PM									
Sample Description	Seawater									
Location	PAWE-1CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04785	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Name : T779.27
Project Location :

Lot ID: 2519692
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Reference Number	2519692-47									
Sampling Date	Feb 19, 2025 9:16 PM									
Sample Description	Seawater									
Location	PAWE-1CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04786	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-48									
Sampling Date	Feb 19, 2025 9:27 PM									
Sample Description	Seawater									
Location	PAWE-1CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04786	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-49									
Sampling Date	Feb 19, 2025 9:17 PM									
Sample Description	Seawater									
Location	PAWE-1CP2-SW-B									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.4	0.3	1	mg/L	1	WL25/04786	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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Reference Number	2519692-50									
Sampling Date	Feb 20, 2025 12:55 PM									
Sample Description	Seawater									
Location	PAWE-3B3-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04786	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-51									
Sampling Date	Feb 20, 2025 1:01 PM									
Sample Description	Seawater									
Location	PAWE-3B3-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04786	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519692-52									
Sampling Date	Feb 20, 2025 1:14 PM									
Sample Description	Seawater									
Location	PAWE-3B3-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04786	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519692-53									
Sampling Date	Feb 20, 2025 1:24 PM									
Sample Description	Seawater									
Location	PAWE-3B3-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.5	0.3	1	mg/L	1	WL25/04786	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanong, Bangkok Thailand 10260
P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
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Reference Number	2519692-54									
Sampling Date	Feb 19, 2025 7:28 PM									
Sample Description	Seawater									
Location	PAWE-3CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04786	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
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Reference Number	2519692-55									
Sampling Date	Feb 19, 2025 7:14 PM									
Sample Description	Seawater									
Location	PAWE-3CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04786	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
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Reference Number	2519692-56									
Sampling Date	Feb 19, 2025 7:41 PM									
Sample Description	Seawater									
Location	PAWE-3CP2-SW-20-FD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04786	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245655-1

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Reference Number	2519692-57									
Sampling Date	Feb 19, 2025 7:48 PM									
Sample Description	Seawater									
Location	PAWE-3CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04787	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
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Reference Number	2519692-58									
Sampling Date	Feb 19, 2025 7:58 PM									
Sample Description	Seawater									
Location	PAWE-3CP2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04787	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
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Reference Number	2519692-59									
Sampling Date	Feb 15, 2025 2:39 AM									
Sample Description	Seawater									
Location	NPCPP-1CP2-SW-40-LD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.3	0.3	1	mg/L	1	WL25/04787	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J

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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
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Reference Number	2519692-60									
Sampling Date	Feb 14, 2025 3:57 PM									
Sample Description	Seawater									
Location	NPWB-3B2-SW-20-LD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04787	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
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Reference Number	2519692-61									
Sampling Date	Feb 16, 2025 7:40 PM									
Sample Description	Seawater									
Location	NPWG-3CP2-SW-B-LD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04787	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
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Reference Number	2519692-62									
Sampling Date	Feb 17, 2025 2:17 AM									
Sample Description	Seawater									
Location	PACPP-3CP2-SW-1-LD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	0.5	0.3	1	mg/L	1	WL25/04787	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	J



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Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245655-1

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Reference Number	2519692-63									
Sampling Date	Feb 21, 2025 12:58 AM									
Sample Description	Seawater									
Location	PAWB-1CP2-SW-40-LD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04787	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245655-1

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Reference Number	2519692-64									
Sampling Date	Feb 19, 2025 9:16 PM									
Sample Description	Seawater									
Location	PAWE-1CP2-SW-20-LD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04787	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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P/O :
Project Name : T779.28
Project Location :

Lot ID: 2519696
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245680-1

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Summary Samples					
Sample Location	ALS Sample ID	Sample Description	Sampling Date / Time	Received Date / Time	
MGWA-1B2Y-SW-1	2519696-1	Seawater	Feb 04, 2025 12:46 AM	Feb 27, 2025	01:00 PM
MGWA-1B2Y-SW-20	2519696-2	Seawater	Feb 04, 2025 12:52 AM	Feb 27, 2025	01:00 PM
MGWA-1B2Y-SW-40	2519696-3	Seawater	Feb 04, 2025 01:01 AM	Feb 27, 2025	01:00 PM
MGWA-1B2Y-SW-B	2519696-4	Seawater	Feb 04, 2025 01:13 AM	Feb 27, 2025	01:00 PM
MGWA-1CP2-SW-1	2519696-5	Seawater	Feb 04, 2025 02:04 AM	Feb 27, 2025	01:00 PM
MGWA-1CP2-SW-1-LD	2519696-18	Seawater	Feb 01, 2025 02:04 AM	Feb 27, 2025	01:00 PM
MGWA-1CP2-SW-20	2519696-6	Seawater	Feb 04, 2025 02:14 AM	Feb 27, 2025	01:00 PM
MGWA-1CP2-SW-40	2519696-7	Seawater	Feb 04, 2025 02:22 AM	Feb 27, 2025	01:00 PM
MGWA-1CP2-SW-B	2519696-8	Seawater	Feb 04, 2025 02:35 AM	Feb 27, 2025	01:00 PM
MGWA-3B2X-SW-1	2519696-9	Seawater	Feb 01, 2025 07:21 PM	Feb 27, 2025	01:00 PM
MGWA-3B2X-SW-20	2519696-10	Seawater	Feb 01, 2025 07:14 PM	Feb 27, 2025	01:00 PM
MGWA-3B2X-SW-40	2519696-11	Seawater	Feb 01, 2025 07:41 PM	Feb 27, 2025	01:00 PM
MGWA-3B2X-SW-B	2519696-12	Seawater	Feb 01, 2025 07:51 PM	Feb 27, 2025	01:00 PM
MGWA-3CP2-SW-1	2519696-13	Seawater	Feb 01, 2025 04:21 PM	Feb 27, 2025	01:00 PM
MGWA-3CP2-SW-20	2519696-14	Seawater	Feb 01, 2025 04:11 PM	Feb 27, 2025	01:00 PM
MGWA-3CP2-SW-40	2519696-15	Seawater	Feb 01, 2025 04:19 PM	Feb 27, 2025	01:00 PM
MGWA-3CP2-SW-40-FD	2519696-16	Seawater	Feb 01, 2025 04:48 PM	Feb 27, 2025	01:00 PM
MGWA-3CP2-SW-B	2519696-17	Seawater	Feb 01, 2025 04:59 PM	Feb 27, 2025	01:00 PM

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P/O :
Project Name : T779.27
Project Location :

Lot ID: 2519692
Date Received : Feb 27, 2025
Date Reported : Mar 10, 2025
Report Number : 3245655-1

Page 1 of 1

Quality Control Data												
QC Type	Parent	Result	LOD	LOQ	Unit	Parent Result	Spike Level	%Rec	%Rec Limit	%RPD	%RPD Limit	Note
Water Testing : WL25/04781 : Total Suspended Solids												
Blank		ND	0.3	1	mg/L							U
Duplicate	2519692-6	ND	0.3	1	mg/L	ND				n/a	5	U
LCS		99	0.3	1	mg/L		100	99.0	90 - 110			
Water Testing : WL25/04782 : Total Suspended Solids												
Blank		ND	0.3	1	mg/L							U
Duplicate	2519692-16	ND	0.3	1	mg/L	ND				n/a	5	U
LCS		97.8	0.3	1	mg/L		100	97.8	90 - 110			
Water Testing : WL25/04783 : Total Suspended Solids												
Blank		ND	0.3	1	mg/L							U
Duplicate	2519692-26	ND	0.3	1	mg/L	ND				n/a	5	U
LCS		100	0.3	1	mg/L		100	100.0	90 - 110			
Water Testing : WL25/04784 : Total Suspended Solids												
Blank		ND	0.3	1	mg/L							U
Duplicate	2519692-36	ND	0.3	1	mg/L	ND				n/a	5	U
LCS		97.8	0.3	1	mg/L		100	97.8	90 - 110			
Water Testing : WL25/04785 : Total Suspended Solids												
Blank		ND	0.3	1	mg/L							U
Duplicate	2519692-46	ND	0.3	1	mg/L	ND				n/a	5	U
LCS		99.2	0.3	1	mg/L		100	99.2	90 - 110			
Water Testing : WL25/04786 : Total Suspended Solids												
Blank		ND	0.3	1	mg/L							U
Duplicate	2519692-56	ND	0.3	1	mg/L	ND				n/a	5	U
LCS		98.2	0.3	1	mg/L		100	98.2	90 - 110			
Water Testing : WL25/04787 : Total Suspended Solids												
Blank		ND	0.3	1	mg/L							U
Duplicate	2519696-2	ND	0.3	1	mg/L	ND				n/a	5	U
LCS		99.6	0.3	1	mg/L		100	99.6	90 - 110			

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P/O :
Project Name : T779.28
Project Location :

Lot ID: 2519696
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245680-1

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General Comments	
Analysis Test Report contains Summary samples, General Comments and Analytical Results. Quality Control Report will be found in the following separate attachments. The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA. In house developed procedures are employed in the absence of documented standards or by client request.	
Where moisture determination has been performed, results are reported on a dry weight basis. Where the LOD and LOQ of a reported result differs from standard, this may be due to high moisture content or matrix interference. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.	
LOD : Limit of detection. LOQ : Limit of Quantitation. ND : The result is not detected. U : Indicates the result is less than LOD. J : Indicates an estimated value. The reported value was obtained from a reading that was less than the LOQ but greater than or equal to the LOD.	
The samples received on Feb 27, 2025 were intact, on-ice within 2 sealed cooler at	
Cooler 1 : Temperature 1.4 degree C Cooler 2 : Temperature 1.2 degree C	
Sample Preparation and Analysis	
Total suspended solids	
A well-mixed sample is filtered through a weighed 1.2 µm pore size glass fibre filter paper and the residue retained on the filter is dried at 103-105 degree C. The increase in the weight of the filter paper represents the total suspended solids.	

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77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanong, Bangkok Thailand 10260
P/O :
Project Name : T779.28
Project Location :

Lot ID: 2519696
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Reference Number	2519696-1									
Sampling Date	Feb 04, 2025 12:46 AM									
Sample Description	Seawater									
Location	MGWA-1B2Y-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04787	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519696-2									
Sampling Date	Feb 04, 2025 12:52 AM									
Sample Description	Seawater									
Location	MGWA-1B2Y-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04787	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519696-3									
Sampling Date	Feb 04, 2025 1:01 AM									
Sample Description	Seawater									
Location	MGWA-1B2Y-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04788	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519696-4									
Sampling Date	Feb 04, 2025 1:13 AM									
Sample Description	Seawater									
Location	MGWA-1B2Y-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04788	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519696-5									
Sampling Date	Feb 04, 2025 2:04 AM									
Sample Description	Seawater									
Location	MGWA-1CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04788	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519696-6									
Sampling Date	Feb 04, 2025 2:14 AM									
Sample Description	Seawater									
Location	MGWA-1CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04788	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519696-7									
Sampling Date	Feb 04, 2025 2:22 AM									
Sample Description	Seawater									
Location	MGWA-1CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04788	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519696-8									
Sampling Date	Feb 04, 2025 2:35 AM									
Sample Description	Seawater									
Location	MGWA-1CP2-SW-8									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04788	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519696-9									
Sampling Date	Feb 01, 2025 7:21 PM									
Sample Description	Seawater									
Location	MGWA-3B2X-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04788	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Project Name : T779.28
Project Location :

Lot ID: 2519696
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Reference Number	2519696-10									
Sampling Date	Feb 01, 2025 7:14 PM									
Sample Description	Seawater									
Location	MGWA-3B2X-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04788	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519696-11									
Sampling Date	Feb 01, 2025 7:41 PM									
Sample Description	Seawater									
Location	MGWA-3B2X-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04788	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519696-12									
Sampling Date	Feb 01, 2025 7:51 PM									
Sample Description	Seawater									
Location	MGWA-3B2X-SW-B									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04788	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519696-13									
Sampling Date	Feb 01, 2025 4:21 PM									
Sample Description	Seawater									
Location	MGWA-3CP2-SW-1									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04789	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519696-14									
Sampling Date	Feb 01, 2025 4:11 PM									
Sample Description	Seawater									
Location	MGWA-3CP2-SW-20									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04789	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Reference Number	2519696-15									
Sampling Date	Feb 01, 2025 4:19 PM									
Sample Description	Seawater									
Location	MGWA-3CP2-SW-40									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04789	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



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Reference Number	2519696-16									
Sampling Date	Feb 01, 2025 4:48 PM									
Sample Description	Seawater									
Location	MGWA-3CP2-SW-40-FD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04789	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Report to : Tetra Tech Inc.
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P/O :
Project Name : T779.28
Project Location :

Lot ID: 2519696
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245680-1

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Reference Number	2519696-17									
Sampling Date	Feb 01, 2025 4:59 PM									
Sample Description	Seawater									
Location	MGWA-3CP2-SW-B									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04789	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U



Analysis / Test Report

Report to : Tetra Tech Inc.
77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanong, Bangkok Thailand 10260
P/O :
Project Name : T779.28
Project Location :

Lot ID: 2519696
Date Received : Feb 27, 2025
Date Reported : Mar 03, 2025
Report Number : 3245680-1

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Reference Number	2519696-18									
Sampling Date	Feb 01, 2025 2:04 AM									
Sample Description	Seawater									
Location	MGWA-1CP2-SW-1-LD									
Condition of Sample	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)									
Analyte	Result	LOD	LOQ	Unit	Dilution	Batch No.	Prepared Date	Analyzed Date	Method	Note
Water Testing										
Total Suspended Solids	ND	0.3	1	mg/L	1	WL25/04789	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Siriluk P.

Siriluk Bunrak
Section Head

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Analysis / Test Report

Report to : Tetra Tech Inc.
77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanong, Bangkok Thailand 10260
P/O :
Project Name : T779.28
Project Location :

Lot ID: 2519696
Date Received : Feb 27, 2025
Date Reported : Mar 10, 2025
Report Number : 3245680-1

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Quality Control Data										
QC Type	Parent	Result	LOD	LOQ	Unit	Parent Result	Spike Level	%Rec Limit	%RPD Limit	Note
Water Testing : WL25/04787 : Total Suspended Solids										
Blank		ND	0.3	1	mg/L					U
Duplicate	2519696-2	ND	0.3	1	mg/L	ND			n/a 5	U
LCS		99.6	0.3	1	mg/L		100	99.6 90 - 110		
Water Testing : WL25/04788 : Total Suspended Solids										
Blank		ND	0.3	1	mg/L					U
Duplicate	2519696-12	ND	0.3	1	mg/L	ND			n/a 5	U
LCS		100	0.3	1	mg/L		100	100.0 90 - 110		
Water Testing : WL25/04789 : Total Suspended Solids										
Blank		ND	0.3	1	mg/L					U
Duplicate	2519699-4	ND	0.3	1	mg/L	ND			n/a 5	U
LCS		99.4	0.3	1	mg/L		100	99.4 90 - 110		

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Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ted Donn
Tetra Tech Inc
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, California 94549
Generated 5/23/2025 7:46:34 AM

JOB DESCRIPTION

Gulf of Thailand - 2025

JOB NUMBER

350-1619-1

Eurofins Seattle Specialty Metals
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

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Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

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Authorized for release by
Lilly-Anna LaCount, Project Manager
Lilly-Anna.LaCount@eurofinsus.com
(253)922-2310

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Definitions/Glossary

Qualifiers

Metals

Qualifier	Qualifier Description
²	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☐	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
DI Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DL C	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MLQ	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Job ID: 350-1619-1

Eurofins Seattle Specialty Metals

Job Narrative
350-1619-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 3/6/2025 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 15 coolers at receipt time were -16.2°C, -16.4°C, -15.2°C, -15.2°C, -12.4°C, -12.2°C, -12.2°C, -12.0°C, -7.8°C, -6.8°C, -6.7°C, -6.6°C, -6.4°C, -5.9°C and -1.3°C.

Receipt Exceptions

multiple sample(s) did not match the information listed on the Chain-of-Custody (COC). Most discrepancies were noted in the sampling times. The client was contacted, to update them accordingly. All samples were updated in TALS. Please see email attachments for details.

Metals

Method 1631B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-5840 and analytical batch 350-6250 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1631E: The continuing calibration blank (CCB) for analytical batch 350-6430 contained Mercury above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 1631E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 350-6479 were outside control limits: (350-1619-B-200 MSD), (350-1619-B-201 MSD), (350-1619-B-220 MSD), (350-1619-B-221 MS), (350-1619-B-221 MSD) and (350-1619-B-364 MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 1631E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 350-6479 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1638: The continuing calibration blank (CCB) for analytical batch 350-6050 contained Manganese above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 1638: The method blank for preparation batch 350-5891 and analytical batch 350-6050 contained Chromium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 1638: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-5845 and 350-5891 and analytical batch 350-6050 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1638: The continuing calibration blank (CCB) for analytical batch 350-6050 contained Iron above the reporting limit (RL). All reported samples associated with this CCB contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Client: Tetra Tech Inc
Project: Gulf of Thailand - 2025

Case Narrative

Job ID: 350-1619-1

Job ID: 350-1619-1 (Continued)

Eurofins Seattle Specialty Metals

Method 1638: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 350-5727, 350-5927, 350-6026 and 350-6097 and analytical batch 350-6893 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 1638: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 350-5927 and 350-6047 and analytical batch 350-6893 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 1638: The method blank for preparation batch 350-6026 and analytical batch 350-6893 contained Manganese above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 1638: The method blank for preparation batch 350-6026 and 350-6047 and analytical batch 350-6893 contained Chromium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 1638: The method blank for preparation batch 350-5927 and analytical batch 350-6893 contained Copper above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6146 and analytical batch 350-6254 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6145 and analytical batch 350-6254 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6089, 350-6090 and 350-6110 and analytical batch 350-6254 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6090 and 350-6111 and analytical batch 350-6254 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6090, 350-6110, 350-6111, 350-6145, 350-6146, 350-6155 and 350-6156 and analytical batch 350-6206 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6521 and analytical batch 350-6591 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The continuing calibration blank (CCB) for analytical batch 350-6591 contained Manganese above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6521 and analytical batch 350-6591 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 350-6877 and analytical batch 350-6963 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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Case Narrative

Client: Tetra Tech Inc
Project: Gulf of Thailand - 2025

Job ID: 350-1619-1

Job ID: 350-1619-1 (Continued)

Eurofins Seattle Specialty Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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5/23/2025

Detection Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPCPP-1C1

Lab Sample ID: 350-1619-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	120	F1 F2	2.9	1.4	ng/g	30	□	1631B	Total/NA	Total/NA
Arsenic	3.6		0.36	0.11	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	360	B	36	0.072	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.054		0.036	0.0036	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	31		0.36	0.36	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	8.6	B	0.18	0.022	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	14000	F1	36	7.2	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	450	B *2	0.18	0.018	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	15	B	0.72	0.029	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	15	B	0.14	0.014	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	31		3.6	1.8	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1C1-FD

Lab Sample ID: 350-1619-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	1300		20	9.9	ng/g	200	□	1631B	Total/NA	Total/NA
Arsenic	5.0		0.37	0.11	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	400	B	37	0.075	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.079		0.037	0.0037	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	48		0.37	0.37	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	12	B	0.19	0.022	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	21000		37	7.5	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	560	B *2	0.19	0.019	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	23	B	0.75	0.030	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	20	B	0.15	0.015	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	44		3.7	1.9	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1C2X

Lab Sample ID: 350-1619-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	570		20	9.9	ng/g	200	□	1631B	Total/NA	Total/NA
Arsenic	3.7		0.33	0.10	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	310	B	33	0.067	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.066		0.033	0.0033	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	29		0.33	0.33	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	8.5	B	0.17	0.020	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	14000		33	6.7	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	460	B *2	0.17	0.017	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	14	B	0.67	0.027	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	15	B	0.13	0.013	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	30		3.3	1.7	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1CP1

Lab Sample ID: 350-1619-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	59		3.3	1.6	ng/g	30	□	1631B	Total/NA	Total/NA
Arsenic	3.7		0.37	0.11	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	380	B	37	0.075	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.047		0.037	0.0037	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	36		0.37	0.37	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	8.9	B	0.19	0.022	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	16000		37	7.5	mg/Kg	1	□	1638	Total/NA	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

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5/23/2025

Detection Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPCPP-1CP1 (Continued)

Lab Sample ID: 350-1619-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Manganese	390	B *2	0.19	0.019	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	17	B	0.75	0.030	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	15	B	0.15	0.015	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	34		3.7	1.9	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1CP2

Lab Sample ID: 350-1619-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	130		3.4	1.6	ng/g	30	□	1631B	Total/NA	Total/NA
Arsenic	4.1		0.39	0.12	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	430	B	39	0.078	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.057		0.039	0.0039	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	39		0.39	0.39	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	10	B	0.20	0.023	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	16000		39	7.8	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	460	B *2	0.20	0.020	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	18	B	0.78	0.031	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	16	B	0.16	0.016	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	37		3.9	2.0	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1CP3X

Lab Sample ID: 350-1619-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	68		3.4	1.6	ng/g	30	□	1631B	Total/NA	Total/NA
Arsenic	4.2		0.36	0.11	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	540	B	36	0.071	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.047		0.036	0.0036	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	37		0.36	0.36	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	9.9	B	0.18	0.021	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	16000		36	7.1	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	510	B *2	0.18	0.018	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	18	B	0.71	0.028	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	16	B	0.14	0.014	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	35		3.6	1.8	mg/Kg	1	□	1638	Total/NA	Total/NA

Client Sample ID: NPCPP-1D2

Lab Sample ID: 350-1619-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	96		3.3	1.6	ng/g	30	□	1631B	Total/NA	Total/NA
Arsenic	4.4		0.40	0.12	mg/Kg	1	□	1638	Total/NA	Total/NA
Barium	590	B	40	0.081	mg/Kg	1	□	1638	Total/NA	Total/NA
Cadmium	0.050		0.040	0.0040	mg/Kg	1	□	1638	Total/NA	Total/NA
Chromium	45		0.40	0.40	mg/Kg	1	□	1638	Total/NA	Total/NA
Copper	11	B	0.20	0.024	mg/Kg	1	□	1638	Total/NA	Total/NA
Iron	18000		40	8.1	mg/Kg	1	□	1638	Total/NA	Total/NA
Manganese	510	B *2	0.20	0.020	mg/Kg	1	□	1638	Total/NA	Total/NA
Nickel	22	B	0.81	0.032	mg/Kg	1	□	1638	Total/NA	Total/NA
Lead	17	B	0.16	0.016	mg/Kg	1	□	1638	Total/NA	Total/NA
Zinc	43		4.0	2.0	mg/Kg	1	□	1638	Total/NA	Total/NA

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-1E2					Lab Sample ID: 350-1619-8				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	190		3.4	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	600	B	37	0.074 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	47		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.18	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	19000		37	7.4 mg/Kg	1	□	1638	Total/NA	
Manganese	530	B *2	0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	23	B	0.74	0.029 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	44		3.7	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-1F2									
Lab Sample ID: 350-1619-9									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	49		3.4	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	590	B	38	0.078 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.047		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	51		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	20000		38	7.6 mg/Kg	1	□	1638	Total/NA	
Manganese	570	B *2	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	31	B	0.76	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	46		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-1G2									
Lab Sample ID: 350-1619-10									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	64		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.7		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	510	B	37	0.075 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.054		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	50		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	13	B	0.19	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	20000		37	7.5 mg/Kg	1	□	1638	Total/NA	
Manganese	500	B *2	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	25	B	0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	19	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	48		3.7	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-2C1X									
Lab Sample ID: 350-1619-11									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	110		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	3.8		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	400	B	37	0.074 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	34		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	9.1	B	0.18	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	15000		37	7.4 mg/Kg	1	□	1638	Total/NA	

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Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-2C1X (Continued)					Lab Sample ID: 350-1619-11				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Manganese	470	B *2	0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	16	B	0.74	0.029 mg/Kg	1	□	1638	Total/NA	
Lead	15	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	41		3.7	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-2C2									
Lab Sample ID: 350-1619-12									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	47		3.1	1.5 ng/g	30	□	1631B	Total/NA	
Arsenic	3.0		0.36	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	530	B	36	0.073 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.052		0.036	0.0036 mg/Kg	1	□	1638	Total/NA	
Chromium	32		0.36	0.36 mg/Kg	1	□	1638	Total/NA	
Copper	8.7	B	0.18	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	14000		36	7.3 mg/Kg	1	□	1638	Total/NA	
Manganese	480	B *2	0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	15	B	0.73	0.029 mg/Kg	1	□	1638	Total/NA	
Lead	15	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	30		3.6	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-2CP2									
Lab Sample ID: 350-1619-13									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	42		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.3		0.39	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	560	B	39	0.078 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.039	0.0039 mg/Kg	1	□	1638	Total/NA	
Chromium	43		0.39	0.39 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	18000		39	7.8 mg/Kg	1	□	1638	Total/NA	
Manganese	480	B *2	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	21	B	0.78	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	41		3.9	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-2D2									
Lab Sample ID: 350-1619-14									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	38		3.6	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.8		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	550	B	38	0.076 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	48		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	20000		38	7.6 mg/Kg	1	□	1638	Total/NA	
Manganese	510	B *2	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	24	B	0.76	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	46		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-3C1					Lab Sample ID: 350-1619-15				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	70		3.0	1.5 ng/g	30	□	1631B	Total/NA	
Arsenic	3.9		0.34	0.10 mg/Kg	1	□	1638	Total/NA	
Barium	390	B	34	0.068 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.063		0.034	0.0034 mg/Kg	1	□	1638	Total/NA	
Chromium	32		0.34	0.34 mg/Kg	1	□	1638	Total/NA	
Copper	9.2	B	0.17	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	15000		34	6.8 mg/Kg	1	□	1638	Total/NA	
Manganese	470	B *2	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Nickel	16	B	0.68	0.027 mg/Kg	1	□	1638	Total/NA	
Lead	15	B	0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	32		3.4	1.7 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-3C2									
Lab Sample ID: 350-1619-16									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	540		10	4.9 ng/g	100	□	1631B	Total/NA	
Arsenic	3.6		0.35	0.10 mg/Kg	1	□	1638	Total/NA	
Barium	500	B	35	0.069 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.053		0.035	0.0035 mg/Kg	1	□	1638	Total/NA	
Chromium	31		0.35	0.35 mg/Kg	1	□	1638	Total/NA	
Copper	8.3	B	0.17	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	14000		35	6.9 mg/Kg	1	□	1638	Total/NA	
Manganese	500	B *2	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Nickel	14	B	0.69	0.028 mg/Kg	1	□	1638	Total/NA	
Lead	14	B	0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	28		3.5	1.7 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-3C3X					Lab Sample ID: 350-1619-17				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	340		10	5.0 ng/g	100	□	1631B	Total/NA	
Arsenic	4.1		0.35	0.10 mg/Kg	1	□	1638	Total/NA	
Barium	470	B	35	0.070 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.054		0.035	0.0035 mg/Kg	1	□	1638	Total/NA	
Chromium	35		0.35	0.35 mg/Kg	1	□	1638	Total/NA	
Copper	9.3	B	0.17	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	16000		35	7.0 mg/Kg	1	□	1638	Total/NA	
Manganese	500	B *2	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Nickel	18	B	0.70	0.028 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	33		3.5	1.7 mg/Kg	1	□	1638	Total/NA	

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-3D2					Lab Sample ID: 350-1619-22				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	54		3.6	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	640	B	43	0.086 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.075		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	49	B	0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.21	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	20000		43	8.6 mg/Kg	1	□	1638	Total/NA	
Manganese	530	B *2	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	24	B	0.86	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	47		4.3	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-3E2									
Client Sample ID: NPCPP-3E2					Lab Sample ID: 350-1619-23				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	65		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	610	B	42	0.084 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	47	B	0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	19000		42	8.4 mg/Kg	1	□	1638	Total/NA	
Manganese	520	B *2	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	23	B	0.84	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	44		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-3F2X									
Client Sample ID: NPCPP-3F2X					Lab Sample ID: 350-1619-24				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	65		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	590	B	41	0.082 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.051		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	44	B	0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	19000		41	8.2 mg/Kg	1	□	1638	Total/NA	
Manganese	560	B *2	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	21	B	0.82	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	42		4.1	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-3G2									
Client Sample ID: NPCPP-3G2					Lab Sample ID: 350-1619-25				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	39		3.6	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	590	B	43	0.086 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	50	B	0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.22	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	21000		43	8.6 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-3G2 (Continued)					Lab Sample ID: 350-1619-25				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Manganese	590	B *2	0.22	0.022 mg/Kg	1	□	1638	Total/NA	
Nickel	25	B	0.86	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	48		4.3	2.2 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-4C2									
Client Sample ID: NPCPP-4C2					Lab Sample ID: 350-1619-26				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	120		3.0	1.4 ng/g	30	□	1631B	Total/NA	
Arsenic	4.4		0.34	0.10 mg/Kg	1	□	1638	Total/NA	
Barium	590	B	34	0.068 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.051		0.034	0.0034 mg/Kg	1	□	1638	Total/NA	
Chromium	34	B	0.34	0.34 mg/Kg	1	□	1638	Total/NA	
Copper	9.0	B	0.17	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	15000		34	6.8 mg/Kg	1	□	1638	Total/NA	
Manganese	490	B *2	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Nickel	16	B	0.68	0.027 mg/Kg	1	□	1638	Total/NA	
Lead	15	B	0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	32		3.4	1.7 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-4CP2									
Client Sample ID: NPCPP-4CP2					Lab Sample ID: 350-1619-27				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	64		3.4	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.4		0.35	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	540	B	35	0.070 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.035	0.0035 mg/Kg	1	□	1638	Total/NA	
Chromium	42	B	0.35	0.35 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.18	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	18000		35	7.0 mg/Kg	1	□	1638	Total/NA	
Manganese	510	B *2	0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	20	B	0.70	0.028 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	39		3.5	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPCPP-4D2									
Client Sample ID: NPCPP-4D2					Lab Sample ID: 350-1619-28				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	38		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.1		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	540	B	37	0.074 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.050		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	44	B	0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.18	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	18000		37	7.4 mg/Kg	1	□	1638	Total/NA	
Manganese	490	B *2	0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	21	B	0.74	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	40		3.7	1.8 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPREF-A					Lab Sample ID: 350-1619-29				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	32		3.9	1.9 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.49	0.15 mg/Kg	1	□	1638	Total/NA	
Barium	320	B	49	0.099 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.070		0.049	0.0049 mg/Kg	1	□	1638	Total/NA	
Chromium	67	B	0.49	0.49 mg/Kg	1	□	1638	Total/NA	
Copper	15	B	0.25	0.030 mg/Kg	1	□	1638	Total/NA	
Iron	26000		49	9.9 mg/Kg	1	□	1638	Total/NA	
Manganese	570	B *2	0.25	0.025 mg/Kg	1	□	1638	Total/NA	
Nickel	33	B	0.99	0.039 mg/Kg	1	□	1638	Total/NA	
Lead	23	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Zinc	60		4.9	2.5 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPREF-B									
Client Sample ID: NPREF-B					Lab Sample ID: 350-1619-30				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	27		3.8	1.8 ng/g	1	□	1638	Total/NA	
Arsenic	4.1		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	260	B	42	0.084 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	54	B	0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	13	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	22000		42	8.4 mg/Kg	1	□	1638	Total/NA	
Manganese	460	B *2	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	29	B	0.84	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	50		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPREF-B-FD					Lab Sample ID: 350-1619-31				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	24		4.2	2.0 ng/g	30	□	1631B	Total/NA	
Arsenic	4.5		0.46	0.14 mg/Kg	1	□	1638	Total/NA	
Barium	280	B	46	0.093 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.060		0.046	0.0046 mg/Kg	1	□	1638	Total/NA	
Chromium	56	B	0.46	0.46 mg/Kg	1	□	1638	Total/NA	
Copper	13	B	0.23	0.028 mg/Kg	1	□	1638	Total/NA	
Iron	24000		46	9.3 mg/Kg	1	□	1638	Total/NA	
Manganese	470	B *2	0.23	0.023 mg/Kg	1	□	1638	Total/NA	
Nickel	29	B	0.93	0.037 mg/Kg	1	□	1638	Total/NA	
Lead	19	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Zinc	53		4.6	2.3 mg/Kg	1	□	1638	Total/NA	

Detection Summary

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPWB-1D2

Lab Sample ID: 350-1619-36

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	31		3.4	1.6 ng/g	30	□	1631B	Total/NA
Arsenic	5.2		0.38	0.11 mg/Kg	1	□	1638	Total/NA
Barium	800	B	38	0.076 mg/Kg	1	□	1638	Total/NA
Cadmium	0.055		0.038	0.0038 mg/Kg	1	□	1638	Total/NA
Chromium	48	B	0.38	0.38 mg/Kg	1	□	1638	Total/NA
Copper	11	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA
Iron	22000		38	7.6 mg/Kg	1	□	1638	Total/NA
Manganese	600	B *2	0.19	0.019 mg/Kg	1	□	1638	Total/NA
Nickel	23	B	0.76	0.030 mg/Kg	1	□	1638	Total/NA
Lead	19	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA
Zinc	44		3.8	1.9 mg/Kg	1	□	1638	Total/NA

Client Sample ID: NPWB-2B3									
Lab Sample ID: 350-1619-37									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	21		3.2	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.4		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1600	B	40	0.079 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.057		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	41	B	0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	10	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	18000		40	7.9 mg/Kg	1	□	1638	Total/NA	
Manganese	470	B F1 *2	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	20	B	0.79	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	39		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWB-2C2X									
Lab Sample ID: 350-1619-38									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	38		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.4		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	990	B	41	0.082 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	45		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.20	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	19000		41	8.2 mg/Kg	1	□	1638	Total/NA	
Manganese	460	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	22	B	0.82	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	42		4.1	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWB-3B2									
Lab Sample ID: 350-1619-39									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	36		3.9	1.9 ng/g	30	□	1631B	Total/NA	
Arsenic	5.2		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	5100	F2 B	42	0.084 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.069		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	40		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	18000	F1	42	8.4 mg/Kg	1	□	1638	Total/NA	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Detection Summary

Client Sample ID: NPWB-3B2 (Continued)

Lab Sample ID: 350-1619-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	380	F1 B	0.21	0.021	mg/Kg	1	☐	1638	Total/NA
Nickel	19	B	0.84	0.034	mg/Kg	1	☐	1638	Total/NA
Lead	16	F1 F2 B	0.17	0.017	mg/Kg	1	☐	1638	Total/NA
Zinc	42		4.2	2.1	mg/Kg	1	☐	1638	Total/NA

Client Sample ID: NPWB-3C2									
Lab Sample ID: 350-1619-40									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury			3.2	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.8		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1800	B	40	0.079 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.044		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	40		0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	17000		40	7.9 mg/Kg	1	□	1638	Total/NA	
Manganese	420	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	20	B	0.79	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	39		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWB-3CP2									
Lab Sample ID: 350-1619-41									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	25	B	3.6	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.5		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	1100	B	37	0.075 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.043		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	42		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	10	B	0.19	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	18000		37	7.5 mg/Kg	1	□	1638	Total/NA	
Manganese	500	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	20		0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	38		3.7	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWB-3D2									
Lab Sample ID: 350-1619-42									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	34	B	3.8	1.9 ng/g	30	□	1631B	Total/NA	
Arsenic	5.3		0.39	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	900	B	39	0.079 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.049		0.039	0.0039 mg/Kg	1	□	1638	Total/NA	
Chromium	50		0.39	0.39 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	20000		39	7.9 mg/Kg	1	□	1638	Total/NA	
Manganese	480	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	23		0.79	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	43		3.9	2.0 mg/Kg	1	□	1638	Total/NA	

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Detection Summary

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPWB-4B3X

Lab Sample ID: 350-1619-43

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	25	B	3.4	1.6 mg/g	30	□	1631B	Total/NA
Arsenic	4.0		0.36	0.11 mg/Kg	1	□	1638	Total/NA
Barium	1800	B	36	0.073 mg/Kg	1	□	1638	Total/NA
Cadmium	0.042		0.036	0.0036 mg/Kg	1	□	1638	Total/NA
Chromium	36		0.36	0.36 mg/Kg	1	□	1638	Total/NA
Copper	9.0	B	0.18	0.022 mg/Kg	1	□	1638	Total/NA
Iron	15000		36	7.3 mg/Kg	1	□	1638	Total/NA
Manganese	400	B	0.18	0.018 mg/Kg	1	□	1638	Total/NA
Nickel	17		0.73	0.029 mg/Kg	1	□	1638	Total/NA
Lead	14	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA
Zinc	33		3.6	1.8 mg/Kg	1	□	1638	Total/NA

Client Sample ID: NPWB-4C2									
Lab Sample ID: 350-1619-44									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	34	B	4.1	2.0 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1100	B	41	0.083 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.047		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	44		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	19000		41	8.3 mg/Kg	1	□	1638	Total/NA	
Manganese	510	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	22		0.83	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	40		4.1	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-1B2X					Lab Sample ID: 350-1619-45				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	170	B	3.8	1.8 mg/g	30	□	1631B	Total/NA	
Arsenic	8.2		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	36000	F2 B	38	0.075 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.11		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	39		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	15	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	19000	F1	38	7.5 mg/Kg	1	□	1638	Total/NA	
Manganese	440	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	19		0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	40	B E	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	69		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPWG-2B2X					Lab Sample ID: 350-1619-50				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	40	B	3.4	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.9		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	8800	B	37	0.075 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.060		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	44		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.19	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	19000		37	7.5 mg/Kg	1	□	1638	Total/NA	
Manganese	480	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	20		0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	43		3.7	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-2C2									
Lab Sample ID: 350-1619-51									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	27	B	3.7	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	5.4		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1500	B	40	0.081 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.047		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	46		0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	20000		40	8.1 mg/Kg	1	□	1638	Total/NA	
Manganese	600	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	23		0.81	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	43		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-3B2X									
Lab Sample ID: 350-1619-52									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	47	B	3.4	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	6.6		0.38	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	12000	B	38	0.077 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	39		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	9.6	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	17000		38	7.7 mg/Kg	1	□	1638	Total/NA	
Manganese	420	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	18		0.77	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	45		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-3C2									
Lab Sample ID: 350-1619-53									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	33	B	3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.0		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	4900	B	43	0.085 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.043		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	43		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.21	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	19000		43	8.5 mg/Kg	1	□	1638	Total/NA	

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPWG-3C2 (Continued)					Lab Sample ID: 350-1619-53				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Manganese	460	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	21		0.85	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	42		4.3	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-3CP2									
Lab Sample ID: 350-1619-54									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	35	B	3.7	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	2500	B	40	0.081 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.041		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	45		0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	19000		40	8.1 mg/Kg	1	□	1638	Total/NA	
Manganese	480	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	22		0.81	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	16	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	41		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-3D2									
Lab Sample ID: 350-1619-55									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	31	B	3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.4		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	910	B	43	0.085 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.050		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	44		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.21	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	20000		43	8.5 mg/Kg	1	□	1638	Total/NA	
Manganese	510	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	22		0.85	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	40		4.3	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: NPWG-4B2X									
Lab Sample ID: 350-1619-56									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	49	B	3.4	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.3		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	13000	B	38	0.076 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.049		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	45		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	19000		38	7.6 mg/Kg	1	□	1638	Total/NA	
Manganese	420	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	22		0.76	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	19	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	48		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPWG-4C2					Lab Sample ID: 350-1619-57				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	27	B	3.6	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.7		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	1600	B	43	0.086 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.045		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	47		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.22	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	19000		43	8.6 mg/Kg	1	□	1638	Total/NA	
Manganese	490	B	0.22	0.022 mg/Kg	1	□	1638	Total/NA	
Nickel	23		0.86	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	17	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	41		4.3	2.2 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-1C1									
Lab Sample ID: 350-1619-58									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	2000	B	20	9.8 ng/g	200	□	1631B	Total/NA	
Arsenic	14		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	26000	B	37	0.075 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.61		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	40		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	14	B	0.19	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	27000		37	7.5 mg/Kg	1	□	1638	Total/NA	
Manganese	620	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	18		0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	26	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	130		3.7	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-1C2X									
Lab Sample ID: 350-1619-59									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	5200	B	120	56 ng/g	1000	□	1631B	Total/NA	
Arsenic	7.3		0.36	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	3800	B	36	0.072 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.12		0.036	0.0036 mg/Kg	1	□	1638	Total/NA	
Chromium	68		0.36	0.36 mg/Kg	1	□	1638	Total/NA	

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-1D2					Lab Sample ID: 350-1619-64				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	250		12	5.7 ng/g	100	1631B	Total/NA		
Arsenic	6.8		0.39	0.12 mg/Kg	1	1638	Total/NA		
Barium	1500	B	39	0.077 mg/Kg	1	1638	Total/NA		
Cadmium	0.11		0.039	0.0039 mg/Kg	1	1638	Total/NA		
Chromium	47	B	0.39	0.39 mg/Kg	1	1638	Total/NA		
Copper	12	B	0.19	0.023 mg/Kg	1	1638	Total/NA		
Iron	22000	B	39	7.7 mg/Kg	1	1638	Total/NA		
Manganese	630	B	0.19	0.019 mg/Kg	1	1638	Total/NA		
Nickel	24		0.85	0.034 mg/Kg	1	1638	Total/NA		
Lead	19		0.15	0.015 mg/Kg	1	1638	Total/NA		
Zinc	50		3.9	1.9 mg/Kg	1	1638	Total/NA		

Client Sample ID: PACPP-1E2									
					Lab Sample ID: 350-1619-65				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	310		3.8	1.8 ng/g	30	1631B	Total/NA		
Arsenic	5.4		0.43	0.13 mg/Kg	1	1638	Total/NA		
Barium	1000	B	43	0.086 mg/Kg	1	1638	Total/NA		
Cadmium	0.054		0.043	0.0043 mg/Kg	1	1638	Total/NA		
Chromium	45	B	0.43	0.43 mg/Kg	1	1638	Total/NA		
Copper	12	B	0.22	0.026 mg/Kg	1	1638	Total/NA		
Iron	20000	B	43	8.6 mg/Kg	1	1638	Total/NA		
Manganese	490	B	0.22	0.022 mg/Kg	1	1638	Total/NA		
Nickel	26		0.79	0.032 mg/Kg	1	1638	Total/NA		
Lead	18		0.17	0.017 mg/Kg	1	1638	Total/NA		
Zinc	43		4.3	2.2 mg/Kg	1	1638	Total/NA		

Client Sample ID: PACPP-1F2									
					Lab Sample ID: 350-1619-66				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	240		3.7	1.8 ng/g	30	1631B	Total/NA		
Arsenic	5.0		0.39	0.12 mg/Kg	1	1638	Total/NA		
Barium	940	B	39	0.078 mg/Kg	1	1638	Total/NA		
Cadmium	0.050		0.039	0.0039 mg/Kg	1	1638	Total/NA		
Chromium	46	B	0.39	0.39 mg/Kg	1	1638	Total/NA		
Copper	11	B	0.19	0.023 mg/Kg	1	1638	Total/NA		
Iron	19000	B	39	7.8 mg/Kg	1	1638	Total/NA		
Manganese	480	B	0.19	0.019 mg/Kg	1	1638	Total/NA		
Nickel	23		0.82	0.033 mg/Kg	1	1638	Total/NA		
Lead	17		0.16	0.016 mg/Kg	1	1638	Total/NA		
Zinc	41		3.9	1.9 mg/Kg	1	1638	Total/NA		

Client Sample ID: PACPP-1G2									
					Lab Sample ID: 350-1619-67				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	220		3.6	1.7 ng/g	30	1631B	Total/NA		
Arsenic	4.9		0.41	0.12 mg/Kg	1	1638	Total/NA		
Barium	840	B	41	0.081 mg/Kg	1	1638	Total/NA		
Cadmium	0.053		0.041	0.0041 mg/Kg	1	1638	Total/NA		
Chromium	40	B	0.41	0.41 mg/Kg	1	1638	Total/NA		
Copper	9.8	B	0.20	0.024 mg/Kg	1	1638	Total/NA		
Iron	18000	B	41	8.1 mg/Kg	1	1638	Total/NA		

This Detection Summary does not include radiochemical test results.

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-1G2 (Continued)					Lab Sample ID: 350-1619-67				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Manganese	550	B	0.20	0.020 mg/Kg	1	1638	Total/NA		
Nickel	23		0.85	0.034 mg/Kg	1	1638	Total/NA		
Lead	16		0.16	0.016 mg/Kg	1	1638	Total/NA		
Zinc	36		4.1	2.0 mg/Kg	1	1638	Total/NA		

Client Sample ID: PACPP-2C2									
					Lab Sample ID: 350-1619-68				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	1500		21	10 ng/g	200	1631B	Total/NA		
Arsenic	5.8		0.36	0.11 mg/Kg	1	1638	Total/NA		
Barium	660	B	36	0.072 mg/Kg	1	1638	Total/NA		
Cadmium	0.074		0.036	0.0036 mg/Kg	1	1638	Total/NA		
Chromium	37	B	0.36	0.36 mg/Kg	1	1638	Total/NA		
Copper	12	B	0.18	0.021 mg/Kg	1	1638	Total/NA		
Iron	18000	B	36	7.2 mg/Kg	1	1638	Total/NA		
Manganese	610	B	0.18	0.018 mg/Kg	1	1638	Total/NA		
Nickel	18		0.74	0.030 mg/Kg	1	1638	Total/NA		
Lead	18		0.14	0.014 mg/Kg	1	1638	Total/NA		
Zinc	36		3.6	1.8 mg/Kg	1	1638	Total/NA		

Client Sample ID: PACPP-2CP2									
					Lab Sample ID: 350-1619-69				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	290		3.6	1.8 ng/g	30	1631B	Total/NA		
Arsenic	6.3		0.38	0.11 mg/Kg	1	1638	Total/NA		
Barium	800	F1 B	38	0.076 mg/Kg	1	1638	Total/NA		
Cadmium	0.066		0.038	0.0038 mg/Kg	1	1638	Total/NA		
Chromium	49	B	0.38	0.38 mg/Kg	1	1638	Total/NA		
Copper	13	B	0.19	0.023 mg/Kg	1	1638	Total/NA		
Iron	21000	B	38	7.6 mg/Kg	1	1638	Total/NA		
Manganese	640	F1 B	0.19	0.019 mg/Kg	1	1638	Total/NA		
Nickel	23		0.78	0.031 mg/Kg	1	1638	Total/NA		
Lead	20		0.15	0.015 mg/Kg	1	1638	Total/NA		
Zinc	44		3.8	1.9 mg/Kg	1	1638	Total/NA		

Client Sample ID: PACPP-2D2									
					Lab Sample ID: 350-1619-70				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	310		3.7	1.8 ng/g	30	1631B	Total/NA		
Arsenic	5.1		0.42	0.13 mg/Kg	1	1638	Total/NA		
Barium	740	B	42	0.084 mg/Kg	1	1638	Total/NA		
Cadmium	0.063		0.042	0.0042 mg/Kg	1	1638	Total/NA		
Chromium	46	B	0.42	0.42 mg/Kg	1	1638	Total/NA		
Copper	12	B	0.21	0.025 mg/Kg	1	1638	Total/NA		
Iron	20000	B	42	8.4 mg/Kg	1	1638	Total/NA		
Manganese	520	B	0.21	0.021 mg/Kg	1	1638	Total/NA		
Nickel	22		0.80	0.032 mg/Kg	1	1638	Total/NA		
Lead	18		0.17	0.017 mg/Kg	1	1638	Total/NA		
Zinc	41		4.2	2.1 mg/Kg	1	1638	Total/NA		

This Detection Summary does not include radiochemical test results.

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-3C1					Lab Sample ID: 350-1619-71				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type		
Mercury	1700		23	11 ng/g	200	1631B	Total/NA		
Arsenic	5.9		0.35	0.11 mg/Kg	1	1638	Total/NA		
Barium	410	B	35	0.070 mg/Kg	1	1638	Total/NA		
Cadmium	0.092		0.035	0.0035 mg/Kg	1	1638	Total/NA		
Chromium	28	B	0.35	0.35 mg/Kg	1	1638	Total/NA		
Copper	9.5	B	0.18	0.021 mg/Kg	1	1638	Total/NA		
Iron	16000	B	35	7.0 mg/Kg	1	1638	Total/NA		
Manganese	680	B	0.18	0.018 mg/Kg	1	1638	Total/NA		
Nickel	15		0.72	0.029 mg/Kg	1	1638	Total/NA		
Lead	17		0.14	0.014 mg/Kg	1	1638	Total/NA		
Zinc	27		3.5	1.8 mg/Kg	1	1638	Total/NA		

Client Sample ID: PACPP-3C2Y					Lab Sample ID: 350-1619-72			
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D Method	Prep Type	
Mercury	2800		110	53 ng/g	1000	1631B	Total/NA	
Arsenic	6.9		0.37	0.11 mg/Kg	1	1638	Total/NA	
Barium	770	B	37	0.074 mg/Kg	1	1638	Total/NA	
Cadmium	0.058		0.037	0.0037 mg/Kg	1	1638	Total/NA	
Chromium	40	B	0.37	0.37 mg/Kg	1	1638	Total/NA	
Copper	10	B	0.18	0.022 mg/Kg	1	1638	Total/NA	
Iron	22000	B	37	7.4 mg/Kg	1	1638	Total/NA	
Manganese	620	B	0.18	0.018 mg/Kg	1	1638	Total/NA	
Nickel	20		0.79	0.032 mg/Kg	1	1638	Total/NA	
Lead	19		0.15	0.015 mg/Kg	1	1638	Total/NA	
Zinc	36		3.7	1.8 mg/Kg	1	1638	Total/NA	

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-3E2X					Lab Sample ID: 350-1619-78				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	190		3.4	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.7		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	630 B		41	0.083 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.057		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	44 B		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	20000 B		41	8.3 mg/Kg	1	□	1638	Total/NA	
Manganese	560 B		0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	23		0.77	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	18		0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	41		4.1	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-3F2X									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	130		5.0	2.4 ng/g	40	□	1631B	Total/NA	
Arsenic	6.1		0.45	0.14 mg/Kg	1	□	1638	Total/NA	
Barium	780 B		45	0.090 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.045	0.0045 mg/Kg	1	□	1638	Total/NA	
Chromium	48 B		0.45	0.45 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.23	0.027 mg/Kg	1	□	1638	Total/NA	
Iron	22000 B		45	9.0 mg/Kg	1	□	1638	Total/NA	
Manganese	630 B		0.23	0.023 mg/Kg	1	□	1638	Total/NA	
Nickel	24		0.88	0.035 mg/Kg	1	□	1638	Total/NA	
Lead	19		0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Zinc	44		4.5	2.3 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-3G2									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	99		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.4		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	560 B		40	0.080 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.051		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	46 B		0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	11 B		0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	20000 B		40	8.0 mg/Kg	1	□	1638	Total/NA	
Manganese	490 B		0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	24		0.75	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	17		0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	40		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-4C2X									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	750		20	9.8 ng/g	200	□	1631B	Total/NA	
Arsenic	7.0		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	5500 B		41	0.081 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.13		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	37 B		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	9.8 B		0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	23000		41	8.1 mg/Kg	1	□	1638	Total/NA	

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-4C2X (Continued)					Lab Sample ID: 350-1619-81				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Manganese	890 B		0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	19 B		0.81	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	20 F1 B		0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	49		4.1	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-4C2X-FD									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	2400 B		100	49 ng/g	1000	□	1631B	Total/NA	
Arsenic	8.0		0.37	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	8200 B		37	0.073 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.12		0.037	0.0037 mg/Kg	1	□	1638	Total/NA	
Chromium	38 B		0.37	0.37 mg/Kg	1	□	1638	Total/NA	
Copper	9.6 B		0.18	0.022 mg/Kg	1	□	1638	Total/NA	
Iron	24000		37	7.3 mg/Kg	1	□	1638	Total/NA	
Manganese	710 B		0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	18 B		0.73	0.029 mg/Kg	1	□	1638	Total/NA	
Lead	20 B		0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	48		3.7	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-4CP2X									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	150 B		3.1	1.5 ng/g	30	□	1631B	Total/NA	
Arsenic	5.4		0.39	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	760 B		39	0.079 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.059		0.039	0.0039 mg/Kg	1	□	1638	Total/NA	
Chromium	40 B		0.39	0.39 mg/Kg	1	□	1638	Total/NA	
Copper	10 B		0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	19000		39	7.9 mg/Kg	1	□	1638	Total/NA	
Manganese	550 B		0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	20 B		0.79	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	37		3.9	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PACPP-4D2X									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	470		11	5.4 ng/g	100	□	1631B	Total/NA	
Arsenic	5.3		0.38	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	510 B		38	0.077 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.053		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	43 B		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	11 B		0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	19000		38	7.7 mg/Kg	1	□	1638	Total/NA	
Manganese	530 B		0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	20 B		0.77	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	37		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

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Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PAREF-A					Lab Sample ID: 350-1619-85				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	23		2.4	1.2 ng/g	20	□	1631B	Total/NA	
Arsenic	5.1		0.39	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	230 B		39	0.078 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.041		0.039	0.0039 mg/Kg	1	□	1638	Total/NA	
Chromium	54 B		0.39	0.39 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	22000		39	7.8 mg/Kg	1	□	1638	Total/NA	
Manganese	400 B		0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	26 B		0.78	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	18 B		0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	47		3.9	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PAREF-B									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	20		2.2	1.1 ng/g	20	□	1631B	Total/NA	
Arsenic	6.1		0.42	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	180 B		42	0.083 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.034 J		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	45 B		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	10 B		0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	22000		42	8.3 mg/Kg	1	□	1638	Total/NA	
Manganese	450 B		0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	22 B		0.83	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	17 B		0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	40		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PAREF-C									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	21		2.3	1.1 ng/g	20	□	1631B	Total/NA	
Arsenic	11		0.35	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	210 B		35	0.070 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.048		0.035	0.0035 mg/Kg	1	□	1638	Total/NA	
Chromium	57 B		0.35	0.35 mg/Kg	1	□	1638	Total/NA	
Copper	12 B		0.18	0.021 mg/Kg	1	□	1638	Total/NA	
Iron	34000		35	7.0 mg/Kg	1	□	1638	Total/NA	
Manganese	550 B		0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Nickel	28 B		0.70	0.028 mg/Kg	1	□	1638	Total/NA	
Lead	24 B		0.14	0.014 mg/Kg	1	□	1638	Total/NA	
Zinc	50		3.5	1.8 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: PAWB-1C2					Lab Sample ID: 350-1619-88				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	94		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	5.0		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	8600 B		38	0.076 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.085		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	45 B		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	13 B		0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	20000		38	7.6 mg/Kg	1	□	1638	Total/NA	

Detection Summary

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PAWB-2C2

Lab Sample ID: 350-1619-92

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	52		3.6	1.7 ng/g	30	□	1631B	Total/NA
Arsenic	5.3		0.37	0.11 mg/Kg	1	□	1638	Total/NA
Barium	1500 B		37	0.075 mg/Kg	1	□	1638	Total/NA
Cadmium	0.054		0.037	0.0037 mg/Kg	1	□	1638	Total/NA
Chromium	44 B		0.37	0.37 mg/Kg	1	□	1638	Total/NA
Copper	11 B		0.19	0.022 mg/Kg	1	□	1638	Total/NA
Iron	20000		37	7.5 mg/Kg	1	□	1638	Total/NA
Manganese	540 B		0.19	0.019 mg/Kg	1	□	1638	Total/NA
Nickel	21 B		0.75	0.030 mg/Kg	1	□	1638	Total/NA
Lead	18 B		0.15	0.015 mg/Kg	1	□	1638	Total/NA
Zinc	43		3.7	1.9 mg/Kg	1	□	1638	Total/NA

Client Sample ID: PAWB-3B2									
Lab Sample ID: 350-1619-93									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	180		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	9.6		0.39	0.12 mg/kg	1	□	1638	Total/NA	
Barium	1800 B		39	0.078 mg/kg	1	□	1638	Total/NA	
Cadmium	0.13		0.039	0.0039 mg/kg	1	□	1638	Total/NA	
Chromium	42 B		0.39	0.39 mg/kg	1	□	1638	Total/NA	
Copper	16 B		0.20	0.024 mg/kg	1	□	1638	Total/NA	
Iron	20000		39	7.8 mg/kg	1	□	1638	Total/NA	
Manganese	420 B		0.20	0.020 mg/kg	1	□	1638	Total/NA	
Nickel	20 B		0.78	0.031 mg/kg	1	□	1638	Total/NA	
Lead	16 B		0.16	0.016 mg/kg	1	□	1638	Total/NA	
Zinc	61		3.9	2.0 mg/kg	1	□	1638	Total/NA	

Client Sample ID: PAWB-3C2									
Lab Sample ID: 350-1619-94									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	48		3.6	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.6		0.41	0.12 mg/kg	1	□	1638	Total/NA	
Barium	4700 B		41	0.082 mg/kg	1	□	1638	Total/NA	
Cadmium	0.053		0.041	0.0041 mg/kg	1	□	1638	Total/NA	
Chromium	44 B		0.41	0.41 mg/kg	1	□	1638	Total/NA	
Copper	12 B		0.20	0.024 mg/kg	1	□	1638	Total/NA	
Iron	20000		41	8.2 mg/kg	1	□	1638	Total/NA	
Manganese	450 B		0.20	0.020 mg/kg	1	□	1638	Total/NA	
Nickel	22 B		0.82	0.033 mg/kg	1	□	1638	Total/NA	
Lead	18 B		0.16	0.016 mg/kg	1	□	1638	Total/NA	
Zinc	44		4.1	2.0 mg/kg	1	□	1638	Total/NA	

Client Sample ID: PAWB-3CP2									
Lab Sample ID: 350-1619-95									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	50		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.5		0.40	0.12 mg/kg	1	□	1638	Total/NA	
Barium	1800 B		40	0.081 mg/kg	1	□	1638	Total/NA	
Cadmium	0.052		0.040	0.0040 mg/kg	1	□	1638	Total/NA	
Chromium	46 B		0.40	0.40 mg/kg	1	□	1638	Total/NA	
Copper	12 B		0.20	0.024 mg/kg	1	□	1638	Total/NA	
Iron	21000		40	8.1 mg/kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Detection Summary

Client Sample ID: PAWB-3CP2 (Continued)

Lab Sample ID: 350-1619-95

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	570 B		0.20	0.020	mg/Kg	1	☐	1638	Total/NA
Nickel	23 B		0.81	0.032	mg/Kg	1	☐	1638	Total/NA
Lead	18 B		0.16	0.016	mg/Kg	1	☐	1638	Total/NA
Zinc	43		4.0	2.0	mg/Kg	1	☐	1638	Total/NA

Client Sample ID: PAWB-3D2									
Lab Sample ID: 350-1619-96									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	43		3.7	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	6.1		0.43	0.13 mg/kg	1	□	1638	Total/NA	
Barium	860 B		43	0.086 mg/kg	1	□	1638	Total/NA	
Cadmium	0.063		0.043	0.0043 mg/kg	1	□	1638	Total/NA	
Chromium	51 B		0.43	0.43 mg/kg	1	□	1638	Total/NA	
Copper	11 B		0.22	0.026 mg/kg	1	□	1638	Total/NA	
Iron	22000		43	8.6 mg/kg	1	□	1638	Total/NA	
Manganese	560 B		0.22	0.022 mg/kg	1	□	1638	Total/NA	
Nickel	40 B		0.86	0.035 mg/kg	1	□	1638	Total/NA	
Lead	19 B		0.17	0.017 mg/kg	1	□	1638	Total/NA	
Zinc	44		4.3	2.2 mg/kg	1	□	1638	Total/NA	

Client Sample ID: PAWB-4B2X									
Lab Sample ID: 350-1619-97									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	50		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	5.2		0.43	0.13 mg/kg	1	□	1638	Total/NA	
Barium	14000 B		43	0.085 mg/kg	1	□	1638	Total/NA	
Cadmium	0.096		0.043	0.0043 mg/kg	1	□	1638	Total/NA	
Chromium	41 B		0.43	0.43 mg/kg	1	□	1638	Total/NA	
Copper	13 B		0.21	0.026 mg/kg	1	□	1638	Total/NA	
Iron	19000		43	8.5 mg/kg	1	□	1638	Total/NA	
Manganese	400 B		0.21	0.021 mg/kg	1	□	1638	Total/NA	
Nickel	21 B		0.85	0.034 mg/kg	1	□	1638	Total/NA	
Lead	18 B		0.17	0.017 mg/kg	1	□	1638	Total/NA	
Zinc	56		4.3	2.1 mg/kg	1	□	1638	Total/NA	

Client Sample ID: PAWB-4C2									
Lab Sample ID: 350-1619-98									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	52		3.5	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	5.9		0.38	0.11 mg/kg	1	□	1638	Total/NA	
Barium	2500 B		38	0.076 mg/kg	1	□	1638	Total/NA	
Cadmium	0.068		0.038	0.0038 mg/kg	1	□	1638	Total/NA	
Chromium	49 B		0.38	0.38 mg/kg	1	□	1638	Total/NA	
Copper	12 B		0.19	0.023 mg/kg	1	□	1638	Total/NA	
Iron	22000		38	7.6 mg/kg	1	□	1638	Total/NA	
Manganese	560 B		0.19	0.019 mg/kg	1	□	1638	Total/NA	
Nickel	24 B		0.76	0.030 mg/kg	1	□	1638	Total/NA	
Lead	20 B		0.15	0.015 mg/kg	1	□	1638	Total/NA	
Zinc	45		3.8	1.9 mg/kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PAWE-1B1

Lab Sample ID: 350-1619-99

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	65		3.3	1.6 mg/g	30	0	1631B	Total/NA
Arsenic	5.7		0.39	0.12 mg/Kg	1	0	1638	Total/NA
Barium	6600 B		39	0.077 mg/Kg	1	0	1638	Total/NA
Cadmium	0.089		0.039	0.0039 mg/Kg	1	0	1638	Total/NA
Chromium	40 B		0.39	0.39 mg/Kg	1	0	1638	Total/NA
Copper	11 B		0.19	0.023 mg/Kg	1	0	1638	Total/NA
Iron	18000 F1		39	7.7 mg/Kg	1	0	1638	Total/NA
Manganese	550 B		0.19	0.019 mg/Kg	1	0	1638	Total/NA
Nickel	19 B		0.77	0.031 mg/Kg	1	0	1638	Total/NA
Lead	17 B		0.15	0.015 mg/Kg	1	0	1638	Total/NA
Zinc	46		3.9	1.9 mg/Kg	1	0	1638	Total/NA

Client Sample ID: PAWE-1C2									
Lab Sample ID: 350-1619-100									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	46		3.4	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	6.0		0.35	0.11 mg/kg	1	□	1638	Total/NA	
Barium	2200 B		35	0.071 mg/kg	1	□	1638	Total/NA	
Cadmium	0.093		0.035	0.0035 mg/kg	1	□	1638	Total/NA	
Chromium	41 B		0.35	0.35 mg/kg	1	□	1638	Total/NA	
Copper	11 B		0.18	0.021 mg/kg	1	□	1638	Total/NA	
Iron	19000		35	7.1 mg/kg	1	□	1638	Total/NA	
Manganese	760 B		0.18	0.018 mg/kg	1	□	1638	Total/NA	
Nickel	20 B		0.71	0.028 mg/kg	1	□	1638	Total/NA	
Lead	17 B		0.14	0.014 mg/kg	1	□	1638	Total/NA	
Zinc	45		3.5	1.8 mg/kg	1	□	1638	Total/NA	

Client Sample ID: PAWE-1CP2									
Lab Sample ID: 350-1619-101									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	41		3.3	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	5.0		0.36	0.11 mg/kg	1	□	1638	Total/NA	
Barium	680 B		36	0.072 mg/kg	1	□	1638	Total/NA	
Cadmium	0.051		0.036	0.0036 mg/kg	1	□	1638	Total/NA	
Chromium	46		0.36	0.36 mg/kg	1	□	1638	Total/NA	
Copper	11 B		0.18	0.022 mg/kg	1	□	1638	Total/NA	
Iron	19000		36	7.2 mg/kg	1	□	1638	Total/NA	

Detection Summary

Client Sample ID: PAWE-3B3 Lab Sample ID: 350-1619-106

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	98		3.4	1.7	ng/g	30			1631B	Total/NA
Arsenic	6.1		0.39	0.12	mg/Kg	1			1638	Total/NA
Barium	4900	B	39	0.078	mg/Kg	1			1638	Total/NA
Cadmium	0.075		0.039	0.0039	mg/Kg	1			1638	Total/NA
Chromium	42		0.39	0.39	mg/Kg	1			1638	Total/NA
Copper	11	B	0.19	0.023	mg/Kg	1			1638	Total/NA
Iron	19000		39	7.8	mg/Kg	1			1638	Total/NA
Manganese	500	B	0.19	0.019	mg/Kg	1			1638	Total/NA
Nickel	19	B	0.78	0.031	mg/Kg	1			1638	Total/NA
Lead	18	B	0.16	0.016	mg/Kg	1			1638	Total/NA
Zinc	46		3.9	1.9	mg/Kg	1			1638	Total/NA

Client Sample ID: PAWE-3C2 Lab Sample ID: 350-1619-107

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	48		3.3	1.6	ng/g	30			1631B	Total/NA
Arsenic	5.1		0.40	0.12	mg/Kg	1			1638	Total/NA
Barium	980	B	40	0.080	mg/Kg	1			1638	Total/NA
Cadmium	0.049		0.040	0.0040	mg/Kg	1			1638	Total/NA
Chromium	43		0.40	0.40	mg/Kg	1			1638	Total/NA
Copper	11	B	0.20	0.024	mg/Kg	1			1638	Total/NA
Iron	18000		40	8.0	mg/Kg	1			1638	Total/NA
Manganese	460	B	0.20	0.020	mg/Kg	1			1638	Total/NA
Nickel	20	B	0.80	0.032	mg/Kg	1			1638	Total/NA
Lead	17	B	0.16	0.016	mg/Kg	1			1638	Total/NA
Zinc	39		4.0	2.0	mg/Kg	1			1638	Total/NA

Client Sample ID: PAWE-3CP2 Lab Sample ID: 350-1619-108

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	40		3.8	1.8	ng/g	30			1631B	Total/NA
Arsenic	5.5		0.41	0.12	mg/Kg	1			1638	Total/NA
Barium	560	B	41	0.083	mg/Kg	1			1638	Total/NA
Cadmium	0.043		0.041	0.0041	mg/Kg	1			1638	Total/NA
Chromium	43		0.41	0.41	mg/Kg	1			1638	Total/NA
Copper	10	B	0.21	0.025	mg/Kg	1			1638	Total/NA
Iron	18000		41	8.3	mg/Kg	1			1638	Total/NA
Manganese	470	B	0.21	0.021	mg/Kg	1			1638	Total/NA
Nickel	20	B	0.83	0.033	mg/Kg	1			1638	Total/NA
Lead	16	B	0.17	0.017	mg/Kg	1			1638	Total/NA
Zinc	38		4.1	2.1	mg/Kg	1			1638	Total/NA

Client Sample ID: PAWE-3D2 Lab Sample ID: 350-1619-109

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	38		3.2	1.5	ng/g	30			1631B	Total/NA
Arsenic	4.9		0.38	0.11	mg/Kg	1			1638	Total/NA
Barium	400	B	38	0.076	mg/Kg	1			1638	Total/NA
Cadmium	0.044		0.038	0.0038	mg/Kg	1			1638	Total/NA
Chromium	39		0.38	0.38	mg/Kg	1			1638	Total/NA
Copper	9.8	B	0.19	0.023	mg/Kg	1			1638	Total/NA
Iron	17000		38	7.6	mg/Kg	1			1638	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary

Client Sample ID: PAWE-3D2 (Continued) Lab Sample ID: 350-1619-109

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Manganese	440	B	0.19	0.019	mg/Kg	1			1638	Total/NA
Nickel	19	B	0.76	0.030	mg/Kg	1			1638	Total/NA
Lead	15	B	0.15	0.015	mg/Kg	1			1638	Total/NA
Zinc	35		3.8	1.9	mg/Kg	1			1638	Total/NA

Client Sample ID: PAWE-4B2 Lab Sample ID: 350-1619-110

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	42		3.2	1.6	ng/g	30			1631B	Total/NA
Arsenic	5.2		0.35	0.11	mg/Kg	1			1638	Total/NA
Barium	2100	B	35	0.071	mg/Kg	1			1638	Total/NA
Cadmium	0.069		0.035	0.0035	mg/Kg	1			1638	Total/NA
Chromium	39		0.35	0.35	mg/Kg	1			1638	Total/NA
Copper	9.3	B	0.18	0.021	mg/Kg	1			1638	Total/NA
Iron	17000		35	7.1	mg/Kg	1			1638	Total/NA
Manganese	490	B	0.18	0.018	mg/Kg	1			1638	Total/NA
Nickel	18	B	0.71	0.028	mg/Kg	1			1638	Total/NA
Lead	16	B	0.14	0.014	mg/Kg	1			1638	Total/NA
Zinc	38		3.5	1.8	mg/Kg	1			1638	Total/NA

Client Sample ID: PAWE-4C2 Lab Sample ID: 350-1619-111

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	40		3.5	1.7	ng/g	30			1631B	Total/NA
Arsenic	4.0		0.40	0.12	mg/Kg	1			1638	Total/NA
Barium	560	F1 B	40	0.081	mg/Kg	1			1638	Total/NA
Cadmium	0.054		0.040	0.0040	mg/Kg	1			1638	Total/NA
Chromium	42		0.40	0.40	mg/Kg	1			1638	Total/NA
Copper	10	B	0.20	0.024	mg/Kg	1			1638	Total/NA
Iron	18000	F1	40	8.1	mg/Kg	1			1638	Total/NA
Manganese	410	B	0.20	0.020	mg/Kg	1			1638	Total/NA
Nickel	20	B	0.81	0.032	mg/Kg	1			1638	Total/NA
Lead	16	B	0.16	0.016	mg/Kg	1			1638	Total/NA
Zinc	37		4.0	2.0	mg/Kg	1			1638	Total/NA

Client Sample ID: NPCPP-1C2X-SW-1 Lab Sample ID: 350-1619-112

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.56		0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.1		1.0	0.11	ug/L	1			1640	Total/NA
Lead	1.7	B	0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.18	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	4.1	J B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.93		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPCPP-1C2X-SW-20 Lab Sample ID: 350-1619-113

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.56		0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.2		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.3		1.0	0.11	ug/L	1			1640	Total/NA

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Detection Summary

Client Sample ID: NPCPP-1C2X-SW-20 (Continued) Lab Sample ID: 350-1619-113

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Nickel	0.19	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	2.1	J B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.83		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPCPP-1C2X-SW-40 Lab Sample ID: 350-1619-114

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.56		0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.2		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2		1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.20	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	13	B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	1.5		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPCPP-1C2X-SW-B Lab Sample ID: 350-1619-115

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.80		0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2		1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.035	J B	0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	39	B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	2.9		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPCPP-1CP2-SW-1 Lab Sample ID: 350-1619-116

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.68		0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.2		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2		1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.20	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	5.8	B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.92		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPCPP-1CP2-SW-20 Lab Sample ID: 350-1619-117

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.37	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2		1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.23	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	5.1	B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	1.0		0.050	0.030	ug/L	1			1640	Total/NA

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client Sample ID: NPCPP-1CP2-SW-40 Lab Sample ID: 350-1619-118

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.55		0.50	0.20	ng/L	1			1631E	Total/NA

Client Sample ID: NPCPP-1CP2-SW-B Lab Sample

Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPCPP-2C2-SW-40-FD (Continued)					Lab Sample ID: 350-1619-123					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Manganese	1.8		0.050	0.030 ug/L	1		1640	Total/NA		6
Client Sample ID: NPCPP-2C2-SW-B					Lab Sample ID: 350-1619-124					7
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		8
Mercury	0.35	J	0.50	0.20 ng/L	1		1631E	Total/NA		9
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA		10
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA		11
Lead	0.031	J B	0.050	0.023 ug/L	1		1640	Total/NA		12
Nickel	0.21	J	0.50	0.15 ug/L	1		1640	Total/NA		13
Barium	13		0.50	0.088 ug/L	1		1640	Total/NA		14
Iron	33	B	5.0	0.81 ug/L	1		1640	Total/NA		15
Manganese	2.8		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPCPP-3C2-SW-1					Lab Sample ID: 350-1619-125					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	2.7		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.23	J	0.50	0.15 ug/L	1		1640	Total/NA		
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	3.6	J B	5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.88		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPCPP-3C2-SW-20					Lab Sample ID: 350-1619-126					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	2.3		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.17	J	0.50	0.15 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	1.3	J B	5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.68		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPCPP-3C2-SW-40					Lab Sample ID: 350-1619-127					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.36	J	0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.0		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.18	J	0.50	0.15 ug/L	1		1640	Total/NA		
Barium	10		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	20	B	5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	1.9		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPCPP-3C2-SW-B					Lab Sample ID: 350-1619-128					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.36	J	0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		

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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPCPP-3C2-SW-B (Continued)					Lab Sample ID: 350-1619-128					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Lead	0.037	J B	0.050	0.023 ug/L	1		1640	Total/NA		6
Nickel	0.23	J	0.50	0.15 ug/L	1		1640	Total/NA		7
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA		8
Iron	39	B	5.0	0.81 ug/L	1		1640	Total/NA		9
Manganese	2.9		0.050	0.030 ug/L	1		1640	Total/NA		10
Client Sample ID: NPCPP-3CP2-SW-1					Lab Sample ID: 350-1619-129					11
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		12
Mercury	0.35	J	0.50	0.20 ng/L	1		1631E	Total/NA		13
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA		14
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		15
Nickel	0.18	J	0.50	0.15 ug/L	1		1640	Total/NA		
Barium	12	F1	0.50	0.088 ug/L	1		1640	Total/NA		
Iron	2.4	J	5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.79	F1	0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPCPP-3CP2-SW-20					Lab Sample ID: 350-1619-130					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.33	J	0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.0		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.16	J	0.50	0.15 ug/L	1		1640	Total/NA		
Barium	8.6	F1	0.50	0.088 ug/L	1		1640	Total/NA		
Iron	3.0	J	5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.64		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPCPP-3CP2-SW-40					Lab Sample ID: 350-1619-131					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.30	J	0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		
Lead	0.025	J	0.050	0.023 ug/L	1		1640	Total/NA		
Nickel	0.23	J	0.50	0.15 ug/L	1		1640	Total/NA		
Barium	13		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	18		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	1.6		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPCPP-3CP2-SW-B					Lab Sample ID: 350-1619-132					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.30	J	0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		
Lead	0.030	J	0.050	0.023 ug/L	1		1640	Total/NA		
Nickel	0.24	J	0.50	0.15 ug/L	1		1640	Total/NA		
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	33		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	2.5		0.050	0.030 ug/L	1		1640	Total/NA		

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPCPP-4C2-SW-1

Lab Sample ID: 350-1619-133

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	0.28	J	0.50	0.20 ng/L	1		1631E	Total/NA
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA
Chromium	1.5		1.0	0.11 ug/L	1		1640	Total/NA
Nickel	0.29	J	0.50	0.15 ug/L	1		1640	Total/NA
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA
Iron	3.8	J	5.0	0.81 ug/L	1		1640	Total/NA
Manganese	0.83		0.050	0.030 ug/L	1		1640	Total/NA

Client Sample ID: NPCPP-4C2-SW-20

Lab Sample ID: 350-1619-134

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA
Nickel	0.20	J	0.50	0.15 ug/L	1		1640	Total/NA
Barium	13		0.50	0.088 ug/L	1		1640	Total/NA
Iron	3.9	J B	5.0	0.81 ug/L	1		1640	Total/NA
Manganese	0.99		0.050	0.030 ug/L	1		1640	Total/NA

Client Sample ID: NPCPP-4C2-SW-40

Lab Sample ID: 350-1619-135

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA
Lead	0.024	J	0.050	0.023 ug/L	1		1640	Total/NA
Nickel	0.21	J	0.50	0.15 ug/L	1		1640	Total/NA
Barium	13		0.50	0.088 ug/L	1		1640	Total/NA
Iron	17	B	5.0	0.81 ug/L	1		1640	Total/NA
Manganese	1.7		0.050	0.030 ug/L	1		1640	Total/NA

Client Sample ID: NPCPP-4C2-SW-B

Lab Sample ID: 350-1619-136

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	0.24	J	0.50	0.20 ng/L	1		1631E	Total/NA
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA
Lead	0.033	J	0.050	0.023 ug/L	1		1640	Total/NA
Nickel	0.28	J	0.50	0.15 ug/L	1		1640	Total/NA
Barium	13		0.50	0.088 ug/L	1		1640	Total/NA
Iron	37	B	5.0	0.81 ug/L	1		1640	Total/NA
Manganese	2.8		0.050	0.030 ug/L	1		1640	Total/NA

Client Sample ID: NPCPP-EQ

Lab Sample ID: 350-1619-137

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	0.27	J	0.50	0.20 ng/L	1		1631E	Total/NA
Manganese	0.12		0.050	0.030 ug/L	1		1640	Total/NA

Client Sample ID: NPCPP-WB

Lab Sample ID: 350-1619-138

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	0.28	J	0.50	0.20 ng/L	1		1631E	Total/NA
Manganese	0.11		0.050	0.030 ug/L	1		1640	Total/NA

Client Sample ID: NPREF-EQ

Lab Sample ID: 350-1619-144

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	1.9		0.50	0.20	ng/L	1			1631E	Total/NA
Chromium	0.11	J	1.0	0.11	ug/L	1			1640	Total/NA
Manganese	0.20		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPREF-WB

Lab Sample ID: 350-1619-145

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	2.1		0.50	0.20	ng/L	1			1631E	Total/NA
Chromium	0.13	J	1.0	0.11	ug/L	1			1640	Total/NA
Manganese	0.20		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1C2-SW-1

Lab Sample ID: 350-1619-146

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.22	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.2		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2		1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.20	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	1.5	J B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.86		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1C2-SW-20

Lab Sample ID: 350-1619-147

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.32	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2		1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.18	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	1.1	J B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.82		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1C2-SW-40

Lab Sample ID: 350-1619-148

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.25	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.2		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.3		1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.19	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	5.7	B	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	1.1		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1C2-SW-B

Lab Sample ID: 350-1619-149

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.33	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.1	B	1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.034	J	0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	13	F1	0.50	0.088	ug/L	1			1640	Total/NA

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Client Sample ID: NPWB-1C2-SW-B (Continued)

Lab Sample ID: 350-1619-149

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Iron	33		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	2.8	F1	0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1CP2-SW-1

Lab Sample ID: 350-1619-150

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.29	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.23	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12	F1	0.50	0.088	ug/L	1			1640	Total/NA
Iron	7.8		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.86	F1	0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1CP2-SW-20

Lab Sample ID: 350-1619-151

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.36	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	2.4	J	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.84		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1CP2-SW-40

Lab Sample ID: 350-1619-152

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.49	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	13		0.50	0.088	ug/L	1			1640	Total/NA
Iron	13		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	1.5		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-1CP2-SW-B

Lab Sample ID: 350-1619-153

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.36	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.030	J	0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	13		0.50	0.088	ug/L	1			1640	Total/NA
Iron	33		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	2.8		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-3B2-SW-1

Lab Sample ID: 350-1619-154

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.48	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.1		0.70	0.63	ug/L	1			1640	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample ID: NPWB-3B2-SW-1 (Continued)

Lab Sample ID: 350-1619-154

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.17	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	10		0.50	0.088	ug/L	1			1640	Total/NA
Iron	3.2	J	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.88		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-3B2-SW-20

Lab Sample ID: 350-1619-155

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	7.1		0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.2		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.3	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.21	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	13		0.50	0.088	ug/L	1			1640	Total/NA
Iron	4.5	J	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.90		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-3B2-SW-40

Lab Sample ID: 350-1619-156

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.33	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	0.98		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.1	B	1.0	0.11	ug/L	1			1640	Total/NA
Nickel	0.15	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	8.5		0.50	0.088	ug/L	1			1640	Total/NA
Iron	20		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	1.9		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-3B2-SW-B

Lab Sample ID: 350-1619-157

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.32	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.3		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.033	J	0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	13		0.50	0.088	ug/L	1			1640	Total/NA
Iron	35		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	2.8		0.050	0.030	ug/L	1			1640	Total/NA

Client Sample ID: NPWB-3CP2-SW-1

Lab Sample ID: 350-1619-158

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	1.0		0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.2		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	1.2	B	1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.16		0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.19	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	12		0.50	0.088	ug/L	1			1640	Total/NA
Iron	3.8	J	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.94		0.050	0.030	ug/L	1			1640	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample ID: NPWB-3CP2-SW-20

Lab Sample ID: 350-1619-159

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.27	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	0.84		0.70	0.63	ug/L	1			1640	Total/NA
Chromium	0.97	J B	1.0	0.11	ug/L	1			1640	Total/NA
Barium	8.0		0.50	0.088	ug/L	1			1640	Total/NA
Iron	4.6	J	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.93		0.050	0.030	ug/L	1			1640	Total/NA

Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWG-1B2X-SW-1					Lab Sample ID: 350-1619-165					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Mercury	0.78		0.50	0.20 ng/L	1	1631E	Total/NA			6
Arsenic	1.1		0.70	0.63 ug/L	1	1640	Total/NA			7
Chromium	1.4 B		1.0	0.11 ug/L	1	1640	Total/NA			8
Copper	0.93		0.50	0.43 ug/L	1	1640	Total/NA			9
Lead	0.060		0.050	0.023 ug/L	1	1640	Total/NA			10
Nickel	0.22 J		0.50	0.15 ug/L	1	1640	Total/NA			11
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			12
Iron	2.3 J		5.0	0.81 ug/L	1	1640	Total/NA			13
Manganese	0.78		0.050	0.030 ug/L	1	1640	Total/NA			14
Client Sample ID: NPWG-1B2X-SW-20					Lab Sample ID: 350-1619-166					15
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.44 J *2		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.7		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.015 J		0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	1.2 B		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.19 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	1.8 J		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.80		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-1B2X-SW-40					Lab Sample ID: 350-1619-167					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.41 J *2		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.4 B		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.028 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.21 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	13		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	21		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.8		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-1B2X-SW-B					Lab Sample ID: 350-1619-168					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.48 J *2		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.3 B		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.034 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.23 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	13		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	34		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	2.6		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-1CP2-SW-1					Lab Sample ID: 350-1619-169					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.42 J *2		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.1		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.1		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.025 J		0.050	0.023 ug/L	1	1640	Total/NA			

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWG-1CP2-SW-1 (Continued)					Lab Sample ID: 350-1619-169					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Nickel	0.22 J		0.50	0.15 ug/L	1	1640	Total/NA			6
Barium	13 F1		0.50	0.088 ug/L	1	1640	Total/NA			7
Iron	3.6 J		5.0	0.81 ug/L	1	1640	Total/NA			8
Manganese	0.78 F1		0.050	0.030 ug/L	1	1640	Total/NA			9
Client Sample ID: NPWG-1CP2-SW-20					Lab Sample ID: 350-1619-170					10
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		11
Mercury	0.50		0.50	0.20 ng/L	1	1631E	Total/NA			12
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			13
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			14
Nickel	0.21 J		0.50	0.15 ug/L	1	1640	Total/NA			15
Barium	12 F1		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	2.2 J		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.71 F1		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-1CP2-SW-40					Lab Sample ID: 350-1619-171					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.53		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.023 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.24 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	21		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.8		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-1CP2-SW-B					Lab Sample ID: 350-1619-172					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.43 J *2		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.026 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.22 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	24		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	2.1		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: NPWG-3B2X-SW-1					Lab Sample ID: 350-1619-173					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.4		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.18 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	1.3 J		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.75		0.050	0.030 ug/L	1	1640	Total/NA			

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPWG-3B2X-SW-20					Lab Sample ID: 350-1619-174					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.9		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	0.80		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	0.97 J		1.0	0.11 ug/L	1		1640	Total/NA		
Barium	8.1		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	1.4 J		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.79		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPWG-3B2X-SW-40					Lab Sample ID: 350-1619-175					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.1		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.19 J		0.50	0.15 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	19		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	1.8		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPWG-3B2X-SW-B					Lab Sample ID: 350-1619-176					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.4		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.0		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	0.99 J		1.0	0.11 ug/L	1		1640	Total/NA		
Lead	0.028 J		0.050	0.023 ug/L	1		1640	Total/NA		
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA		
Barium	10		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	25		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	2.1		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPWG-3B2X-SW-B-FD					Lab Sample ID: 350-1619-177					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.4		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.0		1.0	0.11 ug/L	1		1640	Total/NA		
Lead	0.025 J		0.050	0.023 ug/L	1		1640	Total/NA		
Nickel	0.18 J		0.50	0.15 ug/L	1		1640	Total/NA		
Barium	10		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	27		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	2.1		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: NPWG-3CP2-SW-1					Lab Sample ID: 350-1619-178					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.1		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.0		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.0		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.15 J		0.50	0.15 ug/L	1		1640	Total/NA		
Barium	9.5		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	1.4 J		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.60		0.050	0.030 ug/L	1		1640	Total/NA		

Detection Summary

Client Sample ID: PACPP-1C2X-SW-1 (Continued)

Lab Sample ID: 350-1619-184

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Nickel	0.18	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	2.4	J	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.76		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1C2X-SW-20

Lab Sample ID: 350-1619-185

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.61		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11	ug/L	1		1640	Total/NA	
Copper	0.51		0.50	0.43	ug/L	1		1640	Total/NA	
Nickel	0.18	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	11		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	1.8	J	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.71		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1C2X-SW-40

Lab Sample ID: 350-1619-186

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	4.7		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11	ug/L	1		1640	Total/NA	
Nickel	0.19	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	9.1		5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	1.0		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1C2X-SW-B

Lab Sample ID: 350-1619-187

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	2.0		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.033	J	0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.21	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	36		5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	2.8		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1CP2X-SW-1

Lab Sample ID: 350-1619-188

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.35	J	0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.058		0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.17	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	2.3	J	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.69		0.050	0.030	ug/L	1		1640	Total/NA	

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client Sample ID: PACPP-1CP2X-SW-20

Lab Sample ID: 350-1619-189

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	1.4		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.030	J	0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.16	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	11	F1	0.50	0.088	ug/L	1		1640	Total/NA	
Iron	1.3	J B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.65	F1	0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1CP2X-SW-40

Lab Sample ID: 350-1619-190

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.37	J	0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11	ug/L	1		1640	Total/NA	
Nickel	0.23	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12	F1	0.50	0.088	ug/L	1		1640	Total/NA	
Iron	12	B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	1.1		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-1CP2X-SW-B

Lab Sample ID: 350-1619-191

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.64		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.034	J	0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.24	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	34	B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	2.6		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-2C2-SW-1

Lab Sample ID: 350-1619-192

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.31	J	0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63	ug/L	1		1640	Total/NA	
Cadmium	0.015	J	0.020	0.013	ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.085		0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.20	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	4.7	J B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.73		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-2C2-SW-20

Lab Sample ID: 350-1619-193

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.24	J	0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Cadmium	0.013	J	0.020	0.013	ug/L	1		1640	Total/NA	
Chromium	16		1.0	0.11	ug/L	1		1640	Total/NA	
Copper	4.9		0.50	0.43	ug/L	1		1640	Total/NA	

This Detection Summary does not include radiochemical test results.

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Detection Summary

Client Sample ID: PACPP-2C2-SW-20 (Continued)

Lab Sample ID: 350-1619-193

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Nickel	5.8		0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	14	J B	50	8.1	ug/L	10		1640	Total/NA	
Manganese	9.9		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-2C2-SW-40

Lab Sample ID: 350-1619-194

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.29	J	0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63	ug/L	1		1640	Total/NA	
Cadmium	0.016	J	0.020	0.013	ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11	ug/L	1		1640	Total/NA	
Nickel	0.19	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	8.9	B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.58		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-2C2-SW-B

Lab Sample ID: 350-1619-195

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.59		0.50	0.20	ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Cadmium	0.021		0.020	0.013	ug/L	1		1640	Total/NA	
Chromium	1.4		1.0	0.11	ug/L	1		1640	Total/NA	
Lead	0.030	J	0.050	0.023	ug/L	1		1640	Total/NA	
Nickel	0.21	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	13		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	35	B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	2.6		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-3C2Y-SW-1

Lab Sample ID: 350-1619-196

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11	ug/L	1		1640	Total/NA	
Nickel	0.18	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	3.2	J B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.78		0.050	0.030	ug/L	1		1640	Total/NA	

Client Sample ID: PACPP-3C2Y-SW-20

Lab Sample ID: 350-1619-197

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	1.3		0.70	0.63	ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11	ug/L	1		1640	Total/NA	
Nickel	0.19	J	0.50	0.15	ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088	ug/L	1		1640	Total/NA	
Iron	2.1	J B	5.0	0.81	ug/L	1		1640	Total/NA	
Manganese	0.80		0.050	0.030	ug/L	1		1640	Total/NA	

This Detection Summary does not include radiochemical test results.

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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-3CP2-SW-40 (Continued)					Lab Sample ID: 350-1619-202					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			6
Iron	12	B	5.0	0.81 ug/L	1	1640	Total/NA			7
Manganese	1.2		0.050	0.030 ug/L	1	1640	Total/NA			8
Client Sample ID: PACPP-3CP2-SW-B					Lab Sample ID: 350-1619-203					9
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		10
Mercury	0.84		0.50	0.20 ng/L	1	1631E	Total/NA			11
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			12
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			13
Lead	0.034 J		0.050	0.023 ug/L	1	1640	Total/NA			14
Nickel	0.21 J		0.50	0.15 ug/L	1	1640	Total/NA			15
Barium	13		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	38	B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	3.2		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PACPP-4C2-SW-1					Lab Sample ID: 350-1619-204					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.51		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.19 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	2.7	J B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.65		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PACPP-4C2-SW-1-FD					Lab Sample ID: 350-1619-205					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.56		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.015 J		0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.024 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.17 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	2.3	J B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.64		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PACPP-4C2-SW-20					Lab Sample ID: 350-1619-206					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.48 J		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.022		0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	1.1		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.17 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	2.1	J B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.63		0.050	0.030 ug/L	1	1640	Total/NA			
This Detection Summary does not include radiochemical test results.										
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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-4C2-SW-40					Lab Sample ID: 350-1619-207					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Mercury	0.39 J		0.50	0.20 ng/L	1	1631E	Total/NA			6
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			7
Cadmium	0.014 J		0.020	0.013 ug/L	1	1640	Total/NA			8
Chromium	1.2		1.0	0.11 ug/L	1	1640	Total/NA			9
Nickel	0.19 J		0.50	0.15 ug/L	1	1640	Total/NA			10
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			11
Iron	4.8	J B	5.0	0.81 ug/L	1	1640	Total/NA			12
Manganese	0.70		0.050	0.030 ug/L	1	1640	Total/NA			13
Client Sample ID: PACPP-4C2-SW-B					Lab Sample ID: 350-1619-208					14
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		15
Mercury	0.68		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.019 J		0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	1.3		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.029 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.20 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	13		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	32	B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	2.5		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PACPP-EQ					Lab Sample ID: 350-1619-209					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.48 J		0.50	0.20 ng/L	1	1631E	Total/NA			
Manganese	0.15		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PACPP-WB					Lab Sample ID: 350-1619-210					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.0		0.50	0.20 ng/L	1	1631E	Total/NA			
Chromium	1.0		1.0	0.11 ug/L	1	1640	Total/NA			
Barium	0.27 J		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	1.3	J B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.18	B	0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAREF-A-SW-1					Lab Sample ID: 350-1619-211					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.5		1.0	0.11 ug/L	1	1640	Total/NA			
Copper	0.51		0.50	0.43 ug/L	1	1640	Total/NA			
Nickel	0.29 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	5.2		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	6.8	B	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.0	B *2	0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAREF-A-SW-20					Lab Sample ID: 350-1619-212					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.0		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.9		0.70	0.63 ug/L	1	1640	Total/NA			
This Detection Summary does not include radiochemical test results.										
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Detection Summary										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PAREF-A-SW-20 (Continued)					Lab Sample ID: 350-1619-212					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Cadmium	0.018 J		0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	2.2		1.0	0.11 ug/L	1	1640	Total/NA			
Copper	0.72		0.50	0.43 ug/L	1	1640	Total/NA			
Lead	0.040 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.44 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	8.0		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	14 B		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.6 B *2		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAREF-A-SW-40					Lab Sample ID: 350-1619-213					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.66		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.1		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.027 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.22 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12 F1		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	19		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.1		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAREF-A-SW-B					Lab Sample ID: 350-1619-214					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	0.96 J		1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.036 J		0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.22 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	11 F1		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	44		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	2.4 F1 F2		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAWB-1CP2-SW-1					Lab Sample ID: 350-1619-215					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.42 J		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.2		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.1		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.22 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	2.9 J		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.4 B *2		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAWB-1CP2-SW-20					Lab Sample ID: 350-1619-216					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.34 J		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.3		0.70	0.63 ug/L	1	1640	Total/NA			
Chromium	1.3		1.0	0.11 ug/L	1	1640	Total/NA			
Nickel	0.25 J		0.50	0.15 ug/L	1	1640	Total/NA			
Barium	11		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	5.1		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	1.1 B *2		0.050	0.030 ug/L	1	1640	Total/NA			
This Detection Summary does not include radiochemical test results.										

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PAWB-3B2-SW-B					Lab Sample ID: 350-1619-222				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.61		0.50	0.20 ug/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Lead	0.029 J		0.050	0.023 ug/L	1		1640	Total/NA	
Nickel	0.19 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	33		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	4.4 F2 F1		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWB-3CP2-SW-1					Lab Sample ID: 350-1619-223				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	1.5 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.3		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWB-3CP2-SW-20					Lab Sample ID: 350-1619-224				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	1.1 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.3		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWB-3CP2-SW-40					Lab Sample ID: 350-1619-225				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	2.2 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.4		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWB-3CP2-SW-B					Lab Sample ID: 350-1619-226				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA	
Lead	0.032 J		0.050	0.023 ug/L	1		1640	Total/NA	
Nickel	0.21 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	31		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	4.7		0.050	0.030 ug/L	1		1640	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PAWE-1CP2-SW-20					Lab Sample ID: 350-1619-232				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.49 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	8.3		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.0		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1CP2-SW-40					Lab Sample ID: 350-1619-233				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.26 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.19 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	10 F1		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	3.5 J B		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.2		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1CP2-SW-B					Lab Sample ID: 350-1619-234				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.49 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA	
Cadmium	0.013 J		0.020	0.013 ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA	
Lead	0.035 J		0.050	0.023 ug/L	1		1640	Total/NA	
Nickel	0.23 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	14 F1		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	41 B		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	5.3		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-3B3-SW-1					Lab Sample ID: 350-1619-235				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.19 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	3.0 J B		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.1		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-3B3-SW-20					Lab Sample ID: 350-1619-236				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.43 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.18 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	1.7 J B		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.2		0.050	0.030 ug/L	1		1640	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PAWE-1B1-SW-1					Lab Sample ID: 350-1619-227				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.61		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.1		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA	
Lead	0.057		0.050	0.023 ug/L	1		1640	Total/NA	
Nickel	0.21 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	2.2 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.1		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1B1-SW-20					Lab Sample ID: 350-1619-228				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.36 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.2		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	1.3 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.2		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1B1-SW-40					Lab Sample ID: 350-1619-229				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.76		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	0.76		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	0.95 J		1.0	0.11 ug/L	1		1640	Total/NA	
Barium	7.3		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	2.7 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.0		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1B1-SW-B					Lab Sample ID: 350-1619-230				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.51		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	0.91		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	0.88 J		1.0	0.11 ug/L	1		1640	Total/NA	
Lead	0.028 J		0.050	0.023 ug/L	1		1640	Total/NA	
Nickel	0.15 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	8.4		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	36		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	5.1		0.050	0.030 ug/L	1		1640	Total/NA	
Client Sample ID: PAWE-1CP2-SW-1					Lab Sample ID: 350-1619-231				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	0.32 J		0.50	0.20 ng/L	1		1631E	Total/NA	
Arsenic	1.3		0.70	0.63 ug/L	1		1640	Total/NA	
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA	
Nickel	0.17 J		0.50	0.15 ug/L	1		1640	Total/NA	
Barium	12		0.50	0.088 ug/L	1		1640	Total/NA	
Iron	1.9 J		5.0	0.81 ug/L	1		1640	Total/NA	
Manganese	1.3		0.050	0.030 ug/L	1		1640	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PAWE-3B3-SW-40					Lab Sample ID: 350-1619-237					
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.25	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.9		0.70	0.63	ug/L	1			1640	Total/NA
Cadmium	0.016	J	0.020	0.013	ug/L	1			1640	Total/NA
Chromium	1.8		1.0	0.11	ug/L	1			1640	Total/NA
Copper	0.55		0.50	0.43	ug/L	1			1640	Total/NA
Lead	0.052		0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.42	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	7.7		0.50	0.088	ug/L	1			1640	Total/NA
Iron	7.0		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	1.5		0.050	0.030	ug/L	1			1640	Total/NA
Client Sample ID: PAWE-3B3-SW-B					Lab Sample ID: 350-1619-238					
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.25	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.9		0.70	0.63	ug/L	1			1640	Total/NA
Cadmium	0.022		0.020	0.013	ug/L	1			1640	Total/NA
Chromium	1.9		1.0	0.11	ug/L	1			1640	Total/NA
Copper	0.58		0.50	0.43	ug/L	1			1640	Total/NA
Lead	0.099		0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.49	J	0.50	0.15	ug/L	1			1640	Total/NA
Zinc	0.33	J	1.0	0.31	ug/L	1			1640	Total/NA
Barium	8.3		0.50	0.088	ug/L	1			1640	Total/NA
Iron	9.9		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	5.6		0.050	0.030	ug/L	1			1640	Total/NA
Client Sample ID: PAWE-3CP2-SW-1					Lab Sample ID: 350-1619-239					
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.23	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.9		0.70	0.63	ug/L	1			1640	Total/NA
Cadmium	0.031		0.020	0.013	ug/L	1			1640	Total/NA
Chromium	1.8		1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.074		0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.43	J	0.50	0.15	ug/L	1			1640	Total/NA
Zinc	0.48	J	1.0	0.31	ug/L	1			1640	Total/NA
Barium	7.7		0.50	0.088	ug/L	1			1640	Total/NA
Iron	7.2		5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.97		0.050	0.030	ug/L	1			1640	Total/NA
Client Sample ID: PAWE-3CP2-SW-20					Lab Sample ID: 350-1619-240					
Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Mercury	0.26	J	0.50	0.20	ng/L	1			1631E	Total/NA
Arsenic	1.9		0.70	0.63	ug/L	1			1640	Total/NA
Cadmium	0.029		0.020	0.013	ug/L	1			1640	Total/NA
Chromium	1.8		1.0	0.11	ug/L	1			1640	Total/NA
Lead	0.030	J	0.050	0.023	ug/L	1			1640	Total/NA
Nickel	0.39	J	0.50	0.15	ug/L	1			1640	Total/NA
Barium	7.6		0.50	0.088	ug/L	1			1640	Total/NA
Iron	4.1	J	5.0	0.81	ug/L	1			1640	Total/NA
Manganese	0.95		0.050	0.030	ug/L	1			1640	Total/NA

Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWE-3CP2-SW-20-FD					Lab Sample ID: 350-1619-241					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Mercury	0.21	J	0.50	0.20 ng/L	1	1631E	Total/NA			6
Arsenic	1.6		0.70	0.63 ug/L	1	1640	Total/NA			7
Cadmium	0.016	J	0.020	0.013 ug/L	1	1640	Total/NA			8
Chromium	1.0	B	1.0	0.11 ug/L	1	1640	Total/NA			9
Nickel	0.20	J	0.50	0.15 ug/L	1	1640	Total/NA			10
Zinc	0.35	J	1.0	0.31 ug/L	1	1640	Total/NA			11
Barium	7.3		0.50	0.088 ug/L	1	1640	Total/NA			12
Iron	3.9	J	5.0	0.81 ug/L	1	1640	Total/NA			13
Manganese	0.47		0.050	0.030 ug/L	1	1640	Total/NA			14
Client Sample ID: PAWE-3CP2-SW-40					Lab Sample ID: 350-1619-242					15
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.33	J	0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.7		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.018	J	0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	1.1	B	1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.023	J	0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.20	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	7.4		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	3.5	J	5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	0.50		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAWE-3CP2-SW-B					Lab Sample ID: 350-1619-243					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.47	J	0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.7		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.017	J	0.020	0.013 ug/L	1	1640	Total/NA			
Chromium	0.94	J B	1.0	0.11 ug/L	1	1640	Total/NA			
Lead	0.046	J	0.050	0.023 ug/L	1	1640	Total/NA			
Nickel	0.23	J	0.50	0.15 ug/L	1	1640	Total/NA			
Barium	7.7		0.50	0.088 ug/L	1	1640	Total/NA			
Iron	50		5.0	0.81 ug/L	1	1640	Total/NA			
Manganese	2.4		0.050	0.030 ug/L	1	1640	Total/NA			
Client Sample ID: PAWE-EQ					Lab Sample ID: 350-1619-244					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.91		0.50	0.20 ng/L	1	1631E	Total/NA			
Chromium	0.24	J B	1.0	0.11 ug/L	1	1640	Total/NA			
Iron	0.84	J	5.0	0.81 ug/L	1	1640	Total/NA			
Client Sample ID: PAWE-WB					Lab Sample ID: 350-1619-245					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.52		0.50	0.20 ng/L	1	1631E	Total/NA			
Chromium	0.21	J B	1.0	0.11 ug/L	1	1640	Total/NA			
Client Sample ID: PDPLB-EQ					Lab Sample ID: 350-1619-378					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.58		0.50	0.20 ng/L	1	1631E	Total/NA			
This Detection Summary does not include radiochemical test results.										
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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PDPLB-EQ (Continued)					Lab Sample ID: 350-1619-378					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Zinc	0.81	J B	1.0	0.31 ug/L	1	1640	Total/NA			6
Client Sample ID: PDPLB-M2-SW-1					Lab Sample ID: 350-1619-379					7
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		8
Mercury	0.56		0.50	0.20 ng/L	1	1631E	Total/NA			9
Arsenic	1.9		0.70	0.63 ug/L	1	1640	Total/NA			10
Zinc	0.46	J B	1.0	0.31 ug/L	1	1640	Total/NA			11
Barium	13		0.50	0.088 ug/L	1	1640	Total/NA			12
Client Sample ID: PDPLB-M2-SW-20					Lab Sample ID: 350-1619-380					13
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		14
Mercury	0.46	J	0.50	0.20 ng/L	1	1631E	Total/NA			15
Arsenic	1.9		0.70	0.63 ug/L	1	1640	Total/NA			
Zinc	0.33	J B	1.0	0.31 ug/L	1	1640	Total/NA			
Barium	12		0.50	0.088 ug/L	1	1640	Total/NA			
Client Sample ID: PDPLB-M2-SW-40					Lab Sample ID: 350-1619-381					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.67		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	1.9		0.70	0.63 ug/L	1	1640	Total/NA			
Barium	11		0.50	0.088 ug/L	1	1640	Total/NA			
Client Sample ID: PDPLB-M2-SW-B					Lab Sample ID: 350-1619-382					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.68		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	2.3		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.015	J	0.020	0.013 ug/L	1	1640	Total/NA			
Copper	1.1		0.50	0.43 ug/L	1	1640	Total/NA			
Lead	0.031	J	0.050	0.023 ug/L	1	1640	Total/NA			
Zinc	0.37	J B	1.0	0.31 ug/L	1	1640	Total/NA			
Barium	14		0.50	0.088 ug/L	1	1640	Total/NA			
Client Sample ID: PDPLB-M3-SW-1					Lab Sample ID: 350-1619-383					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.78		0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	2.0		0.70	0.63 ug/L	1	1640	Total/NA			
Cadmium	0.015	J	0.020	0.013 ug/L	1	1640	Total/NA			
Zinc	0.37	J B	1.0	0.31 ug/L	1	1640	Total/NA			
Barium	14		0.50	0.088 ug/L	1	1640	Total/NA			
Client Sample ID: PDPLB-M3-SW-20					Lab Sample ID: 350-1619-384					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.42	J F1 F2	0.50	0.20 ng/L	1	1631E	Total/NA			
Arsenic	2.0		0.70	0.63 ug/L	1	1640	Total/NA			
Barium	11		0.50	0.088 ug/L	1	1640	Total/NA			
This Detection Summary does not include radiochemical test results.										
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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PDPLB-M3-SW-40					Lab Sample ID: 350-1619-385					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Mercury	0.22	J	0.50	0.20 ng/L	1	1631E	Total/NA			6
Arsenic	1.8		0.70	0.63 ug/L	1	1640	Total/NA			7
Barium	22		0.50	0.088 ug/L	1	1640	Total/NA			8
Client Sample ID: PDPLB-M3-SW-B					Lab Sample ID: 350-1619-386					9
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		10
Mercury	3.1		0.50	0.20 ng/L	1	1631E	Total/NA			11
Arsenic	2.2		0.70	0.63 ug/L	1	1640	Total/NA			12
Cadmium	0.016	J	0.020	0.013 ug/L	1	1640	Total/NA			13
Lead	0.039	J	0.050	0.023 ug/L	1	1640	Total/NA			14
Barium	25		0.50	0.088 ug/L	1	1640	Total/NA			15
Client Sample ID: PDPLB-WB					Lab Sample ID: 350-1619-387					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.55		0.50	0.20 ng/L	1	1631E	Total/NA			
This Detection Summary does not include radiochemical test results.										
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Client Sample Results										Job ID: 350-1619-1
Client: Tetra Tech Inc Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPCPP-1C1					Lab Sample ID: 350-1619-1					
Date Collected: 02/16/25 03:03					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 56.6					
Method: EPA 1631B - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	120	F1 F2	2.9	1.4 ng/g	☐	04/03/25 20:27	04/15/25 08:41	30		
Method: EPA 1638 - Metals (ICP/MS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	3.6		0.36	0.11 mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1		
Barium	360	B	36	0.072 mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1		
Cadmium	0.054		0.036	0.0036 mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1		
Chromium	31		0.36	0.36 mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1		
Copper	8.6	B	0.18	0.022 mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1		
Iron	14000	F1	36	7.2 mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1		
Manganese	450	B ^2	0.18	0.018 mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1		
Nickel	15	B	0.72	0.029 mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1		
Lead	15	B	0.14	0.014 mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1		
Zinc	31		3.6	1.8 mg/Kg	☐	03/27/25 18:41	04/03/25 19:30	1		
Client Sample ID: NPCPP-1C1-FD					Lab Sample ID: 350-1619-2					
Date Collected: 02/16/25 04:14					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 55.3					
Method: EPA 1631B - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	1300		20	9.9 ng/g	☐	04/03/25 20:27	04/15/25 12:21	200		
Method: EPA 1638 - Metals (ICP/MS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	5.0		0.37	0.11 mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1		
Barium	400	B	37	0.075 mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1		
Cadmium	0.079		0.037	0.0037 mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1		
Chromium	48		0.37	0.37 mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1		
Copper	12	B	0.19	0.022 mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1		
Iron	21000		37	7.5 mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1		
Manganese	560	B ^2	0.19	0.019 mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1		
Nickel	25	B	0.75	0.030 mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1		
Lead	20	B	0.15	0.015 mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1		
Zinc	44		3.7	1.9 mg/Kg	☐	03/27/25 18:41	04/03/25 19:49	1		
Client Sample ID: NPCPP-1C2X					Lab Sample ID: 350-1619-3					
Date Collected: 02/16/25 02:53					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 56.4					
Method: EPA 1631B - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	570		20	9.9 ng/g	☐	04/03/25 20:27	04/15/25 12:25	200		
Method: EPA 1638 - Metals (ICP/MS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	3.7		0.33	0.10 mg/Kg	☐	03/27/25 18:41	04/03/25 19:52	1		
Barium	310	B	33	0.067 mg/Kg	☐	03/27/25 18:41	04/03/25 19:52	1		
Cadmium	0.066		0.033	0.0033 mg/Kg	☐	03/27/25 18:41	04/03/25 19:52	1		
Chromium	29		0.33	0.33 mg/Kg	☐	03/27/25 18:41	04/03/25 19:52	1		
Copper	8.5	B	0.17	0.020 mg/Kg	☐	03/27/25 18:41	04/03/25 19:52	1		
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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-1C2X

Lab Sample ID: 350-1619-3

Date Collected: 02/16/25 02:53

Matrix: Solid

Date Received: 03/06/25 10:30

Percent Solids: 56.4

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Iron	14000		33	6.7 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:52	1
Manganese	460 B *2		0.17	0.017 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:52	1
Nickel	140 B		0.67	0.027 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:52	1
Lead	15 B		0.13	0.013 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:52	1
Zinc	30		3.3	1.7 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:52	1

Client Sample ID: NPCPP-1CP1										8
Date Collected: 02/16/25 08:12										9
Date Received: 03/06/25 10:30										10
Method: EPA 1631B - Mercury, Low Level (CVAFS)										11
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		12
Mercury	59		3.3	1.6 ng/g	⊖	04/03/25 20:27	04/15/25 12:29	30		13
Method: EPA 1638 - Metals (ICP/MS)										14
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		15
Arsenic	3.7		0.37	0.11 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:54	1		16
Barium	380 B		37	0.075 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:54	1		17
Cadmium	0.047		0.037	0.0037 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:54	1		18
Chromium	36		0.37	0.37 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:54	1		19
Copper	8.9 B		0.19	0.022 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:54	1		20
Iron	16000		37	7.5 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:54	1		21
Manganese	390 B *2		0.19	0.019 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:54	1		22
Nickel	17 B		0.75	0.030 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:54	1		23
Lead	15 B		0.15	0.015 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:54	1		24
Zinc	34		3.7	1.9 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:54	1		25

Client Sample ID: NPCPP-1CP2										12
Date Collected: 02/16/25 07:36										13
Date Received: 03/06/25 10:30										14
Method: EPA 1631B - Mercury, Low Level (CVAFS)										15
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		16
Mercury	130		3.4	1.6 ng/g	⊖	04/03/25 20:27	04/15/25 10:40	30		17
Method: EPA 1638 - Metals (ICP/MS)										18
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		19
Arsenic	4.1		0.39	0.12 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:57	1		20
Barium	430 B		39	0.078 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:57	1		21
Cadmium	0.057		0.039	0.0039 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:57	1		22
Chromium	39		0.39	0.39 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:57	1		23
Copper	19 B		0.20	0.023 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:57	1		24
Iron	16000		39	7.8 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:57	1		25
Manganese	460 B *2		0.20	0.020 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:57	1		26
Nickel	18 B		0.78	0.031 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:57	1		27
Lead	16 B		0.16	0.016 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:57	1		28
Zinc	37		3.9	2.0 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:57	1		29

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-1CP3X

Date Collected: 02/16/25 05:55

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-6

Matrix: Solid

Percent Solids: 53.5

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	68		3.4	1.6 ng/g	⊖	04/03/25 20:27	04/15/25 10:44	30

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.2		0.36	0.11 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:59	1
Barium	540 B		36	0.071 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:59	1
Cadmium	0.047		0.036	0.0036 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:59	1
Chromium	37		0.36	0.36 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:59	1
Copper	9.9 B		0.18	0.021 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:59	1
Iron	16000		36	7.1 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:59	1
Manganese	510 B *2		0.18	0.018 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:59	1
Nickel	18 B		0.71	0.028 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:59	1
Lead	16 B		0.14	0.014 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:59	1
Zinc	35		3.6	1.8 mg/Kg	⊖	03/27/25 18:41	04/03/25 19:59	1

Client Sample ID: NPCPP-1D2										12
Date Collected: 02/15/25 01:46										13
Date Received: 03/06/25 10:30										14
Method: EPA 1631B - Mercury, Low Level (CVAFS)										15
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		16
Mercury	96		3.3	1.6 ng/g	⊖	04/03/25 20:27	04/15/25 10:48	30		17
Method: EPA 1638 - Metals (ICP/MS)										18
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		19
Arsenic	4.4		0.40	0.12 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:01	1		20
Barium	590 B		40	0.081 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:01	1		21
Cadmium	0.050		0.040	0.0040 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:01	1		22
Chromium	45		0.40	0.40 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:01	1		23
Copper	11 B		0.20	0.024 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:01	1		24
Iron	18000		40	8.1 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:01	1		25
Manganese	510 B *2		0.20	0.020 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:01	1		26
Nickel	22 B		0.81	0.032 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:01	1		27
Lead	17 B		0.16	0.016 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:01	1		28
Zinc	43		4.0	2.0 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:01	1		29

Client Sample ID: NPCPP-1E2										12
Date Collected: 02/15/25 01:08										13
Date Received: 03/06/25 10:30										14
Method: EPA 1631B - Mercury, Low Level (CVAFS)										15
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		16
Mercury	190		3.4	1.6 ng/g	⊖	04/03/25 20:27	04/15/25 10:52	30		17
Method: EPA 1638 - Metals (ICP/MS)										18
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		19
Arsenic	4.9		0.37	0.11 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:04	1		20
Barium	600 B		37	0.074 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:04	1		21
Cadmium	0.048		0.037	0.0037 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:04	1		22
Chromium	47		0.37	0.37 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:04	1		23
Copper	11 B		0.18	0.022 mg/Kg	⊖	03/27/25 18:41	04/03/25 20:04	1		24

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-1E2					Lab Sample ID: 350-1619-B				
Date Collected: 02/15/25 01:08					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 49.8				
Method: EPA 1638 - Metals (ICP/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	19000		37	7.4	mg/Kg	□	03/27/25 18:41	04/03/25 20:04	1
Manganese	530 B	*2	0.18	0.018	mg/Kg	□	03/27/25 18:41	04/03/25 20:04	1
Nickel	23	B	0.74	0.029	mg/Kg	□	03/27/25 18:41	04/03/25 20:04	1
Lead	18	B	0.15	0.015	mg/Kg	□	03/27/25 18:41	04/03/25 20:04	1
Zinc	44		3.7	1.8	mg/Kg	□	03/27/25 18:41	04/03/25 20:04	1

1

Job ID: 350-1619-1

Lab Sample ID: 350-1619-13
Matrix: Solid
Percent Solids: 51.6

5
6
7

Lab Sample ID: 350-1619-14
Matrix: Solid
Percent Solids: 49.4

Lab Sample ID: 350-1619-15
Matrix: Solid
Percent Solids: 55.5

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1

Job ID: 350-1619-

Lab Sample ID: 350-1619-10
Matrix: Solid
Percent Solids: 58.2

6

Lab Sample ID: 350-1619-17
Matrix: Solid
Percent Solids: 55.4

Lab Sample ID: 350-1619-18
Matrix: Solid
Percent Solids: 55.3

Eurofins Seattle Specialty Metals

1

Job ID: 350-1619-1

Lab Sample ID: 350-1619-18
Matrix: Solid
Percent Solids: 55.3

5
6
7

Lab Sample ID: 350-1619-19
Matrix: Solid
Percent Solids: 50.7

Lab Sample ID: 350-1619-20
Matrix: Solid
Percent Solids: 53.3

Eurofins Seattle Specialty Metals

1

Job ID: 350-1619-1

Lab Sample ID: 350-1619-21
Matrix: Solid
Percent Solids: 53.1

6

Lab Sample ID: 350-1619-22
Matrix: Solid
Percent Solids: 47.6

Lab Sample ID: 350-1619-23
Matrix: Solid
Percent Solids: 47.7

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Client Sample Results										Job ID: 350-1619-1									
Client: Tetra Tech Inc Project/Site: Gulf of Thailand - 2025																			
Client Sample ID: NPCPP-3E2					Lab Sample ID: 350-1619-23														
Date Collected: 02/16/25 10:28					Matrix: Solid														
Date Received: 03/06/25 10:30					Percent Solids: 47.7														
Method: EPA 1638 - Metals (ICP/MS) (Continued)																			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
Iron	19000		42	8.4	mg/Kg	⊖	03/31/25 17:00	04/03/25 18:36	1										
Manganese	520 B *2		0.21	0.021	mg/Kg	⊖	03/31/25 17:00	04/03/25 18:36	1										
Nickel	23 B		0.84	0.034	mg/Kg	⊖	03/31/25 17:00	04/03/25 18:36	1										
Lead	17 B		0.17	0.017	mg/Kg	⊖	03/31/25 17:00	04/03/25 18:36	1										
Zinc	44		4.2	2.1	mg/Kg	⊖	03/31/25 17:00	04/03/25 18:36	1										

Client Sample Results										Job ID: 350-1619-1	
Client: Tetra Tech Inc											
Project/Site: Gulf of Thailand - 2025											
Client Sample ID: NPWB-1C2						Lab Sample ID: 350-1619-33					
Date Collected: 02/14/25 04:51						Matrix: Solid					
Date Received: 03/06/25 10:30						Percent Solids: 51.2					
Method: EPA 1638 - Metals (ICP/MS) (Continued)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Iron	20000		38	7.6	mg/Kg	☐	03/31/25 17:00	04/03/25 19:05	1		
Manganese	420 B *2		0.19	0.019	mg/Kg	☐	03/31/25 17:00	04/03/25 19:05	1		
Nickel	23 B		0.76	0.030	mg/Kg	☐	03/31/25 17:00	04/03/25 19:05	1		
Lead	18 B		0.15	0.015	mg/Kg	☐	03/31/25 17:00	04/03/25 19:05	1		
Zinc	46		3.8	1.9	mg/Kg	☐	03/31/25 17:00	04/03/25 19:05	1		
Client Sample ID: NPWB-1C2-FD						Lab Sample ID: 350-1619-34					
Date Collected: 02/14/25 05:13						Matrix: Solid					
Date Received: 03/06/25 10:30						Percent Solids: 51.2					
Method: EPA 1631B - Mercury, Low Level (CVAFS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	33		3.5	1.7	ng/g	☐	04/03/25 20:27	04/15/25 14:46	30		
Method: EPA 1638 - Metals (ICP/MS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	4.5		0.36	0.11	mg/Kg	☐	03/31/25 17:00	04/03/25 19:08	1		
Barium	4600 B		36	0.071	mg/Kg	☐	03/31/25 17:00	04/03/25 19:08	1		
Cadmium	0.055		0.036	0.0036	mg/Kg	☐	03/31/25 17:00	04/03/25 19:08	1		
Chromium	44 B		0.36	0.036	mg/Kg	☐	03/31/25 17:00	04/03/25 19:08	1		
Copper	11 B		0.18	0.021	mg/Kg	☐	03/31/25 17:00	04/03/25 19:08	1		
Iron	19000		36	7.1	mg/Kg	☐	03/31/25 17:00	04/03/25 19:08	1		
Manganese	390 B *2		0.18	0.018	mg/Kg	☐	03/31/25 17:00	04/03/25 19:08	1		
Nickel	21 B		0.71	0.029	mg/Kg	☐	03/31/25 17:00	04/03/25 19:08	1		
Lead	17 B		0.14	0.014	mg/Kg	☐	03/31/25 17:00	04/03/25 19:08	1		
Zinc	44		3.6	1.8	mg/Kg	☐	03/31/25 17:00	04/03/25 19:08	1		
Client Sample ID: NPWB-1CP2						Lab Sample ID: 350-1619-35					
Date Collected: 02/14/25 03:00						Matrix: Solid					
Date Received: 03/06/25 10:30						Percent Solids: 46.6					
Method: EPA 1631B - Mercury, Low Level (CVAFS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	31		3.6	1.7	ng/g	☐	04/03/25 20:27	04/15/25 14:50	30		
Method: EPA 1638 - Metals (ICP/MS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	5.1		0.40	0.12	mg/Kg	☐	03/31/25 17:00	04/03/25 19:10	1		
Barium	1600 B		40	0.081	mg/Kg	☐	03/31/25 17:00	04/03/25 19:10	1		
Cadmium	0.059		0.040	0.0040	mg/Kg	☐	03/31/25 17:00	04/03/25 19:10	1		
Chromium	50 B		0.40	0.040	mg/Kg	☐	03/31/25 17:00	04/03/25 19:10	1		
Copper	13 B		0.20	0.024	mg/Kg	☐	03/31/25 17:00	04/03/25 19:10	1		
Iron	21000		40	8.1	mg/Kg	☐	03/31/25 17:00	04/03/25 19:10	1		
Manganese	510 B *2		0.20	0.020	mg/Kg	☐	03/31/25 17:00	04/03/25 19:10	1		
Nickel	26 B		0.81	0.032	mg/Kg	☐	03/31/25 17:00	04/03/25 19:10	1		
Lead	20 B		0.16	0.016	mg/Kg	☐	03/31/25 17:00	04/03/25 19:10	1		
Zinc	50		4.0	2.0	mg/Kg	☐	03/31/25 17:00	04/03/25 19:10	1		
Eurofins Seattle Specialty Metals											
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Client Sample Results										Job ID: 350-1619-1			
Client: Tetra Tech Inc										Project/Site: Gulf of Thailand - 2025			
Client Sample ID: NPWB-1D2										Lab Sample ID: 350-1619-36			
Date Collected: 02/14/25 04:06										Matrix: Solid			
Date Received: 03/06/25 10:30										Percent Solids: 50.0			
Method: EPA 1631B - Mercury, Low Level (CVAFS)													
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
Mercury	31		3.4	1.6	ng/g	☐	04/03/25 20:27	04/15/25 14:54	30				
Method: EPA 1638 - Metals (ICP/MS)													
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
Arsenic	5.2		0.38	0.11	mg/Kg	☐	03/31/25 17:00	04/03/25 19:13	1				
Barium	800 B		38	0.076	mg/Kg	☐	03/31/25 17:00	04/03/25 19:13	1				
Cadmium	0.055		0.038	0.0038	mg/Kg	☐	03/31/25 17:00	04/03/25 19:13	1				
Chromium	48 B		0.38	0.38	mg/Kg	☐	03/31/25 17:00	04/03/25 19:13	1				
Copper	11 B		0.19	0.023	mg/Kg	☐	03/31/25 17:00	04/03/25 19:13	1				
Iron	22000		38	7.6	mg/Kg	☐	03/31/25 17:00	04/03/25 19:13	1				
Manganese	600 B *2		0.19	0.019	mg/Kg	☐	03/31/25 17:00	04/03/25 19:13	1				
Nickel	23 B		0.76	0.030	mg/Kg	☐	03/31/25 17:00	04/03/25 19:13	1				
Lead	19 B		0.15	0.015	mg/Kg	☐	03/31/25 17:00	04/03/25 19:13	1				
Zinc	44		3.8	1.9	mg/Kg	☐	03/31/25 17:00	04/03/25 19:13	1				
Client Sample ID: NPWB-2B3										Lab Sample ID: 350-1619-37			
Date Collected: 02/14/25 18:54										Matrix: Solid			
Date Received: 03/06/25 10:30										Percent Solids: 52.3			
Method: EPA 1631B - Mercury, Low Level (CVAFS)													
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
Mercury	21		3.2	1.6	ng/g	☐	04/03/25 20:27	04/15/25 14:58	30				
Method: EPA 1638 - Metals (ICP/MS)													
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
Arsenic	4.4		0.40	0.12	mg/Kg	☐	03/31/25 17:00	04/03/25 18:14	1				
Barium	1600 B		0.079	0.079	mg/Kg	☐	03/31/25 17:00	04/03/25 18:14	1				
Cadmium	0.057		0.040	0.0040	mg/Kg	☐	03/31/25 17:00	04/03/25 18:14	1				
Chromium	41 B		0.40	0.40	mg/Kg	☐	03/31/25 17:00	04/03/25 18:14	1				
Copper	10 B		0.20	0.024	mg/Kg	☐	03/31/25 17:00	04/03/25 18:14	1				
Iron	18000		40	7.9	mg/Kg	☐	03/31/25 17:00	04/03/25 18:14	1				
Manganese	470 B F1 *2		0.20	0.020	mg/Kg	☐	03/31/25 17:00	04/03/25 18:14	1				
Nickel	20 B		0.79	0.032	mg/Kg	☐	03/31/25 17:00	04/03/25 18:14	1				
Lead	16 B		0.16	0.016	mg/Kg	☐	03/31/25 17:00	04/03/25 18:14	1				
Zinc	39		4.0	2.0	mg/Kg	☐	03/31/25 17:00	04/03/25 18:14	1				
Client Sample ID: NPWB-2C2X										Lab Sample ID: 350-1619-38			
Date Collected: 02/14/25 05:33										Matrix: Solid			
Date Received: 03/06/25 10:30										Percent Solids: 47.3			
Method: EPA 1631B - Mercury, Low Level (CVAFS)													
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
Mercury	38		3.5	1.7	ng/g	☐	04/03/25 20:27	04/15/25 15:03	30				
Method: EPA 1638 - Metals (ICP/MS)													
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
Arsenic	4.4		0.41	0.12	mg/Kg	☐	04/08/25 18:57	05/15/25 00:43	1				
Barium	990 B		41	0.082	mg/Kg	☐	04/08/25 18:57	05/15/25 00:43	1				
Cadmium	0.048		0.041	0.0041	mg/Kg	☐	04/08/25 18:57	05/15/25 00:43	1				
Chromium	45		0.41	0.41	mg/Kg	☐	04/08/25 18:57	05/15/25 00:43	1				
Copper	12 B		0.20	0.025	mg/Kg	☐	04/08/25 18:57	05/15/25 00:43	1				
Eurofins Seattle Specialty Metals													

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWB-4B3X

Lab Sample ID: 350-1619-43

Date Collected: 02/14/25 19:19

Matrix: Solid

Date Received: 03/06/25 10:30

Percent Solids: 52.8

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Iron	15000		36	7.3 mg/Kg	☐	04/01/25 18:16	05/14/25 22:11	1
Manganese	400 B		0.18	0.018 mg/Kg	☐	04/01/25 18:16	05/14/25 22:11	1
Nickel	17		0.73	0.029 mg/Kg	☐	04/01/25 18:16	05/14/25 22:11	1
Lead	14 B		0.15	0.015 mg/Kg	☐	04/01/25 18:16	05/14/25 22:11	1
Zinc	33		3.6	1.8 mg/Kg	☐	04/01/25 18:16	05/14/25 22:11	1

Client Sample ID: NPWB-4C2					Lab Sample ID: 350-1619-44				
Date Collected: 02/14/25 19:52					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 44.9				
Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	34 B		4.1	2.0 ng/g	□	04/03/25 20:27	04/15/25 16:42	30	
Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	4.9		0.41	0.12 mg/Kg	□	04/01/25 18:16	05/14/25 22:14	1	
Barium	1100 B		41	0.083 mg/Kg	□	04/01/25 18:16	05/14/25 22:14	1	
Cadmium	0.047		0.041	0.0041 mg/Kg	□	04/01/25 18:16	05/14/25 22:14	1	
Chromium	44		0.41	0.041 mg/Kg	□	04/01/25 18:16	05/14/25 22:14	1	
Copper	11 B		0.21	0.025 mg/Kg	□	04/01/25 18:16	05/14/25 22:14	1	
Iron	19000		41	8.3 mg/Kg	□	04/01/25 18:16	05/14/25 22:14	1	
Manganese	510 B		0.21	0.021 mg/Kg	□	04/01/25 18:16	05/14/25 22:14	1	
Nickel	22		0.83	0.033 mg/Kg	□	04/01/25 18:16	05/14/25 22:14	1	
Lead	16 B		0.17	0.017 mg/Kg	□	04/01/25 18:16	05/14/25 22:14	1	
Zinc	40		4.1	2.1 mg/Kg	□	04/01/25 18:16	05/14/25 22:14	1	

Client Sample ID: NPWG-1B2X					Lab Sample ID: 350-1619-45				
Date Collected: 02/17/25 10:17					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 48.8				
Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	170 B		3.8	1.8 ng/g	☐	04/03/25 20:27	04/15/25 15:57	30	
Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	8.2		0.38	0.11 mg/Kg	☐	04/01/25 18:16	05/14/25 21:46	1	
Barium	36000 F2 B		38	0.075 mg/Kg	☐	04/01/25 18:16	05/14/25 21:46	1	
Cadmium	0.11		0.038	0.0038 mg/Kg	☐	04/01/25 18:16	05/14/25 21:46	1	
Chromium	39		0.38	0.38 mg/Kg	☐	04/01/25 18:16	05/14/25 21:46	1	
Copper	15 B		0.19	0.023 mg/Kg	☐	04/01/25 18:16	05/14/25 21:46	1	
Iron	19000 F1		38	7.5 mg/Kg	☐	04/01/25 18:16	05/14/25 21:46	1	
Manganese	440 B		0.19	0.019 mg/Kg	☐	04/01/25 18:16	05/14/25 21:46	1	
Nickel	19		0.75	0.030 mg/Kg	☐	04/01/25 18:16	05/14/25 21:46	1	
Lead	40 B E		0.15	0.015 mg/Kg	☐	04/01/25 18:16	05/14/25 21:46	1	
Zinc	69		3.8	1.9 mg/Kg	☐	04/01/25 18:16	05/14/25 21:46	1	

Eurofins Seattle Specialty Metals

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPWG-1B2X-FD

Date Collected: 02/17/25 10:42

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-46

Matrix: Solid

Percent Solids: 53.0

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	230	B	3.1	1.5 ng/g	☐	04/03/25 20:27	04/15/25 16:46	30

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.9		0.35	0.11 mg/Kg	☐	04/01/25 18:16	05/14/25 22:16	1
Barium	17000	B	35	0.071 mg/Kg	☐	04/01/25 18:16	05/14/25 22:16	1
Cadmium	0.12		0.035	0.0035 mg/Kg	☐	04/01/25 18:16	05/14/25 22:16	1
Chromium	34		0.35	0.35 mg/Kg	☐	04/01/25 18:16	05/14/25 22:16	1
Copper	15	B	0.18	0.021 mg/Kg	☐	04/01/25 18:16	05/14/25 22:16	1
Iron	17000		35	7.1 mg/Kg	☐	04/01/25 18:16	05/14/25 22:16	1
Manganese	350	B	0.18	0.018 mg/Kg	☐	04/01/25 18:16	05/14/25 22:16	1
Nickel	16		0.71	0.028 mg/Kg	☐	04/01/25 18:16	05/14/25 22:16	1
Lead	40	B E	0.14	0.014 mg/Kg	☐	04/01/25 18:16	05/14/25 22:16	1
Zinc	57		3.5	1.8 mg/Kg	☐	04/01/25 18:16	05/14/25 22:16	1

Client Sample ID: NPWG-1C2					Lab Sample ID: 350-1619-47				
Date Collected: 02/17/25 05:05					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 48.6				
Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	48	B	3.4	1.6 ng/g	□	04/03/25 20:27	04/15/25 16:51	30	
Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	5.7		0.39	0.12 mg/Kg	□	04/01/25 18:16	05/14/25 22:19	1	
Barium	11000 B		39	0.078 mg/Kg	□	04/01/25 18:16	05/14/25 22:19	1	
Cadmium	0.042		0.039	0.0039 mg/Kg	□	04/01/25 18:16	05/14/25 22:19	1	
Chromium	42		0.39	0.39 mg/Kg	□	04/01/25 18:16	05/14/25 22:19	1	
Copper	10 B		0.20	0.024 mg/Kg	□	04/01/25 18:16	05/14/25 22:19	1	
Iron	18000		39	7.8 mg/Kg	□	04/01/25 18:16	05/14/25 22:19	1	
Manganese	470 B		0.20	0.020 mg/Kg	□	04/01/25 18:16	05/14/25 22:19	1	
Nickel	20		0.78	0.031 mg/Kg	□	04/01/25 18:16	05/14/25 22:19	1	
Lead	17 B		0.16	0.016 mg/Kg	□	04/01/25 18:16	05/14/25 22:19	1	
Zinc	44		3.9	2.0 mg/Kg	□	04/01/25 18:16	05/14/25 22:19	1	

Client Sample ID: NPWG-1CP2					Lab Sample ID: 350-1619-48				
Date Collected: 02/17/25 03:37					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 45.0				

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	33 B		3.8	1.8 ng/g	□	04/03/25 20:27	04/15/25 16:55	30	
Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	5.6		0.42	0.13 mg/Kg	□	04/01/25 18:16	05/14/25 22:21	1	
Barium	3000 B		42	0.084 mg/Kg	□	04/01/25 18:16	05/14/25 22:21	1	
Cadmium	0.048		0.042	0.0040 mg/Kg	□	04/01/25 18:16	05/14/25 22:21	1	
Chromium	49		0.42	0.42 mg/Kg	□	04/01/25 18:16	05/14/25 22:21	1	
Copper	12 B		0.21	0.025 mg/Kg	□	04/01/25 18:16	05/14/25 22:21	1	

Eurofins Seattle Specialty Metals

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWG-1CP2

Lab Sample ID: 350-1619-48

Date Collected: 02/17/25 03:37

Matrix: Solid

Date Received: 03/06/25 10:30

Percent Solids: 45.0

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Iron	21000		42	8.4 mg/Kg	□	04/01/25 18:16	05/14/25 22:21	1
Manganese	570 B		0.21	0.021 mg/Kg	□	04/01/25 18:16	05/14/25 22:21	1
Nickel	24		0.84	0.034 mg/Kg	□	04/01/25 18:16	05/14/25 22:21	1
Lead	18 B		0.17	0.017 mg/Kg	□	04/01/25 18:16	05/14/25 22:21	1
Zinc	46		4.2	2.1 mg/Kg	□	04/01/25 18:16	05/14/25 22:21	1

Client Sample ID: NPWG-1D2					Lab Sample ID: 350-1619-49				
Date Collected: 02/17/25 04:14					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 45.2				
Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	46	B	3.8	1.8	ng/g	0	04/03/25 20:27	04/15/25 16:09	30
Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.9		0.43	0.13	mg/Kg	0	04/01/25 18:16	05/14/25 21:54	1
Barium	1400	B	0.43	0.086	mg/Kg	0	04/01/25 18:16	05/14/25 21:54	1
Cadmium	0.045		0.043	0.0043	mg/Kg	0	04/01/25 18:16	05/14/25 21:54	1
Chromium	45		0.43	0.43	mg/Kg	0	04/01/25 18:16	05/14/25 21:54	1
Copper	11	B	0.22	0.026	mg/Kg	0	04/01/25 18:16	05/14/25 21:54	1
Iron	19000	F1	0.43	8.6	mg/Kg	0	04/01/25 18:16	05/14/25 21:54	1
Manganese	520	B	0.22	0.022	mg/Kg	0	04/01/25 18:16	05/14/25 21:54	1
Nickel	220	B	0.86	0.035	mg/Kg	0	04/01/25 18:16	05/14/25 21:54	1
Lead	17	B	0.17	0.017	mg/Kg	0	04/01/25 18:16	05/14/25 21:54	1
Zinc	42		4.3	2.2	mg/Kg	0	04/01/25 18:16	05/14/25 21:54	1

Client Sample Results

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWG-3C2

Lab Sample ID: 350-1619-53

Date Collected: 02/17/25 14:17

Matrix: Solid

Date Received: 03/06/25 10:30

Percent Solids: 48.5

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Iron	19000		43	8.5 mg/Kg	☐	04/01/25 18:16	05/14/25 22:37	1
Manganese	460 B		0.21	0.021 mg/Kg	☐	04/01/25 18:16	05/14/25 22:37	1
Nickel	21		0.85	0.034 mg/Kg	☐	04/01/25 18:16	05/14/25 22:37	1
Lead	17 B		0.17	0.017 mg/Kg	☐	04/01/25 18:16	05/14/25 22:37	1
Zinc	42		4.3	2.1 mg/Kg	☐	04/01/25 18:16	05/14/25 22:37	1

Client Sample ID: NPWG-3CP2										1
Date Collected: 02/16/25 16:47										2
Date Received: 03/06/25 10:30										3
Method: EPA 1631B - Mercury, Low Level (CVAFS)										4
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		5
Mercury	35	B	3.7	1.8 ng/g	□	04/03/25 20:27	04/15/25 17:24	30		6
Method: EPA 1638 - Metals (ICP/MS)										7
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		8
Arsenic	4.9		0.40	0.12 mg/Kg	□	04/01/25 18:16	05/14/25 22:39	1		9
Barium	2500	B	40	0.081 mg/Kg	□	04/01/25 18:16	05/14/25 22:39	1		10
Cadmium	0.041		0.040	0.0040 mg/Kg	□	04/01/25 18:16	05/14/25 22:39	1		11
Chromium	45		0.40	0.40 mg/Kg	□	04/01/25 18:16	05/14/25 22:39	1		12
Copper	11	B	0.20	0.024 mg/Kg	□	04/01/25 18:16	05/14/25 22:39	1		13
Iron	19000		40	8.1 mg/Kg	□	04/01/25 18:16	05/14/25 22:39	1		14
Manganese	480	B	0.20	0.020 mg/Kg	□	04/01/25 18:16	05/14/25 22:39	1		15
Nickel	22		0.81	0.032 mg/Kg	□	04/01/25 18:16	05/14/25 22:39	1		16
Lead	16	B	0.16	0.016 mg/Kg	□	04/01/25 18:16	05/14/25 22:39	1		17
Zinc	41		4.0	2.0 mg/Kg	□	04/01/25 18:16	05/14/25 22:39	1		18

Client Sample ID: NPWG-3D2										1
Date Collected: 02/16/25 17:16										2
Date Received: 03/06/25 10:30										3
Method: EPA 1631B - Mercury, Low Level (CVAFS)										4
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		5
Mercury	31	B	3.5	1.7 ng/g	□	04/03/25 20:27	04/15/25 17:28	30		6
Method: EPA 1638 - Metals (ICP/MS)										7
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		8
Arsenic	5.4		0.43	0.13 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		9
Barium	910	B	43	0.085 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		10
Cadmium	0.050		0.043	0.0043 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		11
Chromium	44		0.43	0.43 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		12
Copper	11	B	0.21	0.026 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		13
Iron	20000		43	8.5 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		14
Manganese	510	B	0.21	0.021 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		15
Nickel	22		0.85	0.034 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		16
Lead	17	B	0.17	0.017 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		17
Zinc	40		4.3	2.1 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		18

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPWG-4B2X

Date Collected: 02/17/25 16:05

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-56

Matrix: Solid

Percent Solids: 49.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	49	B	3.4	1.7	ng/g	☐	04/03/25 20:27	04/15/25 17:32	30

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.3		0.38	0.11	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
Barium	13000	B	38	0.076	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
Cadmium	0.049		0.038	0.0038	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
Chromium	45		0.38	0.38	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
Copper	11	B	0.19	0.023	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
Iron	19000		38	7.6	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
Manganese	420	B	0.19	0.019	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
Nickel	22		0.76	0.030	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
Lead	19	B	0.15	0.015	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1
Zinc	48		3.8	1.9	mg/Kg	☐	04/01/25 18:16	05/14/25 22:44	1

Client Sample ID: NPWG-4C2										1
Date Collected: 02/17/25 16:50										2
Date Received: 03/06/25 10:30										3
Method: EPA 1631B - Mercury, Low Level (CVAFS)										4
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		5
Mercury	27	B	3.6	1.7 ng/g	□	04/03/25 20:27	04/15/25 17:32	30		6
Method: EPA 1638 - Metals (ICP/MS)										7
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		8
Arsenic	4.7		0.43	0.13 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		9
Barium	1600	B	43	0.086 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		10
Cadmium	0.045		0.043	0.0043 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		11
Chromium	47		0.43	0.43 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		12
Copper	11	B	0.22	0.026 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		13
Iron	19000		43	8.6 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		14
Manganese	490	B	0.22	0.022 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		15
Nickel	23		0.86	0.034 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		16
Lead	17	B	0.17	0.017 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		17
Zinc	41		4.3	2.2 mg/Kg	□	04/01/25 18:16	05/14/25 22:47	1		18

Client Sample ID: PACPP-1C1										1
Date Collected: 02/19/25 00:48										2
Date Received: 03/06/25 10:30										3
Method: EPA 1631B - Mercury, Low Level (CVAFS)										4
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		5
Mercury	2900	B	20	9.8 ng/g	□	04/03/25 20:27	05/14/25 15:53	200		6
Method: EPA 1638 - Metals (ICP/MS)										7
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		8
Arsenic	14		0.37	0.11 mg/Kg	□	04/01/25 18:16	05/14/25 22:49	1		9
Barium	26000	B	37	0.075 mg/Kg	□	04/01/25 18:16	05/14/25 22:49	1		10
Cadmium	0.61		0.037	0.0037 mg/Kg	□	04/01/25 18:16	05/14/25 22:49	1		11
Chromium	40		0.37	0.37 mg/Kg	□	04/01/25 18:16	05/14/25 22:49	1		12
Copper	14	B	0.19	0.022 mg/Kg	□	04/01/25 18:16	05/14/25 22:49	1		13

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Client Sample Results										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-1C1					Lab Sample ID: 350-1619-58					4

Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PACPP-1CP3
Date Collected: 02/18/25 11:23
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-63
Matrix: Solid
Percent Solids: 47.2

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Iron	21000	B	42	8.5 mg/Kg	☐	04/04/25 17:16	05/14/25 17:53	1
Manganese	620	B	0.21	0.021 mg/Kg	☐	04/04/25 17:16	05/14/25 17:53	1
Nickel	22	B	0.79	0.032 mg/Kg	☐	05/19/25 13:39	05/20/25 19:55	1
Lead	19		0.17	0.017 mg/Kg	☐	04/04/25 17:16	05/14/25 17:53	1
Zinc	41		4.2	2.1 mg/Kg	☐	04/04/25 17:16	05/14/25 17:53	1

Client Sample ID: PACPP-1D2										1
Date Collected: 02/18/25 21:28										2
Date Received: 03/06/25 10:30										3
Method: EPA 1631B - Mercury, Low Level (CVAFS)										4
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		5
Mercury	250		12	5.7 ng/g	□	04/03/25 20:27	05/14/25 14:09	100		6
Method: EPA 1638 - Metals (ICP/MS)										7
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		8
Arsenic	6.8		0.39	0.12 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		9
Barium	1500	B	39	0.077 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		10
Cadmium	0.11		0.039	0.0039 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		11
Chromium	47	B	0.39	0.39 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		12
Copper	12	B	0.19	0.023 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		13
Iron	22000	B	39	7.7 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		14
Manganese	630	B	0.19	0.019 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		15
Nickel	24		0.85	0.034 mg/Kg	□	05/19/25 13:39	05/20/25 19:58	1		
Lead	19		0.15	0.015 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		
Zinc	50		3.9	1.9 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		

Client Sample ID: PACPP-1E2										1
Date Collected: 02/18/25 20:52										2
Date Received: 03/06/25 10:30										3
Method: EPA 1631B - Mercury, Low Level (CVAFS)										4
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		5
Mercury	310		3.8	1.8 ng/g	□	04/03/25 20:27	05/14/25 14:22	30		6
Method: EPA 1638 - Metals (ICP/MS)										7
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		8
Arsenic	5.4		0.43	0.13 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		9
Barium	1000	B	43	0.086 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		10
Cadmium	0.054		0.043	0.0043 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		11
Chromium	45	B	0.43	0.43 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		12
Copper	12	B	0.22	0.026 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		13
Iron	20000	B	43	8.6 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		14
Manganese	490	B	0.22	0.022 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		15
Nickel	26		0.79	0.032 mg/Kg	□	05/19/25 13:39	05/20/25 20:01	1		
Lead	18		0.17	0.017 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		
Zinc	43		4.3	2.2 mg/Kg	□	04/04/25 17:16	05/14/25 17:56	1		

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PACPP-1F2

Date Collected: 02/18/25 20:16

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-66

Matrix: Solid

Percent Solids: 49.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	240		3.7	1.8 ng/g	☐	04/03/25 20:27	05/01/25 17:43	30

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0		0.39	0.12 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Barium	840	B	39	0.078 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Cadmium	0.050		0.039	0.0039 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Chromium	46	B	0.39	0.39 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Copper	11	B	0.19	0.023 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Iron	19000	B	39	7.8 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Manganese	480	B	0.19	0.019 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Nickel	23		0.82	0.033 mg/Kg	☐	05/19/25 13:39	05/20/25 20:04	1
Lead	17		0.16	0.016 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1
Zinc	41		3.9	1.9 mg/Kg	☐	04/04/25 17:16	05/14/25 18:01	1

Client Sample ID: PACPP-1G2										1
Date Collected: 02/18/25 19:39										2
Date Received: 03/06/25 10:30										3
Method: EPA 1631B - Mercury, Low Level (CVAFS)										4
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		5
Mercury	220		3.6	1.7 ng/g	□	04/03/25 20:27	05/01/25 17:47	30		6
Method: EPA 1638 - Metals (ICP/MS)										7
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		8
Arsenic	4.8		0.41	0.12 mg/Kg	□	04/04/25 17:16	05/14/25 18:03	1		9
Barium	840	B	41	0.081 mg/Kg	□	04/04/25 17:16	05/14/25 18:03	1		10
Cadmium	0.053		0.041	0.0041 mg/Kg	□	04/04/25 17:16	05/14/25 18:03	1		11
Chromium	40	B	0.41	0.41 mg/Kg	□	04/04/25 17:16	05/14/25 18:03	1		12
Copper	9.8	B	0.20	0.024 mg/Kg	□	04/04/25 17:16	05/14/25 18:03	1		13
Iron	18000	B	41	8.1 mg/Kg	□	04/04/25 17:16	05/14/25 18:03	1		14
Manganese	550	B	0.20	0.020 mg/Kg	□	04/04/25 17:16	05/14/25 18:03	1		15
Nickel	23		0.85	0.034 mg/Kg	□	05/19/25 13:39	05/20/25 20:07	1		
Lead	16		0.16	0.016 mg/Kg	□	04/04/25 17:16	05/14/25 18:03	1		
Zinc	36		4.1	2.0 mg/Kg	□	04/04/25 17:16	05/14/25 18:03	1		

Client Sample ID: PACPP-2C2										1
Date Collected: 02/19/25 02:15										2
Date Received: 03/06/25 10:30										3
Method: EPA 1631B - Mercury, Low Level (CVAFS)										4
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		5
Mercury	1500		21	10 ng/g	□	04/03/25 20:27	05/14/25 14:26	200		6
Method: EPA 1638 - Metals (ICP/MS)										7
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		8
Arsenic	5.8		0.36	0.11 mg/Kg	□	04/04/25 17:16	05/14/25 18:06	1		9
Barium	660	B	36	0.072 mg/Kg	□	04/04/25 17:16	05/14/25 18:06	1		10
Cadmium	0.074		0.036	0.0036 mg/Kg	□	04/04/25 17:16	05/14/25 18:06	1		11
Chromium	37	B	0.36	0.36 mg/Kg	□	04/04/25 17:16	05/14/25 18:06	1		12
Copper	12	B	0.18	0.021 mg/Kg	□	04/04/25 17:16	05/14/25 18:06	1		13

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-2C2					Lab Sample ID: 350-1619-68				
Date Collected: 02/19/25 02:15					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 53.0				
Method: EPA 1638 - Metals (ICP/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	18000	B	36	7.2	mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1
Manganese	610	B	0.18	0.018	mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1
Nickel			0.74	0.030	mg/Kg	☐	05/19/25 13:39	05/20/25 20:10	1
Lead			0.14	0.014	mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1
Zinc	36		3.6	1.8	mg/Kg	☐	04/04/25 17:16	05/14/25 18:06	1

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-3C3X

Lab Sample ID: 350-1619-73

Date Collected: 02/19/25 09:15

Matrix: Solid

Date Received: 03/06/25 10:30

Percent Solids: 53.9

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Iron	23000	B	34	6.7 mg/Kg	☐	04/04/25 17:16	05/14/25 18:21	1
Manganese	670	B	0.17	0.017 mg/Kg	☐	04/04/25 17:16	05/14/25 18:21	1
Nickel	20	B	0.74	0.030 mg/Kg	☐	05/19/25 13:39	05/20/25 20:28	1
Lead	19	B	0.13	0.013 mg/Kg	☐	04/04/25 17:16	05/14/25 18:21	1
Zinc	35	B	3.4	1.7 mg/Kg	☐	04/04/25 17:16	05/14/25 18:21	1

Client Sample ID: PACPP-3C1X										7
Date Collected: 02/19/25 03:00										8
Date Received: 03/06/25 10:30										9
Method: EPA 1631B - Mercury, Low Level (CVAFS)										10
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		11
Mercury	9900		290	140 ng/g	□	04/03/25 20:27	05/14/25 16:32	2500		12
Method: EPA 1638 - Metals (ICP/MS)										13
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		14
Arsenic	5.1		0.39	0.12 mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1		15
Barium	640 B		39	0.078 mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1		16
Cadmium	0.059		0.039	0.0039 mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1		17
Chromium	37 B		0.39	0.39 mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1		18
Copper	10 B		0.19	0.023 mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1		19
Iron	18000 B		39	7.8 mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1		20
Manganese	550 B		0.19	0.019 mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1		21
Nickel	20		0.80	0.032 mg/Kg	□	05/19/25 13:39	05/20/25 20:31	1		22
Lead	17		0.16	0.016 mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1		23
Zinc	34		3.9	1.9 mg/Kg	□	04/04/25 17:16	05/14/25 18:24	1		24

Client Sample ID: PACPP-3CP2										12
Date Collected: 02/19/25 04:09										13
Date Received: 03/06/25 10:30										14
Method: EPA 1631B - Mercury, Low Level (CVAFS)										15
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		16
Mercury	670		23	11 ng/g	□	04/03/25 20:27	05/14/25 15:28	200		17
Method: EPA 1638 - Metals (ICP/MS)										18
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		19
Arsenic	9.0		0.38	0.11 mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1		20
Barium	600 B		38	0.075 mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1		21
Cadmium	0.052		0.038	0.0038 mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1		22
Chromium	43 B		0.38	0.38 mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1		23
Copper	10 B		0.19	0.023 mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1		24
Iron	26000 B		38	7.8 mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1		25
Manganese	700 B		0.19	0.019 mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1		26
Nickel	22		0.79	0.032 mg/Kg	□	05/19/25 13:39	05/20/25 20:33	1		27
Lead	21		0.15	0.015 mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1		28
Zinc	38		3.8	1.9 mg/Kg	□	04/04/25 17:16	05/14/25 18:26	1		29

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-3CP3

Date Collected: 02/19/25 04:44

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-76

Matrix: Solid

Percent Solids: 49.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1100		23	11 ng/g	0	04/03/25 20:27	05/14/25 15:33	200

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.3		0.41	0.12 mg/Kg	0	04/04/25 17:16	05/14/25 18:29	1
Barium	2200 B		41	0.083 mg/Kg	0	04/04/25 17:16	05/14/25 18:29	1
Cadmium	0.069		0.041	0.0041 mg/Kg	0	04/04/25 17:16	05/14/25 18:29	1
Chromium	44 B		0.41	0.41 mg/Kg	0	04/04/25 17:16	05/14/25 18:29	1
Copper	11 B		0.21	0.025 mg/Kg	0	04/04/25 17:16	05/14/25 18:29	1
Iron	23000 B		41	8.3 mg/Kg	0	04/04/25 17:16	05/14/25 18:29	1
Manganese	610 B		0.21	0.021 mg/Kg	0	04/04/25 17:16	05/14/25 18:29	1
Nickel	23		0.76	0.030 mg/Kg	0	05/19/25 13:39	05/20/25 20:36	1
Lead	20		0.17	0.017 mg/Kg	0	04/04/25 17:16	05/14/25 18:29	1
Zinc	42		4.1	2.1 mg/Kg	0	04/04/25 17:16	05/14/25 18:29	1

Client Sample ID: PACPP-3D2X										12
Date Collected: 02/19/25 05:27										13
Date Received: 03/06/25 10:30										14
Method: EPA 1631B - Mercury, Low Level (CVAFS)										15
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		16
Mercury	250		3.3	1.6 ng/g	□	04/03/25 20:27	05/14/25 15:37	30		17
Method: EPA 1638 - Metals (ICP/MS)										18
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		19
Arsenic	5.8		0.38	0.11 mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1		20
Barium	650 B		38	0.075 mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1		21
Cadmium	0.051		0.038	0.0038 mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1		22
Chromium	42 B		0.38	0.38 mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1		23
Copper	11 B		0.19	0.023 mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1		24
Iron	20000 B		38	7.5 mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1		25
Manganese	540 B		0.19	0.019 mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1		26
Nickel	21		0.79	0.032 mg/Kg	□	05/19/25 13:39	05/20/25 19:33	1		27
Lead	17		0.15	0.015 mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1		28
Zinc	38		3.8	1.9 mg/Kg	□	04/04/25 17:16	05/14/25 17:33	1		29

Client Sample ID: PACPP-3E2X										12
Date Collected: 02/19/25 11:22										13
Date Received: 03/06/25 10:30										14
Method: EPA 1631B - Mercury, Low Level (CVAFS)										15
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		16
Mercury	190		3.4	1.7 ng/g	□	04/03/25 20:27	05/01/25 19:20	30		17
Method: EPA 1638 - Metals (ICP/MS)										18
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		19
Arsenic	5.7		0.41	0.12 mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1		20
Barium	630 B		41	0.083 mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1		21
Cadmium	0.057		0.041	0.0041 mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1		22
Chromium	44 B		0.41	0.41 mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1		23
Copper	12 B		0.21	0.025 mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1		24

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-3E2X					Lab Sample ID: 350-1619-78				
Date Collected: 02/19/25 11:22					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 48.5				
Method: EPA 1638 - Metals (ICP/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	20000	B	41	8.3	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1
Manganese	560	B	0.21	0.021	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1
Nickel	23	B	0.77	0.031	mg/Kg	□	05/19/25 13:39	05/20/25 20:39	1
Lead	18	B	0.17	0.017	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1
Zinc	41	B	4.1	2.1	mg/Kg	□	04/04/25 17:16	05/14/25 18:31	1

Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PACPP-4CP2X
Date Collected: 02/18/25 04:56
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-83
Matrix: Solid
Percent Solids: 52.7

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Iron	19000		39	7.9 mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1
Manganese	550 B		0.20	0.020 mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1
Nickel	20 B		0.79	0.032 mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1
Lead	18 B		0.16	0.016 mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1
Zinc	37		3.9	2.0 mg/Kg	☐	04/08/25 09:56	05/14/25 19:17	1

Client Sample ID: PACPP-4D2X										14
Date Collected: 02/18/25 08:49										15
Date Received: 03/06/25 10:30										16
Matrix: Solid										17
Percent Solids: 50.5										18
Method: EPA 1631B - Mercury, Low Level (CVAFS)										19
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		20
Mercury	470		11	5.4 ng/g	☐	04/03/25 20:27	05/07/25 22:29	100		21
Method: EPA 1638 - Metals (ICP/MS)										22
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		23
Arsenic	5.3		0.38	0.12 mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1		24
Barium	510 B		38	0.077 mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1		25
Cadmium	0.053		0.038	0.0038 mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1		26
Chromium	43 B		0.38	0.38 mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1		27
Copper	11 B		0.19	0.023 mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1		28
Iron	19000		38	7.7 mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1		29
Manganese	530 B		0.19	0.019 mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1		30
Nickel	20 B		0.77	0.031 mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1		31
Lead	18 B		0.15	0.015 mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1		32
Zinc	37		3.8	1.9 mg/Kg	☐	04/08/25 09:56	05/14/25 19:19	1		33

Client Sample ID: PAREF-A										34
Date Collected: 02/13/25 19:06										35
Date Received: 03/06/25 10:30										36
Matrix: Solid										37
Percent Solids: 46.3										38

Method: EPA 1631B - Mercury, Low Level (CVAFS)										39
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		40
Mercury	23		2.4	1.2 ng/g	☐	04/03/25 20:27	05/07/25 22:33	20		41
Method: EPA 1638 - Metals (ICP/MS)										42
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		43
Arsenic	5.1		0.39	0.12 mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1		44
Barium	230 B		39	0.078 mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1		45
Cadmium	0.041		0.039	0.0039 mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1		46
Chromium	54 B		0.39	0.39 mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1		47
Copper	12 B		0.19	0.023 mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1		48
Iron	22000		39	7.8 mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1		49
Manganese	400 B		0.19	0.019 mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1		50
Nickel	26 B		0.78	0.031 mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1		51
Lead	18 B		0.16	0.016 mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1		52
Zinc	47		3.9	1.9 mg/Kg	☐	04/08/25 09:56	05/14/25 19:22	1		53

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAREF-B

Date Collected: 02/13/25 19:38

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-86

Matrix: Solid

Percent Solids: 49.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	20		2.2	1.1 ng/g	☐	04/03/25 20:27	05/07/25 22:37	20

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.1		0.42	0.12 mg/Kg	☐	04/08/25 09:56	05/14/25 19:24	1
Barium	180 B		42	0.083 mg/Kg	☐	04/08/25 09:56	05/14/25 19:24	1
Cadmium	0.034 J		0.042	0.0042 mg/Kg	☐	04/08/25 09:56	05/14/25 19:24	1
Chromium	45 B		0.42	0.42 mg/Kg	☐	04/08/25 09:56	05/14/25 19:24	1
Copper	10 B		0.21	0.025 mg/Kg	☐	04/08/25 09:56	05/14/25 19:24	1
Iron	22000		42	8.3 mg/Kg	☐	04/08/25 09:56	05/14/25 19:24	1
Manganese	450 B		0.21	0.021 mg/Kg	☐	04/08/25 09:56	05/14/25 19:24	1
Nickel	22 B		0.83	0.033 mg/Kg	☐	04/08/25 09:56	05/14/25 19:24	1
Lead	17 B		0.17	0.017 mg/Kg	☐	04/08/25 09:56	05/14/25 19:24	1
Zinc	40		4.2	2.1 mg/Kg	☐	04/08/25 09:56	05/14/25 19:24	1

Client Sample ID: PAREF-C										22
Date Collected: 02/13/25 19:59										23
Date Received: 03/06/25 10:30										24
Matrix: Solid										25
Percent Solids: 51.7										26

Method: EPA 1631B - Mercury, Low Level (CVAFS)										27
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		28
Mercury	21		2.3	1.1 ng/g	☐	04/03/25 20:27	05/07/25 22:42	20		29
Method: EPA 1638 - Metals (ICP/MS)										30
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		31
Arsenic	11		0.35	0.11 mg/Kg	☐	04/08/25 09:56	05/14/25 19:27	1		32
Barium	210 B		35	0.070 mg/Kg	☐	04/08/25 09:56	05/14/25 19:27	1		33
Cadmium	0.048		0.035	0.0035 mg/Kg	☐	04/08/25 09:56	05/14/25 19:27	1		34
Chromium	57 B		0.35	0.35 mg/Kg	☐	04/08/25 09:56	05/14/25 19:27	1		35
Copper	12 B		0.18	0.021 mg/Kg	☐	04/08/25 09:56	05/14/25 19:27	1		36
Iron	34000		35	7.0 mg/Kg	☐	04/08/25 09:56	05/14/25 19:27	1		37
Manganese	550 B		0.18	0.018 mg/Kg	☐	04/08/25 09:56	05/14/25 19:27	1		38
Nickel	28 B		0.70	0.028 mg/Kg	☐	04/08/25 09:56	05/14/25 19:27	1		39
Lead	24 B		0.14	0.014 mg/Kg	☐	04/08/25 09:56	05/14/25 19:27	1		40
Zinc	50		3.5	1.8 mg/Kg	☐	04/08/25 09:56	05/14/25 19:27	1		41

Client Sample ID: PAWB-1C2										42
Date Collected: 02/20/25 23:07										43
Date Received: 03/06/25 10:30										44
Matrix: Solid										45
Percent Solids: 49.7										46

Method: EPA 1631B - Mercury, Low Level (CVAFS)										47
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		48
Mercury	94		3.3	1.6 ng/g	☐	04/03/25 20:27	05/07/25 22:46	30		49
Method: EPA 1638 - Metals (ICP/MS)										50
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		51
Arsenic	5.0		0.38	0.11 mg/Kg	☐	04/08/25 09:56	05/14/25 19:29	1		52
Barium	8600 B		38	0.076 mg/Kg	☐	04/08/25 09:56	05/14/25 19:29	1		53
Cadmium	0.085		0.038	0.0038 mg/Kg	☐	04/08/25 09:56	05/14/25 19:29	1		54
Chromium	45 B		0.38	0.38 mg/Kg	☐	04/08/25 09:56	05/14/25 19:29	1		55
Copper	13 B		0.19	0.023 mg/Kg	☐	04/08/25 09:56	05/14/25 19:29	1		56

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PAWB-1C2					Lab Sample ID: 350-1619-88				
Date Collected: 02/20/25 23:07					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 49.7				
Method: EPA 1638 - Metals (ICP/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	20000		38	7.6	mg/Kg	<input type="checkbox"/>	04/08/25 09:56	05/14/25 19:29	1
Manganese	400 B		0.19	0.019	mg/Kg	<input type="checkbox"/>	04/08/25 09:56	05/14/25 19:29	1
Nickel	22 B		0.76	0.039	mg/Kg	<input type="checkbox"/>	04/08/25 09:56	05/14/25 19:29	1
Lead	19 B		0.15	0.015	mg/Kg	<input type="checkbox"/>	04/08/25 09:56	05/14/25 19:29	1
Zinc	50		3.8	1.9	mg/Kg	<input type="checkbox"/>	04/08/25 09:56	05/14/25 19:29	1

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWB-3B2

Lab Sample ID: 350-1619-93

Date Collected: 02/21/25 14:36

Matrix: Solid

Date Received: 03/06/25 10:30

Percent Solids: 52.1

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Iron	20000		39	7.8 mg/Kg	☐	04/08/25 09:56	05/14/25 19:47	1
Manganese	420 B		0.20	0.020 mg/Kg	☐	04/08/25 09:56	05/14/25 19:47	1
Nickel	20 B		0.78	0.031 mg/Kg	☐	04/08/25 09:56	05/14/25 19:47	1
Lead	16 B		0.16	0.016 mg/Kg	☐	04/08/25 09:56	05/14/25 19:47	1
Zinc	61		3.9	2.0 mg/Kg	☐	04/08/25 09:56	05/14/25 19:47	1

Client Sample ID: PAWB-3C2										14
Date Collected: 02/21/25 04:55										15
Date Received: 03/06/25 10:30										16
Matrix: Solid										17
Percent Solids: 48.0										18
Method: EPA 1631B - Mercury, Low Level (CVAFS)										19
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		20
Mercury	48		3.6	1.7 ng/g	☐	04/03/25 20:27	05/07/25 21:50	30		21
Method: EPA 1638 - Metals (ICP/MS)										22
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		23
Arsenic	5.6		0.41	0.12 mg/Kg	☐	04/08/25 09:56	05/14/25 19:49	1		24
Barium	4700 B		41	0.082 mg/Kg	☐	04/08/25 09:56	05/14/25 19:49	1		25
Cadmium	0.053		0.041	0.0041 mg/Kg	☐	04/08/25 09:56	05/14/25 19:49	1		26
Chromium	44 B		0.41	0.041 mg/Kg	☐	04/08/25 09:56	05/14/25 19:49	1		27
Copper	12 B		0.20	0.024 mg/Kg	☐	04/08/25 09:56	05/14/25 19:49	1		28
Iron	20000		41	8.2 mg/Kg	☐	04/08/25 09:56	05/14/25 19:49	1		29
Manganese	450 B		0.20	0.020 mg/Kg	☐	04/08/25 09:56	05/14/25 19:49	1		30
Nickel	22 B		0.82	0.033 mg/Kg	☐	04/08/25 09:56	05/14/25 19:49	1		31
Lead	18 B		0.16	0.016 mg/Kg	☐	04/08/25 09:56	05/14/25 19:49	1		32
Zinc	44		4.1	2.0 mg/Kg	☐	04/08/25 09:56	05/14/25 19:49	1		33

Client Sample ID: PAWB-3CP2										34
Date Collected: 02/21/25 19:24										35
Date Received: 03/06/25 10:30										36
Matrix: Solid										37
Percent Solids: 46.9										38
Method: EPA 1631B - Mercury, Low Level (CVAFS)										39
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		40
Mercury	50		3.5	1.7 ng/g	☐	04/03/25 20:27	05/07/25 23:15	30		41
Method: EPA 1638 - Metals (ICP/MS)										42
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		43
Arsenic	5.5		0.40	0.12 mg/Kg	☐	04/08/25 09:56	05/14/25 19:52	1		44
Barium	1800 B		40	0.081 mg/Kg	☐	04/08/25 09:56	05/14/25 19:52	1		45
Cadmium	0.052		0.040	0.0040 mg/Kg	☐	04/08/25 09:56	05/14/25 19:52	1		46
Chromium	46 B		0.40	0.040 mg/Kg	☐	04/08/25 09:56	05/14/25 19:52	1		47
Copper	12 B		0.20	0.024 mg/Kg	☐	04/08/25 09:56	05/14/25 19:52	1		48
Iron	21000		40	8.1 mg/Kg	☐	04/08/25 09:56	05/14/25 19:52	1		49
Manganese	5700 B		0.20	0.020 mg/Kg	☐	04/08/25 09:56	05/14/25 19:52	1		50
Nickel	23 B		0.81	0.032 mg/Kg	☐	04/08/25 09:56	05/14/25 19:52	1		51
Lead	18 B		0.16	0.016 mg/Kg	☐	04/08/25 09:56	05/14/25 19:52	1		52
Zinc	43		4.0	2.0 mg/Kg	☐	04/08/25 09:56	05/14/25 19:52	1		53

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWB-3D2

Date Collected: 02/21/25 04:19

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-96

Matrix: Solid

Percent Solids: 48.3

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	43		3.7	1.8 ng/g	☐	04/03/25 20:27	05/07/25 23:19	30

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.1		0.43	0.13 mg/Kg	☐	04/08/25 09:56	05/14/25 19:54	1
Barium	860 B		43	0.086 mg/Kg	☐	04/08/25 09:56	05/14/25 19:54	1
Cadmium	0.063		0.043	0.0043 mg/Kg	☐	04/08/25 09:56	05/14/25 19:54	1
Chromium	51 B		0.43	0.043 mg/Kg	☐	04/08/25 09:56	05/14/25 19:54	1
Copper	11 B		0.22	0.026 mg/Kg	☐	04/08/25 09:56	05/14/25 19:54	1
Iron	22000		43	8.6 mg/Kg	☐	04/08/25 09:56	05/14/25 19:54	1
Manganese	560 B		0.22	0.022 mg/Kg	☐	04/08/25 09:56	05/14/25 19:54	1
Nickel	40 B		0.86	0.035 mg/Kg	☐	04/08/25 09:56	05/14/25 19:54	1
Lead	19 B		0.17	0.017 mg/Kg	☐	04/08/25 09:56	05/14/25 19:54	1
Zinc	44		4.3	2.2 mg/Kg	☐	04/08/25 09:56	05/14/25 19:54	1

Client Sample ID: PAWB-4B2X										22
Date Collected: 02/21/25 15:54										23
Date Received: 03/06/25 10:30										24
Matrix: Solid										25
Percent Solids: 50.5										26
Method: EPA 1631B - Mercury, Low Level (CVAFS)										27
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		28
Mercury	50		3.3	1.6 ng/g	☐	04/03/25 20:27	05/07/25 23:19	30		29
Method: EPA 1638 - Metals (ICP/MS)										30
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		31
Arsenic	5.2		0.43	0.13 mg/Kg	☐	04/08/25 09:56	05/14/25 19:57	1		32
Barium	14000 B		43	0.085 mg/Kg	☐	04/08/25 09:56	05/14/25 19:57	1		33
Cadmium	0.096		0.043	0.0043 mg/Kg	☐	04/08/25 09:56	05/14/25 19:57	1		34
Chromium	41 B		0.43	0.043 mg/Kg	☐	04/08/25 09:56	05/14/25 19:57	1		35
Copper	13 B		0.21	0.026 mg/Kg	☐	04/08/25 09:56	05/14/25 19:57	1		36
Iron	19000		43	8.5 mg/Kg	☐	04/08/25 09:56	05/14/25 19:57	1		37
Manganese	400 B		0.21	0.021 mg/Kg	☐	04/08/25 09:56	05/14/25 19:57	1		38
Nickel	21 B		0.85	0.034 mg/Kg	☐	04/08/25 09:56	05/14/25 19:57	1		39
Lead	18 B		0.17	0.017 mg/Kg	☐	04/08/25 09:56	05/14/25 19:57	1		40
Zinc	56		4.3	2.1 mg/Kg	☐	04/08/25 09:56	05/14/25 19:57	1		41

Client Sample ID: PAWB-4C2										42
Date Collected: 02/21/25 19:24										43
Date Received: 03/06/25 10:30										44
Matrix: Solid										45
Percent Solids: 49.2										46

Method: EPA 1631B - Mercury, Low Level (CVAFS)										47
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		48
Mercury	52		3.5	1.7 ng/g	☐	04/03/25 20:27	05/07/25 23:27	30		49
Method: EPA 1638 - Metals (ICP/MS)										50
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		51
Arsenic	5.9		0.38	0.11 mg/Kg	☐	04/08/25 09:56	05/14/25 19:59	1		52
Barium	2500 B		38	0.076 mg/Kg	☐	04/08/25 09:56	05/14/25 19:59	1		53
Cadmium	0.068		0.038	0.0038 mg/Kg	☐	04/08/25 09:56	05/14/25 19:59	1		54
Chromium	49 B		0.38	0.038 mg/Kg	☐	04/08/25 09:56	05/14/25 19:59	1		55
Copper	12 B		0.19	0.023 mg/Kg	☐	04/08/25 09:56	05/14/25 19:59	1		56

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Client Sample Results										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PAWB-4C2					Lab Sample ID: 350-1619-98					
Date Collected: 02/21/25 19:24					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 49.2					
Method: EPA 1638 - Metals (ICP/MS) (Continued)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Iron	22000		38	7.6	mg/Kg	<input type="checkbox"/>	04/08/25 09:56	05/14/25 19:59	1	
Manganese	560 B		0.19	0.019	mg/Kg	<input type="checkbox"/>	04/08/25 09:56	05/14/25 19:59	1	
Nickel	24 B		0.76	0.030	mg/Kg	<input type="checkbox"/>	04/08/25 09:56	05/14/25 19:59	1	
Lead	20 B		0.15	0.015	mg/Kg	<input type="checkbox"/>	04/08/25 09:56	05/14/25 19:59	1	
Zinc	45		3.8	1.9	mg/Kg	<input type="checkbox"/>	04/08/25 09:56	05/14/25 19:59	1	

Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PAWE-2B3
Date Collected: 02/20/25 14:56
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-103
Matrix: Solid
Percent Solids: 49.9

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Iron	16000		37	7.3 mg/Kg	0	03/21/25 16:19	05/14/25 23:37	1
Manganese	440 B		0.18	0.018 mg/Kg	0	03/21/25 16:19	05/14/25 23:37	1
Nickel	17 B		0.73	0.029 mg/Kg	0	03/21/25 16:19	05/14/25 23:37	1
Lead	15 B		0.15	0.015 mg/Kg	0	03/21/25 16:19	05/14/25 23:37	1
Zinc	35		3.7	1.8 mg/Kg	0	03/21/25 16:19	05/14/25 23:37	1

Client Sample ID: PAWE-2C2									
Date Collected: 02/20/25 04:25									
Date Received: 03/06/25 10:30									
Matrix: Solid									
Percent Solids: 50.1									
Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	42		3.2	1.6 ng/g	0	04/03/25 20:27	05/06/25 14:07	30	
Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	4.4		0.41	0.12 mg/Kg	0	03/21/25 16:19	05/14/25 23:40	1	
Barium	460	B	41	0.081 mg/Kg	0	03/21/25 16:19	05/14/25 23:40	1	
Cadmium	0.045		0.041	0.0041 mg/Kg	0	03/21/25 16:19	05/14/25 23:40	1	
Chromium	37		0.41	0.41 mg/Kg	0	03/21/25 16:19	05/14/25 23:40	1	
Copper	9.3	B	0.20	0.024 mg/Kg	0	03/21/25 16:19	05/14/25 23:40	1	
Iron	16000		41	8.1 mg/Kg	0	03/21/25 16:19	05/14/25 23:40	1	
Manganese	460	B	0.20	0.020 mg/Kg	0	03/21/25 16:19	05/14/25 23:40	1	
Nickel	18	B	0.81	0.033 mg/Kg	0	03/21/25 16:19	05/14/25 23:40	1	
Lead	15	B	0.16	0.016 mg/Kg	0	03/21/25 16:19	05/14/25 23:40	1	
Zinc	33		4.1	2.0 mg/Kg	0	03/21/25 16:19	05/14/25 23:40	1	

Client Sample ID: PAWE-2C2-FD									
Date Collected: 02/20/25 04:56									
Date Received: 03/06/25 10:30									
Matrix: Solid									
Percent Solids: 52.5									
Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	36		3.2	1.6 ng/g	0	04/03/25 20:27	05/06/25 14:11	30	
Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	4.6		0.38	0.11 mg/Kg	0	03/21/25 16:19	05/14/25 23:42	1	
Barium	440	B	38	0.076 mg/Kg	0	03/21/25 16:19	05/14/25 23:42	1	
Cadmium	0.044		0.038	0.0038 mg/Kg	0	03/21/25 16:19	05/14/25 23:42	1	
Chromium	37		0.38	0.38 mg/Kg	0	03/21/25 16:19	05/14/25 23:42	1	
Copper	9.4	B	0.19	0.023 mg/Kg	0	03/21/25 16:19	05/14/25 23:42	1	
Iron	16000		38	7.6 mg/Kg	0	03/21/25 16:19	05/14/25 23:42	1	
Manganese	430	B	0.19	0.019 mg/Kg	0	03/21/25 16:19	05/14/25 23:42	1	
Nickel	19	B	0.76	0.031 mg/Kg	0	03/21/25 16:19	05/14/25 23:42	1	
Lead	15	B	0.15	0.015 mg/Kg	0	03/21/25 16:19	05/14/25 23:42	1	
Zinc	34		3.8	1.9 mg/Kg	0	03/21/25 16:19	05/14/25 23:42	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWE-3B3

Date Collected: 02/20/25 15:43

Date Received: 03/06/25 10:30

Job ID: 350-1619-1

Lab Sample ID: 350-1619-106

Matrix: Solid

Percent Solids: 50.4

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	98		3.4	1.7 ng/g	0	04/03/25 20:27	05/06/25 14:15	30

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.1		0.39	0.12 mg/Kg	0	03/21/25 16:19	05/14/25 23:45	1
Barium	4900 B		39	0.078 mg/Kg	0	03/21/25 16:19	05/14/25 23:45	1
Cadmium	0.075		0.039	0.0039 mg/Kg	0	03/21/25 16:19	05/14/25 23:45	1
Chromium	42		0.39	0.39 mg/Kg	0	03/21/25 16:19	05/14/25 23:45	1
Copper	11 B		0.19	0.023 mg/Kg	0	03/21/25 16:19	05/14/25 23:45	1
Iron	19000		39	7.8 mg/Kg	0	03/21/25 16:19	05/14/25 23:45	1
Manganese	500 B		0.19	0.019 mg/Kg	0	03/21/25 16:19	05/14/25 23:45	1
Nickel	19 B		0.78	0.031 mg/Kg	0	03/21/25 16:19	05/14/25 23:45	1
Lead	18 B		0.16	0.016 mg/Kg	0	03/21/25 16:19	05/14/25 23:45	1
Zinc	46		3.9	1.9 mg/Kg	0	03/21/25 16:19	05/14/25 23:45	1

Client Sample ID: PAWE-3C2									
Date Collected: 02/20/25 17:13									
Date Received: 03/06/25 10:30									
Matrix: Solid									
Percent Solids: 49.4									
Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	48		3.3	1.6 ng/g	0	04/03/25 20:27	05/06/25 14:20	30	
Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	5.1		0.40	0.12 mg/Kg	0	03/21/25 16:19	05/14/25 23:47	1	
Barium	980	B	40	0.080 mg/Kg	0	03/21/25 16:19	05/14/25 23:47	1	
Cadmium	0.049		0.040	0.0040 mg/Kg	0	03/21/25 16:19	05/14/25 23:47	1	
Chromium	43		0.40	0.40 mg/Kg	0	03/21/25 16:19	05/14/25 23:47	1	
Copper	11	B	0.20	0.024 mg/Kg	0	03/21/25 16:19	05/14/25 23:47	1	
Iron	18000		40	8.0 mg/Kg	0	03/21/25 16:19	05/14/25 23:47	1	
Manganese	460	B	0.20	0.020 mg/Kg	0	03/21/25 16:19	05/14/25 23:47	1	
Nickel	20	B	0.80	0.032 mg/Kg	0	03/21/25 16:19	05/14/25 23:47	1	
Lead	17	B	0.16	0.016 mg/Kg	0	03/21/25 16:19	05/14/25 23:47	1	
Zinc	39		4.0	2.0 mg/Kg	0	03/21/25 16:19	05/14/25 23:47	1	

Client Sample ID: PAWE-3CP2									
Date Collected: 02/20/25 16:47									
Date Received: 03/06/25 10:30									
Matrix: Solid									
Percent Solids: 46.9									

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	40		3.8	1.8 ng/g	0	04/03/25 20:27	05/06/25 14:24	30	
Method: EPA 1638 - Metals (ICP/MS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	5.5		0.41	0.12 mg/Kg	0	03/21/25 16:19	05/14/25 23:50	1	
Barium	560	B	41	0.083 mg/Kg	0	03/21/25 16:19	05/14/25 23:50	1	
Cadmium	0.043		0.041	0.0041 mg/Kg	0	03/21/25 16:19	05/14/25 23:50	1	
Chromium	43		0.41	0.41 mg/Kg	0	03/21/25 16:19	05/14/25 23:50	1	
Copper	10	B	0.21	0.025 mg/Kg	0	03/21/25 16:19	05/14/25 23:50	1	

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PAWE-3CP2					Lab Sample ID: 350-1619-108				
Date Collected: 02/20/25 16:47					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 46.9				
Method: EPA 1638 - Metals (ICP/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	19000		41	8.3	mg/Kg	□	03/21/25 16:19	05/14/25 23:50	1
Manganese	470 B		0.21	0.021	mg/Kg	□	03/21/25 16:19	05/14/25 23:50	1
Nickel	20 B		0.83	0.033	mg/Kg	□	03/21/25 16:19	05/14/25 23:50	1
Lead	16 B		0.17	0.017	mg/Kg	□	03/21/25 16:19	05/14/25 23:50	1
Zinc	38		4.1	2.1	mg/Kg	□	03/21/25 16:19	05/14/25 23:50	1

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-1C2X-SW-20

Lab Sample ID: 350-1619-113

Date Collected: 02/16/25 01:58

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.19	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 17:04	1
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 17:04	1
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 17:04	1
Iron	2.1	J B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 17:04	1
Manganese	0.83		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 17:04	1

Client Sample ID: NPCPP-1C2X-SW-40									
Date Collected: 02/16/25 02:06									
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.56		0.50	0.20 ng/L			04/24/25 13:49	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Nickel	0.20	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Iron	13	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 17:18	1	
Manganese	1.5		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 17:18	1	

Client Sample ID: NPCPP-1C2X-SW-B									
Date Collected: 02/16/25 02:17									
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.80		0.50	0.20 ng/L			04/24/25 13:53	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Lead	0.035	J B	0.050	0.023 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Nickel	0.22	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Iron	39	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 17:32	1	
Manganese	2.9		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 17:32	1	

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-1CP2-SW-1

Lab Sample ID: 350-1619-116

Date Collected: 02/15/25 02:45

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.68		0.50	0.20 ng/L			04/24/25 13:57	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 17:46	1
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 17:46	1
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 17:46	1
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 17:46	1
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 17:46	1
Nickel	0.20 J		0.50	0.15 ug/L		04/08/25 16:09	04/09/25 17:46	1
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 17:46	1
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 17:46	1
Iron	5.8 B		5.0	0.81 ug/L		04/08/25 16:09	04/09/25 17:46	1
Manganese	0.92		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 17:46	1

Client Sample ID: NPCPP-1CP2-SW-20									
Date Collected: 02/15/25 02:51									
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.37	J	0.50	0.20 ng/L			04/24/25 14:01	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Nickel	0.23	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Iron	5.1	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 18:00	1	
Manganese	1.0		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 18:00	1	

Client Sample ID: NPCPP-1CP2-SW-40									
Date Collected: 02/15/25 02:59									
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.55		0.50	0.20 ng/L			04/24/25 14:05	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 18:14	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 18:14	1	
Chromium	ND		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 18:14	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 18:14	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 18:14	1	

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-1CP2-SW-40

Lab Sample ID: 350-1619-118

Date Collected: 02/15/25 02:59

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.50	0.15 ug/L		04/08/25 16:09	04/09/25 18:14	1
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 18:14	1
Barium	ND		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 18:14	1
Iron	ND		5.0	0.81 ug/L		04/08/25 16:09	04/09/25 18:14	1
Manganese	ND		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 18:14	1

Client Sample ID: NPCPP-1CP2-SW-B					Lab Sample ID: 350-1619-119				
Date Collected: 02/15/25 03:12					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.51		0.50	0.20 ng/L			04/24/25 14:09	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	ND		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Chromium	ND		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Nickel	ND		0.50	0.15 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Barium	ND		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Iron	ND		5.0	0.81 ug/L		04/08/25 16:09	04/09/25 18:28	1	
Manganese	ND		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 18:28	1	

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-2C2-SW-40-FD

Lab Sample ID: 350-1619-123

Date Collected: 02/16/25 00:58

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Nickel	0.20	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 20:07	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 20:07	1	
Barium	13		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 20:07	1	
Iron	17	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 20:07	1	
Manganese	1.8		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 20:07	1	

Client Sample ID: NPCPP-2C2-SW-B					Lab Sample ID: 350-1619-124				
Date Collected: 02/16/25 01:06					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	0.35	J	0.50	0.20 ng/L			04/24/25 14:39	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Arsenic	1.2		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Lead	0.031	J B	0.050	0.023 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Nickel	0.21	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Barium	13		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Iron	33	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 20:21	1	
Manganese	2.8		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 20:21	1	

Client Sample ID: NPCPP-3C2-SW-1					Lab Sample ID: 350-1619-125				
Date Collected: 02/15/25 22:02					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	2.7		0.50	0.20 ng/L			04/24/25 14:43	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Arsenic	1.3		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Chromium	1.3		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Nickel	0.23	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Iron	3.8	J B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 20:35	1	
Manganese	0.88		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 20:35	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPCPP-3C2-SW-20

Date Collected: 02/15/25 22:09

Lab Sample ID: 350-1619-126

Date Received: 03/06/25 10:30

Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.3		0.50	0.20 ng/L			04/24/25 14:47	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.1		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 20:49	1
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 20:49	1
Chromium	1.2		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 20:49	1
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 20:49	1
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 20:49	1
Nickel	0.17	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 20:49	1
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 20:49	1
Barium	11		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 20:49	1
Iron	1.3	J B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 20:49	1
Manganese	0.68		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 20:49	1

Client Sample ID: NPCPP-3C2-SW-40					Lab Sample ID: 350-1619-127				
Date Collected: 02/15/25 22:17					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	0.36	J	0.50	0.20 ng/L			04/24/25 14:51	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Arsenic	1.1		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Chromium	1.0		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Lead	ND		0.050	0.023 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Nickel	0.18	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Barium	10		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Iron	20	B	5.0	0.81 ug/L		04/08/25 16:09	04/09/25 21:04	1	
Manganese	1.9		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 21:04	1	

Client Sample ID: NPCPP-3C2-SW-B					Lab Sample ID: 350-1619-128				
Date Collected: 02/15/25 22:27					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Mercury	0.36	J	0.50	0.20 ng/L			04/24/25 14:55	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Arsenic	1.3		0.70	0.63 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Cadmium	ND		0.020	0.013 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Chromium	1.3		1.0	0.11 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Copper	ND		0.50	0.43 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Lead	0.037	J B	0.050	0.023 ug/L		04/08/25 16:09	04/09/25 21:18	1	

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-3C2-SW-B					Lab Sample ID: 350-1619-128				
Date Collected: 02/15/25 22:27					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil	Fac
Nickel	0.23	J	0.50	0.15 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Zinc	ND		1.0	0.31 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Barium	12		0.50	0.088 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Iron	39 B		5.0	0.81 ug/L		04/08/25 16:09	04/09/25 21:18	1	
Manganese	2.9		0.050	0.030 ug/L		04/08/25 16:09	04/09/25 21:18	1	

Client Sample ID: NPCPP-3CP2-SW-1					Lab Sample ID: 350-1619-129				
Date Collected: 02/15/25 15:13					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.35	J	0.50	0.20	ng/L			04/24/25 14:59	1
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.3		0.70	0.63	ug/L		04/09/25 12:40	04/10/25 06:56	1
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:40	04/10/25 06:56	1
Chromium	1.3		1.0	0.11	ug/L		04/09/25 12:40	04/10/25 06:56	1
Copper	ND		0.50	0.43	ug/L		04/09/25 12:40	04/10/25 06:56	1
Lead	ND		0.050	0.023	ug/L		04/09/25 12:40	04/10/25 06:56	1
Nickel	0.18	J	0.50	0.15	ug/L		04/09/25 12:40	04/10/25 06:56	1
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:40	04/10/25 06:56	1
Barium	12	F1	0.50	0.088	ug/L		04/09/25 12:40	04/10/25 06:56	1
Iron	2.4	J	5.0	0.81	ug/L		04/09/25 12:40	04/10/25 06:56	1
Manganese	0.79	F1	0.050	0.030	ug/L		04/09/25 12:40	04/10/25 06:56	1

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPCPP-4C2-SW-1

Lab Sample ID: 350-1619-133

Date Collected: 02/15/25 04:20

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.29	J	0.50	0.15 ug/L		04/09/25 12:40	04/10/25 09:18	1
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 09:18	1
Barium	12		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 09:18	1
Iron	3.8	J	5.0	0.81 ug/L		04/09/25 12:40	04/10/25 09:18	1
Manganese	0.83		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 09:18	1

Client Sample ID: NPCPP-4C2-SW-20					Lab Sample ID: 350-1619-134				
Date Collected: 02/15/25 04:26					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/24/25 15:28	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Chromium	1.2		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Nickel	0.20	J	0.50	0.15 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Barium	13		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Iron	3.9	J B	5.0	0.81 ug/L		04/09/25 12:40	04/10/25 12:49	1	
Manganese	0.99		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 12:49	1	

Client Sample ID: NPCPP-4C2-SW-40					Lab Sample ID: 350-1619-135				
Date Collected: 02/15/25 04:34					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/24/25 15:32	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Chromium	1.3		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Lead	0.024	J	0.050	0.023 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Nickel	0.21	J	0.50	0.15 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Barium	13		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Iron	17	B	5.0	0.81 ug/L		04/09/25 12:40	04/10/25 13:03	1	
Manganese	1.7		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 13:03	1	

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Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPCPP-4C2-SW-B

Lab Sample ID: 350-1619-136

Date Collected: 02/15/25 04:45

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.24	J	0.50	0.20 ng/L			04/24/25 15:37	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 13:18	1
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 13:18	1
Chromium	1.3		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 13:18	1
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 13:18	1
Lead	0.033	J	0.050	0.023 ug/L		04/09/25 12:40	04/10/25 13:18	1
Nickel	0.28	J	0.50	0.15 ug/L		04/09/25 12:40	04/10/25 13:18	1
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 13:18	1
Barium	13		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 13:18	1
Iron	37	B	5.0	0.81 ug/L		04/09/25 12:40	04/10/25 13:18	1
Manganese	2.8		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 13:18	1

Client Sample ID: NPCPP-EQ					Lab Sample ID: 350-1619-137				
Date Collected: 02/12/25 20:00					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.27	J	0.50	0.20 ng/L			04/24/25 15:41	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	ND		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Chromium	ND		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Barium	ND		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Iron	ND		5.0	0.81 ug/L		04/09/25 12:40	04/10/25 13:32	1	
Manganese	0.12		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 13:32	1	

Client Sample ID: NPCPP-WB					Lab Sample ID: 350-1619-138				
Date Collected: 02/12/25 20:07					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.28	J	0.50	0.20 ng/L			04/24/25 15:45	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	ND		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Chromium	ND		1.0	0.11 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 13:46	1	

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPCPP-WB					Lab Sample ID: 350-1619-138				
Date Collected: 02/12/25 20:07					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Barium	ND		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Iron	ND		5.0	0.81 ug/L		04/09/25 12:40	04/10/25 13:46	1	
Manganese	0.11		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 13:46	1	

Client Sample ID: NPREF-A-SW-1					Lab Sample ID: 350-1619-139				
Date Collected: 02/12/25 20:54					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.96		0.50	0.20	ng/L			04/24/25 15:49	1
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63	ug/L		04/09/25 12:40	04/10/25 14:00	1
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:40	04/10/25 14:00	1
Chromium	1.2		1.0	0.11	ug/L		04/09/25 12:40	04/10/25 14:00	1
Copper	ND		0.50	0.43	ug/L		04/09/25 12:40	04/10/25 14:00	1
Cobalt	0.026 J		0.050	0.023	ug/L		04/09/25 12:40	04/10/25 14:00	1
Nickel	0.18 J		0.50	0.15	ug/L		04/09/25 12:40	04/10/25 14:00	1
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:40	04/10/25 14:00	1
Barium	ND		0.50	0.088	ug/L		04/09/25 12:40	04/10/25 14:00	1
Iron	1.2 J B		5.0	0.81	ug/L		04/09/25 12:40	04/10/25 14:00	1
Manganese	0.78		0.050	0.030	ug/L		04/09/25 12:40	04/10/25 14:00	1

Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPREF-A-SW-B					Lab Sample ID: 350-1619-143					
Date Collected: 02/12/25 21:21					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1640 - Metals (ICPMS) (Continued)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Nickel	0.22	J	0.50	0.15 ug/L		04/09/25 12:40	04/10/25 15:25	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 15:25	1		
Barium	11		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 15:25	1		
Iron	40	B	5.0	0.81 ug/L		04/09/25 12:40	04/10/25 15:25	1		
Manganese	3.1		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 15:25	1		
Client Sample ID: NPREF-EQ					Lab Sample ID: 350-1619-144					
Date Collected: 02/12/25 20:07					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	1.9		0.50	0.20 ng/L			04/24/25 16:18	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	ND		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Chromium	0.11	J	1.0	0.11 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Barium	ND		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Iron	ND		5.0	0.81 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Manganese	0.20		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 15:39	1		
Client Sample ID: NPREF-WB					Lab Sample ID: 350-1619-145					
Date Collected: 02/12/25 20:00					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	2.1		0.50	0.20 ng/L			04/24/25 16:22	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	ND		0.70	0.63 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Chromium	0.13	J	1.0	0.11 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Copper	ND		0.50	0.43 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Lead	ND		0.050	0.023 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Barium	ND		0.50	0.088 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Iron	ND		5.0	0.81 ug/L		04/09/25 12:40	04/10/25 15:53	1		
Manganese	0.20		0.050	0.030 ug/L		04/09/25 12:40	04/10/25 15:53	1		
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Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPWB-1C2-SW-1					Lab Sample ID: 350-1619-146					
Date Collected: 02/14/25 00:47					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.22	J	0.50	0.20	ng/L			04/24/25 16:26	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Chromium	1.2		1.0	0.11	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Copper	ND		0.50	0.43	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Lead	ND		0.050	0.023	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Nickel	0.20	J	0.50	0.15	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Barium	12		0.50	0.088	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Iron	1.5	J B	5.0	0.81	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Manganese	0.86		0.050	0.030	ug/L		04/09/25 12:40	04/10/25 16:07	1	
Client Sample ID: NPWB-1C2-SW-20					Lab Sample ID: 350-1619-147					
Date Collected: 02/14/25 00:54					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.32	J	0.50	0.20	ng/L			04/24/25 16:31	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Chromium	1.2		1.0	0.11	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Copper	ND		0.50	0.43	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Lead	ND		0.050	0.023	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Nickel	0.18	J	0.50	0.15	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Barium	12		0.50	0.088	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Iron	1.1	J B	5.0	0.81	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Manganese	0.82		0.050	0.030	ug/L		04/09/25 12:40	04/10/25 16:21	1	
Client Sample ID: NPWB-1C2-SW-40					Lab Sample ID: 350-1619-148					
Date Collected: 02/14/25 01:02					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.25	J	0.50	0.20	ng/L			04/24/25 16:35	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Chromium	1.3		1.0	0.11	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Copper	ND		0.50	0.43	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Lead	ND		0.050	0.023	ug/L		04/09/25 12:40	04/10/25 16:35	1	
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Client Sample Results										Job ID: 350-1619-1
Client: Tetra Tech Inc										
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPWB-1C2-SW-40					Lab Sample ID: 350-1619-148					
Date Collected: 02/14/25 01:02					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1640 - Metals (ICPMS) (Continued)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.19	J	0.50	0.15	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Barium	12		0.50	0.088	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Iron	5.7	B	5.0	0.81	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Manganese	1.1		0.050	0.030	ug/L		04/09/25 12:40	04/10/25 16:35	1	
Client Sample ID: NPWB-1C2-SW-B					Lab Sample ID: 350-1619-149					
Date Collected: 02/14/25 01:11					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.33	J	0.50	0.20	ng/L			04/24/25 16:38	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63	ug/L		04/09/25 12:43	04/09/25 23:53	1	
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:43	04/09/25 23:53	1	
Chromium	1.0	B	1.0	0.11	ug/L		04/09/25 12:43	04/09/25 23:53	1	
Copper	ND		0.50	0.43	ug/L		04/09/25 12:43	04/09/25 23:53	1	
Lead	0.034	J	0.050	0.023	ug/L		04/09/25 12:43	04/09/25 23:53	1	
Nickel	0.22	J	0.50	0.15	ug/L		04/09/25 12:43	04/09/25 23:53	1	
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:43	04/09/25 23:53	1	
Barium	13	F1	0.50	0.088	ug/L		04/09/25 12:43	04/09/25 23:53	1	
Iron	3.8		5.0	0.81	ug/L		04/09/25 12:43	04/09/25 23:53	1	
Manganese	2.3	F1	0.050	0.030	ug/L		04/09/25 12:43	04/09/25 23:53	1	
Client Sample ID: NPWB-1CP2-SW-1					Lab Sample ID: 350-1619-150					
Date Collected: 02/14/25 01:51					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.29	J	0.50	0.20	ng/L			04/24/25 16:43	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63	ug/L		04/09/25 12:43	04/10/25 01:04	1	
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:43	04/10/25 01:04	1	
Chromium	1.2	B	1.0	0.11	ug/L		04/09/25 12:43	04/10/25 01:04	1	
Copper	ND		0.50	0.43	ug/L		04/09/25 12:43	04/10/25 01:04	1	
Nickel	0.50		0.023	0.013	ug/L		04/09/25 12:43	04/10/25 01:04	1	
Nickel	0.23	J	0.50	0.15	ug/L		04/09/25 12:43	04/10/25 01:04	1	
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:43	04/10/25 01:04	1	
Barium	12	F1	0.50	0.088	ug/L		04/09/25 12:43	04/10/25 01:04	1	
Iron	7.8		5.0	0.81	ug/L		04/09/25 12:43	04/10/25 01:04	1	
Manganese	0.86	F1	0.050	0.030	ug/L		04/09/25 12:43	04/10/25 01:04	1	

Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: NPWB-1CP2-SW-B					Lab Sample ID: 350-1619-153					
Date Collected: 02/14/25 02:20					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1640 - Metals (ICPMS) (Continued)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Nickel	0.22	J	0.50	0.15 ug/L		04/09/25 12:43	04/10/25 02:14	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 02:14	1		
Barium	13		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 02:14	1		
Iron	33		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 02:14	1		
Manganese	2.8		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 02:14	1		
Client Sample ID: NPWB-3B2-SW-1					Lab Sample ID: 350-1619-154					
Date Collected: 02/14/25 15:52					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.48	J	0.50	0.20 ng/L			04/24/25 17:49	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.1		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Chromium	1.2	B	1.0	0.11 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Lead	ND		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Nickel	0.17	J	0.50	0.15 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Barium	10		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Iron	3.2	J	5.0	0.81 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Manganese	0.88		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 02:28	1		
Client Sample ID: NPWB-3B2-SW-20					Lab Sample ID: 350-1619-155					
Date Collected: 02/14/25 15:57					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	7.1		0.50	0.20 ng/L			04/24/25 17:53	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.2		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Chromium	1.3	B	1.0	0.11 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Lead	ND		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Nickel	0.21	J	0.50	0.15 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Barium	13		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Iron	4.5	J	5.0	0.81 ug/L		04/09/25 12:43	04/10/25 02:42	1		
Manganese	0.90		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 02:42	1		
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWB-3B2-SW-40

Date Collected: 02/14/25 16:08

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-156

Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.33	J	0.50	0.20	ng/L			04/24/25 18:43	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.36		0.70	0.63	ug/L		04/09/25 12:43	04/10/25 02:56	1
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:43	04/10/25 02:56	1
Chromium	1.1	B	1.0	0.11	ug/L		04/09/25 12:43	04/10/25 02:56	1
Copper	ND		0.50	0.43	ug/L		04/09/25 12:43	04/10/25 02:56	1
Lead	ND		0.050	0.023	ug/L		04/09/25 12:43	04/10/25 02:56	1
Nickel	0.15	J	0.50	0.15	ug/L		04/09/25 12:43	04/10/25 02:56	1
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:43	04/10/25 02:56	1
Barium	8.5		0.50	0.088	ug/L		04/09/25 12:43	04/10/25 02:56	1
Iron	20		5.0	0.81	ug/L		04/09/25 12:43	04/10/25 02:56	1
Manganese	1.9		0.050	0.030	ug/L		04/09/25 12:43	04/10/25 02:56	1

Client Sample ID: NPWB-3B2-SW-B

Date Collected: 02/14/25 16:18

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-157

Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.32	J	0.50	0.20	ng/L			04/24/25 18:47	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.3		0.70	0.63	ug/L		04/09/25 12:43	04/10/25 03:39	1
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:43	04/10/25 03:39	1
Chromium	1.2	B	1.0	0.11	ug/L		04/09/25 12:43	04/10/25 03:39	1
Copper	ND		0.50	0.43	ug/L		04/09/25 12:43	04/10/25 03:39	1
Lead	0.033	J	0.050	0.023	ug/L		04/09/25 12:43	04/10/25 03:39	1
Nickel	0.22	J	0.50	0.15	ug/L		04/09/25 12:43	04/10/25 03:39	1
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:43	04/10/25 03:39	1
Barium	13		0.50	0.088	ug/L		04/09/25 12:43	04/10/25 03:39	1
Iron	35		5.0	0.81	ug/L		04/09/25 12:43	04/10/25 03:39	1
Manganese	2.8		0.050	0.030	ug/L		04/09/25 12:43	04/10/25 03:39	1

Client Sample ID: NPWB-3CP2-SW-1

Date Collected: 02/14/25 14:11

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-158

Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.0		0.50	0.20	ng/L			04/24/25 18:51	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63	ug/L		04/09/25 12:43	04/10/25 03:53	1
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:43	04/10/25 03:53	1
Chromium	1.2	B	1.0	0.11	ug/L		04/09/25 12:43	04/10/25 03:53	1
Copper	ND		0.50	0.43	ug/L		04/09/25 12:43	04/10/25 03:53	1
Lead	0.16		0.050	0.023	ug/L		04/09/25 12:43	04/10/25 03:53	1

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Client Sample Results										Job ID: 350-1619-1	
Client: Tetra Tech Inc					Project/Site: Gulf of Thailand - 2025						
Client Sample ID: NPWB-3CP2-SW-1					Lab Sample ID: 350-1619-158						
Date Collected: 02/14/25 14:11					Matrix: Water						
Date Received: 03/06/25 10:30											
Method: EPA 1640 - Metals (ICPMS) (Continued)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
Nickel	0.19	J	0.50	0.15	ug/L		04/09/25 12:43	04/10/25 03:53	1		
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:43	04/10/25 03:53	1		
Barium	12		0.50	0.088	ug/L		04/09/25 12:43	04/10/25 03:53	1		
Iron	3.8	J	5.0	0.81	ug/L		04/09/25 12:43	04/10/25 03:53	1		
Manganese	0.94		0.050	0.030	ug/L		04/09/25 12:43	04/10/25 03:53	1		
Client Sample ID: NPWB-3CP2-SW-20					Lab Sample ID: 350-1619-159						
Date Collected: 02/14/25 14:19					Matrix: Water						
Date Received: 03/06/25 10:30											
Method: EPA 1631E - Mercury, Low Level (CVAFS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
Mercury	0.27	J	0.50	0.20	ng/L			04/24/25 18:55			1
Method: EPA 1640 - Metals (ICPMS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
Arsenic	0.84		0.70	0.63	ug/L		04/09/25 12:43	04/10/25 04:07	1		
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:43	04/10/25 04:07	1		
Chromium	0.97	J B	1.0	0.11	ug/L		04/09/25 12:43	04/10/25 04:07	1		
Copper	ND		0.50	0.43	ug/L		04/09/25 12:43	04/10/25 04:07	1		
Lead	ND		0.050	0.023	ug/L		04/09/25 12:43	04/10/25 04:07	1		
Nickel	ND		0.50	0.15	ug/L		04/09/25 12:43	04/10/25 04:07	1		
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:43	04/10/25 04:07	1		
Barium	8.0		0.50	0.088	ug/L		04/09/25 12:43	04/10/25 04:07	1		
Iron	4.6	J	5.0	0.81	ug/L		04/09/25 12:43	04/10/25 04:07	1		
Manganese	0.93		0.050	0.030	ug/L		04/09/25 12:43	04/10/25 04:07	1		
Client Sample ID: NPWB-3CP2-SW-20-FD					Lab Sample ID: 350-1619-160						
Date Collected: 02/14/25 14:45					Matrix: Water						
Date Received: 03/06/25 10:30											
Method: EPA 1631E - Mercury, Low Level (CVAFS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
Mercury	0.32	J	0.50	0.20	ng/L			04/24/25 19:00			1
Method: EPA 1640 - Metals (ICPMS)											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
Arsenic	1.1		0.70	0.63	ug/L		04/09/25 12:43	04/10/25 04:21	1		
Cadmium	ND		0.020	0.013	ug/L		04/09/25 12:43	04/10/25 04:21	1		
Chromium	1.2	B	1.0	0.11	ug/L		04/09/25 12:43	04/10/25 04:21	1		
Copper	ND		0.50	0.43	ug/L		04/09/25 12:43	04/10/25 04:21	1		
Lead	ND		0.050	0.023	ug/L		04/09/25 12:43	04/10/25 04:21	1		
Nickel	0.18	J	0.50	0.15	ug/L		04/09/25 12:43	04/10/25 04:21	1		
Zinc	ND		1.0	0.31	ug/L		04/09/25 12:43	04/10/25 04:21	1		
Barium	10		0.50	0.088	ug/L		04/09/25 12:43	04/10/25 04:21	1		
Iron	3.7	J	5.0	0.81	ug/L		04/09/25 12:43	04/10/25 04:21	1		
Manganese	0.88		0.050	0.030	ug/L		04/09/25 12:43	04/10/25 04:21	1		
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Client Sample Results

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWB-EQ

Lab Sample ID: 350-1619-163

Date Collected: 02/14/25 00:15

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:43	04/10/25 05:04	1
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 05:04	1
Barium	ND		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 05:04	1
Iron	ND		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 05:04	1
Manganese	0.12		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 05:04	1

Client Sample ID: NPWB-WB					Lab Sample ID: 350-1619-164				
Date Collected: 02/14/25 00:10					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/24/25 19:24	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	ND		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Chromium	ND		1.0	0.11 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Lead	ND		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Nickel	ND		0.50	0.15 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Barium	ND		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Iron	ND		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 05:18	1	
Manganese	0.11		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 05:18	1	

Client Sample ID: NPWG-1B2X-SW-1					Lab Sample ID: 350-1619-165				
Date Collected: 02/17/25 00:58					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.78		0.50	0.20 ng/L			04/25/25 17:10	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Chromium	1.4 B		1.0	0.11 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Copper	0.93		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Lead	0.060		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Nickel	0.22 J		0.50	0.15 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Barium	12		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Iron	2.3 J		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 05:32	1	
Manganese	0.78		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 05:32	1	

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWG-1B2X-SW-20

Lab Sample ID: 350-1619-166

Date Collected: 02/17/25 01:01

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.44	J *2	0.50	0.20 ng/L			04/24/25 19:33	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.7		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 05:46	1
Cadmium	0.015 J		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 05:46	1
Chromium	1.2 B		1.0	0.11 ug/L		04/09/25 12:43	04/10/25 05:46	1
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 05:46	1
Lead	ND		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 05:46	1
Nickel	0.19 J		0.50	0.15 ug/L		04/09/25 12:43	04/10/25 05:46	1
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 05:46	1
Barium	12		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 05:46	1
Iron	1.8 J		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 05:46	1
Manganese	0.80		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 05:46	1

Client Sample ID: NPWG-1B2X-SW-40					Lab Sample ID: 350-1619-167				
Date Collected: 02/17/25 01:12					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.41	J *2	0.50	0.20 ng/L			04/24/25 19:37	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Chromium	1.4	B	1.0	0.11 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Lead	0.028	J	0.050	0.023 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Nickel	0.21	J	0.50	0.15 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Barium	13		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Iron	21		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 06:28	1	
Manganese	1.8		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 06:28	1	

Client Sample ID: NPWG-1B2X-SW-B					Lab Sample ID: 350-1619-168				
Date Collected: 02/17/25 01:22					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.48	J *2	0.50	0.20 ng/L			04/24/25 19:41	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Cadmium	ND		0.020	0.013 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Chromium	1.3 B		1.0	0.11 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Copper	ND		0.50	0.43 ug/L		04/09/25 12:43	04/10/25 06:42	1	
Lead	0.034 J		0.050	0.023 ug/L		04/09/25 12:43	04/10/25 06:42	1	

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWG-1B2X-SW-B

Lab Sample ID: 350-1619-168

Date Collected: 02/17/25 01:22

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.23	J	0.50	0.15 ug/L		04/09/25 12:43	04/10/25 06:42	1
Zinc	ND		1.0	0.31 ug/L		04/09/25 12:43	04/10/25 06:42	1
Barium	13		0.50	0.088 ug/L		04/09/25 12:43	04/10/25 06:42	1
Iron	34		5.0	0.81 ug/L		04/09/25 12:43	04/10/25 06:42	1
Manganese	2.6		0.050	0.030 ug/L		04/09/25 12:43	04/10/25 06:42	1

Client Sample ID: NPWG-1CP2-SW-1					Lab Sample ID: 350-1619-169				
Date Collected: 02/17/25 02:01					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.42	J *2	0.50	0.20 ng/L			04/24/25 19:45	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/10/25 18:00	04/10/25 22:42	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/10/25 22:42	1	
Chromium	1.1		1.0	0.11 ug/L		04/10/25 18:00	04/10/25 22:42	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/10/25 22:42	1	
Lead	0.024 J		0.050	0.023 ug/L		04/10/25 18:00	04/10/25 22:42	1	
Nickel	0.22 J		0.50	0.15 ug/L		04/10/25 18:00	04/10/25 22:42	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/10/25 22:42	1	
Bari	13 F1		0.50	0.088 ug/L		04/10/25 18:00	04/10/25 22:42	1	
Iron	3.6 J		5.0	0.81 ug/L		04/10/25 18:00	04/10/25 22:42	1	
Manganese	0.78 F1		0.050	0.030 ug/L		04/10/25 18:00	04/10/25 22:42	1	

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWG-3B2X-SW-1

Lab Sample ID: 350-1619-173

Date Collected: 02/16/25 20:10

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.18	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 01:03	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 01:03	1
Barium	12		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 01:03	1
Iron	1.3	J	5.0	0.81 ug/L		04/10/25 18:00	04/11/25 01:03	1
Manganese	0.75		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 01:03	1

Client Sample ID: NPWG-3B2X-SW-20					Lab Sample ID: 350-1619-174				
Date Collected: 02/16/25 20:16					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.9		0.50	0.20 ng/L			04/30/25 20:44	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	0.80		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Chromium	0.97	J	1.0	0.11 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Nickel	ND		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Barium	8.1		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Iron	1.4	J	5.0	0.81 ug/L		04/10/25 18:00	04/11/25 01:17	1	
Manganese	0.79		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 01:17	1	

Client Sample ID: NPWG-3B2X-SW-40					Lab Sample ID: 350-1619-175				
Date Collected: 02/16/25 20:41					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.1		0.50	0.20 ng/L			04/30/25 20:48	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Nickel	0.19	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Barium	11		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Iron	19		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 01:31	1	
Manganese	1.8		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 01:31	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: NPWG-3B2X-SW-B

Date Collected: 02/16/25 20:51

Lab Sample ID: 350-1619-176

Date Received: 03/06/25 10:30

Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.4		0.50	0.20 ng/L			04/24/25 18:23	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.0		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 01:46	1
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 01:46	1
Chromium	0.99	J	1.0	0.11 ug/L		04/10/25 18:00	04/11/25 01:46	1
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 01:46	1
Lead	0.028	J	0.050	0.023 ug/L		04/10/25 18:00	04/11/25 01:46	1
Nickel	0.17	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 01:46	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 01:46	1
Barium	10		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 01:46	1
Iron	25		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 01:46	1
Manganese	2.1		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 01:46	1

Client Sample ID: NPWG-3B2X-SW-B-FD					Lab Sample ID: 350-1619-177				
Date Collected: 02/16/25 21:04					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.4		0.50	0.20 ng/L			04/24/25 18:27	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Chromium	1.0		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Lead	0.025	J	0.050	0.023 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Nickel	0.18	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Barium	10		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Iron	27		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 02:28	1	
Manganese	2.1		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 02:28	1	

Client Sample ID: NPWG-3CP2-SW-1					Lab Sample ID: 350-1619-178				
Date Collected: 02/16/25 19:16					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.1		0.50	0.20 ng/L			04/24/25 18:31	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.0		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Chromium	1.0		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 02:42	1	

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: NPWG-3CP2-SW-1					Lab Sample ID: 350-1619-178				
Date Collected: 02/16/25 19:16					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.15	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Barium	9.5		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Iron	1.4	J	5.0	0.81 ug/L		04/10/25 18:00	04/11/25 02:42	1	
Manganese	0.60		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 02:42	1	

Client Sample ID: NPWG-3CP2-SW-20					Lab Sample ID: 350-1619-179				
Date Collected: 02/16/25 19:22					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)								
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.7		0.50	0.20 ng/L			04/24/25 18:35	1
Method: EPA 1640 - Metals (ICPMS)								
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 02:56	1
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 02:56	1
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 02:56	1
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 02:56	1
Lead	ND		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 02:56	1
Nickel	0.19 J		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 02:56	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 02:56	1
Barium	1.2		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 02:56	1
Iron	2.5 J		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 02:56	1
Manganese	0.68		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 02:56	1

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWG-WB

Lab Sample ID: 350-1619-183

Date Collected: 02/16/25 19:00

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 03:53	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 03:53	1
Barium	ND		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 03:53	1
Iron	ND		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 03:53	1
Manganese	0.16		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 03:53	1

Client Sample ID: PACPP-1C2X-SW-1
Date Collected: 02/17/25 20:01
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-184
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.59		0.50	0.20 ng/L			04/24/25 19:04	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Chromium	1.1		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Lead	0.054		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Nickel	0.18 J		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Iron	2.4 J		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 04:07	1	
Manganese	0.76		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 04:07	1	

Client Sample ID: PACPP-1C2X-SW-20
Date Collected: 02/17/25 20:07
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-185
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.61		0.50	0.20 ng/L			04/24/25 19:08	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Chromium	1.1		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Copper	0.51		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Lead	0.050		0.023 ug/L			04/10/25 18:00	04/11/25 04:21	1	
Nickel	0.18 J		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Barium	11		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Iron	1.8 J		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 04:21	1	
Manganese	0.71		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 04:21	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-1C2X-SW-40

Date Collected: 02/17/25 20:12

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-186

Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.7		0.50	0.20 ng/L			04/24/25 19:12	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 04:35	1
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 04:35	1
Chromium	1.1		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 04:35	1
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 04:35	1
Lead	ND		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 04:35	1
Nickel	0.19 J		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 04:35	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 04:35	1
Barium	12		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 04:35	1
Iron	9.1		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 04:35	1
Manganese	1.0		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 04:35	1

Client Sample ID: PACPP-1C2X-SW-B
Date Collected: 02/17/25 20:24
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-187
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	2.0		0.50	0.20 ng/L			04/24/25 19:17	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Lead	0.033 J		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Nickel	0.21 J		0.50	0.15 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Iron	36		5.0	0.81 ug/L		04/10/25 18:00	04/11/25 05:17	1	
Manganese	2.8		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 05:17	1	

Client Sample ID: PACPP-1C2X-SW-1
Date Collected: 02/17/25 21:01
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-188
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.35 J		0.50	0.20 ng/L			04/24/25 19:21	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Chromium	1.1		1.0	0.11 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:00	04/11/25 05:31	1	
Lead	0.058		0.050	0.023 ug/L		04/10/25 18:00	04/11/25 05:31	1	

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-1CP2X-SW-1

Lab Sample ID: 350-1619-188

Date Collected: 02/17/25 21:01

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.17	J	0.50	0.15 ug/L		04/10/25 18:00	04/11/25 05:31	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:00	04/11/25 05:31	1
Barium	12		0.50	0.088 ug/L		04/10/25 18:00	04/11/25 05:31	1
Iron	2.3	J	5.0	0.81 ug/L		04/10/25 18:00	04/11/25 05:31	1
Manganese	0.69		0.050	0.030 ug/L		04/10/25 18:00	04/11/25 05:31	1

Client Sample ID: PACPP-1CP2X-SW-20
Date Collected: 02/17/25 21:11
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-189
Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.4		0.50	0.20 ng/L			04/24/25 19:25	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Chromium	1.1		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Lead	0.030 J		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Nickel	0.16 J		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Barium	11 F1		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Iron	1.3 J B		5.0	0.81 ug/L		04/10/25 18:41	04/11/25 05:46	1	
Manganese	0.65 F1		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 05:46	1	

Client Sample ID

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-2C2-SW-20

Lab Sample ID: 350-1619-193

Date Collected: 02/18/25 17:11

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	5.6		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 08:07	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 08:07	1
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 08:07	1
Iron	14 J B		50	8.1 ug/L		04/29/25 18:42	04/30/25 02:58	10
Manganese	9.9		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 08:07	1

Client Sample ID: PACPP-2C2-SW-40					Lab Sample ID: 350-1619-194				
Date Collected: 02/18/25 17:19					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.29 J		0.50	0.20 ng/L			04/24/25 19:54	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Cadmium	0.016 J		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Nickel	0.19 J		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 08:21	1	
Iron	9.9 B		5.0	0.81 ug/L		04/20/25 18:42	04/30/25 03:12	1	
Manganese	0.58		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 08:21	1	

Client Sample ID: PACPP-2C2-SW-B					Lab Sample ID: 350-1619-195				
Date Collected: 02/18/25 17:29					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.59		0.50	0.20 ng/L			04/24/25 19:58	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Cadmium	0.021		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Chromium	1.4		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Lead	0.030 J		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Nickel	0.21 J		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Barium	13		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Iron	35 B		5.0	0.81 ug/L		04/10/25 18:41	04/11/25 08:35	1	
Manganese	2.6		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 08:35	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PACPP-3C2Y-SW-1

Lab Sample ID: 350-1619-196

Date Collected: 02/18/25 00:56

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20 ng/L			04/24/25 20:02	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 08:49	1

Client Sample ID: PACPP-3C2Y-SW-20					Lab Sample ID: 350-1619-197				
Date Collected: 02/18/25 01:06					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/24/25 20:10	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Chromium	1.3		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Nickel	0.19 J		0.50	0.15 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Iron	2.1 J B		5.0	0.81 ug/L		04/10/25 18:41	04/11/25 09:03	1	
Manganese	0.80		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 09:03	1	

Client Sample ID: PACPP-3C2Y-SW-40					Lab Sample ID: 350-1619-198				
Date Collected: 02/18/25 01:15					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.36 J		0.50	0.20 ng/L			04/24/25 20:10	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Chromium	1.3		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Lead	0.036 J		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 09:17	1	

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PACPP-3C2Y-SW-40					Lab Sample ID: 350-1619-198				
Date Collected: 02/18/25 01:15					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.20	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Iron	16	B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 09:17	1	
Manganese	1.3		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 09:17	1	

Client Sample ID: PACPP-3C2Y-SW-B					Lab Sample ID: 350-1619-199				
Date Collected: 02/18/25 01:25					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)								
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.0		0.50	0.20 ng/L			04/24/20:20:15	1
Method: EPA 1640 - Metals (ICPMS)								
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/10/25:18:41	04/11/25:09:31	1
Cadmium	ND		0.020	0.013 ug/L		04/10/25:18:41	04/11/25:09:31	1
Chromium	1.2		1.0	0.11 ug/L		04/10/25:18:41	04/11/25:09:31	1
Copper	ND		0.50	0.43 ug/L		04/10/25:18:41	04/11/25:09:31	1
Lead	0.035 J		0.050	0.023 ug/L		04/10/25:18:41	04/11/25:09:31	1
Nickel	0.50		0.50	0.15 ug/L		04/10/25:18:41	04/11/25:09:31	1
Zinc	ND		1.0	0.31 ug/L		04/10/25:18:41	04/11/25:09:31	1
Barium			1.50	0.088 ug/L		04/10/25:18:41	04/11/25:09:31	1
Iron	40 B		5.0	0.81 ug/L		04/10/25:18:41	04/11/25:09:31	1
Manganese	2.8		0.050	0.030 ug/L		04/10/25:18:41	04/11/25:09:31	1

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-3CP2-SW-B

Lab Sample ID: 350-1619-203

Date Collected: 02/18/25 02:36

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.21	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 10:56	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 10:56	1
Barium	13		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 10:56	1
Iron	38	B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 10:56	1
Manganese	3.2		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 10:56	1

Client Sample ID: PACPP-4C2-SW-1					Lab Sample ID: 350-1619-204				
Date Collected: 02/18/25 13:47					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.51		0.50	0.20 ng/L			04/25/25 10:48	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Cadmium	ND		0.020	0.013 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Nickel	0.19	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Iron	2.7	J B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 11:10	1	
Manganese	0.65		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 11:10	1	

Client Sample ID: PACPP-4C2-SW-1-FD					Lab Sample ID: 350-1619-205				
Date Collected: 02/18/25 13:52					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.56		0.50	0.20 ng/L			04/25/25 10:52	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Cadmium	0.015	J	0.020	0.013 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Lead	0.024	J	0.050	0.023 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Nickel	0.17	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Iron	2.3	J B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 11:24	1	
Manganese	0.64		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 11:24	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PACPP-4C2-SW-20

Date Collected: 02/18/25 13:58

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-206

Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.48	J	0.50	0.20 ng/L			04/25/25 10:56	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 11:38	1

Client Sample ID: PACPP-4C2-SW-40					Lab Sample ID: 350-1619-207				
Date Collected: 02/18/25 16:06					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.39	J	0.50	0.20 ng/L			04/25/25 11:01	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Cadmium	0.014	J	0.020	0.013 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Chromium	1.2		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Lead	ND		0.050	0.023 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Nickel	0.19	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Barium	12		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Iron	4.8	J B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 11:53	1	
Manganese	0.70		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 11:53	1	

Client Sample ID: PACPP-4C2-SW-B					Lab Sample ID: 350-1619-208				
Date Collected: 02/18/25 16:16					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.68		0.50	0.20 ng/L			04/25/25 11:05	1	
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Cadmium	0.019	J	0.020	0.013 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Chromium	1.3		1.0	0.11 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Copper	ND		0.50	0.43 ug/L		04/10/25 18:41	04/11/25 12:12	1	
Lead	0.029	J	0.050	0.023 ug/L		04/10/25 18:41	04/11/25 12:12	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PACPP-4C2-SW-B

Lab Sample ID: 350-1619-208

Date Collected: 02/18/25 16:16

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.20	J	0.50	0.15 ug/L		04/10/25 18:41	04/11/25 12:12	1
Zinc	ND		1.0	0.31 ug/L		04/10/25 18:41	04/11/25 12:12	1
Barium	13		0.50	0.088 ug/L		04/10/25 18:41	04/11/25 12:12	1
Iron	32	B	5.0	0.81 ug/L		04/10/25 18:41	04/11/25 12:12	1
Manganese	2.5		0.050	0.030 ug/L		04/10/25 18:41	04/11/25 12:12	1

Client Sample ID: PACPP-EQ					Lab Sample ID: 350-1619-209				
Date Collected: 02/17/25 19:07					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.48	J	0.50	0.10	ng/L			04/25/25 11:17	1
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	0.63	ug/L		04/29/25 18:42	04/29/25 22:43	1
Cadmium	ND		0.020	0.013	ug/L		04/29/25 18:42	04/29/25 22:43	1
Chromium	ND		1.0	0.11	ug/L		04/29/25 18:42	04/29/25 22:43	1
Copper	ND		0.50	0.43	ug/L		04/29/25 18:42	04/29/25 22:43	1
Lead	ND		0.050	0.023	ug/L		04/29/25 18:42	04/29/25 22:43	1
Nickel	0.15	ND	0.50	0.15	ug/L		04/29/25 18:42	04/29/25 22:43	1
Zinc	ND		1.0	0.31	ug/L		04/29/25 18:42	04/29/25 22:43	1
Barium	ND		0.50	0.088	ug/L		04/29/25 18:42	04/29/25 22:43	1
Iron	ND		5.0	0.81	ug/L		04/29/25 18:42	04/29/25 22:43	1
Manganese	0.15		0.050	0.030	ug/L		05/12/25 17:28	05/13/25 16:19	

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAREF-A-SW-40

Lab Sample ID: 350-1619-213

Date Collected: 02/13/25 16:40

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.22	J	0.50	0.15 ug/L		04/11/25 11:09	04/11/25 20:26	1
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 20:26	1
Barium	12	F1	0.50	0.088 ug/L		04/11/25 11:09	04/11/25 20:26	1
Iron	19		5.0	0.81 ug/L		04/11/25 11:09	04/11/25 20:26	1
Manganese	1.1		0.050	0.030 ug/L		05/12/25 00:00	05/13/25 16:33	1

Client Sample ID: PAREF-A-SW-B

Lab Sample ID: 350-1619-214

Date Collected: 02/13/25 16:51

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20 ng/L			04/25/25 11:38	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/11/25 11:09	04/11/25 21:37	1
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 21:37	1
Chromium	0.96	J	1.0	0.11 ug/L		04/11/25 11:09	04/11/25 21:37	1
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/11/25 21:37	1
Lead	0.036	J	0.050	0.023 ug/L		04/11/25 11:09	04/11/25 21:37	1
Nickel	0.22	J	0.50	0.15 ug/L		04/11/25 11:09	04/11/25 21:37	1
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 21:37	1
Barium	11	F1	0.50	0.088 ug/L		04/11/25 11:09	04/11/25 21:37	1
Iron	44		5.0	0.81 ug/L		04/11/25 11:09	04/11/25 21:37	1
Manganese	2.4	F1 F2	0.050	0.030 ug/L		05/19/25 12:25	05/19/25 21:01	1

Client Sample ID: PAWB-1CP2-SW-1

Lab Sample ID: 350-1619-215

Date Collected: 02/21/25 00:41

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.42	J	0.50	0.20 ng/L			04/25/25 11:42	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.70	0.63 ug/L		04/11/25 11:09	04/11/25 22:19	1
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 22:19	1
Chromium	1.1		1.0	0.11 ug/L		04/11/25 11:09	04/11/25 22:19	1
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/11/25 22:19	1
Lead	ND		0.050	0.023 ug/L		04/11/25 11:09	04/11/25 22:19	1
Nickel	0.22	J	0.50	0.15 ug/L		04/11/25 11:09	04/11/25 22:19	1
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 22:19	1
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/11/25 22:19	1
Iron	2.9	J	5.0	0.81 ug/L		04/11/25 11:09	04/11/25 22:19	1
Manganese	1.4	B *2	0.050	0.030 ug/L		04/29/25 18:42	04/30/25 03:54	1

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Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PAWB-1CP2-SW-20					Lab Sample ID: 350-1619-216					
Date Collected: 02/21/25 00:50					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.34	J	0.50	0.20	ng/L			04/25/25 11:46	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63	ug/L		04/11/25 11:09	04/11/25 22:33	1	
Cadmium	ND		0.020	0.013	ug/L		04/11/25 11:09	04/11/25 22:33	1	
Chromium	1.3		1.0	0.11	ug/L		04/11/25 11:09	04/11/25 22:33	1	
Copper	ND		0.50	0.43	ug/L		04/11/25 11:09	04/11/25 22:33	1	
Lead	ND		0.050	0.023	ug/L		04/11/25 11:09	04/11/25 22:33	1	
Nickel	0.25	J	0.50	0.15	ug/L		04/11/25 11:09	04/11/25 22:33	1	
Zinc	ND		1.0	0.31	ug/L		04/11/25 11:09	04/11/25 22:33	1	
Barium	11		0.50	0.088	ug/L		04/11/25 11:09	04/11/25 22:33	1	
Iron	5.1		5.0	0.81	ug/L		04/11/25 11:09	04/11/25 22:33	1	
Manganese	1.1	B *2	0.050	0.030	ug/L		04/29/25 18:42	04/30/25 04:08	1	
Client Sample ID: PAWB-1CP2-SW-40					Lab Sample ID: 350-1619-217					
Date Collected: 02/21/25 00:58					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.35	J	0.50	0.20	ng/L			04/25/25 11:50	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63	ug/L		04/11/25 11:09	04/11/25 22:47	1	
Cadmium	ND		0.020	0.013	ug/L		04/11/25 11:09	04/11/25 22:47	1	
Chromium	1.1		1.0	0.11	ug/L		04/11/25 11:09	04/11/25 22:47	1	
Copper	ND		0.50	0.43	ug/L		04/11/25 11:09	04/11/25 22:47	1	
Lead	ND		0.050	0.023	ug/L		04/11/25 11:09	04/11/25 22:47	1	
Nickel	0.19	J	0.50	0.15	ug/L		04/11/25 11:09	04/11/25 22:47	1	
Zinc	ND		1.0	0.31	ug/L		04/11/25 11:09	04/11/25 22:47	1	
Barium	12		0.50	0.088	ug/L		04/11/25 11:09	04/11/25 22:47	1	
Iron	4.5	J	5.0	0.81	ug/L		04/11/25 11:09	04/11/25 22:47	1	
Manganese	1.6	B *2	0.050	0.030	ug/L		04/29/25 18:42	04/30/25 04:51	1	
Client Sample ID: PAWB-1CP2-SW-B					Lab Sample ID: 350-1619-218					
Date Collected: 02/21/25 01:11					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.45	J	0.50	0.20	ng/L			04/25/25 11:54	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.4		0.70	0.63	ug/L		04/11/25 11:09	04/11/25 23:02	1	
Cadmium	ND		0.020	0.013	ug/L		04/11/25 11:09	04/11/25 23:02	1	
Chromium	1.2		1.0	0.11	ug/L		04/11/25 11:09	04/11/25 23:02	1	
Copper	ND		0.50	0.43	ug/L		04/11/25 11:09	04/11/25 23:02	1	
Lead	0.028	J	0.050	0.023	ug/L		04/11/25 11:09	04/11/25 23:02	1	
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Client Sample Results										Job ID: 350-1619-1
Client: Tetra Tech Inc										
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PAWB-1CP2-SW-B					Lab Sample ID: 350-1619-218					
Date Collected: 02/21/25 01:11					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1640 - Metals (ICPMS) (Continued)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Nickel	0.21 J		0.50	0.15 ug/L		04/11/25 11:09	04/11/25 23:02	1		
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 23:02	1		
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/11/25 23:02	1		
Iron	3.2		5.0	0.81 ug/L		04/11/25 11:09	04/11/25 23:02	1		
Manganese	4.8 B *2		0.050	0.030 ug/L		04/29/25 18:42	04/30/25 05:05	1		
Client Sample ID: PAWB-3B2-SW-1					Lab Sample ID: 350-1619-219					
Date Collected: 02/21/25 13:45					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.32 J		0.50	0.20 ng/L			04/25/25 12:07	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.3		0.70	0.63 ug/L		04/11/25 11:09	04/11/25 23:16	1		
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 23:16	1		
Chromium	1.0		1.0	0.11 ug/L		04/11/25 11:09	04/11/25 23:16	1		
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/11/25 23:16	1		
Lead	0.23		0.050	0.023 ug/L		04/11/25 11:09	04/11/25 23:16	1		
Nickel	0.17 J		0.50	0.15 ug/L		04/11/25 11:09	04/11/25 23:16	1		
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 23:16	1		
Barium	11		0.50	0.088 ug/L		04/11/25 11:09	04/11/25 23:16	1		
Iron	1.6 J		5.0	0.81 ug/L		04/11/25 11:09	04/11/25 23:16	1		
Manganese	1.3 B *2		0.050	0.030 ug/L		04/29/25 18:42	04/30/25 05:19	1		
Client Sample ID: PAWB-3B2-SW-20					Lab Sample ID: 350-1619-220					
Date Collected: 02/21/25 13:51					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.76 F1		0.50	0.20 ng/L			04/25/25 12:36	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.2		0.70	0.63 ug/L		04/11/25 11:09	04/11/25 23:30	1		
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/11/25 23:30	1		
Chromium	1.2		1.0	0.11 ug/L		04/11/25 11:09	04/11/25 23:30	1		
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/11/25 23:30	1		
Nickel	0.50		0.023 ug/L			04/11/25 11:09	04/11/25 23:30	1		
Nickel	0.17 J		0.50	0.15 ug/L		04/11/25 11:09	04/11/25 23:30	1		
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/11/25 23:30	1		
Barium	11		0.50	0.088 ug/L		04/11/25 11:09	04/11/25 23:30	1		
Iron	1.1 J		5.0	0.81 ug/L		04/11/25 11:09	04/11/25 23:30	1		
Manganese	1.3 B *2		0.050	0.030 ug/L		04/29/25 18:42	04/30/25 05:33	1		

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWB-3CP2-SW-1

Lab Sample ID: 350-1619-223

Date Collected: 02/21/25 02:18

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1640 - Metals (ICPMS) (Continued)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Nickel	0.17	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 00:40	1
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 00:40	1
Barium	1.2	J	0.50	0.088 ug/L		04/11/25 11:09	04/12/25 00:40	1
Iron	1.5	J	5.0	0.81 ug/L		04/11/25 11:09	04/12/25 00:40	1
Manganese	1.3		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 07:40	1

Client Sample ID: PAWB-3CP2-SW-20					Lab Sample ID: 350-1619-224				
Date Collected: 02/21/25 02:25					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/25/25 13:01	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Chromium	1.2		1.0	0.11 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Lead	ND		0.050	0.023 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Nickel	0.17	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Iron	1.1	J	5.0	0.81 ug/L		04/11/25 11:09	04/12/25 00:55	1	
Manganese	1.3		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 07:54	1	

Client Sample ID: PAWB-3CP2-SW-40					Lab Sample ID: 350-1619-225				
Date Collected: 02/21/25 02:14					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	ND		0.50	0.20 ng/L			04/25/25 13:05	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Chromium	1.3		1.0	0.11 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Lead	ND		0.050	0.023 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Nickel	0.17	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Iron	2.2	J	5.0	0.81 ug/L		04/11/25 11:09	04/12/25 01:09	1	
Manganese	1.4		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 08:08	1	

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PAWB-3CP2-SW-B

Date Collected: 02/21/25 02:49

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-226

Matrix: Water

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20 ng/L			04/25/25 13:09	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.3		0.70	0.65 ug/L			04/11/25 11:09	1
Cadmium	0.020		0.013	0.013 ug/L			04/11/25 11:09	1

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.3		0.70	0.63 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Chromium	1.3		1.0	0.11 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Lead	0.032	J	0.050	0.023 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Nickel	0.21	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Iron	31		5.0	0.81 ug/L		04/11/25 11:09	04/12/25 01:23	1	
Manganese	4.7		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 08:22	1	

Client Sample ID: PAWE-1B1-SW-1					Lab Sample ID: 350-1619-227				
Date Collected: 02/20/25 14:05					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.61		0.50	0.20 ng/L			04/25/25 13:13	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.1		0.70	0.63 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Chromium	1.1		1.0	0.11 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Lead	0.057		0.050	0.023 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Nickel	0.21	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Iron	2.2	J	5.0	0.81 ug/L		04/11/25 11:09	04/12/25 01:37	1	
Manganese	1.1		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 08:37	1	

Client Sample ID: PAWE-1B1-SW-20					Lab Sample ID: 350-1619-228				
Date Collected: 02/20/25 14:11					Matrix: Water				
Date Received: 03/06/25 10:30									

Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.36	J	0.50	0.20 ng/L			04/25/25 13:17	1	

Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.2		0.70	0.63 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Cadmium	ND		0.020	0.013 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Chromium	1.3		1.0	0.11 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Copper	ND		0.50	0.43 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Lead	ND		0.050	0.023 ug/L		04/11/25 11:09	04/12/25 01:51	1	

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Client Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: PAWE-1B1-SW-20					Lab Sample ID: 350-1619-228				
Date Collected: 02/20/25 14:11					Matrix: Water				
Date Received: 03/06/25 10:30									
Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Nickel	0.17	J	0.50	0.15 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Zinc	ND		1.0	0.31 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Barium	12		0.50	0.088 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Iron	1.3	J	5.0	0.81 ug/L		04/11/25 11:09	04/12/25 01:51	1	
Manganese	1.2		0.050	0.030 ug/L		04/29/25 18:49	04/30/25 08:51	1	

Client Sample ID: PAWE-1B1-SW-40					Lab Sample ID: 350-1619-229				
Date Collected: 02/20/25 14:19					Matrix: Water				
Date Received: 03/06/25 10:30									

Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PAWE-3CP2-SW-B					Lab Sample ID: 350-1619-243					
Date Collected: 02/19/25 19:58					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1640 - Metals (ICPMS) (Continued)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Nickel	0.23	J	0.50	0.15 ug/L		05/12/25 00:00	05/13/25 10:16	1		
Zinc	ND		1.0	0.31 ug/L		05/12/25 00:00	05/13/25 10:16	1		
Barium	7.7		0.50	0.088 ug/L		05/12/25 00:00	05/13/25 00:52	1		
Iron	50		5.0	0.81 ug/L		05/12/25 00:00	05/13/25 10:16	1		
Manganese	2.4		0.050	0.030 ug/L		05/12/25 00:00	05/13/25 10:16	1		
Client Sample ID: PAWE-EQ					Lab Sample ID: 350-1619-244					
Date Collected: 02/19/25 19:06					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.91		0.50	0.20 ng/L			04/25/25 11:49	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	ND		0.70	0.63 ug/L		05/12/25 00:00	05/13/25 01:06	1		
Cadmium	ND		0.020	0.013 ug/L		05/12/25 00:00	05/13/25 10:31	1		
Chromium	0.24	J B	1.0	0.11 ug/L		05/12/25 00:00	05/13/25 10:31	1		
Copper	ND		0.50	0.43 ug/L		05/12/25 00:00	05/13/25 10:31	1		
Lead	ND		0.050	0.023 ug/L		05/12/25 00:00	05/13/25 10:31	1		
Nickel	ND		0.50	0.15 ug/L		05/12/25 00:00	05/13/25 10:31	1		
Zinc	ND		1.0	0.31 ug/L		05/12/25 00:00	05/13/25 10:31	1		
Barium	ND		0.50	0.088 ug/L		05/12/25 00:00	05/13/25 01:06	1		
Iron	0.84	J	5.0	0.81 ug/L		05/12/25 00:00	05/13/25 10:31	1		
Manganese	ND		0.050	0.030 ug/L		05/12/25 00:00	05/13/25 10:31	1		
Client Sample ID: PAWE-WB					Lab Sample ID: 350-1619-245					
Date Collected: 02/19/25 19:00					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.52		0.50	0.20 ng/L			04/25/25 12:02	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	ND		0.70	0.63 ug/L		05/12/25 00:00	05/13/25 01:20	1		
Cadmium	ND		0.020	0.013 ug/L		05/12/25 00:00	05/13/25 10:59	1		
Chromium	0.21	J B	1.0	0.11 ug/L		05/12/25 00:00	05/13/25 10:59	1		
Copper	ND		0.50	0.43 ug/L		05/12/25 00:00	05/13/25 10:59	1		
Lead	ND		0.050	0.023 ug/L		05/12/25 00:00	05/13/25 10:59	1		
Nickel	ND		0.50	0.15 ug/L		05/12/25 00:00	05/13/25 10:59	1		
Zinc	ND		1.0	0.31 ug/L		05/12/25 00:00	05/13/25 10:59	1		
Barium	ND		0.50	0.088 ug/L		05/12/25 00:00	05/13/25 01:20	1		
Iron	ND		5.0	0.81 ug/L		05/12/25 00:00	05/13/25 10:59	1		
Manganese	ND		0.050	0.030 ug/L		05/12/25 00:00	05/13/25 10:59	1		
Eurofins Seattle Specialty Metals										
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Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PDPLB-EQ					Lab Sample ID: 350-1619-378					
Date Collected: 02/11/25 19:07					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.58		0.50	0.20 ng/L			04/25/25 15:00	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	ND		0.70	0.63 ug/L		04/03/25 16:43	04/04/25 10:53	1		
Cadmium	ND		0.020	0.013 ug/L		04/03/25 16:43	04/04/25 10:53	1		
Copper	ND		0.50	0.43 ug/L		04/03/25 16:43	04/04/25 10:53	1		
Lead	ND		0.050	0.023 ug/L		04/03/25 16:43	04/04/25 10:53	1		
Zinc	0.81	J B	1.0	0.31 ug/L		04/03/25 16:43	04/04/25 10:53	1		
Barium	ND		0.50	0.088 ug/L		04/03/25 16:43	04/04/25 10:53	1		
Client Sample ID: PDPLB-M2-SW-1					Lab Sample ID: 350-1619-379					
Date Collected: 02/11/25 21:36					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.56		0.50	0.20 ng/L			04/25/25 15:04	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.9		0.70	0.63 ug/L		04/03/25 16:43	04/04/25 11:07	1		
Cadmium	ND		0.020	0.013 ug/L		04/03/25 16:43	04/04/25 11:07	1		
Copper	ND		0.50	0.43 ug/L		04/03/25 16:43	04/04/25 11:07	1		
Lead	ND		0.050	0.023 ug/L		04/03/25 16:43	04/04/25 11:07	1		
Zinc	0.46	J B	1.0	0.31 ug/L		04/03/25 16:43	04/04/25 11:07	1		
Barium	13		0.50	0.088 ug/L		04/03/25 16:43	04/04/25 11:07	1		
Client Sample ID: PDPLB-M2-SW-20					Lab Sample ID: 350-1619-380					
Date Collected: 02/11/25 21:30					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.46	J	0.50	0.20 ng/L			04/25/25 15:09	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.9		0.70	0.63 ug/L		04/03/25 16:43	04/04/25 11:21	1		
Cadmium	ND		0.020	0.013 ug/L		04/03/25 16:43	04/04/25 11:21	1		
Copper	ND		0.50	0.43 ug/L		04/03/25 16:43	04/04/25 11:21	1		
Lead	ND		0.050	0.023 ug/L		04/03/25 16:43	04/04/25 11:21	1		
Zinc	0.33	J B	1.0	0.31 ug/L		04/03/25 16:43	04/04/25 11:21	1		
Barium	12		0.50	0.088 ug/L		04/03/25 16:43	04/04/25 11:21	1		
Client Sample ID: PDPLB-M2-SW-40					Lab Sample ID: 350-1619-381					
Date Collected: 02/11/25 21:20					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.67		0.50	0.20 ng/L			04/25/25 15:21	1		
Eurofins Seattle Specialty Metals										
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Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-1					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: PDPLB-M2-SW-40					Lab Sample ID: 350-1619-381					
Date Collected: 02/11/25 21:20					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	1.9		0.70	0.63 ug/L		04/03/25 16:43	04/04/25 11:36	1		
Cadmium	ND		0.020	0.013 ug/L		04/03/25 16:43	04/04/25 11:36	1		
Copper	ND		0.50	0.43 ug/L		04/03/25 16:43	04/04/25 11:36	1		
Lead	ND		0.050	0.023 ug/L		04/03/25 16:43	04/04/25 11:36	1		
Zinc	ND		1.0	0.31 ug/L		04/03/25 16:43	04/04/25 11:36	1		
Barium	11		0.50	0.088 ug/L		04/03/25 16:43	04/04/25 11:36	1		
Client Sample ID: PDPLB-M2-SW-B					Lab Sample ID: 350-1619-382					
Date Collected: 02/11/25 21:10					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.68		0.50	0.20 ng/L			04/25/25 15:25	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	2.3		0.70	0.63 ug/L		04/03/25 16:43	04/04/25 13:43	1		
Cadmium	0.015 J		0.020	0.013 ug/L		04/03/25 16:43	04/04/25 13:43	1		
Copper	1.1		0.50	0.43 ug/L		04/03/25 16:43	04/04/25 13:43	1		
Lead	0.031 J		0.050	0.023 ug/L		04/03/25 16:43	04/04/25 13:43	1		
Zinc	0.37 J B		1.0	0.31 ug/L		04/03/25 16:43	04/04/25 13:43	1		
Barium	14		0.50	0.088 ug/L		04/03/25 16:43	04/04/25 13:43	1		
Client Sample ID: PDPLB-M3-SW-1					Lab Sample ID: 350-1619-383					
Date Collected: 02/11/25 19:16					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.78		0.50	0.20 ng/L			04/25/25 15:29	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	2.0		0.70	0.63 ug/L		04/03/25 16:43	04/04/25 13:57	1		
Cadmium	0.015 J		0.020	0.013 ug/L		04/03/25 16:43	04/04/25 13:57	1		
Copper	ND		0.50	0.43 ug/L		04/03/25 16:43	04/04/25 13:57	1		
Lead	ND		0.050	0.023 ug/L		04/03/25 16:43	04/04/25 13:57	1		
Zinc	0.37 J B		1.0	0.31 ug/L		04/03/25 16:43	04/04/25 13:57	1		
Barium	14		0.50	0.088 ug/L		04/03/25 16:43	04/04/25 13:57	1		
Client Sample ID: PDPLB-M3-SW-20					Lab Sample ID: 350-1619-384					
Date Collected: 02/11/25 19:22					Matrix: Water					
Date Received: 03/06/25 10:30										
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.42	J F1 F2	0.50	0.20 ng/L			04/25/25 14:48	1		
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac		
Arsenic	2.0		0.70	0.63 ug/L		04/03/25 16:43	04/04/25 14:11	1		
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Method: EPA 1640 - Metals (ICPMS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.50	0.43	ug/L		05/19/25 12:25	05/20/25 00:19	1
Lead	ND		0.050	0.023	ug/L		05/19/25 12:25	05/20/25 00:19	1
Zinc	ND		1.0	0.31	ug/L		05/19/25 12:25	05/20/25 00:19	1
Barium	ND		0.50	0.088	ug/L		05/19/25 12:25	05/20/25 00:19	1

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Method: 1631B - Mercury, Low Level (CVAFS)									
Lab Sample ID: MB 350-5840/1-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5840				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	yD		1.2	0.5g	n/4/4		0N03/25 20:2A	0N15/25 09:36	20
Lab Sample ID: MB 350-5840/2-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5840				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	yD		1.2	0.5g	n/4/4		0N03/25 20:2A	0N15/25 09:36	20
Lab Sample ID: MB 350-5840/3-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5840				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	yD		1.2	0.5g	n/4/4		0N03/25 20:2A	0N15/25 09:36	20
Lab Sample ID: LCS 350-5840/4-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 5840				
Analyte	Result	Qualifier	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM			39A	393	n/4/4			99	A5 - 125
Lab Sample ID: LCSD 350-5840/5-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Prep Batch: 5840				
Analyte	Result	Qualifier	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits
MercurM			39A	3Ag	n/4/4			95	A5 - 125
Lab Sample ID: 350-1619-1 MS Matrix: Solid Analysis Batch: 6250					Client Sample ID: NPCPP-1C1 Prep Type: Total/NA Prep Batch: 5840				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	120 F1 F2		6g3	990 F1	n/4/4			12A	A1 - 125
Lab Sample ID: 350-1619-1 MSD Matrix: Solid Analysis Batch: 6250					Client Sample ID: NPCPP-1C1 Prep Type: Total/NA Prep Batch: 5840				
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	120 F1 F2		ADa	A56 F2	n/4/4			90	A1 - 125
Lab Sample ID: 350-1619-14 MS Matrix: Solid Analysis Batch: 6250					Client Sample ID: NPCPP-2D2 Prep Type: Total/NA Prep Batch: 5840				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	3g		g11	g1A	n/4/4			96	A1 - 125

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Method: 1631B - Mercury, Low Level (CVAFS)									
Lab Sample ID: 350-1619-14 MSD Matrix: Solid Analysis Batch: 6250					Client Sample ID: NPCPP-2D2 Prep Type: Total/NA Prep Batch: 5840				
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	3g		A30	ANA	n/4/4			9A	A1 - 125
Lab Sample ID: MB 350-5928/1-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5928				
Analyte	Result	Qualifier	MB	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	0.5gA	J		0.5g	n/4/4		0N03/25 20:2A	0N15/25 15:36	20
Lab Sample ID: MB 350-5928/2-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5928				
Analyte	Result	Qualifier	MB	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	yD			0.5g	n/4/4		0N03/25 20:2A	0N15/25 15:36	20
Lab Sample ID: MB 350-5928/3-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5928				
Analyte	Result	Qualifier	MB	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	yD			0.5g	n/4/4		0N03/25 20:2A	0N15/25 15:36	20
Lab Sample ID: LCS 350-5928/4-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Prep Batch: 5928				
Analyte	Result	Qualifier	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM			39A	323	n/4/4			g1	A5 - 125
Lab Sample ID: LCSD 350-5928/5-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Prep Batch: 5928				
Analyte	Result	Qualifier	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits
MercurM			39A	353	n/4/4			g9	A5 - 125
Lab Sample ID: 350-1619-45 MS Matrix: Solid Analysis Batch: 6250					Client Sample ID: NPWG-1B2X Prep Type: Total/NA Prep Batch: 5928				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	1A0	8	g26	gg9	n/4/4			g6	A1 - 125
Lab Sample ID: 350-1619-45 MSD Matrix: Solid Analysis Batch: 6250					Client Sample ID: NPWG-1B2X Prep Type: Total/NA Prep Batch: 5928				
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	1A0	8	A66	gNA	n/4/4			g9	A1 - 125

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Method: 1631B - Mercury, Low Level (CVAFS)									
Lab Sample ID: 350-1619-49 MS Matrix: Solid Analysis Batch: 6250					Client Sample ID: NPWG-ID2 Prep Type: Total/NA Prep Batch: 5928				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	N6	8	gg2	ABA	n/4/4			g5	A1 - 125
Lab Sample ID: 350-1619-49 MSD Matrix: Solid Analysis Batch: 6250					Client Sample ID: NPWG-ID2 Prep Type: Total/NA Prep Batch: 5928				
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	N6	8	gAg	g10	n/4/4			9A	A1 - 125
Lab Sample ID: MB 350-5952/1-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5952				
Analyte	Result	Qualifier	MB	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	yD			0.5g	n/4/4		0N03/25 20:2A	0N15/25 12:5g	20
Lab Sample ID: MB 350-5952/2-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5952				
Analyte	Result	Qualifier	MB	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	yD			0.5g	n/4/4		0N03/25 20:2A	0N15/25 13:02	20
Lab Sample ID: MB 350-5952/3-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 5952				
Analyte	Result	Qualifier	MB	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MercurM	yD			0.5g	n/4/4		0N03/25 20:2A	0N15/25 13:06	20
Lab Sample ID: LCS 350-5952/4-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 5952				
Analyte	Result	Qualifier	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM			39A	33A	n/4/4			g5	A5 - 125
Lab Sample ID: LCSD 350-5952/5-A Matrix: Solid Analysis Batch: 6250					Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Prep Batch: 5952				
Analyte	Result	Qualifier	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits
MercurM			39A	339	n/4/4			g5	A5 - 125
Lab Sample ID: 350-1619-21 MS Matrix: Solid Analysis Batch: 6250					Client Sample ID: NPCPP-3CP3X Prep Type: Total/NA Prep Batch: 5952				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
MercurM	120		A01	g16	n/4/4			99	A1 - 125

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: LCSD 350-6431/18

Matrix: Water

Analysis Batch: 6431

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte

ConcurM

Spike Added

5.00

LCSD Result

5.0A

LCSD Qualifier

Unit

n4/7

D

%Rec

101

%Rec Limits

AA- 123

RPD

3

RPD Limit

2N

Lab Sample ID: LCSD 350-6431/26

Matrix: Water

Analysis Batch: 6431

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte

ConcurM

Spike Added

5.00

LCSD Result

NA3

LCSD Qualifier

Unit

n4/7

D

%Rec

95

%Rec Limits

AA- 123

RPD

3

RPD Limit

2N

Lab Sample ID: LCSD 350-6431/85

Matrix: Water

Analysis Batch: 6431

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte

ConcurM

Spike Added

5.00

LCSD Result

N29

LCSD Qualifier

Unit

n4/7

D

%Rec

g6

%Rec Limits

AA- 123

RPD

0

RPD Limit

2N

Lab Sample ID: LCSD 350-6431/96

Matrix: Water

Analysis Batch: 6431

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte

ConcurM

Spike Added

5.00

LCSD Result

N25

LCSD Qualifier

Unit

n4/7

D

%Rec

g5

%Rec Limits

AA- 123

RPD

2

RPD Limit

2N

Lab Sample ID: 350-1619-112 MS

Matrix: Water

Analysis Batch: 6431

Client Sample ID: NPCPP-1C2X-SW-1

Prep Type: Total/NA

Analyte

ConcurM

Sample Result

0.56

Sample Qualifier

Spike Added

5.00

MS Result

Ng6

MS Qualifier

Unit

n4/7

D

%Rec

g6

%Rec Limits

A1 - 125

RPD

RPD Limit

Lab Sample ID: 350-1619-112 MSD

Matrix: Water

Analysis Batch: 6431

Client Sample ID: NPCPP-1C2X-SW-1

Prep Type: Total/NA

Analyte

ConcurM

Sample Result

0.56

Sample Qualifier

Spike Added

5.00

MSD Result

NA3

MSD Qualifier

Unit

n4/7

D

%Rec

g3

%Rec Limits

A1 - 125

RPD

3

RPD Limit

2N

Lab Sample ID: 350-1619-113 MS

Matrix: Water

Analysis Batch: 6431

Client Sample ID: NPCPP-1C2X-SW-20

Prep Type: Total/NA

Analyte

ConcurM

Sample Result

0.56

Sample Qualifier

Spike Added

5.00

MS Result

N92

MS Qualifier

Unit

n4/7

D

%Rec

gA

%Rec Limits

A1 - 125

RPD

RPD Limit

Lab Sample ID: 350-1619-113 MSD

Matrix: Water

Analysis Batch: 6431

Client Sample ID: NPCPP-1C2X-SW-20

Prep Type: Total/NA

Analyte

ConcurM

Sample Result

0.56

Sample Qualifier

Spike Added

5.00

MSD Result

Ng3

MSD Qualifier

Unit

n4/7

D

%Rec

g5

%Rec Limits

A1 - 125

RPD

2

RPD Limit

2N

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: 350-1619-132 MS

Client Sample ID: NPCPP-3CP2-SW-B

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 6431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
ConcurM	0.30	J	5.00	N90		n4/7		92	A1 - 125

Lab Sample ID: 350-1619-132 MSD

Client Sample ID: NPCPP-3CP2-SW-B

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 6431

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
ConcurM	0.30	J	5.00	Nng		n4/7		gN	A1 - 125	9	2N

Lab Sample ID: 350-1619-133 MS

Client Sample ID: NPCPP-4C2-SW-1

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 6431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
ConcurM	0.2g	J	5.00	5.0A		n4/7		96	A1 - 125

Lab Sample ID: 350-1619-133 MSD

Client Sample ID: NPCPP-4C2-SW-1

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 6431

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
ConcurM	0.2g	J	5.00	Ngg		n4/7		92	A1 - 125	N	2N

Lab Sample ID: 350-1619-176 MS

Client Sample ID: NPWPG-3B2X-SW-B

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 6431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
ConcurM	1.N		5.00	5.95		n4/7		91	A1 - 125

Lab Sample ID: 350-1619-176 MSD

Client Sample ID: NPWPG-3B2X-SW-B

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 6431

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
ConcurM	1.N		5.00	5.g0		n4/7		gg	A1 - 125	3	2N

Lab Sample ID: 350-1619-177 MS

Client Sample ID: NPWPG-3B2X-SW-B-FD

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 6431

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
ConcurM	1.N		5.00	5.6N		n4/7		g5	A1 - 125

Lab Sample ID: 350-1619-177 MSD

Client Sample ID: NPWPG-3B2X-SW-B-FD

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 6431

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
ConcurM	1.N		5.00	5.5g		n4/7		g3	A1 - 125	1	2N

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Client: Tetra Tech Inc										Job ID: 350-1619-1							
Project/Site: Gulf of Thailand - 2025																	
Method: 1631E - Mercury, Low Level (CVAFS)																	
Lab Sample ID: 350-1619-196 MS										Client Sample ID: PACPP-3C2Y-SW-1							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6431																	
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits								
CercurM	yD		5.00	N20		n4/7		gN	A1 .125								
Lab Sample ID: 350-1619-196 MSD										Client Sample ID: PACPP-3C2Y-SW-1							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6431																	
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limits						
CercurM	yD		5.00	N1N		n4/7		g3	A1 .125	1	2N						
Lab Sample ID: 350-1619-197 MS										Client Sample ID: PACPP-3C2Y-SW-20							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6431																	
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits								
CercurM	yD		5.00	N00		n4/7		g0	A1 .125								
Lab Sample ID: 350-1619-197 MSD										Client Sample ID: PACPP-3C2Y-SW-20							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6431																	
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limits						
CercurM	yD		5.00	3.9A		n4/7		Ag	A1 .125	1	2N						
Lab Sample ID: MB 350-6472/11										Client Sample ID: Method Blank							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6472																	
Analyte	Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac								
CercurM	yD		0.50	0.20	n4/7			0N25/25 10:22	1								
Lab Sample ID: MB 350-6472/119										Client Sample ID: Method Blank							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6472																	
Analyte	Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac								
CercurM	yD		0.50	0.20	n4/7			0N25/25 1g:20	1								
Lab Sample ID: MB 350-6472/12										Client Sample ID: Method Blank							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6472																	
Analyte	Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac								
CercurM	yD		0.50	0.20	n4/7			0N25/25 10:26	1								
Lab Sample ID: MB 350-6472/120										Client Sample ID: Method Blank							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6472																	
Analyte	Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac								
CercurM	yD		0.50	0.20	n4/7			0N25/25 1g:20	1								
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Client: Tetra Tech Inc															Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025																			
Method: 1631E - Mercury, Low Level (CVAFS)																			
Lab Sample ID: LCS 350-6472/122										Client Sample ID: Lab Control Sample									
Matrix: Water										Prep Type: Total/NA									
Analysis Batch: 6472																			
Analyte										Spike Added		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
ConcurM										5.00		N.93		n/47		99	AA- 123		
Lab Sample ID: LCS 350-6472/20										Client Sample ID: Lab Control Sample									
Matrix: Water										Prep Type: Total/NA									
Analysis Batch: 6472																			
Analyte										Spike Added		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
ConcurM										5.00		5.2A		n/47		105	AA- 123		
Lab Sample ID: LCS 350-6472/52										Client Sample ID: Lab Control Sample									
Matrix: Water										Prep Type: Total/NA									
Analysis Batch: 6472																			
Analyte										Spike Added		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
ConcurM										5.00		5.1N		n/47		103	AA- 123		
Lab Sample ID: LCS 350-6472/86										Client Sample ID: Lab Control Sample									
Matrix: Water										Prep Type: Total/NA									
Analysis Batch: 6472																			
Analyte										Spike Added		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
ConcurM										5.00		5.19		n/47		10N	AA- 123		
Lab Sample ID: LCSD 350-6472/123										Client Sample ID: Lab Control Sample Dup									
Matrix: Water										Prep Type: Total/NA									
Analysis Batch: 6472																			
Analyte										Spike Added		LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit	
ConcurM										5.00		N.g6		n/47		9A	AA- 123	RPD 1	2N
Lab Sample ID: LCSD 350-6472/23										Client Sample ID: Lab Control Sample Dup									
Matrix: Water										Prep Type: Total/NA									
Analysis Batch: 6472																			
Analyte										Spike Added		LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit	
ConcurM										5.00		5.19		n/47		10N	AA- 123	RPD 2	2N
Lab Sample ID: LCSD 350-6472/53										Client Sample ID: Lab Control Sample Dup									
Matrix: Water										Prep Type: Total/NA									
Analysis Batch: 6472																			
Analyte										Spike Added		LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit	
ConcurM										5.00		5.02		n/47		100	AA- 123	RPD 2	2N
Lab Sample ID: LCSD 350-6472/87										Client Sample ID: Lab Control Sample Dup									
Matrix: Water										Prep Type: Total/NA									
Analysis Batch: 6472																			
Analyte										Spike Added		LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit	
ConcurM										5.00		5.1g		n/47		10N	AA- 123	RPD 0	2N
s urofInmSeattle SKecialtMöetalm																			
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: 350-1619-240 MS
Matrix: Water
Analysis Batch: 6472

Client Sample ID: PAWE-3CP2-SW-20
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
ConcurM	0.26	J	5.00	5.16		n4/7		9g	A1 - 125		

Lab Sample ID: 350-1619-240 MSD
Matrix: Water
Analysis Batch: 6472

Client Sample ID: PAWE-3CP2-SW-20
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
ConcurM	0.26	J	5.00	N93		n4/7		93	A1 - 125	5	2N

Lab Sample ID: 350-1619-241 MS
Matrix: Water
Analysis Batch: 6472

Client Sample ID: PAWE-3CP2-SW-20-FD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
ConcurM	0.21	J	5.00	5.01		n4/7		96	A1 - 125		

Lab Sample ID: 350-1619-241 MSD
Matrix: Water
Analysis Batch: 6472

Client Sample ID: PAWE-3CP2-SW-20-FD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
ConcurM	0.21	J	5.00	5.02		n4/7		96	A1 - 125	0	2N

Lab Sample ID: MB 350-6479/11
Matrix: Water
Analysis Batch: 6479

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ConcurM	yD		0.50	0.20	n4/7			0N25/25 0g/5g	1

Lab Sample ID: MB 350-6479/12
Matrix: Water
Analysis Batch: 6479

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ConcurM	yD		0.50	0.20	n4/7			0N25/25 0g/52	1

Lab Sample ID: MB 350-6479/13
Matrix: Water
Analysis Batch: 6479

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ConcurM	yD		0.50	0.20	n4/7			0N25/25 0g/56	1

Lab Sample ID: MB 350-6479/14
Matrix: Water
Analysis Batch: 6479

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ConcurM	yD		0.50	0.20	n4/7			0N25/25 0g/00	1

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Client: Tetra Tech Inc													Job ID: 350-1619-1												
Project/Site: Gulf of Thailand - 2025																									
Method: 1631E - Mercury, Low Level (CVAFS)																									
Lab Sample ID: MB 350-6479/15													Client Sample ID: Method Blank												
Matrix: Water													Prep Type: Total/NA												
Analysis Batch: 6479																									
Analyte		Result		MB MB		Qualifier		RL		MDL		Unit		D		Prepared		Analyzed		Dil Fac					
CercuM		yD						0.50		0.20		n4/7						0N25/25 09:0N		1					
Lab Sample ID: MB 350-6479/16													Client Sample ID: Method Blank												
Matrix: Water													Prep Type: Total/NA												
Analysis Batch: 6479																									
Analyte		Result		MB MB		Qualifier		RL		MDL		Unit		D		Prepared		Analyzed		Dil Fac					
CercuM		yD						0.50		0.20		n4/7						0N25/25 09:09		1					
Lab Sample ID: MB 350-6479/17													Client Sample ID: Method Blank												
Matrix: Water													Prep Type: Total/NA												
Analysis Batch: 6479																									
Analyte		Result		MB MB		Qualifier		RL		MDL		Unit		D		Prepared		Analyzed		Dil Fac					
CercuM		yD						0.50		0.20		n4/7						0N25/25 09:13		1					
Lab Sample ID: MB 350-6479/18													Client Sample ID: Method Blank												
Matrix: Water													Prep Type: Total/NA												
Analysis Batch: 6479																									
Analyte		Result		MB MB		Qualifier		RL		MDL		Unit		D		Prepared		Analyzed		Dil Fac					
CercuM		yD						0.50		0.20		n4/7						0N25/25 09:1A		1					
Lab Sample ID: MB 350-6479/19													Client Sample ID: Method Blank												
Matrix: Water													Prep Type: Total/NA												
Analysis Batch: 6479																									
Analyte		Result		MB MB		Qualifier		RL		MDL		Unit		D		Prepared		Analyzed		Dil Fac					
CercuM		yD						0.50		0.20		n4/7						0N25/25 09:21		1					
Lab Sample ID: LCS 350-6479/28													Client Sample ID: Lab Control Sample												
Matrix: Water													Prep Type: Total/NA												
Analysis Batch: 6479																									
Analyte		Result		Spike		LCS		LCS		Unit		D		%Rec		%Rec		Limits							
CercuM				Added		Result		Qualifier		n4/7				106		AA. 123									
				5.00		5.29																			
Lab Sample ID: LCS 350-6479/60													Client Sample ID: Lab Control Sample												
Matrix: Water													Prep Type: Total/NA												
Analysis Batch: 6479																									
Analyte		Result		Spike		LCS		LCS		Unit		D		%Rec		%Rec		Limits							
CercuM				Added		Result		Qualifier		n4/7				103		AA. 123									
				5.00		5.15																			
Lab Sample ID: LCS 350-6479/90													Client Sample ID: Lab Control Sample												
Matrix: Water													Prep Type: Total/NA												
Analysis Batch: 6479																									
Analyte		Result		Spike		LCS		LCS		Unit		D		%Rec		%Rec		Limits							
CercuM				Added		Result		Qualifier		n4/7				91		AA. 123									
				5.00		NSA																			
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5/23/2025																									

QC Sample Results																	
Client: Tetra Tech Inc										Job ID: 350-1619-1							
Project/Site: Gulf of Thailand - 2025																	
Method: 1631E - Mercury, Low Level (CVAFS)																	
Lab Sample ID: 350-1619-220 MSD										Client Sample ID: PAWB-3B2-SW-20							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6479																	
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit						
CercurM	0.06	F1	5.00	N10	F1	n4/7		6A	A1 - 125	2	2N						
Lab Sample ID: 350-1619-221 MS										Client Sample ID: PAWB-3B2-SW-40							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6479																	
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit						
CercurM	0.03	F1	5.00	N10	F1	n4/7		6A	A1 - 125								
Lab Sample ID: 350-1619-221 MSD										Client Sample ID: PAWB-3B2-SW-40							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6479																	
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit						
CercurM	0.03	F1	5.00	N0N	F1	n4/7		66	A1 - 125	2	2N						
Lab Sample ID: 350-1619-384 MS										Client Sample ID: PDPLB-M3-SW-20							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6479																	
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit						
CercurM	0.02	J F1 F2	5.00	Ng2		n4/7		99	A1 - 125								
Lab Sample ID: 350-1619-384 MSD										Client Sample ID: PDPLB-M3-SW-20							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6479																	
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit						
CercurM	0.02	J F1 F2	5.00	3.03	F1 F2	n4/7		66	A1 - 125	26	2N						
Lab Sample ID: 350-1619-385 MS										Client Sample ID: PDPLB-M3-SW-40							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6479																	
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit						
CercurM	0.22	J	5.00	3.95		n4/7		A3	A1 - 125								
Lab Sample ID: 350-1619-385 MSD										Client Sample ID: PDPLB-M3-SW-40							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6479																	
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit						
CercurM	0.22	J	5.00	3.99		n4/7		A3	A1 - 125	1	2N						
Lab Sample ID: MB 350-6572/16										Client Sample ID: Method Blank							
Matrix: Water										Prep Type: Total/NA							
Analysis Batch: 6572																	
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac								
CercurM	yD		0.50	0.20	n4/7			0N30/25 16:19	1								

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-6572/17

Matrix: Water

Analysis Batch: 6572

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
CercurM	yD		0.50	0.20	n4/7			0N30/25 16:23	1

Lab Sample ID: MB 350-6572/18

Matrix: Water

Analysis Batch: 6572

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
CercurM	yD		0.50	0.20	n4/7			0N30/25 16:2g	1

Lab Sample ID: LCS 350-6572/19

Matrix: Water

Analysis Batch: 6572

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
CercurM	5.00	N93		n4/7		99	AA-123

Lab Sample ID: LCS3D 350-6572/20

Matrix: Water

Analysis Batch: 6572

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCS3D Result	LCS3D Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
CercurM	5.00	NAA		n4/7		95	AA-123	3	2N

Method: 1638 - Metals (ICP/MS)

Lab Sample ID: MB 350-5727/1-A

Matrix: Solid

Analysis Batch: 6893

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
prmenic	yD		0.20	0.060	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1
Bariu ^u	0.00N	J	20	0.00	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1
Cad ^u iu ^u	yD		0.020	0.0020	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1
Chro ^u iu ^u	yD		0.20	0.20	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1
CoK ^u iu ^u	0.01N	J	0.10	0.012	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1
Iron	yD		20	N0	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1
lanfanene	0.0A16	J	0.10	0.010	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1
ylLel	yD		0.00	0.016	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1
Tead	0.0102	J	0.090	0.0090	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1
Zinc	yD		2.0	1.0	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1

Lab Sample ID: MB 350-5727/2-A

Matrix: Solid

Analysis Batch: 6893

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
prmenic	yD		0.20	0.060	^ 4/k.4		03/21/25 16:19	05/1N25 23:0N	1
Bariu ^u	0.356	J	20	0.00	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1
Cad ^u iu ^u	yD		0.020	0.0020	^ 4/k.4		03/21/25 16:19	05/1N25 23:02	1
Chro ^u iu ^u	yD		0.20	0.20	^ 4/k.4		03/21/25 16:19	05/1N25 23:0N	1

QC Sample Results

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: 350-1619-37 MS										Client Sample ID: NPWB-2B3									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6050										Prep Batch: 5891									
Analyte	Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits										
pH	11		1g	1g				95	A5-125										
Barium	1600	8	1g	1g	N			116	A5-125										
Cadmium	0.05A		3A2	3NN				92	A5-125										
Chromium	11	8	1g	21A				99	A5-125										
Copper	10	8	1g	19N				99	A0-130										
Iron	1g000		N60	22100				96	A5-125										
Vanillinene	N0	8 F1 E2	1g	5g1	F1			99	A5-125										
Yttrium	20	8	1g	195				99	A5-125										
Zinc	16	8	1g	191				99	A5-125										
	39		1g	215				95	65-135										

Lab Sample ID: 350-1619-37 MSD										Client Sample ID: NPWB-2B3									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6050										Prep Batch: 5891									
Analyte	Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit								
pH	11		19N	193				9A	A5-125	6	20								
Barium	1600	8	19N	1900	N			90	A5-125	2	20								
Cadmium	0.05A		3g	36g				95	A5-125	A	20								
Chromium	11	8	19N	230				9A	A5-125	6	20								
Copper	10	8	19N	206				101	A0-130	6	20								
Iron	1g000		Ng50	22600				103	A5-125	2	20								
Vanillinene	N0	8 F1 E2	19N	60N	F1			A0	A5-125	N	20								
Yttrium	20	8	19N	209				9g	A5-125	A	20								
Zinc	16	8	19N	20A				9g	A5-125	g	20								
	39		19N	22A				9A	65-135	5	20								

Lab Sample ID: MB 350-5927/1-A										Client Sample ID: Method Blank									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 5927									
Analyte	Result	MB Qualifier	MB Qualifier	RL	MDL Unit	Unit	D	Prepared	Analyzed	Dil Fac									
pH	yD			0.20	0.060	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Barium	0.1g5	J		20	0.0ND	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Cadmium	yD			0.020	0.0020	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Chromium	yD			0.20	0.20	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Copper	0.01g2	J		0.10	0.012	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Iron	yD			20	NO	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Vanillinene	0.0692	J		0.10	0.010	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Yttrium	yD			0.10	0.016	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Zinc	0.00g9N	J		0.0g0	0.00g0	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
	yD			2.0	1.0	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									

Lab Sample ID: MB 350-5927/2-A										Client Sample ID: Method Blank									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 5927									
Analyte	Result	MB Qualifier	MB Qualifier	RL	MDL Unit	Unit	D	Prepared	Analyzed	Dil Fac									
pH	yD			0.20	0.060	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									

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QC Sample Results

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 350-5927/2-A										Client Sample ID: Method Blank									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 5927									
Analyte	Result	MB Qualifier	MB Qualifier	RL	MDL Unit	Unit	D	Prepared	Analyzed	Dil Fac									
Barium	0.239	J		20	0.0ND	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Cadmium	yD			0.020	0.0020	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Chromium	yD			0.20	0.20	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Copper	0.10g			0.10	0.012	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Iron	yD			20	NO	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Vanillinene	0.069g	J		0.10	0.010	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Yttrium	yD			0.10	0.016	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
Zinc	0.00gA2	J		0.0g0	0.00g0	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									
	yD			2.0	1.0	A 4/k4		0N01/25 1g-16	05/1N25 21-3g	1									

Lab Sample ID: LCS 350-5927/3-A										Client Sample ID: Lab Control Sample									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 5927									
Analyte				Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits									
pHmic				100	93.2		Δ 4/k4		93	A5-125									
Barium				100	103	J	Δ 4/k4		103	A5-125									
Cadmium				20.0	1g		Δ 4/k4		93	A5-125									
Chromium				100	91.6		Δ 4/k4		92	A5-125									
Copper				100	102		Δ 4/k4		102	A5-125									
Iron				2500	2N00		Δ 4/k4		96	A5-125									
o-toluidine				100	93.5		Δ 4/k4		9N	A5-125									
nickel				100	96.6		Δ 4/k4		9A	A5-125									
Lead				100	9A.6		Δ 4/k4		9g	A5-125									
Zinc				100	9N.9		Δ 4/k4		95	A5-125									

QC Sample Results

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: 350-1619-99 MSD										Client Sample ID: PAWE-1B1									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 6047									
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit								
Iron	1g000 F1		N630	23500		^ 4/k/4		116	A5 -125	2	20								
Chloroform	550 8		1g5	691		^ 4/k/4		A5	A5 -125	0	20								
Chloroform	19 8		1g5	20A		^ 4/k/4		101	A5 -125	1	20								
Lead	1A 8		1g5	20A		^ 4/k/4		102	A5 -125	3	20								
Zinc	N6		1g5	226		^ 4/k/4		9g	65 -135	0	20								

Lab Sample ID: MB 350-6097/1-A										Client Sample ID: Method Blank									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 6097									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac										
pmnic	yD		0.20	0.060	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Barium	0.25g J		20	0.0N0	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Cadmium	yD		0.020	0.0020	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Chloroform	yD		0.20	0.20	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Cobalt	0.0215 J		0.10	0.012	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Iron	yD		20	N0	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Chloroform	0.06Ng J		0.10	0.010	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Chloroform	0.1Ng J		0.10	0.016	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Lead	0.0233 J		0.0g0	0.00g0	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										
Zinc	yD		2.0	1.0	^ 4/k/4		0N0g/25 1g5A	05/15/25 00:2g	1										

Lab Sample ID: LCS 350-6097/2-A										Client Sample ID: Lab Control Sample									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 6097									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit										
pmnic	100	9N1		^ 4/k/4		9N	A5 -125												
Barium	100	106 J		^ 4/k/4		106	A5 -125												
Cadmium	20.0	1gA		^ 4/k/4		93	A5 -125												
Chloroform	100	93.0		^ 4/k/4		93	A5 -125												
Cobalt	100	102		^ 4/k/4		102	A5 -125												
Iron	2500	2Ng0		^ 4/k/4		99	A5 -125												
Chloroform	100	95.1		^ 4/k/4		95	A5 -125												
Chloroform	100	96.9		^ 4/k/4		9A	A5 -125												
Lead	100	9gN		^ 4/k/4		9A	A5 -125												
Zinc	100	95.3		^ 4/k/4		95	A5 -125												

Lab Sample ID: LCSD 350-6097/3-A										Client Sample ID: Lab Control Sample Dup									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 6097									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit										
pmnic	100	99.0		^ 4/k/4		99	A5 -125	5	20										
Barium	100	110 J		^ 4/k/4		110	A5 -125	N	20										
Cadmium	20.0	19.9		^ 4/k/4		99	A5 -125	6	20										
Chloroform	100	9A.0		^ 4/k/4		9A	A5 -125	N	20										
Cobalt	100	10g		^ 4/k/4		10g	A5 -125	6	20										
Iron	2500	2590		^ 4/k/4		10N	A5 -125	5	20										

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QC Sample Results

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 350-6097/3-A										Client Sample ID: Lab Control Sample Dup									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 6097									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit										
Chloroform	100	101		^ 4/k/4		101	A5 -125	6	20										
Chloroform	100	102		^ 4/k/4		102	A5 -125	5	20										
Lead	100	105		^ 4/k/4		105	A5 -125	6	20										
Zinc	100	100		^ 4/k/4		100	A5 -125	5	20										

Lab Sample ID: 350-1619-39 MS										Client Sample ID: NPWB-3B2									
Matrix: Solid										Prep Type: Total/NA									
Analysis Batch: 6893										Prep Batch: 6097									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec Limits	RPD	Limit								
				Result	Qualifier														
pmnic	5.2		210		19A	^ 4/k/4		91	A5 -125										
Barium	5100 F2 8		210		N850 N	^ 4/k/4		-3N2	A5 -125										
Cadmium	0.069		N2.1		3g g	^ 4/k/4		92	A5 -125										
Chloroform	N0		210		235	^ 4/k/4		92	A5 -125										
Cobalt	12 8		210		216	^ 4/k/4		9A	A0 -130										
Iron	1g000 F1		5260		23500	^ 4/k/4		10A	A5 -125										
Chloroform	3g0 F1 8		210		56g	^ 4/k/4		91	A5 -125										
Chloroform	19 8		210		21A	^ 4/k/4		9N	A5 -125										
Lead	16 F1 F2 8		210		220	^ 4/k/4		9A	A5 -125										
Zinc	N2		210		236	^ 4/k/4		92	65 -135										

QC Sample Results										Job ID: 350-1619-1				
Client: Tetra Tech Inc														
Project/Site: Gulf of Thailand - 2025														
Method: 1640 - Metals (ICPMS) (Continued)														
Lab Sample ID: MB 350-6090/2-A										Client Sample ID: Method Blank				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6090				
Analyte	Result	MB Qualifier	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
pH	yD			0.40	0.63	u/7		0N0g/25 16:09	0N09/25 06:5N	1				
Cad ²⁺ iu ^h	yD			0.020	0.013	u/7		0N0g/25 16:09	0N09/25 06:5N	1				
Chro ⁶⁺ iu ^h	yD			1.0	0.11	u/7		0N0g/25 16:09	0N09/25 06:5N	1				
CoK ²⁺	yD			0.50	0.08	u/7		0N0g/25 16:09	0N09/25 06:5N	1				
Lead	yD			0.050	0.023	u/7		0N0g/25 16:09	0N09/25 06:5N	1				
LiCl ⁺	yD			0.50	0.15	u/7		0N0g/25 16:09	0N09/25 06:5N	1				
Zinc	yD			1.0	0.31	u/7		0N0g/25 16:09	0N09/25 06:5N	1				
Barium ^h	yD			0.50	0.09g	u/7		0N0g/25 16:09	0N09/25 06:5N	1				
Iron	yD			5.0	0.91	u/7		0N0g/25 16:09	0N09/25 06:5N	1				
Canlanene	yD			0.050	0.030	u/7		0N0g/25 16:09	0N09/25 06:5N	1				
Lab Sample ID: LCS 350-6090/3-A										Client Sample ID: Lab Control Sample				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6090				
Analyte	Result	Qualifier	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits					
pH			12.5	11.6		u/7		93	A0 - 130					
Cad ²⁺ iu ^h			1.25	1.15		u/7		92	A0 - 130					
Chro ⁶⁺ iu ^h			12.5	12.1		u/7		9A	A0 - 130					
CoK ²⁺			12.5	12.0		u/7		96	A0 - 130					
Lead			2.50	2.31		u/7		92	A0 - 130					
LiCl ⁺			12.5	11.N		u/7		91	A0 - 130					
Zinc			12.5	12.1		u/7		9A	A0 - 130					
Barium ^h			12.5	11.9		u/7		95	A0 - 130					
Iron			62.5	59.A		u/7		9N	A0 - 130					
Canlanene			12.5	9.9A		u/7		9A	A0 - 130					
Lab Sample ID: LCS 350-6090/4-A										Client Sample ID: Lab Control Sample Dup				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6090				
Analyte	Result	Qualifier	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit			
pH			12.5	11.6		u/7		93	A0 - 130	0	20			
Cad ²⁺ iu ^h			1.25	1.16		u/7		93	A0 - 130	2	20			
Chro ⁶⁺ iu ^h			12.5	11.9		u/7		95	A0 - 130	2	20			
CoK ²⁺			12.5	12.0		u/7		96	A0 - 130	0	20			
Lead			2.50	2.32		u/7		93	A0 - 130	1	20			
LiCl ⁺			12.5	11.N		u/7		92	A0 - 130	0	20			
Zinc			12.5	12.N		u/7		99	A0 - 130	2	20			
Barium ^h			12.5	11.A		u/7		93	A0 - 130	2	20			
Iron			62.5	60.5		u/7		9A	A0 - 130	3	20			
Canlanene			12.5	10.2		u/7		92	A0 - 130	3	20			
Lab Sample ID: MB 350-6110/1-A										Client Sample ID: Method Blank				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6110				
Analyte	Result	MB Qualifier	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac				
pH	yD			0.40	0.63	u/7		0N09/25 12:00	0N09/25 22:56	1				
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

QC Sample Results

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-6110/2-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Result	Qualifier	MB	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	yD		0.050	0.023	u/7		0N09/25 12:00	0N10/25 11:39	
LiCl ⁺	yD		0.50	0.15	u/7		0N09/25 12:00	0N10/25 11:39	1
Zinc	yD		1.0	0.31	u/7		0N09/25 12:00	0N10/25 11:39	1
Barium ^h	yD		0.50	0.09g	u/7		0N09/25 12:00	0N10/25 11:39	1
Iron	yD		5.0	0.91	u/7		0N09/25 12:00	0N10/25 11:39	1
Canlanene	yD		0.050	0.030	u/7		0N09/25 12:00	0N10/25 11:39	1

Lab Sample ID: LCS 350-6110/3-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Result	Qualifier	Spike Added	LCS	Unit	D	%Rec	Limits
pH			12.5	10.9	u/7		9A	A0 - 130
Cad ²⁺ iu ^h			1.25	1.1A	u/7		93	A0 - 130
Chro ⁶⁺ iu ^h			12.5	12.1	u/7		9A	A0 - 130
CoK ²⁺			12.5	11.A	u/7		93	A0 - 130
Lead			2.50	2.33	u/7		93	A0 - 130
LiCl ⁺			12.5	11.N	u/7		91	A0 - 130
Zinc			12.5	12.1	u/7		9A	A0 - 130
Barium ^h			12.5	12.5	u/7		100	A0 - 130
Iron			62.5	60.5	u/7		9A	A0 - 130
Canlanene			12.5	11.9	u/7		9N	A0 - 130

Lab Sample ID: LCS 350-6110/4-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Result	Qualifier	Spike Added	LCS	Unit	D	%Rec	Limits	RPD	Limit
pH			12.5	10.6	u/7		g5	A0 - 130	3	20
Cad ²⁺ iu ^h			1.25	1.1g	u/7		95	A0 - 130	1	20
Chro ⁶⁺ iu ^h			12.5	12.0	u/7		96	A0 - 130	1	20
CoK ²⁺			12.5	12.2	u/7		9A	A0 - 130	N	20
Lead			2.50	2.N2	u/7		9A	A0 - 130	N	20
LiCl ⁺			12.5	11.9	u/7		95	A0 - 130	N	20
Zinc			12.5	12.3	u/7		99	A0 - 130	2	20
Barium ^h			12.5	12.2	u/7		9A	A0 - 130	3	20
Iron			62.5	6N1	u/7		103	A0 - 130	6	20
Canlanene			12.5	12.0	u/7		96	A0 - 130	2	20

Lab Sample ID: 350-1619-129 MS

Matrix: Water

Analysis Batch: 6206

Client Sample ID: NPCPP-3CP2-SW-1

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Result	Qualifier	Spike Added	MS	Unit	D	%Rec	Limits
pH			12.5	1N0	u/7		102	50 - 150
Cad ²⁺ iu ^h	yD		1.25	1.30	u/7		10N	50 - 150
Chro ⁶⁺ iu ^h	1.3		12.5	1Ng	u/7		109	50 - 150
CoK ²⁺	yD		12.5	1N3	u/7		11N	50 - 150
Lead	yD		2.50	2.29	u/7		92	50 - 150

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

QC Sample Results

Job ID: 350-1619-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 350-1619-130 MS

Matrix: Water

Analysis Batch: 6254

Client Sample ID: NPCPP-3CP2-SW-20

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cd ²⁺ iu ^a	0.41	F1	12.5	21.4	F1	µg/l		16g	50 - 150

Lab Sample ID: 350-1619-130 MS

Matrix: Water

Analysis Batch: 6206

Client Sample ID: NPCPP-3CP2-SW-20

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cd ²⁺ iu ^a	yD		1.25	1.22		µg/l		9g	50 - 150

Lab Sample ID: 350-1619-130 MSD

Matrix: Water

Analysis Batch: 6206

Client Sample ID: NPCPP-3CP2-SW-20

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
pmnec	1.0		12.5	13.6		µg/l		101	50 - 150	1	20
Cd ²⁺ iu ^a	yD		1.25	1.33		µg/l		106	50 - 150	3	20
Chro ⁶⁺ iu ^a	1.1		12.5	1N2		µg/l		105	50 - 150	1	20
CoK ⁶⁺ er	yD		12.5	1N1N		µg/l		115	50 - 150	2	20
7eal	yD		2.50	2ND		µg/l		96	50 - 150	3	20
yiLel	0.16 J		12.5	13.A		µg/l		10g	50 - 150	3	20
Zinc	yD		12.5	15.2		µg/l		121	50 - 150	2	20
Bariu ^a	g.6 F1		12.5	2g.1 F1		µg/l		156	50 - 150	2	20
Iron	3.0 J		62.5	g1.g		µg/l		126	50 - 150	1	20
Cd ²⁺ iu ^a	0.41 F1		12.5	20.2 F1		µg/l		156	50 - 150	A	20

Lab Sample ID: 350-1619-130 MSD

Matrix: Water

Analysis Batch: 6206

Client Sample ID: NPCPP-3CP2-SW-20

Prep Type: Total/NA

Prep Batch: 6110

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Cd ²⁺ iu ^a	yD		1.25	1.2g		µg/l		102	50 - 150	N	20

Lab Sample ID: MB 350-6111/1-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6111

Analyte	MB Result	MB Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
pmnec	yD		0.40	0.63 µg/l		0N09/25 12:N	0N09/25 22:00	1
Cd ²⁺ iu ^a	yD		0.020	0.013 µg/l		0N09/25 12:N	0N09/25 22:00	1
Chro ⁶⁺ iu ^a	yD		1.0	0.11 µg/l		0N09/25 12:N	0N09/25 22:00	1
CoK ⁶⁺ er	yD		0.50	0.NB µg/l		0N09/25 12:N	0N09/25 22:00	1
7eal	yD		0.050	0.023 µg/l		0N09/25 12:N	0N09/25 22:00	1
yiLel	yD		0.50	0.15 µg/l		0N09/25 12:N	0N09/25 22:00	1
Zinc	yD		1.0	0.31 µg/l		0N09/25 12:N	0N09/25 22:00	1
Bariu ^a	yD		0.50	0.0gg µg/l		0N09/25 12:N	0N09/25 22:00	1
Iron	yD		5.0	0.g1 µg/l		0N09/25 12:N	0N09/25 22:00	1

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-6111/1-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6111

Analyte	MB Result	MB Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
pmnec	yD		0.40	0.63 u4/7		0N09/25 12:N	0N10/25 10:2g	1
Cad ²⁺ iu ^a	yD		0.020	0.013 u4/7		0N09/25 12:N	0N10/25 10:2g	1
Chro ⁶⁺ iu ^a	yD		1.0	0.11 u4/7		0N09/25 12:N	0N10/25 10:2g	1
CoK ⁶⁺ er	yD		0.50	0.N6 u4/7		0N09/25 12:N	0N10/25 10:2g	1
7eal	yD		0.050	0.023 u4/7		0N09/25 12:N	0N10/25 10:2g	1
yiLel	yD		0.50	0.15 u4/7		0N09/25 12:N	0N10/25 10:2g	1
Zinc	yD		1.0	0.31 u4/7		0N09/25 12:N	0N10/25 10:2g	1
8ariu ^a	yD		0.50	0.0gg u4/7		0N09/25 12:N	0N10/25 10:2g	1
Iron	yD		5.0	0.g1 u4/7		0N09/25 12:N	0N10/25 10:2g	1

Lab Sample ID: MB 350-6111/2-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6111

Analyte	MB Result	MB Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
pmnec	yD		0.40	0.63 u4/7		0N09/25 12:N	0N09/25 22:1N	1
Cad ²⁺ iu ^a	yD		0.020	0.013 u4/7		0N09/25 12:N	0N09/25 22:1N	1
Chro ⁶⁺ iu ^a	yD		1.0	0.11 u4/7		0N09/25 12:N	0N09/25 22:1N	1
CoK ⁶⁺ er	yD		0.50	0.N6 u4/7		0N09/25 12:N	0N09/25 22:1N	1
7eal	yD		0.050	0.023 u4/7		0N09/25 12:N	0N09/25 22:1N	1
yiLel	yD		0.50	0.15 u4/7		0N09/25 12:N	0N09/25 22:1N	1
Zinc	yD		1.0	0.31 u4/7		0N09/25 12:N	0N09/25 22:1N	1
8ariu ^a	yD		0.50	0.0gg u4/7		0N09/25 12:N	0N09/25 22:1N	1
Iron	yD		5.0	0.g1 u4/7		0N09/25 12:N	0N09/25 22:1N	1

Lab Sample ID: MB 350-6111/2-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6111

Analyte	MB Result	MB Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
pmnec	yD		0.40	0.63 u4/7		0N09/25 12:N	0N10/25 10:2g	1
Cad ²⁺ iu ^a	yD		0.020	0.013 u4/7		0N09/25 12:N	0N10/25 10:2g	1
Chro ⁶⁺ iu ^a	0.205 J		1.0	0.11 u4/7		0N09/25 12:N	0N10/25 10:2g	1
CoK ⁶⁺ er	yD		0.50	0.N6 u4/7		0N09/25 12:N	0N10/25 10:2g	1
7eal	yD		0.050	0.023 u4/7		0N09/25 12:N	0N10/25 10:2g	1
yiLel	yD		0.50	0.15 u4/7		0N09/25 12:N	0N10/25 10:2g	1
Zinc	yD		1.0	0.31 u4/7		0N09/25 12:N	0N10/25 10:2g	1
8ariu ^a	yD		0.50	0.0gg u4/7		0N09/25 12:N	0N10/25 10:2g	1
Iron	yD		5.0	0.g1 u4/7		0N09/25 12:N	0N10/25 10:2g	1

Lab Sample ID: LCS 350-6111/3-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pmnec	12.5	10.6	u4/7	u4/7		95	A0-130
Cad ²⁺ iu ^a	1.25	1.22	u4/7	u4/7		9A	A0-130
Chro ⁶⁺ iu ^a	12.5	12.1	u4/7	u4/7		9A	A0-130
CoK ⁶⁺ er	12.5	12.A	u4/7	u4/7		102	A0-130

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

QC Sample Results

Job ID: 350-1619-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-6145/1-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6145

Analyte	Result	MB MB Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Iron	yD		5.0	0.01 u4/7		0N10/25 1g:00	0N10/25 20:96	
Canlanene	yD		0.050	0.030 u4/7		0N10/25 1g:00	0N10/25 20:96	1

Lab Sample ID: MB 350-6145/2-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6145

Analyte	Result	MB MB Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
pmmic	yD		0.40	0.63 u4/7		0N10/25 1g:00	0N10/25 21:03	1
Cad ²⁺ iu ^a	yD		0.020	0.013 u4/7		0N10/25 1g:00	0N10/25 21:03	1
Chro ⁶⁺ iu ^a	yD		1.0	0.11 u4/7		0N10/25 1g:00	0N10/25 21:03	1
CoKker	yD		0.50	0.08 u4/7		0N10/25 1g:00	0N10/25 21:03	1
7ead	yD		0.050	0.023 u4/7		0N10/25 1g:00	0N10/25 21:03	1
yicLeI	yD		0.50	0.15 u4/7		0N10/25 1g:00	0N10/25 21:03	1
Zinc	yD		1.0	0.31 u4/7		0N10/25 1g:00	0N10/25 21:03	1
Bariu ^a	yD		0.50	0.09g u4/7		0N10/25 1g:00	0N10/25 21:03	1
Iron	yD		5.0	0.01 u4/7		0N10/25 1g:00	0N10/25 21:03	1
Canlanene	yD		0.050	0.030 u4/7		0N10/25 1g:00	0N10/25 21:03	1

Lab Sample ID: LCS 350-6145/3-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6145

Analyte	Result	MB MB Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec Limits
pmmic	12.5		10.3	u4/7		g3	A0 -130					u4/7	95
Cad ²⁺ iu ^a	12.5		1.13	u4/7		90	A0 -130					u4/7	100
Chro ⁶⁺ iu ^a	12.5		11.5	u4/7		92	A0 -130					u4/7	100
CoKker	12.5		11.1	u4/7		99	A0 -130					u4/7	100
7ead	2.50		2.26	u4/7		91	A0 -130					u4/7	100
yicLeI	12.5		10.9	u4/7		9A	A0 -130					u4/7	100
Zinc	12.5		11.9	u4/7		9N	A0 -130					u4/7	100
Bariu ^a	12.5		12.5	u4/7		100	A0 -130					u4/7	100
Iron	62.5		5g.6	u4/7		9N	A0 -130					u4/7	100
Canlanene	12.5		11.3	u4/7		90	A0 -130					u4/7	100

Lab Sample ID: LCSD 350-6145/4-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6145

Analyte	Result	MB MB Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	Spike Added	LCS Result	LCS Qualifier	Unit	%Rec Limits	RPD Limit
pmmic	12.5		10.5	u4/7		gN	A0 -130	1	20			u4/7	100	20
Cad ²⁺ iu ^a	12.5		1.13	u4/7		90	A0 -130	0	20			u4/7	100	20
Chro ⁶⁺ iu ^a	12.5		12.1	u4/7		9A	A0 -130	5	20			u4/7	100	20
CoKker	12.5		11.0	u4/7		99	A0 -130	1	20			u4/7	100	20
7ead	2.50		2.2A	u4/7		91	A0 -130	0	20			u4/7	100	20
yicLeI	12.5		10.9	u4/7		96	A0 -130	1	20			u4/7	100	20
Zinc	12.5		11.5	u4/7		92	A0 -130	2	20			u4/7	100	20
Bariu ^a	12.5		12.6	u4/7		101	A0 -130	1	20			u4/7	100	20
Iron	62.5		60.1	u4/7		96	A0 -130	3	20			u4/7	100	20

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCSD 350-6145/4-A

Matrix: Water

Analysis Batch: 6254

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6145

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Canlanene			12.5	11.9		u4/7		95	A0 -130	5	20

Lab Sample ID: 350-1619-169 MS

Matrix: Water

Analysis Batch: 6206

Client Sample ID: NPWG-1CP2-SW-1

Prep Type: Total/NA

Prep Batch: 6145

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pmmic	1.1		12.5	13.6		u4/7		100	50 -150		
Cad ²⁺ iu ^a	yD		1.25	1.31		u4/7		105	50 -150		
Chro ⁶⁺ iu ^a	1.1		12.5	1N5		u4/7		10A	50 -150		
CoKker	yD		12.5	1N1		u4/7		113	50 -150		
7ead	0.025 J		2.50	2.3g		u4/7		9N	50 -150		
yicLeI	0.22 J		12.5	13.5		u4/7		10A	50 -150		
Zinc	yD		12.5	1N5		u4/7		116	50 -150		
Bariu ^a	13 F1		12.5	32.2 F1		u4/7		156	50 -150		
Iron	3.6 J		62.5	g0.N		u4/7		123	50 -150		
Canlanene	0.4g F1		12.5	21.2 F1		u4/7		16N	50 -150		

Lab Sample ID: 350-1619-169 MSD

Matrix: Water

Analysis Batch: 6206

Client Sample ID: NPWG-1CP2-SW-1

Prep Type: Total/NA

Prep Batch: 6145

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pmmic	1.1		12.5	1N2		u4/7		105	50 -150	N	20
Cad ²⁺ iu ^a	yD		1.25	1.30		u4/7		10N	50 -150	0	20
Chro ⁶⁺ iu ^a	1.1		12.5	1N5		u4/7		10A	50 -150	0	20
CoKker	yD		12.5	13.A		u4/7		110	50 -150	3	20
7ead	0.025 J		2.50	2.3A		u4/7		9N	50 -150	0	20
yicLeI	0.22 J		12.5	13.6		u4/7		10A	50 -150	0	20
Zinc	yD		12.5	1N6		u4/7		11A	50 -150	1	20
Bariu ^a	13 F1		12.5	31.9 F1		u4/7		15N	50 -150	1	20
Iron	3.6 J		62.5	g0.5		u4/7		123	50 -150	0	20
Canlanene	0.4g F1		12.5	21.2 F1		u4/7		163	50 -150	0	20

Lab Sample ID: 350-1619-170 MS

Matrix: Water

Analysis Batch: 6206

Client Sample ID: NPWG-1CP2-SW-20

Prep Type: Total/NA

Prep Batch: 6145

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pmmic	1.3		12.5	1N0		u4/7		101	50 -150		
Cad ²⁺ iu ^a	yD		1.25	1.2g		u4/7		103	50 -150		
Chro ⁶⁺ iu ^a	1.2		12.5	1N.N		u4/7		106	50 -150		
CoKker	yD		12.5	1N0		u4/7		112	50 -150		
7ead	yD		2.50	2.33		u4/7		93	50 -150		
yicLeI	0.21 J		12.5	13.5		u4/7		106	50 -150		
Zinc	yD		12.5	1N6		u4/7		11A	50 -150		
Bariu ^a	12 F1		12.5	31.5 F1		u4/7		155	50 -150		
Iron	2.2 J		62.5	A9.5		u4/7		12N	50 -150		
Canlanene	0.41 F1		12.5	21.6 F1		u4/7		16A	50 -150		

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Job ID: 350-1619-1

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Job ID: 350-1619-1

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Job ID: 350-1619-1

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Job ID: 350-1619-1

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QC Sample Results

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-6156/3-A
Matrix: Water
Analysis Batch: 6206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6156

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	2.50	2.2A		u4/7		91	A0 -130
Yttrium	12.5	10.5		u4/7		gN	A0 -130
Zinc	12.5	11.3		u4/7		90	A0 -130
Barium	12.5	13.0		u4/7		10A	A0 -130
Iron	62.5	56.6		u4/7		91	A0 -130

Lab Sample ID: LCSD 350-6156/4-A
Matrix: Water
Analysis Batch: 6206

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6156

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	12.5	10.1		u4/7		g1	A0 -130	0	20
Cadmium iu	1.25	1.10		u4/7		gg	A0 -130	0	20
Chromium iu	12.5	10.9		u4/7		gA	A0 -130	2	20
Cobalt	12.5	10.2		u4/7		g2	A0 -130	2	20
Lead	2.50	2.2N		u4/7		90	A0 -130	1	20
Yttrium	12.5	10.0		u4/7		g3	A0 -130	1	20
Zinc	12.5	11.0		u4/7		gg	A0 -130	2	20
Barium	12.5	13.5		u4/7		10g	A0 -130	0	20
Iron	62.5	5AA		u4/7		92	A0 -130	2	20

Lab Sample ID: 350-1619-233 MS										Client Sample ID: PAWE-1CP2-SW-40				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6156				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit			
prmenic	1.2		12.5	13.5		u4/7		99	50 -150					
Cad ^h iu ^h	yD		1.25	1.2A		u4/7		101	50 -150					
Chro ^h iu ^h	1.1		12.5	13.6		u4/7		100	50 -150					
CoKker	yD		12.5	13.0		u4/7		10N	50 -150					
7eada	yD		2.50	2.3A		u4/7		95	50 -150					
yicLel	0.19 J		12.5	12.2A		u4/7		100	50 -150					
Zinc	yD		12.5	1N2		u4/7		113	50 -150					
Bariu ^h	10 F1		12.5	30.2 F1		u4/7		15g	50 -150					
Iron	3.5 J 8		62.5	A0.0		u4/7		121	50 -150					

Lab Sample ID: 350-1619-233 MSD										Client Sample ID: PAWE-1CP2-SW-40				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6206										Prep Batch: 6156				
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit			
prmenic	1.2		12.5	13.5		u4/7		99	50 -150	0	20			
Cad ^h iu ^h	yD		1.25	1.23		u4/7		gg	50 -150	3	20			
Chro ^h iu ^h	1.1		12.5	1N2		u4/7		105	50 -150	5	20			
CoKker	yD		12.5	12.9		u4/7		103	50 -150	0	20			
7eada	yD		2.50	2.30		u4/7		92	50 -150	3	20			
yicLel	0.19 J		12.5	12.9		u4/7		100	50 -150	0	20			
Zinc	yD		12.5	13.9		u4/7		111	50 -150	2	20			
Bariu ^h	10 F1		12.5	29.9 F1		u4/7		155	50 -150	1	20			

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QC Sample Results														
Client: Tetra Tech Inc										Job ID: 350-1619-1				
Project/Site: Gulf of Thailand - 2025														
Method: 1640 - Metals (ICPMS) (Continued)														
Lab Sample ID: MB 350-6520/2-A										Client Sample ID: Method Blank				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6609										Prep Batch: 6520				
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac					
prmenic	yD		0.40	0.63	u4/7		0N29/25 1gN2	0N29/25 20.22	1					
Cad ^h iu ^h	yD		0.020	0.013	u4/7		0N29/25 1gN2	0N29/25 20.22	1					
Chro ^h iu ^h	yD		1.0	0.11	u4/7		0N29/25 1gN2	0N29/25 20.22	1					
CoKker	yD		0.50	0.0B	u4/7		0N29/25 1gN2	0N29/25 20.22	1					
7eada	yD		0.050	0.023	u4/7		0N29/25 1gN2	0N29/25 20.22	1					
yicLel	yD		0.50	0.15	u4/7		0N29/25 1gN2	0N29/25 20.22	1					
Zinc	yD		1.0	0.31	u4/7		0N29/25 1gN2	0N29/25 20.22	1					
Bariu ^h	yD		0.50	0.0gg	u4/7		0N29/25 1gN2	0N29/25 20.22	1					
Iron	yD		5.0	0.g1	u4/7		0N29/25 1gN2	0N29/25 20.22	1					
lanfanene	yD		0.050	0.030	u4/7		0N29/25 1gN2	0N29/25 20.22	1					
Lab Sample ID: LCS 350-6520/3-A										Client Sample ID: Lab Control Sample				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6609										Prep Batch: 6520				
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit					
prmenic	12.5	11.9		u4/7		95	A0 -130							
Cad ^h iu ^h	1.25	1.20		u4/7		96	A0 -130							
Chro ^h iu ^h	12.5	12.0		u4/7		99	A0 -130							
CoKker	12.5	12.2		u4/7		9g	A0 -130							
7eada	2.50	2.55		u4/7		102	A0 -130							
yicLel	12.5	12.5		u4/7		100	A0 -130							
Zinc	12.5	12.5		u4/7		100	A0 -130							
Bariu ^h	12.5	12.3		u4/7		99	A0 -130							
Iron	62.5	60.5		u4/7		9A	A0 -130							
lanfanene	12.5	13.0		u4/7		10N	A0 -130							
Lab Sample ID: LCSD 350-6520/4-A										Client Sample ID: Lab Control Sample Dup				
Matrix: Water										Prep Type: Total/NA				
Analysis Batch: 6609										Prep Batch: 6520				
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit					

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 350-1619-210 MSD
Matrix: Water
Analysis Batch: 6591

Client Sample ID: PACPP-WB
Prep Type: Total/NA
Prep Batch: 6520

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chro ³⁺ iu ^a	yD		12.5	12.9		u4/7		103	50 - 150	2	20
CoK ⁶⁺ er	yD		12.5	12.5		u4/7		100	50 - 150	1	20
7eAd	yD		2.50	2.9A		u4/7		99	50 - 150	1	20
y iCLeI	yD		12.5	12.3		u4/7		99	50 - 150	2	20
Zinc	yD		12.5	12.5		u4/7		100	50 - 150	N	20
Bariu ^a	yD		12.5	13.0		u4/7		10N	50 - 150	2	20
Iron	yD		62.5	55 g		u4/7		g9	50 - 150	N	20
Canfanene	0.1g 8		12.5	13 g		u4/7		109	50 - 150	2	20

Lab Sample ID: MB 350-6521/1-A
Matrix: Water
Analysis Batch: 6609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6521

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
prmenic	yD		0.40	0.63	u4/7		0N29/25 1g-N	0N29/25 21:19	1
Cad ²⁺ iu ^a	yD		0.020	0.013	u4/7		0N29/25 1g-N	0N29/25 21:19	1
Chro ³⁺ iu ^a	yD		1.0	0.11	u4/7		0N29/25 1g-N	0N29/25 21:19	1
CoK ⁶⁺ er	yD		0.50	0.9B	u4/7		0N29/25 1g-N	0N29/25 21:19	1
7eAd	yD		0.050	0.023	u4/7		0N29/25 1g-N	0N29/25 21:19	1
y iCLeI	yD		0.50	0.15	u4/7		0N29/25 1g-N	0N29/25 21:19	1
Zinc	yD		1.0	0.31	u4/7		0N29/25 1g-N	0N29/25 21:19	1
Bariu ^a	yD		0.50	0.09g	u4/7		0N29/25 1g-N	0N29/25 21:19	1
Iron	yD		5.0	0.91	u4/7		0N29/25 1g-N	0N29/25 21:19	1
Canfanene	yD		0.050	0.030	u4/7		0N29/25 1g-N	0N29/25 21:19	1

Lab Sample ID: MB 350-6521/2-A
Matrix: Water
Analysis Batch: 6609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6521

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
prmenic	yD		0.40	0.63	u4/7		0N29/25 1g-N	0N29/25 21:33	1
Cad ²⁺ iu ^a	yD		0.020	0.013	u4/7		0N29/25 1g-N	0N29/25 21:33	1
Chro ³⁺ iu ^a	yD		1.0	0.11	u4/7		0N29/25 1g-N	0N29/25 21:33	1
CoK ⁶⁺ er	yD		0.50	0.9B	u4/7		0N29/25 1g-N	0N29/25 21:33	1
7eAd	yD		0.050	0.023	u4/7		0N29/25 1g-N	0N29/25 21:33	1
y iCLeI	yD		0.50	0.15	u4/7		0N29/25 1g-N	0N29/25 21:33	1
Zinc	yD		1.0	0.31	u4/7		0N29/25 1g-N	0N29/25 21:33	1
Bariu ^a	yD		0.50	0.09g	u4/7		0N29/25 1g-N	0N29/25 21:33	1
Iron	yD		5.0	0.91	u4/7		0N29/25 1g-N	0N29/25 21:33	1
Canfanene	yD		0.050	0.030	u4/7		0N29/25 1g-N	0N29/25 21:33	1

Lab Sample ID: LCS 350-6521/3-A
Matrix: Water
Analysis Batch: 6609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6521

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
prmenic			12.5	12.6		u4/7		101	AO - 130
Cad ²⁺ iu ^a			12.5	1.20		u4/7		96	AO - 130
Chro ³⁺ iu ^a			12.5	12.6		u4/7		101	AO - 130

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Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-6521/3-A
Matrix: Water
Analysis Batch: 6591

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6521

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
CoK ⁶⁺ er	12.5	12.9		u4/7		99	AO - 130
7eAd	2.50	2.55		u4/7		102	AO - 130
y iCLeI	12.5	12.9		u4/7		99	AO - 130
Zinc	12.5	12.9		u4/7		99	AO - 130
Bariu ^a	12.5	12.6		u4/7		101	AO - 130
Iron	62.5	61.9		u4/7		99	AO - 130
Canfanene	12.5	13.3		u4/7		106	AO - 130

Lab Sample ID: LCS 350-6521/4-A
Matrix: Water
Analysis Batch: 6609

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6521

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
prmenic	12.5	13.3		u4/7		10A	AO - 130	5	20
Cad ²⁺ iu ^a	1.25	1.15		u4/7		92	AO - 130	N	20
Chro ³⁺ iu ^a	12.5	12.2		u4/7		9A	AO - 130	3	20
CoK ⁶⁺ er	12.5	12.0		u4/7		96	AO - 130	3	20
7eAd	2.50	2.9		u4/7		99	AO - 130	3	20
y iCLeI	12.5	11.9		u4/7		96	AO - 130	N	20
Zinc	12.5	12.1		u4/7		9A	AO - 130	2	20
Bariu ^a	12.5	12.5		u4/7		100	AO - 130	1	20
Iron	62.5	60.4		u4/7		9A	AO - 130	1	20
Canfanene	12.5	12.9		u4/7		103	AO - 130	3	20

Lab Sample ID: 350-1619-221 MS
Matrix: Water
Analysis Batch: 6609

Client Sample ID: PAWB-3B2-SW-40
Prep Type: Total/NA
Prep Batch: 6521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
prmenic	1.9		12.5	1g A		u4/7		13g	50 - 150
Cad ²⁺ iu ^a	0.015 J F1		1.25	2.5g F1		u4/7		205	50 - 150
Chro ³⁺ iu ^a	1 g		12.5	190		u4/7		9g	50 - 150
CoK ⁶⁺ er	0.51 F1		12.5	29.5 F1		u4/7		232	50 - 150
7eAd	0.032 J F1		2.50	9.9 F1		u4/7		19g	50 - 150
y iCLeI	0.33 J F1		12.5	29.6 F1		u4/7		22A	50 - 150
Zinc	1.1 F1		12.5	30.1 F1		u4/7		232	50 - 150
Bariu ^a	5.9		12.5	1g A		u4/7		103	50 - 150
Iron	22 F1		62.5	183 F1		u4/7		291	50 - 150
Canfanene	1.9 F1 E2		12.5	35.0 F1		u4/7		265	50 - 150

Lab Sample ID: 350-1619-221 MS
Matrix: Water
Analysis Batch: 6609

Client Sample ID: PAWB-3B2-SW-40
Prep Type: Total/NA
Prep Batch: 6521

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
prmenic	1.9		12.5	19A		u4/7		106	50 - 150

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Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-6760/4-A
Matrix: Water
Analysis Batch: 6816

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
pH	12.5	12.0	u4/7			96	A0 - 130	
Cad ²⁺ iu ^h	1.25	1.19	u4/7			95	A0 - 130	
Chro ⁶⁺ iu ^h	12.5	12.5	u4/7			100	A0 - 130	
CoK ⁶⁺ iu ^h	12.5	12.3	u4/7			99	A0 - 130	
Lead	2.50	2.NN	u4/7			9g	A0 - 130	
YicLel	12.5	11.9	u4/7			95	A0 - 130	
Zinc	12.5	12.3	u4/7			100	A0 - 130	
Barium ^h	12.5	12.3	u4/7			9g	A0 - 130	
Iron	62.5	60.A	u4/7			9A	A0 - 130	
Canfanene	12.5	12.6	u4/7			101	A0 - 130	

Lab Sample ID: LCSD 350-6760/5-A
Matrix: Water
Analysis Batch: 6816

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6760

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	12.5	12.1	u4/7			9A	A0 - 130	0	20
Cad ²⁺ iu ^h	1.25	1.1N	u4/7			91	A0 - 130	N	20
Chro ⁶⁺ iu ^h	12.5	12.A	u4/7			101	A0 - 130	1	20
CoK ⁶⁺ iu ^h	12.5	12.0	u4/7			96	A0 - 130	2	20
Lead	2.50	2.39	u4/7			96	A0 - 130	2	20
YicLel	12.5	11.A	u4/7			93	A0 - 130	2	20
Zinc	12.5	12.2	u4/7			9A	A0 - 130	2	20
Barium ^h	12.5	12.3	u4/7			99	A0 - 130	1	20
Iron	62.5	60.2	u4/7			96	A0 - 130	1	20
Canfanene	12.5	12.N	u4/7			99	A0 - 130	1	20

Lab Sample ID: MB 350-6877/1-A
Matrix: Water
Analysis Batch: 6963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	yD		0.A0	0.63	u4/7		05/19/25 12:25	05/19/25 19:22	1
Cad ²⁺ iu ^h	yD		0.020	0.013	u4/7		05/19/25 12:25	05/19/25 19:22	1
Chro ⁶⁺ iu ^h	yD		1.0	0.11	u4/7		05/19/25 12:25	05/19/25 19:22	1
CoK ⁶⁺ iu ^h	yD		0.50	0.NB	u4/7		05/19/25 12:25	05/19/25 19:22	1
Lead	yD		0.050	0.023	u4/7		05/19/25 12:25	05/19/25 19:22	1
YicLel	yD		0.50	0.15	u4/7		05/19/25 12:25	05/19/25 19:22	1
Zinc	yD		1.0	0.31	u4/7		05/19/25 12:25	05/19/25 19:22	1
Barium ^h	yD		0.50	0.09g	u4/7		05/19/25 12:25	05/19/25 19:22	1
Iron	yD		5.0	0.g1	u4/7		05/19/25 12:25	05/19/25 19:22	1
Canfanene	yD		0.050	0.030	u4/7		05/19/25 12:25	05/19/25 19:22	1

Lab Sample ID: MB 350-6877/2-A
Matrix: Water
Analysis Batch: 6963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	yD		0.A0	0.63	u4/7		05/19/25 12:25	05/19/25 19:36	1

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Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 350-1619-214 MS
Matrix: Water
Analysis Batch: 6963

Client Sample ID: PAREF-A-SW-B
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chro ⁶⁺ iu ^h	2.A F1		12.5	31.3 F1	u4/7			229	50 - 150
CoK ⁶⁺ iu ^h	yD F2		12.5	15.N	u4/7			123	50 - 150
Lead	0.0N6 J F1 F2		2.50	2.5g	u4/7			101	50 - 150
YicLel	0.2N J F2		12.5	15.1	u4/7			119	50 - 150
Zinc	yD F1 F2		12.5	15.9	u4/7			12A	50 - 150
Barium ^h	1g F1		12.5	51.g F1	u4/7			2A0	50 - 150
Iron	51 F1 F2		62.5	132	u4/7			129	50 - 150
Canfanene	2.N F1 F2		12.5	19.0	u4/7			133	50 - 150

Lab Sample ID: 350-1619-214 MSD
Matrix: Water
Analysis Batch: 6963

Client Sample ID: PAREF-A-SW-B
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	1.A		12.5	19.5	1N6	u4/7			50 - 150	1	20
Cad ²⁺ iu ^h	yD F1 F2		1.25	1.26	u4/7			101	50 - 150	g	20
Chro ⁶⁺ iu ^h	2.A F1		12.5	32.1 F1	u4/7			235	50 - 150	2	20
CoK ⁶⁺ iu ^h	yD F2		12.5	1N2	u4/7			11N	50 - 150	g	20
Lead	0.0N6 J F1 F2		2.50	2.3N	u4/7			92	50 - 150	10	20
YicLel	0.2N J F2		12.5	1N0	u4/7			110	50 - 150	g	20
Zinc	yD F1 F2		12.5	1N6	u4/7			116	50 - 150	9	20
Barium ^h	1g F1		12.5	52.0 F1	u4/7			2A2	50 - 150	0	20
Iron	51 F1 F2		62.5	123	u4/7			115	50 - 150	A	20
Canfanene	2.N F1 F2		12.5	1g.0	u4/7			125	50 - 150	6	20

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Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-6877/2-A
Matrix: Water
Analysis Batch: 6963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cad ²⁺ iu ^h	yD		0.020	0.013	u4/7		05/19/25 12:25	05/19/25 19:36	1
Chro ⁶⁺ iu ^h	yD		1.0	0.11	u4/7		05/19/25 12:25	05/19/25 19:36	1
CoK ⁶⁺ iu ^h	yD		0.50	0.NB	u4/7		05/19/25 12:25	05/19/25 19:36	1
Lead	yD		0.050	0.023	u4/7		05/19/25 12:25	05/19/25 19:36	1
YicLel	yD		0.50	0.15	u4/7		05/19/25 12:25	05/19/25 19:36	1
Zinc	yD		1.0	0.31	u4/7		05/19/25 12:25	05/19/25 19:36	1
Barium ^h	yD		0.50	0.09g	u4/7		05/19/25 12:25	05/19/25 19:36	1
Iron	yD		5.0	0.g1	u4/7		05/19/25 12:25	05/19/25 19:36	1
Canfanene	yD		0.050	0.030	u4/7		05/19/25 12:25	05/19/25 19:36	1

Lab Sample ID: LCS 350-6877/3-A
Matrix: Water
Analysis Batch: 6963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	12.5	12.6	u4/7			101	A0 - 130		
Cad ²⁺ iu ^h	1.25	1.1A	u4/7			9N	A0 - 130		
Chro ⁶⁺ iu ^h	12.5	12.6	u4/7			101	A0 - 130		
CoK ⁶⁺ iu ^h	12.5	12.5	u4/7			100	A0 - 130		
Lead	2.50	2.NN	u4/7			9g	A0 - 130		
YicLel	12.5	12.2	u4/7			9g	A0 - 130		
Zinc	12.5	12.N	u4/7			99	A0 - 130		
Barium ^h	12.5	12.0	u4/7			9g	A0 - 130		
Iron	62.5	5g.9	u4/7			9N	A0 - 130		
Canfanene	12.5	12.A	u4/7			101	A0 - 130		

Lab Sample ID: LCSD 350-6877/4-A
Matrix: Water
Analysis Batch: 6963

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	12.5	12.2	u4/7			9A	A0 - 130	N	20
Cad ²⁺ iu ^h	1.25	1.21	u4/7			9A	A0 - 130	3	20
Chro ⁶⁺ iu ^h	12.5	12.3	u4/7			99	A0 - 130	2	20
CoK ⁶⁺ iu ^h	12.5	12.9	u4/7			103	A0 - 130	3	20
Lead	2.50	2.56	u4/7			102	A0 - 130	5	20
YicLel	12.5	12.A	u4/7			102	A0 - 130	N	20
Zinc	12.5	12.9	u4/7			103	A0 - 130	N	20
Barium ^h	12.5	12.3	u4/7			99	A0 - 130	3	20
Iron	62.5	62.6	u4/7			100	A0 - 130	6	20
Canfanene	12.5	13.1	u4/7			105	A0 - 130	3	20

Lab Sample ID: 350-1619-214 MS
Matrix: Water
Analysis Batch: 6963

Client Sample ID: PAREF-A-SW-B
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
pH	1.A		12.5	19.3	u4/7			1N1	50 - 150
Cad ²⁺ iu ^h	yD F1 F2		1.25	1.3A	u4/7			109	50 - 150

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Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 350-1619-214 MS
Matrix: Water
Analysis Batch: 6963

Client Sample ID: PAREF-A-SW-B
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chro ⁶⁺ iu ^h	2.A F1		12.5	31.3 F1	u4/7			229	50 - 150
CoK ⁶⁺ iu ^h	yD F2		12.5	15.N	u4/7			123	50 - 150
Lead	0.0N6 J F1 F2		2.50	2.5g	u4/7			101	50 - 150
YicLel	0.2N J F2		12.5	15.1	u4/7			119	50 - 150
Zinc	yD F1 F2		12.5	15.9	u4/7			12A	50 - 150
Barium ^h	1g F1		12.5	51.g F1	u4/7			2A0	50 - 150
Iron	51 F1 F2		62.5	132	u4/7			129	50 - 150
Canfanene	2.N F1 F2		12.5	19.0	u4/7			133	50 - 150

Lab Sample ID: 350-1619-214 MSD
Matrix: Water
Analysis Batch: 6963

Client Sample ID: PAREF-A-SW-B
Prep Type: Total/NA
Prep Batch: 6877

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
pH	1.A		12.5	19.5	1N6	u4/7			50 - 150	1	20
Cad ²⁺ iu ^h	yD F1 F2		1.25	1.26	u4/7			101	50 - 150	g	20
Chro ⁶⁺ iu ^h	2.A F1		12.5	32.1 F1	u4/7			235	50 - 150	2	20
CoK ⁶⁺ iu ^h	yD F2		12.5	1N2	u4/7			11N	50 - 150	g	20
Lead	0.0N6 J F1 F2		2.50	2.3N	u4/7			92	50 - 150	10	20
YicLel	0.2N J F2		12.5	1N0	u4/7			110	50 - 150	g	20
Zinc	yD F1 F2		12.5	1N6	u4/7			116	50 - 150	9	20
Barium ^h	1g F1		12.5	52.0 F1	u4/7			2A2	50 - 150	0	20
Iron	51 F1 F2		62.5	123	u4/7			115	50 - 150	A	20
Canfanene	2.N F1 F2		12.5	1g.0	u4/7			125	50 - 150	6	20

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Metals

Prep Batch: 5727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-101	PAWE-1CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-102	PAWE-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-103	PAWE-2B3	Total/NA	Solid	HF Bomb Prep	
350-1619-104	PAWE-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-105	PAWE-2C2-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-106	PAWE-3B3	Total/NA	Solid	HF Bomb Prep	
350-1619-107	PAWE-3C2	Total/NA	Solid	HF Bomb Prep	
350-1619-108	PAWE-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-109	PAWE-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-110	PAWE-4B2	Total/NA	Solid	HF Bomb Prep	
350-1619-111	PAWE-4C2	Total/NA	Solid	HF Bomb Prep	
MB 350-5727/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-5727/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5727/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCSD 350-5727/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-111 MS	PAWE-4C2	Total/NA	Solid	HF Bomb Prep	
350-1619-111 MSD	PAWE-4C2	Total/NA	Solid	HF Bomb Prep	

Metals (Continued)

Prep Batch: 5840 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-19	NPCPP-3CP1	Total/NA	Solid	1631B CAR	
350-1619-20	NPCPP-3CP2	Total/NA	Solid	1631B CAR	
MB 350-5840/1-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5840/2-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5840/3-A	Method Blank	Total/NA	Solid	1631B CAR	
LCS 350-5840/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
LCS 350-5840/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	
350-1619-1 MS	NPCPP-1C1	Total/NA	Solid	1631B CAR	
350-1619-1 MSD	NPCPP-1C1	Total/NA	Solid	1631B CAR	
350-1619-14 MS	NPCPP-2D2	Total/NA	Solid	1631B CAR	
350-1619-14 MSD	NPCPP-2D2	Total/NA	Solid	1631B CAR	

Prep Batch: 5845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-1	NPCPP-1C1	Total/NA	Solid	HF Bomb Prep	
350-1619-2	NPCPP-1C1-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-3	NPCPP-1C2X	Total/NA	Solid	HF Bomb Prep	
350-1619-4	NPCPP-1CP1	Total/NA	Solid	HF Bomb Prep	
350-1619-5	NPCPP-1CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-6	NPCPP-1CP3X	Total/NA	Solid	HF Bomb Prep	
350-1619-7	NPCPP-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-8	NPCPP-1E2	Total/NA	Solid	HF Bomb Prep	
350-1619-9	NPCPP-1F2	Total/NA	Solid	HF Bomb Prep	
350-1619-10	NPCPP-1G2	Total/NA	Solid	HF Bomb Prep	
350-1619-11	NPCPP-2C1X	Total/NA	Solid	HF Bomb Prep	
350-1619-12	NPCPP-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-13	NPCPP-2CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-14	NPCPP-2D2	Total/NA	Solid	HF Bomb Prep	
350-1619-15	NPCPP-3C1	Total/NA	Solid	HF Bomb Prep	
350-1619-16	NPCPP-3C2	Total/NA	Solid	HF Bomb Prep	
350-1619-17	NPCPP-3C3X	Total/NA	Solid	HF Bomb Prep	
MB 350-5845/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-5845/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5845/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-5845/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-1 MS	NPCPP-1C1	Total/NA	Solid	HF Bomb Prep	
350-1619-1 MSD	NPCPP-1C1	Total/NA	Solid	HF Bomb Prep	
350-1619-14 MS	NPCPP-2D2	Total/NA	Solid	HF Bomb Prep	
350-1619-14 MSD	NPCPP-2D2	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 5891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-18	NPCPP-3C3X-FD	Total/NA	Solid	HF Bomb Prep	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 5891 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-18	NPCPP-3CP1	Total/NA	Solid	HF Bomb Prep	
350-1619-20	NPCPP-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-21	NPCPP-3CP3X	Total/NA	Solid	HF Bomb Prep	
350-1619-22	NPCPP-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-23	NPCPP-3E2	Total/NA	Solid	HF Bomb Prep	
350-1619-24	NPCPP-3F2X	Total/NA	Solid	HF Bomb Prep	
350-1619-25	NPCPP-3G2	Total/NA	Solid	HF Bomb Prep	
350-1619-26	NPCPP-4C2	Total/NA	Solid	HF Bomb Prep	
350-1619-27	NPCPP-4CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-28	NPCPP-4D2	Total/NA	Solid	HF Bomb Prep	
350-1619-29	NPREF-A	Total/NA	Solid	HF Bomb Prep	
350-1619-30	NPREF-B	Total/NA	Solid	HF Bomb Prep	
350-1619-31	NPREF-B-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-32	NPREF-C	Total/NA	Solid	HF Bomb Prep	
350-1619-33	NPWB-1C2	Total/NA	Solid	HF Bomb Prep	
350-1619-34	NPWB-1C2-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-35	NPWB-1CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-36	NPWB-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-37	NPWB-2B3	Total/NA	Solid	HF Bomb Prep	
MB 350-5891/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-5891/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5891/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-5891/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-20 MS	NPCPP-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-37 MS	NPWB-2B3	Total/NA	Solid	HF Bomb Prep	
350-1619-37 MSD	NPWB-2B3	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 5927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-41	NPWB-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-42	NPWB-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-43	NPWB-4B3X	Total/NA	Solid	HF Bomb Prep	
350-1619-44	NPWB-4C2	Total/NA	Solid	HF Bomb Prep	
350-1619-45	NPWG-1B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-46	NPWG-1B2X-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-47	NPWG-1C2	Total/NA	Solid	HF Bomb Prep	
350-1619-48	NPWG-1CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-49	NPWG-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-50	NPWG-2B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-51	NPWG-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-52	NPWG-3B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-53	NPWG-3C2	Total/NA	Solid	HF Bomb Prep	
350-1619-54	NPWG-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-55	NPWG-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-56	NPWG-4B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-57	NPWG-4C2	Total/NA	Solid	HF Bomb Prep	
350-1619-58	PACPP-1C1	Total/NA	Solid	HF Bomb Prep	
350-1619-59	PACPP-1C2X	Total/NA	Solid	HF Bomb Prep	
350-1619-60	PACPP-1C3X	Total/NA	Solid	HF Bomb Prep	
MB 350-5927/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 5927 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-5927/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5927/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-5927/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-45 MS	NPWG-1B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-45 MSD	NPWG-1B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-49 MS	NPWG-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-49 MSD	NPWG-1D2	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 5928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-41	NPWB-3CP2	Total/NA	Solid	1631B CAR	
350-1619-42	NPWB-3D2	Total/NA	Solid	1631B CAR	
350-1619-43	NPWB-4B3X	Total/NA	Solid	1631B CAR	
350-1619-44	NPWB-4C2	Total/NA	Solid	1631B CAR	
350-1619-45	NPWG-1B2X	Total/NA	Solid	1631B CAR	
350-1619-46	NPWG-1B2X-FD	Total/NA	Solid	1631B CAR	
350-1619-47	NPWG-1C2	Total/NA	Solid	1631B CAR	
350-1619-48	NPWG-1CP2	Total/NA	Solid	1631B CAR	
350-1619-49	NPWG-1D2	Total/NA	Solid	1631B CAR	
350-1619-50	NPWG-2B2X	Total/NA	Solid	1631B CAR	
350-1619-51	NPWG-2C2	Total/NA	Solid	1631B CAR	
350-1619-52	NPWG-3B2X	Total/NA	Solid	1631B CAR	
350-1619-53	NPWG-3C2	Total/NA	Solid	1631B CAR	
350-1619-54	NPWG-3CP2	Total/NA	Solid	1631B CAR	
350-1619-55	NPWG-3D2	Total/NA	Solid	1631B CAR	
350-1619-56	NPWG-4B2X	Total/NA	Solid	1631B CAR	
350-1619-57	NPWG-4C2	Total/NA	Solid	1631B CAR	
350-1619-58	PACPP-1C1	Total/NA	Solid	1631B CAR	
350-1619-59	PACPP-1C2X	Total/NA	Solid	1631B CAR	
350-1619-60	PACPP-1C3X	Total/NA	Solid	1631B CAR	
MB 350-5928/1-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5928/2-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5928/3-A	Method Blank	Total/NA	Solid	1631B CAR	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 5928 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 350-5928/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
LCS 350-5928/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	
350-1619-45 MS	NPWG-1B2X	Total/NA	Solid	1631B CAR	
350-1619-45 MSD	NPWG-1B2X	Total/NA	Solid	1631B CAR	
350-1619-49 MS	NPWG-1D2	Total/NA	Solid	1631B CAR	
350-1619-49 MSD	NPWG-1D2	Total/NA	Solid	1631B CAR	

Prep Batch: 5952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-21	NPCPP-3CP3X	Total/NA	Solid	1631B CAR	
350-1619-22	NPCPP-3D2	Total/NA	Solid	1631B CAR	
350-1619-23	NPCPP-3E2	Total/NA	Solid	1631B CAR	
350-1619-24	NPCPP-3F2X	Total/NA	Solid	1631B CAR	
350-1619-25	NPCPP-3G2	Total/NA	Solid	1631B CAR	
350-1619-26	NPCPP-4C2	Total/NA	Solid	1631B CAR	
350-1619-27	NPCPP-4CP2	Total/NA	Solid	1631B CAR	
350-1619-28	NPCPP-4D2	Total/NA	Solid	1631B CAR	
350-1619-29	NPREF-A	Total/NA	Solid	1631B CAR	
350-1619-30	NPREF-B	Total/NA	Solid	1631B CAR	
350-1619-31	NPREF-B-FD	Total/NA	Solid	1631B CAR	
350-1619-32	NPREF-C	Total/NA	Solid	1631B CAR	
350-1619-33	NPWB-1C2	Total/NA	Solid	1631B CAR	
350-1619-34	NPWB-1C2-FD	Total/NA	Solid	1631B CAR	
350-1619-35	NPWB-1CP2	Total/NA	Solid	1631B CAR	
350-1619-36	NPWB-1D2	Total/NA	Solid	1631B CAR	
350-1619-37	NPWB-2B3	Total/NA	Solid	1631B CAR	
350-1619-38	NPWB-2C2X	Total/NA	Solid	1631B CAR	
350-1619-39	NPWB-3B2	Total/NA	Solid	1631B CAR	
350-1619-40	NPWB-3C2	Total/NA	Solid	1631B CAR	
MB 350-5952/1-A	Method Blank	Total/NA	Solid	1631B CAR	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 6026 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-78	PACPP-3E2X	Total/NA	Solid	HF Bomb Prep	
350-1619-79	PACPP-3F2X	Total/NA	Solid	HF Bomb Prep	
350-1619-80	PACPP-3G2	Total/NA	Solid	HF Bomb Prep	
MB 350-6026/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-6026/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-6026/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-6026/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-69 MS	PACPP-2CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-69 MSD	PACPP-2CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-77 MS	PACPP-3D2X	Total/NA	Solid	HF Bomb Prep	
350-1619-77 MSD	PACPP-3D2X	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 6047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-81	PACPP-4C2X	Total/NA	Solid	HF Bomb Prep	
350-1619-82	PACPP-4C2X-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-83	PACPP-4CP2X	Total/NA	Solid	HF Bomb Prep	
350-1619-84	PACPP-4D2X	Total/NA	Solid	HF Bomb Prep	
350-1619-85	PAREF-A	Total/NA	Solid	HF Bomb Prep	
350-1619-86	PAREF-B	Total/NA	Solid	HF Bomb Prep	
350-1619-87	PAREF-C	Total/NA	Solid	HF Bomb Prep	
350-1619-88	PAWB-1C2	Total/NA	Solid	HF Bomb Prep	
350-1619-89	PAWB-1CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-90	PAWB-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-91	PAWB-2B1X	Total/NA	Solid	HF Bomb Prep	
350-1619-92	PAWB-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-93	PAWB-3B2	Total/NA	Solid	HF Bomb Prep	
350-1619-94	PAWB-3C2	Total/NA	Solid	HF Bomb Prep	
350-1619-95	PAWB-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-96	PAWB-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-97	PAWB-4B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-98	PAWB-4C2	Total/NA	Solid	HF Bomb Prep	
350-1619-99	PAWE-1B1	Total/NA	Solid	HF Bomb Prep	
350-1619-100	PAWE-1C2	Total/NA	Solid	HF Bomb Prep	
MB 350-6047/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-6047/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-6047/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-6047/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-81 MS	PACPP-4C2X	Total/NA	Solid	HF Bomb Prep	
350-1619-81 MSD	PACPP-4C2X	Total/NA	Solid	HF Bomb Prep	
350-1619-99 MS	PAWE-1B1	Total/NA	Solid	HF Bomb Prep	
350-1619-99 MSD	PAWE-1B1	Total/NA	Solid	HF Bomb Prep	

Analysis Batch: 6050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-1	NPCPP-1C1	Total/NA	Solid	1638	5845
350-1619-2	NPCPP-1C1-FD	Total/NA	Solid	1638	5845
350-1619-3	NPCPP-1C2X	Total/NA	Solid	1638	5845
350-1619-4	NPCPP-1CP1	Total/NA	Solid	1638	5845
350-1619-5	NPCPP-1CP2	Total/NA	Solid	1638	5845
350-1619-6	NPCPP-1CP3X	Total/NA	Solid	1638	5845

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6050 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-7	NPCPP-1D2	Total/NA	Solid	1638	5845
350-1619-8	NPCPP-1E2	Total/NA	Solid	1638	5845
350-1619-9	NPCPP-1F2	Total/NA	Solid	1638	5845
350-1619-10	NPCPP-1G2	Total/NA	Solid	1638	5845
350-1619-11	NPCPP-2C1X	Total/NA	Solid	1638	5845
350-1619-12	NPCPP-2C2	Total/NA	Solid	1638	5845
350-1619-13	NPCPP-2CP2	Total/NA	Solid	1638	5845
350-1619-14	NPCPP-2D2	Total/NA	Solid	1638	5845
350-1619-15	NPCPP-3C1	Total/NA	Solid	1638	5845
350-1619-16	NPCPP-3C2	Total/NA	Solid	1638	5845
350-1619-17	NPCPP-3C3X	Total/NA	Solid	1638	5845
350-1619-18	NPCPP-3C3X-FD	Total/NA	Solid	1638	5891
350-1619-19	NPCPP-3CP1	Total/NA	Solid	1638	5891
350-1619-20	NPCPP-3CP2	Total/NA	Solid	1638	5891
350-1619-21	NPCPP-3CP3X	Total/NA	Solid	1638	5891
350-1619-22	NPCPP-3D2	Total/NA	Solid	1638	5891
350-1619-23	NPCPP-3E2	Total/NA	Solid	1638	5891
350-1619-24	NPCPP-3F2X	Total/NA	Solid	1638	5891
350-1619-25	NPCPP-3G2	Total/NA	Solid	1638	5891
350-1619-26	NPCPP-4C2	Total/NA	Solid	1638	5891
350-1619-27	NPCPP-4CP2	Total/NA	Solid	1638	5891
350-1619-28	NPCPP-4D2	Total/NA	Solid	1638	5891
350-1619-29	NPREF-A	Total/NA	Solid	1638	5891
350-1619-30	NPREF-B	Total/NA	Solid	1638	5891
350-1619-31	LCS 350-5845/4-A	Total/NA	Solid	1638	5891
350-1619-32	NPREF-C	Total/NA	Solid	1638	5891
350-1619-33	NPWB-1C2	Total/NA	Solid	1638	5891
350-1619-34	NPWB-1C2-FD	Total/NA	Solid	1638	5891
350-1619-35	NPWB-1CP2	Total/NA	Solid	1638	5891
350-1619-36	NPWB-1D2	Total/NA	Solid	1638	5891
350-1619-37	NPWB-2B3	Total/NA	Solid	1638	5891
MB 350-5845/1-A	Method Blank	Total/NA	Solid	1638	5845
MB 350-5845/2-A	Method Blank	Total/NA	Solid	1638	5845
MB 350-5891/1-A	Method Blank	Total/NA	Solid	1638	5891
MB 350-5891/2-A	Method Blank	Total/NA	Solid	1638	5891
LCS 350-5845/3-A	Lab Control Sample	Total/NA	Solid	1638	5845
LCS 350-5891/3-A	Lab Control Sample	Total/NA	Solid	1638	5891
LCS 350-5845/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5845
LCS 350-5891/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5891
350-1619-1 MS	NPCPP-1C1	Total/NA	Solid	1638	5845
350-1619-1 MSD	NPCPP-1C1	Total/NA	Solid	1638	5845
350-1619-14 MS	NPCPP-2D2	Total/NA	Solid	1638	5845
350-1619-14 MSD	NPCPP-2D2	Total/NA	Solid	1638	5845
350-1619-20 MS	NPCPP-3CP2	Total/NA	Solid	1638	5891
350-1619-20 MSD	NPCPP-3CP2	Total/NA	Solid	1638	5891
350-1619-37 MS	NPWB-2B3	Total/NA	Solid	1638	5891
350-1619-37 MSD	NPWB-2B3	Total/NA	Solid	1638	5891

Analysis Batch: 6066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-378	POPLB-EQ	Total/NA	Water	1640	5997

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6066 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-379	POPLB-M2-SW-1	Total/NA	Water	1640	5997
350-1619-380	POPLB-M2-SW-20	Total/NA	Water	1640	5997
350-1619-381	POPLB-M2-SW-40	Total/NA	Water	1640	5997
350-1619-382	POPLB-M2-SW-B	Total/NA	Water	1640	5997
350-1619-383	POPLB-M3-SW-1	Total/NA	Water	1640	5997
350-1619-384	POPLB-M3-SW-20	Total/NA	Water	1640	5997
MB 350-5997/1-A	Method Blank	Total/NA	Water	1640	5997
MB 350-5997/2-A	Method Blank	Total/NA	Water	1640	5997
LCS 350-5997/3-A	Lab Control Sample	Total/NA	Water	1640	5997
LCS 350-5997/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5997

Prep Batch: 6090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-112	NPCPP-1C2X-SW-1	Total/NA	Water	1640	
350-1619-113	NPCPP-1C2X-SW-20	Total/NA	Water	1640	
350-1619-114	NPCPP-1C2X-SW-40	Total/NA	Water	1640	
350-1619-115	NPCPP-1C2X-SW-B	Total/NA	Water	1640	
350-1619-116	NPCPP-1CP2-SW-1	Total/NA	Water	1640	
350-1619-117	NPCPP-1CP2-SW-20	Total/NA	Water	1640	
350-1619-118	NPCPP-1CP2-SW-40	Total/NA	Water	1640	
350-1619-119	NPCPP-1CP2-SW-B	Total/NA	Water	1640	
350-1619-120	NPCPP-2C2-SW-1	Total/NA	Water	1640	
350-1619-121	NPCPP-2C2-SW-20	Total/NA	Water	1640	
350-1619-122	NPCPP-2C2-SW-40	Total/NA	Water	1640	
350-1619-123	NPCPP-2C2-SW-40-FD	Total/NA	Water	1640	
350-1619-124	NPCPP-2C2-SW-B	Total/NA	Water	1640	
350-1619-125	NPCPP-3C2-SW-1	Total/NA	Water	1640	
350-1619-126	NPCPP-3C2-SW-20	Total/NA	Water	1640	
350-1619-127	NPCPP-3C2-SW-40	Total/NA	Water	1640	
350-1619-128	NPCPP-3C2-SW-B	Total/NA	Water	1640	
MB 350-6090/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6090/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6090/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6090/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Prep Batch: 6097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-38	NPWB-3C2X	Total/NA	Solid	HF Bomb Prep	
350-1619-39	NPWB-3B2	Total/NA	Solid	HF Bomb Prep	
350-1619-40	NPWB-3C2	Total/NA	Solid	HF Bomb Prep	
MB 350-6097/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-6097/2-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCS 350-6097/3-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-39 MS	NPWB-3B2	Total/NA	Solid	HF Bomb Prep	
350-1619-39 MSD	NPWB-3B2	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 6110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-129	NPCPP-3CP2-SW-1	Total/NA	Water	1640	
350-1619-130	NPCPP-3CP2-SW-20	Total/NA	Water	1640	
350-1619-131	NPCPP-3CP2-SW-40	Total/NA	Water	1640	

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Metals (Continued)

Prep Batch: 6110 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-132	NPCPP-3CP2-SW-B	Total/NA	Water	1640	
350-1619-133	NPCPP-4C2-SW-1	Total/NA	Water	1640	
350-1619-134	NPCPP-4C2-SW-20	Total/NA	Water	1640	
350-1619-135	NPCPP-4C2-SW-40	Total/NA	Water	1640	
350-1619-136	NPCPP-4C2-SW-B	Total/NA	Water	1640	
350-1619-137	NPCPP-EQ	Total/NA	Water	1640	
350-1619-138	NPCPP-WB	Total/NA	Water	1640	
350-1619-139	NPREF-A-SW-1	Total/NA	Water	1640	
350-1619-140	NPREF-A-SW-1-FD	Total/NA	Water	1640	
350-1619-141	NPREF-A-SW-20	Total/NA	Water	1640	
350-1619-142	NPREF-A-SW-40	Total/NA	Water	1640	
350-1619-143	NPREF-A-SW-B	Total/NA	Water	1640	
350-1619-144	NPREF-EQ	Total/NA	Water	1640	
350-1619-145	NPREF-WB	Total/NA	Water	1640	
350-1619-146	NPWB-1C2-SW-1	Total/NA	Water	1640	
350-1619-147	NPWB-1C2-SW-20	Total/NA	Water	1640	
350-1619-148	NPWB-1C2-SW-40	Total/NA	Water	1640	
MB 350-6110/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6110/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6110/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6110/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-129 MS	NPCPP-3CP2-SW-1	Total/NA	Water	1640	
350-1619-129 MSD	NPCPP-3CP2-SW-1	Total/NA	Water	1640	
350-1619-130 MS	NPCPP-3CP2-SW-20	Total/NA	Water	1640	
350-1619-130 MSD	NPCPP-3CP2-SW-20	Total/NA	Water	1640	

Prep Batch: 6111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-149	NPWB-1C2-SW-B	Total/NA	Water	1640	
350-1619-150	NPWB-1CP2-SW-1	Total/NA	Water	1640	
350-1619-151	NPWB-1CP2-SW-20	Total/NA	Water	1640	
350-1619-152	NPWB-1CP2-SW-40	Total/NA	Water	1640	
350-1619-153	NPWB-1CP2-SW-B	Total/NA	Water	1640	
350-1619-154	NPWB-3B2-SW-1	Total/NA	Water	1640	
350-1619-155	NPWB-3B2-SW-20	Total/NA	Water	1640	
350-1619-156	NPWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-157	NPWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-158	NPWB-3CP2-SW-1	Total/NA	Water	1640	
350-1619-159	NPWB-3CP2-SW-20	Total/NA	Water	1640	
350-1619-160	NPWB-3CP2-SW-20-FD	Total/NA	Water	1640	
350-1619-161	NPWB-3CP2-SW-40	Total/NA	Water	1640	
350-1619-162	NPWB-3CP2-SW-B	Total/NA	Water	1640	
350-1619-163	NPWB-EQ	Total/NA	Water	1640	
350-1619-164	NPWB-WB	Total/NA	Water	1640	
350-1619-165	NPWG-1B2X-SW-1	Total/NA	Water	1640	
350-1619-166	NPWG-1B2X-SW-20	Total/NA	Water	1640	
350-1619-167	NPWG-1B2X-SW-40	Total/NA	Water	1640	
350-1619-168	NPWG-1B2X-SW-B	Total/NA	Water	1640	
MB 350-6111/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6111/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6111/3-A	Lab Control Sample	Total/NA	Water	1640	

Metals (Continued)

Prep Batch: 6111 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 350-6111/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-149 MS	NPWB-1C2-SW-B	Total/NA	Water	1640	
350-1619-149 MSD	NPWB-1C2-SW-B	Total/NA	Water	1640	
350-1619-150 MS	NPWB-1CP2-SW-1	Total/NA	Water	1640	
350-1619-150 MSD	NPWB-1CP2-SW-1	Total/NA	Water	1640	

Prep Batch: 6145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-169	NPWG-1CP2-SW-1	Total/NA	Water	1640	
350-1619-170	NPWG-1CP2-SW-20	Total/NA	Water	1640	
350-1619-171	NPWG-1CP2-SW-40	Total/NA	Water	1640	
350-1619-172	NPWG-1CP2-SW-B	Total/NA	Water	1640	
350-1619-173	NPWG-3B2X-SW-1	Total/NA	Water	1640	
350-1619-174	NPWG-3B2X-SW-20	Total/NA	Water	1640	
350-1619-175	NPWG-3B2X-SW-40	Total/NA	Water	1640	
350-1619-176	NPWG-3B2X-SW-B	Total/NA	Water	1640	
350-1619-177	NPWG-3B2X-SW-B-FD	Total/NA	Water	1640	
350-1619-178	NPWG-3CP2-SW-1	Total/NA	Water	1640	
350-1619-179	NPWG-3CP2-SW-40	Total/NA	Water	1640	
350-1619-180	NPWG-3CP2-SW-B	Total/NA	Water	1640	
350-1619-181	NPWG-3CP2-SW-B	Total/NA	Water	1640	
350-1619-182	NPWG-EQ	Total/NA	Water	1640	
350-1619-183	NPWG-WB	Total/NA	Water	1640	
350-1619-184	PACPP-1C2X-SW-1	Total/NA	Water	1640	
350-1619-185	PACPP-1C2X-SW-20	Total/NA	Water	1640	
350-1619-186	PACPP-1C2X-SW-40	Total/NA	Water	1640	
350-1619-187	PACPP-1C2X-SW-B	Total/NA	Water	1640	
350-1619-188	PACPP-1CP2X-SW-1	Total/NA	Water	1640	
MB 350-6145/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6145/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6145/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6145/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-169 MS	NPWG-1CP2-SW-1	Total/NA	Water	1640	
350-1619-169 MSD	NPWG-1CP2-SW-1	Total/NA	Water	1640	
350-1619-170 MS	NPWG-1CP2-SW-20	Total/NA	Water	1640	
350-1619-170 MSD	NPWG-1CP2-SW-20	Total/NA	Water	1640	

Prep Batch: 6146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-189	PACPP-1CP2X-SW-20	Total/NA	Water	1640	
350-1619-190	PACPP-1CP2X-SW-40	Total/NA	Water	1640	
350-1619-191	PACPP-1CP2X-SW-B	Total/NA	Water	1640	
350-1619-192	PACPP-2C2-SW-1	Total/NA	Water	1640	
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1640	
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1640	
350-1619-195	PACPP-2C2-SW-B	Total/NA	Water	1640	
350-1619-196	PACPP-3C2Y-SW-1	Total/NA	Water	1640	
350-1619-197	PACPP-3C2Y-SW-20	Total/NA	Water	1640	
350-1619-198	PACPP-3C2Y-SW-40	Total/NA	Water	1640	
350-1619-199	PACPP-3C2Y-SW-B	Total/NA	Water	1640	
350-1619-200	PACPP-3CP2-SW-1	Total/NA	Water	1640	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 6146 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-201	PACPP-3CP2-SW-20	Total/NA	Water	1640	
350-1619-202	PACPP-3CP2-SW-40	Total/NA	Water	1640	
350-1619-203	PACPP-3CP2-SW-B	Total/NA	Water	1640	
350-1619-204	PACPP-4C2-SW-1	Total/NA	Water	1640	
350-1619-205	PACPP-4C2-SW-1-FD	Total/NA	Water	1640	
350-1619-206	PACPP-4C2-SW-20	Total/NA	Water	1640	
350-1619-207	PACPP-4C2-SW-40	Total/NA	Water	1640	
350-1619-208	PACPP-4C2-SW-B	Total/NA	Water	1640	
MB 350-6146/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6146/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6146/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6146/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-189 MS	PACPP-1CP2X-SW-20	Total/NA	Water	1640	
350-1619-189 MSD	PACPP-1CP2X-SW-20	Total/NA	Water	1640	
350-1619-190 MS	PACPP-1CP2X-SW-40	Total/NA	Water	1640	
350-1619-190 MSD	PACPP-1CP2X-SW-40	Total/NA	Water	1640	

Analysis Batch: 6151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-79	PACPP-3F2X	Total/NA	Solid	1631B	6025
MB 350-6025/1-A	Method Blank	Total/NA	Solid	1631B	6025
MB 350-6025/2-A	Method Blank	Total/NA	Solid	1631B	6025
MB 350-6025/3-A	Method Blank	Total/NA	Solid	1631B	6025
LCS 350-6025/4-A	Lab Control Sample	Total/NA	Solid	1631B	6025
LCS 350-6025/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	6025

Prep Batch: 6155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-213	PAWE-A-SW-40	Total/NA	Water	1640	
350-1619-214	PAWE-A-SW-B	Total/NA	Water	1640	
350-1619-215	PAWB-1CP2-SW-1	Total/NA	Water	1640	
350-1619-216	PAWB-1CP2-SW-20	Total/NA	Water	1640	
350-1619-217	PAWB-1CP2-SW-40	Total/NA	Water	1640	
350-1619-218	PAWB-1CP2-SW-B	Total/NA	Water	1640	
350-1619-219	PAWB-3B2-SW-1	Total/NA	Water	1640	
350-1619-220	PAWB-3B2-SW-20	Total/NA	Water	1640	
350-1619-221	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-222	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-223	PAWB-3CP2-SW-1	Total/NA	Water	1640	
350-1619-224	PAWB-3CP2-SW-20	Total/NA	Water	1640	
350-1619-225	PAWB-3CP2-SW-40	Total/NA	Water	1640	
350-1619-226	PAWB-3CP2-SW-B	Total/NA	Water	1640	
350-1619-227	PAWE-1B1-SW-1	Total/NA	Water	1640	
350-1619-228	PAWE-1B1-SW-20	Total/NA	Water	1640	
350-1619-229	PAWE-1B1-SW-40	Total/NA	Water	1640	
350-1619-230	PAWE-1B1-SW-B	Total/NA	Water	1640	
350-1619-231	PAWE-1CP2-SW-1	Total/NA	Water	1640	
350-1619-232	PAWE-1CP2-SW-20	Total/NA	Water	1640	
MB 350-6155/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6155/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6155/3-A	Lab Control Sample	Total/NA	Water	1640	

Eurofins Seattle Specialty Metals

Metals (Continued)

Prep Batch: 6155 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 350-6155/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-213 MS	PAWE-A-SW-40	Total/NA	Water	1640	
350-1619-213 MSD	PAWE-A-SW-40	Total/NA	Water	1640	
350-1619-214 MS	PAWE-A-SW-B	Total/NA	Water	1640	
350-1619-214 MSD	PAWE-A-SW-B	Total/NA	Water	1640	

Prep Batch: 6156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-233	PAWE-1CP2-SW-40	Total/NA	Water	1640	
350-1619-234	PAWE-1CP2-SW-B	Total/NA	Water	1640	
350-1619-235	PAWE-3B3-SW-1	Total/NA	Water	1640	
350-1619-236	PAWE-3B3-SW-20	Total/NA	Water	1640	
MB 350-6156/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6156/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6156/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6156/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-233 MS	PAWE-1CP2-SW-40	Total/NA	Water	1640	
350-1619-233 MSD	PAWE-1CP2-SW-40	Total/NA	Water	1640	
350-1619-234 MS	PAWE-1CP2-SW-B	Total/NA	Water	1640	
350-1619-234 MSD	PAWE-1CP2-SW-B	Total/NA	Water	1640	

Analysis Batch: 6206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-112	NPCCP-1C2X-SW-1	Total/NA	Water	1640	6090
350-1619-113	NPCCP-1C2X-SW-20	Total/NA	Water	1640	6090
350-1619-114	NPCCP-1C2X-SW-40	Total/NA	Water	1640	6090
350-1619-115	NPCCP-1C2X-SW-B	Total/NA	Water	1640	6090
350-1619-116	NPCCP-1CP2-SW-1	Total/NA	Water	1640	6090
350-1619-117	NPCCP-1CP2-SW-20	Total/NA	Water	1640	6090
350-1619-118	NPCCP-1CP2-SW-40	Total/NA	Water	1640	6090
350-1619-119	NPCCP-1CP2-SW-B	Total/NA	Water	1640	6090
350-1619-120	NPCCP-2C2-SW-1	Total/NA	Water	1640	6090
350-1619-121	NPCCP-2C2-SW-20	Total/NA	Water	1640	6090
350-1619-122	NPCCP-2C2-SW-40	Total/NA	Water	1640	6090
350-1619-123	NPCCP-2C2-SW-40-FD	Total/NA	Water	1640	6090
350-1619-124	NPCCP-2C2-SW-B	Total/NA	Water	1640	6090
350-1619-125	NPCCP-3C2-SW-1	Total/NA	Water	1640	6090
350-1619-126	NPCCP-3C2-SW-20	Total/NA	Water	1640	6090
350-1619-127	NPCCP-3C2-SW-40	Total/NA	Water	1640	6090
350-1619-128	NPCCP-3C2-SW-B	Total/NA	Water	1640	6090
350-1619-129	NPCCP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-130	NPCCP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-131	NPCCP-3CP2-SW-40	Total/NA	Water	1640	6110
350-1619-132	NPCCP-3CP2-SW-B	Total/NA	Water	1640	6110
350-1619-133	PACPP-4C2-SW-1	Total/NA	Water	1640	6110
350-1619-134	PACPP-4C2-SW-20	Total/NA	Water	1640	6110
350-1619-135	PACPP-4C2-SW-40	Total/NA	Water	1640	6110
350-1619-136	PACPP-4C2-SW-B	Total/NA	Water	1640	6110
350-1619-137	NPCCP-EQ	Total/NA	Water	1640	6110
350-1619-138	NPCCP-WB	Total/NA	Water	1640	6110
350-1619-139	NPREF-A-SW-1	Total/NA	Water	1640	6110

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Metals (Continued)

Analysis Batch: 6206 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-140	NPREF-A-SW-1-FD	Total/NA	Water	1640	6110
350-1619-141	NPREF-A-SW-20	Total/NA	Water	1640	6110
350-1619-142	NPREF-A-SW-40	Total/NA	Water	1640	6110
350-1619-143	NPREF-A-SW-B	Total/NA	Water	1640	6110
350-1619-144	NPREF-EQ	Total/NA	Water	1640	6110
350-1619-145	NPREF-WB	Total/NA	Water	1640	6110
350-1619-146	NPWB-1C2-SW-1	Total/NA	Water	1640	6110
350-1619-147	NPWB-1C2-SW-20	Total/NA	Water	1640	6110
350-1619-148	NPWB-1C2-SW-40	Total/NA	Water	1640	6110
350-1619-149	NPWB-1C2-SW-B	Total/NA	Water	1640	6111
350-1619-150	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-151	NPWB-1CP2-SW-20	Total/NA	Water	1640	6111
350-1619-152	NPWB-1CP2-SW-40	Total/NA	Water	1640	6111
350-1619-153	NPWB-1CP2-SW-B	Total/NA	Water	1640	6111
350-1619-154	NPWB-3B2-SW-1	Total/NA	Water	1640	6111
350-1619-155	NPWB-3B2-SW-20	Total/NA	Water	1640	6111
350-1619-156	NPWB-3B2-SW-40	Total/NA	Water	1640	6111
350-1619-157	NPWB-3B2-SW-B	Total/NA	Water	1640	6111
350-1619-158	NPWB-3CP2-SW-1	Total/NA	Water	1640	6111
350-1619-159	NPWB-3CP2-SW-20	Total/NA	Water	1640	6111
350-1619-160	NPWB-3CP2-SW-20-FD	Total/NA	Water	1640	6111
350-1619-161	NPWB-3CP2-SW-40	Total/NA	Water	1640	6111
350-1619-162	NPWB-3CP2-SW-B	Total/NA	Water	1640	6111
350-1619-163	NPWB-EQ	Total/NA	Water	1640	6111
350-1619-164	NPWB-WB	Total/NA	Water	1640	6111
350-1619-165	NPWG-1B2X-SW-1	Total/NA	Water	1640	6111
350-1619-166	NPWG-1B2X-SW-20	Total/NA	Water	1640	6111
350-1619-167	NPWG-1B2X-SW-40	Total/NA	Water	1640	6111
350-1619-168	NPWG-1B2X-SW-B	Total/NA	Water	1640	6111
350-1619-169	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-170	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-171	NPWG-1CP2-SW-40	Total/NA	Water	1640	6145
350-1619-172	NPWG-1CP2-SW-B	Total/NA	Water	1640	6145
350-1619-173	NPWG-3B2X-SW-1	Total/NA	Water	1640	6145
350-1619-174	NPWG-3B2X-SW-20	Total/NA	Water	1640	6145
350-1619-175	NPWG-3B2X-SW-40	Total/NA	Water	1640	6145
350-1619-176	NPWG-3B2X-SW-B	Total/NA	Water	1640	6145
350-1619-177	NPWG-3B2X-SW-B-FD	Total/NA	Water	1640	6145
350-1619-178	NPWG-3CP2-SW-1	Total/NA	Water	1640	6145
350-1619-179	NPWG-3CP2-SW-20	Total/NA	Water	1640	6145
350-1619-180	NPWG-3CP2-SW-40	Total/NA	Water	1640	6145
350-1619-181	NPWG-3CP2-SW-B	Total/NA	Water	1640	6145
350-1619-182	NPWG-EQ	Total/NA	Water	1640	6145
350-1619-183	NPWG-WB	Total/NA	Water	1640	6145
350-1619-184	PACPP-1C2X-SW-1	Total/NA	Water	1640	6145
350-1619-185	PACPP-1C2X-SW-20	Total/NA	Water	1640	6145
350-1619-186	PACPP-1C2X-SW-40	Total/NA	Water	1640	6145
350-1619-187	PACPP-1C2X-SW-B	Total/NA	Water	1640	6145
350-1619-188	PACPP-1CP2X-SW-1	Total/NA	Water	1640	6145
350-1619-189	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-190	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146

Metals (Continued)

Analysis Batch: 6206 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-191	PACPP-1CP2X-SW-B	Total/NA	Water	1640	6111
350-1619-192	PACPP-2C2-SW-1	Total/NA	Water	1640	6146
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1640	6146
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1640	6146
350-1619-195	PACPP-2C2-SW-8	Total/NA	Water	1640	6146
350-1619-196	PACPP-3C2Y-SW-1	Total/NA	Water	1640	6146
350-1619-197	PACPP-3C2Y-SW-20	Total/NA	Water	1640	6146
350-1619-198	PACPP-3C2Y-SW-40	Total/NA	Water	1640	6146
350-1619-199	PACPP-3C2Y-SW-8	Total/NA	Water	1640	6146
350-1619-200	PACPP-3CP2-SW-1	Total/NA	Water	1640	6146
350-1619-201	PACPP-3CP2-SW-20	Total/NA	Water	1640	6146
350-1619-202	PACPP-3CP2-SW-40	Total/NA	Water	1640	6146
350-1619-203	PACPP-3CP2-SW-8	Total/NA	Water	1640	6146
350-1619-204	PACPP-4C2-SW-1	Total/NA	Water	1640	6146
350-1619-205	PACPP-4C2-SW-1-FD	Total/NA	Water	1640	6146
350-1619-206	PACPP-4C2-SW-20	Total/NA	Water	1640	6146
350-1619-207	PACPP-4C2-SW-40	Total/NA	Water	1640	6146
350-1619-208	PACPP-4C2-SW-8	Total/NA	Water	1640	6146
350-1619-213	PAREF-A-SW-40	Total/NA	Water	1640	6155
350-1619-214	PAREF-A-SW-8	Total/NA	Water	1640	6155
350-1619-215	PAWB-1CP2-SW-1	Total/NA	Water	1640	6155
350-1619-216	PAWB-1CP2-SW-20	Total/NA	Water	1640	6155
350-1619-217	PAWB-1CP2-SW-40	Total/NA	Water	1640	6155
350-1619-218	PAWB-1CP2-SW-8	Total/NA	Water	1640	6155
350-1619-219	PAWB-3B2-SW-1	Total/NA	Water	1640	6155
350-1619-220	PAWB-3B2-SW-20	Total/NA	Water	1640	6155
350-1619-221	PAWB-3B2-SW-40	Total/NA	Water	1640	6155
350-1619-222	PAWB-3B2-SW-8	Total/NA	Water	1640	6155
350-1619-223	PAWB-3CP2-SW-1	Total/NA	Water	1640	6155
350-1619-224	PAWB-3CP2-SW-20	Total/NA	Water	1640	6155
350-1619-225	PAWB-3CP2-SW-40	Total/NA	Water	1640	6155
350-1619-226	PAWB-3CP2-SW-8	Total/NA	Water	1640	6155
350-1619-227	PAWE-1B1-SW-1	Total/NA	Water	1640	6155
350-1619-228	PAWE-1B1-SW-20	Total/NA	Water	1640	6155
350-1619-229	PAWE-1B1-SW-40	Total/NA	Water	1640	6155
350-1619-230	PAWE-1B1-SW-8	Total/NA	Water	1640	6155
350-1619-231	PAWE-1CP2-SW-1	Total/NA	Water	1640	6155
350-1619-232	PAWE-1CP2-SW-20	Total/NA	Water	1640	6155
350-1619-233	PAWE-1CP2-SW-40	Total/NA	Water	1640	6155
350-1619-234	PAWE-1CP2-SW-8	Total/NA	Water	1640	6156
350-1619-235	PAWE-3B3-SW-1	Total/NA	Water	1640	6156
350-1619-236	PAWE-3B3-SW-20	Total/NA	Water	1640	6156
MB 350-6090/1-A	Method Blank	Total/NA	Water	1640	6090
MB 350-6090/2-A	Method Blank	Total/NA	Water	1640	6090
MB 350-6110/1-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6110/1-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6110/2-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6110/2-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6111/1-A	Method Blank	Total/NA	Water	1640	6111
MB 350-6111/1-A	Method Blank	Total/NA	Water	1640	6111
MB 350-6111/2-A	Method Blank	Total/NA	Water	1640	6111

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6206 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-6111/2-A	Method Blank	Total/NA	Water	1640	6111
MB 350-6145/1-A	Method Blank	Total/NA	Water	1640	6145
MB 350-6145/2-A	Method Blank	Total/NA	Water	1640	6145
MB 350-6146/1-A	Method Blank	Total/NA	Water	1640	6146
MB 350-6146/2-A	Method Blank	Total/NA	Water	1640	6146
MB 350-6155/1-A	Method Blank	Total/NA	Water	1640	6155
MB 350-6155/2-A	Method Blank	Total/NA	Water	1640	6155
MB 350-6156/1-A	Method Blank	Total/NA	Water	1640	6156
MB 350-6156/2-A	Method Blank	Total/NA	Water	1640	6156
LCS 350-6090/3-A	Lab Control Sample	Total/NA	Water	1640	6090
LCS 350-6110/3-A	Lab Control Sample	Total/NA	Water	1640	6110
LCS 350-6111/3-A	Lab Control Sample	Total/NA	Water	1640	6111
LCS 350-6145/3-A	Lab Control Sample	Total/NA	Water	1640	6145
LCS 350-6146/3-A	Lab Control Sample	Total/NA	Water	1640	6146
LCS 350-6155/3-A	Lab Control Sample	Total/NA	Water	1640	6155
LCS 350-6156/3-A	Lab Control Sample	Total/NA	Water	1640	6156
LCSD 350-6090/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6090
LCSD 350-6110/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6110
LCSD 350-6111/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6111
LCSD 350-6145/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6145
LCSD 350-6146/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6146
LCSD 350-6155/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6155
LCSD 350-6156/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6156
350-1619-129 MS	NPCPP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-129 MS	NPCPP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-129 MSD	NPCPP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-129 MSD	NPCPP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-130 MS	NPCPP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-130 MSD	NPCPP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-130 MSD	NPCPP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-149 MS	NPWB-1C2-SW-B	Total/NA	Water	1640	6111
350-1619-149 MSD	NPWB-1C2-SW-B	Total/NA	Water	1640	6111
350-1619-150 MS	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-150 MSD	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-169 MS	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-169 MSD	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-170 MS	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-170 MSD	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-189 MS	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-189 MSD	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-190 MS	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146
350-1619-190 MSD	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146
350-1619-213 MS	PAREF-A-SW-40	Total/NA	Water	1640	6155
350-1619-213 MSD	PAREF-A-SW-40	Total/NA	Water	1640	6155
350-1619-214 MS	PAREF-A-SW-B	Total/NA	Water	1640	6155
350-1619-214 MSD	PAREF-A-SW-B	Total/NA	Water	1640	6155
350-1619-233 MS	PAWE-1CP2-SW-40	Total/NA	Water	1640	6156
350-1619-233 MSD	PAWE-1CP2-SW-40	Total/NA	Water	1640	6156
350-1619-234 MS	PAWE-1CP2-SW-8	Total/NA	Water	1640	6156
350-1619-234 MSD	PAWE-1CP2-SW-8	Total/NA	Water	1640	6156

Eurofins Seattle Specialty Metals

Metals

Analysis Batch: 6250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-1	NPCPP-1C1	Total/NA	Solid	1631B	5840
350-1619-2	NPCPP-1C1-FD	Total/NA	Solid	1631B	5840
350-1619-3	NPCPP-1C2X	Total/NA	Solid	1631B	5840
350-1619-4	NPCPP-1CP1	Total/NA	Solid	1631B	5840
350-1619-5	NPCPP-1CP2	Total/NA	Solid	1631B	5840
350-1619-6	NPCPP-1CP3X	Total/NA	Solid	1631B	5840
350-1619-7	NPCPP-1D2	Total/NA	Solid	1631B	5840
350-1619-8	NPCPP-1E2	Total/NA	Solid	1631B	5840
350-1619-9	NPCPP-1F2	Total/NA	Solid	1631B	5840
350-1619-10	NPCPP-1G2	Total/NA	Solid	1631B	5840
350-1619-11	NPCPP-2C1X	Total/NA	Solid	1631B	5840
350-1619-12	NPCPP-2C2	Total/NA	Solid	1631B	5840
350-1619-13	NPCPP-2CP2	Total/NA	Solid	1631B	5840
350-1619-14	NPCPP-2D2	Total/NA	Solid	1631B	5840
350-1619-15	NPCPP-3C1	Total/NA	Solid	1631B	5840
350-1619-16	NPCPP-3C2	Total/NA	Solid	1631B	5840
350-1619-17	NPCPP-3C3X	Total/NA	Solid	1631B	5840
350-1619-18	NPCPP-3C3X-FD	Total/NA	Solid	1631B	5840
350-1619-19	NPCPP-3CP1	Total/NA	Solid	1631B	5840
350-1619-20	NPCPP-3CP2	Total/NA	Solid	1631B	5840
350-1619-21	NPCPP-3CP3X	Total/NA	Solid	1631B	5952
350-1619-22	NPCPP-3D2	Total/NA	Solid	1631B	5952
350-1619-23	NPCPP-3E2	Total/NA	Solid	1631B	5952
350-1619-24	NPCPP-3F2X	Total/NA	Solid	1631B	5952
350-1619-25	NPCPP-3G2	Total/NA	Solid	1631B	5952
350-1619-26	NPCPP-4C2	Total/NA	Solid	1631B	5952
350-1619-27	NPCPP-4CP2	Total/NA	Solid	1631B	5952
350-1619-28	NPCPP-4D2	Total/NA	Solid	1631B	5952
350-1619-29	NPREF-A	Total/NA	Solid	1631B	5952
350-1619-30	NPREF-B	Total/NA	Solid	1631B	5952
350-1619-31	NPREF-B-FD	Total/NA	Solid	1631B	5952
350-1619-32	NPREF-C	Total/NA	Solid	1631B	5952
350-1619-33	NPWB-1C2	Total/NA	Solid	1631B	5952
350-1619-34	NPWB-1C2-FD	Total/NA	Solid	1631B	5952
350-1619-35	NPWB-1CP2	Total/NA	Solid	1631B	5952
350-1619-36	NPWB-1D2	Total/NA	Solid	1631B	5952
350-1619-37	NPWB-2B3	Total/NA	Solid	1631B	5952
350-1619-38	NPWB-2C2X	Total/NA	Solid	1631B	5952
350-1619-39	NPWB-3B2	Total/NA	Solid	1631B	5952
350-1619-40	NPWB-3C2	Total/NA	Solid	1631B	5952
350-1619-41	NPWB-3CP2	Total/NA	Solid	1631B	5928
350-1619-42	NPWB-3D2	Total/NA	Solid	1631B	5928
350-1619-43	NPWB-4B3X	Total/NA	Solid	1631B	5928
350-1619-44	NPWB-4C2	Total/NA	Solid	1631B	5928
350-1619-45	NPWG-1B2X	Total/NA	Solid	1631B	5928
350-1619-46	NPWG-1B2X-FD	Total/NA	Solid	1631B	5928
350-1619-47	NPWG-1C2	Total/NA	Solid	1631B	5928
350-1619-48	NPWG-1CP2	Total/NA	Solid	1631B	5928
350-1619-49	NPWG-1D2	Total/NA	Solid	1631B	5928
350-1619-50	NPWG-2B2X	Total/NA	Solid	1631B	5928
350-1619-51	NPWG-2C2	Total/NA	Solid	1631B	5928

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6250 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-52	NPWG-3B2X	Total/NA	Solid	1631B	5928
350-1619-53	NPWG-3C2	Total/NA	Solid	1631B	5928
350-1619-54	NPWG-3CP2	Total/NA	Solid	1631B	5928
350-1619-55	NPWG-3D2	Total/NA	Solid	1631B	5928
350-1619-56	NPWG-4B2X	Total/NA	Solid	1631B	5928
350-1619-57	NPWG-4C2	Total/NA	Solid	1631B	5928
MB 350-5840/1-A	Method Blank	Total/NA	Solid	1631B	5840
MB 350-5840/2-A	Method Blank	Total/NA	Solid	1631B	5840
MB 350-5840/3-A	Method Blank	Total/NA	Solid	1631B	5840
MB 350-5928/1-A	Method Blank	Total/NA	Solid	1631B	5928
MB 350-5928/2-A	Method Blank	Total/NA	Solid	1631B	5928
MB 350-5928/3-A	Method Blank	Total/NA	Solid	1631B	5928
MB 350-5952/1-A	Method Blank	Total/NA	Solid	1631B	5952
MB 350-5952/2-A	Method Blank	Total/NA	Solid	1631B	5952
MB 350-5952/3-A	Method Blank	Total/NA	Solid	1631B	5952
LCS 350-5840/4-A	Lab Control Sample	Total/NA	Solid	1631B	5840
LCS 350-5928/4-A	Lab Control Sample	Total/NA	Solid	1631B	5928
LCS 350-5952/4-A	Lab Control Sample	Total/NA	Solid	1631B	5952
LCSD 350-5840/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5840
LCSD 350-5928/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5928
LCSD 350-5952/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5952
350-1619-1 MS	NPCPP-1C1	Total/NA	Solid	1631B	5840
350-1619-1 MSD	NPCPP-1C1	Total/NA	Solid	1631B	5840
350-1619-14 MS	NPCPP-2D2	Total/NA	Solid	1631B	5840
350-1619-14 MSD	NPCPP-2D2	Total/NA	Solid	1631B	5840
350-1619-21 MS	NPCPP-3CP3X	Total/NA	Solid	1631B	5952
350-1619-21 MSD	NPCPP-3CP3X	Total/NA	Solid	1631B	5952
350-1619-33 MS	NPWB-1C2	Total/NA	Solid	1631B	5952
350-1619-33 MSD	NPWB-1C2	Total/NA	Solid	1631B	5952
350-1619-45 MS	NPWG-1B2X	Total/NA	Solid	1631B	5928
350-1619-45 MSD	NPWG-1B2X	Total/NA	Solid	1631B	5928
350-1619-49 MS	NPWG-1D2	Total/NA	Solid	1631B	5928
350-1619-49 MSD	NPWG-1D2	Total/NA	Solid	1631B	5928

Metals (Continued)

Analysis Batch: 6254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-127	NPCCP-3CP2-SW-40	Total/NA	Water	1640	6090
350-1619-128	NPCCP-3CP2-SW-8	Total/NA	Water	1640	6090
350-1619-129	NPCCP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-130	NPCCP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-131	NPCCP-3CP2-SW-40	Total/NA	Water	1640	6110
350-1619-132	NPCCP-3CP2-SW-8	Total/NA	Water	1640	6110
350-1619-133	NPCCP-4C2-SW-1	Total/NA	Water	1640	6110
350-1619-134	NPCCP-4C2-SW-20	Total/NA	Water	1640	6110
350-1619-135	NPCCP-4C2-SW-40	Total/NA	Water	1640	6110
350-1619-136	NPCCP-4C2-SW-8	Total/NA	Water	1640	6110
350-1619-137	NPCCP-EQ	Total/NA	Water	1640	6110
350-1619-138	NPCCP-WB	Total/NA	Water	1640	6110
350-1619-139	NPREF-A-SW-1	Total/NA	Water	1640	6110
350-1619-140	NPREF-A-SW-1-FD	Total/NA	Water	1640	6110
350-1619-141	NPREF-A-SW-20	Total/NA	Water	1640	6110
350-1619-142	NPREF-A-SW-40	Total/NA	Water	1640	6110
350-1619-143	NPREF-A-SW-8	Total/NA	Water	1640	6110
350-1619-144	NPREF-EQ	Total/NA	Water	1640	6110
350-1619-145	NPREF-WB	Total/NA	Water	1640	6110
350-1619-146	NPWB-1C2-SW-1	Total/NA	Water	1640	6110
350-1619-147	NPWB-1C2-SW-20	Total/NA	Water	1640	6110
350-1619-148	NPWB-1C2-SW-40	Total/NA	Water	1640	6110
350-1619-149	NPWB-1C2-SW-8	Total/NA	Water	1640	6111
350-1619-150	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-151	NPWB-1CP2-SW-20	Total/NA	Water	1640	6111
350-1619-152	NPWB-1CP2-SW-40	Total/NA	Water	1640	6111
350-1619-153	NPWB-1CP2-SW-8	Total/NA	Water	1640	6111
350-1619-154	NPWB-3B2-SW-1	Total/NA	Water	1640	6111
350-1619-155	NPWB-3B2-SW-20	Total/NA	Water	1640	6111
350-1619-156	NPWB-3B2-SW-40	Total/NA	Water	1640	6111
350-1619-157	NPWB-3B2-SW-8	Total/NA	Water	1640	6111
350-1619-158	NPWB-3CP2-SW-1	Total/NA	Water	1640	6111
350-1619-159	NPWB-3CP2-SW-20	Total/NA	Water	1640	6111
350-1619-160	NPWB-3CP2-SW-20-FD	Total/NA	Water	1640	6111
350-1619-161	NPWB-3CP2-SW-40	Total/NA	Water	1640	6111
350-1619-162	NPWB-3CP2-SW-8	Total/NA	Water	1640	6111
350-1619-163	NPWB-EQ	Total/NA	Water	1640	6111
350-1619-164	NPWB-WB	Total/NA	Water	1640	6111
350-1619-165	NPWG-1B2X-SW-1	Total/NA	Water	1640	6111
350-1619-166	NPWG-1B2X-SW-20	Total/NA	Water	1640	6111
350-1619-167	NPWG-1B2X-SW-40	Total/NA	Water	1640	6111
350-1619-168	NPWG-1B2X-SW-8	Total/NA	Water	1640	6111
350-1619-169	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-170	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-171	NPWG-1CP2-SW-40	Total/NA	Water	1640	6145
350-1619-172	NPWG-1CP2-SW-8	Total/NA	Water	1640	6145
350-1619-173	NPWG-3B2X-SW-1	Total/NA	Water	1640	6145
350-1619-174	NPWG-3B2X-SW-20	Total/NA	Water	1640	6145
350-1619-175	NPWG-3B2X-SW-40	Total/NA	Water	1640	6145
350-1619-176	NPWG-3B2X-SW-8	Total/NA	Water	1640	6145
350-1619-177	NPWG-3B2X-SW-8-FD	Total/NA	Water	1640	6145

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-178	NPWG-3CP2-SW-1	Total/NA	Water	1640	6145
350-1619-179	NPWG-3CP2-SW-20	Total/NA	Water	1640	6145
350-1619-180	NPWG-3CP2-SW-40	Total/NA	Water	1640	6145
350-1619-181	NPWG-3CP2-SW-8	Total/NA	Water	1640	6145
350-1619-182	NPWG-EQ	Total/NA	Water	1640	6145
350-1619-183	NPWG-WB	Total/NA	Water	1640	6145
350-1619-184	PACPP-1C2X-SW-1	Total/NA	Water	1640	6145
350-1619-185	PACPP-1C2X-SW-20	Total/NA	Water	1640	6145
350-1619-186	PACPP-1C2X-SW-40	Total/NA	Water	1640	6145
350-1619-187	PACPP-1C2X-SW-8	Total/NA	Water	1640	6145
350-1619-188	PACPP-1CP2X-SW-1	Total/NA	Water	1640	6145
350-1619-189	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-190	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146
350-1619-191	PACPP-1CP2X-SW-8	Total/NA	Water	1640	6146
350-1619-192	PACPP-2C2-SW-1	Total/NA	Water	1640	6146
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1640	6146
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1640	6146
350-1619-195	PACPP-2C2-SW-8	Total/NA	Water	1640	6146
350-1619-196	PACPP-3C2Y-SW-1	Total/NA	Water	1640	6146
350-1619-197	PACPP-3C2Y-SW-20	Total/NA	Water	1640	6146
350-1619-198	PACPP-3C2Y-SW-40	Total/NA	Water	1640	6146
350-1619-199	PACPP-3C2Y-SW-8	Total/NA	Water	1640	6146
350-1619-200	PACPP-3CP2-SW-1	Total/NA	Water	1640	6146
350-1619-201	PACPP-3CP2-SW-20	Total/NA	Water	1640	6146
350-1619-202	PACPP-3CP2-SW-40	Total/NA	Water	1640	6146
350-1619-203	PACPP-3CP2-SW-8	Total/NA	Water	1640	6146
350-1619-204	PACPP-4C2-SW-1	Total/NA	Water	1640	6146
350-1619-205	PACPP-4C2-SW-1-FD	Total/NA	Water	1640	6146
350-1619-206	PACPP-4C2-SW-20	Total/NA	Water	1640	6146
350-1619-207	PACPP-4C2-SW-40	Total/NA	Water	1640	6146
350-1619-208	PACPP-4C2-SW-8	Total/NA	Water	1640	6146
MB 350-6090/1-A	Method Blank	Total/NA	Water	1640	6090
MB 350-6090/2-A	Method Blank	Total/NA	Water	1640	6090
MB 350-6110/1-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6110/2-A	Method Blank	Total/NA	Water	1640	6110
MB 350-6145/1-A	Method Blank	Total/NA	Water	1640	6145
MB 350-6145/2-A	Method Blank	Total/NA	Water	1640	6145
MB 350-6146/1-A	Method Blank	Total/NA	Water	1640	6146
MB 350-6146/2-A	Method Blank	Total/NA	Water	1640	6146
LCS 350-6090/3-A	Lab Control Sample	Total/NA	Water	1640	6090
LCS 350-6110/3-A	Lab Control Sample	Total/NA	Water	1640	6110
LCS 350-6145/3-A	Lab Control Sample	Total/NA	Water	1640	6145
LCS 350-6146/3-A	Lab Control Sample	Total/NA	Water	1640	6146
LCSD 350-6090/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6090
LCSD 350-6110/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6110
LCSD 350-6145/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6145
LCSD 350-6146/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6146
350-1619-129 MS	NPCCP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-129 MSD	NPCCP-3CP2-SW-1	Total/NA	Water	1640	6110
350-1619-130 MS	NPCCP-3CP2-SW-20	Total/NA	Water	1640	6110
350-1619-130 MSD	NPCCP-3CP2-SW-20	Total/NA	Water	1640	6110

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-149 MS	NPWB-1C2-SW-8	Total/NA	Water	1640	6111
350-1619-149 MSD	NPWB-1C2-SW-8	Total/NA	Water	1640	6111
350-1619-150 MS	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-150 MSD	NPWB-1CP2-SW-1	Total/NA	Water	1640	6111
350-1619-169 MS	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-169 MSD	NPWG-1CP2-SW-1	Total/NA	Water	1640	6145
350-1619-170 MS	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-170 MSD	NPWG-1CP2-SW-20	Total/NA	Water	1640	6145
350-1619-189 MS	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-189 MSD	PACPP-1CP2X-SW-20	Total/NA	Water	1640	6146
350-1619-190 MS	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146
350-1619-190 MSD	PACPP-1CP2X-SW-40	Total/NA	Water	1640	6146

Analysis Batch: 6430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-152	NPWB-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-153	NPWB-1CP2-SW-8	Total/NA	Water	1631E	
350-1619-154	NPWB-3B2-SW-1	Total/NA	Water	1631E	
350-1619-155	NPWB-3B2-SW-20	Total/NA	Water	1631E	
350-1619-156	NPWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-157	NPWB-3B2-SW-8	Total/NA	Water	1631E	
350-1619-158	NPWB-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-159	NPWB-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-160	NPWB-3CP2-SW-20-FD	Total/NA	Water	1631E	
350-1619-161	NPWB-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-162	NPWB-3CP2-SW-8	Total/NA	Water	1631E	
350-1619-163	NPWB-EQ	Total/NA	Water	1631E	
350-1619-164	NPWB-WB	Total/NA	Water	1631E	
350-1619-166	NPWG-1B2X-SW-20	Total/NA	Water	1631E	
350-1619-167	NPWG-1B2X-SW-40	Total/NA	Water	1631E	
350-1619-168	NPWG-1B2X-SW-8	Total/NA	Water	1631E	
350-1619-169	NPWG-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-172	NPWG-1CP2-SW-8	Total/NA	Water	1631E	
MB 350-6430/116	Method Blank	Total/NA	Water	1631E	
MB 350-6430/117	Method Blank	Total/NA	Water	1631E	
MB 350-6430/118	Method Blank	Total/NA	Water	1631E	
MB 350-6430/21	Method Blank	Total/NA	Water	1631E	
MB 350-6430/22	Method Blank	Total/NA	Water	1631E	
MB 350-6430/23	Method Blank	Total/NA	Water	1631E	
LCS 350-6430/119	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6430/32	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-6430/120	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6430/33	Lab Control Sample Dup	Total/NA	Water	1631E	
350-1619-156 MS	NPWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-156 MSD	NPWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-157 MS	NPWB-3B2-SW-8	Total/NA	Water	1631E	
350-1619-157 MSD	NPWB-3B2-SW-8	Total/NA	Water	1631E	

Analysis Batch: 6431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-112	NPCCP-1C2X-SW-1	Total/NA	Water	1631E	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6431 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-113	NPCCP-1C2X-SW-20	Total/NA	Water	1631E	
350-1619-114	NPCCP-1C2X-SW-40	Total/NA	Water	1631E	
350-1619-115	NPCCP-1C2X-SW-8	Total/NA	Water	1631E	
350-1619-116	NPCCP-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-117	NPCCP-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-118	NPCCP-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-119	NPCCP-1CP2-SW-8	Total/NA	Water	1631E	
350-1619-120	NPCCP-2C2-SW-1	Total/NA	Water	1631E	
350-1619-121	NPCCP-2C2-SW-20	Total/NA	Water	1631E	
350-1619-122	NPCCP-2C2-SW-40	Total/NA	Water	1631E	
350-1619-123	NPCCP-2C2-SW-40-FD	Total/NA	Water	1631E	
350-1619-124	NPCCP-2C2-SW-8	Total/NA	Water	1631E	
350-1619-125	NPCCP-3C2-SW-1	Total/NA	Water	1631E	
350-1619-126	NPCCP-3C2-SW-20	Total/NA	Water	1631E	
350-1619-127	NPCCP-3C2-SW-40	Total/NA	Water	1631E	
350-1619-128	NPCCP-3C2-SW-8	Total/NA	Water	1631E	
350-1619-129	NPCCP-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-130	NPCCP-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-131	NPCCP-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-132	NPCCP-3CP2-SW-8	Total/NA	Water	1631E	
350-1619-133	NPCCP-4C2-SW-1	Total/NA	Water	1631E	
350-1619-134	NPCCP-4C2-SW-20	Total/NA	Water	1631E	
350-1619-135	NPCCP-4C2-SW-40	Total/NA	Water	1631E	
350-1619-136	NPCCP-4C2-SW-8	Total/NA	Water	1631E	
350-1619-137	NPCCP-EQ	Total/NA	Water	1631E	
350-1619-138	NPCCP-WB	Total/NA	Water	1631E	
350-1619-139	NPREF-A-SW-1	Total/NA	Water	1631E	
350-1619-140	NPREF-A-SW-1-FD	Total/NA	Water	1631E	
350-1619-141	NPREF-A-SW-20	Total/NA	Water	1631E	
350-1619-142	NPREF-A-SW-40	Total/NA	Water	1631E	
350-1619-143	NPREF-A-SW-8	Total/NA	Water	1631E	
350-1619-144	NPREF-EQ	Total/NA	Water	1631E	
350-1619-145	NPREF-WB	Total/NA	Water	1631E	
350-1619-146	NPWB-1C2-SW-1	Total/NA	Water	1631E	
350-1619-147	NPWB-1C2-SW-20	Total/NA	Water	1631E	
350-1619-148	NPWB-1C2-SW-40	Total/NA	Water	1631E	
350-1619-149	NPWB-1C2-SW-8	Total/NA	Water	1631E	
350-1619-150	NPWB-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-151	NPWB-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-176	NPWG-3B2X-SW-8	Total/NA	Water	1631E	
350-1619-177	NPWG-3B2X-SW-8-FD	Total/NA	Water	1631E	
350-1619-178	NPWG-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-179	NPWG-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-180	NPWG-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-181	NPWG-3CP2-SW-8	Total/NA	Water	1631E	
350-1619-182	NPWG-EQ	Total/NA	Water	1631E	
350-1619-183	NPWG-WB	Total/NA	Water	1631E	
350-1619-184	PACPP-1C2X-SW-1	Total/NA	Water	1631E	
350-1619-185	PACPP-1C2X-SW-20	Total/NA	Water	1631E	
350-1619-186	PACPP-1C2X-SW-40	Total/NA	Water	1631E	
350-1619-187	PACPP-1C2X-SW-8	Total/NA	Water	1631E	

Metals (Continued)

Analysis Batch: 6431 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-188	PACPP-1CP2X-SW-1	Total/NA	Water	1631E	
350-1619-189	PACPP-1CP2X-SW-20	Total/NA	Water	1631E	
350-1619-190	PACPP-1CP2X-SW-40	Total/NA	Water	1631E	
350-1619-191	PACPP-1CP2X-SW-B	Total/NA	Water	1631E	
350-1619-192	PACPP-2C2-SW-1	Total/NA	Water	1631E	
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1631E	
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1631E	
350-1619-195	PACPP-2C2-SW-B	Total/NA	Water	1631E	
350-1619-196	PACPP-3C2Y-SW-1	Total/NA	Water	1631E	
350-1619-197	PACPP-3C2Y-SW-20	Total/NA	Water	1631E	
350-1619-198	PACPP-3C2Y-SW-40	Total/NA	Water	1631E	
350-1619-199	PACPP-3C2Y-SW-B	Total/NA	Water	1631E	
MB 350-6431/11	Method Blank	Total/NA	Water	1631E	
MB 350-6431/12	Method Blank	Total/NA	Water	1631E	
MB 350-6431/13	Method Blank	Total/NA	Water	1631E	
MB 350-6431/14	Method Blank	Total/NA	Water	1631E	
MB 350-6431/15	Method Blank	Total/NA	Water	1631E	
MB 350-6431/16	Method Blank	Total/NA	Water	1631E	
MB 350-6431/79	Method Blank	Total/NA	Water	1631E	
MB 350-6431/80	Method Blank	Total/NA	Water	1631E	
MB 350-6431/83	Method Blank	Total/NA	Water	1631E	
MB 350-6431/90	Method Blank	Total/NA	Water	1631E	
MB 350-6431/91	Method Blank	Total/NA	Water	1631E	
MB 350-6431/92	Method Blank	Total/NA	Water	1631E	
LCS 350-6431/17	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6431/25	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6431/84	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6431/95	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-6431/18	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6431/26	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6431/85	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6431/96	Lab Control Sample Dup	Total/NA	Water	1631E	
350-1619-112 MS	NPCPP-1C2X-SW-1	Total/NA	Water	1631E	
350-1619-112 MSD	NPCPP-1C2X-SW-1	Total/NA	Water	1631E	
350-1619-113 MS	NPCPP-1C2X-SW-20	Total/NA	Water	1631E	
350-1619-113 MSD	NPCPP-1C2X-SW-20	Total/NA	Water	1631E	
350-1619-132 MS	NPCPP-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-132 MSD	NPCPP-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-133 MS	NPCPP-4C2-SW-1	Total/NA	Water	1631E	
350-1619-133 MSD	NPCPP-4C2-SW-1	Total/NA	Water	1631E	
350-1619-176 MS	NPWG-3B2X-SW-B	Total/NA	Water	1631E	
350-1619-176 MSD	NPWG-3B2X-SW-B	Total/NA	Water	1631E	
350-1619-177 MS	NPWG-3B2X-SW-B-FD	Total/NA	Water	1631E	
350-1619-177 MSD	NPWG-3B2X-SW-B-FD	Total/NA	Water	1631E	
350-1619-196 MS	PACPP-3C2Y-SW-1	Total/NA	Water	1631E	
350-1619-196 MSD	PACPP-3C2Y-SW-1	Total/NA	Water	1631E	
350-1619-197 MS	PACPP-3C2Y-SW-20	Total/NA	Water	1631E	
350-1619-197 MSD	PACPP-3C2Y-SW-20	Total/NA	Water	1631E	

Eurofins Seattle Specialty Metals

Metals

Analysis Batch: 6472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-165	NPWG-1B2X-SW-1	Total/NA	Water	1631E	
350-1619-170	NPWG-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-171	NPWG-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-240	PAWE-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-241	PAWE-3CP2-SW-20-FD	Total/NA	Water	1631E	
350-1619-242	PAWE-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-243	PAWE-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-244	PAWE-EQ	Total/NA	Water	1631E	
350-1619-245	PAWE-WB	Total/NA	Water	1631E	
350-1619-378	PDPLB-EQ	Total/NA	Water	1631E	
350-1619-379	PDPLB-M2-SW-1	Total/NA	Water	1631E	
350-1619-380	PDPLB-M2-SW-20	Total/NA	Water	1631E	
350-1619-381	PDPLB-M2-SW-40	Total/NA	Water	1631E	
350-1619-382	PDPLB-M2-SW-B	Total/NA	Water	1631E	
350-1619-383	PDPLB-M3-SW-1	Total/NA	Water	1631E	
MB 350-6472/11	Method Blank	Total/NA	Water	1631E	
MB 350-6472/119	Method Blank	Total/NA	Water	1631E	
MB 350-6472/12	Method Blank	Total/NA	Water	1631E	
MB 350-6472/120	Method Blank	Total/NA	Water	1631E	
MB 350-6472/121	Method Blank	Total/NA	Water	1631E	
MB 350-6472/13	Method Blank	Total/NA	Water	1631E	
MB 350-6472/14	Method Blank	Total/NA	Water	1631E	
MB 350-6472/15	Method Blank	Total/NA	Water	1631E	
MB 350-6472/16	Method Blank	Total/NA	Water	1631E	
MB 350-6472/17	Method Blank	Total/NA	Water	1631E	
MB 350-6472/18	Method Blank	Total/NA	Water	1631E	
MB 350-6472/19	Method Blank	Total/NA	Water	1631E	
LCS 350-6472/122	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6472/20	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6472/52	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6472/86	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-6472/123	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6472/23	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6472/53	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6472/87	Lab Control Sample Dup	Total/NA	Water	1631E	
350-1619-240 MS	PAWE-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-240 MSD	PAWE-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-241 MS	PAWE-3CP2-SW-20-FD	Total/NA	Water	1631E	
350-1619-241 MSD	PAWE-3CP2-SW-20-FD	Total/NA	Water	1631E	

Analysis Batch: 6479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-200	PACPP-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-201	PACPP-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-202	PACPP-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-203	PACPP-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-204	PACPP-4C2-SW-1	Total/NA	Water	1631E	
350-1619-205	PACPP-4C2-SW-1-FD	Total/NA	Water	1631E	
350-1619-206	PACPP-4C2-SW-20	Total/NA	Water	1631E	
350-1619-207	PACPP-4C2-SW-40	Total/NA	Water	1631E	
350-1619-208	PACPP-4C2-SW-B	Total/NA	Water	1631E	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6479 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-209	PACPP-EQ	Total/NA	Water	1631E	
350-1619-210	PACPP-WB	Total/NA	Water	1631E	
350-1619-211	PAREF-A-SW-1	Total/NA	Water	1631E	
350-1619-212	PAREF-A-SW-20	Total/NA	Water	1631E	
350-1619-213	PAREF-A-SW-40	Total/NA	Water	1631E	
350-1619-214	PAREF-A-SW-B	Total/NA	Water	1631E	
350-1619-215	PAWB-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-216	PAWB-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-217	PAWB-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-218	PAWB-1CP2-SW-B	Total/NA	Water	1631E	
350-1619-219	PAWB-3B2-SW-1	Total/NA	Water	1631E	
350-1619-220	PAWB-3B2-SW-20	Total/NA	Water	1631E	
350-1619-221	PAWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-222	PAWB-3B2-SW-B	Total/NA	Water	1631E	
350-1619-223	PAWB-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-224	PAWB-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-225	PAWB-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-226	PAWB-3CP2-SW-B	Total/NA	Water	1631E	
350-1619-227	PAWE-1B1-SW-1	Total/NA	Water	1631E	
350-1619-228	PAWE-1B1-SW-20	Total/NA	Water	1631E	
350-1619-229	PAWE-1B1-SW-40	Total/NA	Water	1631E	
350-1619-230	PAWE-1B1-SW-B	Total/NA	Water	1631E	
350-1619-231	PAWE-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-232	PAWE-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-233	PAWE-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-234	PAWE-1CP2-SW-B	Total/NA	Water	1631E	
350-1619-235	PAWE-3B3-SW-1	Total/NA	Water	1631E	
350-1619-236	PAWE-3B3-SW-20	Total/NA	Water	1631E	
350-1619-237	PAWE-3B3-SW-40	Total/NA	Water	1631E	
350-1619-238	PAWE-3B3-SW-B	Total/NA	Water	1631E	
350-1619-239	PAWE-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-384	PDPLB-M3-SW-20	Total/NA	Water	1631E	
350-1619-385	PDPLB-M3-SW-40	Total/NA	Water	1631E	
350-1619-386	PDPLB-M3-SW-B	Total/NA	Water	1631E	
350-1619-387	PDPLB-WB	Total/NA	Water	1631E	
MB 350-6479/11	Method Blank	Total/NA	Water	1631E	
MB 350-6479/12	Method Blank	Total/NA	Water	1631E	
MB 350-6479/13	Method Blank	Total/NA	Water	1631E	
MB 350-6479/14	Method Blank	Total/NA	Water	1631E	
MB 350-6479/15	Method Blank	Total/NA	Water	1631E	
MB 350-6479/16	Method Blank	Total/NA	Water	1631E	
MB 350-6479/17	Method Blank	Total/NA	Water	1631E	
MB 350-6479/18	Method Blank	Total/NA	Water	1631E	
MB 350-6479/19	Method Blank	Total/NA	Water	1631E	
LCS 350-6479/28	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6479/60	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6479/90	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-6479/29	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6479/61	Lab Control Sample Dup	Total/NA	Water	1631E	
LCSD 350-6479/91	Lab Control Sample Dup	Total/NA	Water	1631E	
350-1619-200 MS	PACPP-3CP2-SW-1	Total/NA	Water	1631E	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6479 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-200 MSD	PACPP-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-201 MS	PACPP-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-201 MSD	PACPP-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-220 MS	PAWB-3B2-SW-20	Total/NA	Water	1631E	
350-1619-220 MSD	PAWB-3B2-SW-20	Total/NA	Water	1631E	
350-1619-221 MS	PAWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-221 MSD	PAWB-3B2-SW-40	Total/NA	Water	1631E	
350-1619-384 MS	PDPLB-M3-SW-20	Total/NA	Water	1631E	
350-1619-384 MSD	PDPLB-M3-SW-20	Total/NA	Water	1631E	
350-1619-385 MS	PDPLB-M3-SW-40	Total/NA	Water	1631E	
350-1619-385 MSD	PDPLB-M3-SW-40	Total/NA	Water	1631E	

Prep Batch: 6520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1640	
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1640	
350-1619-209	PACPP-EQ	Total/NA	Water	1640	
350-1619-210	PACPP-WB	Total/NA	Water	1640	
350-1619-211	PAREF-A-SW-1	Total/NA	Water	1640	
350-1619-212	PAREF-A-SW-20	Total/NA	Water	1640	
350-1619-215	PAWB-1CP2-SW-1	Total/NA	Water	1640	
350-1619-216	PAWB-1CP2-SW-20	Total/NA	Water	1640	
350-1619-217	PAWB-1CP2-SW-40	Total/NA	Water	1640	
350-1619-218	PAWB-1CP2-SW-B	Total/NA	Water	1640	
350-1619-219	PAWB-3B2-SW-1	Total/NA	Water	1640	
350-1619-220	PAWB-3B2-SW-20	Total/NA	Water	1640	
MB 350-6520/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6520/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6520/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-6520/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-209 MS	PACPP-EQ	Total/NA	Water	1640	
350-1619-209 MSD	PACPP-EQ	Total/NA	Water	1640	
350-1619-210 MS	PACPP-WB	Total/NA	Water	1640	
350-1619-210 MSD	PACPP-WB	Total/NA	Water	1640	

Metals (Continued)

Prep Batch: 6521 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-235	PAWE-3B3-SW-1	Total/NA	Water	1640	6521
350-1619-236	PAWE-3B3-SW-20	Total/NA	Water	1640	
350-1619-237	PAWE-3B3-SW-40	Total/NA	Water	1640	
350-1619-238	PAWE-3B3-SW-B	Total/NA	Water	1640	
350-1619-239	PAWE-3CP2-SW-1	Total/NA	Water	1640	
350-1619-240	PAWE-3CP2-SW-20	Total/NA	Water	1640	
MB 350-6521/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6521/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6521/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-6521/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-221 MS	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-221 MSD	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-222 MS	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	

Analysis Batch: 6572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-173	NPWG-3B2X-SW-1	Total/NA	Water	1631E	6572
350-1619-174	NPWG-3B2X-SW-20	Total/NA	Water	1631E	
350-1619-175	NPWG-3B2X-SW-40	Total/NA	Water	1631E	
MB 350-6572/16	Method Blank	Total/NA	Water	1631E	
MB 350-6572/17	Method Blank	Total/NA	Water	1631E	
MB 350-6572/18	Method Blank	Total/NA	Water	1631E	
LCS 350-6572/19	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-6572/20	Lab Control Sample Dup	Total/NA	Water	1631E	

Analysis Batch: 6591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-193	PACPP-2C2-SW-20	Total/NA	Water	1640	6520
350-1619-194	PACPP-2C2-SW-40	Total/NA	Water	1640	
350-1619-209	PACPP-EQ	Total/NA	Water	1640	
350-1619-210	PACPP-WB	Total/NA	Water	1640	
350-1619-210	PACPP-WB	Total/NA	Water	1640	
350-1619-211	PAREF-A-SW-1	Total/NA	Water	1640	
350-1619-211	PAREF-A-SW-1	Total/NA	Water	1640	
350-1619-212	PAREF-A-SW-20	Total/NA	Water	1640	
350-1619-212	PAREF-A-SW-20	Total/NA	Water	1640	
350-1619-215	PAWB-1CP2-SW-1	Total/NA	Water	1640	
350-1619-216	PAWB-1CP2-SW-20	Total/NA	Water	1640	
350-1619-217	PAWB-1CP2-SW-40	Total/NA	Water	1640	
350-1619-218	PAWB-1CP2-SW-B	Total/NA	Water	1640	
350-1619-219	PAWB-3B2-SW-1	Total/NA	Water	1640	
350-1619-220	PAWB-3B2-SW-20	Total/NA	Water	1640	
350-1619-221	PAWB-3B2-SW-40	Total/NA	Water	1640	6521
350-1619-222	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-223	PAWB-3CP2-SW-1	Total/NA	Water	1640	
350-1619-224	PAWB-3CP2-SW-20	Total/NA	Water	1640	
350-1619-225	PAWB-3CP2-SW-40	Total/NA	Water	1640	
350-1619-226	PAWB-3CP2-SW-B	Total/NA	Water	1640	
350-1619-227	PAWE-1B1-SW-1	Total/NA	Water	1640	
350-1619-228	PAWE-1B1-SW-20	Total/NA	Water	1640	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6591 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-239	PAWE-1B1-SW-40	Total/NA	Water	1640	6521
350-1619-231	PAWE-1CP2-SW-1	Total/NA	Water	1640	
350-1619-232	PAWE-1CP2-SW-20	Total/NA	Water	1640	
350-1619-233	PAWE-1CP2-SW-40	Total/NA	Water	1640	
350-1619-234	PAWE-1CP2-SW-B	Total/NA	Water	1640	
350-1619-235	PAWE-3B3-SW-1	Total/NA	Water	1640	
350-1619-236	PAWE-3B3-SW-20	Total/NA	Water	1640	
350-1619-237	PAWE-3B3-SW-40	Total/NA	Water	1640	
350-1619-238	PAWE-3B3-SW-B	Total/NA	Water	1640	
350-1619-239	PAWE-3CP2-SW-1	Total/NA	Water	1640	
350-1619-240	PAWE-3CP2-SW-20	Total/NA	Water	1640	
MB 350-6520/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6520/2-A	Method Blank	Total/NA	Water	1640	
MB 350-6521/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6521/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6520/3-A	Lab Control Sample	Total/NA	Water	1640	6520
LCS 350-6521/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-6520/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
LCSD 350-6521/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-209 MS	PACPP-EQ	Total/NA	Water	1640	
350-1619-209 MSD	PACPP-EQ	Total/NA	Water	1640	
350-1619-210 MS	PACPP-WB	Total/NA	Water	1640	
350-1619-221 MS	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-221 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MS	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	

Analysis Batch: 6609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-209	PACPP-EQ	Total/NA	Water	1640	6520
350-1619-210	PACPP-WB	Total/NA	Water	1640	
350-1619-211	PAREF-A-SW-1	Total/NA	Water	1640	
350-1619-212	PAREF-A-SW-20	Total/NA	Water	1640	
350-1619-237	PAWE-3B3-SW-40	Total/NA	Water	1640	
350-1619-238	PAWE-3B3-SW-B	Total/NA	Water	1640	
350-1619-239	PAWE-3CP2-SW-1	Total/NA	Water	1640	
350-1619-240	PAWE-3CP2-SW-20	Total/NA	Water	1640	
MB 350-6520/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6520/2-A	Method Blank	Total/NA	Water	1640	
MB 350-6521/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6521/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6520/3-A	Lab Control Sample	Total/NA	Water	1640	
LCS 350-6521/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-6520/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
LCSD 350-6521/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6521
350-1619-209 MS	PACPP-EQ	Total/NA	Water	1640	
350-1619-209 MSD	PACPP-EQ	Total/NA	Water	1640	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6609 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-210 MS	PACPP-WB	Total/NA	Water	1640	6520
350-1619-210 MSD	PACPP-WB	Total/NA	Water	1640	
350-1619-221 MS	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-221 MS	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-221 MSD	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-221 MSD	PAWB-3B2-SW-40	Total/NA	Water	1640	
350-1619-222 MS	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MS	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	
350-1619-222 MSD	PAWB-3B2-SW-B	Total/NA	Water	1640	

Analysis Batch: 6631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-61	PACPP-1CP1	Total/NA	Solid	1631B	5955
350-1619-66	PACPP-1F2	Total/NA	Solid	1631B	
350-1619-67	PACPP-1G2	Total/NA	Solid	1631B	
350-1619-70	PACPP-2D2	Total/NA	Solid	1631B	
350-1619-78	PACPP-3EXX	Total/NA	Solid	1631B	
350-1619-80	PACPP-3G2	Total/NA	Solid	1631B	
MB 350-5955/1-A	Method Blank	Total/NA	Solid	1631B	
MB 350-5955/2-A	Method Blank	Total/NA	Solid	1631B	
MB 350-5955/3-A	Method Blank	Total/NA	Solid	1631B	
LCS 350-5955/4-A	Lab Control Sample	Total/NA	Solid	1631B	
LCSD 350-5955/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	
350-1619-61 MS	PACPP-1CP1	Total/NA	Solid	1631B	
350-1619-61 MSD	PACPP-1CP1	Total/NA	Solid	1631B	
350-1619-80 MS	PACPP-3G2	Total/NA	Solid	1631B	
350-1619-80 MSD	PACPP-3G2	Total/NA	Solid	1631B	

Analysis Batch: 6735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-81	PACPP-4CX	Total/NA	Solid	1631B	5958
350-1619-84	PACPP-4DX	Total/NA	Solid	1631B	
350-1619-85	PAREF-A	Total/NA	Solid	1631B	
350-1619-86	PAREF-B	Total/NA	Solid	1631B	
350-1619-87	PAREF-C	Total/NA	Solid	1631B	
350-1619-88	PAWB-1C2	Total/NA	Solid	1631B	
350-1619-89	PAWB-1CP2	Total/NA	Solid	1631B	
350-1619-90	PAWB-1D2	Total/NA	Solid	1631B	
350-1619-91	PAWB-2B1X	Total/NA	Solid	1631B	
350-1619-92	PAWB-2C2	Total/NA	Solid	1631B	
350-1619-93	PAWB-3B2	Total/NA	Solid	1631B	
350-1619-94	PAWB-3C2	Total/NA	Solid	1631B	
350-1619-95	PAWB-3CP2	Total/NA	Solid	1631B	
350-1619-96	PAWB-3D2	Total/NA	Solid	1631B	
350-1619-97	PAWB-4B2X	Total/NA	Solid	1631B	5958
350-1619-98	PAWB-4C2	Total/NA	Solid	1631B	
350-1619-99	PAWE-1B1	Total/NA	Solid	1631B	
350-1619-100	PAWE-1C2	Total/NA	Solid	1631B	
MB 350-5958/1-A	Method Blank	Total/NA	Solid	1631B	
MB 350-5958/2-A	Method Blank	Total/NA	Solid	1631B	

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-5958/3-A	Method Blank	Total/NA	Solid	1631B	5958
LCSD 350-5958/4-A	Lab Control Sample	Total/NA	Solid	1631B	
LCSD 350-5958/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	
350-1619-89 MS	PAWB-1CP2	Total/NA	Solid	1631B	
350-1619-89 MSD	PAWB-1CP2	Total/NA	Solid	1631B	
350-1619-94 MS	PAWB-3C2	Total/NA	Solid	1631B	
350-1619-94 MSD	PAWB-3C2	Total/NA	Solid	1631B	

Analysis Batch: 6736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-101	PAWE-1CP2	Total/NA	Solid	1631B	5961
350-1619-102	PAWE-1D2	Total/NA	Solid	1631B	
350-1619-103	PAWE-2B3	Total/NA	Solid	1631B	
350-1619-104	PAWE-2C2	Total/NA	Solid	1631B	
350-1619-105	PAWE-2C2-FD	Total/NA	Solid	1631B	
350-1619-106	PAWE-3B3	Total/NA	Solid	1631B	
350-1619-107	PAWE-3C2	Total/NA	Solid	1631B	
350-1619-108	PAWE-3CP2	Total/NA	Solid	1631B	
350-1619-109	PAWE-3D2	Total/NA	Solid	1631B	
350-1619-110	PAWE-4B2	Total/NA	Solid	1631B	
350-1619-111	PAWE-4C2	Total/NA	Solid	1631B	
MB 350-5961/1-A	Method Blank	Total/NA	Solid	1631B	
MB 350-5961/2-A	Method Blank	Total/NA	Solid	1631B	
MB 350-5961/3-A	Method Blank	Total/NA	Solid	1631B	
LCS 350-5961/4-A	Lab Control Sample	Total/NA	Solid	1631B	
LCSD 350-5961/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	
350-1619-103 MS	PAWE-2B3	Total/NA	Solid	1631B	
350-1619-103 MSD	PAWE-2B3	Total/NA	Solid	1631B	

Metals (Continued)

Analysis Batch: 6814 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-245	PAWE-WB	Total/NA	Water	1640	6760
350-1619-245	PAWE-WB	Total/NA	Water	1640	6760
MB 350-6760/1-A	Method Blank	Total/NA	Water	1640	6760
MB 350-6760/2-A	Method Blank	Total/NA	Water	1640	6760
LCS 350-6760/4-A	Lab Control Sample	Total/NA	Water	1640	6760
LCSD 350-6760/5-A	Lab Control Sample Dup	Total/NA	Water	1640	6760

Analysis Batch: 6815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-209	PACPP-EQ	Total/NA	Water	1640	6760
350-1619-213	PAREF-A-SW-40	Total/NA	Water	1640	6760
350-1619-241	PAWE-3CP2-SW-20-FD	Total/NA	Water	1640	6760
350-1619-243	PAWE-3CP2-SW-B	Total/NA	Water	1640	6760
350-1619-244	PAWE-EQ	Total/NA	Water	1640	6760
350-1619-245	PAWE-WB	Total/NA	Water	1640	6760
MB 350-6760/1-A	Method Blank	Total/NA	Water	1640	6760
MB 350-6760/2-A	Method Blank	Total/NA	Water	1640	6760
LCS 350-6760/4-A	Lab Control Sample	Total/NA	Water	1640	6760
LCSD 350-6760/5-A	Lab Control Sample Dup	Total/NA	Water	1640	6760

Analysis Batch: 6816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-241	PAWE-3CP2-SW-20-FD	Total/NA	Water	1640	6760
350-1619-242	PAWE-3CP2-SW-40	Total/NA	Water	1640	6760
350-1619-243	PAWE-3CP2-SW-B	Total/NA	Water	1640	6760
350-1619-244	PAWE-EQ	Total/NA	Water	1640	6760
350-1619-245	PAWE-WB	Total/NA	Water	1640	6760
MB 350-6760/1-A	Method Blank	Total/NA	Water	1640	6760
MB 350-6760/2-A	Method Blank	Total/NA	Water	1640	6760
LCS 350-6760/4-A	Lab Control Sample	Total/NA	Water	1640	6760
LCSD 350-6760/5-A	Lab Control Sample Dup	Total/NA	Water	1640	6760

Analysis Batch: 6821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-58	PACPP-1C1	Total/NA	Solid	1631B	5928
350-1619-59	PACPP-1C2X	Total/NA	Solid	1631B	5928
350-1619-60	PACPP-1C3X	Total/NA	Solid	1631B	5928
350-1619-62	PACPP-1CP2X	Total/NA	Solid	1631B	5955
350-1619-63	PACPP-1CP3	Total/NA	Solid	1631B	5955
350-1619-64	PACPP-1D2	Total/NA	Solid	1631B	5955
350-1619-65	PACPP-1E2	Total/NA	Solid	1631B	5955
350-1619-68	PACPP-3C2	Total/NA	Solid	1631B	5955
350-1619-69	PACPP-3CP2	Total/NA	Solid	1631B	5955
350-1619-71	PACPP-3C1	Total/NA	Solid	1631B	5955
350-1619-72	PACPP-3C2Y	Total/NA	Solid	1631B	5955
350-1619-73	PACPP-3C3X	Total/NA	Solid	1631B	5955
350-1619-74	PACPP-3CP1X	Total/NA	Solid	1631B	5955
350-1619-75	PACPP-3CP2	Total/NA	Solid	1631B	5955
350-1619-76	PACPP-3CP3	Total/NA	Solid	1631B	5955
350-1619-77	PACPP-3D2X	Total/NA	Solid	1631B	5955
350-1619-82	PACPP-4C2X-FD	Total/NA	Solid	1631B	5958

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Metals (Continued)

Analysis Batch: 6821 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-83	PACPP-4CP2X	Total/NA	Solid	1631B	5958

Prep Batch: 6875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-61	PACPP-1CP1	Total/NA	Solid	HF Bomb Prep	
350-1619-62	PACPP-1CP2X	Total/NA	Solid	HF Bomb Prep	
350-1619-63	PACPP-1CP3	Total/NA	Solid	HF Bomb Prep	
350-1619-64	PACPP-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-65	PACPP-1E2	Total/NA	Solid	HF Bomb Prep	
350-1619-66	PACPP-1F2	Total/NA	Solid	HF Bomb Prep	
350-1619-67	PACPP-1G2	Total/NA	Solid	HF Bomb Prep	
350-1619-68	PACPP-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-69	PACPP-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-70	PACPP-2D2	Total/NA	Solid	HF Bomb Prep	
350-1619-71	PACPP-3C1	Total/NA	Solid	HF Bomb Prep	
350-1619-72	PACPP-3C2Y	Total/NA	Solid	HF Bomb Prep	
350-1619-73	PACPP-3C3X	Total/NA	Solid	HF Bomb Prep	
350-1619-74	PACPP-3CP1X	Total/NA	Solid	HF Bomb Prep	
350-1619-75	PACPP-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-76	PACPP-3CP3	Total/NA	Solid	HF Bomb Prep	
350-1619-77	PACPP-3D2X	Total/NA	Solid	HF Bomb Prep	
350-1619-78	PACPP-3E2X	Total/NA	Solid	HF Bomb Prep	
350-1619-79	PACPP-3F2X	Total/NA	Solid	HF Bomb Prep	
350-1619-80	PACPP-3G2	Total/NA	Solid	HF Bomb Prep	
MB 350-6875/25-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-6875/26-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-6875/27-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCSD 350-6875/28-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-69 MS	PACPP-2CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-69 MSD	PACPP-2CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-77 MS	PACPP-3D2X	Total/NA	Solid	HF Bomb Prep	
350-1619-77 MSD	PACPP-3D2X	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 6877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-214	PAREF-A-SW-B	Total/NA	Water	1640	
350-1619-242	PAWE-3CP2-SW-40	Total/NA	Water	1640	
350-1619-385	PDPLB-M3-SW-40	Total/NA	Water	1640	
350-1619-386	PDPLB-M3-SW-B	Total/NA	Water	1640	
350-1619-387	PDPLB-WB	Total/NA	Water	1640	
MB 350-6877/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6877/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6877/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-6877/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-214 MS	PAREF-A-SW-B	Total/NA	Water	1640	
350-1619-214 MSD	PAREF-A-SW-B	Total/NA	Water	1640	

Analysis Batch: 6893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-38	NPWB-2C2X	Total/NA	Solid	1638	6097
350-1619-39	NPWB-3B2	Total/NA	Solid	1638	6097

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-40	NPWB-3C2	Total/NA	Solid	1638	6097
350-1619-41	NPWB-3CP2	Total/NA	Solid	1638	5927
350-1619-42	NPWB-3D2	Total/NA	Solid	1638	5927
350-1619-43	NPWB-4B3X	Total/NA	Solid	1638	5927
350-1619-44	NPWB-4C2	Total/NA	Solid	1638	5927
350-1619-45	NPWG-1B2X	Total/NA	Solid	1638	5927
350-1619-46	NPWG-1B2X-FD	Total/NA	Solid	1638	5927
350-1619-47	NPWG-1C2	Total/NA	Solid	1638	5927
350-1619-48	NPWG-1CP2	Total/NA	Solid	1638	5927
350-1619-49	NPWG-1D2	Total/NA	Solid	1638	5927
350-1619-50	NPWG-2B2X	Total/NA	Solid	1638	5927
350-1619-51	NPWG-2C2	Total/NA	Solid	1638	5927
350-1619-52	NPWG-3B2X	Total/NA	Solid	1638	5927
350-1619-53	NPWG-3C2	Total/NA	Solid	1638	5927
350-1619-54	NPWG-3CP2	Total/NA	Solid	1638	5927
350-1619-55	NPWG-3D2	Total/NA	Solid	1638	5927
350-1619-56	NPWG-4B2X	Total/NA	Solid	1638	5927
350-1619-57	NPWG-4C2	Total/NA	Solid	1638	5927
350-1619-58	PACPP-1C1	Total/NA	Solid	1638	5927
350-1619-59	PACPP-1C2X	Total/NA	Solid	1638	5927
350-1619-60	PACPP-1C3X	Total/NA	Solid	1638	5927
350-1619-61	PACPP-1CP1	Total/NA	Solid	1638	6026
350-1619-62	PACPP-1CP2X	Total/NA	Solid	1638	6026
350-1619-63	PACPP-1CP3	Total/NA	Solid	1638	6026
350-1619-64	PACPP-1D2	Total/NA	Solid	1638	6026
350-1619-65	PACPP-1E2	Total/NA	Solid	1638	6026
350-1619-66	PACPP-1F2	Total/NA	Solid	1638	6026
350-1619-67	PACPP-1G2	Total/NA	Solid	1638	6026
350-1619-68	PACPP-2C2	Total/NA	Solid	1638	6026
350-1619-69	PACPP-2CP2	Total/NA	Solid	1638	6026
350-1619-70	PACPP-2D2	Total/NA	Solid	1638	6026
350-1619-71	PACPP-3C1	Total/NA	Solid	1638	6026
350-1619-72	PACPP-3C2Y	Total/NA	Solid	1638	6026
350-1619-73	PACPP-3C3X	Total/NA	Solid	1638	6026
350-1619-74	PACPP-3CP1X	Total/NA	Solid	1638	6026
350-1619-75	PACPP-3CP2	Total/NA	Solid	1638	6026
350-1619-76	PACPP-3CP3	Total/NA	Solid	1638	6026
350-1619-77	PACPP-3D2X	Total/NA	Solid	1638	6026
350-1619-78	PACPP-3E2X	Total/NA	Solid	1638	6026
350-1619-79	PACPP-3F2X	Total/NA	Solid	1638	6026
350-1619-80	PACPP-3G2	Total/NA	Solid	1638	6026
350-1619-81	PACPP-4C2X	Total/NA	Solid	1638	6047
350-1619-82	PACPP-4C2X-FD	Total/NA	Solid	1638	6047
350-1619-83	PACPP-4CP2X	Total/NA	Solid	1638	6047
350-1619-84	PACPP-4D2X	Total/NA	Solid	1638	6047
350-1619-85	PAREF-A	Total/NA	Solid	1638	6047
350-1619-86	PAREF-B	Total/NA	Solid	1638	6047
350-1619-87	PAREF-C	Total/NA	Solid	1638	6047
350-1619-88	PAWB-1C2	Total/NA	Solid	1638	6047
350-1619-89	PAWB-1CP2	Total/NA	Solid	1638	6047
350-1619-90	PAWB-1D2	Total/NA	Solid	1638	6047

Eurofins Seattle Specialty Metals

Metals (Continued)

Analysis Batch: 6893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-91	PAWB-2B1X	Total/NA	Solid	1638	6047
350-1619-92	PAWB-2C2	Total/NA	Solid	1638	6047
350-1619-93	PAWB-3B2	Total/NA	Solid	1638	6047
350-1619-94	PAWB-3C2	Total/NA	Solid	1638	6047
350-1619-95	PAWB-3CP2	Total/NA	Solid	1638	6047
350-1619-96	PAWB-3D2	Total/NA	Solid	1638	6047
350-1619-97	PAWB-4B2X	Total/NA	Solid	1638	6047
350-1619-98	PAWB-4C2	Total/NA	Solid	1638	6047
350-1619-99	PAWE-1B1	Total/NA	Solid	1638	6047
350-1619-100	PAWE-1C2	Total/NA	Solid	1638	6047
350-1619-101	PAWE-1CP2	Total/NA	Solid	1638	5727
350-1619-102	PAWE-1D2	Total/NA	Solid	1638	5727
350-1619-103	PAWE-2B3	Total/NA	Solid	1638	5727
350-1619-104	PAWE-2C2	Total/NA	Solid	1638	5727
350-1619-105	PAWE-2C2-FD	Total/NA	Solid	1638	5727
350-1619-106	PAWE-3B3	Total/NA	Solid	1638	5727
350-1619-107	PAWE-3C2	Total/NA	Solid	1638	5727
350-1619-108	PAWE-3CP2	Total/NA	Solid	1638	5727
350-1619-109	PAWE-3D2	Total/NA	Solid	1638	5727
350-1619-110	PAWE-4B2	Total/NA	Solid	1638	5727
350-1619-111	PAWE-4C2	Total/NA	Solid	1638	5727
MB 350-5727/1-A	Method Blank	Total/NA	Solid	1638	5727
MB 350-5727/2-A	Method Blank	Total/NA	Solid	1638	5727
MB 350-5927/1-A	Method Blank	Total/NA	Solid	1638	5927
MB 350-5927/2-A	Method Blank	Total/NA	Solid	1638	5927
MB 350-6026/1-A	Method Blank	Total/NA	Solid	1638	6026
MB 350-6026/2-A	Method Blank	Total/NA	Solid	1638	6026
MB 350-6047/1-A	Method Blank	Total/NA	Solid	1638	6047
MB 350-6047/2-A	Method Blank	Total/NA	Solid	1638	6047
MB 350-6097/1-A	Method Blank	Total/NA	Solid	1638	6097
LCS 350-5727/3-A	Lab Control Sample	Total/NA	Solid	1638	5727
LCS 350-5927/3-A	Lab Control Sample	Total/NA	Solid	1638	5927
LCS 350-6026/3-A	Lab Control Sample	Total/NA	Solid	1638	6026
LCS 350-6047/3-A	Lab Control Sample	Total/NA	Solid	1638	6047
LCS 350-6097/2-A	Lab Control Sample	Total/NA	Solid	1638	6097
LCSD 350-5727/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5727
LCSD 350-5927/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5927
LCSD 350-6026/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	6026
LCSD 350-6047/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	6047
LCSD 350-6097/3-A	Lab Control Sample Dup	Total/NA	Solid	1638	6097
350-1619-39 MS	NPWB-3B2	Total/NA	Solid	1638	6097
350-1619-39 MSD	NPWB-3B2	Total/NA	Solid	1638	6097
350-1619-45 MS	NPWG-1B2X	Total/NA	Solid	1638	5927
350-1619-45 MSD	NPWG-1B2X	Total/NA	Solid	1638	5927
350-1619-46 MS	NPWG-1B2	Total/NA	Solid	1638	5927
350-1619-46 MSD	NPWG-1D2	Total/NA	Solid	1638	5927
350-1619-49 MS	PACPP-2CP2	Total/NA	Solid	1638	6026
350-1619-49 MSD	PACPP-2CP2	Total/NA	Solid	1638	6026
350-1619-77 MS	PACPP-3D2X	Total/NA	Solid	1638	6026
350-1619-77 MSD	PACPP-3D2X	Total/NA	Solid	1638	6026
350-1619-81 MS	PACPP-4C2X	Total/NA	Solid	1638	6047

Metals (Continued)

Analysis Batch: 6893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-81 MSD	PACPP-4C2X	Total/NA	Solid	1638	6047
350-1619-99 MS	PAWE-1B1	Total/NA	Solid	1638	6047
350-1619-99 MSD	PAWE-1B1	Total/NA	Solid	1638	6047
350-1619-111 MS	PAWE-4C2	Total/NA	Solid	1638	5727
350-1619-111 MSD	PAWE-4C2	Total/NA	Solid	1638	5727

Analysis Batch: 6963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-214	PAREF-A-SW-B	Total/NA	Water	1640	6877
350-1619-242	PAWE-3CP2-SW-40	Total/NA	Water	1640	6877
350-1619-385	PDPLB-M3-SW-40	Total/NA	Water	1640	6877
350-1619-386	PDPLB-M3-SW-B	Total/NA	Water	1640	6877
350-1619-387	PDPLB-1D2	Total/NA	Water	1640	6877
MB 350-6877/1-A	Method Blank	Total/NA	Water	1640	6877
MB 350-6877/2-A	Method Blank	Total/NA	Water	1640	6877
LCS 350-6877/3-A	Lab Control Sample	Total/NA	Water	1640	6877
LCSD 350-6877/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6877
350-1619-214 MS	PAREF-A-SW-B	Total/NA	Water	1640	6877
350-1619-214 MSD	PAREF-A-SW-B	Total/NA	Water	1640	6877

Analysis Batch: 6977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-61	PACPP-1CP1	Total/NA	Solid	1638	6875
350-1619-62	PACPP-1CP2X	Total/NA	Solid	1638	6875
350-1619-63	PACPP-1CP3	Total/NA	Solid	1638	6875
350-1619-64	PACPP-1D2	Total/NA	Solid	1638	6875
350-1619-65	PACPP-1E2	Total/NA	Solid	1638	6875
350-1619-66	PACPP-1F2	Total/NA	Solid	1638	6875
350-1619-67	PACPP-1G2	Total/NA	Solid	1638	6875
350-1619-68	PACPP-2C2	Total/NA	Solid	1638	6875
350-1619-69	PACPP-2CP2	Total/NA	Solid	1638	6875
350-1619-70	PACPP-2D2	Total/NA	Solid	1638	6875
350-1619-71	PACPP-3C1	Total/NA	Solid	1638	6875
350-1619-72	PACPP-3C2Y	Total/NA	Solid	1638	6875
350-1619-73	PACPP-3C3X	Total/NA	Solid	1638	6875
350-1619-74	PACPP-3CP1X	Total/NA	Solid	1638	6875
350-1619-75	PACPP-3CP2	Total/NA	Solid	1638	6875
350-1619-76	PACPP-3CP3	Total/NA	Solid	1638	6875
350-1619-77	PACPP-3D2X	Total/NA	Solid	1638	6875
350-1619-78	PACPP-3E2X	Total/NA	Solid	1638	6875
350-1619-79	PACPP-3F2X	Total/NA	Solid	1638	6875
350-1619-80	PACPP-3G2	Total/NA	Solid	1638	6875
MB 350-6875/25-A	Method Blank	Total/NA	Solid	1638	6875
MB 350-6875/26-A	Method Blank	Total/NA	Solid	1638	6875
LCS 350-6875/27-A	Lab Control Sample	Total/NA	Solid	1638	6875
LCSD 350-6875/28-A	Lab Control Sample Dup	Total/NA	Solid	1638	6875
350-1619-69 MS	PACPP-2CP2	Total/NA	Solid	1638	6875
350-1619-69 MSD	PACPP-2CP2	Total/NA	Solid	1638	6875
350-1619-77 MS	PACPP-3D2X	Total/NA	Solid	1638	6875
350-1619-77 MSD	PACPP-3D2X	Total/NA	Solid	1638	6875

Eurofins Seattle Specialty Metals

General Chemistry

Analysis Batch: 5848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-1	NPCPP-1C1	Total/NA	Solid	Moisture - 2540	
350-1619-2	NPCPP-1C1-FD	Total/NA	Solid	Moisture - 2540	
350-1619-3	NPCPP-1C2X	Total/NA	Solid	Moisture - 2540	
350-1619-4	NPCPP-1CP1	Total/NA	Solid	Moisture - 2540	
350-1619-5	NPCPP-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-6	NPCPP-1CP3X	Total/NA	Solid	Moisture - 2540	
350-1619-7	NPCPP-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-8	NPCPP-1E2	Total/NA	Solid	Moisture - 2540	
350-1619-9	NPCPP-1F2	Total/NA	Solid	Moisture - 2540	
350-1619-10	NPCPP-1G2	Total/NA	Solid	Moisture - 2540	
350-1619-11	NPCPP-2C1X	Total/NA	Solid	Moisture - 2540	
350-1619-12	NPCPP-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-13	NPCPP-2CP2	Total/NA	Solid	Moisture - 2540	
350-1619-14	NPCPP-2D2	Total/NA	Solid	Moisture - 2540	
350-1619-15	NPCPP-3C1	Total/NA	Solid	Moisture - 2540	
350-1619-16	NPCPP-3C2	Total/NA	Solid	Moisture - 2540	
350-1619-17	NPCPP-3C3X	Total/NA	Solid	Moisture - 2540	
350-1619-18	NPCPP-3C3X-FD	Total/NA	Solid	Moisture - 2540	
350-1619-19	NPCPP-3CP1	Total/NA	Solid	Moisture - 2540	
350-1619-20	NPCPP-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-11 DU	NPCPP-2C1X	Total/NA	Solid	Moisture - 2540	

Analysis Batch: 5930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-41	NPWB-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-42	NPWB-3D2	Total/NA	Solid	Moisture - 2540	
350-1619-43	NPWB-4B3X	Total/NA	Solid	Moisture - 2540	
350-1619-44	NPWB-4C2	Total/NA	Solid	Moisture - 2540	
350-1619-45	NPWG-1B2X	Total/NA	Solid	Moisture - 2540	
350-1619-46	NPWG-1B2X-FD	Total/NA	Solid	Moisture - 2540	
350-1619-47	NPWG-1C2	Total/NA	Solid	Moisture - 2540	
350-1619-48	NPWG-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-49	NPWG-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-50	NPWG-2B2X	Total/NA	Solid	Moisture - 2540	
350-1619-51	NPWG-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-52	NPWG-3B2X	Total/NA	Solid	Moisture - 2540	
350-1619-53	NPWG-3C2	Total/NA	Solid	Moisture - 2540	
350-1619-54	NPWG-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-55	NPWG-3D2	Total/NA	Solid	Moisture - 2540	
350-1619-56	NPWG-4B2X	Total/NA	Solid	Moisture - 2540	
350-1619-57	NPWG-4C2	Total/NA	Solid	Moisture - 2540	
350-1619-58	PACPP-1C1	Total/NA	Solid	Moisture - 2540	
350-1619-59	PACPP-1C2X	Total/NA	Solid	Moisture - 2540	
350-1619-60	PACPP-1C3X	Total/NA	Solid	Moisture - 2540	
350-1619-54 DU	NPWG-3CP2	Total/NA	Solid	Moisture - 2540	

Analysis Batch: 5972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-21	NPCPP-3CP3X	Total/NA	Solid	Moisture - 2540	
350-1619-22	NPCPP-3D2	Total/NA	Solid	Moisture - 2540	
350-1619-23	NPCPP-3E2	Total/NA	Solid	Moisture - 2540	

Eurofins Seattle Specialty Metals

General Chemistry (Continued)

Analysis Batch: 5972 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-24	NPCPP-3F2X	Total/NA	Solid	Moisture - 2540	
350-1619-25	NPCPP-3G2	Total/NA	Solid	Moisture - 2540	
350-1619-26	NPCPP-4C2	Total/NA	Solid	Moisture - 2540	
350-1619-27	NPCPP-4CP2	Total/NA	Solid	Moisture - 2540	
350-1619-28	NPCPP-4D2	Total/NA	Solid	Moisture - 2540	
350-1619-29	NPREF-A	Total/NA	Solid	Moisture - 2540	
350-1619-30	NPREF-B	Total/NA	Solid	Moisture - 2540	
350-1619-31	NPREF-B-FD	Total/NA	Solid	Moisture - 2540	
350-1619-32	NPREF-C	Total/NA	Solid	Moisture - 2540	
350-1619-33	NPWB-1C2	Total/NA	Solid	Moisture - 2540	
350-1619-34	NPWB-1C2-FD	Total/NA	Solid	Moisture - 2540	
350-1619-35	NPWB-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-36	NPWB-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-37	NPWB-2B3	Total/NA	Solid	Moisture - 2540	
350-1619-38	NPWB-2C2X	Total/NA	Solid	Moisture - 2540	
350-1619-39	NPWB-3B2	Total/NA	Solid	Moisture - 2540	
350-1619-40	NPWB-3C2	Total/NA	Solid	Moisture - 2540	
350-1619-25 DU	NPCPP-3G2	Total/NA	Solid	Moisture - 2540	

Analysis Batch: 5977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-61	PACPP-1CP1	Total/NA	Solid	Moisture - 2540	
350-1619-62	PACPP-1CP2X	Total/NA	Solid	Moisture - 2540	
350-1619-63	PACPP-1CP3	Total/NA	Solid	Moisture - 2540	
350-1619-64	PACPP-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-65	PACPP-1E2	Total/NA	Solid	Moisture - 2540	
350-1619-66	PACPP-1F2	Total/NA	Solid	Moisture - 2540	
350-1619-67	PACPP-1G2	Total/NA	Solid	Moisture - 2540	
350-1619-68	PACPP-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-69	PACPP-2CP2	Total/NA	Solid	Moisture - 2540	
350-1619-70	PACPP-2D2	Total/NA	Solid	Moisture - 2540	
350-1619-71	PACPP-3C1	Total/NA	Solid	Moisture - 2540	
350-1619-72	PACPP-3C2Y	Total/NA	Solid	Moisture - 2540	
350-1619-73	PACPP-3C3X	Total/NA	Solid	Moisture - 2540	
350-1619-74	PACPP-3CP1X	Total/NA	Solid	Moisture - 2540	
350-1619-75	PACPP-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-76	PACPP-3CP3	Total/NA	Solid	Moisture - 2540	
350-1619-77	PACPP-3D2X	Total/NA	Solid	Moisture - 2540	
350-1619-78	PACPP-3E2X	Total/NA	Solid	Moisture - 2540	
350-1619-79	PACPP-3F2X	Total/NA	Solid	Moisture - 2540	
350-1619-80	PACPP-3G2	Total/NA	Solid	Moisture - 2540	
350-1619-71 DU	PACPP-3C1	Total/NA	Solid	Moisture - 2540	

Analysis Batch: 6063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-81	PACPP-4C2X	Total/NA	Solid	Moisture - 2540	
350-1619-82	PACPP-4C2X-FD	Total/NA	Solid	Moisture - 2540	
350-1619-83	PACPP-4CP2X	Total/NA	Solid	Moisture - 2540	
350-1619-84	PACPP-4D2X	Total/NA	Solid	Moisture - 2540	
350-1619-85	PAREF-A	Total/NA	Solid	Moisture - 2540	
350-1619-86	PAREF-B	Total/NA	Solid	Moisture - 2540	

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General Chemistry (Continued)

Analysis Batch: 6063 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-87	PAREF-C	Total/NA	Solid	Moisture - 2540	
350-1619-88	PAWB-1C2	Total/NA	Solid	Moisture - 2540	
350-1619-89	PAWB-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-90	PAWB-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-91	PAWB-2B1X	Total/NA	Solid	Moisture - 2540	
350-1619-92	PAWB-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-93	PAWB-3B2	Total/NA	Solid	Moisture - 2540	
350-1619-94	PAWB-3C2	Total/NA	Solid	Moisture - 2540	
350-1619-95	PAWB-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-96	PAWB-3D2	Total/NA	Solid	Moisture - 2540	
350-1619-97	PAWB-4B2X	Total/NA	Solid	Moisture - 2540	
350-1619-98	PAWB-4C2	Total/NA	Solid	Moisture - 2540	
350-1619-99	PAWE-1B1	Total/NA	Solid	Moisture - 2540	
350-1619-100	PAWE-1C2	Total/NA	Solid	Moisture - 2540	
350-1619-100 DU	PAWE-1C2	Total/NA	Solid	Moisture - 2540	

Analysis Batch: 6070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-101	PAWE-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-102	PAWE-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-103	PAWE-2B3	Total/NA	Solid	Moisture - 2540	
350-1619-104	PAWE-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-105	PAWE-2C2-FD	Total/NA	Solid	Moisture - 2540	
350-1619-106	PAWE-3B3	Total/NA	Solid	Moisture - 2540	
350-1619-107	PAWE-3C2	Total/NA	Solid	Moisture - 2540	
350-1619-108	PAWE-3CP2	Total/NA	Solid	Moisture - 2540	
350-1619-109	PAWE-3D2	Total/NA	Solid	Moisture - 2540	
350-1619-110	PAWE-4B2	Total/NA	Solid	Moisture - 2540	
350-1619-111	PAWE-4C2	Total/NA	Solid	Moisture - 2540	
350-1619-103 DU	PAWE-2B3	Total/NA	Solid	Moisture - 2540	

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPCPP-2CP2					Lab Sample ID: 350-1619-13					4
Date Collected: 02/15/25 05:42					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		8
Client Sample ID: NPCPP-2CP2					Lab Sample ID: 350-1619-13					9
Date Collected: 02/15/25 05:42					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 51.6					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 11:21		14
Total/NA	Prep	HF Bomb Prep			5845	JS	EET SSM	03/27/25 18:41		15
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 20:21		16
Client Sample ID: NPCPP-2D2					Lab Sample ID: 350-1619-14					17
Date Collected: 02/15/25 06:22					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		21
Client Sample ID: NPCPP-2D2					Lab Sample ID: 350-1619-14					22
Date Collected: 02/15/25 06:22					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 49.4					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 08:45		27
Total/NA	Prep	HF Bomb Prep			5845	JS	EET SSM	03/27/25 18:41		28
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 19:37		29
Client Sample ID: NPCPP-3C1					Lab Sample ID: 350-1619-15					30
Date Collected: 02/16/25 08:56					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		34
Client Sample ID: NPCPP-3C1					Lab Sample ID: 350-1619-15					35
Date Collected: 02/16/25 08:56					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 55.5					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 11:25		40
Total/NA	Prep	HF Bomb Prep			5845	JS	EET SSM	03/27/25 18:41		41
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 20:23		42

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPCPP-3C2					Lab Sample ID: 350-1619-16					4
Date Collected: 02/15/25 22:58					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		8
Client Sample ID: NPCPP-3C2					Lab Sample ID: 350-1619-16					9
Date Collected: 02/15/25 22:58					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 58.2					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		100	6250	CL	EET SSM	04/15/25 15:32		14
Total/NA	Prep	HF Bomb Prep			5845	JS	EET SSM	03/27/25 18:41		15
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 20:26		16
Client Sample ID: NPCPP-3C3X					Lab Sample ID: 350-1619-17					17
Date Collected: 02/15/25 23:36					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		21
Client Sample ID: NPCPP-3C3X					Lab Sample ID: 350-1619-17					22
Date Collected: 02/15/25 23:36					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 55.6					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		100	6250	CL	EET SSM	04/15/25 12:42		27
Total/NA	Prep	HF Bomb Prep			5845	JS	EET SSM	03/27/25 18:41		28
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 20:28		29
Client Sample ID: NPCPP-3C3X-FD					Lab Sample ID: 350-1619-18					30
Date Collected: 02/15/25 20:54					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35		34
Client Sample ID: NPCPP-3C3X-FD					Lab Sample ID: 350-1619-18					35
Date Collected: 02/15/25 20:54					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 55.3					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		400	6250	CL	EET SSM	04/15/25 12:46		40
Total/NA	Prep	HF Bomb Prep			5891	JS	EET SSM	03/31/25 17:00		41
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 18:27		42

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: NPCPP-3CP1

Date Collected: 02/15/25 17:01

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-19

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35

Client Sample ID: NPCPP-3CP1

Date Collected: 02/15/25 17:01

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-19

Matrix: Solid

Percent Solids: 50.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 15:15
Total/NA	Prep	HF Bomb Prep			5891	JS	EET SSM	03/31/25 17:00
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 18:29

Client Sample ID: NPCPP-3CP2

Date Collected: 02/15/25 11:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-20

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5848	JS	EET SSM	03/27/25 19:35

Client Sample ID: NPCPP-3CP2

Date Collected: 02/15/25 11:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-20

Matrix: Solid

Percent Solids: 53.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5840	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		1000	6250	CL	EET SSM	04/15/25 15:28
Total/NA	Prep	HF Bomb Prep			5891	JS	EET SSM	03/31/25 17:00
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 18:07

Client Sample ID: NPCPP-3CP3X

Date Collected: 02/15/25 16:23

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-21

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5972	JS	EET SSM	04/03/25 13:45

Client Sample ID: NPCPP-3CP3X

Date Collected: 02/15/25 16:23

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-21

Matrix: Solid

Percent Solids: 53.1

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWB-2B3					Lab Sample ID: 350-1619-37					4
Date Collected: 02/14/25 18:54					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5972	JS	EET SSM	04/03/25 13:48		8
Client Sample ID: NPWB-2B3					Lab Sample ID: 350-1619-37					9
Date Collected: 02/14/25 18:54					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 52.3					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5952	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 14:58		14
Total/NA	Prep	HF Bomb Prep			5981	JS	EET SSM	03/31/25 17:00		15
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 18:14		16
Client Sample ID: NPWB-2C2X					Lab Sample ID: 350-1619-38					17
Date Collected: 02/14/25 05:33					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	5972	JS	EET SSM	04/03/25 13:48		21
Client Sample ID: NPWB-2C2X					Lab Sample ID: 350-1619-38					22
Date Collected: 02/14/25 05:33					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 47.3					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5952	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 15:03		27
Total/NA	Prep	HF Bomb Prep			6097	JS	EET SSM	04/08/25 18:57		28
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/15/25 00:43		29
Client Sample ID: NPWB-3B2					Lab Sample ID: 350-1619-39					30
Date Collected: 02/14/25 18:29					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	5972	JS	EET SSM	04/03/25 13:48		34
Client Sample ID: NPWB-3B2					Lab Sample ID: 350-1619-39					35
Date Collected: 02/14/25 18:29					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 47.0					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5952	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 15:07		40
Total/NA	Prep	HF Bomb Prep			6097	JS	EET SSM	04/08/25 18:57		41
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/15/25 00:36		42
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWB-3C2					Lab Sample ID: 350-1619-40					4
Date Collected: 02/14/25 20:22					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5972	JS	EET SSM	04/03/25 13:48		8
Client Sample ID: NPWB-3C2					Lab Sample ID: 350-1619-40					9
Date Collected: 02/14/25 20:22					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 51.0					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5952	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 15:11		14
Total/NA	Prep	HF Bomb Prep			6097	JS	EET SSM	04/08/25 18:57		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/15/25 00:46		16
Client Sample ID: NPWB-3CP2					Lab Sample ID: 350-1619-41					17
Date Collected: 02/14/25 21:24					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		21
Client Sample ID: NPWB-3CP2					Lab Sample ID: 350-1619-41					22
Date Collected: 02/14/25 21:24					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 48.6					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:30		27
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		28
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:06		29
Client Sample ID: NPWB-3D2					Lab Sample ID: 350-1619-42					30
Date Collected: 02/14/25 21:55					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		34
Client Sample ID: NPWB-3D2					Lab Sample ID: 350-1619-42					35
Date Collected: 02/14/25 21:55					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 48.0					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:34		40
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		41
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:09		42
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWB-4B3X

Date Collected: 02/14/25 19:19

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-43

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03

Client Sample ID: NPWB-4B3X

Date Collected: 02/14/25 19:19

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-43

Matrix: Solid

Percent Solids: 52.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:38
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:11

Client Sample ID: NPWB-4C2

Date Collected: 02/14/25 19:52

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-44

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03

Client Sample ID: NPWB-4C2

Date Collected: 02/14/25 19:52

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-44

Matrix: Solid

Percent Solids: 44.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:42
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:14

Client Sample ID: NPWG-1B2X

Date Collected: 02/17/25 10:17

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-45

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03

Client Sample ID: NPWG-1B2X

Date Collected: 02/17/25 10:17

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-45

Matrix: Solid

Percent Solids: 48.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 15:57
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 21:46

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWG-1D2					Lab Sample ID: 350-1619-49					4
Date Collected: 02/17/25 04:14					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		8
Client Sample ID: NPWG-1D2					Lab Sample ID: 350-1619-49					9
Date Collected: 02/17/25 04:14					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 45.2					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:09		14
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 21:54		
Client Sample ID: NPWG-2B2X					Lab Sample ID: 350-1619-50					
Date Collected: 02/16/25 22:45					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		
Client Sample ID: NPWG-2B2X					Lab Sample ID: 350-1619-50					
Date Collected: 02/16/25 22:45					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 50.8					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 16:59		
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:24		
Client Sample ID: NPWG-2C2					Lab Sample ID: 350-1619-51					
Date Collected: 02/16/25 22:06					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		
Client Sample ID: NPWG-2C2					Lab Sample ID: 350-1619-51					
Date Collected: 02/16/25 22:06					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 45.4					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:03		
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:26		

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWG-3B2X					Lab Sample ID: 350-1619-52					4
Date Collected: 02/17/25 15:36					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		8
Client Sample ID: NPWG-3B2X					Lab Sample ID: 350-1619-52					9
Date Collected: 02/17/25 15:36					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 50.7					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:15		14
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:29		
Client Sample ID: NPWG-3C2					Lab Sample ID: 350-1619-53					
Date Collected: 02/17/25 14:17					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		
Client Sample ID: NPWG-3C2					Lab Sample ID: 350-1619-53					
Date Collected: 02/17/25 14:17					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 48.5					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:20		
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:37		
Client Sample ID: NPWG-3CP2					Lab Sample ID: 350-1619-54					
Date Collected: 02/16/25 16:47					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03		
Client Sample ID: NPWG-3CP2					Lab Sample ID: 350-1619-54					
Date Collected: 02/16/25 16:47					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 48.8					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:24		
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:39		

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPWG-3D2

Date Collected: 02/16/25 17:16

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-55

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03

Client Sample ID: NPWG-3D2

Date Collected: 02/16/25 17:16

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-55

Matrix: Solid

Percent Solids: 48.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:28
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:42

Client Sample ID: NPWG-4B2X

Date Collected: 02/17/25 16:05

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-56

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5930	JS	EET SSM	04/01/25 19:03

Client Sample ID: NPWG-4B2X

Date Collected: 02/17/25 16:05

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-56

Matrix: Solid

Percent Solids: 49.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5928	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6250	CL	EET SSM	04/15/25 17:32
Total/NA	Prep	HF Bomb Prep			5927	JS	EET SSM	04/01/25 18:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 22:44

Client Sample ID: NPWG-4C2

Date Collected: 02/17/25 16:50

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-57

Matrix: Solid

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-1CP1					Lab Sample ID: 350-1619-61					4
Date Collected: 02/18/25 10:41					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		8
Client Sample ID: PACPP-1CP1					Lab Sample ID: 350-1619-61					9
Date Collected: 02/18/25 10:41					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 48.3					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		100	6631	CL	EET SSM	05/01/25 19:28		14
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 17:48		16
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		17
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 19:49		18
Client Sample ID: PACPP-1CP2X					Lab Sample ID: 350-1619-62					19
Date Collected: 02/18/25 11:23					Matrix: Solid					20
Date Received: 03/06/25 10:30										21
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		22
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		23

Client Sample ID: PACPP-1CP2X					Lab Sample ID: 350-1619-62				
Date Collected: 02/17/25 23:19					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 50.1				
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed	
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27	
Total/NA	Analysis	1631B		200	6821	COW	EET SSM	05/14/25 14:01	
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16	
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 17:51	
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39	
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 19:52	

Client Sample ID: PACPP-1CP3					Lab Sample ID: 350-1619-63				
Date Collected: 02/18/25 11:23					Matrix: Solid				
Date Received: 03/06/25 10:30									
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed	
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05	

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-1CP3					Lab Sample ID: 350-1619-63					4
Date Collected: 02/18/25 21:28					Matrix: Solid					5
Date Received: 03/06/25 10:30					Percent Solids: 47.2					6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		8
Total/NA	Analysis	1631B		200	6821	COW	EET SSM	05/14/25 14:05		9
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		10
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 17:53		11
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		12
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 19:55		13
Client Sample ID: PACPP-1D2					Lab Sample ID: 350-1619-64					14
Date Collected: 02/18/25 21:28					Matrix: Solid					15
Date Received: 03/06/25 10:30										16
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		17
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		18
Client Sample ID: PACPP-1D2					Lab Sample ID: 350-1619-64					19
Date Collected: 02/18/25 21:28					Matrix: Solid					20
Date Received: 03/06/25 10:30					Percent Solids: 47.0					21
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		22
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		23
Total/NA	Analysis	1631B		100	6821	COW	EET SSM	05/14/25 14:09		24
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		25
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 17:56		26
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		27
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 19:58		28

Client Sample ID: PACPP-1E2					Lab Sample ID: 350-1619-65				
Date Collected: 02/18/25 20:52					Matrix: Solid				
Date Received: 03/06/25 10:30									
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed	
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05	

Client Sample ID: PACPP-1E2					Lab Sample ID: 350-1619-65				
Date Collected: 02/18/25 20:52					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 47.5				
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed	
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27	
Total/NA	Analysis	1631B		30	6821	COW	EET SSM	05/14/25 14:22	
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16	
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 17:58	
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39	
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:01	

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-1F2					Lab Sample ID: 350-1619-66					4
Date Collected: 02/18/25 20:16					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		8
Client Sample ID: PACPP-1F2					Lab Sample ID: 350-1619-66					9
Date Collected: 02/18/25 20:16					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 49.2					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6631	CL	EET SSM	05/01/25 17:43		14
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:01		16
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		17
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:04		18
Client Sample ID: PACPP-1G2					Lab Sample ID: 350-1619-67					19
Date Collected: 02/18/25 19:39					Matrix: Solid					20
Date Received: 03/06/25 10:30										21
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		22
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		23

Client Sample ID: PACPP-1G2					Lab Sample ID: 350-1619-67				
Date Collected: 02/18/25 19:39					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 46.9				
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed	
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27	
Total/NA	Analysis	1631B		30	6631	CL	EET SSM	05/01/25 17:47	
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16	
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:03	
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39	
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:07	

Client Sample ID: PACPP-2C2

Lab Sample ID: 350-1619-68

Date Collected: 02/19/25 02:15

Matrix: Solid

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-3C1					Lab Sample ID: 350-1619-71					4
Date Collected: 02/19/25 10:36					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		8
										9
Client Sample ID: PACPP-3C1					Lab Sample ID: 350-1619-71					10
Date Collected: 02/19/25 10:36					Matrix: Solid					11
Date Received: 03/06/25 10:30					Percent Solids: 52.8					12
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		13
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		14
Total/NA	Analysis	1631B		200	6821	COW	EET SSM	05/14/25 14:34		15
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:16		
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:16		

Client Sample ID: PACPP-3C2Y					Lab Sample ID: 350-1619-72				
Date Collected: 02/19/25 09:49					Matrix: Solid				
Date Received: 03/06/25 10:30									
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed	
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05	
Client Sample ID: PACPP-3C2Y					Lab Sample ID: 350-1619-72				
Date Collected: 02/19/25 04:44					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 50.8				
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed	
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27	
Total/NA	Analysis	1631B		1000	6821	COW	EET SSM	05/14/25 16:24	
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16	
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:19	
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39	
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:25	

Client Sample ID: PACPP-3C3X					Lab Sample ID: 350-1619-73				
Date Collected: 02/19/25 09:15					Matrix: Solid				
Date Received: 03/06/25 10:30									
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed	
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05	

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-3C3X					Lab Sample ID: 350-1619-73					4
Date Collected: 02/19/25 09:15					Matrix: Solid					5
Date Received: 03/06/25 10:30					Percent Solids: 53.9					6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		8
Total/NA	Analysis	1631B		1000	6821	COW	EET SSM	05/14/25 16:28		9
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		10
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:21		11
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		12
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:28		13
										14
Client Sample ID: PACPP-3CP1X					Lab Sample ID: 350-1619-74					15
Date Collected: 02/19/25 03:00					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05		
Client Sample ID: PACPP-3CP1X					Lab Sample ID: 350-1619-74					
Date Collected: 02/19/25 03:00					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 49.5					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		2500	6821	COW	EET SSM	05/14/25 16:32		
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:24		
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39		
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:31		

Client Sample ID: PACPP-3CP2					Lab Sample ID: 350-1619-75				
Date Collected: 02/19/25 04:09					Matrix: Solid				
Date Received: 03/06/25 10:30									

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed	
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05	

Client Sample ID: PACPP-3CP2					Lab Sample ID: 350-1619-75				
Date Collected: 02/19/25 04:09					Matrix: Solid				
Date Received: 03/06/25 10:30					Percent Solids: 50.5				

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed	
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27	
Total/NA	Analysis	1631B		200	6821	COW	EET SSM	05/14/25 15:28	
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16	
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:26	
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39	
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:33	

Lab Chronicle

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Client Sample ID: PACPP-3CP3

Date Collected: 02/19/25 04:44

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-76

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05

Client Sample ID: PACPP-3CP3

Date Collected: 02/19/25 04:44

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-76

Matrix: Solid

Percent Solids: 49.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5955	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		200	6821	COW	EET SSM	05/14/25 15:33
Total/NA	Prep	HF Bomb Prep			6026	JS	EET SSM	04/04/25 17:16
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:29
Total/NA	Prep	HF Bomb Prep			6875	JS	EET SSM	05/19/25 13:39
Total/NA	Analysis	1638		1	6977	COW	EET SSM	05/20/25 20:36

Client Sample ID: PACPP-3D2X

Date Collected: 02/19/25 05:27

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-77

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5977	JS	EET SSM	04/03/25 15:05

Client Sample ID: PACPP-3D2X

Date Collected: 02/19/25 05:27

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-77

Matrix: Solid

Percent Solids: 50.0

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-4C2X					Lab Sample ID: 350-1619-81					4
Date Collected: 02/18/25 03:59					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		8
Client Sample ID: PACPP-4C2X					Lab Sample ID: 350-1619-81					9
Date Collected: 02/18/25 03:59					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 54.8					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		200	6735	COW	EET SSM	05/07/25 22:11		14
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 18:54		
Client Sample ID: PACPP-4C2X-FD					Lab Sample ID: 350-1619-82					
Date Collected: 02/18/25 04:22					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		
Client Sample ID: PACPP-4C2X-FD					Lab Sample ID: 350-1619-82					
Date Collected: 02/18/25 04:22					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 54.6					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		1000	6821	COW	EET SSM	05/14/25 15:41		
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:14		
Client Sample ID: PACPP-4CP2X					Lab Sample ID: 350-1619-83					
Date Collected: 02/18/25 04:56					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		
Client Sample ID: PACPP-4CP2X					Lab Sample ID: 350-1619-83					
Date Collected: 02/18/25 04:56					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 52.7					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6821	COW	EET SSM	05/14/25 15:45		
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:17		

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PACPP-4D2X					Lab Sample ID: 350-1619-84					4
Date Collected: 02/18/25 08:49					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		8
Client Sample ID: PACPP-4D2X					Lab Sample ID: 350-1619-84					9
Date Collected: 02/18/25 08:49					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 50.5					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		100	6735	COW	EET SSM	05/07/25 22:29		14
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:19		
Client Sample ID: PAREF-A					Lab Sample ID: 350-1619-85					
Date Collected: 02/13/25 19:06					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		
Client Sample ID: PAREF-A					Lab Sample ID: 350-1619-85					
Date Collected: 02/13/25 19:06					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 46.3					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		20	6735	COW	EET SSM	05/07/25 22:33		
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:22		
Client Sample ID: PAREF-B					Lab Sample ID: 350-1619-86					
Date Collected: 02/13/25 19:38					Matrix: Solid					
Date Received: 03/06/25 10:30										
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		
Client Sample ID: PAREF-B					Lab Sample ID: 350-1619-86					
Date Collected: 02/13/25 19:38					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 49.9					
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		20	6735	COW	EET SSM	05/07/25 22:37		
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:24		

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: PAREF-C

Date Collected: 02/13/25 19:59

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-87

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14

Client Sample ID: PAREF-C

Date Collected: 02/13/25 19:59

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-87

Matrix: Solid

Percent Solids: 51.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		20	6735	COW	EET SSM	05/07/25 22:42
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:27

Client Sample ID: PAWB-1C2

Date Collected: 02/20/25 23:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-88

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14

Client Sample ID: PAWB-1C2

Date Collected: 02/20/25 23:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-88

Matrix: Solid

Percent Solids: 49.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 22:46
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:29

Client Sample ID: PAWB-1CP2

Date Collected: 02/20/25 22:25

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-89

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14

Client Sample ID: PAWB-1CP2

Date Collected: 02/20/25 22:25

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-89

Matrix: Solid

Percent Solids: 47.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWB-3B2					Lab Sample ID: 350-1619-93					4
Date Collected: 02/21/25 14:36					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		
Client Sample ID: PAWB-3B2					Lab Sample ID: 350-1619-93					7
Date Collected: 02/21/25 14:36					Matrix: Solid					8
Date Received: 03/06/25 10:30					Percent Solids: 52.1					9
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:11		
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:47		
Client Sample ID: PAWB-3C2					Lab Sample ID: 350-1619-94					10
Date Collected: 02/21/25 05:40					Matrix: Solid					11
Date Received: 03/06/25 10:30										12
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		
Client Sample ID: PAWB-3C2					Lab Sample ID: 350-1619-94					13
Date Collected: 02/21/25 05:40					Matrix: Solid					14
Date Received: 03/06/25 10:30					Percent Solids: 48.0					15
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 21:50		
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:49		
Client Sample ID: PAWB-3CP2					Lab Sample ID: 350-1619-95					16
Date Collected: 02/21/25 04:55					Matrix: Solid					17
Date Received: 03/06/25 10:30										18
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		
Client Sample ID: PAWB-3CP2					Lab Sample ID: 350-1619-95					19
Date Collected: 02/21/25 04:55					Matrix: Solid					20
Date Received: 03/06/25 10:30					Percent Solids: 46.9					21
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:15		
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:52		
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWB-3D2					Lab Sample ID: 350-1619-96					4
Date Collected: 02/21/25 04:19					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		
Client Sample ID: PAWB-3D2					Lab Sample ID: 350-1619-96					7
Date Collected: 02/21/25 04:19					Matrix: Solid					8
Date Received: 03/06/25 10:30					Percent Solids: 48.3					9
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:19		
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:54		
Client Sample ID: PAWB-4B2X					Lab Sample ID: 350-1619-97					10
Date Collected: 02/21/25 15:54					Matrix: Solid					11
Date Received: 03/06/25 10:30										12
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		
Client Sample ID: PAWB-4B2X					Lab Sample ID: 350-1619-97					13
Date Collected: 02/21/25 15:54					Matrix: Solid					14
Date Received: 03/06/25 10:30					Percent Solids: 50.5					15
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:23		
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:57		
Client Sample ID: PAWB-4C2					Lab Sample ID: 350-1619-98					16
Date Collected: 02/21/25 19:24					Matrix: Solid					17
Date Received: 03/06/25 10:30										18
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14		
Client Sample ID: PAWB-4C2					Lab Sample ID: 350-1619-98					19
Date Collected: 02/21/25 19:24					Matrix: Solid					20
Date Received: 03/06/25 10:30					Percent Solids: 49.2					21
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27		
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:27		
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56		
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:59		
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWE-1B1

Date Collected: 02/20/25 17:12

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-99

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14

Client Sample ID: PAWE-1B1

Date Collected: 02/20/25 17:12

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-99

Matrix: Solid

Percent Solids: 51.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:31
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 19:01

Client Sample ID: PAWE-1C2

Date Collected: 02/20/25 01:48

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-100

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6063	JS	EET SSM	04/07/25 19:14

Client Sample ID: PAWE-1C2

Date Collected: 02/20/25 01:48

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-100

Matrix: Solid

Percent Solids: 51.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5958	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6735	COW	EET SSM	05/07/25 23:35
Total/NA	Prep	HF Bomb Prep			6047	AJD	EET SSM	04/08/25 09:56
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 20:02

Client Sample ID: PAWE-1C2C

Date Collected: 02/20/25 02:23

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-101

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29

Client Sample ID: PAWE-1C2C

Date Collected: 02/20/25 02:23

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-101

Matrix: Solid

Percent Solids: 51.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 13:59
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:32

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWE-2C2-FD					Lab Sample ID: 350-1619-105					4
Date Collected: 02/20/25 04:56					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		8
Client Sample ID: PAWE-2C2-FD					Lab Sample ID: 350-1619-105					9
Date Collected: 02/20/25 04:56					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 52.5					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:11		14
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:42		16
Client Sample ID: PAWE-3B3					Lab Sample ID: 350-1619-106					17
Date Collected: 02/20/25 15:43					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		21
Client Sample ID: PAWE-3B3					Lab Sample ID: 350-1619-106					22
Date Collected: 02/20/25 15:43					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 50.4					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:15		27
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		28
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:45		29
Client Sample ID: PAWE-3C2					Lab Sample ID: 350-1619-107					30
Date Collected: 02/20/25 17:13					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		34
Client Sample ID: PAWE-3C2					Lab Sample ID: 350-1619-107					35
Date Collected: 02/20/25 17:13					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 49.4					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:20		40
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		41
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:47		42
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWE-3CP2					Lab Sample ID: 350-1619-108					4
Date Collected: 02/20/25 16:47					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		8
Client Sample ID: PAWE-3CP2					Lab Sample ID: 350-1619-108					9
Date Collected: 02/20/25 16:47					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 46.9					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:24		14
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:50		16
Client Sample ID: PAWE-3D2					Lab Sample ID: 350-1619-109					17
Date Collected: 02/20/25 19:49					Matrix: Solid					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		21
Client Sample ID: PAWE-3D2					Lab Sample ID: 350-1619-109					22
Date Collected: 02/20/25 19:49					Matrix: Solid					23
Date Received: 03/06/25 10:30					Percent Solids: 52.4					24
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		25
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		26
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:28		27
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		28
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:53		29
Client Sample ID: PAWE-4B2					Lab Sample ID: 350-1619-110					30
Date Collected: 02/20/25 16:25					Matrix: Solid					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		34
Client Sample ID: PAWE-4B2					Lab Sample ID: 350-1619-110					35
Date Collected: 02/20/25 16:25					Matrix: Solid					36
Date Received: 03/06/25 10:30					Percent Solids: 52.6					37
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		38
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		39
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:32		40
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		41
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:55		42
Eurofins Seattle Specialty Metals										43
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: PAWE-4C2					Lab Sample ID: 350-1619-111					4
Date Collected: 02/20/25 01:09					Matrix: Solid					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Analysis	Moisture - 2540		1	6070	JS	EET SSM	04/07/25 20:29		8
Client Sample ID: PAWE-4C2					Lab Sample ID: 350-1619-111					9
Date Collected: 02/20/25 01:09					Matrix: Solid					10
Date Received: 03/06/25 10:30					Percent Solids: 50.1					11
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		12
Total/NA	Prep	1631B CAR Prep			5961	JS	EET SSM	04/03/25 20:27		13
Total/NA	Analysis	1631B		30	6736	CL	EET SSM	05/06/25 14:44		14
Total/NA	Prep	HF Bomb Prep			5727	JS	EET SSM	03/21/25 16:19		15
Total/NA	Analysis	1638		1	6893	COW	EET SSM	05/14/25 23:12		16
Client Sample ID: NPCPP-1C2X-SW-1					Lab Sample ID: 350-1619-112					17
Date Collected: 02/16/25 01:52					Matrix: Water					18
Date Received: 03/06/25 10:30										19
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		20
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 13:32		21
Total/NA	Prep	1640			6090	COW	EET SSM	04/08/25 16:09		22
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/09/25 19:53		23
Total/NA	Prep	1640			6090	COW	EET SSM	04/08/25 16:09		24
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/09/25 19:53		25
Client Sample ID: NPCPP-1C2X-SW-20										

Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPCPP-4C2-SW-40					Lab Sample ID: 350-1619-135					4
Date Collected: 02/15/25 04:34					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		8
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 13:03		9
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		10
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 13:03		11
Client Sample ID: NPCPP-4C2-SW-B					Lab Sample ID: 350-1619-136					12
Date Collected: 02/15/25 04:45					Matrix: Water					13
Date Received: 03/06/25 10:30										14
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		15
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:37		16
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		17
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 13:18		18
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		19
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 13:18		20
Client Sample ID: NPCPP-EQ					Lab Sample ID: 350-1619-137					21
Date Collected: 02/12/25 20:00					Matrix: Water					22
Date Received: 03/06/25 10:30										23
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		24
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:41		25
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		26
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 13:32		27
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		28
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 13:32		29
Client Sample ID: NPCPP-WB					Lab Sample ID: 350-1619-138					30
Date Collected: 02/12/25 20:07					Matrix: Water					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:45		34
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		35
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 13:46		36
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		37
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 13:46		38
Client Sample ID: NPREF-A-SW-1					Lab Sample ID: 350-1619-139					39
Date Collected: 02/12/25 20:54					Matrix: Water					40
Date Received: 03/06/25 10:30										41
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		42
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:49		43
Eurofins Seattle Specialty Metals										44
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPREF-A-SW-1					Lab Sample ID: 350-1619-139					4
Date Collected: 02/12/25 20:54					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		8
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 14:00		9
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		10
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 14:00		11
Client Sample ID: NPREF-A-SW-1-FD					Lab Sample ID: 350-1619-140					12
Date Collected: 02/12/25 20:59					Matrix: Water					13
Date Received: 03/06/25 10:30										14
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		15
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:53		16
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		17
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 14:14		18
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		19
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 14:14		20
Client Sample ID: NPREF-A-SW-20					Lab Sample ID: 350-1619-141					21
Date Collected: 02/12/25 21:05					Matrix: Water					22
Date Received: 03/06/25 10:30										23
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		24
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 15:57		25
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		26
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 14:28		27
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		28
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 14:28		29
Client Sample ID: NPREF-A-SW-40					Lab Sample ID: 350-1619-142					30
Date Collected: 02/12/25 21:11					Matrix: Water					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:01		34
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		35
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 14:42		36
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40		37
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 14:42		38
Client Sample ID: NPREF-A-SW-B					Lab Sample ID: 350-1619-143					39
Date Collected: 02/12/25 21:21					Matrix: Water					40
Date Received: 03/06/25 10:30										41
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		42
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:06		43
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: NPREF-A-SW-B

Date Collected: 02/12/25 21:21

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-143

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 15:25
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 15:25

Client Sample ID: NPREF-EQ

Date Collected: 02/12/25 20:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-144

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:18
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 15:39
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 15:39

Client Sample ID: NPREF-WB

Date Collected: 02/12/25 20:00

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-145

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:22
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 15:53
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 15:53

Client Sample ID: NPWB-1C2-SW-1

Date Collected: 02/14/25 00:47

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-146

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:26
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 16:07
Total/NA	Prep	1640			6110	COW	EET SSM	04/09/25 12:40
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 16:07

Client Sample ID: NPWB-1C2-SW-20

Date Collected: 02/14/25 00:54

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-147

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6431	CL	EET SSM	04/24/25 16:31

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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWB-1CP2-SW-20					Lab Sample ID: 350-1619-151					4
Date Collected: 02/14/25 01:57					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		8
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 01:46		9
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		10
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 01:46		11
Client Sample ID: NPWB-1CP2-SW-40					Lab Sample ID: 350-1619-152					12
Date Collected: 02/14/25 02:09					Matrix: Water					13
Date Received: 03/06/25 10:30										14
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		15
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 17:41		16
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		17
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 02:00		18
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		19
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 02:00		20
Client Sample ID: NPWB-1CP2-SW-B					Lab Sample ID: 350-1619-153					21
Date Collected: 02/14/25 02:20					Matrix: Water					22
Date Received: 03/06/25 10:30										23
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		24
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 17:45		25
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		26
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 02:14		27
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		28
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 02:14		29
Client Sample ID: NPWB-3B2-SW-1					Lab Sample ID: 350-1619-154					30
Date Collected: 02/14/25 14:19					Matrix: Water					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 17:49		34
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		35
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 02:28		36
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		37
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 02:28		38
Client Sample ID: NPWB-3B2-SW-20					Lab Sample ID: 350-1619-155					39
Date Collected: 02/14/25 15:57					Matrix: Water					40
Date Received: 03/06/25 10:30										41
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		42
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 17:53		43
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Lab Chronicle										1
Client: Tetra Tech Inc					Job ID: 350-1619-1					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: NPWB-3B2-SW-20					Lab Sample ID: 350-1619-155					4
Date Collected: 02/14/25 15:57					Matrix: Water					5
Date Received: 03/06/25 10:30										6
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		7
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		8
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 02:42		9
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		10
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 02:42		11
Client Sample ID: NPWB-3B2-SW-40					Lab Sample ID: 350-1619-156					12
Date Collected: 02/14/25 16:08					Matrix: Water					13
Date Received: 03/06/25 10:30										14
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		15
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 18:43		16
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		17
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 02:56		18
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		19
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 02:56		20
Client Sample ID: NPWB-3B2-SW-B					Lab Sample ID: 350-1619-157					21
Date Collected: 02/14/25 16:18					Matrix: Water					22
Date Received: 03/06/25 10:30										23
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		24
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 18:47		25
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		26
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 03:39		27
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		28
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 03:39		29
Client Sample ID: NPWB-3CP2-SW-1					Lab Sample ID: 350-1619-158					30
Date Collected: 02/14/25 14:11					Matrix: Water					31
Date Received: 03/06/25 10:30										32
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		33
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 18:51		34
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		35
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 03:53		36
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43		37
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 03:53		38
Client Sample ID: NPWB-3CP2-SW-20					Lab Sample ID: 350-1619-159					39
Date Collected: 02/14/25 14:19					Matrix: Water					40
Date Received: 03/06/25 10:30										41
Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed		42
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 18:55		43
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: NPWB-3CP2-SW-20

Date Collected: 02/14/25 14:19

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-159

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 04:07
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 04:07

Client Sample ID: NPWB-3CP2-SW-20-FD

Date Collected: 02/14/25 14:45

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-160

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 19:00
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 04:21
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 04:21

Client Sample ID: NPWB-3CP2-SW-40

Date Collected: 02/14/25 14:51

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-161

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 19:04
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 04:35
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 04:35

Client Sample ID: NPWB-3CP2-SW-B

Date Collected: 02/14/25 15:02

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-162

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 19:08
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 04:49
Total/NA	Prep	1640			6111	COW	EET SSM	04/09/25 12:43
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/10/25 04:49

Client Sample ID: NPWB-EQ

Date Collected: 02/14/25 00:15

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-163

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6430	CL	EET SSM	04/24/25 19:20

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: PACPP-3C2Y-SW-B

Date Collected: 02/18/25 01:25

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-199

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 09:31
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 09:31

Client Sample ID: PACPP-3CP2-SW-1

Date Collected: 02/18/25 02:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-200

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:32
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 09:46
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 09:46

Client Sample ID: PACPP-3CP2-SW-20

Date Collected: 02/18/25 02:17

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-201

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:36
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 10:00
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 10:00

Client Sample ID: PACPP-3CP2-SW-40

Date Collected: 02/18/25 02:25

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-202

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:40
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 10:14
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 10:14

Client Sample ID: PACPP-3CP2-SW-B

Date Collected: 02/18/25 02:36

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-203

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:44

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-3CP2-SW-B

Date Collected: 02/18/25 02:36

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-203

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 10:56
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 10:56

Client Sample ID: PACPP-4C2-SW-1

Date Collected: 02/18/25 13:47

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-204

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:48
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 11:10
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 11:10

Client Sample ID: PACPP-4C2-SW-1-FD

Date Collected: 02/18/25 13:52

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-205

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:52
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 11:24
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 11:24

Client Sample ID: PACPP-4C2-SW-20

Date Collected: 02/18/25 13:58

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-206

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 10:56
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 11:38
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 11:38

Client Sample ID: PACPP-4C2-SW-40

Date Collected: 02/18/25 16:06

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-207

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:01

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PACPP-4C2-SW-40

Lab Sample ID: 350-1619-207

Date Collected: 02/18/25 16:06

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 11:53
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 11:53

Client Sample ID: PACPP-4C2-SW-B

Lab Sample ID: 350-1619-208

Date Collected: 02/18/25 16:16

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:05
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 12:12
Total/NA	Prep	1640			6146	COW	EET SSM	04/10/25 18:41
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/11/25 12:12

Client Sample ID: PACPP-EQ

Lab Sample ID: 350-1619-209

Date Collected: 02/17/25 19:07

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:17
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/29/25 22:43
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/29/25 22:43
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 17:28
Total/NA	Analysis	1640		1	6815	COW	EET SSM	05/13/25 16:19

Client Sample ID: PACPP-WB

Lab Sample ID: 350-1619-210

Date Collected: 02/17/25 19:02

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:21
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/29/25 23:26
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/29/25 23:26
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 12:55

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: PAWB-1CP2-SW-1

Date Collected: 02/21/25 00:41

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-215

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:42
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 22:19
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 03:54

Client Sample ID: PAWB-1CP2-SW-20

Date Collected: 02/21/25 00:50

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-216

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:46
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 22:33
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 04:08

Client Sample ID: PAWB-1CP2-SW-40

Date Collected: 02/21/25 00:58

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-217

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:50
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 22:47
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 04:51

Client Sample ID: PAWB-1CP2-SW-B

Date Collected: 02/21/25 01:11

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-218

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 11:54
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 23:02
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 05:05

Client Sample ID: PAWB-3B2-SW-1

Date Collected: 02/21/25 13:45

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-219

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 12:07

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWB-3B2-SW-1

Lab Sample ID: 350-1619-219

Date Collected: 02/21/25 13:45

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 23:16
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 05:19

Client Sample ID: PAWB-3B2-SW-20

Lab Sample ID: 350-1619-220

Date Collected: 02/21/25 13:51

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 12:36
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/11/25 23:30
Total/NA	Prep	1640			6520	COW	EET SSM	04/29/25 18:42
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 05:33

Client Sample ID: PAWB-3B2-SW-40

Lab Sample ID: 350-1619-221

Date Collected: 02/21/25 13:59

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 12:40
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 00:12
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 05:47

Client Sample ID: PAWB-3B2-SW-B

Lab Sample ID: 350-1619-222

Date Collected: 02/21/25 14:09

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 12:44
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 00:26
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 15:30

Client Sample ID: PAWB-3CP2-SW-1

Lab Sample ID: 350-1619-223

Date Collected: 02/21/25 02:18

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 12:57

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWB-3CP2-SW-1

Lab Sample ID: 350-1619-223

Date Collected: 02/21/25 02:18

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 00:40
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 07:40

Client Sample ID: PAWB-3CP2-SW-20

Lab Sample ID: 350-1619-224

Date Collected: 02/21/25 02:25

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:01
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 00:55
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 07:54

Client Sample ID: PAWB-3CP2-SW-40

Lab Sample ID: 350-1619-225

Date Collected: 02/21/25 02:14

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:05
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 01:09
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 08:08

Client Sample ID: PAWB-3CP2-SW-B

Lab Sample ID: 350-1619-226

Date Collected: 02/21/25 02:49

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:09
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 01:23
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 08:22

Client Sample ID: PAWE-1B1-SW-1

Lab Sample ID: 350-1619-227

Date Collected: 02/20/25 14:05

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:13

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: PAWE-1CP2-SW-1

Date Collected: 02/19/25 21:11

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-231

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 03:02
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 09:33

Client Sample ID: PAWE-1CP2-SW-20

Date Collected: 02/19/25 21:16

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-232

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:34
Total/NA	Prep	1640			6155	COW	EET SSM	04/11/25 11:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 03:16
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 09:47

Client Sample ID: PAWE-1CP2-SW-40

Date Collected: 02/19/25 21:27

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-233

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:46
Total/NA	Prep	1640			6156	COW	EET SSM	04/11/25 11:11
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 03:30
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 10:30

Client Sample ID: PAWE-1CP2-SW-B

Date Collected: 02/19/25 21:17

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-234

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:50
Total/NA	Prep	1640			6156	COW	EET SSM	04/11/25 11:11
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 04:12
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 10:46

Client Sample ID: PAWE-3B3-SW-1

Date Collected: 02/20/25 12:55

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-235

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:55

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Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PAWE-3B3-SW-1

Lab Sample ID: 350-1619-235

Date Collected: 02/20/25 12:55

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6156	COW	EET SSM	04/11/25 11:11
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 04:55
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 11:02

Client Sample ID: PAWE-3B3-SW-20

Lab Sample ID: 350-1619-236

Date Collected: 02/20/25 01:30

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 13:59
Total/NA	Prep	1640			6156	COW	EET SSM	04/11/25 11:11
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/12/25 05:09
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 11:16

Client Sample ID: PAWE-3B3-SW-40

Lab Sample ID: 350-1619-237

Date Collected: 02/20/25 13:14

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:03
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 11:30
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/30/25 11:30

Client Sample ID: PAWE-3B3-SW-B

Lab Sample ID: 350-1619-238

Date Collected: 02/20/25 13:24

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:07
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 11:44
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/30/25 11:44

Client Sample ID: PAWE-3CP2-SW-1

Lab Sample ID: 350-1619-239

Date Collected: 02/19/25 19:28

Matrix: Water

Date Received: 03/06/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:11

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: PAWE-3CP2-SW-1

Date Collected: 02/19/25 19:28

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-239

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 11:59
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/30/25 11:59

Client Sample ID: PAWE-3CP2-SW-20

Date Collected: 02/19/25 19:14

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-240

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 11:33
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6591	COW	EET SSM	04/30/25 12:13
Total/NA	Prep	1640			6521	COW	EET SSM	04/29/25 18:49
Total/NA	Analysis	1640		1	6609	COW	EET SSM	04/30/25 12:13

Client Sample ID: PAWE-3CP2-SW-20-FD

Date Collected: 02/19/25 19:41

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-241

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 11:37
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 00:00
Total/NA	Analysis	1640		1	6814	COW	EET SSM	05/12/25 23:55
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 00:00
Total/NA	Analysis	1640		1	6815	COW	EET SSM	05/12/25 23:55
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 00:00
Total/NA	Analysis	1640		1	6816	COW	EET SSM	05/12/25 23:55

Client Sample ID: PAWE-3CP2-SW-40

Date Collected: 02/19/25 19:48

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-242

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 11:41
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 00:00
Total/NA	Analysis	1640		1	6814	COW	EET SSM	05/13/25 00:09
Total/NA	Prep	1640			6760	V1R	EET SSM	05/12/25 00:00
Total/NA	Analysis	1640		1	6816	COW	EET SSM	05/13/25 00:09
Total/NA	Prep	1640			6877	COW	EET SSM	05/19/25 12:25
Total/NA	Analysis	1640		1	6963	COW	EET SSM	05/19/25 23:37

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Client Sample ID: PDPLB-EQ

Date Collected: 02/11/25 19:07

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-378

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:00
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 10:53

Client Sample ID: PDPLB-M2-SW-1

Date Collected: 02/11/25 21:36

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-379

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:04
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 11:07

Client Sample ID: PDPLB-M2-SW-20

Date Collected: 02/11/25 21:30

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-380

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:09
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 11:21

Client Sample ID: PDPLB-M2-SW-40

Date Collected: 02/11/25 21:20

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-381

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:21
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 11:36

Client Sample ID: PDPLB-M2-SW-B

Date Collected: 02/11/25 21:10

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-382

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:25
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 13:43

Client Sample ID: PDPLB-M3-SW-1

Date Collected: 02/11/25 19:16

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-383

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6472	CL	EET SSM	04/25/25 15:29

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-1

Client Sample ID: PDPLB-M3-SW-1

Date Collected: 02/11/25 19:16

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-383

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 13:57

Client Sample ID: PDPLB-M3-SW-20

Date Collected: 02/11/25 19:22

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-384

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:48
Total/NA	Prep	1640			5997	COW	EET SSM	04/03/25 16:43
Total/NA	Analysis	1640		1	6066	COW	EET SSM	04/04/25 14:11

Client Sample ID: PDPLB-M3-SW-40

Date Collected: 02/11/25 19:29

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-385

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:53
Total/NA	Prep	1640			6877	COW	EET SSM	05/19/25 12:25
Total/NA	Analysis	1640		1	6963	COW	EET SSM	05/19/25 23:51

Client Sample ID: PDPLB-M3-SW-B

Date Collected: 02/11/25 19:40

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-386

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 14:57
Total/NA	Prep	1640			6877	COW	EET SSM	05/19/25 12:25
Total/NA	Analysis	1640		1	6963	COW	EET SSM	05/20/25 00:05

Client Sample ID: PDPLB-WB

Date Collected: 02/11/25 19:00

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-387

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	6479	CL	EET SSM	04/25/25 15:01
Total/NA	Prep	1640			6877	COW	EET SSM	05/19/25 12:25
Total/NA	Analysis	1640		1	6963	COW	EET SSM	05/20/25 00:19

Laboratory References:

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Laboratory: Eurofins Seattle Specialty Metals

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-27
ANAB	Dept. of Defense ELAP	L2236	01-19-27
ANAB	Dept. of Energy	L2236.01	01-19-27
ANAB	ISO/IEC 17025	L2236	01-19-27
California	State	2954	07-08-26
Florida	NELAP	E87575	06-30-25
Louisiana (All)	NELAP	03073	06-30-25
Maine	State	WA01273	05-02-26
New Jersey	NELAP	WA014	06-30-25
New York	NELAP	11662	04-01-26
Oregon	NELAP	4167-008	07-07-25
US Fish & Wildlife	US Federal Programs	A20571	06-30-25
USDA	US Federal Programs	525-23-4-22573	01-24-28
Washington	State	C788-23a	07-13-25
Wisconsin	State	399133460	07-31-25

Client: Tetra Tech Inc

Job ID: 350-1619-1

Project/Site: Gulf of Thailand - 2025

Method Summary			
Method	Method Description	Protocol	Laboratory
1631B	Mercury, Low Level (CVAFS)	EPA	EET SSM
1631E	Mercury, Low Level (CVAFS)	EPA	EET SSM
1638	Metals (ICP/MS)	EPA	EET SSM
1640	Metals (ICP/MS)	EPA	EET SSM
Moisture - 2540	Percent Moisture	SM	EET SSM
1631B CAR Prep	Preparation of Solids, Modified Cold Aqua-Regia	Lab SOP	EET SSM
1640	Preparation, Total Recoverable Metals	EPA	EET SSM
HF Bomb Prep	HF/HNO3/ HCl Bomb Digestion of Solids for Total Metals	Lab SOP	EET SSM
Protocol References:			
EPA = US Environmental Protection Agency			
Lab SOP = Laboratory Standard Operating Procedure			
SM = "Standard Methods For The Examination Of Water And Wastewater"			
Laboratory References:			
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310			

Sample Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1619-1	NPCPP-1C1	Solid	02/16/25 03:03	03/06/25 10:30
350-1619-2	NPCPP-1C1-FD	Solid	02/16/25 04:14	03/06/25 10:30
350-1619-3	NPCPP-1C2X	Solid	02/16/25 02:53	03/06/25 10:30
350-1619-4	NPCPP-1C1	Solid	02/16/25 08:12	03/06/25 10:30
350-1619-5	NPCPP-1C2	Solid	02/16/25 07:36	03/06/25 10:30
350-1619-6	NPCPP-1C3X	Solid	02/16/25 05:55	03/06/25 10:30
350-1619-7	NPCPP-1D2	Solid	02/15/25 01:46	03/06/25 10:30
350-1619-8	NPCPP-1E2	Solid	02/15/25 01:08	03/06/25 10:30
350-1619-9	NPCPP-1F2	Solid	02/15/25 00:22	03/06/25 10:30
350-1619-10	NPCPP-1G2	Solid	02/14/25 22:53	03/06/25 10:30
350-1619-11	NPCPP-2C1X	Solid	02/16/25 04:54	03/06/25 10:30
350-1619-12	NPCPP-2C2	Solid	02/16/25 05:22	03/06/25 10:30
350-1619-13	NPCPP-2CP2	Solid	02/15/25 05:42	03/06/25 10:30
350-1619-14	NPCPP-2D2	Solid	02/15/25 06:22	03/06/25 10:30
350-1619-15	NPCPP-3C1	Solid	02/16/25 08:56	03/06/25 10:30
350-1619-16	NPCPP-3C2	Solid	02/15/25 22:58	03/06/25 10:30
350-1619-17	NPCPP-3C3X	Solid	02/15/25 23:36	03/06/25 10:30
350-1619-18	NPCPP-3C3X-FD	Solid	02/15/25 20:54	03/06/25 10:30
350-1619-19	NPCPP-3CP1	Solid	02/15/25 17:01	03/06/25 10:30
350-1619-20	NPCPP-3CP2	Solid	02/15/25 11:07	03/06/25 10:30
350-1619-21	NPCPP-3CP3X	Solid	02/15/25 16:23	03/06/25 10:30
350-1619-22	NPCPP-3D2	Solid	02/16/25 09:50	03/06/25 10:30
350-1619-23	NPCPP-3E2	Solid	02/16/25 10:28	03/06/25 10:30
350-1619-24	NPCPP-3F2X	Solid	02/16/25 11:05	03/06/25 10:30
350-1619-25	NPCPP-3G2	Solid	02/16/25 13:04	03/06/25 10:30
350-1619-26	NPCPP-4C2	Solid	02/15/25 19:59	03/06/25 10:30
350-1619-27	NPCPP-4CP2	Solid	02/15/25 19:27	03/06/25 10:30
350-1619-28	NPCPP-4D2	Solid	02/15/25 18:54	03/06/25 10:30
350-1619-29	NPREF-A	Solid	02/12/25 21:54	03/06/25 10:30
350-1619-30	NPREF-B	Solid	02/12/25 22:27	03/06/25 10:30
350-1619-31	NPREF-B-FD	Solid	02/12/25 20:54	03/06/25 10:30
350-1619-32	NPREF-C	Solid	02/12/25 23:16	03/06/25 10:30
350-1619-33	NPWB-1C2	Solid	02/14/25 04:51	03/06/25 10:30
350-1619-34	NPWB-1C2-FD	Solid	02/14/25 05:13	03/06/25 10:30
350-1619-35	NPWB-1CP2	Solid	02/14/25 03:00	03/06/25 10:30
350-1619-36	NPWB-1D2	Solid	02/14/25 04:06	03/06/25 10:30
350-1619-37	NPWB-2B3	Solid	02/14/25 18:54	03/06/25 10:30
350-1619-38	NPWB-2C2X	Solid	02/14/25 05:33	03/06/25 10:30
350-1619-39	NPWB-3B2	Solid	02/14/25 18:29	03/06/25 10:30
350-1619-40	NPWB-3C2	Solid	02/14/25 20:22	03/06/25 10:30
350-1619-41	NPWB-3CP2	Solid	02/14/25 21:24	03/06/25 10:30
350-1619-42	NPWB-3D2	Solid	02/14/25 21:55	03/06/25 10:30
350-1619-43	NPWB-4B3X	Solid	02/14/25 19:19	03/06/25 10:30
350-1619-44	NPWB-4C2	Solid	02/14/25 19:52	03/06/25 10:30
350-1619-45	NPWG-1B2X	Solid	02/17/25 10:17	03/06/25 10:30
350-1619-46	NPWG-1B2X-FD	Solid	02/17/25 10:42	03/06/25 10:30
350-1619-47	NPWG-1C2	Solid	02/17/25 05:05	03/06/25 10:30
350-1619-48	NPWG-1CP2	Solid	02/17/25 03:37	03/06/25 10:30
350-1619-49	NPWG-1D2	Solid	02/17/25 04:14	03/06/25 10:30
350-1619-50	NPWG-2B2X	Solid	02/16/25 22:45	03/06/25 10:30
350-1619-51	NPWG-2C2	Solid	02/16/25 22:06	03/06/25 10:30
350-1619-52	NPWG-3B2X	Solid	02/17/25 15:36	03/06/25 10:30
350-1619-53	NPWG-3C2	Solid	02/17/25 14:17	03/06/25 10:30
350-1619-54	NPWG-3CP2	Solid	02/16/25 16:47	03/06/25 10:30

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Eurofins Seattle Specialty Metals
5/23/2025

Sample Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1619-55	NPWG-3D2	Solid	02/16/25 17:16	03/06/25 10:30
350-1619-56	NPWG-4B2X	Solid	02/17/25 16:05	03/06/25 10:30
350-1619-57	NPWG-4C2	Solid	02/17/25 16:50	03/06/25 10:30
350-1619-58	PACPP-1C1	Solid	02/19/25 00:48	03/06/25 10:30
350-1619-59	PACPP-1C2X	Solid	02/17/25 22:46	03/06/25 10:30
350-1619-60	PACPP-1C3X	Solid	02/19/25 01:32	03/06/25 10:30
350-1619-61	PACPP-1CP1	Solid	02/18/25 10:41	03/06/25 10:30
350-1619-62	PACPP-1CP2X	Solid	02/17/25 23:19	03/06/25 10:30
350-1619-63	PACPP-1CP3	Solid	02/18/25 11:23	03/06/25 10:30
350-1619-64	PACPP-1D2	Solid	02/18/25 21:28	03/06/25 10:30
350-1619-65	PACPP-1E2	Solid	02/18/25 20:52	03/06/25 10:30
350-1619-66	PACPP-1F2	Solid	02/18/25 20:16	03/06/25 10:30
350-1619-67	PACPP-1G2	Solid	02/18/25 19:39	03/06/25 10:30
350-1619-68	PACPP-2C2	Solid	02/19/25 02:15	03/06/25 10:30
350-1619-69	PACPP-2CP2	Solid	02/18/25 23:14	03/06/25 10:30
350-1619-70	PACPP-2D2	Solid	02/18/25 22:32	03/06/25 10:30
350-1619-71	PACPP-3C1	Solid	02/19/25 10:36	03/06/25 10:30
350-1619-72	PACPP-3C2Y	Solid	02/19/25 09:49	03/06/25 10:30
350-1619-73	PACPP-3C3X	Solid	02/19/25 06:15	03/06/25 10:30
350-1619-74	PACPP-3CP1X	Solid	02/19/25 03:00	03/06/25 10:30
350-1619-75	PACPP-3CP2	Solid	02/19/25 04:09	03/06/25 10:30
350-1619-76	PACPP-3CP3	Solid	02/19/25 04:44	03/06/25 10:30
350-1619-77	PACPP-3D2X	Solid	02/19/25 05:27	03/06/25 10:30
350-1619-78	PACPP-3E2X	Solid	02/19/25 11:22	03/06/25 10:30
350-1619-79	PACPP-3F2X	Solid	02/19/25 12:46	03/06/25 10:30
350-1619-80	PACPP-3G2	Solid	02/19/25 13:35	03/06/25 10:30
350-1619-81	PACPP-4C2X	Solid	02/18/25 03:59	03/06/25 10:30
350-1619-82	PACPP-4C2X-FD	Solid	02/18/25 04:22	03/06/25 10:30
350-1619-83	PACPP-4CP2X	Solid	02/18/25 04:56	03/06/25 10:30
350-1619-84	PACPP-4D2X	Solid	02/18/25 08:49	03/06/25 10:30
350-1619-85	PAREF-A	Solid	02/13/25 19:06	03/06/25 10:30
350-1619-86	PAREF-B	Solid	02/13/25 19:38	03/06/25 10:30
350-1619-87	PAREF-C	Solid	02/13/25 19:59	03/06/25 10:30
350-1619-88	PAWB-1C2	Solid	02/20/25 23:07	03/06/25 10:30
350-1619-89	PAWB-1CP2	Solid	02/20/25 22:25	03/06/25 10:30
350-1619-90	PAWB-1D2	Solid	02/20/25 21:40	03/06/25 10:30
350-1619-91	PAWB-2B1X	Solid	02/21/25 16:23	03/06/25 10:30
350-1619-92	PAWB-2C2	Solid	02/21/25 16:59	03/06/25 10:30
350-1619-93	PAWB-3B2	Solid	02/21/25 14:36	03/06/25 10:30
350-1619-94	PAWB-3C2	Solid	02/21/25 05:40	03/06/25 10:30
350-1619-95	PAWB-3CP2	Solid	02/21/25 04:55	03/06/25 10:30
350-1619-96	PAWB-3D2	Solid	02/21/25 04:19	03/06/25 10:30
350-1619-97	PAWB-4B2X	Solid	02/21/25 15:54	03/06/25 10:30
350-1619-98	PAWB-4C2	Solid	02/21/25 19:24	03/06/25 10:30
350-1619-99	PAWE-1B1	Solid	02/20/25 17:12	03/06/25 10:30
350-1619-100	PAWE-1C2	Solid	02/20/25 01:48	03/06/25 10:30
350-1619-101	PAWE-1CP2	Solid	02/20/25 02:23	03/06/25 10:30
350-1619-102	PAWE-1D2	Solid	02/20/25 03:08	03/06/25 10:30
350-1619-103	PAWE-2B3	Solid	02/20/25 14:56	03/06/25 10:30
350-1619-104	PAWE-2C2	Solid	02/20/25 04:25	03/06/25 10:30
350-1619-105	PAWE-2C2-FD	Solid	02/20/25 04:56	03/06/25 10:30
350-1619-106	PAWE-3B3	Solid	02/20/25 15:43	03/06/25 10:30
350-1619-107	PAWE-3C2	Solid	02/20/25 17:13	03/06/25 10:30
350-1619-108	PAWE-3CP2	Solid	02/20/25 16:47	03/06/25 10:30

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Eurofins Seattle Specialty Metals
5/23/2025

Sample Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1619-109	PAWE-3D2	Solid	02/20/25 19:49	03/06/25 10:30
350-1619-110	PAWE-4B2	Solid	02/20/25 16:25	03/06/25 10:30
350-1619-111	PAWE-4C2	Solid	02/20/25 01:09	03/06/25 10:30
350-1619-112	NPCPP-1C2X-SW-1	Water	02/16/25 01:52	03/06/25 10:30
350-1619-113	NPCPP-1C2X-SW-20	Water	02/16/25 01:58	03/06/25 10:30
350-1619-114	NPCPP-1C2X-SW-40	Water	02/16/25 02:06	03/06/25 10:30
350-1619-115	NPCPP-1C2X-SW-B	Water	02/16/25 02:17	03/06/25 10:30
350-1619-116	NPCPP-1CP2-SW-1	Water	02/15/25 02:45	03/06/25 10:30
350-1619-117	NPCPP-1CP2-SW-20	Water	02/15/25 02:51	03/06/25 10:30
350-1619-118	NPCPP-1CP2-SW-40	Water	02/15/25 02:59	03/06/25 10:30
350-1619-119	NPCPP-1CP2-SW-B	Water	02/15/25 03:12	03/06/25 10:30
350-1619-120	NPCPP-2C2-SW-1	Water	02/16/25 00:12	03/06/25 10:30
350-1619-121	NPCPP-2C2-SW-20	Water	02/16/25 00:18	03/06/25 10:30
350-1619-122	NPCPP-2C2-SW-40	Water	02/16/25 00:46	03/06/25 10:30
350-1619-123	NPCPP-2C2-SW-40-FD	Water	02/16/25 00:58	03/06/25 10:30
350-1619-124	NPCPP-2C2-SW-B	Water	02/16/25 01:06	03/06/25 10:30
350-1619-125	NPCPP-3C2-SW-1	Water	02/15/25 22:02	03/06/25 10:30
350-1619-126	NPCPP-3C2-SW-20	Water	02/15/25 22:09	03/06/25 10:30
350-1619-127	NPCPP-3C2-SW-40	Water	02/15/25 22:17	03/06/25 10:30
350-1619-128	NPCPP-3C2-SW-B	Water	02/15/25 22:27	03/06/25 10:30
350-1619-129	NPCPP-3CP2-SW-1	Water	02/15/25 15:13	03/06/25 10:30
350-1619-130	NPCPP-3CP2-SW-20	Water	02/15/25 15:18	03/06/25 10:30
350-1619-131	NPCPP-3CP2-SW-40	Water	02/15/25 15:26	03/06/25 10:30
350-1619-132	NPCPP-3CP2-SW-B	Water	02/15/25 15:39	03/06/25 10:30
350-1619-133	NPCPP-4C2-SW-1	Water	02/15/25 04:20	03/06/25 10:30
350-1619-134	NPCPP-4C2-SW-20	Water	02/15/25 04:26	03/06/25 10:30
350-1619-135	NPCPP-4C2-SW-40	Water	02/15/25 04:34	03/06/25 10:30
350-1619-136	NPCPP-4C2-SW-B	Water	02/15/25 04:45	03/06/25 10:30
350-1619-137	NPREF-A	Water	02/12/25 20:00	03/06/25 10:30
350-1619-138	NPREF-WB	Water	02/12/25 20:07	03/06/25 10:30
350-1619-139	NPREF-A-SW-1	Water	02/12/25 20:54	03/06/25 10:30
350-1619-140	NPREF-A-SW-1-FD	Water	02/12/25 20:59	03/06/25 10:30
350-1619-141	NPREF-A-SW-20	Water	02/12/25 21:05	03/06/25 10:30
350-1619-142	NPREF-A-SW-40	Water	02/12/25 21:11	03/06/25 10:30
350-1619-143	NPREF-A-SW-B	Water	02/12/25 21:21	03/06/25 10:30
350-1619-144	NPREF-EQ	Water	02/12/25 20:07	03/06/25 10:30
350-1619-145	NPREF-WB	Water	02/12/25 20:00	03/06/25 10:30
350-1619-146	NPWB-1C2-SW-1	Water	02/14/25 00:47	03/06/25 10:30
350-1619-147	NPWB-1C2-SW-20	Water	02/14/25 00:54	03/06/25 10:30
350-1619-148	NPWB-1C2-SW-40	Water	02/14/25 01:02	03/06/25 10:30
350-1619-149	NPWB-1C2-SW-B	Water	02/14/25 01:11	03/06/25 10:30
350-1619-150	NPWB-1CP2-SW-1	Water	02/14/25 01:51	03/06/25 10:30
350-1619-151	NPWB-1CP2-SW-20	Water	02/14/25 01:57	03/06/25 10:30
350-1619-152	NPWB-1CP2-SW-40	Water	02/14/25 02:09	03/06/25 10:30</

Sample Summary

Job ID: 350-1619-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1619-217	PAWB-1CP2-SW-40	Water	02/21/25 00:58	03/06/25 10:30
350-1619-218	PAWB-1CP2-SW-B	Water	02/21/25 01:11	03/06/25 10:30
350-1619-219	PAWB-3B2-SW-1	Water	02/21/25 13:45	03/06/25 10:30
350-1619-220	PAWB-3B2-SW-40	Water	02/21/25 13:51	03/06/25 10:30
350-1619-221	PAWB-3B2-SW-40	Water	02/21/25 13:59	03/06/25 10:30
350-1619-222	PAWB-3B2-SW-B	Water	02/21/25 14:09	03/06/25 10:30
350-1619-223	PAWB-3CP2-SW-1	Water	02/21/25 02:18	03/06/25 10:30
350-1619-224	PAWB-3CP2-SW-20	Water	02/21/25 02:25	03/06/25 10:30
350-1619-225	PAWB-3CP2-SW-40	Water	02/21/25 02:14	03/06/25 10:30
350-1619-226	PAWB-3CP2-SW-B	Water	02/21/25 02:49	03/06/25 10:30
350-1619-227	PAWE-1B1-SW-1	Water	02/20/25 14:05	03/06/25 10:30
350-1619-228	PAWE-1B1-SW-20	Water	02/20/25 14:11	03/06/25 10:30
350-1619-229	PAWE-1B1-SW-40	Water	02/20/25 14:19	03/06/25 10:30
350-1619-230	PAWE-1B1-SW-B	Water	02/20/25 14:29	03/06/25 10:30
350-1619-231	PAWE-1CP2-SW-1	Water	02/19/25 21:11	03/06/25 10:30
350-1619-232	PAWE-1CP2-SW-20	Water	02/19/25 21:16	03/06/25 10:30
350-1619-233	PAWE-1CP2-SW-40	Water	02/19/25 21:27	03/06/25 10:30
350-1619-234	PAWE-1CP2-SW-B	Water	02/19/25 21:17	03/06/25 10:30
350-1619-235	PAWE-3B3-SW-1	Water	02/20/25 12:55	03/06/25 10:30
350-1619-236	PAWE-3B3-SW-20	Water	02/20/25 01:30	03/06/25 10:30
350-1619-237	PAWE-3B3-SW-40	Water	02/20/25 13:14	03/06/25 10:30
350-1619-238	PAWE-3B3-SW-B	Water	02/20/25 13:24	03/06/25 10:30
350-1619-239	PAWE-3CP2-SW-1	Water	02/19/25 19:28	03/06/25 10:30
350-1619-240	PAWE-3CP2-SW-20	Water	02/19/25 19:14	03/06/25 10:30
350-1619-241	PAWE-3CP2-SW-20-FD	Water	02/19/25 19:41	03/06/25 10:30
350-1619-242	PAWE-3CP2-SW-40	Water	02/19/25 19:48	03/06/25 10:30
350-1619-243	PAWE-3CP2-SW-B	Water	02/19/25 19:58	03/06/25 10:30
350-1619-244	PAWE-EQ	Water	02/19/25 19:06	03/06/25 10:30
350-1619-245	PAWE-WB	Water	02/19/25 19:00	03/06/25 10:30
350-1619-378	PDPLB-EQ	Water	02/11/25 19:07	03/06/25 10:30
350-1619-379	PDPLB-M2-SW-1	Water	02/11/25 21:36	03/06/25 10:30
350-1619-380	PDPLB-M2-SW-20	Water	02/11/25 21:30	03/06/25 10:30
350-1619-381	PDPLB-M2-SW-40	Water	02/11/25 21:20	03/06/25 10:30
350-1619-382	PDPLB-M2-SW-B	Water	02/11/25 21:10	03/06/25 10:30
350-1619-383	PDPLB-M3-SW-1	Water	02/11/25 19:16	03/06/25 10:30
350-1619-384	PDPLB-M3-SW-20	Water	02/11/25 19:22	03/06/25 10:30
350-1619-385	PDPLB-M3-SW-40	Water	02/11/25 19:29	03/06/25 10:30
350-1619-386	PDPLB-M3-SW-B	Water	02/11/25 19:40	03/06/25 10:30
350-1619-387	PDPLB-WB	Water	02/11/25 19:00	03/06/25 10:30

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Eurofins Seattle Specialty Metals
5/23/2025

Ship To:
Lilly-Anna Account
Eurofins Specialty Metals Testing
5755 8th St. E
Fife, WA 98424
USA

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	Dry Weight	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-3C2X	2/14/2025	5:33	SED	Frozen	1	1	1	1	1
1779.27	NPWB-3B2	2/14/2025	18:29	SED	Frozen	1	1	1	1	1
1779.27	NPWB-3C2	2/14/2025	20:22	SED	Frozen	1	1	1	1	1
1779.27	NPWB-3C2P	2/14/2025	21:24	SED	Frozen	1	1	1	1	1
1779.27	NPWB-3C2	2/14/2025	21:55	SED	Frozen	1	1	1	1	1
1779.27	NPWB-4B3X	2/14/2025	19:19	SED	Frozen	1	1	1	1	1
1779.27	NPWB-4C2	2/14/2025	19:52	SED	Frozen	1	1	1	1	1
1779.27	NPWB-1B2X	2/17/2025	10:17	SED	Frozen	1	1	1	1	1
1779.27	NPWB-1B2X-FD	2/17/2025	10:42	SED	Frozen	1	1	1	1	1
1779.27	NPWB-1C2	2/17/2025	5:05	SED	Frozen	1	1	1	1	1
1779.27	NPWB-1C2P	2/17/2025	3:37	SED	Frozen	1	1	1	1	1
1779.27	NPWB-1C2	2/17/2025	4:14	SED	Frozen	1	1	1	1	1
1779.27	NPWB-2B2X	2/16/2025	22:45	SED	Frozen	1	1	1	1	1
1779.27	NPWB-3C2	2/16/2025	30:04	SED	Frozen	1	1	1	1	1
1779.27	NPWB-3B2X	2/17/2025	15:35	SED	Frozen	1	1	1	1	1
1779.27	NPWB-3C2	2/17/2025	14:17	SED	Frozen	1	1	1	1	1
1779.27	NPWB-3C2P	2/16/2025	16:47	SED	Frozen	1	1	1	1	1
1779.27	NPWB-1C2	2/16/2025	17:16	SED	Frozen	1	1	1	1	1
1779.27	NPWB-4B2X	2/17/2025	16:50	SED	Frozen	1	1	1	1	1
1779.27	NPWB-4C2	2/17/2025	16:50	SED	Frozen	1	1	1	1	1
1779.27	PACPP-1C1	2/19/2025	5:48	SED	Frozen	1	1	1	1	1
1779.27	PACPP-1C2A	2/19/2025	12:46	SED	Frozen	1	1	1	1	1
1779.27	PACPP-1C3X	2/19/2025	1:32	SED	Frozen	1	1	1	1	1
1779.27	PACPP-1C1P	2/19/2025	16:41	SED	Frozen	1	1	1	1	1
1779.27	PACPP-1C2P	2/19/2025	22:19	SED	Frozen	1	1	1	1	1
1779.27	PACPP-1C3P	2/19/2025	11:23	SED	Frozen	1	1	1	1	1
1779.27	PACPP-1C2	2/19/2025	21:28	SED	Frozen	1	1	1	1	1
1779.27	PACPP-1E2	2/18/2025	20:52	SED	Frozen	1	1	1	1	1
1779.27	PACPP-1C2	2/18/2025	20:16	SED	Frozen	1	1	1	1	1
1779.27	PACPP-1C2	2/18/2025	19:29	SED	Frozen	1	1	1	1	1
1779.27	PACPP-2C2	2/19/2025	1:35	SED	Frozen	1	1	1	1	1
1779.27	PACPP-3C1	2/19/2025	10:36	SED	Frozen	1	1	1	1	1
1779.27	PACPP-3C2Y	2/19/2025	5:49	SED	Frozen	1	1	1	1	1
1779.27	PACPP-3C3X	2/18/2025	9:15	SED	Frozen	1	1	1	1	1
1779.27	PACPP-3C1X	2/19/2025	3:30	SED	Frozen	1	1	1	1	1
1779.27	PACPP-3C2P	2/19/2025	4:09	SED	Frozen	1	1	1	1	1
1779.27	PACPP-3C3P	2/19/2025	4:44	SED	Frozen	1	1	1	1	1
1779.27	PACPP-3C2X	2/19/2025	5:27	SED	Frozen	1	1	1	1	1
1779.27	PACPP-3E2X	2/19/2025	11:22	SED	Frozen	1	1	1	1	1
1779.27	PACPP-3F2X	2/19/2025	12:46	SED	Frozen	1	1	1	1	1
1779.27	PACPP-3C2	2/19/2025	13:35	SED	Frozen	1	1	1	1	1
1779.27	PACPP-4C2X	2/19/2025	3:59	SED	Frozen	1	1	1	1	1

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5/23/2025

Ship To:
Lilly-Anna Account
Eurofins Specialty Metals Testing
5755 8th St. E
Fife, WA 98424
USA

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com



350-1619 Chain of Custody

General Notes:
Each Project Specifies a different set of metals
Please report all results to the MDL. J-flag results between MDL and RL.
Please report results and invoice separately for each Project ID
Please report results in pdf format with Excel EDD deliverable
Standard Processing

Project	Sample ID	Date	Time	Medium	Preserve	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	Dry Weight	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	10 Metals (Au, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPCCP-1C1	2/16/2025	3:55	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-1C1-FD	2/16/2025	4:14	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-1C2X	2/16/2025	2:53	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-1C3P	2/16/2025	8:12	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-1C2P	2/16/2025	7:36	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-1C3X	2/16/2025	5:55	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-1C3	2/15/2025	1:48	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-1E2	2/15/2025	1:05	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-1F2	2/15/2025	0:22	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-1C3	2/14/2025	22:53	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3C1X	2/16/2025	4:54	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-2C2	2/16/2025	5:22	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3C2P	2/15/2025	5:42	SED	Frozen	1	1	1	1	1
1779.27	PACPP-3C2	2/15/2025	6:22	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3C2	2/15/2025	1:45	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3C2	2/15/2025	22:58	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3C3X-FD	2/15/2025	20:36	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3C3X	2/15/2025	20:44	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3C1P	2/15/2025	17:41	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3C2P	2/15/2025	11:07	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3C3X	2/15/2025	16:23	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3C3	2/16/2025	9:50	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3E2	2/16/2025	10:28	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3F2X	2/16/2025	11:05	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-3C3	2/16/2025	13:04	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-4C2	2/15/2025	19:59	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-4C2P	2/15/2025	15:27	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-4C2	2/15/2025	18:54	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-4C2	2/15/2025	21:54	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-4C2	2/15/2025	22:27	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-4C2	2/15/2025	22:47	SED	Frozen	1	1	1	1	1
1779.27	NPCCP-4C2	2/15/2025	23:18	SED	Frozen	1	1	1	1	1
1779.27	NPWB-1C2	2/14/2025	4:51	SED	Frozen	1	1	1	1	1
1779.27	NPWB-1C2-FD	2/14/2025	5:13	SED	Frozen	1	1	1	1	1
1779.27	NPWB-1C2	2/14/2025	3:00	SED	Frozen	1	1	1	1	1
1779.27	NPWB-1C2	2/14/2025	4:09	SED	Frozen	1	1	1	1	1
1779.27	NPWB-2B3	2/14/2025	18:54	SED	Frozen	1	1	1	1	1

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Eurofins Specialty Metals Testing
5755 8th St. E
Fife, WA 98424
USA

CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Laf

Ship To:
Lilly-Anna Lacombe
Eurofins Specialty Metals Testing
5755 8th St. E
Rife, WA 98424
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)	10 Metals (As, Ba, Bi, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Bi, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPCCP-3C2-SW-20	2/15/2025	22:59	SW	Frozen					
1779.27	NPCCP-3C2-SW-40	2/15/2025	22:17	SW	Frozen				1	1
1779.27	NPCCP-3C2-SW-8	2/15/2025	22:27	SW	Frozen				1	1
1779.27	NPCCP-3C2-SW-1	2/15/2025	18:13	SW	Frozen				1	1
1779.27	NPCCP-3C2-SW-20	2/15/2025	19:18	SW	Frozen				1	1
1779.27	NPCCP-3C2-SW-40	2/15/2025	18:26	SW	Frozen				1	1
1779.27	NPCCP-3C2-SW-8	2/15/2025	18:39	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-1	2/15/2025	4:29	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-20	2/15/2025	4:38	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-40	2/15/2025	4:44	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-8	2/15/2025	4:45	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-1	2/15/2025	20:50	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-20	2/15/2025	20:57	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-40	2/15/2025	21:11	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-8	2/15/2025	21:21	SW	Frozen				1	1
1779.27	NPREF-A-SW-1	2/12/2025	20:57	SW	Frozen				1	1
1779.27	NPREF-A-SW-20	2/12/2025	20:54	SW	Frozen				1	1
1779.27	NPREF-A-SW-40	2/12/2025	20:59	SW	Frozen				1	1
1779.27	NPREF-A-SW-8	2/12/2025	21:35	SW	Frozen				1	1
1779.27	NPREF-A-SW-1	2/12/2025	21:11	SW	Frozen				1	1
1779.27	NPREF-A-SW-20	2/12/2025	21:11	SW	Frozen				1	1
1779.27	NPREF-A-SW-40	2/12/2025	21:21	SW	Frozen				1	1
1779.27	NPREF-A-SW-8	2/12/2025	20:57	SW	Frozen				1	1
1779.27	NPREF-EQ	2/12/2025	20:50	SW	Frozen				1	1
1779.27	NPREF-WB	2/12/2025	20:50	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-1	2/14/2025	0:47	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-20	2/14/2025	0:14	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-40	2/14/2025	1:02	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-8	2/14/2025	1:11	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-1	2/14/2025	1:51	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-20	2/14/2025	1:57	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-40	2/14/2025	2:09	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-8	2/14/2025	2:30	SW	Frozen				1	1
1779.27	NPWB-3B2-SW-1	2/14/2025	13:32	SW	Frozen				1	1
1779.27	NPWB-3B2-SW-20	2/14/2025	13:57	SW	Frozen				1	1
1779.27	NPWB-3B2-SW-40	2/14/2025	16:08	SW	Frozen				1	1
1779.27	NPWB-3B2-SW-8	2/14/2025	16:18	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-1	2/14/2025	14:11	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-20	2/14/2025	14:19	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-40	2/14/2025	14:45	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-8	2/14/2025	14:51	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-1	2/14/2025	13:52	SW	Frozen				1	1
1779.27	NPWB-EQ	2/14/2025	6:15	SW	Frozen				1	1
1779.27	NPWB-WB	2/14/2025	6:10	SW	Frozen				1	1
1779.27	NPWB-1B2-SW-1	2/17/2025	0:58	SW	Frozen				1	1
1779.27	NPWB-1B2-SW-20	2/17/2025	1:01	SW	Frozen				1	1
1779.27	NPWB-1B2-SW-40	2/17/2025	1:52	SW	Frozen				1	1
1779.27	NPWB-1B2-SW-8	2/17/2025	1:51	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-1	2/17/2025	2:01	SW	Frozen				1	1

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Ship To:
Lilly-Anna Lacombe
Eurofins Specialty Metals Testing
5755 8th St. E
Rife, WA 98424
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)	10 Metals (As, Ba, Bi, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Bi, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWG-1C2-SW-20	2/17/2025	2:10	SW	Frozen					
1779.27	NPWG-1C2-SW-40	2/17/2025	2:18	SW	Frozen				1	1
1779.27	NPWG-1C2-SW-8	2/17/2025	2:28	SW	Frozen				1	1
1779.27	NPWG-3B2-SW-1	2/16/2025	20:10	SW	Frozen				1	1
1779.27	NPWG-3B2-SW-20	2/16/2025	20:16	SW	Frozen				1	1
1779.27	NPWG-3B2-SW-40	2/16/2025	20:41	SW	Frozen				1	1
1779.27	NPWG-3B2-SW-8	2/16/2025	20:51	SW	Frozen				1	1
1779.27	NPWG-3B2-SW-1	2/16/2025	21:04	SW	Frozen				1	1
1779.27	NPWG-3C2-SW-1	2/16/2025	19:16	SW	Frozen				1	1
1779.27	NPWG-3C2-SW-20	2/16/2025	19:22	SW	Frozen				1	1
1779.27	NPWG-3C2-SW-40	2/16/2025	19:10	SW	Frozen				1	1
1779.27	NPWG-3C2-SW-8	2/16/2025	19:40	SW	Frozen				1	1
1779.27	NPWG-EQ	2/16/2025	19:56	SW	Frozen				1	1
1779.27	NPWG-WB	2/16/2025	19:50	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-1	2/17/2025	20:51	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-20	2/17/2025	20:57	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-40	2/17/2025	20:54	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-8	2/17/2025	20:24	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-1	2/17/2025	21:51	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-20	2/17/2025	21:11	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-40	2/17/2025	21:19	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-8	2/17/2025	21:19	SW	Frozen				1	1
1779.27	PACPP-2C2-SW-1	2/18/2025	17:05	SW	Frozen				1	1
1779.27	PACPP-2C2-SW-20	2/18/2025	17:11	SW	Frozen				1	1
1779.27	PACPP-2C2-SW-40	2/18/2025	17:19	SW	Frozen				1	1
1779.27	PACPP-2C2-SW-8	2/18/2025	17:59	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-1	2/18/2025	0:59	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-20	2/18/2025	1:06	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-40	2/18/2025	1:16	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-8	2/18/2025	1:25	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-1	2/18/2025	2:07	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-20	2/18/2025	2:17	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-40	2/18/2025	2:26	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-8	2/18/2025	2:36	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-1	2/18/2025	13:47	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-20	2/18/2025	13:57	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-40	2/18/2025	13:58	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-8	2/18/2025	16:06	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-1	2/18/2025	16:18	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-20	2/17/2025	19:07	SW	Frozen				1	1
1779.27	PACPP-WB	2/17/2025	19:02	SW	Frozen				1	1
1779.27	PARF-A-SW-1	2/17/2025	16:21	SW	Frozen				1	1
1779.27	PARF-A-SW-20	2/17/2025	16:17	SW	Frozen				1	1
1779.27	PARF-A-SW-40	2/17/2025	16:41	SW	Frozen				1	1

Relinquished by: *AK*
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Received by: *Jose Sgh (TETN)*
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CHAIN OF CUSTODY

Report to:
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Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)	10 Metals (As, Ba, Bi, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	8 Metals (As, Ba, Bi, Cd, Cu, Pb, Zn) EPA 1631 E	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Bi, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	8 Metals (As, Ba, Bi, Cd, Cu, Pb, Zn) EPA 1640
1779.27	PAWE-A-SW-8	2/11/2025	16:51	SW	Frozen							
1779.27	PAWE-1C2-SW-1	2/21/2025	0:41	SW	Frozen					1	1	
1779.27	PAWE-1C2-SW-20	2/21/2025	0:50	SW	Frozen					1	1	
1779.27	PAWE-1C2-SW-40	2/21/2025	0:58	SW	Frozen					1	1	
1779.27	PAWE-1C2-SW-8	2/21/2025	1:11	SW	Frozen					1	1	
1779.27	PAWE-3B2-SW-1	2/21/2025	13:45	SW	Frozen					1	1	
1779.27	PAWE-3B2-SW-20	2/21/2025	13:51	SW	Frozen					1	1	
1779.27	PAWE-3B2-SW-40	2/21/2025	13:59	SW	Frozen					1	1	
1779.27	PAWE-3B2-SW-8	2/21/2025	14:09	SW	Frozen					1	1	
1779.27	PAWE-3C2-SW-1	2/21/2025	2:18	SW	Frozen					1	1	
1779.27	PAWE-3C2-SW-20	2/21/2025	2:25	SW	Frozen					1	1	
1779.27	PAWE-3C2-SW-40	2/21/2025	2:34	SW	Frozen					1	1	
1779.27	PAWE-3C2-SW-8	2/21/2025	2:49	SW	Frozen					1	1	
1779.27	PAWE-1B1-SW-1	2/20/2025	14:04	SW	Frozen					1	1	
1779.27	PAWE-1B1-SW-20	2/20/2025	14:11	SW	Frozen					1	1	
1779.27	PAWE-1B1-SW-40	2/20/2025	14:19	SW	Frozen					1	1	
1779.27	PAWE-1B1-SW-8	2/20/2025	14:29	SW	Frozen					1	1	
1779.27	PAWE-1C2-SW-1	2/19/2025	21:11	SW	Frozen					1	1	
1779.27	PAWE-1C2-SW-20	2/19/2025	21:16	SW	Frozen					1	1	
1779.27	PAWE-1C2-SW-40	2/19/2025	21:27	SW	Frozen					1	1	
1779.27	PAWE-1C2-SW-8	2/19/2025	21:17	SW	Frozen					1	1	
1779.27	PAWE-3B2-SW-1	2/20/2025	12:50	SW	Frozen					1	1	
1779.27	PAWE-3B2-SW-20	2/20/2025	13:01	SW	Frozen					1	1	
1779.27	PAWE-3B2-SW-40	2/20/2025	13:14	SW	Frozen					1	1	
1779.27	PAWE-3B2-SW-8	2/20/2025	13:24	SW	Frozen					1	1	
1779.27	PAWE-3C2-SW-1	2/19/2025	19:38	SW	Frozen					1	1	
1779.27	PAWE-3C2-SW-20	2/19/2025	19:14	SW	Frozen					1	1	
1779.27	PAWE-3C2-SW-40	2/19/2025	19:41	SW	Frozen					1	1	
1779.27	PAWE-3C2-SW-8	2/19/2025	19:48	SW	Frozen					1	1	
1779.27	PAWE-3C2-SW-1	2/19/2025	19:58	SW	Frozen					1	1	
1779.27	PAWE-EQ	2/19/2025	19:56	SW	Frozen					1	1	
1779.27	PAWE-WB	2/19/2025	19:50	SW	Frozen					1	1	
1779.28	MGWA-1B2Y	2/4/2025	13:36	SED	Frozen	1	1	1	1			
1779.28	MGWA-1C2	2/4/2025	5:24	SED	Frozen	1	1	1	1			
1779.28	MGWA-1C2	2/4/2025	5:52	SED	Frozen	1	1	1	1			
1779.28	MGWA-1C2	2/4/2025	6:31	SED	Frozen	1	1	1	1			
1779.28	MGWA-2B2X	2/4/2025	14:19	SED	Frozen	1	1	1	1			
1779.28	MGWA-2B2Y-FD	2/4/2025	14:38	SED	Frozen	1	1	1	1			
1779.28	MGWA-3C2	2/4/2025	15:56	SED	Frozen	1	1	1	1			
1779.28	MGWA-3B2X	2/3/2025	20:31	SED	Frozen	1	1	1	1			
1779.28	MGWA-3C2	2/3/2025	21:24	SED	Frozen	1	1	1	1			
1779.28	MGWA-3C2	2/3/2025	22:10	SED	Frozen	1	1	1	1			
1779.28	MGWA-3C2	2/3/2025	22:43	SED	Frozen	1	1	1	1			

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Ng (EPA 823 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Hg, Mn, Ni, P, Zn) EPA 823 B	16 Metals (As, Ba, Cd, Co, Cr, Cu, Fe, Hg, Mn, Ni, P, Pb, Se, Zn) EPA 823 M	Dry Weight	Ng (EPA 823 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Hg, Mn, Ni, P, Zn) EPA 8460
T779-31-B	PMWH-Center-G1	2/11/2025	5:34	SED	Frozen	1	1	1	1	1	1
T779-31-B	PMWH-Center-G2	2/11/2025	5:48	SED	Frozen	1	1	1	1	1	1
T779-31-B	PMWH-Center-G3	2/11/2025	5:57	SED	Frozen	1	1	1	1	1	1
T779-31-B	PMWH-Center-X(0-5)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1	1
T779-31-B	PMWH-Center-X-(10-15)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1	1
T779-31-B	PMWH-Center-X-(15-20)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1	1
T779-31-B	PMWH-Center-X-(6-10)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1	1
T779-31-B	SAREF-A	2/11/2025	14:52	SED	Frozen	1	1	1	1	1	1
T779-31-B	SAREF-B	2/11/2025	15:19	SED	Frozen	1	1	1	1	1	1
T779-31-B	SAREF-C	2/11/2025	16:45	SED	Frozen	1	1	1	1	1	1
T779-31-B	STPLB-M1	2/23/2025	2:31	SED	Frozen	1	1	1	1	1	1
T779-31-B	STPLB-M2	2/23/2025	2:59	SED	Frozen	1	1	1	1	1	1
T779-31-B	STPLB-M3	2/23/2025	3:31	SED	Frozen	1	1	1	1	1	1
T779-31-B	STPLB-M4	2/23/2025	3:42	SED	Frozen	1	1	1	1	1	1
T779-31-B	STPLB-N1	2/23/2025	9:20	SED	Frozen	1	1	1	1	1	1
T779-31-B	STPLB-N2	2/23/2025	9:42	SED	Frozen	1	1	1	1	1	1
T779-31-B	STPLB-S1	2/23/2025	0:53	SED	Frozen	1	1	1	1	1	1
T779-31-B	STPLB-S2	2/23/2025	1:21	SED	Frozen	1	1	1	1	1	1
T779-31-B	TROLA-E1	2/23/2025	17:33	SED	Frozen	1	1	1	1	1	1
T779-31-B	TROLA-E2	2/23/2025	17:49	SED	Frozen	1	1	1	1	1	1
T779-31-B	TROLA-M1	2/23/2025	15:12	SED	Frozen	1	1	1	1	1	1
T779-31-B	TROLA-S2	2/23/2025	16:51	SED	Frozen	1	1	1	1	1	1
T779-31-B	TROLA-W1	2/23/2025	12:47	SED	Frozen	1	1	1	1	1	1
T779-31-B	TROLA-W1-FD	2/23/2025	12:36	SED	Frozen	1	1	1	1	1	1
T779-31-B	TROLA-W2	2/23/2025	13:16	SED	Frozen	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-1	2/22/2025	3:35	SW	Frozen	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-20	2/22/2025	3:41	SW	Frozen	1	1	1	1	1	1
T779-31-B	BAPLHM-SW-40	2/22/2025	3:49	SW	Frozen	1	1	1	1	1	1
T779-31-B	BAPLHM-SW-6	2/22/2025	4:01	SW	Frozen	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-1	2/22/2025	5:19	SW	Frozen	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-1-FD	2/22/2025	5:24	SW	Frozen	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-20	2/22/2025	5:30	SW	Frozen	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-40	2/22/2025	5:38	SW	Frozen	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-6	2/22/2025	5:49	SW	Frozen	1	1	1	1	1	1
T779-31-B	POPLB-EQ	2/11/2025	19:07	SW	Frozen	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-1	2/11/2025	21:36	SW	Frozen	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-20	2/11/2025	21:30	SW	Frozen	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-40	2/11/2025	21:30	SW	Frozen	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-6	2/11/2025	21:10	SW	Frozen	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-1	2/11/2025	19:16	SW	Frozen	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-20	2/11/2025	19:22	SW	Frozen	1	1	1	1	1	1
T779-31-B	POPLB-M3-SW-40	2/11/2025	19:29	SW	Frozen	1	1	1	1	1	1
T779-31-B	POPLB-M3-SW-6	2/11/2025	19:40	SW	Frozen	1	1	1	1	1	1
T779-31-B	POPLB-SW-1	2/11/2025	19:49	SW	Frozen	1	1	1	1	1	1

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Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

[illegible]

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Ship To:
Lilly-Anna Lacombe
Eurofins Specialty Metals Testing
3755 8th St. E.
Fife, WA 98424
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Co, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 A	10 Metals (As, Ba, Cd, Co, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Co, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.32	JKPLC1-MA-SW-40	2/22/2025	18:17	SW	Frozen						
1779.32	JKPLC1-MA-SW-8	2/22/2025	18:27	SW	Frozen						
1779.32	JKPLC1-NZ-SW-1	2/22/2025	12:25	SW	Frozen						
1779.32	JKPLC1-NZ-SW-20	2/22/2025	12:31	SW	Frozen						
1779.32	JKPLC1-NZ-SW-20-FB	2/22/2025	12:37	SW	Frozen						
1779.32	JKPLC1-NZ-SW-40	2/22/2025	12:44	SW	Frozen						
1779.32	JKPLC1-NZ-SW-8	2/22/2025	12:54	SW	Frozen						
1779.32	JKPLC1-WB	2/22/2025	12:58	SW	Frozen						

Relinquished by: *ASB*
26 FEB 2025

Relinquished by:
Received by: Jesse Syl (GEM)
3/11/25
18:38

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5/23/2025

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -11.43C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #22

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -12.41C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #24

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -5.75C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #29

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -6.32C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #28

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -15.44C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #19

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -6.26C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #13

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -12.44C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #27

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -12.24C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #21

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -11.82C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #20

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -16.16C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #17

Tetratech 3/16/25

revised 18:38 3/16/25
Jesse Syl (GEM)

Trk#: 7723 4786 9328

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -3.61C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #25

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -6.16C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #14

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -6.53C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #26

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -5.21C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #18

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -15.15C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #23

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5/23/2025



Environment Testing

5 mL aliquots - 7 mL aliquots
CSM aliquots - 7 MB-SK MP-1604 pphHe



Date:	3/11/2025
End Time:	17:36
ID Filter Loc:	MB
Analyst:	JS

Preservative ID	Preservative Type	Container ID
11111111111111111111	Bromine Monochloride (0.2N)	53116
11111111111111111111		
11111111111111111111		
11111111111111111111		

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1618-B-112	A	Y	5/2	
350-1618-B-113	A	Y	5/2	
350-1618-B-114	A	Y	5/2	
350-1618-B-115	A	Y	5/2	
350-1618-B-116	A	Y	5/2	
350-1618-B-117	A	Y	5/2	
350-1618-B-118	A	Y	4.5/2	
350-1618-B-119	A	Y	5/2	
350-1618-B-120	A	Y	5/2	
350-1618-B-121	A	Y	5/2	
350-1618-B-122	A	Y	5/2	
350-1618-B-123	A	Y	5/2	
350-1618-B-124	A	Y	5/2	
350-1618-B-125	A	Y	5/2	
350-1618-B-126	A	Y	5/2	
350-1618-B-127	A	Y	5/2	
350-1618-B-128	A	Y	5/2	
350-1618-B-129	A	Y	5/2	
350-1618-B-130	A	Y	5/2	
350-1618-B-131	A	Y	5/2	
350-1618-B-132	A	Y	5/2	
350-1618-B-133	A	Y	5/2	
350-1618-B-134	A	Y	5/2	
350-1618-B-135	A	Y	5/2	
350-1618-B-136	A	Y	4.5/2	
350-1618-B-137	A	Y	5/2	
350-1618-B-138	A	Y	4.5/2	
350-1618-B-139	A	Y	5/2	
350-1618-B-140	A	Y	5/2	
350-1618-B-141	A	Y	5/2	
350-1618-B-142	A	Y	5/2	
350-1618-B-143	A	Y	5/2	
350-1618-B-144	A	Y	3.5/2	
350-1618-B-145	A	Y	3.5/2	
350-1618-B-146	A	Y	5/2	



Environment Testing

Date:	3/11/2025
End Time:	17:33
ID Filter Loc:	MB
Analyst:	JS

Preservative ID	Preservative Type	Container ID
11111111111111111111	Bromine Monochloride (0.2N)	53116
11111111111111111111		
11111111111111111111		
11111111111111111111		

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1618-B-145				
350-1618-B-146				
350-1618-B-147	A	Y	5/2	
350-1618-B-148	A	Y	5/2	
350-1618-B-149	A	Y	5/2	
350-1618-B-150	A	Y	5/2	
350-1618-B-151	A	Y	5/2	
350-1618-B-152	A	Y	5/2	
350-1618-B-153	A	Y	5/2	
350-1618-B-154	A	Y	5/2	
350-1618-B-155	A	Y	5/2	
350-1618-B-156	A	Y	5/2	
350-1618-B-157	A	Y	5/2	
350-1618-B-158	A	Y	5/2	
350-1618-B-159	A	Y	5/2	
350-1618-B-160	A	Y	5/2	
350-1618-B-161	A	Y	5/2	
350-1618-B-162	A	Y	5/2	
350-1618-B-163	A	Y	5/2	
350-1618-B-164	A	Y	4.5/2	
350-1618-B-165	A	Y	4.5/2	
350-1618-B-166	A	Y	5/2	
350-1618-B-167	A	Y	5/2	
350-1618-B-168	A	Y	5/2	
350-1618-B-169	A	Y	4.5/2	
350-1618-B-170	A	Y	5/2	
350-1618-B-171	A	Y	5/2	
350-1618-B-172	A	Y	5/2	
350-1618-B-173	A	Y	5/2	
350-1618-B-174	A	Y	5/2	
350-1618-B-175	A	Y	5/2	
350-1618-B-176	A	Y	5/2	
350-1618-B-177	A	Y	5/2	
350-1618-B-178	A	Y	5/2	
350-1618-B-179	A	Y	5/2	

Date: 3/11/2025
End Time: 17:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5336
*****	*****	*****
*****	*****	*****
*****	*****	*****

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-178	A	Y	5/2	JS 3/10/25
350-1619-B-180	A	Y	5/2	
350-1619-B-181	A	Y	5/2	
350-1619-B-182	A	Y	3.5/2	
350-1619-B-183	A	Y	3.5/2	
350-1619-B-184	A	Y	5/2	
350-1619-B-185	A	Y	5/2	
350-1619-B-186	A	Y	5/2	
350-1619-B-187	A	Y	5/2	
350-1619-B-188	A	Y	5/2	
350-1619-B-189	A	Y	5/2	
350-1619-B-190	A	Y	5/2	
350-1619-B-191	A	Y	5/2	
350-1619-B-192	A	Y	5/2	
350-1619-B-193	A	Y	5/2	
350-1619-B-194	A	Y	5/2	
350-1619-B-195	A	Y	5/2	
350-1619-B-196	A	Y	5/2	
350-1619-B-197	A	Y	5/2	
350-1619-B-198	A	Y	5/2	
350-1619-B-199	A	Y	5/2	
350-1619-B-200	A	Y	5/2	
350-1619-B-201	A	Y	5/2	
350-1619-B-202	A	Y	5/2	
350-1619-B-203	A	Y	5/2	
350-1619-B-204	A	Y	5/2	
350-1619-B-205	A	Y	5/2	
350-1619-B-206	A	Y	5/2	
350-1619-B-207	A	Y	5/2	
350-1619-B-208	A	Y	5/2	
350-1619-B-209	A	Y	3.5/2	
350-1619-B-210	A	Y	3/2	
350-1619-B-211	A	Y	5/2	
350-1619-B-212	A	Y	5/2	JS 3/11/25

Total Mercury Preservation Log

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Login Number: 359-1619-5232625

Date: 3/11/2025
End Time: 17:51
KI Paper Lot: N/A
Analyst: JS

B Bromine Monochloride (0.2N), 5336

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5336
*****	*****	*****
*****	*****	*****
*****	*****	*****

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-211	A	Y	5/2	JS 3/10/25
350-1619-B-212	A	Y	5/2	
350-1619-B-214	A	Y	5/2	
350-1619-B-215	A	Y	5/2	
350-1619-B-216	A	Y	5/2	
350-1619-B-217	A	Y	4.5/2	
350-1619-B-218	A	Y	5/2	
350-1619-B-219	A	Y	5/2	
350-1619-B-220	A	Y	5/2	
350-1619-B-221	A	Y	5/2	
350-1619-B-222	A	Y	5/2	
350-1619-B-223	A	Y	4.5/2	
350-1619-B-224	A	Y	5/2	
350-1619-B-225	A	Y	5/2	
350-1619-B-226	A	Y	4.5/2	
350-1619-B-227	A	Y	5/2	
350-1619-B-228	A	Y	5/2	
350-1619-B-229	A	Y	5/2	
350-1619-B-230	A	Y	5/2	
350-1619-B-231	A	Y	5/2	
350-1619-B-232	A	Y	5/2	
350-1619-B-233	A	Y	5/2	
350-1619-B-234	A	Y	5/2	
350-1619-B-235	A	Y	5/2	
350-1619-B-236	A	Y	5/2	
350-1619-B-237	A	Y	5/2	
350-1619-B-238	A	Y	5/2	
350-1619-B-239	A	Y	5/2	
350-1619-B-240	A	Y	5/2	
350-1619-B-241	A	Y	5/2	
350-1619-B-242	B	Y	5/2	
350-1619-B-243	B	Y	5/2	
350-1619-B-244	A	Y	4/2	
350-1619-B-245	A	Y	4/2	JS 3/11/25

Total Mercury Preservation Log

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Login Number: 359-1619-5232625

Date: 3/11/2025
End Time: 17:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5336
*****	*****	*****
*****	*****	*****
*****	*****	*****

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-259	A	Y	5/2	
350-1619-B-260	A	Y	5/2	
350-1619-B-261	A	Y	5/2	
350-1619-B-262	A	Y	5/2	
350-1619-B-263	A	Y	5/2	
350-1619-B-264	A	Y	5/2	
350-1619-B-265	A	Y	5/2	
350-1619-B-266	A	Y	5/2	
350-1619-B-267	A	Y	5/2	
350-1619-B-268	A	Y	5/2	
350-1619-B-269	A	Y	5/2	
350-1619-B-270	A	Y	5/2	
350-1619-B-271	A	Y	5/2	
350-1619-B-272	A	Y	5/2	
350-1619-B-273	A	Y	5/2	
350-1619-B-274	A	Y	5/2	
350-1619-B-275	A	Y	5/2	
350-1619-B-276	A	Y	3/2	
350-1619-B-277	A	Y	3/2	
350-1619-B-278	A	Y	5/2	
350-1619-B-279	A	Y	4.5/2	
350-1619-B-280	A	Y	5/2	
350-1619-B-281	A	Y	5/2	
350-1619-B-282	A	Y	5/2	
350-1619-B-283	A	Y	5/2	
350-1619-B-284	A	Y	5/2	
350-1619-B-285	A	Y	5/2	
350-1619-B-286	A	Y	5/2	
350-1619-B-287	A	Y	5/2	
350-1619-B-288	A	Y	5/2	
350-1619-B-289	A	Y	5/2	
350-1619-B-290	A	Y	5/2	
350-1619-B-291	A	Y	5/2	
350-1619-B-292	A	Y	5/2	
350-1619-B-293	A	Y	5/2	
350-1619-B-294	A	Y	5/2	
350-1619-B-295	A	Y	5/2	
350-1619-B-296	A	Y	5/2	
350-1619-B-297	A	Y	5/2	
350-1619-B-298	A	Y	5/2	
350-1619-B-299	A	Y	5/2	
350-1619-B-300	A	Y	5/2	
350-1619-B-301	A	Y	5/2	
350-1619-B-302	A	Y	5/2	
350-1619-B-303	A	Y	5/2	
350-1619-B-304	A	Y	5/2	
350-1619-B-305	A	Y	5/2	
350-1619-B-306	A	Y	5/2	
350-1619-B-307	A	Y	5/2	
350-1619-B-308	A	Y	5/2	
350-1619-B-309	A	Y	5/2	
350-1619-B-310	A	Y	5/2	
350-1619-B-311	A	Y	5/2	
350-1619-B-312	A	Y	5/2	
350-1619-B-313	A	Y	5/2	
350-1619-B-314	A	Y	5/2	
350-1619-B-315	A	Y	5/2	
350-1619-B-316	A	Y	3.5/2	
350-1619-B-317	A	Y	5/2	

Total Mercury Preservation Log

Page 376 of 388

Login Number: 359-1619-5232625

Date: 3/11/2025
End Time: 17:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5336
*****	*****	*****
*****	*****	*****
*****	*****	*****

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-383	A	Y	5/2	JS 3/11/25
350-1619-B-384	A	Y	5/2	
350-1619-B-385	A	Y	5/2	
350-1619-B-386	A	Y	3.5/2	
350-1619-B-387	A	Y	5/2	
350-1619-B-388	A	Y	5/2	
350-1619-B-389	A	Y	5/2	
350-1619-B-390	A	Y	5/2	
350-1619-B-391	A	Y	5/2	
350-1619-B-392	A	Y	5/2	
350-1619-B-393	A	Y	5/2	
350-1619-B-394	A	Y	5/2	
350-1619-B-395	A	Y	5/2	
350-1619-B-396	A	Y	5/2	
350-1619-B-397	A	Y	5/2	
350-1619-B-398	A	Y	5/2	
350-1619-B-399	A	Y	5/2	
350-1619-B-400	A	Y	5/2	
350-1619-B-401	A	Y	4/2	
350-1619-B-402	A	Y	3.5/2	
350-1619-B-403	A	Y	5/2	
350-1619-B-404	A	Y	5/2	
350-1619-B-405	A	Y	5/2	
350-1619-B-406	A	Y	5/2	
350-1619-B-407	A	Y	4.5/2	
350-1619-B-408	A	Y	5/2	
350-1619-B-409	A	Y	5/2	
350-1619-B-410	A	Y	5/2	
350-1619-B-411	A	Y	5/2	
350-1619-B-412	A	Y	5/2	
350-1619-B-413	A	Y	5/2	
350-1619-B-414	A	Y	5/2	
350-1619-B-415	A	Y	5/2	
350-1619-B-416	A	Y	3.5/2	
350-1619-B-417	A	Y	5/2	JS 3/11/25

Total Mercury Preservation Log

Page 377 of 388

Login Number: 359-1619-5232625

Date:	3/11/2025
End Time:	13:34
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5316
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1819-B-418				
350-1819-B-417				
350-1819-B-418	A	Y	5/2	
350-1819-B-419	A	Y	5/2	
350-1819-B-420	A	Y	5/2	
350-1819-B-421	A	Y	5/2	
350-1819-B-422	A	Y	5/2	
350-1819-B-423	A	Y	5/2	
350-1819-B-424	A	Y	5/2	
350-1819-B-425	A	Y	5/2	
350-1819-B-426	A	Y	3.5/2	
350-1819-B-445	A	Y	4.5/2	
350-1819-B-446	A	Y	5/2	
350-1819-B-447	A	Y	5/2	
350-1819-B-448	A	Y	5/2	
350-1819-B-449	A	Y	5/2	
350-1819-B-450	A	Y	5/2	
350-1819-B-451	A	Y	4.5/2	
350-1819-B-452	A	Y	4.5/2	
350-1819-B-453	A	Y	5/2	
350-1819-B-454	A	Y	5/2	
350-1819-B-455	A	Y	5/2	
350-1819-B-456	A	Y	5/2	
350-1819-B-457	A	Y	5/2	
350-1819-B-458	A	Y	5/2	
350-1819-B-459	A	Y	3.5/2	
350-1819-B-460	A	Y	5/2	
350-1819-B-461	A	Y	5/2	
350-1819-B-462	A	Y	5/2	
350-1819-B-463	A	Y	5/2	
350-1819-B-464	A	Y	5/2	
350-1819-B-465	A	Y	5/2	
350-1819-B-466	A	Y	5/2	
350-1819-B-467	A	Y	5/2	
350-1819-B-468	A	Y	4/2	

Date:	3/11/2025
End Time:	13:34
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5316
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1819-B-467				
350-1819-B-468				
350-1819-B-469	A	Y	5/2	
350-1819-B-470	A	Y	5/2	
350-1819-B-471	A	Y	5/2	
350-1819-B-472	A	Y	5/2	
350-1819-B-473	A	Y	5/2	
350-1819-B-474	A	Y	5/2	
350-1819-B-475	A	Y	5/2	
350-1819-B-476	A	Y	5/2	
350-1819-B-477	A	Y	5/2	
350-1819-B-478	A	Y	5/2	
350-1819-B-479	A	Y	5/2	
350-1819-B-480	A	Y	5/2	
350-1819-B-481	A	Y	5/2	
350-1819-B-482	A	Y	3.5/2	
350-1819-B-484	A	Y	5/2	
350-1819-B-485	A	Y	5/2	
350-1819-B-486	A	Y	5/2	
350-1819-B-487	A	Y	5/2	



Date:	3/11/2025
End Time:	13:34
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	5316
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1819-A-112	7.2	6.2	A	6.5	
350-1819-A-113	7.2	6.2	A	5/2	
350-1819-A-114	7.2	6.2	A	6.5	
350-1819-A-115	7.2	6.2	A	6.5	
350-1819-A-116	7.2	6.2	A	6.5	
350-1819-A-117	7.2	6.2	A	6.5	
350-1819-A-118	7.2	6.2	A	6.5	
350-1819-A-119	7.2	6.2	A	6.5	
350-1819-A-120	7.2	6.2	A	6.5	
350-1819-A-121	7.2	6.2	A	6.5	
350-1819-A-122	7.2	6.2	A	6.5	
350-1819-A-123	7.2	6.2	A	6.5	
350-1819-A-124	7.2	6.2	A	6.5	
350-1819-A-125	7.2	6.2	A	6.5	
350-1819-A-126	7.2	6.2	A	6.5	
350-1819-A-127	7.2	6.2	A	6.5	
350-1819-A-128	7.2	6.2	A	6.5	
350-1819-A-129	7.2	6.2	A	6.5	
350-1819-A-130	7.2	6.2	A	6.5	
350-1819-A-131	7.2	6.2	A	6.5	
350-1819-A-132	7.2	6.2	A	6.5	
350-1819-A-133	7.2	6.2	A	5/2	
350-1819-A-134	7.2	6.2	A	6.5	
350-1819-A-135	7.2	6.2	A	6.5	
350-1819-A-136	7.2	6.2	A	6.5	
350-1819-A-137	7.2	6.2	A	6.5	
350-1819-A-138	7.2	6.2	A	6.5	
350-1819-A-139	7.2	6.2	A	6.5	
350-1819-A-140	7.2	6.2	A	6.5	
350-1819-A-141	7.2	6.2	A	6.5	
350-1819-A-142	7.2	6.2	A	6.5	
350-1819-A-143	7.2	6.2	A	6.5	
350-1819-A-144	7.2	6.2	A	4.5/2	
350-1819-A-145	7.2	6.2	A	4.5/2	
350-1819-A-146	7.2	6.2	A	6.5	

Date:	3/11/2025
End Time:	13:34
Hi Paper Lot:	414
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	5316
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1819-A-145					
350-1819-A-146					
350-1819-A-147	7.2	6.2	A	5/2	
350-1819-A-148	7.2	6.2	A	6.5	
350-1819-A-149	7.2	6.2	A	6.5	
350-1819-A-150	7.2	6.2	A	6.5	
350-1819-A-151	7.2	6.2	A	6.5	
350-1819-A-152	7.2	6.2	A	6.5	
350-1819-A-153	7.2	6.2	A	6.5	
350-1819-A-154	7.2	6.2	A	6.5	
350-1819-A-155	7.2	6.2	A	6.5	
350-1819-A-156	7.2	6.2	A	6.5	
350-1819-A-157	7.2	6.2	A	6.5	
350-1819-A-158	7.2	6.2	A	6.5	
350-1819-A-159	7.2	6.2	A	6.5	
350-1819-A-160	7.2	6.2	A	6.5	
350-1819-A-161	7.2	6.2	A	6.5	
350-1819-A-162	7.2	6.2	A	6.5	
350-1819-A-163	7.2	6.2	A	6.5	
350-1819-A-164	7.2	6.2	A	6.5	
350-1819-A-165	7.2	6.2	A	6.5	
350-1819-A-166	7.2	6.2	A	6.5	
350-1819-A-167	7.2	6.2	A	6.5	
350-1819-A-168	7.2	6.2	A	6.5	
350-1819-A-169	7.2	6.2	A	6.5	
350-1819-A-170	7.2	6.2	A	6.5	
350-1819-A-171	7.2	6.2	A	6.5	
350-1819-A-172	7.2	6.2	A	6.5	
350-1819-A-173	7.2	6.2	A	6.5	
350-1819-A-174	7.2	6.2	A	6.5	
350-1819-A-175	7.2	6.2	A	6.5	
350-1819-A-176	7.2	6.2	A	6.5	
350-1819-A-177	7.2	6.2	A	6.5	
350-1819-A-178	7.2	6.2	A	6.5	
350-1819-A-179	7.2	6.2	A	6.5	
350-1819-A-180	7.2	6.2	A	6.5	

3/19/25 or 3/14/25

Date:	2/14/2022
End Time:	8:59
pH Paper Lot:	HC441729
Analyst:	TS

MP-trial pipeite

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	5465
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////

(مل) 55 2/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mg)	Comments
350-1619A-178					
350-1619A-179					31/1/15 repeated
350-1619A-180	2.2	6.2	A	6.5	
350-1619A-181	2.2	6.2	A	6.5	
350-1619A-182	2.2	6.2	A	433	
350-1619A-183	2.2	6.2	A	433	
350-1619A-184	2.2	6.2	A	6.5	
350-1619A-185	2.2	6.2	A	6.5	
350-1619A-186	2.2	6.2	A	6.5	
350-1619A-187	2.2	6.2	A	6.5	
350-1619A-188	2.2	6.2	A	6.5	
350-1619A-189	2.2	6.2	A	6.5	
350-1619A-190	2.2	6.2	A	6.5	
350-1619A-191	2.2	6.2	A	6.5	
350-1619A-192	2.2	6.2	A	6.5	
350-1619A-193	2.2	6.2	A	6.5	
350-1619A-194	2.2	6.2	A	6.5	
350-1619A-195	2.2	6.2	A	6.5	
350-1619A-196	2.2	6.2	A	6.5	
350-1619A-197	2.2	6.2	A	6.5	
350-1619A-198	2.2	6.2	A	6.5	
350-1619A-199	2.2	6.2	A	6.5	
350-1619A-200	2.2	6.2	A	6.5	
350-1619A-201	2.2	6.2	A	6.5	
350-1619A-202	2.2	6.2	A	6.5	
350-1619A-203	2.2	6.2	A	6.5	
350-1619A-204	2.2	6.2	A	6.5	
350-1619A-205	2.2	6.2	A	6.5	
350-1619A-206	2.2	6.2	A	6.5	
350-1619A-207	2.2	6.2	A	6.5	
350-1619A-208	2.2	6.2	A	6.5	
350-1619A-209	2.2	6.2	A	433	
350-1619A-210	2.2	6.2	A	433	
350-1619A-211	2.2	6.2	A	6.5	
350-1619A-212	2.2	6.2	A	6.5	

53 3/14/25

21/06/25 35 minutes

Date:	24-10-2020
End Time:	10:59
pH Paper Lot:	AC4411704
Analyst:	TR

mp - trans pipette

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	548
#####	#####	#####
#####	#####	#####
#####	#####	#####

(ML) 38 3114

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1818-A-211	7.2	<2	A		
350-1818-A-242	7.2	<2	A		JS 3/19/25 repeated
350-1818-A-213	7.2	<2	A	6.25	
350-1818-A-214	7.2	<2	A	6.25	
350-1818-A-215	7.2	<2	A	5.62	
350-1818-A-216	7.2	<2	A	6.25	
350-1818-A-217	7.2	<2	A	5.62	
350-1818-A-218	7.2	<2	A	6.25	
350-1818-A-219	7.2	<2	A	6.25	
350-1818-A-220	7.2	<2	A	6.25	
350-1818-A-221	7.2	<2	A	6.25	
350-1818-A-222	7.2	<2	A	6.25	
350-1818-A-223	7.2	<2	A	6.25	
350-1818-A-224	7.2	<2	A	5.62	
350-1818-A-225	7.2	<2	A	5.62	
350-1818-A-226	7.2	<2	A	6.25	
350-1818-A-227	7.2	<2	A	6.25	
350-1818-A-228	7.2	<2	A	6.25	
350-1818-A-229	7.2	<2	A	6.25	
350-1818-A-230	7.2	<2	A	6.25	
350-1818-A-231	7.2	<2	A	6.25	
350-1818-A-232	7.2	<2	A	6.25	
350-1818-A-233	7.2	<2	A	6.25	
350-1818-A-234	7.2	<2	A	6.25	
350-1818-A-235	7.2	<2	A	6.25	
350-1818-A-236	7.2	<2	A	6.25	
350-1818-A-237	7.2	<2	A	6.25	
350-1818-A-238	7.2	<2	A	6.25	
350-1818-A-239	7.2	<2	A	6.25	
350-1818-A-240	7.2	<2	A	6.25	
350-1818-A-241	7.2	<2	A	6.25	
350-1818-A-242	7.2	<2	A	6.25	
350-1818-A-243	7.2	<2	A	6.25	
350-1818-A-244	7.2	<2	A	5.62	
350-1818-A-245	7.2	<2	A	4.93	JS 3/19/25

35	3	19	2
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3/19/25 Jr 3/19/25

Date:	3/11/2025
End Time:	8:57
pH Paper Lot:	HCH41724
Analyst:	TS

31

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	5488
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////

(ML) 38 2/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (μL)	Comments
350-1619-A-244					
350-1619-A-245					
350-1619-A-259	7.2	6.7	A	625	
350-1619-A-260	7.2	6.7	A	615	
350-1619-A-261	7.2	6.7	A	635	
350-1619-A-262	7.2	6.7	A	625	
350-1619-A-263	7.2	6.7	A	625	
350-1619-A-264	7.2	6.7	A	635	
350-1619-A-265	7.2	6.7	A	635	
350-1619-A-266	7.2	6.7	A	615	
350-1619-A-267	7.2	6.7	A	615	
350-1619-A-268	7.2	6.7	A	615	
350-1619-A-269	7.2	6.7	A	615	
350-1619-A-270	7.2	6.7	A	615	
350-1619-A-271	7.2	6.7	A	635	
350-1619-A-272	7.2	6.7	A	635	
350-1619-A-273	7.2	6.7	A	635	
350-1619-A-274	7.2	6.7	A	625	
350-1619-A-275	7.2	6.7	A	615	
350-1619-A-276	7.2	6.7	A	580	
350-1619-A-277	7.2	6.7	A	580	
350-1619-A-309	7.2	6.7	A	635	
350-1619-A-370	7.2	6.7	A	562	
350-1619-A-371	7.2	6.7	A	615	
350-1619-A-372	7.2	6.7	A	562	
350-1619-A-373	7.2	6.7	A	615	
350-1619-A-374	7.2	6.7	A	615	
350-1619-A-375	7.2	6.7	A	562	

3/19/

3/19/25 Jc xlv/5

Date:	3/14/05
End Time:	8:59
pH Paper Lot:	MC441704
Analyst:	JS

MP, TMAB pyrolyze

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	51016
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////

(MU) 58 3119115

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (g/L)	Comments
350-1619-A-376	7.2	< 2	A	615	
350-1619-A-377	7.2	< 2	A	615	
350-1619-A-378	7.2	< 2	A	437	
350-1619-A-379	7.2	< 2	A	615	
350-1619-A-380	7.2	< 2	A	615	
350-1619-A-381	7.2	< 2	A	615	
350-1619-A-382	7.2	< 2	A	615	
350-1619-A-383	7.2	< 2	A	615	
350-1619-A-384	7.2	< 2	A	615	
350-1619-A-385	7.2	< 2	A	615	
350-1619-A-386	7.2	< 2	A	615	
350-1619-A-387	7.2	< 2	A	437	
350-1619-A-388	7.2	< 2	A	615	
350-1619-A-389	7.2	< 2	A	615	
350-1619-A-390	7.2	< 2	A	615	
350-1619-A-391	7.2	< 2	A	615	
350-1619-A-392	7.2	< 2	A	615	
350-1619-A-393	7.2	< 2	A	615	
350-1619-A-394	7.2	< 2	A	615	
350-1619-A-395	7.2	< 2	A	615	
350-1619-A-396	7.2	< 2	A	615	
350-1619-A-397	7.2	< 2	A	615	
350-1619-A-398	7.2	< 2	A	615	
350-1619-A-399	7.2	< 2	A	615	
350-1619-A-400	7.2	< 2	A	615	
350-1619-A-401	7.2	< 2	A	437	
350-1619-A-402	7.2	< 2	A	437	
350-1619-A-403	7.2	< 2	A	615	
350-1619-A-404	7.2	< 2	A	615	
350-1619-A-405	7.2	< 2	A	615	
350-1619-A-406	7.2	< 2	A	615	
350-1619-A-407	7.2	< 2	A	615	
350-1619-A-408	7.2	< 2	A	615	
350-1619-A-409	7.2	< 2	A	615	
350-1619-A-410	7.2	< 2	A	615	

1-50 2/14

3/19/25 JS JHKS

Date: 3/11/2025
End Time: 1:59
pH Paper Lot: H0441704
Analysis: JS

MP-TMAB Meme

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-409					
350-1619-A-410					JS 3/19/25 repeated
350-1619-A-411	<2	>2	A	615	
350-1619-A-412	<2	>2	A	615	
350-1619-A-413	<2	>2	A	615	
350-1619-A-414	<2	>2	A	615	
350-1619-A-415	<2	>2	A	615	
350-1619-A-416	<2	>2	A	437	
350-1619-A-417	<2	>2	A	615	
350-1619-A-418	<2	>2	A	615	
350-1619-A-419	<2	>2	A	615	
350-1619-A-420	<2	>2	A	615	
350-1619-A-421	<2	>2	A	615	
350-1619-A-422	<2	>2	A	615	
350-1619-A-423	<2	>2	A	615	
350-1619-A-424	<2	>2	A	615	
350-1619-A-425	<2	>2	A	615	
350-1619-A-426	<2	>2	A	375	
350-1619-A-445	<2	>2	A	615	
350-1619-A-446	<2	>2	A	562	
350-1619-A-447	<2	>2	A	615	
350-1619-A-448	<2	>2	A	615	
350-1619-A-449	<2	>2	A	615	
350-1619-A-450	<2	>2	A	615	
350-1619-A-451	<2	>2	A	615	
350-1619-A-452	<2	>2	A	615	
350-1619-A-453	<2	>2	A	615	
350-1619-A-454	<2	>2	A	615	
350-1619-A-455	<2	>2	A	615	
350-1619-A-456	<2	>2	A	615	
350-1619-A-457	<2	>2	A	615	
350-1619-A-458	<2	>2	A	615	
350-1619-A-459	<2	>2	A	562	
350-1619-A-460	<2	>2	A	615	
350-1619-A-461	<2	>2	A	615	JS 3/19/25

pH Verification Log

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Login Number: 350-1619-1

3/19/25 JS JHKS

Date: 3/11/2025
End Time: 1:59
pH Paper Lot: H0441704
Analysis: JS

MP-TMAB Meme

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-450					
350-1619-A-461					JS 3/19/25 repeated
350-1619-A-462	>2	<2	A	615	
350-1619-A-463	>2	<2	A	615	
350-1619-A-464	>2	<2	A	615	
350-1619-A-465	>2	<2	A	615	
350-1619-A-466	>2	<2	A	615	
350-1619-A-467	>2	<2	A	615	
350-1619-A-468	>2	<2	A	437	
350-1619-A-469	>2	<2	A	615	
350-1619-A-470	>2	<2	A	615	
350-1619-A-471	>2	<2	A	615	
350-1619-A-472	>2	<2	A	615	
350-1619-A-473	>2	<2	A	615	
350-1619-A-474	>2	<2	A	615	
350-1619-A-475	>2	<2	A	615	
350-1619-A-476	>2	<2	A	615	
350-1619-A-477	>2	<2	A	615	
350-1619-A-478	>2	<2	A	615	
350-1619-A-479	>2	<2	A	615	
350-1619-A-480	>2	<2	A	615	
350-1619-A-481	>2	<2	A	615	
350-1619-A-482	>2	<2	A	437	
350-1619-A-484	>2	<2	A	615	
350-1619-A-485	>2	<2	A	562	
350-1619-A-486	>2	<2	A	615	
350-1619-A-487	>2	<2	A	615	JS 3/19/25

pH Verification Log

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Login Number: 350-1619-1

Login Sample Receipt Checklist

Client: Tetra Tech Inc

Job Number: 350-1619-1

Login Number: 1619

List Source: Eurofins Seattle Specialty Metals

List Number: 1

Creator: LaCount, Lilly-Anna E

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Not requested on COC.
There are no discrepancies between the containers received and the COC.	False	See email attachment
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Seattle Specialty Metals

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5/23/2025

ANALYTICAL REPORT

PREPARED FOR

Attn: Ted Donn
Tetra Tech Inc
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, California 94549
Generated 5/23/2025 7:49:47 AM

JOB DESCRIPTION

Gulf of Thailand - 2025

JOB NUMBER

350-1619-2

Eurofins Seattle Specialty Metals
5755 8th Street East
Tacoma WA 98424

See page two for job notes and contact information.

Page 1 of 88

Eurofins Seattle Specialty Metals

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization

Generated
5/23/2025 7:49:47 AM

Authorized for release by
Lilly-Anna LaCount, Project Manager
Lilly-Anna.LaCount@et.eurofinsus.com
(253)922-2310

Definitions/Glossary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Qualifiers	
Metals	
Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
☐	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Laboratory Job ID: 350-1619-2

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Case Narrative

Client: Tetra Tech Inc
Project: Gulf of Thailand - 2025

Job ID: 350-1619-2

Eurofins Seattle Specialty Metals

Job Narrative
350-1619-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/6/2025 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 15 coolers at receipt time were -16.2°C, -16.4°C, -15.2°C, -15.2°C, -12.4°C, -12.2°C, -12.2°C, -12.0°C, -7.8°C, -6.8°C, -6.7°C, -6.6°C, -6.4°C, -5.9°C and -1.3°C.

Receipt Exceptions
multiple sample(s) did not match the information listed on the Chain-of-Custody (COC). Most discrepancies were noted in the reporting limit (RL). The client was contacted, to update them accordingly. All samples were updated in TALS. Please see email attachments for details.

Metals
Method 1631E: The following samples were analyzed outside of analytical holding time due to the samples being received outside of analytical holding time,

Method 1638: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 350-5673 and analytical batch 350-6893 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 1638: The method blank for preparation batch 350-5673 and analytical batch 350-6893 contained Manganese above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 350-5807, 350-5995 and 350-5997 and analytical batch 350-6066 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 1640: The following samples were analyzed outside of analytical holding time due to the samples being received outside of analytical holding time: MGWA-3B2X-SW-1 (350-1619-267), MGWA-3B2X-SW-20 (350-1619-268), MGWA-3B2X-SW-40 (350-1619-269), MGWA-3B2X-SW-B (350-1619-270), MGWA-3CP2-SW-1 (350-1619-271), MGWA-3CP2-SW-20 (350-1619-272), MGWA-3CP2-SW-40 (350-1619-273), MGWA-3CP2-SW-40-FD (350-1619-274) and MGWA-3CP2-SW-B (350-1619-275).

Method 1640: The following samples were analyzed outside of analytical holding time due to being received outside of analytical holding time.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-2				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: MGWA-1B2Y					Lab Sample ID: 350-1619-246				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	50000		1100	550 ng/g	10000	□	1631B	Total/NA	
Arsenic	9.5		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	25000	B	42	0.085 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.12		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	43		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	15	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	18000	B	42	8.5 mg/Kg	1	□	1638	Total/NA	
Manganese	440	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	23	B	0.85	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	35	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	68		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-1C2									
Lab Sample ID: 350-1619-247									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	490		13	6.1 ng/g	100	□	1631B	Total/NA	
Arsenic	7.3		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	19000	B	42	0.084 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.081		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	49		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	14	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	21000	B	42	8.4 mg/Kg	1	□	1638	Total/NA	
Manganese	510	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	25	B	0.84	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	26	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	61		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-1CP2									
Lab Sample ID: 350-1619-248									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	150		24	11 ng/g	200	□	1631B	Total/NA	
Arsenic	5.8		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	4100	B	42	0.085 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.065		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	47		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	13	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	20000	B	42	8.5 mg/Kg	1	□	1638	Total/NA	
Manganese	640	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	25	B	0.85	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	21	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	48		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-1D2									
Lab Sample ID: 350-1619-249									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	58		3.8	1.8 ng/g	30	□	1631B	Total/NA	
Arsenic	5.9		0.46	0.14 mg/Kg	1	□	1638	Total/NA	
Barium	1900	B	46	0.092 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.068		0.046	0.0046 mg/Kg	1	□	1638	Total/NA	
Chromium	50		0.46	0.46 mg/Kg	1	□	1638	Total/NA	
Copper	13	B	0.23	0.028 mg/Kg	1	□	1638	Total/NA	
Iron	21000	B	46	9.2 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-2				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: MGWA-1D2 (Continued)					Lab Sample ID: 350-1619-249				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Manganese	880	B	0.23	0.023 mg/Kg	1	□	1638	Total/NA	
Nickel	27	B	0.92	0.037 mg/Kg	1	□	1638	Total/NA	
Lead	20	B	0.18	0.018 mg/Kg	1	□	1638	Total/NA	
Zinc	49		4.6	2.3 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-2B2X									
Lab Sample ID: 350-1619-250									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	348		3.4	1.7 ng/g	30	□	1631B	Total/NA	
Arsenic	4.0		0.40	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	3300	B	40	0.080 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.061		0.040	0.0040 mg/Kg	1	□	1638	Total/NA	
Chromium	41		0.40	0.40 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	17000	B	40	8.0 mg/Kg	1	□	1638	Total/NA	
Manganese	560	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	22	B	0.80	0.032 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	41		4.0	2.0 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-2B2X-FD									
Lab Sample ID: 350-1619-251									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	220		25	12 ng/g	200	□	1631B	Total/NA	
Arsenic	5.3		0.42	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	4400	B	42	0.084 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.063		0.042	0.0042 mg/Kg	1	□	1638	Total/NA	
Chromium	45		0.42	0.42 mg/Kg	1	□	1638	Total/NA	
Copper	12	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	19000	B	42	8.4 mg/Kg	1	□	1638	Total/NA	
Manganese	600	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	23	B	0.84	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	19	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	46		4.2	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-2C2									
Lab Sample ID: 350-1619-252									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	53		3.4	1.6 ng/g	30	□	1631B	Total/NA	
Arsenic	4.9		0.39	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	1100	B	39	0.078 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.055		0.039	0.0039 mg/Kg	1	□	1638	Total/NA	
Chromium	46		0.39	0.39 mg/Kg	1	□	1638	Total/NA	
Copper	11	B	0.20	0.024 mg/Kg	1	□	1638	Total/NA	
Iron	18000	B	39	7.8 mg/Kg	1	□	1638	Total/NA	
Manganese	560	B	0.20	0.020 mg/Kg	1	□	1638	Total/NA	
Nickel	24	B	0.78	0.031 mg/Kg	1	□	1638	Total/NA	
Lead	18	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	42		3.9	2.0 mg/Kg	1	□	1638	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins Seattle Specialty Metals

Detection Summary									
Client: Tetra Tech Inc					Job ID: 350-1619-2				
Project/Site: Gulf of Thailand - 2025									
Client Sample ID: MGWA-3B2X					Lab Sample ID: 350-1619-253				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	1000		24	12 ng/g	200	□	1631B	Total/NA	
Arsenic	6.3		0.38	0.11 mg/Kg	1	□	1638	Total/NA	
Barium	18000	B	38	0.076 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.084		0.038	0.0038 mg/Kg	1	□	1638	Total/NA	
Chromium	46		0.38	0.38 mg/Kg	1	□	1638	Total/NA	
Copper	15	B	0.19	0.023 mg/Kg	1	□	1638	Total/NA	
Iron	18000	B	38	7.6 mg/Kg	1	□	1638	Total/NA	
Manganese	490	B	0.19	0.019 mg/Kg	1	□	1638	Total/NA	
Nickel	23	B	0.76	0.030 mg/Kg	1	□	1638	Total/NA	
Lead	26	B	0.15	0.015 mg/Kg	1	□	1638	Total/NA	
Zinc	54		3.8	1.9 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-3C2									
Lab Sample ID: 350-1619-254									
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	150		23	11 ng/g	200	□	1631B	Total/NA	
Arsenic	5.7		0.41	0.12 mg/Kg	1	□	1638	Total/NA	
Barium	6400	B	41	0.082 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.097		0.041	0.0041 mg/Kg	1	□	1638	Total/NA	
Chromium	53		0.41	0.41 mg/Kg	1	□	1638	Total/NA	
Copper	16	B	0.21	0.025 mg/Kg	1	□	1638	Total/NA	
Iron	20000	B	41	8.2 mg/Kg	1	□	1638	Total/NA	
Manganese	550	B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	28	B	0.82	0.033 mg/Kg	1	□	1638	Total/NA	
Lead	22	B	0.16	0.016 mg/Kg	1	□	1638	Total/NA	
Zinc	50		4.1	2.1 mg/Kg	1	□	1638	Total/NA	

Client Sample ID: MGWA-3CP2					Lab Sample ID: 350-1619-255				
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type	
Mercury	69		4.6	2.2 mg/Kg	40	□	1631B	Total/NA	
Arsenic	0.43		0.43	0.13 mg/Kg	1	□	1638	Total/NA	
Barium	1900	B	43	0.085 mg/Kg	1	□	1638	Total/NA	
Cadmium	0.070		0.043	0.0043 mg/Kg	1	□	1638	Total/NA	
Chromium	57		0.43	0.43 mg/Kg	1	□	1638	Total/NA	
Copper	15	B	0.21	0.026 mg/Kg	1	□	1638	Total/NA	
Iron	23000	B	43	8.5 mg/Kg	1	□	1638	Total/NA	
Manganese	760	F1 B	0.21	0.021 mg/Kg	1	□	1638	Total/NA	
Nickel	30	B	0.85	0.034 mg/Kg	1	□	1638	Total/NA	
Lead	23	B	0.17	0.017 mg/Kg	1	□	1638	Total/NA	
Zinc	53	B	4.3	2.1 mg/Kg	1	□	1638	Total/NA	

Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-2					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: MGWA-1B2Y-SW-20 (Continued)					Lab Sample ID: 350-1619-260					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Arsenic	1.9		0.70	0.63 ug/L	1		1640	Total/NA		6
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA		7
Nickel	0.19 J		0.50	0.15 ug/L	1		1640	Total/NA		8
Zinc	0.46 J B		1.0	0.31 ug/L	1		1640	Total/NA		9
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		10
Iron	2.2 J		5.0	0.81 ug/L	1		1640	Total/NA		11
Manganese	0.38		0.050	0.030 ug/L	1		1640	Total/NA		12
Client Sample ID: MGWA-1B2Y-SW-40					Lab Sample ID: 350-1619-261					13
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		14
Mercury	1.0		0.50	0.20 ng/L	1		1631E	Total/NA		15
Arsenic	1.8		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.18 J		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.51 J B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	1.2 J		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.36		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-1B2Y-SW-B					Lab Sample ID: 350-1619-262					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.76		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	2.0		0.70	0.63 ug/L	1		1640	Total/NA		
Cadmium	0.020		0.020	0.013 ug/L	1		1640	Total/NA		
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.18 J		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.46 J B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	17		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	1.1		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-1CP2-SW-1					Lab Sample ID: 350-1619-263					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.79		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.9		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.2		1.0	0.11 ug/L	1		1640	Total/NA		
Lead	1.1		0.050	0.023 ug/L	1		1640	Total/NA		
Nickel	0.18 J		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.56 J B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	9.7		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.75		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-1CP2-SW-20					Lab Sample ID: 350-1619-264					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.64		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	2.0		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.3		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.16 J		0.50	0.15 ug/L	1		1640	Total/NA		

This Detection Summary does not include radiochemical test results.

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Detection Summary										1
Client: Tetra Tech Inc					Job ID: 350-1619-2					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: MGWA-1CP2-SW-20 (Continued)					Lab Sample ID: 350-1619-264					4
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		5
Zinc	0.56 J B		1.0	0.31 ug/L	1		1640	Total/NA		6
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		7
Iron	0.97 J		5.0	0.81 ug/L	1		1640	Total/NA		8
Manganese	0.39		0.050	0.030 ug/L	1		1640	Total/NA		9
Client Sample ID: MGWA-1CP2-SW-40					Lab Sample ID: 350-1619-265					10
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		11
Mercury	0.67		0.50	0.20 ng/L	1		1631E	Total/NA		12
Arsenic	1.9		0.70	0.63 ug/L	1		1640	Total/NA		13
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA		14
Nickel	0.15 J		0.50	0.15 ug/L	1		1640	Total/NA		15
Zinc	0.37 J B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	1.7 J		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.35		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-1CP2-SW-B					Lab Sample ID: 350-1619-266					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.0		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.8		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.1		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.16 J		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.40 J B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	1.2 J		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.37		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-3B2X-SW-1					Lab Sample ID: 350-1619-267					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	0.62 H H3		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.9 H H3		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.1 H H3		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.18 J H H3		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.50 J H H3 B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11 H H3		0.50	0.088 ug/L	1		1640	Total/NA		
Iron	0.91 J H H3		5.0	0.81 ug/L	1		1640	Total/NA		
Manganese	0.38 H H3		0.050	0.030 ug/L	1		1640	Total/NA		
Client Sample ID: MGWA-3B2X-SW-20					Lab Sample ID: 350-1619-268					
Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type		
Mercury	1.0 H H3		0.50	0.20 ng/L	1		1631E	Total/NA		
Arsenic	1.9 H H3		0.70	0.63 ug/L	1		1640	Total/NA		
Chromium	1.2 H H3		1.0	0.11 ug/L	1		1640	Total/NA		
Nickel	0.16 J H H3		0.50	0.15 ug/L	1		1640	Total/NA		
Zinc	0.39 J H H3 B		1.0	0.31 ug/L	1		1640	Total/NA		
Barium	11 H H3		0.50	0.088 ug/L	1		1640	Total/NA		
Manganese	0.37 H H3		0.050	0.030 ug/L	1		1640	Total/NA		

This Detection Summary does not include radiochemical test results.

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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Detection Summary

Client Sample ID: MGWA-3B2X-SW-40

Lab Sample ID: 350-1619-269

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	0.51	H H3	0.50	0.20 ng/L	1		1631E	Total/NA
Arsenic	1.7	H H3	0.70	0.63 ug/L	1		1640	Total/NA
Chromium	1.2	H H3	1.0	0.11 ug/L	1		1640	Total/NA
Lead	0.11	H H3	0.050	0.023 ug/L	1		1640	Total/NA
Nickel	0.16	J H H3	0.50	0.15 ug/L	1		1640	Total/NA
Zinc	0.41	J H H3 B	1.0	0.31 ug/L	1		1640	Total/NA
Barium	11	H H3	0.50	0.088 ug/L	1		1640	Total/NA
Iron	0.95	J H H3	5.0	0.81 ug/L	1		1640	Total/NA
Manganese	0.36	H H3	0.050	0.030 ug/L	1		1640	Total/NA

Client Sample ID: MGWA-3B2X-SW-B

Lab Sample ID: 350-1619-270

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	0.55	H H3	0.50	0.20 ng/L	1		1631E	Total/NA
Arsenic	2.1	H H3	0.70	0.63 ug/L	1		1640	Total/NA
Chromium	1.2	H H3	1.0	0.11 ug/L	1		1640	Total/NA
Lead	0.036	J H H3	0.050	0.023 ug/L	1		1640	Total/NA
Nickel	0.19	J H H3	0.50	0.15 ug/L	1		1640	Total/NA
Zinc	0.59	J H H3 B	1.0	0.31 ug/L	1		1640	Total/NA
Barium	11	H H3	0.50	0.088 ug/L	1		1640	Total/NA
Iron	35	H H3	5.0	0.81 ug/L	1		1640	Total/NA
Manganese	1.9	H H3	0.050	0.030 ug/L	1		1640	Total/NA

Client Sample ID: MGWA-3CP2-SW-1

Lab Sample ID: 350-1619-271

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	0.49	J H H3	0.50	0.20 ng/L	1		1631E	Total/NA
Arsenic	1.9	H H3	0.70	0.63 ug/L	1		1640	Total/NA
Chromium	1.2	H H3	1.0	0.11 ug/L	1		1640	Total/NA
Nickel	0.17	J H H3	0.50	0.15 ug/L	1		1640	Total/NA
Zinc	0.52	J H H3 B	1.0	0.31 ug/L	1		1640	Total/NA
Barium	11	H H3	0.50	0.088 ug/L	1		1640	Total/NA
Iron	2.3	J H H3	5.0	0.81 ug/L	1		1640	Total/NA
Manganese	0.38	H H3	0.050	0.030 ug/L	1		1640	Total/NA

Client Sample ID: MGWA-3CP2-SW-20

Lab Sample ID: 350-1619-272

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	0.51	H H3	0.50	0.20 ng/L	1		1631E	Total/NA
Arsenic	2.0	H H3	0.70	0.63 ug/L	1		1640	Total/NA
Chromium	1.1	H H3	1.0	0.11 ug/L	1		1640	Total/NA
Nickel	0.20	J H H3	0.50	0.15 ug/L	1		1640	Total/NA
Zinc	0.44	J H H3 B	1.0	0.31 ug/L	1		1640	Total/NA
Barium	11	H H3	0.50	0.088 ug/L	1		1640	Total/NA
Iron	0.89	J H H3	5.0	0.81 ug/L	1		1640	Total/NA
Manganese	0.36	H H3	0.050	0.030 ug/L	1		1640	Total/NA

Client Sample ID: MGWA-3CP2-SW-40

Lab Sample ID: 350-1619-273

Analyte	Result	Qualifier	RL	MDL Unit	Dil Fac	D	Method	Prep Type
Mercury	0.53	H H3	0.50	0.20 ng/L	1		1631E	Total/NA
Arsenic	2.0	H H3	0.70	0.63 ug/L	1		1640	Total/NA
Cadmium	0.013	J H H3	0.020	0.013 ug/L	1		1640	Total/NA

Client: Tetra Tech Inc

Job ID: 350-1619-2

Project/Site: Gulf of Thailand - 2025

Client Sample ID: MGWA-1B2Y

Lab Sample ID: 350-1619-246

Date Collected: 02/04/25 13:36

Matrix: Solid

Date Received: 03/06/25 10:30

Percent Solids: 48.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	50000		1100	550	ng/g	⊖	04/03/25 20:27	05/14/25 16:11	10000

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.5		0.42	0.13	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1
Barium	25000	B	42	0.085	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1
Cadmium	0.12		0.042	0.0042	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1
Chromium	43		0.42	0.42	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1
Copper	15	B	0.21	0.025	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1
Iron	18000	B	42	8.5	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1
Manganese	440	B	0.21	0.021	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1
Nickel	23	B	0.85	0.034	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1
Lead	35	B	0.17	0.017	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1
Zinc	68		4.2	2.1	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:20	1

Client Sample ID: MGWA-1C2										12
Date Collected: 02/04/25 03:52										13
Date Received: 03/06/25 10:30										14
Method: EPA 1631B - Mercury, Low Level (CVAFS)										15
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	490		13	6.1	ng/g	⊖	04/03/25 20:27	05/06/25 16:16	100	
Method: EPA 1638 - Metals (ICP/MS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	7.3		0.42	0.13	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Barium	19000	B	42	0.084	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Cadmium	0.061		0.042	0.0042	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Chromium	49		0.42	0.42	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Copper	14	B	0.21	0.025	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Iron	21000	B	42	8.4	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Manganese	510	B	0.21	0.021	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Nickel	25	B	0.84	0.033	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Lead	26	B	0.17	0.017	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	
Zinc	61		4.2	2.1	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:22	1	

Client Sample ID: MGWA-1CP2										16
Date Collected: 02/04/25 03:52										17
Date Received: 03/06/25 10:30										18
Method: EPA 1631B - Mercury, Low Level (CVAFS)										19
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	150		24	11	ng/g	⊖	04/03/25 20:27	05/06/25 16:20	200	
Method: EPA 1638 - Metals (ICP/MS)										20
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	5.8		0.42	0.13	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1	
Barium	4100	B	42	0.085	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1	
Cadmium	0.065		0.042	0.0042	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1	
Chromium	47		0.42	0.42	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1	
Copper	13	B	0.21	0.025	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1	

Eurofins Seattle Specialty Metals

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Client Sample ID: MGWA-1CP2

Date Collected: 02/04/25 03:52

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-248

Matrix: Solid

Percent Solids: 45.5

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	20000	B	42	8.5	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1
Manganese	640	B	0.21	0.021	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1
Nickel	25	B	0.85	0.034	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1
Lead	21	B	0.17	0.017	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1
Zinc	48		4.2	2.1	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:25	1

Client Sample ID: MGWA-1D2

Date Collected: 02/04/25 04:31

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-249

Matrix: Solid

Percent Solids: 44.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	58		3.8	1.8	ng/g	⊖	04/03/25 20:27	05/06/25 19:19	30

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.9		0.46	0.14	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1
Barium	1900	B	46	0.092	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1
Cadmium	0.068		0.046	0.0046	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1
Chromium	50		0.46	0.46	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1
Copper	13	B	0.23	0.028	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1
Iron	21000	B	46	9.2	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1
Manganese	680	B	0.23	0.023	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1
Nickel	27	B	0.92	0.037	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1
Lead	20	B	0.18	0.018	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1
Zinc	49		4.6	2.3	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:27	1

Client Sample ID: MGWA-2B2X										19
Date Collected: 02/04/25 14:19										20
Date Received: 03/06/25 10:30										21
Method: EPA 1631B - Mercury, Low Level (CVAFS)										22
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	340		3.4	1.7	ng/g	⊖	04/03/25 20:27	05/06/25 13:32	30	

Method: EPA 1638 - Metals (ICP/MS)										23
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	4.8		0.40	0.12	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1	
Barium	3300	B	40	0.080	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1	
Cadmium	0.061		0.040	0.0040	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1	
Chromium	41		0.40	0.40	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1	
Copper	12	B	0.20	0.024	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1	
Iron	17000	B	40	8.0	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1	
Manganese	560	B	0.20	0.020	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1	
Nickel	22	B	0.80	0.032	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1	
Lead	18	B	0.16	0.016	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1	
Zinc	41		4.0	2.0	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:30	1	

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Client Sample Results										1
Client: Tetra Tech Inc					Job ID: 350-1619-2					2
Project/Site: Gulf of Thailand - 2025										3
Client Sample ID: MGWA-2B2X-FD					Lab Sample ID: 350-1619-251					4
Date Collected: 02/04/25 14:38					Matrix: Solid					5
Date Received: 03/06/25 10:30					Percent Solids: 44.6					6
Method: EPA 1631B - Mercury, Low Level (CVAFS)										7
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	220		25	12	ng/g	⊖	04/03/25 20:27	05/06/25 16:28	200	
Method: EPA 1638 - Metals (ICP/MS)										10
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic			0.42	0.13	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:32	1	
Barium	4400 B		0.42	0.084	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:32	1	
Cadmium	0.063		0.042	0.0042	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:32	1	
Chromium	45		0.42	0.42	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:32	1	
Copper	12 B		0.21	0.025	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:32	1	
Iron	19000 B		0.42	8.4	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:32	1	
Manganese	600 B		0.21	0.021	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:32	1	
Nickel	23 B		0.84	0.034	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:32	1	
Lead	19 B		0.17	0.017	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:32	1	
Zinc	46		4.2	2.1	mg/Kg	⊖	03/19/25 17:28	05/14/25 16:32	1	

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Client Sample ID: MGWA-3D2

Date Collected: 02/03/25 22:49

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-256

Matrix: Solid

Percent Solids: 48.5

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	82		4.5	2.2	ng/g	□	04/04/25 17:33	05/06/25 19:05	40

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.7		0.40	0.12	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1
Barium	770	B	40	0.080	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1
Cadmium	0.053		0.040	0.0040	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1
Chromium	49		0.40	0.40	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1
Copper	12	B	0.20	0.024	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1
Iron	20000	B	40	8.0	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1
Manganese	580	B	0.20	0.020	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1
Nickel	25	B	0.80	0.032	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1
Lead	19	B	0.16	0.016	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1
Zinc	45		4.0	2.0	mg/Kg	□	03/19/25 17:28	05/14/25 16:42	1

Client Sample ID: MGWA-4B2X

Date Collected: 02/04/25 12:44

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-257

Matrix: Solid

Percent Solids: 49.8

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	120		4.4	2.1	ng/g	□	04/04/25 17:33	05/06/25 18:27	40

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.4		0.38	0.11	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1
Barium	7400	B	38	0.075	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1
Cadmium	0.079		0.038	0.0038	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1
Chromium	40		0.38	0.38	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1
Copper	11	B	0.19	0.023	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1
Iron	17000	B	38	7.5	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1
Manganese	560	B	0.19	0.019	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1
Nickel	21	B	0.75	0.030	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1
Lead	20	B	0.15	0.015	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1
Zinc	43		3.8	1.9	mg/Kg	□	03/19/25 17:28	05/14/25 16:50	1

Client Sample ID: MGWA-4C2

Date Collected: 02/03/25 23:24

Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-258

Matrix: Solid

Percent Solids: 46.1

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	58		4.7	2.3	ng/g	□	04/04/25 17:33	05/06/25 19:09	40

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.1		0.41	0.12	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1
Barium	2000	B	41	0.082	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1
Cadmium	0.056		0.041	0.0041	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1
Chromium	46		0.41	0.41	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1
Copper	12	B	0.21	0.025	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1

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Client Sample Results										
Client: Tetra Tech Inc					Job ID: 350-1619-2					
Project/Site: Gulf of Thailand - 2025										
Client Sample ID: MGWA-4C2					Lab Sample ID: 350-1619-258					
Date Collected: 02/03/25 23:24					Matrix: Solid					
Date Received: 03/06/25 10:30					Percent Solids: 46.1					
Method: EPA 1638 - Metals (ICP/MS) (Continued)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Iron	18000	B	41	8.2	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1	
Manganese	620	B	0.21	0.021	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1	
Nickel	24	B	0.82	0.033	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1	
Lead	18	B	0.16	0.016	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1	
Zinc	42		4.1	2.1	mg/Kg	□	03/19/25 17:28	05/14/25 16:53	1	
Client Sample ID: MGWA-1B2Y-SW-1										
Date Collected: 02/04/25 00:46					Lab Sample ID: 350-1619-259					
Date Received: 03/06/25 10:30					Matrix: Water					
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.77		0.50	0.20	ng/L	□		04/25/25 12:06	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.9		0.70	0.63	ug/L	□	04/03/25 16:39	04/03/25 22:24	1	
Cadmium	0.016	J	0.020	0.013	ug/L	□	04/03/25 16:39	04/03/25 22:24	1	
Chromium	0.93	J	1.0	0.11	ug/L	□	04/03/25 16:39	04/03/25 22:24	1	
Copper	ND		0.50	0.43	ug/L	□	04/03/25 16:39	04/03/25 22:24	1	
Lead	0.41		0.050	0.023	ug/L	□	04/03/25 16:39	04/03/25 22:24	1	
Nickel	0.20	J	0.50	0.15	ug/L	□	04/03/25 16:39	04/03/25 22:24	1	
Zinc	0.51	J B	1.0	0.31	ug/L	□	04/03/25 16:39	04/03/25 22:24	1	
Barium	12		0.50	0.088	ug/L	□	04/03/25 16:39	04/03/25 22:24	1	
Iron	5.5		5.0	0.81	ug/L	□	04/03/25 16:39	04/05/25 00:49	1	
Manganese	0.45		0.050	0.030	ug/L	□	04/03/25 16:39	04/03/25 22:24	1	
Client Sample ID: MGWA-1B2Y-SW-20										
Date Collected: 02/04/25 00:52					Lab Sample ID: 350-1619-260					
Date Received: 03/06/25 10:30					Matrix: Water					
Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	1.0		0.50	0.20	ng/L	□		04/25/25 12:10	1	
Method: EPA 1640 - Metals (ICPMS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Arsenic	1.9		0.70	0.63	ug/L	□	04/03/25 16:39	04/04/25 03:07	1	
Cadmium	ND		0.020	0.013	ug/L	□	04/03/25 16:39	04/04/25 03:07	1	
Chromium	1.2		1.0	0.11	ug/L	□	04/03/25 16:39	04/04/25 03:07	1	
Copper	ND		0.50	0.43	ug/L	□	04/03/25 16:39	04/04/25 03:07	1	
Lead	ND		0.050	0.023	ug/L	□	04/03/25 16:39	04/04/25 03:07	1	
Nickel	0.19	J	0.50	0.15	ug/L	□	04/03/25 16:39	04/04/25 03:07	1	
Zinc	0.46	J B	1.0	0.31	ug/L	□	04/03/25 16:39	04/04/25 03:07	1	
Barium	11		0.50	0.088	ug/L	□	04/03/25 16:39	04/04/25 03:07	1	
Iron	2.2	J	5.0	0.81	ug/L	□	04/03/25 16:39	04/05/25 04:35	1	
Manganese	0.38		0.050	0.030	ug/L	□	04/03/25 16:39	04/04/25 03:07	1	
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Client Sample Results			
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Client: Tetra Tech Inc

Job ID: 350-1619-2

Project/Site: Gulf of Thailand - 2025

Client Sample ID: MGWA-EQ

Lab Sample ID: 350-1619-276

Date Collected: 02/03/25 07:45

Matrix: Water

Date Received: 03/06/25 10:30

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.90		0.50	0.20	ng/L			04/25/25 14:06	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	0.63	ug/L		04/03/25 16:43	04/04/25 06:53	1
Cadmium	ND		0.020	0.013	ug/L		04/03/25 16:43	04/04/25 06:53	1
Chromium	ND		1.0	0.11	ug/L		04/03/25 16:43	04/04/25 06:53	1
Copper	ND		0.50	0.43	ug/L		04/03/25 16:43	04/04/25 06:53	1
Lead	ND		0.050	0.023	ug/L		04/03/25 16:43	04/04/25 06:53	1
Nickel	ND		0.50	0.15	ug/L		04/03/25 16:43	04/04/25 06:53	1
Zinc	4.8 B		1.0	0.31	ug/L		04/03/25 16:43	04/04/25 06:53	1
Barium	ND		0.50	0.088	ug/L		04/03/25 16:43	04/04/25 06:53	1
Iron	ND		5.0	0.81	ug/L		04/03/25 16:43	04/05/25 08:21	1
Manganese	ND		0.050	0.030	ug/L		04/03/25 16:43	04/04/25 06:53	1

Client Sample ID: MGWA-WB									
Date Collected: 02/03/25 07:40									
Date Received: 03/06/25 10:30									
Lab Sample ID: 350-1619-277									
Matrix: Water									
Method: EPA 1631E - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.86		0.50	0.20	ng/L			04/25/25 14:11	1
Method: EPA 1640 - Metals (ICPMS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	0.63	ug/L		04/03/25 16:43	04/04/25 07:35	1
Cadmium	ND		0.020	0.013	ug/L		04/03/25 16:43	04/04/25 07:35	1
Chromium	ND		1.0	0.11	ug/L		04/03/25 16:43	04/04/25 07:35	1
Copper	ND		0.50	0.43	ug/L		04/03/25 16:43	04/04/25 07:35	1
Lead	ND		0.050	0.023	ug/L		04/03/25 16:43	04/04/25 07:35	1
Nickel	ND		0.50	0.15	ug/L		04/03/25 16:43	04/04/25 07:35	1
Zinc	ND		1.0	0.31	ug/L		04/03/25 16:43	04/04/25 07:35	1
Barium	ND		0.50	0.088	ug/L		04/03/25 16:43	04/04/25 07:35	1
Iron	ND		5.0	0.81	ug/L		04/03/25 16:43	04/05/25 09:03	1
Manganese	ND		0.050	0.030	ug/L		04/03/25 16:43	04/04/25 07:35	1

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QC Sample Results									
Client: Tetra Tech Inc					Job ID: 350-1619-2				
Project/Site: Gulf of Thailand - 2025									
Method: 1631B - Mercury, Low Level (CVAFS)									
Lab Sample ID: MB 350-58614-A					Client Sample ID: Method Blank				
Matrix: Solid					xrep Pype: Potal4 A				
Analysis Batch: 6N86					xrep Batch: 5861				
Analyte	Result	Qualifier	RL	MDL	z nit	D	xprepared	Analyzed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		04/03/25 20:27	05/06/25 12:59	20
Lab Sample ID: MB 350-58614-A									
Matrix: Solid									
Analysis Batch: 6N86									
Analyte	Result	Qualifier	RL	MDL	z nit	D	xprepared	Analyzed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		04/03/25 20:27	05/06/25 13:03	20
Lab Sample ID: MB 350-58614-A									
Matrix: Solid									
Analysis Batch: 6N86									
Analyte	Result	Qualifier	RL	MDL	z nit	D	xprepared	Analyzed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		04/03/25 20:27	05/06/25 13:08	20
Lab Sample ID: LCS 350-58614-A									
Matrix: Solid									
Analysis Batch: 6N86									
Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	9 Rec	9 Rec	Limits	Dil Fac
Mercury	397	407		ng/g		102	95	75 - 125	20
Lab Sample ID: LCSD 350-58614-A									
Matrix: Solid									
Analysis Batch: 6N86									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	z nit	D	9 Rec	9 Rec	Limits	RxD Limit
Mercury	397	394		ng/g		99	95	75 - 125	3 24
Lab Sample ID: 350-1618-f 50 MS									
Matrix: Solid									
Analysis Batch: 6N86									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	9 Rec	9 Rec
Mercury	340		757	1040		ng/g		92	71 - 125
Lab Sample ID: 350-1618-f 50 MSD									
Matrix: Solid									
Analysis Batch: 6N86									
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec
Mercury	340		793	1090		ng/g		94	71 - 125
Lab Sample ID: MB 350-58N84-A									
Matrix: Solid									
Analysis Batch: 6N86									
Analyte	Result	Qualifier	RL	MDL	z nit	D	xprepared	Analyzed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		04/03/25 20:27	05/06/25 16:53	20

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QC Sample Results

Client: Tetra Tech Inc

Job ID: 350-1619-2

Project/Site: Gulf of Thailand - 2025

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-58N84-A
Matrix: Solid
Analysis Batch: 6N86

Client Sample ID: Method Blank
xrep Pype: Potal4 A
xrep Batch: 58N8

Analyte	Result	MB Qualifier	RL	MDL	z nit	D	xprepared	Analyt2ed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		04/03/25 20:27	05/06/25 16:57	20

Lab Sample ID: MB 350-58N84-A
Matrix: Solid
Analysis Batch: 6N86

Client Sample ID: Method Blank
xrep Pype: Potal4 A
xrep Batch: 58N8

Analyte	Result	MB Qualifier	RL	MDL	z nit	D	xprepared	Analyt2ed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		04/03/25 20:27	05/06/25 17:02	20

Lab Sample ID: LCS 350-58N84-A
Matrix: Solid
Analysis Batch: 6N86

Client Sample ID: Lab Control Sample
xrep Pype: Potal4 A
xrep Batch: 58N8

Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	9 Rec	9 Rec	Limits	Dil Fac
Mercury	397	404		ng/g		102	95	75 - 125	20

Lab Sample ID: LCSD 350-58N84-A
Matrix: Solid
Analysis Batch: 6N86

Client Sample ID: Lab Control Sample
xrep Pype: Potal4 A
xrep Batch: 58N8

Analyte	Spike Added	LCSD Result	LCSD Qualifier	z nit	D	9 Rec	9 Rec	Limits	RxD Limit
Mercury	397	387		ng/g		98	95	75 - 125	4 24

Lab Sample ID: MB 350-60ff4-A
Matrix: Solid
Analysis Batch: 6675

Client Sample ID: Method Blank
xrep Pype: Potal4 A
xrep Batch: 58N8

Analyte	Result	MB Qualifier	RL	MDL	z nit	D	xprepared	Analyt2ed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		04/04/25 17:33	05/06/25 18:06	20

Lab Sample ID: MB 350-60ff4-A
Matrix: Solid
Analysis Batch: 6675

Client Sample ID: Method Blank
xrep Pype: Potal4 A
xrep Batch: 58N8

Analyte	Result	MB Qualifier	RL	MDL	z nit	D	xprepared	Analyt2ed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		04/04/25 17:33	05/06/25 18:11	20

Lab Sample ID: LCS 350-60ff4-A
Matrix: Solid
Analysis Batch: 6675

Client Sample ID: Lab Control Sample
xrep Pype: Potal4 A
xrep Batch: 58N8

Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	9 Rec	9 Rec	Limits	Dil Fac
Mercury	397	404		ng/g		102	95	75 - 125	20

QC Sample Results														
Client: Tetra Tech Inc										Job ID: 350-1619-2				
Project/Site: Gulf of Thailand - 2025														
Method: 1631E - Mercury, Low Level (CVAFS) (Continued)														
Lab Sample ID: MB 350-6%N# 45										Client Sample ID: Method Blank				
Matr'l : Gater										xrep Pype: Potal# A				
Analysis Batch: 6%N														
Analyte		MB	MB			RL	MDL	z nit	D	xprepared	Analy2ed	Dil Fac		
Mercury		Result	Qualifier			0.50	0.20	ng/L			04/25/25 10:39	1		
Lab Sample ID: MB 350-6%N# 46										Client Sample ID: Method Blank				
Matr'l : Gater										xrep Pype: Potal# A				
Analysis Batch: 6%N														
Analyte		MB	MB			RL	MDL	z nit	D	xprepared	Analy2ed	Dil Fac		
Mercury		Result	Qualifier			0.50	0.20	ng/L			04/25/25 10:43	1		
Lab Sample ID: LCS 350-6%N# 40										Client Sample ID: Lab Control Sample				
Matr'l : Gater										xrep Pype: Potal# A				
Analysis Batch: 6%N														
Analyte					Spike		LCS	LCS	z nit	D	9 Rec	9 Rec		
Mercury					Added		Result	Qualifier	ng/L		105	Limits		
Lab Sample ID: LCS 350-6%N# 46										Client Sample ID: Lab Control Sample				
Matr'l : Gater										xrep Pype: Potal# A				
Analysis Batch: 6%N														
Analyte					Spike		LCS	LCS	z nit	D	9 Rec	9 Rec		
Mercury					Added		Result	Qualifier	ng/L		103	Limits		
Lab Sample ID: LCSD 350-6%N# 43										Client Sample ID: Lab Control Sample Dup				
Matr'l : Gater										xrep Pype: Potal# A				
Analysis Batch: 6%N														
Analyte					Spike		LCSD	LCSD	z nit	D	9 Rec	9 Rec	RxD	RxD
Mercury					Added		Result	Qualifier	ng/L		104	Limits	2	Limit
Lab Sample ID: LCSD 350-6%N# 43										Client Sample ID: Lab Control Sample Dup				
Matr'l : Gater										xrep Pype: Potal# A				
Analysis Batch: 6%N														
Analyte					Spike		LCSD	LCSD	z nit	D	9 Rec	9 Rec	RxD	RxD
Mercury					Added		Result	Qualifier	ng/L		100	Limits	2	Limit
Lab Sample ID: 350-1618-f N3 MS										Client Sample ID: MWGA-3Cxf-SG-%D				
Matr'l : Gater										xrep Pype: Potal# A				
Analysis Batch: 6%N														
Analyte		Sample	Sample		Spike		MS	MS	z nit	D	9 Rec	9 Rec		
Mercury		Result	Qualifier		Added		Result	Qualifier	ng/L		95	Limits		
Lab Sample ID: 350-1618-f N3 MSD										Client Sample ID: MWGA-3Cxf-SG-%D				
Matr'l : Gater										xrep Pype: Potal# A				
Analysis Batch: 6%N														
Analyte		Sample	Sample		Spike		MSD	MSD	z nit	D	9 Rec	9 Rec	RxD	RxD
Mercury		Result	Qualifier		Added		Result	Qualifier	ng/L		96	Limits	1	Limit

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QC Sample Results														
Client: Tetra Tech Inc										Job ID: 350-1619-2				
Project/Site: Gulf of Thailand - 2025														
Method: 1637 - Metals (ICxMS) (Continued)														
Lab Sample ID: LCS 350-56N34-A							Client Sample ID: Lab Control Sample							
Matr'l : Solid							xrep Pype: Potal4 A							
Analysis Batch: 6783							xrep Batch: 56N3							
Analyte			Spike Added		LCS Result	LCS Qualifier	z nit	D	9 Rec	9 Rec Limits				
Cadmium			20.0		18.0		mg/Kg		90	75 - 125				
Chromium			100		88.0		mg/Kg		88	75 - 125				
Copper			100		99.2		mg/Kg		99	75 - 125				
Iron			2500		2370		mg/Kg		95	75 - 125				
Manganese			100		90.6		mg/Kg		91	75 - 125				
Nickel			100		94.2		mg/Kg		94	75 - 125				
Lead			100		91.7		mg/Kg		92	75 - 125				
Zinc			100		92.0		mg/Kg		92	75 - 125				
Lab Sample ID: LCSD 350-56N34/A							Client Sample ID: Lab Control Sample Dup							
Matr'l : Solid							xrep Pype: Potal4 A							
Analysis Batch: 6783							xrep Batch: 56N3							
Analyte			Spike Added		LCSD Result	LCSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit		
Arsenic			100		91.4		mg/Kg		91	75 - 125	1	20		
Barium			100		102 J		mg/Kg		102	75 - 125	2	20		
Cadmium			20.0		18.3		mg/Kg		91	75 - 125	2	20		
Chromium			100		88.7		mg/Kg		89	75 - 125	1	20		
Copper			100		102		mg/Kg		102	75 - 125	2	20		
Iron			2500		2420		mg/Kg		97	75 - 125	2	20		
Manganese			100		92.1		mg/Kg		92	75 - 125	2	20		
Nickel			100		95.9		mg/Kg		96	75 - 125	2	20		
Lead			100		96.7		mg/Kg		97	75 - 125	5	20		
Zinc			100		93.4		mg/Kg		93	75 - 125	1	20		
Lab Sample ID: 350-1618-f 55 MS							Client Sample ID: MWGA-3Cxf							
Matr'l : Solid							xrep Pype: Potal4 A							
Analysis Batch: 6783							xrep Batch: 56N3							
Analyte		Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	9 Rec	9 Rec Limits				
Arsenic		6.7		207	207		mg/Kg		97	75 - 125				
Barium		1900 B		207	1470 4		mg/Kg		97	75 - 125				
Cadmium		0.070		207	40.5		mg/Kg		98	75 - 125				
Chromium		57		207	241		mg/Kg		89	75 - 125				
Copper		15 B		207	227		mg/Kg		103	70 - 130				
Iron		23000 B		5170	23600 4		mg/Kg		19	75 - 125				
Manganese		780 F1 B		207	780 F1		mg/Kg		11	75 - 125				
Nickel		30 B		207	232		mg/Kg		98	75 - 125				
Lead		23 B		207	227		mg/Kg		99	75 - 125				
Zinc		53		207	245		mg/Kg		93	65 - 135				
Lab Sample ID: 350-1618-f 55 MSD							Client Sample ID: MWGA-3Cxf							
Matr'l : Solid							xrep Pype: Potal4 A							
Analysis Batch: 6783							xrep Batch: 56N3							
Analyte		Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit		
Arsenic		6.7		206	198		mg/Kg		93	75 - 125	5	20		
Barium		1900 B		206	1350 4		mg/Kg		96	75 - 125	9	20		
Cadmium		0.070		41.2	38.2		mg/Kg		93	75 - 125	6	20		

Client: Tetra Tech Inc										Job ID: 350-1619-2					
Project/Site: Gulf of Thailand - 2025															
Method: 16% Φ - Metals (ICxMS) (Continued)															
Lab Sample ID: MB 350-58854-A										Client Sample ID: Method Blank					
Matr'l : Gater										x rep Pype: Potal4 A					
Analysis Batch: 607%										x rep Batch: 5885					
Analyte	MB Result	MB Qualifier	RL	MDL	z nit	D	x prepared	Analyt2ed	Dil Fac						
Iron	ND		5.0	0.81	ug/L		04/03/25 16:39	04/04/25 23:10							1
Lab Sample ID: LCS 350-58854-A										Client Sample ID: Lab Control Sample					
Matr'l : Gater										x rep Pype: Potal4 A					
Analysis Batch: 6066										x rep Batch: 5885					
Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	9 Rec	Limits	9 Rec	Limits						
Arsenic	12.5	12.8		ug/L		102	70 - 130								
Cadmium	1.25	1.15		ug/L		92	70 - 130								
Chromium	12.5	12.5		ug/L		100	70 - 130								
Copper	12.5	12.4		ug/L		99	70 - 130								
Lead	2.50	2.18		ug/L		87	70 - 130								
Nickel	12.5	11.7		ug/L		93	70 - 130								
Zinc	12.5	12.4		ug/L		99	70 - 130								
Barium	12.5	11.7		ug/L		93	70 - 130								
Manganese	12.5	12.5		ug/L		100	70 - 130								
Lab Sample ID: LCS 350-58854-A										Client Sample ID: Lab Control Sample					
Matr'l : Gater										x rep Pype: Potal4 A					
Analysis Batch: 607%										x rep Batch: 5885					
Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	9 Rec	Limits	9 Rec	Limits						
Iron	62.5	63.9		ug/L		102	70 - 130								
Lab Sample ID: LCS 350-58854-A										Client Sample ID: Lab Control Sample Dup					
Matr'l : Gater										x rep Pype: Potal4 A					
Analysis Batch: 6066										x rep Batch: 5885					
Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	9 Rec	Limits	RxD	Limit						
Arsenic	12.5	12.7		ug/L		102	70 - 130	0	20						
Cadmium	1.25	1.18		ug/L		95	70 - 130	3	20						
Chromium	12.5	12.9		ug/L		103	70 - 130	3	20						
Copper	12.5	12.5		ug/L		100	70 - 130	1	20						
Lead	2.50	2.28		ug/L		91	70 - 130	4	20						
Nickel	12.5	11.6		ug/L		93	70 - 130	1	20						
Zinc	12.5	12.3		ug/L		99	70 - 130	0	20						
Barium	12.5	12.1		ug/L		97	70 - 130	3	20						
Manganese	12.5	12.8		ug/L		102	70 - 130	2	20						
Lab Sample ID: LCS 350-58854-A										Client Sample ID: Lab Control Sample Dup					
Matr'l : Gater										x rep Pype: Potal4 A					
Analysis Batch: 607%										x rep Batch: 5885					
Analyte	Spike Added	LCS Result	LCS Qualifier	z nit	D	9 Rec	Limits	RxD	Limit						
Iron	62.5	59.0		ug/L		94	70 - 130	8	20						
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Method: 16% Φ - Metals (ICxMS) (Continued)

Lab Sample ID: 350-1618-f 58 MS

Matr'l : Gater

Analysis Batch: 6066

Client Sample ID: MWGA-1BfY-SG-1

x rep Pype: Potal4 A

x rep Batch: 5885

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	9 Rec	Limits	9 Rec	Limits
Arsenic	1.9		12.5	20.4		ug/L		148	50 - 150		
Cadmium	0.016 J		1.25	1.19		ug/L		94	50 - 150		
Chromium	0.93 J		12.5	14.6		ug/L		109	50 - 150		
Copper	ND		12.5	12.4		ug/L		99	50 - 150		
Lead	0.41		2.50	2.73		ug/L		93	50 - 150		
Nickel	0.20 J		12.5	12.1		ug/L		95	50 - 150		
Zinc	0.51 B		12.5	12.8		ug/L		98	50 - 150		
Barium	12		12.5	29.0		ug/L		138	50 - 150		
Manganese	0.45		12.5	13.2		ug/L		102	50 - 150		

Lab Sample ID: 350-1618-f 58 MS

Matr'l : Gater

Analysis Batch: 607%

Client Sample ID: MWGA-1BfY-SG-1

x rep Pype: Potal4 A

x rep Batch: 5885

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	9 Rec	Limits	9 Rec	Limits
Iron	5.5		62.5	86.1		ug/L		129	50 - 150		

Lab Sample ID: 350-1618-f 58 MSD

Matr'l : Gater

Analysis Batch: 6066

Client Sample ID: MWGA-1BfY-SG-1

x rep Pype: Potal4 A

x rep Batch: 5885

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	Limits	RxD	Limit	9 Rec	Limits	RxD	Limit
Arsenic	1.9		12.5	21.0		ug/L		153	50 - 150	3	20	153	50 - 150	3	20
Cadmium	0.016 J		1.25	1.19		ug/L		94	50 - 150	0	20	94	50 - 150	0	20
Chromium	0.93 J		12.5	14.4		ug/L		107	50 - 150	2	20	107	50 - 150	2	20
Copper	ND		12.5	12.8		ug/L		102	50 - 150	3	20	102	50 - 150	3	20
Lead	0.41		2.50	2.70		ug/L		92	50 - 150	1	20	92	50 - 150	1	20
Nickel	0.20 J		12.5	12.3		ug/L		96	50 - 150	2	20	96	50 - 150	2	20
Zinc	0.51 J B		12.5	12.9		ug/L		99	50 - 150	1	20	99	50 - 150	1	20
Barium	12		12.5	30.1		ug/L		147	50 - 150	4	20	147	50 - 150	4	20
Manganese	0.45		12.5	13.4		ug/L		103	50 - 150	1	20	103	50 - 150	1	20

Lab Sample ID: 350-1618-f 58 MSD

Matr'l : Gater

Analysis Batch: 607%

Client Sample ID: MWGA-1BfY-SG-1

x rep Pype: Potal4 A

x rep Batch: 5885

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	Limits	RxD	Limit	9 Rec	Limits	RxD	Limit
Iron	5.5		62.5	85.0		ug/L		127	50 - 150	1	20	127	50 - 150	1	20

Lab Sample ID: MB 350-588N4-A

Matr'l : Gater

Analysis Batch: 6066

Client Sample ID: Method Blank

x rep Pype: Potal4 A

x rep Batch: 588N

Analyte	MB Result	MB Qualifier	RL	MDL	z nit	D	x rep	2nd	Dil Fac
Arsenic	ND		0.70	0.63	ug/L		04/03/25 16:43	04/03/25 21:28	1
Cadmium	ND		0.020	0.013	ug/L		04/03/25 16:43	04/03/25 21:28	1
Chromium	ND		1.0	0.11	ug/L		04/03/25 16:43	04/03/25 21:28	1
Copper	ND		0.50	0.43	ug/L		04/03/25 16:43	04/03/25 21:28	1
Lead	ND		0.050	0.023	ug/L		04/03/25 16:43	04/03/25 21:28	1

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QC Sample Results														1				
Client: Tetra Tech Inc														2				
Project/Site: Gulf of Thailand - 2025														3				
Method: 1670 - Metals (ICxMS) (Continued)														4				
Lab Sample ID: 350-1618-f N%MSD														Client Sample ID: MWGA-3Cxf -SG -90-FD				
Matr'l : Gater														xrep Pype: Potal4 A				
Analysis Batch: 6066														xrep Batch: 588N				
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit			8				
Arsenic	1.7	H H3 F1	12.5	21.1		ug/L		155	50 - 150	1	20			9				
Cadmium	ND	H H3	1.25	1.24		ug/L		100	50 - 150	4	20			10				
Chromium	1.1	H H3	12.5	14.9		ug/L		110	50 - 150	0	20			11				
Copper	ND	H H3	12.5	13.4		ug/L		107	50 - 150	2	20			12				
Lead	ND	H H3	2.50	2.37		ug/L		95	50 - 150	0	20			13				
Nickel	0.17	J H H3	12.5	12.7		ug/L		100	50 - 150	3	20			14				
Zinc	0.37	J H H3 B	12.5	13.6		ug/L		106	50 - 150	5	20			15				
Barium	9.7	H H3	12.5	27.4		ug/L		141	50 - 150	1	20							
Manganese	0.34	H H3	12.5	14.2		ug/L		111	50 - 150	3	20							
Lab Sample ID: 350-1618-f N%MSD														11				
Matr'l : Gater														12				
Analysis Batch: 607%														13				
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit			14				
Iron	1.4	J H H3 B	62.5	83.2		ug/L		131	50 - 150	1	20			15				
Lab Sample ID: 350-1618-f N5 MS														16				
Matr'l : Gater														17				
Analysis Batch: 6066														18				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit			19				
Arsenic	2.0	H H3 F1	12.5	21.2	F1	ug/L		154	50 - 150					20				
Cadmium	0.013	J H H3	1.25	1.22		ug/L		97	50 - 150					21				
Chromium	1.2	H H3	12.5	15.4		ug/L		114	50 - 150					22				
Copper	ND	H H3	12.5	13.4		ug/L		107	50 - 150					23				
Lead	0.047	J H H3	2.50	2.42		ug/L		95	50 - 150					24				
Nickel	0.25	J H H3	12.5	12.7		ug/L		99	50 - 150					25				
Zinc	0.55	J H H3 B	12.5	13.8		ug/L		106	50 - 150					26				
Barium	11	H H3	12.5	28.7		ug/L		145	50 - 150					27				
Manganese	2.0	H H3	12.5	15.3		ug/L		107	50 - 150					28				
Lab Sample ID: 350-1618-f N5 MS														29				
Matr'l : Gater														30				
Analysis Batch: 607%														31				
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit			32				
Iron	36	H H3 B	62.5	117		ug/L		129	50 - 150					33				
Lab Sample ID: 350-1618-f N5 MSD														34				
Matr'l : Gater														35				
Analysis Batch: 6066														36				
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	z nit	D	9 Rec	9 Rec Limits	RxD	RxD Limit			37				
Arsenic	2.0	H H3 F1	12.5	21.3	F1	ug/L		154	50 - 150	0	20			38				
Cadmium	0.013	J H H3	1.25	1.24		ug/L		98	50 - 150	1	20			39				
Chromium	1.2	H H3	12.5	15.0		ug/L		111	50 - 150	3	20			40				
Copper	ND	H H3	12.5	12.9		ug/L		103	50 - 150	4	20			41				
Lead	0.047	J H H3	2.50	2.39		ug/L		94	50 - 150	1	20			42				
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Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

QC Sample Results

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 6066

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Method: 1670 - Metals (ICxMS) (Continued)

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

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Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

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Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

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Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

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Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client Sample ID: MWGA-3Cxf-SG-B

Matr'l : Gater

Analysis Batch: 607%

Lab Sample ID: 350-1618-f N5 MSD

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

QC Association Summary

Job ID: 350-1619-2

Metals

Prep Batch: 572L

bal Sample ID	Client Sample ID	Prep xype	Matrid	Metho8	Prep Batch
350-1619-246	MGWA-1B2Y	Total/NA	Solid	HF Bomb Prep	
350-1619-247	MGWA-1C2	Total/NA	Solid	HF Bomb Prep	
350-1619-248	MGWA-1CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-249	MGWA-1D2	Total/NA	Solid	HF Bomb Prep	
350-1619-250	MGWA-2B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-251	MGWA-2B2X-FD	Total/NA	Solid	HF Bomb Prep	
350-1619-252	MGWA-2C2	Total/NA	Solid	HF Bomb Prep	
350-1619-253	MGWA-3B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-254	MGWA-3C2	Total/NA	Solid	HF Bomb Prep	
350-1619-255	MGWA-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-256	MGWA-3D2	Total/NA	Solid	HF Bomb Prep	
350-1619-257	MGWA-4B2X	Total/NA	Solid	HF Bomb Prep	
350-1619-258	MGWA-4C2	Total/NA	Solid	HF Bomb Prep	
MB 350-5673/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-5673/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5673/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCSD 350-5673/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1619-255 MS	MGWA-3CP2	Total/NA	Solid	HF Bomb Prep	
350-1619-255 MSD	MGWA-3CP2	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 5470

bal Sample ID	Client Sample ID	Prep xype	Matrid	Metho8	Prep Batch
350-1619-246	MGWA-1B2Y	Total/NA	Solid	1631B CAR Prep	
350-1619-247	MGWA-1C2	Total/NA	Solid	1631B CAR Prep	
350-1619-248	MGWA-1CP2	Total/NA	Solid	1631B CAR Prep	
350-1619-249	MGWA-1D2	Total/NA	Solid	1631B CAR Prep	
350-1619-250	MGWA-2B2X	Total/NA	Solid	1631B CAR Prep	
350-1619-251	MGWA-2B2X-FD	Total/NA	Solid	1631B CAR Prep	
350-1619-252	MGWA-2C2	Total/NA	Solid	1631B CAR Prep	
350-1619-253	MGWA-3B2X	Total/NA	Solid	1631B CAR Prep	
350-1619-254	MGWA-3C2	Total/NA	Solid	1631B CAR Prep	
MB 350-5961/1-A	Method Blank	Total/NA	Solid	1631B CAR Prep	
MB 350-5961/2-A	Method Blank	Total/NA	Solid	1631B CAR Prep	
MB 350-5961/3-A	Method Blank	Total/NA	Solid	1631B CAR Prep	
LCS 350-5961/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR Prep	
LCSD 350-5961/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR Prep	
350-1619-250 MS	MGWA-2B2X	Total/NA	Solid	1631B CAR Prep	
350-1619-250 MSD	MGWA-2B2X	Total/NA	Solid	1631B CAR Prep	

Metals

Prep Batch: 7()

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-255	MGWA-3CP2	Total/NA	Solid	1631B CAR	
350-1619-256	MGWA-3D2	Total/NA	Solid	1631B CAR	
350-1619-257	MGWA-4B2X	Total/NA	Solid	1631B CAR	
350-1619-258	MGWA-4C2	Total/NA	Solid	1631B CAR	
MB 350-6022/1-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-6022/2-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-6022/3-A	Method Blank	Total/NA	Solid	1631B CAR	
LCS 350-6022/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
LCS0 350-6022/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	
350-1619-257 MS	MGWA-4B2X	Total/NA	Solid	1631B CAR	
350-1619-257 MSD	MGWA-4B2X	Total/NA	Solid	1631B CAR	

Analysis Batch: 7(77

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-259	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995
350-1619-260	MGWA-1B2Y-SW-20	Total/NA	Water	1640	5995
350-1619-261	MGWA-1B2Y-SW-40	Total/NA	Water	1640	5995
350-1619-262	MGWA-1B2Y-SW-8	Total/NA	Water	1640	5995
350-1619-263	MGWA-1CP2-SW-1	Total/NA	Water	1640	5995
350-1619-264	MGWA-1CP2-SW-20	Total/NA	Water	1640	5995
350-1619-265	MGWA-1CP2-SW-40	Total/NA	Water	1640	5995
350-1619-266	MGWA-1CP2-SW-8	Total/NA	Water	1640	5995
350-1619-267	MGWA-3B2X-SW-1	Total/NA	Water	1640	5995
350-1619-268	MGWA-3B2X-SW-20	Total/NA	Water	1640	5995
350-1619-269	MGWA-3B2X-SW-40	Total/NA	Water	1640	5995
350-1619-270	MGWA-3B2X-SW-8	Total/NA	Water	1640	5995
350-1619-271	MGWA-3CP2-SW-1	Total/NA	Water	1640	5995
350-1619-272	MGWA-3CP2-SW-20	Total/NA	Water	1640	5995
350-1619-273	MGWA-3CP2-SW-40	Total/NA	Water	1640	5995
350-1619-274	MGWA-3CP2-SW-40-FD	Total/NA	Water	1640	5997
350-1619-275	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997
350-1619-276	MGWA-EQ	Total/NA	Water	1640	5997
350-1619-277	MGWA-WB	Total/NA	Water	1640	5997
MB 350-5995/1-A	Method Blank	Total/NA	Water	1640	5995
MB 350-5995/2-A	Method Blank	Total/NA	Water	1640	5995
MB 350-5997/1-A	Method Blank	Total/NA	Water	1640	5997
MB 350-5997/2-A	Method Blank	Total/NA	Water	1640	5997
LCS 350-5995/3-A	Lab Control Sample	Total/NA	Water	1640	5995
LCS 350-5997/3-A	Lab Control Sample	Total/NA	Water	1640	5997
LCS0 350-5995/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5995
LCS0 350-5997/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5997
350-1619-259 MS	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995
350-1619-259 MSD	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995

Eurofins Seattle Specialty Metals

Metals 9Continue81

Analysis Batch: 7(77 9Continue81

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-274 MS	MGWA-3CP2-SW-40-FD	Total/NA	Water	1640	5997
350-1619-274 MSD	MGWA-3CP2-SW-40-FD	Total/NA	Water	1640	5997
350-1619-275 MS	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997
350-1619-275 MSD	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997
350-1619-259	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995
350-1619-260	MGWA-1B2Y-SW-20	Total/NA	Water	1640	5995
350-1619-261	MGWA-1B2Y-SW-40	Total/NA	Water	1640	5995
350-1619-262	MGWA-1B2Y-SW-8	Total/NA	Water	1640	5995
350-1619-263	MGWA-1CP2-SW-1	Total/NA	Water	1640	5995
350-1619-264	MGWA-1CP2-SW-20	Total/NA	Water	1640	5995
350-1619-265	MGWA-1CP2-SW-40	Total/NA	Water	1640	5995
350-1619-266	MGWA-1CP2-SW-8	Total/NA	Water	1640	5995
350-1619-267	MGWA-3B2X-SW-1	Total/NA	Water	1640	5995
350-1619-268	MGWA-3B2X-SW-20	Total/NA	Water	1640	5995
350-1619-269	MGWA-3B2X-SW-40	Total/NA	Water	1640	5995
350-1619-270	MGWA-3B2X-SW-8	Total/NA	Water	1640	5995
350-1619-271	MGWA-3CP2-SW-1	Total/NA	Water	1640	5995
350-1619-272	MGWA-3CP2-SW-20	Total/NA	Water	1640	5995
350-1619-273	MGWA-3CP2-SW-40	Total/NA	Water	1640	5995
350-1619-274	MGWA-3CP2-SW-40-FD	Total/NA	Water	1640	5997
350-1619-275	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997
350-1619-276	MGWA-EQ	Total/NA	Water	1640	5997
350-1619-277	MGWA-WB	Total/NA	Water	1640	5997
MB 350-5995/1-A	Method Blank	Total/NA	Water	1640	5995
MB 350-5995/2-A	Method Blank	Total/NA	Water	1640	5995
MB 350-5997/1-A	Method Blank	Total/NA	Water	1640	5997
MB 350-5997/2-A	Method Blank	Total/NA	Water	1640	5997
LCS 350-5995/3-A	Lab Control Sample	Total/NA	Water	1640	5995
LCS 350-5997/3-A	Lab Control Sample	Total/NA	Water	1640	5997
LCS0 350-5995/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5995
LCS0 350-5997/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5997
350-1619-259 MS	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995
350-1619-259 MSD	MGWA-1B2Y-SW-1	Total/NA	Water	1640	5995
350-1619-274 MS	MGWA-3CP2-SW-40-FD	Total/NA	Water	1640	5997
350-1619-275 MS	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997
350-1619-275 MSD	MGWA-3CP2-SW-8	Total/NA	Water	1640	5997

Analysis Batch: 732)

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-259	MGWA-1B2Y-SW-1	Total/NA	Water	1631E	
350-1619-260	MGWA-1B2Y-SW-20	Total/NA	Water	1631E	
350-1619-261	MGWA-1B2Y-SW-40	Total/NA	Water	1631E	
350-1619-262	MGWA-1B2Y-SW-8	Total/NA	Water	1631E	
350-1619-263	MGWA-1CP2-SW-1	Total/NA	Water	1631E	
350-1619-264	MGWA-1CP2-SW-20	Total/NA	Water	1631E	
350-1619-265	MGWA-1CP2-SW-40	Total/NA	Water	1631E	
350-1619-266	MGWA-1CP2-SW-8	Total/NA	Water	1631E	

Eurofins Seattle Specialty Metals

Metals 9Continue81

Analysis Batch: 732) 9Continue81

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-267	MGWA-3B2X-SW-1	Total/NA	Water	1631E	
350-1619-268	MGWA-3B2X-SW-20	Total/NA	Water	1631E	
350-1619-269	MGWA-3B2X-SW-40	Total/NA	Water	1631E	
350-1619-270	MGWA-3B2X-SW-8	Total/NA	Water	1631E	
350-1619-271	MGWA-3CP2-SW-1	Total/NA	Water	1631E	
350-1619-272	MGWA-3CP2-SW-20	Total/NA	Water	1631E	
350-1619-273	MGWA-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-274	MGWA-3CP2-SW-40-FD	Total/NA	Water	1631E	
350-1619-275	MGWA-3CP2-SW-8	Total/NA	Water	1631E	
350-1619-276	MGWA-EQ	Total/NA	Water	1631E	
350-1619-277	MGWA-WB	Total/NA	Water	1631E	
MB 350-6472/11	Method Blank	Total/NA	Water	1631E	
MB 350-6472/12	Method Blank	Total/NA	Water	1631E	
MB 350-6472/13	Method Blank	Total/NA	Water	1631E	
MB 350-6472/14	Method Blank	Total/NA	Water	1631E	
MB 350-6472/15	Method Blank	Total/NA	Water	1631E	
MB 350-6472/16	Method Blank	Total/NA	Water	1631E	
LCS 350-6472/20	Lab Control Sample	Total/NA	Water	1631E	
LCS 350-6472/52	Lab Control Sample	Total/NA	Water	1631E	
LCS0 350-6472/23	Lab Control Sample Dup	Total/NA	Water	1631E	
LCS0 350-6472/53	Lab Control Sample Dup	Total/NA	Water	1631E	
350-1619-273 MS	MGWA-3CP2-SW-40	Total/NA	Water	1631E	
350-1619-273 MSD	MGWA-3CP2-SW-40-FD	Total/NA	Water	1631E	
350-1619-274 MS	MGWA-3CP2-SW-40-FD	Total/NA	Water	1631E	
350-1619-274 MSD	MGWA-3CP2-SW-40-FD	Total/NA	Water	1631E	

Analysis Batch: 7765

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-255	MGWA-3CP2	Total/NA	Solid	1631B	6022
350-1619-256	MGWA-3D2	Total/NA	Solid	1631B	6022
350-1619-257	MGWA-4B2X	Total/NA	Solid	1631B	6022
350-1619-258	MGWA-4C2	Total/NA	Solid	1631B	6022
MB 350-6022/1-A	Method Blank	Total/NA	Solid	1631B	6022
MB 350-6022/2-A	Method Blank	Total/NA	Solid	1631B	6022
MB 350-6022/3-A	Method Blank	Total/NA	Solid	1631B	6022
LCS 350-6022/4-A	Lab Control Sample	Total/NA	Solid	1631B	6022
LCS0 350-6022/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	6022
350-1619-257 MS	MGWA-4B2X	Total/NA	Solid	1631B	6022
350-1619-257 MSD	MGWA-4B2X	Total/NA	Solid	1631B	6022

Analysis Batch: 72L7

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-247	MGWA-1C2	Total/NA	Solid	1631B	5961
350-1619-248	MGWA-1CP2	Total/NA	Solid	1631B	5961
350-1619-249	MGWA-1D2	Total/NA	Solid	1631B	5961
350-1619-250	MGWA-2B2X	Total/NA	Solid	1631B	5961
350-1619-251	MGWA-2B2X-FD	Total/NA	Solid	1631B	5961
350-1619-252	MGWA-2C2	Total/NA	Solid	1631B	5961
350-1619-253	MGWA-3B2X	Total/NA	Solid	1631B	5961
350-1619-254	MGWA-3C2	Total/NA	Solid	1631B	5961
MB 350-5961/1-A	Method Blank	Total/NA	Solid	1631B	5961

Eurofins Seattle Specialty Metals

Metals 9Continue81

Analysis Batch: 72L7 9Continue81

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
MB 350-5961/2-A	Method Blank	Total/NA	Solid	1631B	5961
MB 350-5961/3-A	Method Blank	Total/NA	Solid	1631B	5961
MB 350-5979/1-A	Method Blank	Total/NA	Solid	1631B	5979
MB 350-5979/2-A	Method Blank	Total/NA	Solid	1631B	5979
MB 350-5979/3-A	Method Blank	Total/NA	Solid	1631B	5979
LCS 350-5961/4-A	Lab Control Sample	Total/NA	Solid	1631B	5961
LCS 350-5979/4-A	Lab Control Sample	Total/NA	Solid	1631B	5979
LCS0 350-5961/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5961
LCS0 350-5979/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5979
350-1619-250 MS	MGWA-2B2X	Total/NA	Solid	1631B	5961
350-1619-250 MSD	MGWA-2B2X	Total/NA	Solid	1631B	5961

Analysis Batch: 76) 0

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-246	MGWA-1B2Y	Total/NA	Solid	1631B	5961

Analysis Batch: 764L

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-246	MGWA-1B2Y	Total/NA	Solid	1638	5673
350-1619-247	MGWA-1C2	Total/NA	Solid	1638	5673
350-1619-248	MGWA-1CP2	Total/NA	Solid	1638	5673
350-1619-249	MGWA-1D2	Total/NA	Solid	1638	5673
350-1619-250	MGWA-2B2X	Total/NA	Solid	1638	5673
350-1619-251	MGWA-2B2X-FD	Total/NA	Solid	1638	5673
350-1619-252	MGWA-2C2	Total/NA	Solid	1638	5673
350-1619-253	MGWA-3B2X	Total/NA	Solid	1638	5673
350-1619-254	MGWA-3C2	Total/NA	Solid	1638	5673
350-1619-255	MGWA-3CP2	Total/NA	Solid	1638	5673
350-1619-256	MGWA-3D2	Total/NA	Solid	1638	5673
350-1619-257	MGWA-4B2X	Total/NA	Solid	1638	5673
350-1619-258	MGWA-4C2	Total/NA	Solid	1638	5673
MB 350-5673/1-A	Method Blank	Total/NA	Solid	1638	5673
MB 350-5673/2-A	Method Blank	Total/NA	Solid	1638	5673
LCS 350-5673/3-A	Lab Control Sample	Total/NA	Solid	1638	5673
LCS0 350-5673/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5673
350-1619-255 MS	MGWA-3CP2	Total/NA	Solid	1638	5673
350-1619-255 MSD	MGWA-3CP2	Total/NA	Solid	1638	5673

General Chemistry

Analysis Batch:

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

QC Association Summary

Job ID: 350-1619-2

General Chemistry 9Continue81

Analysis Batch: 7(2) 9Continue81

bal Sample ID	Client Sample ID	Prep type	Matrid	Metho8	Prep Batch
350-1619-248	MGWA-1CP2	Total/NA	Solid	Moisture - 2540	
350-1619-249	MGWA-1D2	Total/NA	Solid	Moisture - 2540	
350-1619-250	MGWA-2B2X	Total/NA	Solid	Moisture - 2540	
350-1619-251	MGWA-2B2X-FD	Total/NA	Solid	Moisture - 2540	
350-1619-252	MGWA-2C2	Total/NA	Solid	Moisture - 2540	
350-1619-253	MGWA-3B2X	Total/NA	Solid	Moisture - 2540	
350-1619-254	MGWA-3C2	Total/NA	Solid	Moisture - 2540	

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Client Sample ID: NP - 1 35D6

Date CollecteT: d6yR6x dRM6

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36R

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35D6

Date CollecteT: d6yR6x dRM6

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36R

Nativr: SolIT

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6736 CL	EET SSM	05/06/25 19:19
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:27

Client Sample ID: NP - 1 35D6W

Date CollecteT: d6yR6x 5R/5

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36xd

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35D6W

Date CollecteT: d6yR6x 5R/5

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36xd

Nativr: SolIT

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6736 CL	EET SSM	05/06/25 13:32
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:30

Client Sample ID: NP - 1 35D6WBD

Date CollecteT: d6yR6x 5R/M

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36x5

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35D6WBD

Date CollecteT: d6yR6x 5R/M

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36x5

Nativr: SolIT

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		200	6736 CL	EET SSM	05/06/25 16:28
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:32

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-2

Client Sample ID: NP - 1 35D69

Date CollecteT: d6yR6x 5MM2

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36R2

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35D69

Date CollecteT: d6yR6x 5MM2

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36R2

Nativr: SolIT

z ercent SolITF: R7E

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		10000	6821 COW	EET SSM	05/14/25 16:11
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:20

Client Sample ID: NP - 1 35C6

Date CollecteT: d6yR6x dx:6R

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36RG

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35C6

Date CollecteT: d6yR6x dx:6R

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36RG

Nativr: SolIT

z ercent SolITF: R6M

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		100	6736 CL	EET SSM	05/06/25 16:16
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:22

Client Sample ID: NP - 1 35C6z

Date CollecteT: d6yR6x dMx6

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36R7

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35C6z

Date CollecteT: d6yR6x dMx6

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36R7

Nativr: SolIT

z ercent SolITF: R6B

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		200	6736 CL	EET SSM	05/06/25 16:20
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:25

Client: Tetra Tech Inc

Project/Site: Gulf of Thailand - 2025

Lab Chronicle

Job ID: 350-1619-2

Client Sample ID: NP - 1 35C6

Date CollecteT: d6yR6x 5x:d2

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36x6

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35C6

Date CollecteT: d6yR6x 5x:d2

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36x6

Nativr: SolIT

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		30	6736 CL	EET SSM	05/06/25 19:23
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:35

Client Sample ID: NP - 1 35D6W

Date CollecteT: d6yM6x 6d:M6

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36xM

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35D6W

Date CollecteT: d6yM6x 6d:M6

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36xM

Nativr: SolIT

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		200	6736 CL	EET SSM	05/06/25 16:45
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:37

Client Sample ID: NP - 1 35C6

Date CollecteT: d6yM6x 65:6R

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36xR

Nativr: SolIT

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Analysis	Moisture - 2540		1	6070 JS	EET SSM	04/07/25 20:29

Client Sample ID: NP - 1 35C6

Date CollecteT: d6yM6x 65:6R

Date BeceIAeT: dMj2y6x 5d:Mt

Lab Sample ID: Mkd3525/ 36xR

Nativr: SolIT

z ercent SolITF: RGE

z rep supe	0 atch supe	0 atch NethoT	B. n	Dil. tion 8actor	0 atch X. mber 1 naluFt	Lab	z repareT or 1 nalu4eT
Total/NA	Prep	1631B CAR Prep			5961 JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		200	6736 CL	EET SSM	05/06/25 16:49
Total/NA	Prep	HF Bomb Prep			5673 JS	EET SSM	03/19/25 17:28
Total/NA	Analysis	1638		1	6893 COW	EET SSM	05/14/25 16:40

Sample Summary

Job ID: 350-1619-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1619-246	MGWA-1B2Y	Solid	02/04/25 13:36	03/06/25 10:30
350-1619-247	MGWA-1C2	Solid	02/04/25 05:24	03/06/25 10:30
350-1619-248	MGWA-1CP2	Solid	02/04/25 03:52	03/06/25 10:30
350-1619-249	MGWA-1D2	Solid	02/04/25 04:31	03/06/25 10:30
350-1619-250	MGWA-2B2X	Solid	02/04/25 14:19	03/06/25 10:30
350-1619-251	MGWA-2B2X-FD	Solid	02/04/25 14:38	03/06/25 10:30
350-1619-252	MGWA-2C2	Solid	02/04/25 15:06	03/06/25 10:30
350-1619-253	MGWA-3B2X	Solid	02/03/25 20:31	03/06/25 10:30
350-1619-254	MGWA-3C2	Solid	02/03/25 21:24	03/06/25 10:30
350-1619-255	MGWA-3CP2	Solid	02/03/25 22:10	03/06/25 10:30
350-1619-256	MGWA-3D2	Solid	02/03/25 22:49	03/06/25 10:30
350-1619-257	MGWA-4B2X	Solid	02/04/25 12:44	03/06/25 10:30
350-1619-258	MGWA-4C2	Solid	02/03/25 23:24	03/06/25 10:30
350-1619-259	MGWA-1B2Y-SW-1	Water	02/04/25 00:46	03/06/25 10:30
350-1619-260	MGWA-1B2Y-SW-20	Water	02/04/25 00:52	03/06/25 10:30
350-1619-261	MGWA-1B2Y-SW-40	Water	02/04/25 01:01	03/06/25 10:30
350-1619-262	MGWA-1B2Y-SW-B	Water	02/04/25 01:13	03/06/25 10:30
350-1619-263	MGWA-1CP2-SW-1	Water	02/04/25 02:04	03/06/25 10:30
350-1619-264	MGWA-1CP2-SW-20	Water	02/04/25 02:14	03/06/25 10:30
350-1619-265	MGWA-1CP2-SW-40	Water	02/04/25 02:22	03/06/25 10:30
350-1619-266	MGWA-1CP2-SW-B	Water	02/04/25 02:35	03/06/25 10:30
350-1619-267	MGWA-3B2X-SW-1	Water	02/03/23 19:23	03/06/25 10:30
350-1619-268	MGWA-3B2X-SW-20	Water	02/03/23 19:33	03/06/25 10:30
350-1619-269	MGWA-3B2X-SW-40	Water	02/03/23 19:41	03/06/25 10:30
350-1619-270	MGWA-3B2X-SW-B	Water	02/03/23 19:51	03/06/25 10:30
350-1619-271	MGWA-3CP2-SW-1	Water	02/03/23 16:23	03/06/25 10:30
350-1619-272	MGWA-3CP2-SW-20	Water	02/03/23 16:31	03/06/25 10:30
350-1619-273	MGWA-3CP2-SW-40	Water	02/03/23 16:39	03/06/25 10:30
350-1619-274	MGWA-3CP2-SW-40-FD	Water	02/03/23 16:49	03/06/25 10:30
350-1619-275	MGWA-3CP2-SW-B	Water	02/03/23 16:59	03/06/25 10:30
350-1619-276	MGWA-EQ	Water	02/03/25 07:45	03/06/25 10:30
350-1619-277	MGWA-WB	Water	02/03/25 07:40	03/06/25 10:30

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Eurofins Seattle Specialty Metals
5/23/2025

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Ship To:
Lilly-Anna Account
Eurofins Specialty Metals Testing
5755 8th St. E
Fife, WA 98424
USA

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

CHAIN OF CUSTODY

350-1619 Chain of Custody

General Notes:
Each Project Specifies a different set of metals
Please report all results to the MDL, J-flag results between MDL and RL
Please report results and invoice separately for each Project ID
Please report results in pdf format with Excel EDD deliverable

Standard Processing

Project	Sample ID	Date	Time	Medium	Preserve	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPCCP-1C1	2/16/2025	3:55	SED	Frozen	1	1	1	1
1779.27	NPCCP-1C1-FD	2/16/2025	4:14	SED	Frozen	1	1	1	1
1779.27	NPCCP-1C2	2/16/2025	2:53	SED	Frozen	1	1	1	1
1779.27	NPCCP-1C2	2/16/2025	8:12	SED	Frozen	1	1	1	1
1779.27	NPCCP-1CP1	2/16/2025	7:36	SED	Frozen	1	1	1	1
1779.27	NPCCP-1CP2	2/16/2025	5:55	SED	Frozen	1	1	1	1
1779.27	NPCCP-1C3	2/15/2025	1:48	SED	Frozen	1	1	1	1
1779.27	NPCCP-1E2	2/15/2025	1:05	SED	Frozen	1	1	1	1
1779.27	NPCCP-1F2	2/15/2025	0:22	SED	Frozen	1	1	1	1
1779.27	NPCCP-1G2	2/14/2025	22:53	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C1X	2/16/2025	4:54	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C2	2/16/2025	5:22	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C2	2/15/2025	5:42	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C2	2/15/2025	6:22	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C1	2/15/2025	1:45	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C2	2/15/2025	22:58	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C1X	2/15/2025	20:36	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C1X-FD	2/15/2025	20:44	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C1	2/15/2025	17:41	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C2	2/15/2025	11:07	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C1X	2/15/2025	16:23	SED	Frozen	1	1	1	1
1779.27	NPCCP-3C3	2/16/2025	9:50	SED	Frozen	1	1	1	1
1779.27	NPCCP-3E2	2/16/2025	10:28	SED	Frozen	1	1	1	1
1779.27	NPCCP-3F2X	2/16/2025	11:05	SED	Frozen	1	1	1	1
1779.27	NPCCP-3G1	2/16/2025	13:04	SED	Frozen	1	1	1	1
1779.27	NPCCP-4C2	2/15/2025	19:59	SED	Frozen	1	1	1	1
1779.27	NPCCP-4C2	2/15/2025	15:27	SED	Frozen	1	1	1	1
1779.27	NPCCP-4D2	2/15/2025	18:54	SED	Frozen	1	1	1	1
1779.27	NPCCP-4E2	2/15/2025	19:56	SED	Frozen	1	1	1	1
1779.27	NPCCP-4F2	2/15/2025	21:54	SED	Frozen	1	1	1	1
1779.27	NPCCP-4G2	2/15/2025	22:27	SED	Frozen	1	1	1	1
1779.27	NPCCP-4H2	2/15/2025	22:47	SED	Frozen	1	1	1	1
1779.27	NPCCP-4I2	2/15/2025	23:18	SED	Frozen	1	1	1	1
1779.27	NPCCP-4J2	2/14/2025	4:51	SED	Frozen	1	1	1	1
1779.27	NPCCP-4K2	2/14/2025	5:13	SED	Frozen	1	1	1	1
1779.27	NPCCP-4L2	2/14/2025	3:00	SED	Frozen	1	1	1	1
1779.27	NPCCP-4M2	2/14/2025	4:08	SED	Frozen	1	1	1	1
1779.27	NPCCP-4N2	2/14/2025	18:54	SED	Frozen	1	1	1	1

Relinquished by: *AR*
2 6 FEB 2025

Received by: *Jose Suf (EFTN)*
3/1/25
18:38

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5/23/2025

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Ship To:
Lilly-Anna Account
Eurofins Specialty Metals Testing
5755 8th St. E
Fife, WA 98424
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CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M		Dry Height	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	
						10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640			
1779.27	NPWB-3C2X	2/14/2025	5:33	SED	Frozen	1	1		10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-3B2	2/14/2025	18:29	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-3C2	2/14/2025	20:22	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-3D2	2/14/2025	21:24	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-3E2	2/14/2025	21:55	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-4B3X	2/14/2025	19:19	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-4C2	2/14/2025	19:52	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-1B2X	2/17/2025	10:17	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-1B2X-FD	2/17/2025	10:42	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-1C2	2/17/2025	5:05	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-1C2P2	2/17/2025	3:37	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-1D2	2/17/2025	4:14	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-2B2X	2/16/2025	22:45	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.29	NPWB-2C2	2/16/2024	30:04	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-3B2X	2/17/2025	15:36	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-3C2	2/17/2025	14:17	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-3C2P2	2/16/2025	16:47	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-3D2	2/16/2025	17:16	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-4B2X	2/17/2025	16:50	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWB-4C2	2/17/2025	16:50	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-1C1	2/19/2025	0:48	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-1C2A	2/17/2025	22:46	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-1C3X	2/19/2025	1:32	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-1C1P1	2/19/2025	10:41	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-1C2P2A	2/17/2025	23:19	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-1C2P1	2/19/2025	11:23	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-1C2	2/19/2025	21:28	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-1E2	2/18/2025	20:52	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-1F2	2/19/2025	20:16	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-1G2	2/19/2025	19:39	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-2C2	2/19/2025	2:15	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-2C2P2	2/19/2025	23:14	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-2C2	2/19/2025	22:32	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-3C1	2/19/2025	10:36	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-3C2Y	2/19/2025	9:49	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-3C3X	2/19/2025	9:15	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-3C1X	2/19/2025	3:00	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-3C2P2	2/19/2025	4:00	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-3C3P3	2/19/2025	4:44	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-3D2X	2/19/2025	5:27	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-3E2A	2/19/2025	11:22	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-3F2X	2/19/2025	12:46	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-3G2	2/19/2025	13:35	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PACPR-3H2	2/19/2025	3:46	SED	Frozen	1	1	1	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640

Ship To:
Lilly-Anna Lacombe
Eurofins Specialty Metals Testing
5755 8th St. E
Rife, WA 98424
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)	10 Metals (Au, Ba, Bi, Cd, Co, Cr, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (Au, Ba, Bi, Cd, Co, Cr, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPCCP-3C2-SW-20	2/15/2025	22:59	SW	Frozen					
1779.27	NPCCP-3C2-SW-40	2/15/2025	22:17	SW	Frozen				1	1
1779.27	NPCCP-3C2-SW-8	2/15/2025	22:27	SW	Frozen				1	1
1779.27	NPCCP-3C2-SW-1	2/15/2025	18:13	SW	Frozen				1	1
1779.27	NPCCP-3C2-SW-20	2/15/2025	19:18	SW	Frozen				1	1
1779.27	NPCCP-3C2-SW-40	2/15/2025	19:28	SW	Frozen				1	1
1779.27	NPCCP-3C2-SW-8	2/15/2025	18:39	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-1	2/15/2025	4:29	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-20	2/15/2025	4:38	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-40	2/15/2025	4:44	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-8	2/15/2025	4:45	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-1	2/15/2025	20:50	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-20	2/15/2025	20:57	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-40	2/15/2025	20:54	SW	Frozen				1	1
1779.27	NPCCP-4C2-SW-8	2/15/2025	20:59	SW	Frozen				1	1
1779.27	NPREF-A-SW-20	2/12/2025	21:35	SW	Frozen				1	1
1779.27	NPREF-A-SW-40	2/12/2025	21:11	SW	Frozen				1	1
1779.27	NPREF-A-SW-8	2/12/2025	21:21	SW	Frozen				1	1
1779.27	NPREF-A-SW-1	2/12/2025	20:57	SW	Frozen				1	1
1779.27	NPREF-A-SW-20	2/12/2025	20:50	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-1	2/14/2025	0:47	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-20	2/14/2025	0:14	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-40	2/14/2025	1:02	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-8	2/14/2025	1:11	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-1	2/14/2025	1:51	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-20	2/14/2025	1:57	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-40	2/14/2025	2:09	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-8	2/14/2025	2:30	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-1	2/14/2025	13:22	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-20	2/14/2025	13:57	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-40	2/14/2025	16:08	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-8	2/14/2025	16:18	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-1	2/14/2025	14:11	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-20	2/14/2025	14:19	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-40	2/14/2025	14:45	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-8	2/14/2025	14:51	SW	Frozen				1	1
1779.27	NPWB-3C2-SW-1	2/14/2025	13:52	SW	Frozen				1	1
1779.27	NPWB-EQ	2/14/2025	6:15	SW	Frozen				1	1
1779.27	NPWB-WB	2/14/2025	6:10	SW	Frozen				1	1
1779.27	NPWB-1B2X-SW-1	2/17/2025	0:58	SW	Frozen				1	1
1779.27	NPWB-1B2X-SW-20	2/17/2025	1:01	SW	Frozen				1	1
1779.27	NPWB-1B2X-SW-40	2/17/2025	1:52	SW	Frozen				1	1
1779.27	NPWB-1B2X-SW-8	2/17/2025	1:51	SW	Frozen				1	1
1779.27	NPWB-1C2-SW-1	2/17/2025	2:01	SW	Frozen				1	1

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5/23/2025

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Lilly-Anna Lacombe
Eurofins Specialty Metals Testing
5755 8th St. E
Rife, WA 98424
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)	10 Metals (Au, Ba, Bi, Cd, Co, Cr, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (Au, Ba, Bi, Cd, Co, Cr, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	NPWG-1C2-SW-20	2/17/2025	2:10	SW	Frozen					
1779.27	NPWG-1C2-SW-40	2/17/2025	2:18	SW	Frozen				1	1
1779.27	NPWG-1C2-SW-8	2/17/2025	2:28	SW	Frozen				1	1
1779.27	NPWG-3B2X-SW-1	2/16/2025	20:10	SW	Frozen				1	1
1779.27	NPWG-3B2X-SW-20	2/16/2025	20:16	SW	Frozen				1	1
1779.27	NPWG-3B2X-SW-40	2/16/2025	20:41	SW	Frozen				1	1
1779.27	NPWG-3B2X-SW-8	2/16/2025	20:51	SW	Frozen				1	1
1779.27	NPWG-3B2X-SW-1	2/16/2025	21:04	SW	Frozen				1	1
1779.27	NPWG-3C2-SW-1	2/16/2025	19:16	SW	Frozen				1	1
1779.27	NPWG-3C2-SW-20	2/16/2025	19:22	SW	Frozen				1	1
1779.27	NPWG-3C2-SW-40	2/16/2025	19:10	SW	Frozen				1	1
1779.27	NPWG-3C2-SW-8	2/16/2025	19:40	SW	Frozen				1	1
1779.27	NPWG-EQ	2/16/2025	19:56	SW	Frozen				1	1
1779.27	NPWG-WB	2/16/2025	19:50	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-1	2/17/2025	20:51	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-20	2/17/2025	20:57	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-40	2/17/2025	20:54	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-8	2/17/2025	20:24	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-1	2/17/2025	21:51	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-20	2/17/2025	21:11	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-40	2/17/2025	21:19	SW	Frozen				1	1
1779.27	PACPP-1C2X-SW-8	2/17/2025	21:29	SW	Frozen				1	1
1779.27	PACPP-2C2-SW-1	2/18/2025	17:05	SW	Frozen				1	1
1779.27	PACPP-2C2-SW-20	2/18/2025	17:11	SW	Frozen				1	1
1779.27	PACPP-2C2-SW-40	2/18/2025	17:19	SW	Frozen				1	1
1779.27	PACPP-2C2-SW-8	2/18/2025	17:59	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-1	2/18/2025	0:59	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-20	2/18/2025	1:06	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-40	2/18/2025	1:16	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-8	2/18/2025	1:25	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-1	2/18/2025	2:07	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-20	2/18/2025	2:17	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-40	2/18/2025	2:26	SW	Frozen				1	1
1779.27	PACPP-3C2-SW-8	2/18/2025	2:36	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-1	2/18/2025	13:47	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-20	2/18/2025	13:57	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-40	2/18/2025	13:58	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-8	2/18/2025	16:06	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-1	2/18/2025	16:18	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-20	2/18/2025	16:18	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-40	2/18/2025	19:07	SW	Frozen				1	1
1779.27	PACPP-4C2-SW-8	2/18/2025	19:02	SW	Frozen				1	1
1779.27	PARF-A-SW-1	2/17/2025	16:21	SW	Frozen				1	1
1779.27	PARF-A-SW-20	2/17/2025	16:17	SW	Frozen				1	1
1779.27	PARF-A-SW-40	2/17/2025	16:41	SW	Frozen				1	1

Relinquished by:

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Received by:

Received by:

5 of 12

Page 63 of 88

5/23/2025

Ship To:
Lilly-Anna Lacombe
Eurofins Specialty Metals Testing
5755 8th St. E
Rife, WA 98424
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)	10 Metals (Au, Ba, Bi, Cd, Co, Cr, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (Au, Ba, Bi, Cd, Co, Cr, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.27	PAWE-A-SW-8	2/11/2025	16:51	SW	Frozen					
1779.27	PAWE-1C2-SW-1	2/21/2025	0:41	SW	Frozen				1	1
1779.27	PAWE-1C2-SW-20	2/21/2025	0:50	SW	Frozen				1	1
1779.27	PAWE-1C2-SW-40	2/21/2025	0:58	SW	Frozen				1	1
1779.27	PAWE-1C2-SW-8	2/21/2025	1:11	SW	Frozen				1	1
1779.27	PAWE-3B2-SW-1	2/21/2025	13:45	SW	Frozen				1	1
1779.27	PAWE-3B2-SW-20	2/21/2025	13:51	SW	Frozen				1	1
1779.27	PAWE-3B2-SW-40	2/21/2025	13:59	SW	Frozen				1	1
1779.27	PAWE-3B2-SW-8	2/21/2025	14:09	SW	Frozen				1	1
1779.27	PAWE-3C2-SW-1	2/21/2025	2:18	SW	Frozen				1	1
1779.27	PAWE-3C2-SW-20	2/21/2025	2:25	SW	Frozen				1	1
1779.27	PAWE-3C2-SW-40	2/21/2025	2:34	SW	Frozen				1	1
1779.27	PAWE-3C2-SW-8	2/21/2025	2:49	SW	Frozen				1	1
1779.27	PAWE-1B1-SW-1	2/20/2025	14:04	SW	Frozen				1	1
1779.27	PAWE-1B1-SW-20	2/20/2025	14:11	SW	Frozen				1	1
1779.27	PAWE-1B1-SW-40	2/20/2025	14:19	SW	Frozen				1	1
1779.27	PAWE-1B1-SW-8	2/20/2025	14:29	SW	Frozen				1	1
1779.27	PAWE-1C2-SW-1	2/19/2025	21:11	SW	Frozen				1	1
1779.27	PAWE-1C2-SW-20	2/19/2025	21:16	SW	Frozen				1	1
1779.27	PAWE-1C2-SW-40	2/19/2025	21:27	SW	Frozen				1	1
1779.27	PAWE-1C2-SW-8	2/19/2025	21:17	SW	Frozen				1	1
1779.27	PAWE-3B3-SW-1	2/20/2025	12:50	SW	Frozen				1	1
1779.27	PAWE-3B3-SW-20	2/20/2025	13:01	SW	Frozen				1	1
1779.27	PAWE-3B3-SW-40	2/20/2025	13:14	SW	Frozen				1	1
1779.27	PAWE-3B3-SW-8	2/20/2025	13:24	SW	Frozen				1	1
1779.27	PAWE-3C2-SW-1	2/19/2025	19:38	SW	Frozen				1	1
1779.27	PAWE-3C2-SW-20	2/19/2025	19:14	SW	Frozen				1	1
1779.27	PAWE-3C2-SW-40	2/19/2025	19:41	SW	Frozen				1	1
1779.27	PAWE-3C2-SW-8	2/19/2025	19:47	SW	Frozen				1	1
1779.27	PAWE-EQ	2/19/2025	19:56	SW	Frozen				1	1
1779.27	PAWE-WB	2/19/2025	19:50	SW	Frozen				1	1
1779.28	MGWA-1B2V	2/4/2025	13:36	SED	Frozen		1	1	1	
1779.28	MGWA-1C2	2/4/2025	5:24	SED	Frozen		1	1	1	
1779.28	MGWA-1C2	2/4/2025	2:52	SED	Frozen		1	1	1	
1779.28	MGWA-1C2	2/4/2025	4:31	SED	Frozen		1	1	1	
1779.28	MGWA-2B2X	2/4/2025	4:31	SED	Frozen		1	1	1	
1779.28	MGWA-2B2V-FD	2/4/2025	14:38	SED	Frozen		1	1	1	
1779.28	MGWA-3B2	2/4/2025	15:56	SED	Frozen		1	1	1	
1779.28	MGWA-3B2A	2/3/2025	20:31	SED	Frozen		1	1	1	
1779.28	MGWA-3C2	2/3/2025	21:24	SED	Frozen		1	1	1	
1779.28	MGWA-3C2	2/3/2025	22:10	SED	Frozen		1	1	1	
1779.28	MGWA-3C2	2/3/2025	22:49	SED	Frozen		1	1	1	

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Ng (EPA 823 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, P, Zn) EPA 823 B	16 Metals (As, Ba, Cd, Co, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Zn) EPA 823 B	Dry Weight	Ng (EPA 823 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, P, Zn) EPA 8460	16 Metals (As, Ba, Cd, Co, Cr, Cu, Fe, Hg, Mn, Ni, Pb, Zn) EPA 8460
T779-31-B	PMWH-Center-G1	2/11/2025	5:34	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	PMWH-Center-G2	2/11/2025	5:38	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	PMWH-Center-G3	2/11/2025	5:57	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	PMWH-Center-X(0-5)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	PMWH-Center-X-(10-15)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	PMWH-Center-X-(15-20)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	PMWH-Center-X-(6-10)	2/11/2025	6:12	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	SAREF-A	2/11/2025	14:52	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	SAREF-B	2/11/2025	15:19	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	SAREF-C	2/11/2025	16:45	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	STPLB-M1	2/23/2025	2:31	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	STPLB-M2	2/23/2025	2:39	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	STPLB-M3	2/23/2025	6:31	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	STPLB-M4	2/23/2025	8:42	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	STPLB-N1	2/23/2025	9:20	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	STPLB-N2	2/23/2025	9:42	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	STPLB-S1	2/23/2025	0:53	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	STPLB-S2	2/23/2025	1:21	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	TROLA-E1	2/23/2025	17:33	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	TROLA-E2	2/23/2025	17:49	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	TROLA-M1	2/23/2025	15:12	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	TROLA-S2	2/23/2025	16:51	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	TROLA-W1	2/23/2025	12:47	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	TROLA-W1-FD	2/23/2025	12:36	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	TROLA-W2	2/23/2025	13:16	SED	Frozen	1	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-1	2/22/2025	3:35	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-20	2/22/2025	3:41	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	BAPLHM-SW-40	2/22/2025	3:49	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	BAPLHM-SW-6	2/22/2025	4:01	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-1	2/22/2025	5:19	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-1-FD	2/22/2025	5:24	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-20	2/22/2025	5:30	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-40	2/22/2025	5:38	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	BAPLHAM-SW-6	2/22/2025	5:49	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	POPLB-EQ	2/11/2025	19:07	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-1	2/11/2025	21:36	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-20	2/11/2025	21:30	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-40	2/11/2025	21:30	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-6	2/11/2025	21:10	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-1	2/11/2025	19:16	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-20	2/11/2025	19:22	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-40	2/11/2025	19:29	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	POPLB-M2-SW-6	2/11/2025	19:40	SW	Frozen	1	1	1	1	1	1	1
T779-31-B	POPLB-SW-1	2/11/2025	19:40	SW	Frozen	1	1	1	1	1	1	1

Relinquished by: _____
Received by: Jane Suhl (G6W)
3/11/25
18:38

Report to:
Dr. Ted Donn
Tetra Tech Inc.
Lafayette, CA
ted.donn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)		Hg (EPA 1631 E)	
						10 Metals (Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	18 Metals (Al, Ba, Cd, Co, Cr, Fe, Pb, Ni, P, Zn) EPA 1660		
W779.32	ERPLGRXLG-H2	2/12/2025	8:53	SED	Frozen	1	1		
W779.32	ERPLGRXKL-S1	2/12/2025	11:23	SED	Frozen	1	1		
W779.32	ERPLGRXKL-G-S2	2/12/2025	13:22	SED	Frozen	1	1		
W779.32	ERREF2-A-SW-1	2/12/2025	17:30	SED	Frozen	1	1		
W779.32	ERREF2-B	2/12/2025	17:37	SED	Frozen	1	1		
W779.32	ERREF2-C	2/12/2025	17:59	SED	Frozen	1	1		
W779.32	JWPLCL-E1	2/22/2025	22:20	SED	Frozen	1	1		
W779.32	JWPLCL-E2	2/22/2025	22:56	SED	Frozen	1	1		
W779.32	JWPLCL-M1	2/22/2025	18:10	SED	Frozen	1	1		
W779.32	JWPLCL-M2	2/22/2025	16:24	SED	Frozen	1	1		
W779.32	JWPLCL-M3	2/22/2025	18:19	SED	Frozen	1	1		
W779.32	JWPLCL-M4	2/22/2025	19:31	SED	Frozen	1	1		
W779.32	JWPLCL-W1	2/22/2025	13:44	SED	Frozen	1	1		
W779.32	JWPLCL-W2	2/22/2025	18:55	OCED	Frozen	1	1		
W779.32	ERPLGRXKL-EQ	2/12/2025	6:10	SW	Frozen			1	
W779.32	ERPLGRXKL-G-M2-SW-1	2/12/2025	9:17	SW	Frozen			1	
W779.32	ERPLGRXKL-G-M2-SW-2	2/12/2025	9:25	SW	Frozen			1	
W779.32	ERPLGRXKL-G-M2-SW-3	2/12/2025	9:36	SW	Frozen			1	
W779.32	ERPLGRXKL-G-M2-SW-4	2/12/2025	9:47	SW	Frozen			1	
W779.32	ERPLGRXKL-G-N2-SW-1	2/12/2025	6:37	SW	Frozen			1	
W779.32	ERPLGRXKL-G-N2-SW-2	2/12/2025	7:05	SW	Frozen			1	
W779.32	ERPLGRXKL-G-S4-SW-1	2/12/2025	7:17	SW	Frozen			1	
W779.32	ERPLGRXKL-G-S4-SW-2	2/12/2025	7:28	SW	Frozen			1	
W779.32	ERPLGRXKL-G-S2-SW-1	2/12/2025	12:20	SW	Frozen			1	
W779.32	ERPLGRXKL-G-S2-SW-1-FD	2/12/2025	12:25	SW	Frozen			1	
W779.32	ERPLGRXKL-G-S2-SW-2	2/12/2025	12:31	SW	Frozen			1	
W779.32	ERPLGRXKL-G-S2-SW-4F	2/12/2025	12:39	SW	Frozen			1	
W779.32	ERPLGRXKL-G-S2-SW-B	2/12/2025	12:50	SW	Frozen			1	
W779.32	ERPLGRXKL-G-S2-SW-M	2/12/2025	12:50	SW	Frozen			1	
W779.32	ERPLGRXKL-G-S4-SW-B	2/12/2025	8:56	SW	Frozen			1	
W779.32	ERREF2-A-SW-1	2/12/2025	16:21	SW	Frozen			1	
W779.32	ERREF2-A-SW-2	2/12/2025	16:31	SW	Frozen			1	
W779.32	ERREF2-A-SW-4F	2/12/2025	16:38	SW	Frozen			1	
W779.32	ERREF2-A-SW-B	2/12/2025	16:48	SW	Frozen			1	
W779.32	JWPLCL-E2-SW-1	2/22/2025	21:09	SW	Frozen			1	
W779.32	JWPLCL-E2-SW-2	2/22/2025	21:15	SW	Frozen			1	
W779.32	JWPLCL-M1-SW-4F	2/22/2025	21:22	SW	Frozen			1	
W779.32	JWPLCL-E2-SW-B	2/22/2025	21:33	SW	Frozen			1	
W779.32	JWPLCL-EQ	2/22/2025	12:14	SW	Frozen			1	
W779.32	JWPLCL-M1-SW-1	2/22/2025	15:13	SW	Frozen			1	
W779.32	JWPLCL-M1-SW-2	2/22/2025	15:18	SW	Frozen			1	
W779.32	JWPLCL-M1-SW-3	2/22/2025	15:26	SW	Frozen			1	
W779.32	JWPLCL-M1-SW-B	2/22/2025	15:36	SW	Frozen			1	
W779.32	JWPLCL-M1-SW-4	2/22/2025	15:50	SW	Frozen			1	
W779.32	JWPLCL-M1-SW-20	2/22/2025	16:09	SW	Frozen			1	

Relinquished by: _____
Received by: Jesse Sny (H-TW)
3/6/25
18:32

Ship To:
Lilly-Anna Lacombe
Eurofins Specialty Metals Testing
3755 8th St. E.
Fife, WA 98424
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Dunn
Tetra Tech Inc.
Lafayette, CA
ted.dunn@tetratech.com

Project	Sample ID	Date	Time	Medium	Preserve	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Co, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 A	10 Metals (As, Ba, Cd, Co, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Co, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640
1779.32	JKPLC1-M-SW-40	2/22/2025	18:17	SW	Frozen						
1779.32	JKPLC1-M-SW-8	2/22/2025	18:27	SW	Frozen						
1779.32	JKPLC1-M-SW-1	2/22/2025	12:25	SW	Frozen						
1779.32	JKPLC1-M-SW-20	2/22/2025	12:31	SW	Frozen						
1779.32	JKPLC1-M-SW-20-FB	2/22/2025	12:37	SW	Frozen						
1779.32	JKPLC1-M-SW-40	2/22/2025	12:44	SW	Frozen						
1779.32	JKPLC1-M-SW-8	2/22/2025	12:54	SW	Frozen						
1779.32	JKPLC1-M-SW	2/22/2025	12:58	SW	Frozen						

Relinquished by: *ASB*
26 FEB 2025

Relinquished by:
Received by: Jesse Syl (CETN)
3/11/25
18:38

12 of 12

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5/23/2025

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -11.43C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #22

Tetratech 3/6/25

revised 18:38 3/6/25

Jesse Syl (CETN)

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -12.41C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #24

Trk#: 7723 4796 9328

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -57.57C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #29

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -66.32C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #28

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -15.44C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #19

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -62.68C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #13

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -12.41C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #27

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -12.24C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #21

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -118.12C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #20

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -16.16C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #17

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -36.82C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #25

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -6.16C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #14

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -6.53C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #26

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -35.15C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #18

Therm. ID: SC02 Cust. Seal: Y/N
Uncorr./Corr. Temp: -15.15C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver: 06/10/11 Packing:

Box #23

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5/23/2025



Environment Testing

5ml aliquots - 7 5ml aliquots
CSM aliquots - 7 5ml aliquots
MP-1604 ppeHe



Date:	3/11/2025
End Time:	17:36
ID Number:	1016
Analyst:	JS

Preservative ID	Preservative Type	Container ID
1	Bromine Monochloride (0.2N)	53116
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1618-B-112	A	Y	5/2	
350-1618-B-113	A	Y	5/2	
350-1618-B-114	A	Y	5/2	
350-1618-B-115	A	Y	5/2	
350-1618-B-116	A	Y	5/2	
350-1618-B-117	A	Y	5/2	
350-1618-B-118	A	Y	5/2	
350-1618-B-119	A	Y	5/2	
350-1618-B-120	A	Y	5/2	
350-1618-B-121	A	Y	5/2	
350-1618-B-122	A	Y	5/2	
350-1618-B-123	A	Y	5/2	
350-1618-B-124	A	Y	5/2	
350-1618-B-125	A	Y	5/2	
350-1618-B-126	A	Y	5/2	
350-1618-B-127	A	Y	5/2	
350-1618-B-128	A	Y	5/2	
350-1618-B-129	A	Y	5/2	
350-1618-B-130	A	Y	5/2	
350-1618-B-131	A	Y	5/2	
350-1618-B-132	A	Y	5/2	
350-1618-B-133	A	Y	5/2	
350-1618-B-134	A	Y	5/2	
350-1618-B-135	A	Y	5/2	
350-1618-B-136	A	Y	5/2	
350-1618-B-137	A	Y	5/2	
350-1618-B-138	A	Y	5/2	
350-1618-B-139	A	Y	5/2	
350-1618-B-140	A	Y	5/2	
350-1618-B-141	A	Y	5/2	
350-1618-B-142	A	Y	5/2	
350-1618-B-143	A	Y	5/2	
350-1618-B-144	A	Y	5/2	
350-1618-B-145	A	Y	5/2	
350-1618-B-146	A	Y	5/2	



Environment Testing

Date:	3/11/2025
End Time:	17:36
ID Number:	1016
Analyst:	JS

Preservative ID	Preservative Type	Container ID
1	Bromine Monochloride (0.2N)	53116
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1618-B-145				
350-1618-B-146				
350-1618-B-147	A	Y	5/2	
350-1618-B-148	A	Y	5/2	
350-1618-B-149	A	Y	5/2	
350-1618-B-150	A	Y	5/2	
350-1618-B-151	A	Y	5/2	
350-1618-B-152	A	Y	5/2	
350-1618-B-153	A	Y	5/2	
350-1618-B-154	A	Y	5/2	
350-1618-B-155	A	Y	5/2	
350-1618-B-156	A	Y	5/2	
350-1618-B-157	A	Y	5/2	
350-1618-B-158	A	Y	5/2	
350-1618-B-159	A	Y	5/2	
350-1618-B-160	A	Y	5/2	
350-1618-B-161	A	Y	5/2	
350-1618-B-162	A	Y	5/2	
350-1618-B-163	A	Y	5/2	
350-1618-B-164	A	Y	5/2	
350-1618-B-165	A	Y	5/2	
350-1618-B-166	A	Y	5/2	
350-1618-B-167	A	Y	5/2	
350-1618-B-168	A	Y	5/2	
350-1618-B-169	A	Y	5/2	
350-1618-B-170	A	Y	5/2	
350-1618-B-171	A	Y	5/2	
350-1618-B-172	A	Y	5/2	
350-1618-B-173	A	Y	5/2	
350-1618-B-174	A	Y	5/2	
350-1618-B-175	A	Y	5/2	
350-1618-B-176	A	Y	5/2	
350-1618-B-177	A	Y	5/2	
350-1618-B-178	A	Y	5/2	
350-1618-B-179	A	Y	5/2	

Date: 3/11/2025
End Time: 17:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5336
*****	*****	*****
*****	*****	*****
*****	*****	*****
*****	*****	*****

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-178	A	Y	5/2	JS 3/10/25
350-1619-B-180	A	Y	5/2	
350-1619-B-181	A	Y	5/2	
350-1619-B-182	A	Y	3.5/2	
350-1619-B-183	A	Y	3.5/2	
350-1619-B-184	A	Y	5/2	
350-1619-B-185	A	Y	5/2	
350-1619-B-186	A	Y	5/2	
350-1619-B-187	A	Y	5/2	
350-1619-B-188	A	Y	5/2	
350-1619-B-189	A	Y	5/2	
350-1619-B-190	A	Y	5/2	
350-1619-B-191	A	Y	5/2	
350-1619-B-192	A	Y	5/2	
350-1619-B-193	A	Y	5/2	
350-1619-B-194	A	Y	5/2	
350-1619-B-195	A	Y	5/2	
350-1619-B-196	A	Y	5/2	
350-1619-B-197	A	Y	5/2	
350-1619-B-198	A	Y	5/2	
350-1619-B-199	A	Y	5/2	
350-1619-B-200	A	Y	5/2	
350-1619-B-201	A	Y	5/2	
350-1619-B-202	A	Y	5/2	
350-1619-B-203	A	Y	5/2	
350-1619-B-204	A	Y	5/2	
350-1619-B-205	A	Y	5/2	
350-1619-B-206	A	Y	5/2	
350-1619-B-207	A	Y	5/2	
350-1619-B-208	A	Y	5/2	
350-1619-B-209	A	Y	3.5/2	
350-1619-B-210	A	Y	3/2	
350-1619-B-211	A	Y	5/2	
350-1619-B-212	A	Y	5/2	JS 3/11/25

Total Mercury Preservation Log

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Login Number: 350-1619-B

Date: 3/11/2025
End Time: 17:51
KI Paper Lot: N/A
Analyst: JS

B Bromine Monochloride (0.2N), 5336

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5336
*****	*****	*****
*****	*****	*****
*****	*****	*****
*****	*****	*****

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-211	A	Y	5/2	JS 3/10/25
350-1619-B-212	A	Y	5/2	
350-1619-B-213	A	Y	5/2	
350-1619-B-214	A	Y	5/2	
350-1619-B-215	A	Y	5/2	
350-1619-B-216	A	Y	5/2	
350-1619-B-217	A	Y	4.5/2	
350-1619-B-218	A	Y	5/2	
350-1619-B-219	A	Y	5/2	
350-1619-B-220	A	Y	5/2	
350-1619-B-221	A	Y	5/2	
350-1619-B-222	A	Y	5/2	
350-1619-B-223	A	Y	4.5/2	
350-1619-B-224	A	Y	5/2	
350-1619-B-225	A	Y	5/2	
350-1619-B-226	A	Y	4.5/2	
350-1619-B-227	A	Y	5/2	
350-1619-B-228	A	Y	5/2	
350-1619-B-229	A	Y	5/2	
350-1619-B-230	A	Y	5/2	
350-1619-B-231	A	Y	5/2	
350-1619-B-232	A	Y	5/2	
350-1619-B-233	A	Y	5/2	
350-1619-B-234	A	Y	5/2	
350-1619-B-235	A	Y	5/2	
350-1619-B-236	A	Y	5/2	
350-1619-B-237	A	Y	5/2	
350-1619-B-238	A	Y	5/2	
350-1619-B-239	A	Y	5/2	
350-1619-B-240	A	Y	5/2	
350-1619-B-241	A	Y	5/2	
350-1619-B-242	B	Y	5/2	
350-1619-B-243	B	Y	5/2	
350-1619-B-244	A	Y	4/2	
350-1619-B-245	A	Y	4/2	JS 3/11/25

Total Mercury Preservation Log

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Login Number: 350-1619-B

Date: 3/11/2025
End Time: 17:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5338
*****	*****	*****
*****	*****	*****
*****	*****	*****

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-259	A	Y	5/2	
350-1619-B-260	A	Y	5/2	
350-1619-B-261	A	Y	5/2	
350-1619-B-262	A	Y	5/2	
350-1619-B-263	A	Y	5/2	
350-1619-B-264	A	Y	5/2	
350-1619-B-265	A	Y	5/2	
350-1619-B-266	A	Y	5/2	
350-1619-B-267	A	Y	5/2	
350-1619-B-268	A	Y	5/2	
350-1619-B-269	A	Y	5/2	
350-1619-B-270	A	Y	5/2	
350-1619-B-271	A	Y	5/2	
350-1619-B-272	A	Y	5/2	
350-1619-B-273	A	Y	5/2	
350-1619-B-274	A	Y	5/2	
350-1619-B-275	A	Y	5/2	
350-1619-B-276	A	Y	3/2	
350-1619-B-277	A	Y	3/2	
350-1619-B-278	A	Y	5/2	
350-1619-B-279	A	Y	4.5/2	
350-1619-B-280	A	Y	5/2	
350-1619-B-281	A	Y	5/2	
350-1619-B-282	A	Y	5/2	
350-1619-B-283	A	Y	5/2	
350-1619-B-284	A	Y	5/2	
350-1619-B-285	A	Y	5/2	
350-1619-B-286	A	Y	5/2	
350-1619-B-287	A	Y	3.5/2	
350-1619-B-288	A	Y	5/2	
350-1619-B-289	A	Y	5/2	
350-1619-B-290	A	Y	5/2	
350-1619-B-291	A	Y	5/2	
350-1619-B-292	A	Y	5/2	
350-1619-B-293	A	Y	5/2	
350-1619-B-294	A	Y	5/2	
350-1619-B-295	A	Y	5/2	
350-1619-B-296	A	Y	5/2	
350-1619-B-297	A	Y	5/2	
350-1619-B-298	A	Y	5/2	
350-1619-B-299	A	Y	5/2	
350-1619-B-300	A	Y	5/2	
350-1619-B-301	A	Y	5/2	
350-1619-B-302	A	Y	5/2	
350-1619-B-303	A	Y	5/2	
350-1619-B-304	A	Y	5/2	
350-1619-B-305	A	Y	5/2	
350-1619-B-306	A	Y	5/2	
350-1619-B-307	A	Y	5/2	
350-1619-B-308	A	Y	5/2	
350-1619-B-309	A	Y	5/2	
350-1619-B-310	A	Y	5/2	
350-1619-B-311	A	Y	5/2	
350-1619-B-312	A	Y	5/2	
350-1619-B-313	A	Y	5/2	
350-1619-B-314	A	Y	5/2	
350-1619-B-315	A	Y	5/2	
350-1619-B-316	A	Y	3.5/2	
350-1619-B-317	A	Y	5/2	JS 3/11/25

Total Mercury Preservation Log

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Login Number: 350-1619-B

Date: 3/11/2025
End Time: 17:51
KI Paper Lot: N/A
Analyst: JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5339
*****	*****	*****
*****	*****	*****
*****	*****	*****

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-383	A	Y	5/2	JS 3/11/25
350-1619-B-384	A	Y	5/2	
350-1619-B-385	A	Y	5/2	
350-1619-B-386	A	Y	3.5/2	
350-1619-B-387	A	Y	5/2	
350-1619-B-388	A	Y	5/2	
350-1619-B-389	A	Y	5/2	
350-1619-B-390	A	Y	5/2	
350-1619-B-391	A	Y	5/2	
350-1619-B-392	A	Y	5/2	
350-1619-B-393	A	Y	5/2	
350-1619-B-394	A	Y	5/2	
350-1619-B-395	A	Y	5/2	
350-1619-B-396	A	Y	5/2	
350-1619-B-397	A	Y	5/2	
350-1619-B-398	A	Y	5/2	
350-1619-B-399	A	Y	5/2	
350-1619-B-400	A	Y	5/2	
350-1619-B-401	A	Y	4/2	
350-1619-B-402	A	Y	3.5/2	
350-1619-B-403	A	Y	5/2	
350-1619-B-404	A	Y	5/2	
350-1619-B-405	A	Y	5/2	
350-1619-B-406	A	Y	5/2	
350-1619-B-407	A	Y	4.5/2	
350-1619-B-408	A	Y	5/2	
350-1619-B-409	A	Y	5/2	
350-1619-B-410	A	Y	5/2	
350-1619-B-411	A	Y	5/2	
350-1619-B-412	A	Y	5/2	
350-1619-B-413	A	Y	5/2	
350-1619-B-414	A	Y	5/2	
350-1619-B-415	A	Y	5/2	
350-1619-B-416	A	Y	3.5/2	
350-1619-B-417	A	Y	5/2	JS 3/11/25

Total Mercury Preservation Log

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Login Number: 350-1619-B

Date:	3/11/2025
End Time:	13:31
AD Paper Log:	NA
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5316
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1819-B-418				
350-1819-B-417				
350-1819-B-418	A	Y	5/2	JS 3/11/25
350-1819-B-419	A	Y	5/2	
350-1819-B-420	A	Y	5/2	
350-1819-B-421	A	Y	5/2	
350-1819-B-422	A	Y	5/2	
350-1819-B-423	A	Y	5/2	
350-1819-B-424	A	Y	5/2	
350-1819-B-425	A	Y	5/2	
350-1819-B-426	A	Y	3.5/2	
350-1819-B-445	A	Y	4.5/2	
350-1819-B-446	A	Y	5/2	
350-1819-B-447	A	Y	5/2	
350-1819-B-448	A	Y	5/2	
350-1819-B-449	A	Y	5/2	
350-1819-B-450	A	Y	5/2	
350-1819-B-451	A	Y	4.5/2	
350-1819-B-452	A	Y	4.5/2	
350-1819-B-453	A	Y	5/2	
350-1819-B-454	A	Y	5/2	
350-1819-B-455	A	Y	5/2	
350-1819-B-456	A	Y	5/2	
350-1819-B-457	A	Y	5/2	
350-1819-B-458	A	Y	5/2	
350-1819-B-459	A	Y	3.5/2	
350-1819-B-460	A	Y	5/2	
350-1819-B-461	A	Y	5/2	
350-1819-B-462	A	Y	5/2	
350-1819-B-463	A	Y	5/2	
350-1819-B-464	A	Y	5/2	
350-1819-B-465	A	Y	5/2	
350-1819-B-466	A	Y	5/2	
350-1819-B-467	A	Y	5/2	
350-1819-B-468	A	Y	4/2	

Date:	3/11/2025
End Time:	13:31
AD Paper Log:	NA
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Bromine Monochloride (0.2N)	5316
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL) Percent (%)	Comments
350-1819-B-467				
350-1819-B-468				
350-1819-B-469	A	Y	5/2	JS 3/11/25
350-1819-B-470	A	Y	5/2	
350-1819-B-471	A	Y	5/2	
350-1819-B-472	A	Y	5/2	
350-1819-B-473	A	Y	5/2	
350-1819-B-474	A	Y	5/2	
350-1819-B-475	A	Y	5/2	
350-1819-B-476	A	Y	5/2	
350-1819-B-477	A	Y	5/2	
350-1819-B-478	A	Y	5/2	
350-1819-B-479	A	Y	5/2	
350-1819-B-480	A	Y	5/2	
350-1819-B-481	A	Y	5/2	
350-1819-B-482	A	Y	3.5/2	
350-1819-B-483	A	Y	5/2	
350-1819-B-484	A	Y	5/2	
350-1819-B-485	A	Y	5/2	
350-1819-B-486	A	Y	5/2	
350-1819-B-487	A	Y	5/2	



Date:	3/11/2025
End Time:	13:31
AD Paper Log:	NA
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	5316
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1819-A-112	7.2	6.2	A	6.5	
350-1819-A-113	7.2	6.2	A	5.2	
350-1819-A-114	7.2	6.2	A	6.5	
350-1819-A-115	7.2	6.2	A	6.5	
350-1819-A-116	7.2	6.2	A	6.5	
350-1819-A-117	7.2	6.2	A	6.5	
350-1819-A-118	7.2	6.2	A	6.5	
350-1819-A-119	7.2	6.2	A	6.5	
350-1819-A-120	7.2	6.2	A	6.5	
350-1819-A-121	7.2	6.2	A	6.5	
350-1819-A-122	7.2	6.2	A	6.5	
350-1819-A-123	7.2	6.2	A	6.5	
350-1819-A-124	7.2	6.2	A	6.5	
350-1819-A-125	7.2	6.2	A	6.5	
350-1819-A-126	7.2	6.2	A	6.5	
350-1819-A-127	7.2	6.2	A	6.5	
350-1819-A-128	7.2	6.2	A	6.5	
350-1819-A-129	7.2	6.2	A	6.5	
350-1819-A-130	7.2	6.2	A	6.5	
350-1819-A-131	7.2	6.2	A	6.5	
350-1819-A-132	7.2	6.2	A	6.5	
350-1819-A-133	7.2	6.2	A	5.2	
350-1819-A-134	7.2	6.2	A	6.5	
350-1819-A-135	7.2	6.2	A	6.5	
350-1819-A-136	7.2	6.2	A	6.5	
350-1819-A-137	7.2	6.2	A	6.5	
350-1819-A-138	7.2	6.2	A	6.5	
350-1819-A-139	7.2	6.2	A	6.5	
350-1819-A-140	7.2	6.2	A	6.5	
350-1819-A-141	7.2	6.2	A	6.5	
350-1819-A-142	7.2	6.2	A	6.5	
350-1819-A-143	7.2	6.2	A	6.5	
350-1819-A-144	7.2	6.2	A	4.5	
350-1819-A-145	7.2	6.2	A	4.5	
350-1819-A-146	7.2	6.2	A	6.5	

Date:	3/11/2025
End Time:	13:31
AD Paper Log:	NA
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	5316
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1819-A-145					
350-1819-A-146					
350-1819-A-147	7.2	6.2	A	5.2	JS 3/11/25
350-1819-A-148	7.2	6.2	A	6.5	
350-1819-A-149	7.2	6.2	A	6.5	
350-1819-A-150	7.2	6.2	A	6.5	
350-1819-A-151	7.2	6.2	A	6.5	
350-1819-A-152	7.2	6.2	A	6.5	
350-1819-A-153	7.2	6.2	A	6.5	
350-1819-A-154	7.2	6.2	A	6.5	
350-1819-A-155	7.2	6.2	A	6.5	
350-1819-A-156	7.2	6.2	A	6.5	
350-1819-A-157	7.2	6.2	A	6.5	
350-1819-A-158	7.2	6.2	A	6.5	
350-1819-A-159	7.2	6.2	A	6.5	
350-1819-A-160	7.2	6.2	A	6.5	
350-1819-A-161	7.2	6.2	A	6.5	
350-1819-A-162	7.2	6.2	A	6.5	
350-1819-A-163	7.2	6.2	A	6.5	
350-1819-A-164	7.2	6.2	A	6.5	
350-1819-A-165	7.2	6.2	A	6.5	
350-1819-A-166	7.2	6.2	A	6.5	
350-1819-A-167	7.2	6.2	A	6.5	
350-1819-A-168	7.2	6.2	A	6.5	
350-1819-A-169	7.2	6.2	A	6.5	
350-1819-A-170	7.2	6.2	A	6.5	
350-1819-A-171	7.2	6.2	A	6.5	
350-1819-A-172	7.2	6.2	A	6.5	
350-1819-A-173	7.2	6.2	A	6.5	
350-1819-A-174	7.2	6.2	A	6.5	
350-1819-A-175	7.2	6.2	A	6.5	
350-1819-A-176	7.2	6.2	A	6.5	
350-1819-A-177	7.2	6.2	A	6.5	
350-1819-A-178	7.2	6.2	A	6.5	
350-1819-A-179	7.2	6.2	A	6.5	
350-1819-A-180	7.2	6.2	A	6.5	

3/19/25 or 3/14/25

Date:	2/11/2012
End Time:	8:59
pH Paper Lot:	HC441729
Analyst:	JS

MR-түзілдірігі

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	5365
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////

(مل) 58 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mg)	Comments
350-1019A-178					
350-1019A-179					3/14/15 repeated
350-1019A-180	7.2	6.2	A	6.5	
350-1019A-181	7.2	6.2	A	6.5	
350-1019A-182	7.2	6.2	A	4.37	
350-1019A-183	7.2	6.2	A	4.37	
350-1019A-184	7.2	6.2	A	6.5	
350-1019A-185	7.2	6.2	A	6.5	
350-1019A-186	7.2	6.2	A	6.5	
350-1019A-187	7.2	6.2	A	6.5	
350-1019A-188	7.2	6.2	A	6.5	
350-1019A-189	7.2	6.2	A	6.5	
350-1019A-190	7.2	6.2	A	6.5	
350-1019A-191	7.2	6.2	A	6.5	
350-1019A-192	7.2	6.2	A	6.5	
350-1019A-193	7.2	6.2	A	6.5	
350-1019A-194	7.2	6.2	A	6.5	
350-1019A-195	7.2	6.2	A	6.5	
350-1019A-196	7.2	6.2	A	6.5	
350-1019A-197	7.2	6.2	A	6.5	
350-1019A-198	7.2	6.2	A	6.5	
350-1019A-199	7.2	6.2	A	6.5	
350-1019A-200	7.2	6.2	A	6.5	
350-1019A-201	7.2	6.2	A	6.5	
350-1019A-202	7.2	6.2	A	6.5	
350-1019A-203	7.2	6.2	A	6.5	
350-1019A-204	7.2	6.2	A	6.5	
350-1019A-205	7.2	6.2	A	6.5	
350-1019A-206	7.2	6.2	A	6.5	
350-1019A-207	7.2	6.2	A	6.5	
350-1019A-208	7.2	6.2	A	6.5	
350-1019A-209	7.2	6.2	A	4.37	
350-1019A-210	7.2	6.2	A	4.37	
350-1019A-211	7.2	6.2	A	6.5	
350-1019A-212	7.2	6.2	A	6.5	

53 3/14/25

21/06/25 35 minutes

Date:	20-11-23
End Time:	12:59
pH Paper Lot:	HC441704
Analyst:	JT

mp - Tm 26 pipette

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	548
//////////		
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//////////		
//////////		

(ML) 38 3114

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1818-A-211	7.2	<7.2	A		
350-1818-A-212	7.2	<7.2	A		25 3/4 75 repeated
350-1818-A-213	7.2	<7.2	A	6.25	
350-1818-A-214	7.2	<7.2	A	6.25	
350-1818-A-215	7.2	<7.2	A	5.62	
350-1818-A-216	7.2	<7.2	A	6.25	
350-1818-A-217	7.2	<7.2	A	5.62	
350-1818-A-218	7.2	<7.2	A	6.25	
350-1818-A-219	7.2	<7.2	A	6.25	
350-1818-A-220	7.2	<7.2	A	6.25	
350-1818-A-221	7.2	<7.2	A	6.25	
350-1818-A-222	7.2	<7.2	A	6.25	
350-1818-A-223	7.2	<7.2	A	6.25	
350-1818-A-224	7.2	<7.2	A	5.62	
350-1818-A-225	7.2	<7.2	A	5.62	
350-1818-A-226	7.2	<7.2	A	6.25	
350-1818-A-227	7.2	<7.2	A	6.25	
350-1818-A-228	7.2	<7.2	A	6.25	
350-1818-A-229	7.2	<7.2	A	6.25	
350-1818-A-230	7.2	<7.2	A	6.25	
350-1818-A-231	7.2	<7.2	A	6.25	
350-1818-A-232	7.2	<7.2	A	6.25	
350-1818-A-233	7.2	<7.2	A	6.25	
350-1818-A-234	7.2	<7.2	A	6.25	
350-1818-A-235	7.2	<7.2	A	6.25	
350-1818-A-236	7.2	<7.2	A	6.25	
350-1818-A-237	7.2	<7.2	A	6.25	
350-1818-A-238	7.2	<7.2	A	6.25	
350-1818-A-239	7.2	<7.2	A	6.25	
350-1818-A-240	7.2	<7.2	A	6.25	
350-1818-A-241	7.2	<7.2	A	6.25	
350-1818-A-242	7.2	<7.2	A	6.25	
350-1818-A-243	7.2	<7.2	A	6.25	
350-1818-A-244	7.2	<7.2	A	5.62	
350-1818-A-245	7.2	<7.2	A	4.7	25 3/4 75

35	3	19	2
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3/19/25 or 3/19/25

Date:	3/11/2025
End Time:	8:57
pH Paper Lot:	HCH41724
Analyst:	JT

100

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	63688
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////

(ML) 55/10/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (µL)	Comments
350-1618-A-244					
350-1618-A-245					
350-1618-A-259	>2	<2	A	625	
350-1618-A-260	>2	<2	A	615	
350-1618-A-261	>2	<2	A	635	
350-1618-A-262	>2	<2	A	625	
350-1618-A-263	>2	<2	A	625	
350-1618-A-264	>2	<2	A	635	
350-1618-A-265	>2	<2	A	635	
350-1618-A-266	>2	<2	A	615	
350-1618-A-267	>2	<2	A	615	
350-1618-A-268	>2	<2	A	615	
350-1618-A-269	>2	<2	A	615	
350-1618-A-270	>2	<2	A	615	
350-1618-A-271	>2	<2	A	615	
350-1618-A-272	>2	<2	A	615	
350-1618-A-273	>2	<2	A	635	
350-1618-A-274	>2	<2	A	615	
350-1618-A-275	>2	<2	A	615	
350-1618-A-276	>2	<2	A	580	
350-1618-A-277	>2	<2	A	580	
350-1618-A-309	>2	<2	A	615	
350-1618-A-370	>2	<2	A	562	
350-1618-A-371	>2	<2	A	615	
350-1618-A-372	>2	<2	A	562	
350-1618-A-373	>2	<2	A	615	
350-1618-A-374	>2	<2	A	615	
350-1618-A-375	>2	<2	A	562	

3/19/

3/19/25 Jc xlv/5

Date:	3/14/2006
End Time:	8:59
pH Paper Lot:	ML44172M
Analyst:	JR

MD-Tmax probe

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	51011
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////
//////////	//////////	//////////

(MU) 58 3119115

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mg)	Comments
350-1019-A-376	7.2	< 2	A	615	
350-1019-A-377	7.2	< 2	A	615	
350-1019-A-378	7.2	< 2	A	437	
350-1019-A-379	7.2	< 2	A	615	
350-1019-A-380	7.2	< 2	A	615	
350-1019-A-381	7.2	< 2	A	635	
350-1019-A-382	7.2	< 2	A	615	
350-1019-A-383	7.2	< 2	A	615	
350-1019-A-384	7.2	< 2	A	615	
350-1019-A-385	7.2	< 2	A	615	
350-1019-A-386	7.2	< 2	A	615	
350-1019-A-387	7.2	< 2	A	437	
350-1019-A-388	7.2	< 2	A	615	
350-1019-A-389	7.2	< 2	A	615	
350-1019-A-390	7.2	< 2	A	615	
350-1019-A-391	7.2	< 2	A	615	
350-1019-A-392	7.2	< 2	A	615	
350-1019-A-393	7.2	< 2	A	615	
350-1019-A-394	7.2	< 2	A	615	
350-1019-A-395	7.2	< 2	A	615	
350-1019-A-396	7.2	< 2	A	615	
350-1019-A-397	7.2	< 2	A	615	
350-1019-A-398	7.2	< 2	A	615	
350-1019-A-399	7.2	< 2	A	615	
350-1019-A-400	7.2	< 2	A	615	
350-1019-A-401	7.2	< 2	A	437	
350-1019-A-402	7.2	< 2	A	437	
350-1019-A-403	7.2	< 2	A	615	
350-1019-A-404	7.2	< 2	A	615	
350-1019-A-405	7.2	< 2	A	615	
350-1019-A-406	7.2	< 2	A	615	
350-1019-A-407	7.2	< 2	A	615	
350-1019-A-408	7.2	< 2	A	615	
350-1019-A-409	7.2	< 2	A	615	
350-1019-A-410	7.2	< 2	A	615	

175 3/19

3/19/25 3:30 PM

Date: 3/19/2025
End Time: 3:30
pH Paper Lot: H0441704
Analysis: MS

MO-TM-06 pte

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Type	Preservative Added (mL)	Comments
350-1619-A-409						
350-1619-A-410						
350-1619-A-411	<2	>2	A	Nitric Acid	6.5	3/19/25 repeated
350-1619-A-412	<2	>2	A	Nitric Acid	6.5	
350-1619-A-413	<2	>2	A	Nitric Acid	6.5	
350-1619-A-414	<2	>2	A	Nitric Acid	6.5	
350-1619-A-415	<2	>2	A	Nitric Acid	6.5	
350-1619-A-416	<2	>2	A	Nitric Acid	4.97	
350-1619-A-417	<2	>2	A	Nitric Acid	6.5	
350-1619-A-418	<2	>2	A	Nitric Acid	6.5	
350-1619-A-419	<2	>2	A	Nitric Acid	6.5	
350-1619-A-420	<2	>2	A	Nitric Acid	6.5	
350-1619-A-421	<2	>2	A	Nitric Acid	6.5	
350-1619-A-422	<2	>2	A	Nitric Acid	6.5	
350-1619-A-423	<2	>2	A	Nitric Acid	6.5	
350-1619-A-424	<2	>2	A	Nitric Acid	6.5	
350-1619-A-425	<2	>2	A	Nitric Acid	6.5	
350-1619-A-426	<2	>2	A	Nitric Acid	3.75	
350-1619-A-445	<2	>2	A	Nitric Acid	6.5	
350-1619-A-446	<2	>2	A	Nitric Acid	5.62	
350-1619-A-447	<2	>2	A	Nitric Acid	6.5	
350-1619-A-448	<2	>2	A	Nitric Acid	6.5	
350-1619-A-449	<2	>2	A	Nitric Acid	6.5	
350-1619-A-450	<2	>2	A	Nitric Acid	6.5	
350-1619-A-451	<2	>2	A	Nitric Acid	6.5	
350-1619-A-452	<2	>2	A	Nitric Acid	6.5	
350-1619-A-453	<2	>2	A	Nitric Acid	6.5	
350-1619-A-454	<2	>2	A	Nitric Acid	6.5	
350-1619-A-455	<2	>2	A	Nitric Acid	6.5	
350-1619-A-456	<2	>2	A	Nitric Acid	6.5	
350-1619-A-457	<2	>2	A	Nitric Acid	6.5	
350-1619-A-458	<2	>2	A	Nitric Acid	6.5	
350-1619-A-459	<2	>2	A	Nitric Acid	5.62	
350-1619-A-460	<2	>2	A	Nitric Acid	6.5	
350-1619-A-461	<2	>2	A	Nitric Acid	6.5	

JS 3/19/25

pH Verification Log

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Login Number: 350-1619-2

3/19/25 3:30 PM

Date: 3/19/2025
End Time: 3:30
pH Paper Lot: H0441704
Analysis: MS

MO-TM-06 pte

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Type	Preservative Added (mL)	Comments
350-1619-A-450						
350-1619-A-461						
350-1619-A-462	>2	<2	A	Nitric Acid	6.5	3/19/25 repeated
350-1619-A-463	>2	<2	A	Nitric Acid	6.5	
350-1619-A-464	>2	<2	A	Nitric Acid	6.5	
350-1619-A-465	>2	<2	A	Nitric Acid	6.5	
350-1619-A-466	>2	<2	A	Nitric Acid	6.5	
350-1619-A-467	>2	<2	A	Nitric Acid	6.5	
350-1619-A-468	>2	<2	A	Nitric Acid	4.97	
350-1619-A-469	>2	<2	A	Nitric Acid	6.5	
350-1619-A-470	>2	<2	A	Nitric Acid	6.5	
350-1619-A-471	>2	<2	A	Nitric Acid	6.5	
350-1619-A-472	>2	<2	A	Nitric Acid	6.5	
350-1619-A-473	>2	<2	A	Nitric Acid	6.5	
350-1619-A-474	>2	<2	A	Nitric Acid	6.5	
350-1619-A-475	>2	<2	A	Nitric Acid	6.5	
350-1619-A-476	>2	<2	A	Nitric Acid	6.5	
350-1619-A-477	>2	<2	A	Nitric Acid	6.5	
350-1619-A-478	>2	<2	A	Nitric Acid	6.5	
350-1619-A-479	>2	<2	A	Nitric Acid	6.5	
350-1619-A-480	>2	<2	A	Nitric Acid	6.5	
350-1619-A-481	>2	<2	A	Nitric Acid	6.5	
350-1619-A-482	>2	<2	A	Nitric Acid	4.97	
350-1619-A-484	>2	<2	A	Nitric Acid	6.5	
350-1619-A-485	>2	<2	A	Nitric Acid	5.62	
350-1619-A-486	>2	<2	A	Nitric Acid	6.5	
350-1619-A-487	>2	<2	A	Nitric Acid	6.5	

JS 3/19/25

pH Verification Log

Page 87 of 88

Login Number: 350-1619-2

Login Sample Receipt Checklist

Client: Tetra Tech Inc

Job Number: 350-1619-2

Login Number: 1619

List Source: Eurofins Seattle Specialty Metals

List Number: 1

Creator: LaCount, Lilly-Anna E

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Not requested on COC.
There are no discrepancies between the containers received and the COC.	False	See email attachment
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	



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August 20th, 2025
Ted Donn,
Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300 Lafayette, CA 94549

RE: Environmental Studies for Chevron Thailand, February 2025 **(T779.27)**

Enclosed are the analytical results for samples received by MEM from Tetra Tech Inc. The identification result was submitted by the Coral Reef and Benthos Research Unit, Division of Biological Science, Faculty of Science, Prince of Songkla University, which are enclosed with this letter.

Should you have any questions concerning this report, please feel free to contact me.

Yours sincerely,

Jintana Plathong

Jintana Plathong
General Manager
Marine Ecoscience Management Co., Ltd.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Salomon Phang
Principal Taxonomist



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List of Samples received T779.27

Benthos

No.	Date	Sample ID	Location	Time	100 ml.	500 ml.	1,000 ml.
1	16/2/2025	NPCPP-1C2X	North Pailin CPP	2.53	0	1B	1A
2	16/2/2025	NPCPP-1CP2	North Pailin CPP	7.36	1S	1 (A+B)	0
3	15/2/2025	NPCPP-1D2	North Pailin CPP	1.46	1S	1 (A+B)	0
4	16/2/2025	NPCPP-2C2	North Pailin CPP	5.22	0	1 (A+B)	0
5	15/2/2025	NPCPP-2CP2	North Pailin CPP	5.42	0	1 (A+B)	0
6	15/2/2025	NPCPP-2D2	North Pailin CPP	6.22	1S	1 (A+B)	0
7	15/2/2025	NPCPP-3C2	North Pailin CPP	22.58	1S	1B	1A
8	15/2/2025	NPCPP-3CP2	North Pailin CPP	11.06	0	1 (A+B)	0
9	16/2/2025	NPCPP-3D2	North Pailin CPP	9.5	1S	1 (A+B)	0
10	15/2/2025	NPCPP-4C2	North Pailin CPP	19.59	1S	1B	1A
11	15/2/2025	NPCPP-4CP2	North Pailin CPP	19.27	1S	1 (A+B)	0
12	15/2/2025	NPCPP-4D2	North Pailin CPP	18.54	1S	1 (A+B)	0
13	12/2/2025	NPREF-A	North Pailin Reference	21.54	1S	1 (A+B)	0
14	12/2/2025	NPREF-B	North Pailin Reference	22.27	1S	1 (A+B)	0
15	12/2/2025	NPREF-C	North Pailin Reference	23.16	1S	1 (A+B)	0
16	14/2/2025	NPWB-1C2	North Pailin B	4.51	1S	1 (A+B)	0
17	14/2/2025	NPWB-1CP2	North Pailin B	3.00	0	1 (A+B)	0
18	14/2/2025	NPWB-1D2	North Pailin B	4.06	1S	1 (A+B)	0
19	14/2/2025	NPWB-2B3	North Pailin B	18.53	1S	1 (A+B)	0
20	14/2/2025	NPWB-2C2X	North Pailin B	5.53	0	1 (A+B)	0
21	14/2/2025	NPWB-3B2	North Pailin B	18.29	1S	1B	1A
22	14/2/2025	NPWB-3C2	North Pailin B	20.22	1S	1 (A+B)	0
23	14/2/2025	NPWB-3CP2	North Pailin B	21.24	1S	1 (A+B)	0
24	14/2/2025	NPWB-3D2	North Pailin B	21.54	1S	1 (A+B)	0
25	14/2/2025	NPWB-4B3X	North Pailin B	19.19	1S	1 (A+B)	0
26	14/2/2025	NPWB-4C2	North Pailin B	19.52	1S	1 (A+B)	0
27	17/2/2025	NPWG-1B2X	North Pailin G	10.17	0	1B	1A
28	17/2/2025	NPWG-1C2	North Pailin G	5.05	1S	1 (A+B)	0
29	17/2/2025	NPWG-1CP2	North Pailin G	3.37	1S	1 (A+B)	0
30	17/2/2025	NPWG-1D2	North Pailin G	4.14	1S	1 (A+B)	0
31	16/2/2025	NPWG-2B2X	North Pailin G	22.45	1S	1 (A+B)	0
32	16/2/2025	NPWG-2C2	North Pailin G	22.06	1S	1 (A+B)	0
33	17/2/2025	NPWG-3B2X	North Pailin G	15.36	1S	1 (A+B)	0
34	17/2/2025	NPWG-3C2	North Pailin G	14.17	1S	1 (A+B)	0
35	16/2/2025	NPWG-3CP2	North Pailin G	16.47	1S	1 (A+B)	0
36	16/2/2025	NPWG-3D2	North Pailin G	17.16	1S	1 (A+B)	0
37	17/2/2025	NPWG-4B2X	North Pailin G	16.05	1S	1 (A+B)	0

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No.	Date	Sample ID	Location	Time	100 ml.	500 ml.	1,000 ml.
38	17/2/2025	NPWG-4C2	North Pailin G	16.5	1S	1 (A+B)	0
39	17/2/2025	PACPP-1C2X	Pailin CPP	22.46	1S	1B	1A
40	17/2/2025	PACPP-1CP2X	Pailin CPP	23.19	1S	1 (A+B)	0
41	18/2/2025	PACPP-1D2	Pailin CPP	21.28	1S	1 (A+B)	0
42	18/2/2025	PACPP-2D2	Pailin CPP	22.31	1S	1 (A+B)	0
43	19/2/2025	PACPP-2C2	Pailin CPP	2.15	1S	1B	1A
44	18/2/2025	PACPP-2CP2	Pailin CPP	23.14	1S	1 (A+B)	0
45	19/2/2025	PACPP-3C2Y	Pailin CPP	9.49	1S	1B	1A
46	19/2/2025	PACPP-3CP2	Pailin CPP	4.09	1S	1B	1A
47	19/2/2025	PACPP-3D2X	Pailin CPP	5.27	1S	1B	1A
48	18/2/2025	PACPP-4C2X	Pailin CPP	3.59	0	1B	1A
49	18/2/2025	PACPP-4CP2X	Pailin CPP	4.56	0	1B	1A
50	18/2/2025	PACPP-4D2X	Pailin CPP	5.41	1S	1B	1A
51	13/2/2025	PAREF-A	Pailin Reference	19.06	1S	1 (A+B)	0
52	13/2/2025	PAREF-B	Pailin Reference	19.37	1S	1 (A+B)	0
53	13/2/2025	PAREF-C	Pailin Reference	19.59	1S	1B	1A
54	20/2/2025	PAWB-1C2	Pailin B	23.07	1S	1B	1A
55	20/2/2025	PAWB-1CP2	Pailin B	22.45	1S	1 (A+B)	0
56	20/2/2025	PAWB-1D2	Pailin B	21.4	1S	1B	1A
57	21/2/2025	PAWB-2B1X	Pailin B	16.23	1S	1 (A+B)	0
58	21/2/2025	PAWB-2C2	Pailin B	16.59	1S	1 (A+B)	0
59	21/2/2025	PAWB-3B2	Pailin B	14.38	1S	1B	1A
60	21/2/2025	PAWB-3C2	Pailin B	5.40	0	1 (A+B)	0
61	21/2/2025	PAWB-3CP2	Pailin B	4.55	1S	1 (A+B)	0
62	21/2/2025	PAWB-3D2	Pailin B	4.19	0	1B	1A
63	21/2/2025	PAWB-4B2X	Pailin B	15.53	1S	1B	1A
64	21/2/2025	PAWB-4C2	Pailin B	19.24	1S	1 (A+B)	0
65	20/2/2025	PAWE-1B1	Pailin E	17.12	1S	1B	1A
66	20/2/2025	PAWE-1C2	Pailin E	1.48	0	1B	1A
67	20/2/2025	PAWE-1CP2	Pailin E	2.23	1S	1 (A+B)	0
68	20/2/2025	PAWE-1D2	Pailin E	3.08	0	1 (A+B)	0
69	20/2/2025	PAWE-2B3	Pailin E	17.56	1S	1B	1A
70	20/2/2025	PAWE-2C2	Pailin E	4.23	1S	1 (A+B)	0
71	20/2/2025	PAWE-3B3	Pailin E	15.43	1S	1B	1A
72	19/2/2025	PAWE-3C2	Pailin E	17.12	1S	1 (A+B)	0
73	19/2/2025	PAWE-3CP2	Pailin E	16.47	1S	1 (A+B)	0
74	20/2/2025	PAWE-3D2	Pailin E	19.49	1S	1 (A+B)	0
75	20/2/2025	PAWE-4B2	Pailin E	16.24	1S	1 (A+B)	0
76	20/2/2025	PAWE-4C2	Pailin E	1.09	1S	1 (A+B)	0

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Phytoplankton

No	Date	Sample ID	Location	Time	100 ml.
1	13/2/2025	NPREF-A-PS-1	North Pailin Reference	8.36-8.41	1
2	13/2/2025	NPREF-A-PS-2	North Pailin Reference	8.41-8.47	1
3	13/2/2025	NPREF-A-PB-1	North Pailin Reference	7.42-8.05	1
4	13/2/2025	NPREF-A-PB-2	North Pailin Reference	8.05-8.31	1
5	14/2/2025	NPWB-1CP2-PB-1	North Pailin B	8.37-9.10	1
6	14/2/2025	NPWB-1CP2-PB-2	North Pailin B	9.10-9.35	1
7	14/2/2025	NPWB-1CP2-PS-1	North Pailin B	9.40-9.44	1
8	14/2/2025	NPWB-1CP2-PS-2	North Pailin B	9.44-9.51	1
9	14/2/2025	NPWB-3CP2-PB-1	North Pailin B	10.36-11.00	1
10	14/2/2025	NPWB-3CP2-PB-2	North Pailin B	11.00-11.24	1
11	14/2/2025	NPWB-3CP2-PS-1	North Pailin B	12.38-12.43	1
12	14/2/2025	NPWB-3CP2-PS-2	North Pailin B	12.43-12.50	1
13	17/2/2025	NPWG-1CP2-PS-1	North Pailin G	8.01-8.06	1
14	17/2/2025	NPWG-1CP2-PS-2	North Pailin G	8.06-8.13	1
15	17/2/2025	NPWG-1CP2-PB-1	North Pailin G	7.02-7.24	1
16	17/2/2025	NPWG-1CP2-PB-2	North Pailin G	7.24-7.56	1
17	17/2/2025	NPWG-3CP2-PS-1	North Pailin G	12.49-12.54	1
18	17/2/2025	NPWG-3CP2-PS-2	North Pailin G	12.54-13.00	1
19	17/2/2025	NPWG-3CP2-PB-1	North Pailin G	13.05-13.28	1
20	17/2/2025	NPWG-3CP2-PB-2	North Pailin G	13.28-13.53	1
21	15/2/2025	NPCPP-1CP2-PB-1	North Pailin CPP	8.12-8.36	1
22	15/2/2025	NPCPP-1CP2-PB-2	North Pailin CPP	8.36-9.02	1
23	15/2/2025	NPCPP-1CP2-PS-1	North Pailin CPP	9.06-9.11	1
24	15/2/2025	NPCPP-1CP2-PS-2	North Pailin CPP	9.11-9.18	1
25	15/2/2025	NPCPP-3CP2-PS-1	North Pailin CPP	12.16-12.21	1
26	15/2/2025	NPCPP-3CP2-PS-2	North Pailin CPP	12.21-12.27	1
27	15/2/2025	NPCPP-3CP2-PB-1	North Pailin CPP	12.32-12.56	1
28	15/2/2025	NPCPP-3CP2-PB-2	North Pailin CPP	12.56-13.20	1
29	13/2/2025	PAREF-A-PS-1	Pailin Reference	12.48-12.54	1
30	13/2/2025	PAREF-A-PS-2	Pailin Reference	12.54-13.01	1
31	13/2/2025	PAREF-A-PB-1	Pailin Reference	13.06-13.30	1
32	13/2/2025	PAREF-A-PB-2	Pailin Reference	13.30-13.55	1
33	18/2/2025	PACPP-1CP2X-PS-1	Pailin CPP	8.28-8.33	1
34	18/2/2025	PACPP-1CP2X-PS-2	Pailin CPP	8.33-8.41	1
35	18/2/2025	PACPP-1CP2X-PB-1	Pailin CPP	7.32-7.57	1
36	18/2/2025	PACPP-1CP2X-PB-2	Pailin CPP	7.57-8.23	1
37	18/2/2025	PACPP-3CP2-PS-1	Pailin CPP	12.46-12.51	1
38	18/2/2025	PACPP-3CP2-PS-2	Pailin CPP	12.51-12.57	1
39	18/2/2025	PACPP-3CP2-PB-1	Pailin CPP	13.02-13.26	1
40	18/2/2025	PACPP-3CP2-PB-2	Pailin CPP	13.26-13.50	1
41	20/2/2025	PAWE-1CP2-PS-1	Pailin E	8.48-8.53	1

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Ichthyoplankton

No.	Date	Sample ID	Location	Time	1,000 ml.
1	13/2/2025	NPREF-A	North Pailin Reference	6.42-7.15	1
2	14/2/2025	NPWB-1CP2	North Pailin B	7.30-8.03	1
3	14/2/2025	NPWB-3CP2	North Pailin B	13.19-13.52	1
4	17/2/2025	NPWG-1CP2	North Pailin G	8.39-9.10	1
5	16/2/2025	NPWG-3CP2	North Pailin G	15.25-15.56	1
6	15/2/2025	NPCPP-1CP2	North Pailin CPP	9.51-10.24	1
7	15/2/2025	NPCPP-3CP2	North Pailin CPP	13.51-14.24	1
8	13/2/2025	PAREF-A	Pailin Reference	15.02-15.36	1
9	18/2/2025	PACPP-1CP2X	Pailin CPP	9.16-9.48	1
10	18/2/2025	PACPP-3CP2	Pailin CPP	14.22-14.55	1
11	19/2/2025	PAWE-3CP2	Pailin E	15.27-16.00	1
12	20/2/2025	PAWE-1CP2	Pailin E	6.53-7.25	1
13	21/2/2025	PAWB-1CP2	Pailin B	7.25-7.58	1
14	21/2/2025	PAWB-3CP2	Pailin B	12.36-13.08	1

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No	Date	Sample ID	Location	Time	100 ml.
42	20/2/2025	PAWE-1CP2-PS-2	Pailin E	8.53-9.00	1
43	20/2/2025	PAWE-1CP2-PB-1	Pailin E	7.56-8.19	1
44	20/2/2025	PAWE-1CP2-PB-2	Pailin E	8.19-8.44	1
45	20/2/2025	PAWE-3CP2-PS-1	Pailin E	10.54-11.00	1
46	20/2/2025	PAWE-3CP2-PS-2	Pailin E	11.00-11.08	1
47	20/2/2025	PAWE-3CP2-PB-1	Pailin E	9.49-10.14	1
48	20/2/2025	PAWE-3CP2-PB-2	Pailin E	10.14-10.49	1
49	21/2/2025	PAWB-1CP2-PS-1	Pailin B	9.32-9.37	1
50	21/2/2025	PAWB-1CP2-PS-2	Pailin B	9.37-9.43	1
51	21/2/2025	PAWB-1CP2-PB-1	Pailin B	8.38-9.02	1
52	21/2/2025	PAWB-1CP2-PB-2	Pailin B	9.02-9.27	1
53	21/2/2025	PAWB-3CP2-PS-1	Pailin B	11.19-11.23	1
54	21/2/2025	PAWB-3CP2-PS-2	Pailin B	11.23-11.29	1
55	21/2/2025	PAWB-3CP2-PB-1	Pailin B	10.26-10.49	1
56	21/2/2025	PAWB-3CP2-PB-2	Pailin B	10.49-11.14	1

Zooplankton

No.	Date	Sample ID	Location	Time	1,000 ml.
1	13/2/2025	NPREF-A	North Pailin Reference	6.42-7.15	1
2	14/2/2025	NPWB-1CP2	North Pailin B	7.30-8.03	1
3	14/2/2025	NPWB-3CP2	North Pailin B	13.19-13.52	1
4	17/2/2025	NPWG-1CP2	North Pailin G	8.39-9.10	1
5	16/2/2025	NPWG-3CP2	North Pailin G	15.25-15.56	1
6	15/2/2025	NPCPP-1CP2	North Pailin CPP	9.51-10.24	1
7	15/2/2025	NPCPP-3CP2	North Pailin CPP	13.51-14.24	1
8	13/2/2025	PAREF-A	Pailin Reference	15.02-15.36	1
9	18/2/2025	PACPP-1CP2X	Pailin CPP	9.16-9.48	1
10	18/2/2025	PACPP-3CP2	Pailin CPP	14.22-14.55	1
11	19/2/2025	PAWE-3CP2	Pailin E	15.27-16.00	1
12	20/2/2025	PAWE-1CP2	Pailin E	6.53-7.25	1
13	21/2/2025	PAWB-1CP2	Pailin B	7.25-7.58	1
14	21/2/2025	PAWB-3CP2	Pailin B	12.36-13.08	1

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CASE NARRATIVE Environmental Studies for Chevron Thailand, 2025 February T779.27

SAMPLE RECEIPT

Seventy-seven (76) 0.04 m² benthic community samples, fifty-six (56) phytoplankton samples, fourteen (14) zooplankton and fourteen (14) ichthyoplankton were received on February 25th, 2025, for the Environmental Studies for Chevron Thailand, February 2025 project.

BENTHOS

All sediments and benthos were stored with 10% formalin in sealed plastic containers. All samples were submitted for sorting and identification and biomass measurement.

Sediment samples were sorted to separate benthos from sediment by researchers from the Coral Reef and Benthos Research Unit, Division of Biological Science, Faculty of Science, Prince of Songkla University.

After the benthic invertebrates have been sorted, the wet weight biomass of Polychaetes, Crustaceans, Molluscs, Echinoderms, and Other Phyla in each sample was measured to the nearest 0.001 gram.

Biomass of benthos at T779.27 project

No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
1	NPCPP-1C2X	0.0650	0.0098	0.0010	0.0009	0.0064
2	NPCPP-1CP2	0.0470	0.0386	-	-	0.0030
3	NPCPP-1D2	0.0317	0.0185	0.0032	0.0266	-
4	NPCPP-2C2	0.0319	0.0032	-	-	0.0009
5	NPCPP-2CP2	0.0247	0.0026	0.0020	-	0.0021
6	NPCPP-2D2	0.1283	0.2540	0.0009	-	0.0023
7	NPCPP-3C2	0.0755	0.4137	0.0009	-	0.0007
8	NPCPP-3CP2	0.1072	0.0145	0.0006	0.0031	0.0011
9	NPCPP-3D2	0.1864	0.2938	-	0.0013	0.0041
10	NPCPP-4C2	0.0521	0.0045	-	-	0.0013
11	NPCPP-4CP2	0.0680	0.1498	-	0.0454	0.0157
12	NPCPP-4D2	0.0640	0.0458	0.0069	-	0.3725
13	NPREF-A	0.0330	0.0054	-	-	-
14	NPREF-B	0.0154	0.0021	0.0016	0.0008	-
15	NPREF-C	0.1789	0.0024	0.0009	-	0.0011
16	NPWB-1C2	0.0794	0.0302	0.0011	0.0004	0.0032
17	NPWB-1CP2	0.0900	0.0440	0.0245	0.0128	-
18	NPWB-1D2	0.0568	0.0372	-	-	0.0002
19	NPWB-2B3	0.0659	0.0086	-	-	0.0031
20	NPWB-2C2X	0.0406	0.0257	0.0395	0.0639	0.0017


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No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
21	NPWB-3B2	0.0284	0.2830	0.0009	-	0.0008
22	NPWB-3C2	0.1306	0.0244	0.0017	0.0220	0.0342
23	NPWB-3CP2	0.1478	0.0061	0.0171	0.0262	-
24	NPWB-3D2	0.1536	0.1828	-	-	0.0031
25	NPWB-4B3X	0.1481	0.1013	-	0.0012	0.0006
26	NPWB-4C2	0.1748	0.0201	0.0007	-	0.0008
27	NPWG-1B2X	0.0627	0.0101	-	0.0046	0.0006
28	NPWG-1C2	0.0601	0.0238	0.0702	-	0.0033
29	NPWG-1CP2	0.0306	0.0454	0.0076	-	0.0022
30	NPWG-1D2	0.1070	0.0186	-	0.0044	0.0007
31	NPWG-2B2X	0.0363	0.1633	0.0012	0.0021	0.0008
32	NPWG-2C2	0.0347	0.0186	-	0.0269	0.0007
33	NPWG-3B2X	0.0539	0.0291	-	-	0.0010
34	NPWG-3C2	0.0895	0.0219	0.0023	-	0.0006
35	NPWG-3CP2	0.1431	0.0318	0.0011	0.0039	0.0012
36	NPWG-3D2	0.0436	0.0408	0.0016	0.0025	0.0018
37	NPWG-4B2X	0.0517	0.0171	-	-	-
38	NPWG-4C2	0.0315	0.0124	-	-	0.0009
39	PACPP-1C2X	0.0768	0.0027	-	0.0005	0.0325
40	PACPP-1CP2X	0.0295	0.0185	0.0012	0.0011	0.0030
41	PACPP-1D2	0.0623	0.0337	0.0011	-	-
42	PACPP-2D2	0.0170	0.0761	0.0625	-	0.0049
43	PACPP-2C2	0.0444	0.1486	-	-	0.0025
44	PACPP-2CP2	0.0459	0.0199	0.0007	-	0.0006
45	PACPP-3C2Y	0.0491	0.3282	0.0008	-	0.0018
46	PACPP-3CP2	0.2824	0.0041	0.1002	-	0.0503
47	PACPP-3D2X	0.0593	0.3668	-	0.0026	0.0014
48	PACPP-4C2X	0.0265	0.0021	0.0009	0.0038	0.0007
49	PACPP-4CP2X	0.0219	0.0131	0.0010	0.0024	0.0071
50	PACPP-4D2X	0.0777	0.1649	-	-	-
51	PAREF-A	0.0224	0.0025	0.0008	-	-
52	PAREF-B	0.0192	0.0112	-	0.0021	-
53	PAREF-C	0.0160	0.0049	0.0079	0.0467	0.0014
54	PAWB-1C2	0.0022	0.2223	-	-	0.0165
55	PAWB-1CP2	0.0118	0.0010	-	-	-
56	PAWB-1D2	0.1536	0.0112	-	-	0.0017
57	PAWB-2B1X	0.0112	0.0111	0.0009	-	0.0012
58	PAWB-2C2	0.0259	0.0860	0.0011	-	0.0010
59	PAWB-3B2	0.0519	1.3385	0.1495	-	0.0006
60	PAWB-3C2	0.0184	0.0020	-	-	-
61	PAWB-3CP2	0.0168	0.4636	-	-	0.0006
62	PAWB-3D2	0.0211	0.0144	-	0.0011	0.0126
63	PAWB-4B2X	0.0100	0.0599	1.4546	-	0.0025
64	PAWB-4C2	0.0883	0.0143	-	-	0.0061
65	PAWE-1B1	0.0087	0.0518	-	0.0013	0.0024
66	PAWE-1C2	0.0513	0.0663	-	-	0.0019


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Result Environmental Studies for Chevron Thailand, 2025 February T779.27

Benthic fauna was identified at the lowest practical taxa and differentiated between species. Three hundred and fifty-eight (358) species of benthos were identified from this project. There were, 2 species of Cnidarian, 1 species of Nematode worm, 3 species of Nemertean, 5 species of Sipunculid worms, 186 species of Annelid worms, 124 species of Crustacean, 8 species of Echinoderms, and 29 species of Mollusk.

Ninety-one (91) species of benthos were identified to species level. Two hundred and thirty-two (232) benthos species were identified to genus level. Thirty-one (31) benthos species were identified to family level. One species was identified to Order level. Two species was identified to Class level. One species was identified to Phylum level.

Composition of benthos taxa in the project area

Phylum	No. species	Species	Genus	Family	Order	Class	Phylum
Cnidaria	2	0	0	1	1	0	0
Nematoda	1	0	0	0	0	0	1
Nemertea	3	0	3	0	0	0	0
Sipuncula	5	1	4	0	0	0	0
Annelida	186	41	143	2	0	0	0
Arthropoda	124	39	61	24	0	0	0
Echinodermata	8	1	4	3	0	0	0
Mollusca	29	9	17	1	0	2	0
Total	358	91	232	31	1	2	1

Unidentified species were named at higher taxa and assigned code to sp.01, sp.02, etc. The benthic fauna was compared with previous benthos samples at the Coral Reef and Benthos Research Unit where data bases of benthos in the Gulf of Thailand were established for long term monitoring. In addition, the specimens were compared with the voucher collection documentation sheets report prepared by Battelle Ocean Science for UNOCAL Thailand Ltd (Battelle 1994), which provides descriptions of a large number of the taxa identified in the earlier surveys in the Gulf of Thailand.


A QA/QC procedure was performed on each of the sorted samples to ensure a minimum of 95% sorting efficiency. A 10% aliquot of each sample was re-sorted by senior researcher trained in invertebrate sorting and the QA/QC procedure. If the sorting efficiency of the sample is below 95%, the remainder of the sample (90%) is to be re-sorted.


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No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
67	PAWE-1CP2	0.0512	0.0302	-	-	0.0019
68	PAWE-1D2	0.0072	0.0071	-	-	0.0018
69	PAWE-2B3	0.0627	0.0075	-	0.0019	0.0006
70	PAWE-2C2	0.0405	0.0277	-	-	-
71	PAWE-3B3	0.0257	0.0056	-	-	-
72	PAWE-3C2	0.0193	0.0044	-	-	2.8975
73	PAWE-3CP2	0.0148	0.2736	-	0.0366	-
74	PAWE-3D2	0.1052	0.0068	0.0099	0.0356	-
75	PAWE-4B2	0.0219	0.0372	-	-	0.0032
76	PAWE-4C2	0.0251	0.0425	0.0011	0.0926	-


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PHYTOPLANKTON

Phytoplankton samples were preserved with 4 % formalin. The densities of phytoplankton were examined and counted with a Sedgewick Rafter chamber under a light microscope. Where possible, identification was made to the genus level. The identification of phytoplankton and their taxonomic categories were given according to various taxonomic papers listed in the references. Unidentified phytoplankton are assigned species numbers for future reference. Data are reported as number of individuals in the bottle.

ZOOPLANKTON

The zooplankton from each tow was preserved with 4% formalin. The samples were identified according to various taxonomic papers listed in the references. The total amount of zooplankton of each tow was counted and calculated to the number of zooplankton in the bottle.

ICHTHYOPLANKTON (Fish larvae)

The ichthyoplankton from each tow was preserved with 4% formalin. The samples were identified according to various taxonomic papers listed in the references. The total amount of ichthyoplankton of each tow was counted and calculated to the number of ichthyoplankton in the bottle.

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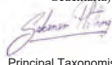
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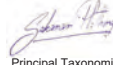


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Principal Taxonomist

Density of Benthos (individuals per 0.04 square meter)

TAXA	NPCPP- 1C2X	NPCPP- 1CP2	NPCPP- 1D2	NPCPP- 2C2	NPCPP- 2CP2	NPCPP- 2D2	NPCPP- 3C2
Cnidaria							
Anthozoa							
Actiniaria							
Edwardsiidae							
Edwardsiidae sp.1							
Nematoda							
Nematoda sp.1						1	
Nemertea							
Anopla							
Heteronemertea							
Lineidae							
Lineus sp.1							
Micrura sp.1	2						
Palaeonemertea							
Tubulanidae							
Callinera sp.1	1	1					
Sipuncula							
Phascolosomatidea							
Aspidosiphoniformes							
Aspidosiphonidae							
Aspidosiphon sp.3							
Phascolosomatiformes							
Phascolosomatidae							
Aplousoma sp.2	7			3	3	3	3
Sipunculidea							
Golfingiformes							
Phascolionidae							
Phascolion sp.1							
Phascolion strombus							
Sipunculiformes							
Sipunculidae							
Sipunculus sp.1							
Annelida							
Polychaeta							
Aciculate							
Acetidae							
Eupanthalis sp.1							
Amphionidae							
Chloea violacea	1					2	
Linopherus sp.1	1						
Linopherus sp.2							
Linopherus sp.4							
Dorvilleidae							
Schistomerings sp.1							
Eunicidae							
Eunice sp.3							
Euniphysa sp.1						2	
Euniphysa sp.2							
Lyidice sp.6							
Marphysa sp.2							
Glyceridae							
Glycera alba							
Glycera lapidum							
Glycera sp.						1	
Coniadiidae							



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Density of Benthos (individuals per 0.04 square meter)

TAXA	NPCPP- 1C2X	NPCPP- 1CP2	NPCPP- 1D2	NPCPP- 2C2	NPCPP- 2CP2	NPCPP- 2D2	NPCPP- 3C2
Glycinde cf. oligodon							
Goniada mesulata							
Hartmaniellidae							
Hartmaniella sp.1							
Heslonidae							
Hesiospina sp.1							
Oxydromus sp.1							
Podarkeopsis sp.1							
Lumbrineridae							
Gallardoneris thailandensis							1
Gesaneris sp.1	1						
Hilbigneris sp.1							
Hilbigneris sp.2							
Loboneris sp.1							
Lumbrineridae							
Lumbrinerides sp.1							
Lumbrineris latreilli	1	2					
Ninoo nr. bruuni							1
Ninoo sp.2							
Scoletoma sp.1							
Nephtyidae							
Aglaophamus cf. dicroides	1		2	1	2	1	
Aglaophamus orientalis	1						1
Micronephthys oligobranchia							
Micronephthys sp.2							
Nereididae							
Neanthes arenaceodentata							
Tambalagamia fauveli	1						
Oenonidae							
Arabella sp.1							
Dilonereis sp.1							
Dilonereis sp.2							
Dilonereis sp.3							
Notocirrus biaculus	1						
Onuphiidae							
Diopatra sp.							
Diopatra sp.3							
Diopatra sp.6							
Onuphis sp.1							1
Onuphis sp.6							
Paradiopatra sp.1							
Paralacydonidae							
Paralacydonia sp.1	1			1			2
Phyllodoceidae							
Phyllodoce sp.1							
Pilargidae							
Ancistrosyllis suksani							
Litocora nr. antennata							
Pilargis sp.1							
Sigambra sp.							
Sigambra sp.1		1	1			1	
Sigambra sp.6	1						
Sigambra sp.8							
Synelmis albini							
Synelmis rigida				2			



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Density of Benthos (individuals per 0.04 square meter)

TAXA	NPCPP- 1C2X	NPCPP- 1CP2	NPCPP- 1D2	NPCPP- 2C2	NPCPP- 2CP2	NPCPP- 2D2	NPCPP- 3C2
Polynoidae							
Harmothoe sp.							
Harmothoe sp.1							
Harmothoe sp.8							
Sigalionidae							
Sthenelais sp.3							
Sthenelais ehlersi							
Sthenolepis japonica				1			
Sphaerodoridae							
Sphaerodordium songklaense							
Syllidae							
Exogone (Exogone) sp.2							
Parkinsyllis sp.2							
Sphaerosyllis sp.1							
Syllis sp.							
Syllis sp.1							
Canalipalpata							
Ampharetidae							
Amphicteis sp.3							
Anobothrus sp.1	2					1	
Auchenoplax crinita		1				1	1
Eusamythella sp.1							
Lysippe labiata	1						
Sanytha sp.1		1					
Sosane sp.2		1					
Chaetopteridae							
Spirochaetopterus sp.1	1				1		
Cirratulidae							
Aphelochaeta sp.1							
Aphelochaeta sp.2							
Caulerella sp.1							
Chaetozone sp.1							
Chaetozone sp.7							
Chaetozone sp.9							
Cirratoma sp.1							
Kirkegaardia sp.1	1						
Kirkegaardia sp.2							
Kirkegaardia sp.3		1					
Kirkegaardia sp.5				1			
Kirkegaardia sp.6						4	
Kirkegaardia sp.7							
Fabricidae							
Fabriciidae							
Pseudofabriciella sp.1							
Flabelligeridae							
Bradabysa sp.1							
Diplocirrus sp.							
Diplocirrus sp.1	1						
Diplocirrus sp.3							
Diplocirrus sp.5							
Stylarioides sp.1							
Longosomatidae							
Heterospio longissima							
Mageloniidae							



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Density of Benthos (individuals per 0.04 square meter)

TAXA	NPCPP- 1C2X	NPCPP- 1CP2	NPCPP- 1D2	NPCPP- 2C2	NPCPP- 2CP2	NPCPP- 2D2	NPCPP- 3C2
Magelona sp.13		1					
Magelona sp.7	1						
Oweniidae							
Galathowenia sp.1							
Poecilochaetidae							
Poecilochaetus koshikiensis							
Poecilochaetus sp.							
Poecilochaetus sp.3							
Poecilochaetus sp.4							
Poecilochaetus tricaratus		1			1		
Sabellidae							
Chone sp.1							1
Euchone sp.1							
Laonome sp.1							
Sponidae							
Laonice sp.1	2						
Laonice sp.3							
Malacoceros indicus							1
Parapronospio sp.1			1				
Prionospio ehlersi	1						
Prionospio elegantula		1					3
Prionospio sp.	1				2		
Prionospio sp.10							
Prionospio sp.11							
Prionospio sp.13	1						
Prionospio sp.6							
Prionospio sp.7							
Scoletopsis sp.2							
Scoletopsis sp.3	1						
Spio sp.2							
Spiophanes aler							
Spiophanes kroeyeri							
Spiophanes malayensis			1	1			2
Spiophanes sp.3							1
Spiophanes sp.4							
Sternaspidae							
Cauleryaspis sp.1							
Sternaspis cf. spinosa					1		1
Sternaspis sp.1							
Terebellidae							
Amatea occidentalis							
Pista sp.1							
Pista sp.4						1	
Polycirrus sp.2							
Streblosoma sp.1							1
Trichobranchidae							
Terebellides sp.1	1	1	1				1
Terebellides sp.2							
Trichobranchus roseus							1
(blank)							
Capitellidae							
Capitella capitata							
Capitella minima							
Capitella sp.1							
Capitella sp.2							



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Density of Benthos (individuals per 0.04 square meter)

TAXA	NPCPP- 1C2X	NPCPP- 1CP2	NPCPP- 1D2	NPCPP- 2C2	NPCPP- 2CP2	NPCPP- 2D2	NPCPP- 3C2
<i>Capitella</i> sp.3							
<i>Capitella</i> sp.4							
<i>Capitella</i> sp.8							
<i>Capitellatus</i> sp.1						1	
<i>Capitellatus</i> sp.2							
<i>Capitellatus</i> sp.3							
<i>Decamastus</i> sp.1							
<i>Mediomastus</i> sp.1							
<i>Mediomastus</i> sp.2							
<i>Neomediomastus</i> sp.1						2	
<i>Neomediomastus</i> sp.2							
<i>Notomastus latericeus</i>							
<i>Notomastus lineatus</i>							
<i>Notomastus</i> sp.2							
<i>Promastobranchius fulvoti</i>							
<i>Scyphoproctus</i> sp.1							
Cossuridae							
<i>Cossura</i> sp.2						1	
Maldanidae							
<i>Asychis</i> sp.2							
<i>Axiobella</i> sp.1							
<i>Clymenella</i> sp.1		1			1		
<i>Euclymene</i> sp.1							
<i>Euclymene</i> sp.3							
<i>Euclymene</i> sp.4	1		1				
<i>Praxillella nr. gracilis</i>			2				
<i>Praxillella</i> sp.3							
Ophelidae							
<i>Armandia</i> sp.1							
Orbinidae							
<i>Leodarnas</i> sp.1							
Parasidae							
<i>Aricidea</i> (Acmira) sp.5							
<i>Aricidea</i> (Acmira) sp.7	1						
<i>Aricidea</i> (Strelzovia) sp.2							
<i>Aricidea</i> (Strelzovia) sp.3							
<i>Cirrophorus</i> sp.4							
<i>Levinsonia</i> sp.1							
<i>Levinsonia</i> sp.16							
<i>Levinsonia</i> sp.2	1				1		
<i>Levinsonia</i> sp.4							
<i>Levinsonia</i> sp.5	1						
<i>Levinsonia</i> sp.9							
Arthropoda							
Crustacea							
Amphipoda							
Ampeliscidae							
<i>Ampelisca bocki</i>	1						
<i>Ampelisca brevicornis</i>							
<i>Ampelisca chinensis</i>	1						
<i>Ampelisca cyclops</i>			1		1		
<i>Ampelisca maia</i>			1		1		
<i>Ampelisca</i> sp.							
<i>Bythys calisto</i>						1	
<i>Bythys febris</i>			1				



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Principal Taxonomist

Density of Benthos (individuals per 0.04 square meter)

TAXA	NPCPP- 1C2X	NPCPP- 1CP2	NPCPP- 1D2	NPCPP- 2C2	NPCPP- 2CP2	NPCPP- 2D2	NPCPP- 3C2
<i>Bythys</i> sp.							
<i>Haplophys</i> sp.1			1				
Amphilocheidae							
<i>Amphilocheus</i> sp.1							
<i>Amphilocheus</i> sp.2							
Aoridae							
<i>Grandidorella gilesi</i>							
Caprellidae							
<i>Caprella</i> sp.1	1	1					2
<i>Caprella</i> sp.2							
Caprellidae sp.3							
Caprellidae sp.5							
Dexaminidae							
<i>Dexaminidae</i> sp.2							
Eriopisidae							
<i>Eriopisella sechellensis</i>							
<i>Eriopisella</i> sp.							
<i>Eriopisella</i> sp.1							
Eriopisidae							
<i>Victoriopsis</i> sp.1			1	1			1
Leucothoidae							
<i>Leucothoe furina</i>							
Oedicerotidae							
<i>Eochelidium nonmiraculum</i>							
Oedicerotidae sp.3							
<i>Pericardodes</i> sp.1							
<i>Synchelidium</i> sp.1							
Photidae							
<i>Gammaropsis</i> sp.6							
<i>Latigammaropsis</i> sp.1							
Photidae							
<i>Photis kapapa</i>							
<i>Photis</i> sp.2							
Phoxocephalidae							
<i>Harpiopsis vaduculus</i>							
Synopidae							
<i>Synopia</i> sp.2							
<i>Synopidae</i> sp.3							
Tryphosidae							
<i>Tryphosella</i> sp.1							
Tryphosidae sp.1							
Urothoidae							
<i>Urothoe denticulata</i>							
<i>Urothoe gelasina</i>							
Cumacea							
Bodotriidae							
<i>Pseudosymphodomma</i> sp.1							
Diastylidae							
Diastylidae							
<i>Diastylis</i> sp.1							
Leucodidae							
<i>Eudorella</i> sp.1							
<i>Eudorella</i> sp.2							
Nannastacidae							
<i>Campylaspis</i> sp.12							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 square meter)

TAXA	NPCPP- 1C2X	NPCPP- 1CP2	NPCPP- 1D2	NPCPP- 2C2	NPCPP- 2CP2	NPCPP- 2D2	NPCPP- 3C2
<i>Campylaspis</i> sp.5							
<i>Nannastacus</i> sp.5							
Decapoda							
Alpheidae							
Alpheidae							
<i>Alpheus acutocarinatus</i>			1			1	
<i>Alpheus paracrinatus</i>							
<i>Alpheus rapacida</i>	1	1				2	
<i>Alpheus</i> sp.							
<i>Alpheus</i> sp.6							
<i>Athanas</i> sp.							
<i>Bermudacaris</i> sp.							
<i>Bermudacaris</i> sp.1							
<i>Bermudacaris</i> sp.2							
<i>Salmonella</i> sp.2							
Callinassidae							
<i>Aqaballanassa brevirostris</i>							
Callinassidae							
<i>Jocallanassa matzi</i>			1			1	
<i>Lipkecallanassa</i> sp.1			1				
<i>Scallasis contipes</i>							
Chasmocarcinidae							
<i>Chasmocarcinops gelasimoides</i>							
Ctenochelidae							
Ctenochelidae							
<i>Ctenochelidae</i> sp.1		1					
Euryplacidae							
<i>Platyozus laevis</i>							
Leucosidae							
<i>Arcania</i> sp.3							
<i>Nuclops modestus</i>							
Ogyridae							
<i>Ogyridis</i> sp.1							
<i>Ogyridis</i> sp.4							
<i>Ogyridis</i> sp.7							
Palaemonidae							
Palaemonidae							
<i>Palaemonidae</i> sp.5							
<i>Palaemonidae</i> sp.6							
Pandalidae							
<i>Pandalidae</i> sp.1							
Pasiphaeidae							
<i>Leptochela pugnax</i>						1	
Penaeidae							
<i>Altyopenaeus</i> sp.1							
Pilumnidae							
<i>Arges marginatus</i>							
<i>Arges transversus</i>							
<i>Carnatopsis</i> sp.1							
<i>Carnatopsis</i> sp.2							
<i>Ceratoplax fulgida</i>							
Portunidae							
<i>Alionectes pulchricristatus</i>						1	
<i>Charybdis</i> (Archias) hongkongensis						1	
<i>Eodemus unidens</i>		1					



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Principal Taxonomist

Density of Benthos (individuals per 0.04 square meter)

TAXA	NPCPP- 1C2X	NPCPP- 1CP2	NPCPP- 1D2	NPCPP- 2C2	NPCPP- 2CP2	NPCPP- 2D2	NPCPP- 3C2
<i>Thalassia admete</i>							
Processidae							
<i>Processa</i> sp.1							
Scalopidae							
<i>Scalopida spinosipes</i>			2				
Scalopidae							
Upogebidae							
<i>Gebiacantha</i> sp.1							
<i>Gebicula</i> sp.1							
<i>Gebicula</i> sp.3							
<i>Upogebia</i> sp.1							
Isopoda							
Anthuridae							
<i>Amakusanthura</i> sp.1			1				1
Cirolanidae							
<i>Cirolanidae</i> sp.2							
Gnathidae							
<i>Caecognathia andamanensis</i>		1	3	2			1
<i>Gnathia</i> sp.4							
Hyssuridae							
<i>Hyssuridae</i> sp.1							
<i>Kupellonura</i> sp.1							1
Mysidacea							
Mysidae							
<i>Anchialina</i> sp.							
<i>Anchialina</i> sp.1						1	
<i>Anchialina</i> sp.2			2	2			
<i>Haplostylus bengalensis</i>		1					
Mysidae							
<i>Siriella</i> sp.							
<i>Siriella</i> sp.3							
<i>Siriella</i> sp.4							
<i>Siriella</i> sp.5			1				
Stomatopoda							
Nannosquillidae							
<i>Acanthosquilla derjardi</i>							
<i>Acanthosquilla multifasciata</i>							
Squillidae							
<i>Anchisquilla fasciata</i>							
Tanaidacea							
Apseudidae							
<i>Apseudes</i> sp.1							
<i>Apseudes</i> sp.4							
Kalliapseudidae							
<i>Kalliapseudes</i> sp.2							
Leptochelidae							
<i>Leptochela</i> sp.1							
<i>Leptochela</i> sp.2							
Pagurapseudidae							
Pagurapseudidae							
<i>Pagurapseudes</i> sp.1							
<i>Pagurapseudes</i> sp.2							
Parapseudidae							
<i>Pakistanapseudes</i> sp.1							
Echinodermata							
Ophiuroidea							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 square meter)

TAXA	NPCPP- 1C2X	NPCPP- 1CP2	NPCPP- 1D2	NPCPP- 2C2	NPCPP- 2CP2	NPCPP- 2D2	NPCPP- 3C2
Ophiurida							
Amphiuridae							
<i>Amphiopus (Lymanella) andreae</i>			1				
<i>Amphiopus</i> sp.			1				
<i>Amphiura</i> sp.1							
<i>Amphiura</i> sp.2							
<i>Amphiura</i> sp.6							
<i>Amphiuridae</i> sp.2							
<i>Amphiuridae</i> sp.3							
<i>Amphiuridae</i> sp.4		2					
Mollusca							
Aplacophora							
Cavibelonia							
Simrothiellidae							
<i>Helicoradomenia</i> sp.1		1				3	
<i>Helicoradomenia</i> sp.2							
Chaetodermatida							
Chaetodermatidae							
<i>Chaetoderma</i> sp.1							
Bivalvia							
Adapedonta							
Pharidae							
<i>Phaxas</i> sp.							
<i>Phaxas</i> sp.2							
Arcida							
Arcidae							
<i>Verlarca mortenseni</i>							
Cardiida							
Cardiidae							
<i>Fulvia</i> sp.1							
Psammobiidae							
<i>Gari truncata</i>							
Semelidae							
<i>Abra</i> sp.1							
<i>Abra</i> sp.2							
Lucinida							
Lucinidae							
<i>Anodonta edentula</i>							
<i>Cavaleris imajimai</i>							
Myiida							
Corbulidae							
<i>Potamocorbula</i> sp.1						1	
<i>Potamocorbula</i> sp.2							
Mytiloidea							
Mytilidae							
<i>Amygdalum soyae</i>							
Nuculoidea							
Nuculidae							
<i>Ennucula niponica</i>			1				
Pholadomyoidea							
Cuspidariidae							
<i>Cardiomya singaporensis</i>							
Pandoridae							
<i>Pandora</i> sp.1							
Pterioidea							
Pinnidae							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 square meter)

TAXA	NPCPP- 1C2X	NPCPP- 1CP2	NPCPP- 1D2	NPCPP- 2C2	NPCPP- 2CP2	NPCPP- 2D2	NPCPP- 3C2
Pinna sp.	1						
Peridae							
<i>Pinctada</i> sp.2							
Venerida							
Ungulinidae							
<i>Felaniella</i> sp.1							
Bivalvia							
Gastropoda		1					
Archaeogastropoda							
Orbistellidae							
<i>Microdiscula</i> sp.							
Neogastropoda							
Nassariidae							
<i>Nassarius comptus</i>							
Neotaenioglossa							
Naticidae							
Naticidae							
Pteropoda							
Hyalocylidae							
<i>Hyalocylis</i> sp.1							
Thecosomata							
Cavolinidae						1	
<i>Diacavolinia flexipes</i>							
Gastropoda							
Scaphopoda							
Dentaliida							
Laevidentulidae							
<i>Laevidentulum</i> sp.							
Total	47	22	28	17	13	34	37
No. of Taxa	37	20	22	12	10	25	28



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sgu)

TAXA	NPCPP- 3CP2	NPCPP- 3D2	NPCPP- 4C2	NPCPP- 4CP2	NPCPP- 4D2	NPREF- A	NPREF- B
Cnidaria							
Anthozoa							
Actiniaria							
Actiniaria							
Edwardsiidae							
<i>Edwardsiidae</i> sp.1							
Nematoda							
<i>Nematoda</i> sp.1							
Nemertea							
Anopla							
Heteronemertea							
Lineidae							
<i>Lineus</i> sp.1				1	1		
<i>Micrura</i> sp.1							
Palaeonemertea							
Tubulanidae							
<i>Callinera</i> sp.1		1		1	1		
Sipuncula							
Phascolosomatidea							
Aspidosiphoniformes							
Aspidosiphonidae							
<i>Aspidosiphon</i> sp.3			1				
Phascolosomatiformes							
Phascolosomatidae							
<i>Aplonsoma</i> sp.2		2		2	5	1	
Sipunculidea							
Golfingiformes							
Phascolionidae							
<i>Phascolion</i> sp.1							
<i>Phascolion strombus</i>							
Sipunculiformes							
Sipunculidae							
<i>Sipunculus</i> sp.1							
Annelida							
Polychaeta							
Aciculae							
Acetidae							
<i>Eupanthalis</i> sp.1							
Amphitomididae							
<i>Chloela violacea</i>							
<i>Linopherus</i> sp.1							
<i>Linopherus</i> sp.2							
<i>Linopherus</i> sp.4							
Dorvilleidae							
<i>Schistomerings</i> sp.1							
Eunicidae							
<i>Eunice</i> sp.3							
<i>Euniphysa</i> sp.1							
<i>Euniphysa</i> sp.2							
<i>Lysidice</i> sp.6							
<i>Marphysa</i> sp.2							
Glyceridae							
<i>Glycera alba</i>							
<i>Glycera lapidum</i>							
<i>Glycera</i> sp.		1		1			
Goniadidae							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sgu)

TAXA	NPCPP- 3CP2	NPCPP- 3D2	NPCPP- 4C2	NPCPP- 4CP2	NPCPP- 4D2	NPREF- A	NPREF- B
<i>Glycinde cf. oligodon</i>					1		1
<i>Goniada maculata</i>							
Hartmaniellidae							
<i>Hartmaniella</i> sp.1							1
Heslonidae							
<i>Hesiosphina</i> sp.1							
<i>Oxydromus</i> sp.1							
<i>Podarkeopsis</i> sp.1							
Lumbrineridae							
<i>Gallardoneris thailandensis</i>					1		
<i>Geseneris</i> sp.1							
<i>Hilbigneris</i> sp.1							
<i>Hilbigneris</i> sp.2							
<i>Loboneris</i> sp.1							
Lumbrineridae							
<i>Lumbrineris</i> sp.1				1			
<i>Lumbrineris latrelli</i>							2
<i>Ninoe nr. bruuni</i>							
<i>Ninoe</i> sp.2							
<i>Scoletona</i> sp.1				2			
Nephtyidae							
<i>Aglaophamus cf. dicirroides</i>		1					
<i>Aglaophamus orientalis</i>		1					
<i>Micronephthys oligobranchia</i>							
<i>Micronephthys</i> sp.2							
Nereididae							
<i>Neanthes arenaceodentata</i>							
<i>Tambalagamia fauveli</i>							
Oenonidae							
<i>Arabella</i> sp.1							
<i>Dilonereis</i> sp.1							
<i>Dilonereis</i> sp.2							
<i>Dilonereis</i> sp.3							
<i>Notocirrus biaculus</i>							
Onuphiidae							
<i>Diopatra</i> sp.							
<i>Diopatra</i> sp.3							
<i>Diopatra</i> sp.6							
<i>Onuphis</i> sp.1					1		1
<i>Onuphis</i> sp.6							
<i>Paradiopatra</i> sp.1						1	
Paralacydoniidae							
<i>Paralacydonia</i> sp.1							
Phyllodoceidae							
<i>Phyllodoce</i> sp.1							
Pilargidae							
<i>Ancistrosyllis suksani</i>							
<i>Litocorsa nr. antennata</i>							
<i>Pilargis</i> sp.1							
<i>Sigambra</i> sp.							
<i>Sigambra</i> sp.1							
<i>Sigambra</i> sp.6							
<i>Sigambra</i> sp.8							
<i>Synelmis abini</i>							
<i>Synelmis rigida</i>							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPCPP- 3CP2	NPCPP- 3D2	NPCPP- 4C2	NPCPP- 4CP2	NPCPP- 4D2	NPREF- A	NPREF- B
Polynoidae							
<i>Harmothoe</i> sp.				1			
<i>Harmothoe</i> sp.1							
<i>Harmothoe</i> sp.8							
Sigalionidae							
<i>Sthenelais</i> sp.3							
<i>Sthenelaisella ehlersi</i>							
<i>Sthenelaisella japonica</i>							
Sphaerodoridae							
<i>Sphaerodordium songklaense</i>							
Syllidae							
<i>Exogone</i> (Exogone) sp.2							
<i>Perkinsyllis</i> sp.2							
<i>Sphaerosyllis</i> sp.1							
<i>Syllis</i> sp.							
<i>Syllis</i> sp.1				1			
Canalipalpata							
Ampharetidae							
<i>Ampharetis</i> sp.3							
<i>Anobothrus</i> sp.1							
<i>Auchenoplax crinita</i>							
<i>Eusamythella</i> sp.1							
<i>Lysippe labiata</i>		1					
<i>Sanytha</i> sp.1							
<i>Sosane</i> sp.2							
Chaetopteridae							
<i>Spiochaetopterus</i> sp.1	1		1				
Cirratulidae							
<i>Aphelochaeta</i> sp.1					1		
<i>Aphelochaeta</i> sp.2							
<i>Caulerella</i> sp.1							
<i>Chaetozone</i> sp.1							
<i>Chaetozone</i> sp.7							
<i>Chaetozone</i> sp.9							
<i>Cirratulus</i> sp.1							
<i>Kirkegaardia</i> sp.1		1					
<i>Kirkegaardia</i> sp.2			1				
<i>Kirkegaardia</i> sp.3							
<i>Kirkegaardia</i> sp.5				3			
<i>Kirkegaardia</i> sp.6			1				
<i>Kirkegaardia</i> sp.7							
Fabriciidae							
<i>Fabriciella</i> sp.1							
<i>Pseudofabriciella</i> sp.1							
Flabelligeridae							
<i>Bradybysia</i> sp.1							
<i>Diplocirrus</i> sp.							
<i>Diplocirrus</i> sp.1							
<i>Diplocirrus</i> sp.3							
<i>Diplocirrus</i> sp.5							
<i>Stylarioides</i> sp.1							
Longosomatidae							
<i>Heterospio longissima</i>							
Magelonidae							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPCPP- 3CP2	NPCPP- 3D2	NPCPP- 4C2	NPCPP- 4CP2	NPCPP- 4D2	NPREF- A	NPREF- B
<i>Magelona</i> sp.13		1				1	
<i>Magelona</i> sp.7							
Oweniidae							
<i>Galathowenia</i> sp.1							
Poecilochaetidae							
<i>Poecilochaetus koshikiensis</i>							
<i>Poecilochaetus</i> sp.	1						
<i>Poecilochaetus</i> sp.3							
<i>Poecilochaetus</i> sp.4							
<i>Poecilochaetus tricaratus</i>							
Sabellidae							
<i>Chone</i> sp.1							
<i>Euchone</i> sp.1			1				
<i>Laonome</i> sp.1							
Spionidae							
<i>Laonice</i> sp.1			1		1	1	
<i>Laonice</i> sp.3							
<i>Malacoceros indicus</i>							
<i>Paraprionospio</i> sp.1	1			2			
<i>Prionospio ehlersi</i>				1			
<i>Prionospio elegantula</i>							
<i>Prionospio</i> sp.				1			
<i>Prionospio</i> sp.10							
<i>Prionospio</i> sp.11							
<i>Prionospio</i> sp.13							
<i>Prionospio</i> sp.6				1			
<i>Prionospio</i> sp.7							
<i>Scolecopsis</i> sp.2							
<i>Scolecopsis</i> sp.3							
<i>Spio</i> sp.2							
<i>Spiophanes afer</i>							
<i>Spiophanes kroeyeri</i>						1	
<i>Spiophanes malayensis</i>							
<i>Spiophanes</i> sp.3							
<i>Spiophanes</i> sp.4							
Sternaspidae							
<i>Cauleryaspis</i> sp.1	1						
<i>Sternaspis cf. spinosa</i>							
<i>Sternaspis</i> sp.1			1				
Terebellidae							
<i>Anaeasoa occidentalis</i>							
<i>Pista</i> sp.1							
<i>Pista</i> sp.4							
<i>Polycirrus</i> sp.2			1				
<i>Streblosoma</i> sp.1							
Trichotrancheidae							
<i>Terebellites</i> sp.1				1			
<i>Terebellites</i> sp.2		1	1	2	2	2	
<i>Trichobranchius roseus</i>	2						
(blank)							
Capitellidae							
<i>Capitella capitata</i>							
<i>Capitella minima</i>							
<i>Capitella</i> sp.1							
<i>Capitella</i> sp.2							

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPCPP- 3CP2	NPCPP- 3D2	NPCPP- 4C2	NPCPP- 4CP2	NPCPP- 4D2	NPREF- A	NPREF- B
<i>Campylaspis</i> sp.5	1						
<i>Nannastacus</i> sp.5				1			
Decapoda							
Alpheidae							
Alpheidae sp.4							
<i>Alpheus acutocarinatus</i>					1		
<i>Alpheus paracrinatus</i>				1			
<i>Alpheus rapacida</i>							
<i>Alpheus</i> sp.							
<i>Alpheus</i> sp.6							
<i>Athanas</i> sp.							
<i>Bermudacaris</i> sp.							
<i>Bermudacaris</i> sp.1					1		
<i>Bermudacaris</i> sp.2					1		
<i>Salmones</i> sp.2				1			
Callinassidae							
<i>Aqaballianassa brevis</i>							
Callinassidae							
<i>Jocullianassa matzi</i>	1	1	1				
<i>Lipkecallianassa</i> sp.1	1						
<i>Scallasis contipes</i>							
Chasmocarcinidae							
<i>Chasmocarcinops gelasimoides</i>							
Ctenochelidae							
Ctenochelidae							
Ctenochelidae sp.1							
Euryplacidae							
<i>Platyozus laevis</i>							
Leucosidae							
<i>Arcania</i> sp.3							
<i>Nuclops modestus</i>							
Ogyrididae							
<i>Ogyrides</i> sp.1							
<i>Ogyrides</i> sp.4							
<i>Ogyrides</i> sp.7							
Palaemonidae							
Palaemonidae							
Palaemonidae sp.5				1			
Palaemonidae sp.6							
Pandalidae							
Pandalidae sp.1							
Pasiphaeidae							
<i>Leptocheila pugnax</i>							
Penaeidae							
<i>Altyopenaeus</i> sp.1							
Pilumnidae							
<i>Arges marginatus</i>							
<i>Arges transversus</i>							
<i>Camatopsis</i> sp.1		1					
<i>Camatopsis</i> sp.2							
<i>Caratoplax fulgida</i>							
Portunidae							
<i>Alionectes pulchricristatus</i>							
<i>Charybdis (Archias) hongkongensis</i>				1			
<i>Eodemus unidens</i>							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPCPP- 3CP2	NPCPP- 3D2	NPCPP- 4C2	NPCPP- 4CP2	NPCPP- 4D2	NPREF- A	NPREF- B
<i>Thalassia admete</i>							
Processidae							
<i>Processa</i> sp.1							
Scalopidae							
<i>Scalopida spinosipes</i>		1					
Scalopidae							
Upogebidae							
<i>Gebiacantha</i> sp.1		1					
<i>Gebicula</i> sp.1							
<i>Gebicula</i> sp.3							
<i>Upogebia</i> sp.1							
Isopoda							
Anthuridae							
<i>Anakusanthura</i> sp.1							
Cirolanidae							
<i>Cirolanidae</i> sp.2							
Gnathiidae							
<i>Caecognathia andamanensis</i>	1					2	
<i>Gnathia</i> sp.4							
Hyssuridae							
<i>Hyssuridae</i> sp.1							
<i>Kupellonura</i> sp.1							
Mysidacea							
Myidae							
<i>Anchialina</i> sp.							
<i>Anchialina</i> sp.1							
<i>Anchialina</i> sp.2							
<i>Haplostylus bengalensis</i>							
Mysidae							
<i>Siriella</i> sp.							
<i>Siriella</i> sp.3							
<i>Siriella</i> sp.4							
<i>Siriella</i> sp.5							
Stomatopoda							
<i>Nannosquilla</i>							
<i>Acanthosquilla derijardi</i>							
<i>Acanthosquilla multifasciata</i>							
Squillidae							
<i>Anchisquilla fasciata</i>							
Tanaidacea							
Apseuroidae							
<i>Apseudes</i> sp.1							
<i>Apseudes</i> sp.4			1				1
Kalliapseudidae							
<i>Kalliapseudes</i> sp.2						1	
Leptocheilidae							
<i>Leptocheila</i> sp.1							
<i>Leptocheila</i> sp.2							
Pagurapseudidae							
Pagurapseudidae							
Pagurapseudidae sp.1							
Pagurapseudidae sp.2							
Parapseudidae							
<i>Pakistanapseudes</i> sp.1							
Echinodermata							
Ophiuroidea							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPCPP- 3CP2	NPCPP- 3D2	NPCPP- 4C2	NPCPP- 4CP2	NPCPP- 4D2	NPREF- A	NPREF- B
Ophiurida							
Amphiuridae							
<i>Amphiopus (Lymanella) andreae</i>	1			1			
<i>Amphiopus</i> sp.	1						
<i>Amphiura</i> sp.1				2			1
<i>Amphiura</i> sp.2							
<i>Amphiura</i> sp.6							
Amphiuridae sp.2							
Amphiuridae sp.3		1					
Amphiuridae sp.4							
Mollusca							
Aplacophora							
Cavibelonia							
Simrothiellidae							
<i>Helicoradomenia</i> sp.1							
<i>Helicoradomenia</i> sp.2							1
Chaetodermatida							
Chaetodermatidae							
<i>Chaetoderma</i> sp.1							
Bivalvia							
Adapedonta							
Pharidae							
<i>Phaxas</i> sp.							
<i>Phaxas</i> sp.2							
Arcida							
Arcidae							
<i>Verilarca mortenseni</i>							
Cardiida							
Cardiidae							
<i>Fulvia</i> sp.1							
Psammobidae							
<i>Gari truncata</i>							
Semellidae							
<i>Abra</i> sp.1							1
<i>Abra</i> sp.2							
Lucinida							
Lucinidae							
<i>Anodonta edentula</i>							
<i>Cavaleris imajimai</i>							
Myioida							
Corbulidae							
<i>Potamocorbula</i> sp.1					1		
<i>Potamocorbula</i> sp.2							
Mytiloida							
Mytilidae							
<i>Amygdalum soyae</i>							
Nuculoida							
Nuculidae							
<i>Ennucula niponica</i>					2		
Photadomyioida							
Cuspidariidae							
<i>Cardiomya singaporensis</i>							
Pandoridae							
<i>Pandora</i> sp.1							
Pterioida							
Pinnidae							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPCPP- 3CP2	NPCPP- 3D2	NPCPP- 4C2	NPCPP- 4CP2	NPCPP- 4D2	NPREF- A	NPREF- B
<i>Pinna</i> sp.							
Peridae							
<i>Pinctada</i> sp.2							
Venerida							
Ungulinidae							
<i>Felaniella</i> sp.1							
Bivalvia	1						
Gastropoda							
Archaeogastropoda							
Orbistellidae							
<i>Microdiscula</i> sp.							
Neogastropoda							
Nassariidae							
<i>Nassarius comptus</i>							
Neotaenioglossa							
Naticidae							
Naticidae							
Pteropoda							
Hyalocylidae							
<i>Hyalocylis</i> sp.1							
Thecosomata							
Cavolinidae							
<i>Diastolonia flexipes</i>							
Gastropoda							
Scaphopoda							
Dentaliida							
Laevidentallidae							
<i>Laevidentallium</i> sp.							
Total	32	22	23	43	28	20	8
No. of Taxa	26	18	21	31	22	16	6



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPREF- C	NPWB- 1C2	NPWB- 1CP2	NPWB- 1D2	NPWB- 2B3	NPWB- 2C2X	NPWB- 3B2
Cnidaria							
Anthozoa							
Actiniaria							
Edwardsiidae							
Edwardsiidae sp.1							
Nematoda							
Nematoda sp.1							
Nemertea							
Anopla							
Heteronemertea							
Lineidae							
Lineus sp.1							
Micrura sp.1							
Palaeonemertea							
Tubulanidae							
Callinera sp.1							
Sipuncula							
Phascolosomatidea							
Aspidosiphoniformes							
Aspidosiphonidae							
Aspidosiphon sp.3							
Phascolosomatiformes							
Phascolosomatidae							
Aplousoma sp.2							
Sipunculidea							
Golfingiformes							
Phascolionidae							
Phascolion sp.1							
Phascolion strombus							
Sipunculiformes							
Sipunculidae							
Sipunculus sp.1							
Annelida							
Polychaeta							
Aciculate							
Acetidae							
Euphanthalis sp.1							
Amphinomidae							
Chloea violacea							
Linopherus sp.1							
Linopherus sp.2							
Linopherus sp.4							
Dorvilleidae							
Schistomerings sp.1							
Eunicidae							
Eunice sp.3							
Euniphyssa sp.1							
Euniphyssa sp.2							
Lyndice sp.6							
Marphysa sp.2							
Glyceridae							
Glycera alba							
Glycera lapidum							
Glycera sp.							
Goniadidae							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPREF- C	NPWB- 1C2	NPWB- 1CP2	NPWB- 1D2	NPWB- 2B3	NPWB- 2C2X	NPWB- 3B2
Glycinde cf. oligodon							
Goniada mesulata							
Hartmaniellidae							
Hartmaniella sp.1							
Heslonidae							
Hesiospina sp.1							
Oxydromus sp.1							
Podarkeopsis sp.1							
Lumbrineridae							
Gallardoneris thailandensis							
Gesaneris sp.1							
Hilbigneris sp.1							
Hilbigneris sp.2							
Loboneris sp.1							
Lumbrineridae							
Lumbrineris sp.1							
Lumbrineris latreilli							
Ninoe nr. bruuni							
Ninoe sp.2							
Scoletoma sp.1							
Nephtyidae							
Aglaophamus cf. dicirroides							
Aglaophamus orientalis							
Micronephthys oligobranchia							
Micronephthys sp.2							
Nereididae							
Neanthes arenaeodentata							
Tambalagania fauveli							
Oenonidae							
Arabella sp.1							
Dilonereis sp.1							
Dilonereis sp.2							
Dilonereis sp.3							
Notocirrus biaculus							
Onuphiidae							
Diopatra sp.							
Diopatra sp.3							
Diopatra sp.6							
Onuphis sp.1							
Onuphis sp.6							
Paradiopatra sp.1							
Paralacydonidae							
Paralacydonia sp.1							
Phyllodoceidae							
Phyllodoce sp.1							
Pilargidae							
Ancistrosyllis suksani							
Litocarsa nr. antennata							
Pilargis sp.1							
Sigambra sp.							
Sigambra sp.1							
Sigambra sp.6							
Sigambra sp.8							
Synelmis abini							
Synelmis rigida							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPREF- C	NPWB- 1C2	NPWB- 1CP2	NPWB- 1D2	NPWB- 2B3	NPWB- 2C2X	NPWB- 3B2
Polynoidae							
Harmothoe sp.							
Harmothoe sp.1							
Harmothoe sp.8							
Sigalionidae							
Sthenelais sp.3							
Sthenelais ehlersi							
Sthenolepis japonica							
Sphaerodoridae							
Sphaerodordium songklaense							
Syllidae							
Exogone (Exogone) sp.2							
Parkinsonia sp.2							
Sphaerosyllis sp.1							
Syllis sp.							
Syllis sp.1							
Canalipalpata							
Ampharetidae							
Amphicteis sp.3							
Anobothrus sp.1							
Auchenoplax crinita							
Eusamythella sp.1							
Lysippe labiata							
Sanytha sp.1							
Sosane sp.2							
Chaetopteridae							
Spirochaetopterus sp.1							
Cirratulidae							
Aphelochaeta sp.1							
Aphelochaeta sp.2							
Caulerella sp.1							
Chaetozone sp.1							
Chaetozone sp.7							
Chaetozone sp.9							
Cirratoma sp.1							
Kirkegaardia sp.1							
Kirkegaardia sp.2							
Kirkegaardia sp.3							
Kirkegaardia sp.5							
Kirkegaardia sp.6							
Kirkegaardia sp.7							
Fabricidae							
Fabriciidae							
Pseudofabriciella sp.1							
Flabelligeridae							
Bradybysa sp.1							
Diplocirrus sp.							
Diplocirrus sp.1							
Diplocirrus sp.3							
Diplocirrus sp.5							
Stylarioides sp.1							
Longosomatidae							
Heterospio longissima							
Mageloniidae							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPREF- C	NPWB- 1C2	NPWB- 1CP2	NPWB- 1D2	NPWB- 2B3	NPWB- 2C2X	NPWB- 3B2
Magelona sp.13							
Magelona sp.7							
Oweniidae							
Galathowenia sp.1							
Poecilochaetidae							
Poecilochaetus koshikiensis							
Poecilochaetus sp.							
Poecilochaetus sp.3							
Poecilochaetus sp.4							
Poecilochaetus tricaratus							
Sabellidae							
Chone sp.1							
Euchone sp.1							
Laonome sp.1							
Sponidae							
Laonice sp.1							
Laonice sp.3							
Malacoceros indicus							
Parapronospio sp.1							
Prionospio ehlersi							
Prionospio elegantula							
Prionospio sp.							
Prionospio sp.10							
Prionospio sp.11							
Prionospio sp.13							
Prionospio sp.6							
Prionospio sp.7							
Scoletopsis sp.2							
Scoletopsis sp.3							
Spio sp.2							
Spiochanes aler							
Spiochanes kroeyeri							
Spiochanes malayensis							
Spiochanes sp.3							
Spiochanes sp.4							
Sternaspidae							
Cauleryaspis sp.1							
Sternaspis cf. spinosa							
Sternaspis sp.1							
Terebellidae							
Amatea occidentalis							
Pista sp.1							
Pista sp.4							
Polycirrus sp.2							
Streblosoma sp.1							
Trichobranchidae							
Terebellides sp.1							
Terebellides sp.2							
Trichobranchus roseus							
(blank)							
Capitellidae							
Capitella capitata							
Capitella minima							
Capitella sp.1							
Capitella sp.2							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	NPREF- C	NPWB- 1C2	NPWB- 1CP2	NPWB- 1D2	NPWB- 2B3	NPWB- 2C2X	NPWB- 3B2
<i>Capitella</i> sp.3							
<i>Capitella</i> sp.4							
<i>Capitella</i> sp.8							
<i>Capitellithus</i> sp.1			1				
<i>Capitellithus</i> sp.2							
<i>Capitellithus</i> sp.3							
<i>Decamastus</i> sp.1							
<i>Mediomastus</i> sp.1							
<i>Mediomastus</i> sp.2							1
<i>Neomediomastus</i> sp.1							
<i>Neomediomastus</i> sp.2			1				
<i>Notomastus latericeus</i>							
<i>Notomastus lineatus</i>	1						
<i>Notomastus</i> sp.2							
<i>Promastobranchius fulvoti</i>		1		1			
<i>Scyphoproctus</i> sp.1							
Cossuridae							
<i>Cossura</i> sp.2	1						
Maldanidae							
<i>Asychis</i> sp.2							
<i>Axiotella</i> sp.1					1		
<i>Clymenella</i> sp.1			1	1		1	
<i>Euclymene</i> sp.1							
<i>Euclymene</i> sp.3						1	
<i>Euclymene</i> sp.4							
<i>Praxillella nr. gracilis</i>					1		
<i>Praxillella</i> sp.3							
Ophelidae							
<i>Armandia</i> sp.1							
Orbinidae							
<i>Leodarnas</i> sp.1							
Paracidae							
<i>Aricidea</i> (Acmira) sp.5							
<i>Aricidea</i> (Acmira) sp.7							
<i>Aricidea</i> (Strelzovia) sp.2							
<i>Aricidea</i> (Strelzovia) sp.3							
<i>Cirrophorus</i> sp.4							
<i>Levinsonia</i> sp.1							
<i>Levinsonia</i> sp.16							
<i>Levinsonia</i> sp.2							
<i>Levinsonia</i> sp.4							
<i>Levinsonia</i> sp.5							
<i>Levinsonia</i> sp.9						1	1
Arthropoda							
Crustacea							
Amphipoda							
Ampeliscidae							
<i>Ampelisca bocki</i>							
<i>Ampelisca brevicornis</i>							
<i>Ampelisca chinensis</i>							
<i>Ampelisca cyclops</i>		2		2		1	
<i>Ampelisca maia</i>		1				1	
<i>Ampelisca</i> sp.							
<i>Bythia calisto</i>			1		1		
<i>Bythia febris</i>		1		2	3		



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	NPREF- C	NPWB- 1C2	NPWB- 1CP2	NPWB- 1D2	NPWB- 2B3	NPWB- 2C2X	NPWB- 3B2
<i>Bythia</i> sp.							
<i>Bythia</i> sp.							
<i>Haplophys</i> sp.1							
Amphilocheidae							
<i>Amphilocheus</i> sp.1							
<i>Amphilocheus</i> sp.2							
Aoridae							
<i>Grandidorella gilesi</i>							
Caprellidae							
<i>Caprella</i> sp.1	1			2			1
<i>Caprella</i> sp.2							
<i>Caprellidae</i> sp.3							
<i>Caprellidae</i> sp.5							
Dexaminidae							
<i>Dexaminidae</i> sp.2			1				
Eriopisidae							
<i>Eriopisella sechellensis</i>							
<i>Eriopisella</i> sp.							
<i>Eriopisella</i> sp.1							
Eriopisidae	1						
<i>Victoriopsis</i> sp.1							
Leucothoidae							
<i>Leucothoe furina</i>							
Oedicerotidae							
<i>Eochelidium nonmiraculum</i>							
Oedicerotidae sp.3							
<i>Pericelodes</i> sp.1							
<i>Synchelidium</i> sp.1							
Photidae							
<i>Gammareopsis</i> sp.6							
<i>Latigammaropsis</i> sp.1							
Photidae							
<i>Photis kapapa</i>	1						
<i>Photis</i> sp.2	2						
Phoxocephalidae							
<i>Harpinopsis vadiculus</i>							
Synopidae							
<i>Synopia</i> sp.2							
<i>Synopidae</i> sp.3							
Tryphosidae							
<i>Tryphosella</i> sp.1							
<i>Tryphosidae</i> sp.1							
Urothoidae							
<i>Urothoe denticulata</i>	1						
<i>Urothoe gelasina</i>		2					
Cumacea							
Bodotriidae							
<i>Pseudosymphodomma</i> sp.1							
Diastylidae							
<i>Diastylidae</i> sp.1							
<i>Diastylis</i> sp.1							
Leucodidae							
<i>Eudorella</i> sp.1			1	1	3		1
<i>Eudorella</i> sp.2							
Nannastacidae							
<i>Campylaspis</i> sp.12							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	NPREF- C	NPWB- 1C2	NPWB- 1CP2	NPWB- 1D2	NPWB- 2B3	NPWB- 2C2X	NPWB- 3B2
<i>Campylaspis</i> sp.5							
<i>Nannastacus</i> sp.5							
Decapoda							
Alpheidae							
<i>Alpheidae</i> sp.4							1
<i>Alpheus acutocarinatus</i>							
<i>Alpheus paracrinatus</i>							
<i>Alpheus rapacida</i>						1	1
<i>Alpheus</i> sp.				1			
<i>Alpheus</i> sp.6							
<i>Athanas</i> sp.				1			1
<i>Bermudacaris</i> sp.							
<i>Bermudacaris</i> sp.1					1		
<i>Bermudacaris</i> sp.2						2	
<i>Salmonius</i> sp.2							
Callinassidae							
<i>Aqaballanassa brevirostris</i>							
Callinassidae							
<i>Jocullanassa matzi</i>				1			
<i>Lipkecallanassa</i> sp.1							
<i>Scallasis contipes</i>							
Chasmocarcinidae							
<i>Chasmocarcinops gelasimoides</i>							
Ctenochelidae							
<i>Ctenochelidae</i> sp.1							1
Euryplacidae							
<i>Platyozus laevis</i>				1			
Leucosidae							
<i>Arcania</i> sp.3							
<i>Nuclops modestus</i>							
Ogyridae							
<i>Ogyridis</i> sp.1							
<i>Ogyridis</i> sp.4							
<i>Ogyridis</i> sp.7							
Palaemonidae							
<i>Palaemonidae</i> sp.5					1		
<i>Palaemonidae</i> sp.6							
Pandalidae							
<i>Pandalidae</i> sp.1							
Pasiphaeidae							
<i>Leptochela pugnax</i>		1					
Penaeidae							
<i>Altyopenaeus</i> sp.1							
Pilumnidae							
<i>Arges marginatus</i>							
<i>Arges transversus</i>							
<i>Carnatopsis</i> sp.1		1					
<i>Carnatopsis</i> sp.2		1					
<i>Ceratoplax fulgida</i>							
Portunidae							
<i>Alionectes pulchricristatus</i>							
<i>Charybdis</i> (Archias) hongkongensis							1
<i>Eodemus unidens</i>							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	NPREF- C	NPWB- 1C2	NPWB- 1CP2	NPWB- 1D2	NPWB- 2B3	NPWB- 2C2X	NPWB- 3B2
<i>Talaimita admete</i>		1					
Processidae							
<i>Processa</i> sp.1							
Scalopidae							
<i>Scalopida spinosipes</i>				1			
Scalopidae							
Upogebiidae							
<i>Gebiacantha</i> sp.1							
<i>Gebicula</i> sp.1							
<i>Gebicula</i> sp.3							
<i>Upogebia</i> sp.1							
Isopoda							
Anthuridae							
<i>Amakusanthura</i> sp.1							
Cirolanidae							
<i>Cirolanidae</i> sp.2							
Gnathidae							
<i>Caecognathia andamanensis</i>				1	1		1
<i>Gnathia</i> sp.4							
Hyssuridae							
<i>Hyssuridae</i> sp.1							
<i>Kupellonura</i> sp.1							
Mysidacea							
Mysidae							
<i>Anchialina</i> sp.							
<i>Anchialina</i> sp.1							
<i>Anchialina</i> sp.2							
<i>Haplostylus bengalensis</i>							
Mysidae							
<i>Siriella</i> sp.							
<i>Siriella</i> sp.3							
<i>Siriella</i> sp.4							
<i>Siriella</i> sp.5							
Stomatopoda							
Nannosquillidae							
<i>Acanthosquilla derjardi</i>							
<i>Acanthosquilla multifasciata</i>							
Squillidae							
<i>Anchisquilla fasciata</i>							
Tanaidacea							
Apseuroidae							
<i>Apseudes</i> sp.1							
<i>Apseudes</i> sp.4							
Kalliapseudidae							
<i>Kalliapseudes</i> sp.2							
Leptochelidae							
<i>Leptochela</i> sp.1							
<i>Leptochela</i> sp.2							
Pagurapseudidae							
<i>Pagurapseudidae</i> sp.1							
<i>Pagurapseudidae</i> sp.2							
Parapseudidae							
<i>Pakistanapseudes</i> sp.1			1				
Echinodermata							
Ophiuroidea							



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Density of Benthos (individuals per 0.04 squ

TAXA	NPREF- C	NPWB- 1C2	NPWB- 1CP2	NPWB- 1D2	NPWB- 2B3	NPWB- 2C2X	NPWB- 3B2
Ophiurida							
Amphiuridae							
<i>Amphioplus (Lymanella) andreae</i>				1			
<i>Amphioplus</i> sp.							
<i>Amphiura</i> sp.1							
<i>Amphiura</i> sp.2							
<i>Amphiura</i> sp.6						1	
<i>Amphiuridae</i> sp.2							
<i>Amphiuridae</i> sp.3							
<i>Amphiuridae</i> sp.4		1				1	
Mollusca							
Aplacophora							
Cavibelonia							
Simrothiellidae							
<i>Helicoradomenia</i> sp.1							
<i>Helicoradomenia</i> sp.2							
Chaetodermatida							
Chaetodermatidae							
<i>Chaetoderma</i> sp.1							
Bivalvia							
Adapedonta							
Pharidae							
<i>Phaxas</i> sp.							1
<i>Phaxas</i> sp.2							
Arcida							
Arcidae							
<i>Verlarcia mortenseni</i>							
Cardiida							
Cardiidae							
<i>Fulvia</i> sp.1							
Psammobiidae							
<i>Gari truncata</i>			1				
Semelidae							
<i>Abra</i> sp.1							
<i>Abra</i> sp.2							
Lucinida							
Lucinidae							
<i>Anodonta edentula</i>							
<i>Cavaleris imajimai</i>							
Myoida							
Corbulidae							
<i>Potamocorbula</i> sp.1							
<i>Potamocorbula</i> sp.2							
Mytiloida							
Mytilidae							
<i>Amygdalum soyae</i>							
Nuculoida							
Nuculidae							
<i>Ennucula niponica</i>		1				1	
Pholadomyoida							
Cuspidariidae							
<i>Cardiomya singaporensis</i>							
Pandoridae							
<i>Pandora</i> sp.1							
Pterionidae							
Pterionidae							



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Density of Benthos (individuals per 0.04 squ

TAXA	NPREF- C	NPWB- 1C2	NPWB- 1CP2	NPWB- 1D2	NPWB- 2B3	NPWB- 2C2X	NPWB- 3B2
Pinna sp.							
Pteridae							
<i>Pinctada</i> sp.2							
Venerida							
Ungulinidae							
<i>Felaniella</i> sp.1							
Bivalvia							
Gastropoda							
Archaeogastropoda							
Orbistellidae							
<i>Microdiscula</i> sp.		1					
Neogastropoda							
Nassariidae							
<i>Nassarius comptus</i>							
Neotaenioglossa							
Naticidae							
Naticidae							
Pteropoda							
Hyalocylidae							
<i>Hyalocylis</i> sp.1							
Thecosomata							
Cavolinidae							
<i>Diacaevolinia flexipes</i>							
Gastropoda							
Scaphopoda							
Dentaliida							
Laevidentaliidae							
<i>Laevidentulum</i> sp.							
Total	14	26	27	24	22	23	26
No. of Taxa	13	24	24	19	19	19	23



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Density of Benthos (individuals per 0.04 squ

TAXA	NPWB- 3C2	NPWB- 3CP2	NPWB- 3D2	NPWB- 4B3X	NPWB- 4C2	NPWG- 1B2X	NPWG- 1C2
Cnidaria							
Anthozoa							
Actiniaria							
Actiniaria							
Edwardsiidae							
<i>Edwardsiidae</i> sp.1						1	
Nematoda							
Nematoda sp.1					1		
Nemertea							
Anopla							
Heteronemertea							
Lineidae							
<i>Lineus</i> sp.1							
<i>Micrura</i> sp.1							
Palaeonemertea							
Tubulanidae							
<i>Callinera</i> sp.1	1		1		1		1
Sipuncula							
Phascolosomatidea							
Aspidosiphoniformes							
Aspidosiphonidae							
<i>Aspidosiphon</i> sp.3							
Phascolosomatiformes							
Phascolosomatidae							
<i>Aplousoma</i> sp.2				1	2	3	1
Sipunculidea							
Golfingiformes							
Phascolionidae							
<i>Phascolion</i> sp.1	1						
<i>Phascolion strombus</i>							
Sipunculiformes							
Sipunculidae							
<i>Sipunculus</i> sp.1							
Annelida							
Polychaeta							
Aciculate							
Acetidae							
<i>Eupanthalis</i> sp.1							
Amphitomididae							
<i>Chloela violacea</i>							
<i>Linopherus</i> sp.1							
<i>Linopherus</i> sp.2							
<i>Linopherus</i> sp.4							
Dorvilleidae							
<i>Schistomerings</i> sp.1							
Eunicidae							
<i>Eunice</i> sp.3			1			1	
<i>Euniphysa</i> sp.1			1				
<i>Euniphysa</i> sp.2							
<i>Lysidice</i> sp.6							
<i>Marphysa</i> sp.2					1		
Glyceridae							
<i>Glycera alba</i>							
<i>Glycera lapidum</i>							
<i>Glycera</i> sp.							
Goniadidae	1					1	



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Density of Benthos (individuals per 0.04 squ

TAXA	NPWB- 3C2	NPWB- 3CP2	NPWB- 3D2	NPWB- 4B3X	NPWB- 4C2	NPWG- 1B2X	NPWG- 1C2
<i>Glycinde cf. oligodon</i>							
<i>Goniada maculata</i>							
Hartmaniellidae							
<i>Hartmaniella</i> sp.1							
Heslonidae							
<i>Hesiosphina</i> sp.1							
<i>Oxydromus</i> sp.1							
<i>Podarkeopsis</i> sp.1							
Lumbrineridae							
<i>Gallardoneris thailandensis</i>							
<i>Geseneris</i> sp.1							
<i>Hilbigneris</i> sp.1		1					
<i>Hilbigneris</i> sp.2							
<i>Loboneris</i> sp.1							
Lumbrineridae							
<i>Lumbrineris</i> sp.1			1				
<i>Lumbrineris latreilli</i>		1					
<i>Ninoe nr. bruuni</i>							2
<i>Ninoe</i> sp.2							
<i>Scoletona</i> sp.1							1
Nephtyidae							
<i>Aglaophamus cf. dicirroides</i>	1	1		1	1	2	
<i>Aglaophamus orientalis</i>							1
<i>Micronephthys oligobranchia</i>	1						
<i>Micronephthys</i> sp.2							
Nereididae							
<i>Neanthes arenaceodentata</i>							
<i>Tambalagamia fauveli</i>							
Oenonidae							
<i>Arabella</i> sp.1							
<i>Dritonereis</i> sp.1							
<i>Dritonereis</i> sp.2							
<i>Dritonereis</i> sp.3							
<i>Notocirrus biaculus</i>							
Onuphiidae							
<i>Diopatra</i> sp.1	1						
<i>Diopatra</i> sp.3		1					
<i>Diopatra</i> sp.6							
<i>Onuphis</i> sp.1			1				
<i>Onuphis</i> sp.6							
<i>Paradiopatra</i> sp.1			1				
Paralacydoniidae							
<i>Paralacydonia</i> sp.1		1					1
Phyllodoceidae							
<i>Phyllodoce</i> sp.1							
Pillargidae							
<i>Ancistrosyllis suksani</i>							1
<i>Litocorsa nr. antennata</i>							
<i>Pilargis</i> sp.1							
<i>Sigambra</i> sp.		1					
<i>Sigambra</i> sp.1							
<i>Sigambra</i> sp.6							
<i>Sigambra</i> sp.8							
<i>Synelmis abini</i>							
<i>Synelmis rigida</i>							



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Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWB- 3C2	NPWB- 3CP2	NPWB- 3D2	NPWB- 4B3X	NPWB- 4C2	NPWG- 1B2X	NPWG- 1C2
Polynoidae							
<i>Harmothoe</i> sp.							
<i>Harmothoe</i> sp.1							
<i>Harmothoe</i> sp.8							
Sigalionidae							
<i>Sthenelais</i> sp.3							
<i>Sthenelaisella ehlersi</i>							
<i>Sthenelaisella japonica</i>							
Sphaerodoridae							
<i>Sphaerodordium songklaense</i>							
Syllidae							
<i>Exogone</i> (Exogone) sp.2							
<i>Perkinsyllis</i> sp.2							
<i>Sphaerosyllis</i> sp.1							
<i>Syllis</i> sp.							
<i>Syllis</i> sp.1							
Canalipalpata							
Ampharetidae							
<i>Ampharetis</i> sp.3							
<i>Anobothrus</i> sp.1							
<i>Auchenoplax crinita</i>							
<i>Eusamythella</i> sp.1							
<i>Lysippe labiata</i>							
<i>Sanytha</i> sp.1							
<i>Sosane</i> sp.2							
Chaetopteridae							
<i>Spiochaetopterus</i> sp.1							
Cirratulidae							
<i>Aphelochaeta</i> sp.1							
<i>Aphelochaeta</i> sp.2							
<i>Caulerella</i> sp.1							
<i>Chaetozone</i> sp.1							
<i>Chaetozone</i> sp.7							
<i>Chaetozone</i> sp.9							
<i>Cirratulus</i> sp.1							
<i>Kirkegaardia</i> sp.1							
<i>Kirkegaardia</i> sp.2							
<i>Kirkegaardia</i> sp.3							
<i>Kirkegaardia</i> sp.5							
<i>Kirkegaardia</i> sp.6							
<i>Kirkegaardia</i> sp.7							
Fabriciidae							
<i>Fabriciella</i> sp.1							
<i>Pseudofabriciella</i> sp.1							
Flabelligeridae							
<i>Bradybysia</i> sp.1							
<i>Diplocirrus</i> sp.							
<i>Diplocirrus</i> sp.1							
<i>Diplocirrus</i> sp.3							
<i>Diplocirrus</i> sp.5							
<i>Stylarioides</i> sp.1							
Longosomatidae							
<i>Heterosio longissima</i>							
Magelonidae							



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Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWB- 3C2	NPWB- 3CP2	NPWB- 3D2	NPWB- 4B3X	NPWB- 4C2	NPWG- 1B2X	NPWG- 1C2
<i>Magelona</i> sp.13		1					
<i>Magelona</i> sp.7							
Oweniidae							
<i>Galathowenia</i> sp.1							
Poecilochaetidae							
<i>Poecilochaetus koshikiensis</i>							
<i>Poecilochaetus</i> sp.							
<i>Poecilochaetus</i> sp.3							
<i>Poecilochaetus</i> sp.4							
<i>Poecilochaetus tricirratu</i> s							
Sabellidae							
<i>Chone</i> sp.1							
<i>Eucho</i> ne sp.1							
<i>La</i> chone sp.1							
Spionidae							
<i>Laonice</i> sp.1				1			
<i>Laonice</i> sp.3							
<i>Malacc</i> oceros indicus							
<i>Paraprionospio</i> sp.1					1		2
<i>Prionospio</i> ehlersi							1
<i>Prionospio elegantula</i>		1		1			1
<i>Prionospio</i> sp.							1
<i>Prionospio</i> sp.10							
<i>Prionospio</i> sp.11							
<i>Prionospio</i> sp.13							
<i>Prionospio</i> sp.6				1			
<i>Prionospio</i> sp.7							
<i>Sco</i> teleps sp.2							
<i>Sco</i> teleps sp.3							
<i>Spio</i> sp.2							
<i>Spio</i> phanes afer							
<i>Spio</i> phanes kroeyeri					1		
<i>Spio</i> phanes malayensis							
<i>Spio</i> phanes sp.3							
<i>Spio</i> phanes sp.4							
Sternaspidae							
<i>Cauleryaspis</i> sp.1				1			
<i>Sternaspis cf. spinosa</i>							
<i>Sternaspis</i> sp.1							
Terebellidae							
<i>Anae</i> ma occidentalis							
<i>Pista</i> sp.1							
<i>Pista</i> sp.4							1
<i>Polycirrus</i> sp.2							
<i>Streb</i> losoma sp.1		1					
Trichotrancheidae							
<i>Terebellid</i> es sp.1						1	
<i>Terebellid</i> es sp.2			2		1		
<i>Trichobranchus roseus</i>							
(blank)							
Capitellidae							
<i>Capitella capitata</i>							
<i>Capitella minima</i>							
<i>Capitella</i> sp.1							
<i>Capitella</i> sp.2							

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWB- 3C2	NPWB- 3CP2	NPWB- 3D2	NPWB- 4B3X	NPWB- 4C2	NPWG- 1B2X	NPWG- 1C2
<i>Campylaspis</i> sp.5							
<i>Nannastacus</i> sp.5							
Decapoda							
Alpheidae							
Alpheidae							
Alpheidae sp.4						4	
<i>Alpheus acutocarinatus</i>		1			1		
<i>Alpheus paracrinatus</i>							
<i>Alpheus rapacida</i>							
<i>Alpheus</i> sp.				1			1
<i>Alpheus</i> sp.6							
<i>Athanas</i> sp.							
<i>Bermudacaris</i> sp.							
<i>Bermudacaris</i> sp.1							
<i>Bermudacaris</i> sp.2							
<i>Salmones</i> sp.2							
Callinassidae							
<i>Aqaballianassa brevis</i>							
Callinassidae							
<i>Jocullianassa matzi</i>				1		2	
<i>Lipkecallianassa</i> sp.1							
<i>Scallasis contipes</i>							
Chasmocarcinidae							
<i>Chasmocarcinops gelasimoides</i>							
Ctenochelidae							
Ctenochelidae							
Ctenochelidae sp.1							
Euryplacidae							
<i>Platyozus laevis</i>							
Leucosidae							
<i>Arcania</i> sp.3							
<i>Nuclops modestus</i>							
Ogyrididae							
<i>Ogyrides</i> sp.1							
<i>Ogyrides</i> sp.4							
<i>Ogyrides</i> sp.7				1			
Palaemonidae							
Palaemonidae							
Palaemonidae sp.5					1		
Palaemonidae sp.6							
Pandalidae							
Pandalidae sp.1							
Pasiphaeidae							
<i>Leptocheila pugnax</i>							
Penaeidae							
<i>Altyopenaeus</i> sp.1							
Pilumnidae							
<i>Arges marginatus</i>							
<i>Arges transversus</i>							
<i>Camatopsis</i> sp.1				1			
<i>Camatopsis</i> sp.2							
<i>Caratoplax fulgida</i>							
Portunidae							
<i>Alionectes pulchricristatus</i>							
<i>Charybdis (Archias) hongkongensis</i>				1			
<i>Eodemus unidens</i>							



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Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWB- 3C2	NPWB- 3CP2	NPWB- 3D2	NPWB- 4B3X	NPWB- 4C2	NPWG- 1B2X	NPWG- 1C2
<i>Thalassia admete</i>							
Proceridae							
<i>Processa</i> sp.1		1					
Scalopidae							
<i>Scalopida spinosipes</i>							
Scalopidae		1					
Upogebidae							
<i>Gebiacantha</i> sp.1							
<i>Gebicula</i> sp.1							
<i>Gebicula</i> sp.3						1	
<i>Upogebia</i> sp.1		1					1
Isopoda							
Amphuridae							
<i>Amakusanthura</i> sp.1							
Cirolanidae							
<i>Cirolanidae</i> sp.2							
Gnathiidae							
<i>Caecognathia andamanensis</i>			3		5		1
<i>Gnathia</i> sp.4							
Hyssuridae							
<i>Hyssuridae</i> sp.1							
<i>Kupellonura</i> sp.1							
Mysidacea							
Myidae							
<i>Anchialina</i> sp.							
<i>Anchialina</i> sp.1							
<i>Anchialina</i> sp.2							
<i>Haplostylus bengalensis</i>							
Mysidae							
<i>Siriella</i> sp.						1	
<i>Siriella</i> sp.3							
<i>Siriella</i> sp.4							
<i>Siriella</i> sp.5							
Stomatopoda							
<i>Nannosquilla</i>							
<i>Acanthosquilla derijardi</i>							
<i>Acanthosquilla multifasciata</i>							
Squillidae							
<i>Anchisquilla fasciata</i>			1				
Tanaidacea							
Apseuroidae							
<i>Apseudes</i> sp.1		1				1	
<i>Apseudes</i> sp.4			1				
Kalliapseudidae							
<i>Kalliapseudes</i> sp.2							
Leptochelidae							
<i>Leptochella</i> sp.1							
<i>Leptochella</i> sp.2							
Pagurapseudidae							
Pagurapseudidae							
Pagurapseudidae sp.1			2				
Pagurapseudidae sp.2							
Parapseudidae							
<i>Pakistanapseudes</i> sp.1							
Echinodermata							
Ophiuroidea							



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Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWB- 3C2	NPWB- 3CP2	NPWB- 3D2	NPWB- 4B3X	NPWB- 4C2	NPWG- 1B2X	NPWG- 1C2
Ophiurida							
Amphiuridae							
<i>Amphiphus (Lymanella) andreae</i>	1	1		1			
<i>Amphiphus</i> sp.							
<i>Amphipura</i> sp.1							
<i>Amphipura</i> sp.2							
<i>Amphipura</i> sp.6						1	
Amphiuridae sp.2							
Amphiuridae sp.3						1	
Amphiuridae sp.4							
Mollusca							
Aplacophora							
Cavibelonia							
Simrothiellidae							
<i>Helicoradomenia</i> sp.1							
<i>Helicoradomenia</i> sp.2							
Chaetodermatida							
Chaetodermatidae							
<i>Chaetoderma</i> sp.1	1						
Bivalvia							
Adapedonta							
Pharidae							
<i>Phaxas</i> sp.							
<i>Phaxas</i> sp.2							
Arcida							
Arcidae							
<i>Verilarca mortenseni</i>						1	
Cardiida							
Cardiidae							
<i>Fulvia</i> sp.1							
Psammobidae							
<i>Gari truncata</i>							
Semellidae							
<i>Abra</i> sp.1							
<i>Abra</i> sp.2							
Lucinida							
Lucinidae							
<i>Anodonta edentula</i>							
<i>Cavaleris imajimai</i>							
Myioida							
Corbulidae							
<i>Potamocorbula</i> sp.1							
<i>Potamocorbula</i> sp.2							
Mytiloida							
Mytilidae							
<i>Amygdalum soyae</i>							
Nuculoida							
Nuculidae							
<i>Ennucula niponica</i>		1					
Pholadomyioida							
Cuspidariidae							
<i>Cardinya singaporensis</i>							
Pandoridae							
<i>Pandora</i> sp.1							
Pterioida							
Pinnidae							



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Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWB- 3C2	NPWB- 3CP2	NPWB- 3D2	NPWB- 4B3X	NPWB- 4C2	NPWG- 1B2X	NPWG- 1C2
<i>Prinia</i> sp.							
Peritidae							
<i>Pinctada</i> sp.2							
Venerida							
Ungulinidae							
<i>Felaniella</i> sp.1							
Bivalvia							
Gastropoda							
Archaeogastropoda							
Orbistellidae							
<i>Microdiscula</i> sp.							
Neogastropoda							
Nassariidae							
<i>Nassarius comptus</i>							
Neotaenioglossa							
Naticidae							
Naticidae							
Pteropoda							
Hyalocylidae							
<i>Hyalocylis</i> sp.1							
Thecosomata							
Cavolinidae							
<i>Diastololites flexipes</i>							
Gastropoda						1	
Scaphopoda							
Dentaliida							
Laevidentallidae							
<i>Laevidentallium</i> sp.							
Total	19	19	27	25	29	37	18
No. of Taxa	19	19	21	24	21	26	18



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWG- 1CP2	NPWG- 1D2	NPWG- 2B2X	NPWG- 2C2	NPWG- 3B2X	NPWG- 3C2	NPWG- 3CP2
Cnidaria							
Anthozoa							
Actiniaria							
Actiniaria	2						
Edwardsiidae							
Edwardsiidae sp.1							
Nematoda							
Nematoda sp.1		1					
Nemertea							
Anopla							
Heteronemertea							
Lineidae							
Lineus sp.1							
Microcrura sp.1							
Palaeonemertea							
Tubulanidae							
Callinera sp.1	1					1	
Sipuncula							
Phascolosomatidea							
Aspidosiphoniformes							
Aspidosiphonidae							
Aspidosiphon sp.3							
Phascolosomatiformes							
Phascolosomatidae							
Aplousoma sp.2			2	1	2		1
Sipunculidea							
Golfingiformes							
Phascolionidae							
Phascolion sp.1				1			
Phascolion strombus							
Sipunculiformes							
Sipunculidae							
Sipunculus sp.1							
Annelida							
Polychaeta							
Aciculate							
Aciculate							
Euphanthalis sp.1		1					
Amphitomididae							
Chloelia violacea	1				4		
Linopherus sp.1							
Linopherus sp.2							
Linopherus sp.4							
Dorvilleidae							
Schistomeringos sp.1							
Eunicidae							
Eunice sp.3					1		
Euniphyssa sp.1							1
Euniphyssa sp.2							
Lydeice sp.6							
Marphysa sp.2							
Glyceridae							
Glycera alba							
Glycera lapidum							
Glycera sp.					1		
Goniadidae							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWG- 1CP2	NPWG- 1D2	NPWG- 2B2X	NPWG- 2C2	NPWG- 3B2X	NPWG- 3C2	NPWG- 3CP2
Glycinde cf. oligodon							1
Goniada mesulata							
Hartmaniellidae							
Hartmaniella sp.1			1			1	
Heslonidae							
Hesiospina sp.1							
Oxydromus sp.1							
Podarkeopsis sp.1							
Lumbrineridae							
Gallardoneris thailandensis							
Geseneris sp.1							
Hilbigneris sp.1							
Hilbigneris sp.2							
Lobonereis sp.1				1	1		
Lumbrineridae							
Lumbrineris sp.1							
Lumbrineris latreilli				1	1		
Ninnoe sp.2							
Scoletoma sp.1							
Nephtyidae							
Aglaophamus cf. dicirroides	1	1	2	2		1	2
Aglaophamus orientalis			1			2	1
Micronephthys oligobranchia							
Micronephthys sp.2							
Nereididae							
Neanthes arenaeodentata							
Tambalagania fauveli		1				1	
Oenonidae							
Arabella sp.1							
Dilonereis sp.1							
Dilonereis sp.2							
Dilonereis sp.3	1						
Notocirrus biaculus							
Onuphiidae							
Diopatra sp.							
Diopatra sp.3							
Diopatra sp.6							
Onuphis sp.1			2			1	4
Onuphis sp.6						1	
Paradiopatra sp.1							
Paralacydonidae							
Paralacydonia sp.1				1			1
Phyllodoceidae							
Phyllodoce sp.1							
Pilargidae							
Ancistrosyllis suksani							
Litocorax nr. antennata				1			
Pilargis sp.1							
Sigambra sp.							
Sigambra sp.1					1		
Sigambra sp.6							
Sigambra sp.8						1	
Synelmis abini							
Synelmis rigida							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWG- 1CP2	NPWG- 1D2	NPWG- 2B2X	NPWG- 2C2	NPWG- 3B2X	NPWG- 3C2	NPWG- 3CP2
Polynoidae							
Harmothoe sp.							
Harmothoe sp.1						1	
Harmothoe sp.8							
Sigalionidae							
Sthenelais sp.3							
Sthenelais ehlersi		1					
Sthenolepis japonica	1						
Sphaerodoridae							
Sphaerodordium songklaense							
Syllidae							
Exogone (Exogone) sp.2							
Perkinsyllis sp.2							
Sphaerosyllis sp.1					2		
Syllis sp.							
Syllis sp.1							
Canalipalpata							
Ampharetidae							
Ampharetis sp.3							
Anobothrus sp.1							
Auchenoplax crinita							
Eusamythella sp.1							
Lysippe labiata			1				
Sanytha sp.1							
Sosane sp.2							
Chaetopteridae							
Spirochaetopterus sp.1							
Cirratulidae							
Aphelochaeta sp.1							
Aphelochaeta sp.2							
Caulerella sp.1							
Chaetozone sp.1							
Chaetozone sp.7							
Chaetozone sp.9							
Cirratoma sp.1							
Kirkegaardia sp.1							
Kirkegaardia sp.2							
Kirkegaardia sp.3							
Kirkegaardia sp.5							
Kirkegaardia sp.6				1		1	
Kirkegaardia sp.7							
Fabrididae							
Fabricinuda sp.1							
Pseudofabriciola sp.1							
Flabelligeridae							
Bradybysa sp.1							
Diplocirrus sp.							
Diplocirrus sp.1							
Diplocirrus sp.3							
Diplocirrus sp.5							
Stylarioides sp.1							
Longosomatidae							
Heterospio longissima		1					
Mageloniidae							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWG- 1CP2	NPWG- 1D2	NPWG- 2B2X	NPWG- 2C2	NPWG- 3B2X	NPWG- 3C2	NPWG- 3CP2
Magelona sp.13							
Magelona sp.7							
Oweniidae							
Galathowenia sp.1							
Poecilochaetidae							
Poecilochaetus koshikiensis							
Poecilochaetus sp.							
Poecilochaetus sp.3							
Poecilochaetus sp.4							
Poecilochaetus tricaratus							
Sabellidae							
Chone sp.1							
Euchone sp.1							
Laonome sp.1							
Sponidae							
Laonice sp.1							
Laonice sp.3						2	
Malacoceros indicus							
Parapionospio sp.1				1			
Prionospio ehlersi							
Prionospio elegantula							
Prionospio sp.						1	
Prionospio sp.10						2	
Prionospio sp.11							
Prionospio sp.13							
Prionospio sp.6							
Prionospio sp.7							
Scoletopsis sp.2							
Scoletopsis sp.3							
Spio sp.2							
Spiochanes aler							
Spiochanes kroeyeri			1				
Spiochanes malayensis						1	
Spiochanes sp.3							
Spiochanes sp.4							
Sternaspidae							
Cauleryaspis sp.1							
Sternaspis cf. spinosa							
Sternaspis sp.1							
Terebellidae							
Amatea occidentalis		1		1			
Pista sp.1							
Pista sp.4							
Polycirrus sp.2							
Streblosoma sp.1							
Trichobranchidae							
Terebellides sp.1							
Terebellides sp.2						1	
Trichobranchus roseus							
(blank)							
Capitellidae							
Capitella capitata							
Capitella minima							
Capitella sp.1							
Capitella sp.2							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 1CP2	NPWG- 1D2	NPWG- 2B2X	NPWG- 2C2	NPWG- 3B2X	NPWG- 3C2	NPWG- 3CP2
<i>Capitella</i> sp.3							
<i>Capitella</i> sp.4							
<i>Capitella</i> sp.8							
<i>Capitellatus</i> sp.1		1	1			2	
<i>Capitellatus</i> sp.2							
<i>Capitellatus</i> sp.3							
<i>Decamastus</i> sp.1							
<i>Mediomastus</i> sp.1							
<i>Mediomastus</i> sp.2							
<i>Neomediomastus</i> sp.1							
<i>Neomediomastus</i> sp.2							
<i>Notomastus latericeus</i>							
<i>Notomastus lineatus</i>							
<i>Notomastus</i> sp.2							
<i>Promastobranchus fulvoti</i>	1	1		2	1		
<i>Scyphoproctus</i> sp.1							
Cossuridae							
<i>Cossura</i> sp.2							
Maldanidae							
<i>Asychis</i> sp.2							
<i>Axiotello</i> sp.1							
<i>Clymenella</i> sp.1							
<i>Euclymene</i> sp.1							
<i>Euclymene</i> sp.3							
<i>Euclymene</i> sp.4							
<i>Praxillella nr. gracilis</i>		1	1				
<i>Praxillella</i> sp.3							
Ophelidae							
<i>Armandia</i> sp.1							
Orbinidae							
<i>Leodarnas</i> sp.1	1						
Paronidae							
<i>Aricidea</i> (Acmira) sp.5							
<i>Aricidea</i> (Acmira) sp.7							
<i>Aricidea</i> (Strelzovia) sp.2							
<i>Aricidea</i> (Strelzovia) sp.3							
<i>Cirrophorus</i> sp.4							
<i>Levensenia</i> sp.1							
<i>Levensenia</i> sp.16							
<i>Levensenia</i> sp.2			1		1		
<i>Levensenia</i> sp.4							
<i>Levensenia</i> sp.5							
<i>Levensenia</i> sp.9							
Arthropoda							
Crustacea							
Amphipoda							
Ampeliscidae							
<i>Ampelisca bocki</i>					1		
<i>Ampelisca brevicornis</i>			1		2		
<i>Ampelisca chinensis</i>				1		1	
<i>Ampelisca cyclops</i>	4			1			
<i>Ampelisca maia</i>						1	
<i>Ampelisca</i> sp.							
<i>Byblis calisto</i>					6		
<i>Byblis febris</i>	6	1	1		1	1	



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 1CP2	NPWG- 1D2	NPWG- 2B2X	NPWG- 2C2	NPWG- 3B2X	NPWG- 3C2	NPWG- 3CP2
<i>Byblis</i> io							1
<i>Byblis</i> sp.						5	
<i>Haploopsis</i> sp.1							
Amphilochoidea							
<i>Amphilocheus</i> sp.1	1						
<i>Amphilocheus</i> sp.2		1					
Aoridae							
<i>Grandidiarella gilesi</i>				1			
Caprellidae							
<i>Caprella</i> sp.1	1		1			1	2
<i>Caprella</i> sp.2							
<i>Caprellidae</i> sp.3							
<i>Caprellidae</i> sp.5							
Dexaminidae							
<i>Dexaminidae</i> sp.2							
Eriopisidae							
<i>Eriopisella sechellensis</i>						3	
<i>Eriopisella</i> sp.							
<i>Eriopisella</i> sp.1							
Eriopisidae						1	1
<i>Victoriopsis</i> sp.1	2		4		1		
Leucothoidae							
<i>Leucothoe furina</i>		1					
Oedicerotidae							
<i>Oedicerotidae</i> nonmiraculum							
<i>Oedicerotidae</i> sp.3							
<i>Pericardulodes</i> sp.1							
<i>Syncheldium</i> sp.1					1		
Photidae							
<i>Gammaropsis</i> sp.6							
<i>Latigammaropsis</i> sp.1	7			3			
Photidae							
<i>Photis kapapa</i>							1
<i>Photis</i> sp.2							
Phoxocephalidae							
<i>Harpinopsis vadiculus</i>					1		
Synopiidae							
<i>Synopia</i> sp.2							
<i>Synopiidae</i> sp.3							
Tryphosidae							
<i>Tryphosella</i> sp.1	1						
<i>Tryphosidae</i> sp.1							
Urothoidae							
<i>Urothoe denticulata</i>							
<i>Urothoe gelasina</i>							
Cumacea							
Bodotriidae							
<i>Pseudosymphodomma</i> sp.1							
Diastylidae							
<i>Diastylidae</i>							
<i>Diastylis</i> sp.1							
Leucodidae							
<i>Eudorella</i> sp.1	1		1			1	1
<i>Eudorella</i> sp.2							
Nannastacidae							
<i>Campylaspis</i> sp.12	1						



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 1CP2	NPWG- 1D2	NPWG- 2B2X	NPWG- 2C2	NPWG- 3B2X	NPWG- 3C2	NPWG- 3CP2
<i>Campylaspis</i> sp.5							
<i>Nannastacus</i> sp.5							
Decapoda							
Alpheidae							
<i>Alpheidae</i>							
<i>Alpheidae</i> sp.4							
<i>Alpheus acutocarinatus</i>				1			
<i>Alpheus paracrinatus</i>							
<i>Alpheus rapacida</i>							
<i>Alpheus</i> sp.							
<i>Alpheus</i> sp.6			2				
<i>Athanas</i> sp.							
<i>Bermudacaris</i> sp.							
<i>Bermudacaris</i> sp.1	1		1		1		
<i>Bermudacaris</i> sp.2							
<i>Salmonella</i> sp.2							
Callinassidae							
<i>Aqaballanassa brevirostris</i>							
Callinassidae							
<i>Jocallanassa matzi</i>				2	1		
<i>Lipkecallanassa</i> sp.1					2	1	
<i>Scallasis contipes</i>		1					
Chasmocarcinidae							
<i>Chasmocarcinops gelasimoides</i>							
Ctenochelidae							
<i>Ctenochelidae</i>							
<i>Ctenochelidae</i> sp.1							
Euryplacidae							
<i>Platyozus laevis</i>							
Leucosidae							
<i>Arcania</i> sp.3							
<i>Nuclops modestus</i>							
Ogyridae							
<i>Ogyridis</i> sp.1						1	
<i>Ogyridis</i> sp.4							
<i>Ogyridis</i> sp.7		1				1	
Palaemonidae							
<i>Palaemonidae</i>							
<i>Palaemonidae</i> sp.5							
<i>Palaemonidae</i> sp.6	1						
Pandalidae							
<i>Pandalidae</i> sp.1							
Pasiphaeidae							
<i>Leptochela pugnax</i>						1	
Penaeidae							
<i>Altyopenaeus</i> sp.1							
Pilumnidae							
<i>Arges marginatus</i>							
<i>Arges transversus</i>							
<i>Carnatopsis</i> sp.1							
<i>Carnatopsis</i> sp.2							
<i>Carnatopsis fulgida</i>	1		1	1			
Portunidae							
<i>Alionectes pulchricristatus</i>							
<i>Charybdis</i> (Archias) hongkongensis							
<i>Eodemus undens</i>							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 1CP2	NPWG- 1D2	NPWG- 2B2X	NPWG- 2C2	NPWG- 3B2X	NPWG- 3C2	NPWG- 3CP2
<i>Talaimita admete</i>		1		1			
Processidae							
<i>Processa</i> sp.1							
Scalopidae							
<i>Scalopidae</i>							
<i>Scalopidae</i> sp.1							
Upogebidae							
<i>Gebicula</i> sp.1	1						
<i>Gebicula</i> sp.3							
<i>Upogebia</i> sp.1		1					
Isopoda							
Anthuridae							
<i>Amakusanthura</i> sp.1							1
Cirolanidae							
<i>Cirolanidae</i> sp.2							
Gnathiidae							
<i>Caecognathia andamanensis</i>			2		2		1
<i>Gnathia</i> sp.4		1					
Hyssuridae							
<i>Hyssuridae</i> sp.1	1						
<i>Kupellonura</i> sp.1							
Mysidacea							
Myiidae							
<i>Anchialina</i> sp.							
<i>Anchialina</i> sp.1							
<i>Anchialina</i> sp.2							
<i>Haplostylus bengalensis</i>							
Mysidae							
<i>Siriella</i> sp.						1	
<i>Siriella</i> sp.3							
<i>Siriella</i> sp.4							1
<i>Siriella</i> sp.5							
Stomatopoda							
<i>Nannosquilla</i>							
<i>Acanthosquilla derjardi</i>							
<i>Acanthosquilla multifasciata</i>			1				
Squillidae							
<i>Anchisquilla fasciata</i>			1				
Tanaidacea							
Apseuroidae							
<i>Apseudes</i> sp.1							
<i>Apseudes</i> sp.4	1					2	2
<i>Kalliapseuroidae</i>							
<i>Kalliapseuroidae</i> sp.2	1						
Leptochelidae							
<i>Leptochella</i> sp.1							
<i>Leptochella</i> sp.2							
Pagurapseuroidae							
<i>Pagurapseuroidae</i>							
<i>Pagurapseuroidae</i> sp.1							
<i>Pagurapseuroidae</i> sp.2							
Parapseuroidae							
<i>Pakistanapseuroidae</i> sp.1							
Echinodermata							
Ophiuroidea							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 1CP2	NPWG- 1D2	NPWG- 2B2X	NPWG- 2C2	NPWG- 3B2X	NPWG- 3C2	NPWG- 3CP2
Ophiurida							
Amphiuridae							
<i>Amphiplus (Lymanella) andreae</i>				1			
<i>Amphiplus</i> sp.		1					1
<i>Amphiura</i> sp.1				1			
<i>Amphiura</i> sp.2			1				
<i>Amphiura</i> sp.6							1
<i>Amphiuridae</i> sp.2							1
<i>Amphiuridae</i> sp.3		1					
<i>Amphiuridae</i> sp.4							
Mollusca							
Aplacophora							
Cavibelonia							
Simrothiellidae							
<i>Helicoradomenia</i> sp.1							
<i>Helicoradomenia</i> sp.2					1		
Chaetodermatida							
Chaetodermatidae							
<i>Chaetoderma</i> sp.1							
Bivalvia							
Adapedonta							
Pharidae							
<i>Phaxas</i> sp.							
<i>Phaxas</i> sp.2							
Arcida							
Arcidae							
<i>Verlaxa mortenseni</i>							
Cardiida							
Cardiidae							
<i>Fulvia</i> sp.1							
Psammobiidae							
<i>Gari truncata</i>							
Semelidae							
<i>Abra</i> sp.1							
<i>Abra</i> sp.2							
Lucinida							
Lucinidae							
<i>Anodonta edentula</i>							
<i>Cavaleris imajimai</i>							
Myiida							
Corbulidae							
<i>Potamocorbula</i> sp.1		1					
<i>Potamocorbula</i> sp.2							
Mytiloidea							
Mytilidae							
<i>Amygdalum soyae</i>							
Nuculoidea							
Nuculidae							
<i>Ennucula niponica</i>		3					1
Pholadomyoidea							
Cuspidariidae							
<i>Cardiomya singaporensis</i>							
Pandoridae							
<i>Pandora</i> sp.1		1					
Pterioidea							
Pinnidae							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 1CP2	NPWG- 1D2	NPWG- 2B2X	NPWG- 2C2	NPWG- 3B2X	NPWG- 3C2	NPWG- 3CP2
Pinna sp.							
Peridae							
<i>Pinctada</i> sp.2							
Venerida							
Ungulinidae							
<i>Felaniella</i> sp.1							
Bivalvia							
Gastropoda							
Archaeogastropoda							
Orbistellidae							
<i>Microdiscula</i> sp.							
Neogastropoda							
Nassariidae							
<i>Nassarius comptus</i>							
Neotaenioglossa							
Naticidae							
<i>Naticidae</i>							
Pteropoda							
Hyalocylidae							
<i>Hyalocylis</i> sp.1							
Thecosomata							
Cavolinidae							
<i>Diacaevolinia flexipes</i>							
Gastropoda							
Scaphopoda							
Dentaliida							
Laevitentaliidae							
<i>Laevitentalium</i> sp.			1			1	
Total	46	19	32	24	32	44	32
No. of Taxa	28	19	24	20	23	28	26



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 3D2	NPWG- 4B2X	NPWG- 4C2	PACPP- 1C2X	PACPP- 1CP2X	PACPP- 1D2	PACPP- 2C2
Cnidaria							
Anthozoa							
Actiniaria							
Actiniaria							
Edwardsiidae							
Nematoda							
Nematoda sp.1							
Nemertea							
Anopla							
Heteronemertea							
Lineidae							
<i>Lineus</i> sp.1							
<i>Micrura</i> sp.1							
Palaeonemertea							
Tubulanidae							
<i>Callinera</i> sp.1		1		1			
Sipuncula							
Phascolosomatidea							
Aspidosiphoniformes							
Aspidosiphonidae							
<i>Aspidosiphon</i> sp.3							
Phascolosomatiformes							
Phascolosomatidae							
<i>Aplousoma</i> sp.2		3		2			4
Sipunculidea							
Golfingiformes							
Phascolionidae							
<i>Phascolion</i> sp.1							
<i>Phascolion strombus</i>							
Sipunculiformes							
Sipunculidae							
<i>Sipunculus</i> sp.1							
Annelida							
Polychaeta							
Aciculate							
Acetidae							
<i>Eupanthalis</i> sp.1							
Amphitomididae							
<i>Chloela violacea</i>		1					
<i>Linopherus</i> sp.1							
<i>Linopherus</i> sp.2							
<i>Linopherus</i> sp.4							
Dorvilleidae							
<i>Schistomerings</i> sp.1							
Eunicidae							
<i>Eunice</i> sp.3		1					1
<i>Euniphysa</i> sp.1							
<i>Euniphysa</i> sp.2							
<i>Lysidice</i> sp.6				2			
<i>Marphysa</i> sp.2							
Glyceridae							
<i>Glycera alba</i>		1					
<i>Glycera lapidum</i>							
<i>Glycera</i> sp.							
Goniadidae							



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Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 3D2	NPWG- 4B2X	NPWG- 4C2	PACPP- 1C2X	PACPP- 1CP2X	PACPP- 1D2	PACPP- 2C2
<i>Glycinde cf. oligodon</i>				1			
<i>Goniada maculata</i>			1				
Hartmaniellidae							
<i>Hartmaniella</i> sp.1							
Heslonidae							
<i>Hesiospina</i> sp.1							
<i>Oxydromus</i> sp.1							
<i>Podarkeopsis</i> sp.1							
Lumbrineridae							
<i>Gallardoneris thailandensis</i>							1
<i>Geseneris</i> sp.1		1					
<i>Hilbigneris</i> sp.1						1	
<i>Hilbigneris</i> sp.2							
<i>Loboneris</i> sp.1							1
Lumbrineridae							
<i>Lumbrinerides</i> sp.1			1				
<i>Lumbrineris latrelli</i>			1				
<i>Ninoe nr. bruuni</i>						1	
<i>Ninoe</i> sp.2		1					
<i>Scoletona</i> sp.1							
Nephtyidae							
<i>Aglaophamus cf. dicroides</i>		3	1		2		
<i>Aglaophamus orientalis</i>							1
<i>Micronephthys oligobranchia</i>							
<i>Micronephthys</i> sp.2							
Nereididae							
<i>Neanthes arenaceodentata</i>							
<i>Tambalagamia fauveli</i>				2			
Oenonidae							
<i>Arabella</i> sp.1							
<i>Dilonereis</i> sp.1							
<i>Dilonereis</i> sp.2							
<i>Dilonereis</i> sp.3							
<i>Notocirrus biaculus</i>							
Onuphiidae							
<i>Diopatra</i> sp.							
<i>Diopatra</i> sp.3							
<i>Diopatra</i> sp.6							
<i>Onuphis</i> sp.1							1
<i>Onuphis</i> sp.6							
<i>Paradiopatra</i> sp.1							
<i>Paralacydoniidae</i>							
<i>Paralacydonia</i> sp.1						1	
Phyllodoceidae							
<i>Phyllodoce</i> sp.1						1	
Pilargidae							
<i>Ancistrosyllis suksani</i>							
<i>Litocorsa nr. antennata</i>							
<i>Pilargis</i> sp.1							
<i>Sigambra</i> sp.							
<i>Sigambra</i> sp.1							
<i>Sigambra</i> sp.6							
<i>Sigambra</i> sp.8							
<i>Synelmis abini</i>							
<i>Synelmis rigida</i>							



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Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWG- 3D2	NPWG- 4B2X	NPWG- 4C2	PACPP- 1C2X	PACPP- 1CP2X	PACPP- 1D2	PACPP- 2C2
Polynoidae							
<i>Harmothoe</i> sp.						1	
<i>Harmothoe</i> sp.1							
<i>Harmothoe</i> sp.8							
Sigalionidae							
<i>Sthenelais</i> sp.3							
<i>Sthenelaisella ehlersi</i>							
<i>Sthenelaisella japonica</i>							
Sphaerodoridae							
<i>Sphaerodordium songklaense</i>							
Syllidae							
<i>Exogone</i> (Exogone) sp.2				1			
<i>Perkinsyllis</i> sp.2							
<i>Sphaerosyllis</i> sp.1				1			
<i>Syllis</i> sp.							
<i>Syllis</i> sp.1							
Canalipalpata							
Ampharetidae							
<i>Ampharetis</i> sp.3							
<i>Anobothrus</i> sp.1				1	1		
<i>Auchenoplax crinita</i>				1			
<i>Eusamythella</i> sp.1							
<i>Lysippe labiata</i>		1				1	
<i>Sanytha</i> sp.1							
<i>Sosane</i> sp.2							
Chaetopteridae							
<i>Spiochaetopterus</i> sp.1					1	1	
Cirratulidae							
<i>Aphelochaeta</i> sp.1							
<i>Aphelochaeta</i> sp.2							
<i>Caulerella</i> sp.1							
<i>Chaetozone</i> sp.1							
<i>Chaetozone</i> sp.7							
<i>Chaetozone</i> sp.9							
<i>Cirratulus</i> sp.1							
<i>Kirkegaardia</i> sp.1							
<i>Kirkegaardia</i> sp.2							
<i>Kirkegaardia</i> sp.3							
<i>Kirkegaardia</i> sp.5					1		
<i>Kirkegaardia</i> sp.6	1	1					
<i>Kirkegaardia</i> sp.7				1			
Fabriciidae							
<i>Fabriciella</i> sp.1							
<i>Pseudofabriciella</i> sp.1							
Flabelligeridae							
<i>Bradybysia</i> sp.1							
<i>Diplocirrus</i> sp.							
<i>Diplocirrus</i> sp.1							
<i>Diplocirrus</i> sp.3							
<i>Diplocirrus</i> sp.5							
<i>Stylarioides</i> sp.1							
Longosomatidae							
<i>Heterospio longissima</i>	1						
Magelonidae							



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Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWG- 3D2	NPWG- 4B2X	NPWG- 4C2	PACPP- 1C2X	PACPP- 1CP2X	PACPP- 1D2	PACPP- 2C2
<i>Magelona</i> sp.13							
<i>Magelona</i> sp.7							
Oweniidae							
<i>Galathowenia</i> sp.1						1	
Poecilochaetidae							
<i>Poecilochaetus koshikiensis</i>							
<i>Poecilochaetus</i> sp.							
<i>Poecilochaetus</i> sp.3							
<i>Poecilochaetus</i> sp.4							
<i>Poecilochaetus tricaratus</i>							
Sabellidae							
<i>Chone</i> sp.1							
<i>Euchone</i> sp.1							
<i>Leaonome</i> sp.1							
Spionidae							
<i>Laonice</i> sp.1	1						
<i>Laonice</i> sp.3							
<i>Malacoceros indicus</i>							
<i>Paraprionospio</i> sp.1				1			
<i>Prionospio ehlersi</i>							
<i>Prionospio elegantula</i>				2			
<i>Prionospio</i> sp.	1			1	1		
<i>Prionospio</i> sp.10				1			
<i>Prionospio</i> sp.11							
<i>Prionospio</i> sp.13						1	
<i>Prionospio</i> sp.6							
<i>Prionospio</i> sp.7				4	1		
<i>Scolecopsis</i> sp.2						1	
<i>Scolecopsis</i> sp.3							
<i>Spio</i> sp.2							
<i>Spiophanes afer</i>							
<i>Spiophanes kroeyeri</i>		1				1	
<i>Spiophanes malayensis</i>							
<i>Spiophanes</i> sp.3							
<i>Spiophanes</i> sp.4							
Sternaspidae							
<i>Caulerapsis</i> sp.1						1	
<i>Sternaspis cf. spinosa</i>							
<i>Sternaspis</i> sp.1							
Terebellidae							
<i>Amatea occidentalis</i>			1			1	
<i>Pista</i> sp.1			1				
<i>Pista</i> sp.4							
<i>Polycirrus</i> sp.2							
<i>Streblosoma</i> sp.1							
Trichobranchidae							
<i>Terebellides</i> sp.1			1				1
<i>Terebellides</i> sp.2	2	2				1	
<i>Trichobranchus roseus</i>				1			
(blank)							
Capitellidae							
<i>Capitella capitata</i>							
<i>Capitella minima</i>							
<i>Capitella</i> sp.1							
<i>Capitella</i> sp.2							



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Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWG- 3D2	NPWG- 4B2X	NPWG- 4C2	PACPP- 1C2X	PACPP- 1CP2X	PACPP- 1D2	PACPP- 2C2
<i>Capitella</i> sp.3							
<i>Capitella</i> sp.4							
<i>Capitella</i> sp.8							
<i>Capitellatus</i> sp.1		1			1		1
<i>Capitellatus</i> sp.2							
<i>Capitellatus</i> sp.3				1			
<i>Decamastus</i> sp.1							
<i>Mediomastus</i> sp.1							
<i>Mediomastus</i> sp.2							
<i>Neomediomastus</i> sp.1							
<i>Neomediomastus</i> sp.2							
<i>Notomastus lateralis</i>							
<i>Notomastus lineatus</i>							
<i>Notomastus</i> sp.2							
<i>Promastobranchus hutchinsoni</i>			1				
<i>Scyphoproctus</i> sp.1							
Cossuridae							
<i>Cossura</i> sp.2				1			
Maldanidae							
<i>Asychis</i> sp.2							
<i>Axiobella</i> sp.1							
<i>Clymenella</i> sp.1						1	
<i>Euclymene</i> sp.1							
<i>Euclymene</i> sp.3							
<i>Euclymene</i> sp.4							
<i>Praxillella n. gracilis</i>	3		1				
<i>Praxillella</i> sp.3							
Ophelidae							
<i>Armandia</i> sp.1							
Orbinidae							
<i>Leodamas</i> sp.1							
Parosidae							
<i>Arctidea</i> (Acmira) sp.5							
<i>Arctidea</i> (Acmira) sp.7				1			
<i>Arctidea</i> (Strelzovia) sp.2					1		
<i>Arctidea</i> (Strelzovia) sp.3							
<i>Cirrophorus</i> sp.4							
<i>Levinsonia</i> sp.1		1		1			
<i>Levinsonia</i> sp.16							
<i>Levinsonia</i> sp.2							
<i>Levinsonia</i> sp.4							
<i>Levinsonia</i> sp.5					1		
<i>Levinsonia</i> sp.9							
Arthropoda							
Crustacea							
Amphipoda							
Ampeliscidae							
<i>Ampelisca bocki</i>					1		
<i>Ampelisca brevicornis</i>							
<i>Ampelisca chinensis</i>							
<i>Ampelisca cyclops</i>	1						
<i>Ampelisca maia</i>	1						
<i>Ampelisca</i> sp.							
<i>Bythotrephes calisto</i>							
<i>Bythotrephes</i> sp.	3				1		



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Density of Benthos (individuals per 0.04 sqm)

TAXA	NPWG- 3D2	NPWG- 4B2X	NPWG- 4C2	PACPP- 1C2X	PACPP- 1CP2X	PACPP- 1D2	PACPP- 2C2
<i>Bythotrephes</i> sp.				1			
<i>Haploids</i> sp.1							
Amphipodidae							
<i>Amphipodius</i> sp.1							
<i>Amphipodius</i> sp.2							
Aoridae							
<i>Grandidierella gilesi</i>							
Caprellidae							
<i>Caprella</i> sp.1	2		1				
<i>Caprella</i> sp.2							
Caprellidae sp.3							
Caprellidae sp.5						1	
Dexaminidae							
<i>Dexaminidae</i> sp.2			1				
Eriopisidae							
<i>Eriopisella sechellensis</i>			2				
<i>Eriopisella</i> sp.							
<i>Eriopisella</i> sp.1							
Eriopisidae		1	2				
<i>Victoriopsis</i> sp.1			1				
Leucothoidae							
<i>Leucothoe furina</i>							
Oedicerotidae							
<i>Oedicerotus nonmiraculum</i>							
Oedicerotidae sp.3							
<i>Pericardius</i> sp.1							
<i>Syncheilidium</i> sp.1	1						
Pholidae							
<i>Gammaropsis</i> sp.6	1						
<i>Latigammaropsis</i> sp.1							
Photidae							
<i>Photis kapapa</i>							
<i>Photis</i> sp.2							
Phoxocephalidae							
<i>Harpiopsis vadiculus</i>							
Synopiidae							
<i>Synopia</i> sp.2							
<i>Synopiidae</i> sp.3							
Tryphosidae							
<i>Tryphosella</i> sp.1							
<i>Tryphosidae</i> sp.1							
Urothoidae							
<i>Urothoe denticulata</i>							
<i>Urothoe gelasina</i>							
Cumacea							
Bodotidae							
<i>Pseudosymphodomma</i> sp.1							
Diastylidae							
<i>Diastylis</i> sp.1	1						
Leuconidae							
<i>Eudorella</i> sp.1						1	
<i>Eudorella</i> sp.2							
Nannastacidae							
<i>Campylaspis</i> sp.12							



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Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 3D2	NPWG- 4B2X	NPWG- 4C2	PACPP- 1C2X	PACPP- 1CP2X	PACPP- 1D2	PACPP- 2C2
<i>Campylaspis</i> sp.5							
<i>Nannastacus</i> sp.5							
Decapoda							
Alpheidae							
Alpheidae							
Alpheidae sp.4							
<i>Alpheus acutocarinatus</i>							
<i>Alpheus paracrinatus</i>							
<i>Alpheus rapacida</i>							
<i>Alpheus</i> sp.			1				
<i>Alpheus</i> sp.6							
<i>Athanas</i> sp.	1						
<i>Bermudacaris</i> sp.							
<i>Bermudacaris</i> sp.1		1					
<i>Bermudacaris</i> sp.2							
<i>Salmones</i> sp.2							
Callinassidae							
<i>Aqaballianassa brevirostris</i>							
Callinassidae							
<i>Jocullianassa matzi</i>	1			3		1	
<i>Lipkecallianassa</i> sp.1	1						
<i>Scallasis contipes</i>							
Chasmocarcinidae							
<i>Chasmocarcinops gelasimoides</i>							
Ctenochelidae							
Ctenochelidae							
Ctenochelidae sp.1							
Euryplacidae							
<i>Platyozus laevis</i>							
Leucosidae							
<i>Arcania</i> sp.3							
<i>Nuclops modestus</i>							
Ogyrididae							
<i>Ogyrides</i> sp.1							
<i>Ogyrides</i> sp.4							
<i>Ogyrides</i> sp.7							
Palaemonidae							
Palaemonidae							
Palaemonidae sp.5							
Palaemonidae sp.6							
Pandalidae							
Pandalidae sp.1							
Pasiphaeidae							
<i>Leptocheila pugnax</i>							
Penaeidae							
<i>Alypopenaeus</i> sp.1							
Pilumnidae							
<i>Arges marginatus</i>							
<i>Arges transversus</i>						1	
<i>Camatopsis</i> sp.1							
<i>Camatopsis</i> sp.2							
<i>Caratoplax fulgida</i>	2						
Portunidae							
<i>Alionectes pulchricristatus</i>						1	
<i>Charybdis (Archias) hongkongensis</i>							
<i>Eodemus unidens</i>							



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Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 3D2	NPWG- 4B2X	NPWG- 4C2	PACPP- 1C2X	PACPP- 1CP2X	PACPP- 1D2	PACPP- 2C2
<i>Thalantia admete</i>							
Processidae							
<i>Processa</i> sp.1		1					
Scalopidae							
<i>Scalopida spinosipes</i>							
Scalopidae							
Upogebidae							
<i>Gebiacantha</i> sp.1							
<i>Gebicula</i> sp.1							
<i>Gebicula</i> sp.3							
<i>Upogebia</i> sp.1		1					
Isopoda							
Anthuridae							
<i>Anakusanthura</i> sp.1			1				
Cirolanidae							
<i>Cirolanidae</i> sp.2							
Gnathiidae							
<i>Caecognathia andamanensis</i>		1				15	
<i>Gnathia</i> sp.4							
Hyssuridae							
<i>Hyssuridae</i> sp.1							
<i>Kupellonura</i> sp.1							
Mysidacea							
Myidae							
<i>Anchialina</i> sp.				1			
<i>Anchialina</i> sp.1							
<i>Anchialina</i> sp.2							
<i>Haplostylus bengalensis</i>							
Mysidae							
<i>Siriella</i> sp.			1			1	
<i>Siriella</i> sp.3		1					
<i>Siriella</i> sp.4							
<i>Siriella</i> sp.5							
Stomatopoda							
<i>Nannosquilla</i>							
<i>Acanthosquilla derijardi</i>							
<i>Acanthosquilla multifasciata</i>							
Squillidae							
<i>Anchisquilla fasciata</i>							
Tanaidacea							
Apseuroidae							
<i>Apseudes</i> sp.1							
<i>Apseudes</i> sp.4							4
Kalliapseudidae							
<i>Kalliapseudes</i> sp.2							
Leptocheilidae							
<i>Leptocheila</i> sp.1	1						
<i>Leptocheila</i> sp.2							
Pagurapseudidae							
Pagurapseudidae							
Pagurapseudidae sp.1							
Pagurapseudidae sp.2							
Parapseudidae							
<i>Pakistanapseudes</i> sp.1							
Echinodermata							
Ophiuroidea							



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Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 3D2	NPWG- 4B2X	NPWG- 4C2	PACPP- 1C2X	PACPP- 1CP2X	PACPP- 1D2	PACPP- 2C2
Ophiurida							
Amphiuridae							
<i>Amphiphus (Lymanella) andreae</i>	1						
<i>Amphiphus</i> sp.							
<i>Amphipura</i> sp.1							
<i>Amphipura</i> sp.2							
<i>Amphipura</i> sp.6							
Amphiuridae sp.2							
Amphiuridae sp.3							
Amphiuridae sp.4							
Mollusca							
Aplacophora							
Cavibelonia							
Simrothiellidae							
<i>Helicoradomenia</i> sp.1	1						
<i>Helicoradomenia</i> sp.2							
Chaetodermatida							
Chaetodermatidae							
<i>Chaetoderma</i> sp.1							
Bivalvia							
Adapedonta							
Pharidae							
<i>Phaxas</i> sp.							
<i>Phaxas</i> sp.2							
Arcida							
Arcidae							
<i>Verilarca mortenseni</i>							
Cardiida							
Cardiidae							
<i>Fulvia</i> sp.1							
Psammobiidae							
<i>Gari truncata</i>							
Semellidae							
<i>Abra</i> sp.1							
<i>Abra</i> sp.2							
Lucinida							
Lucinidae							
<i>Anodonta edentula</i>							
<i>Cavaleris imajimai</i>							
Myoida							
Corbidae							
<i>Potamocorbula</i> sp.1							
<i>Potamocorbula</i> sp.2							
Mytiloida							
Mytilidae							
<i>Amegdalum soyae</i>	1						
Nuculoida							
Nuculidae							
<i>Ennucula niponica</i>						1	
Photodomyoida							
Cuspidariidae							
<i>Cardinya singaporensis</i>							
Pandoridae							
<i>Pandora</i> sp.1							
Pteroida							
Pinnidae							



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Density of Benthos (individuals per 0.04 squ

TAXA	NPWG- 3D2	NPWG- 4B2X	NPWG- 4C2	PACPP- 1C2X	PACPP- 1CP2X	PACPP- 1D2	PACPP- 2C2
<i>Prinia</i> sp.							
<i>Peritide</i>							
<i>Pinctada</i> sp.2							
Venerida							
Ungulinidae							
<i>Felaniella</i> sp.1							
Bivalvia							
Gastropoda							
Archaeogastropoda							
Orbistellidae							
<i>Microdiscula</i> sp.							
Neogastropoda							
Nassariidae							
<i>Nassarius comptus</i>							
Neotaenioglossa							
Naticidae							
Naticidae							
Pteropoda							
Hyalocylidae							
<i>Hyalocylis</i> sp.1	1						
Thecosomata							
Cavolinidae							
<i>Diacaivolina flexipes</i>							
Gastropoda							
Scaphopoda							
Dentaliida							
Laevidentalidae							
<i>Laevidentalium</i> sp.						1	
Total	40	16	19	32	43	17	15
No. of Taxa	29	15	16	24	27	14	12



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	PACPP- 2CP2	PACPP- 2D2	PACPP- 3C2Y	PACPP- 3CP2	PACPP- 3D2X	PACPP- 4C2X	PACPP- 4CP2X
Cnidaria							
Anthozoa							
Actiniaria							
Edwardsiidae							
Edwardsiidae sp.1				2			
Nematoda							
Nematoda sp.1							
Nemertea							
Anopla							
Heteronemertea							
Lineidae							
Lineus sp.1							
Mcrua sp.1				2			
Palaeonemertea							
Tubulanidae							
Callinera sp.1	1	1	1	1			
Sipuncula							
Phascolosomatidea							
Aspidosiphoniformes							
Aspidosiphonidae					1		
Aspidosiphon sp.3							
Phascolosomatiformes							
Phascolosomatidae							
Aplousoma sp.2	2	1	1	1	1	1	1
Sipunculidea							
Golfingiformes							
Phascolionidae							
Phascolion sp.1						1	
Phascolion strombus						1	
Sipunculiformes							
Sipunculidae							
Sipunculus sp.1				1			
Annelida							
Polychaeta							
Aciculate							
Acetidae							
Eupanthalis sp.1							
Amphitomididae							
Chloea violacea				1		1	
Linopherus sp.1							
Linopherus sp.2						1	
Linopherus sp.4							
Dorvilleidae							
Schistomerings sp.1				1			
Eunicidae							
Eunice sp.3							
Euniphyssa sp.1							
Euniphyssa sp.2							
Lyridae sp.6				1			
Marphysa sp.2							
Glyceridae							
Glycera alba					2		
Glycera lapidum							
Glycera sp.							
Goniadidae							



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Density of Benthos (individuals per 0.04 sqm)

TAXA	PACPP- 2CP2	PACPP- 2D2	PACPP- 3C2Y	PACPP- 3CP2	PACPP- 3D2X	PACPP- 4C2X	PACPP- 4CP2X
Glycinde cf. oligodon				1		1	1
Goniada mesulata							
Hartmaniellidae							
Hartmaniella sp.1							
Heslonidae							
Hesiospina sp.1							1
Oxydromus sp.1							
Podarkeopsis sp.1							
Lumbrineridae							
Gallardoneris thailandensis							
Geseneris sp.1					1		
Hilbigneris sp.1							
Hilbigneris sp.2							
Loboneris sp.1				1			
Lumbrineridae							
Lumbrinerides sp.1				2			
Lumbrineris latrelli						1	1
Ninnoe sp.2							
Scoletoma sp.1							
Nephtyidae							
Aglaophamus cf. dicirroides	1	1	1	2	1	2	
Aglaophamus orientalis					2		1
Micronephthys oligobranchia							
Micronephthys sp.2				1		2	
Nereididae							
Neanthes arenaceodentata							
Tambalagamia fauveli							
Oenonidae							
Arabella sp.1							
Dilonereis sp.1							
Dilonereis sp.2							
Dilonereis sp.3							
Notocirrus biaculus							
Onuphiidae							
Diopatra sp.							
Diopatra sp.3							
Diopatra sp.6							
Onuphis sp.1	1				2		
Onuphis sp.6							
Paradiopatra sp.1							
Paralacydonidae							
Paralacydonia sp.1			1	1		1	
Phyllodoceidae							
Phyllodoce sp.1							
Pilargidae							
Ancistrosyllis suksani							
Litocora nr. antennata							
Pilargis sp.1							
Sigambra sp.				1			
Sigambra sp.1	1				1	1	
Sigambra sp.6							
Sigambra sp.8	1						
Synelmis abini							
Synelmis rigida							



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Density of Benthos (individuals per 0.04 sqm)

TAXA	PACPP- 2CP2	PACPP- 2D2	PACPP- 3C2Y	PACPP- 3CP2	PACPP- 3D2X	PACPP- 4C2X	PACPP- 4CP2X
Polynoidae							
Harmothoe sp.							
Harmothoe sp.1							
Harmothoe sp.8							
Sigalionidae							
Sthenelais sp.3							
Sthenelais ehlersi							
Sthenelais japonica							
Sphaerodoridae							
Sphaerodordium songklaense				1			
Syllidae							
Exogone (Exogone) sp.2							
Parkinsonia sp.2							
Sphaerosyllis sp.1							
Syllis sp.				1			
Syllis sp.1							
Canalipalpata							
Ampharetidae							
Amphicteis sp.3							
Anobothrus sp.1				1			
Auchenoplax crinita							
Eusamythella sp.1							
Lysippe labiata							
Sanytha sp.1							
Sosane sp.2				1			
Chaetopteridae							
Spirochaetopterus sp.1							
Cirratulidae							
Aphelochaeta sp.1				1	2		
Aphelochaeta sp.2							
Caulerella sp.1						1	
Chaetozone sp.1						1	
Chaetozone sp.7							
Chaetozone sp.9							
Cirratoma sp.1							
Kirkegaardia sp.1							
Kirkegaardia sp.2							
Kirkegaardia sp.3					1		
Kirkegaardia sp.5					1	1	
Kirkegaardia sp.6					1		1
Kirkegaardia sp.7							1
Fabricidae							
Fabriciidae							
Pseudofabriciidae							
Flabelligeridae							
Bradybysa sp.1							
Diplocirrus sp.							
Diplocirrus sp.1							
Diplocirrus sp.3							
Diplocirrus sp.5							
Stylarioides sp.1							
Longosomatidae							
Heterospio longissima							
Mageloniidae							



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Density of Benthos (individuals per 0.04 sqm)

TAXA	PACPP- 2CP2	PACPP- 2D2	PACPP- 3C2Y	PACPP- 3CP2	PACPP- 3D2X	PACPP- 4C2X	PACPP- 4CP2X
Magelona sp.13							
Magelona sp.7				1			
Oweniidae							
Galathowenia sp.1							
Poecilochaetidae							
Poecilochaetus koshikiensis					1		
Poecilochaetus sp.							
Poecilochaetus sp.3							
Poecilochaetus sp.4							
Poecilochaetus tricirratulus				1			
Sabellidae							
Chone sp.1							
Euchone sp.1							
Laonome sp.1							
Sponidae							
Laonice sp.1							
Laonice sp.3							
Malacoceros indicus							
Parapronospio sp.1	1			1	2		1
Pronospio ehlersi							
Pronospio elegantula							
Pronospio sp.	1				1		1
Pronospio sp.10							
Pronospio sp.11				2			
Pronospio sp.13				1	1		
Pronospio sp.6							
Pronospio sp.7							
Scoletopsis sp.2							2
Scoletopsis sp.3							
Spio sp.2				1			
Spiophanes aler							
Spiophanes kroeyeri	1			1			
Spiophanes malayensis							
Spiophanes sp.3							2
Spiophanes sp.4							
Sternaspidae							
Cauleryaspis sp.1							
Sternaspis cf. spinosa							
Sternaspis sp.1							
Terebellidae							
Amatea occidentalis					1		
Pista sp.1							
Pista sp.4							
Polycirrus sp.2							
Streblosoma sp.1							
Trichobranchidae							
Terebellides sp.1							
Terebellides sp.2				1			1
Trichobranchus roseus					2		
(blank)							
Capitellidae							
Capitella capitata							
Capitella minima							
Capitella sp.1							
Capitella sp.2							



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 2CP2	PACPP- 2D2	PACPP- 3C2Y	PACPP- 3CP2	PACPP- 3D2X	PACPP- 4C2X	PACPP- 4CP2X
<i>Capitella</i> sp.3							
<i>Capitella</i> sp.4							
<i>Capitella</i> sp.8							
<i>Capitellatus</i> sp.1							
<i>Capitellatus</i> sp.2							
<i>Capitellatus</i> sp.3							
<i>Decamastus</i> sp.1							
<i>Mediomastus</i> sp.1							
<i>Mediomastus</i> sp.2							
<i>Neomediomastus</i> sp.1		2			1	1	
<i>Neomediomastus</i> sp.2							
<i>Notomastus latericus</i>							
<i>Notomastus lineatus</i>					1		
<i>Notomastus</i> sp.2							
<i>Promastobranchius fulvoti</i>							
<i>Scyphoprocus</i> sp.1		1		1			
Cossuridae							
<i>Cossura</i> sp.2	1		1	1			
Maldanidae							
<i>Asychis</i> sp.2				1			
<i>Axiotello</i> sp.1			1				
<i>Clymenella</i> sp.1			1		1	1	
<i>Euclymene</i> sp.1				1			
<i>Euclymene</i> sp.3				1			
<i>Euclymene</i> sp.4							
<i>Praxillella</i> nr. <i>gracilis</i>							
<i>Praxillella</i> sp.3							
Ophelidae							
<i>Armandia</i> sp.1							
Orbinidae							
<i>Leodarnas</i> sp.1							
Paracidae							
<i>Aricidea</i> (Acmira) sp.5							
<i>Aricidea</i> (Acmira) sp.7				1			
<i>Aricidea</i> (Strelzovia) sp.2							
<i>Aricidea</i> (Strelzovia) sp.3							
<i>Cirrophorus</i> sp.1							
<i>Levensenia</i> sp.1							
<i>Levensenia</i> sp.16							
<i>Levensenia</i> sp.2							
<i>Levensenia</i> sp.4	1						
<i>Levensenia</i> sp.5							
<i>Levensenia</i> sp.9							
Arthropoda							
Crustacea							
Amphipoda							
Ampeliscidae							
<i>Ampelisca bocki</i>						1	
<i>Ampelisca brevicornis</i>							
<i>Ampelisca chinensis</i>							
<i>Ampelisca cyclops</i>			1			1	
<i>Ampelisca maia</i>							
<i>Ampelisca</i> sp.							
<i>Bythys calisto</i>							
<i>Bythys febris</i>			3		1		



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 2CP2	PACPP- 2D2	PACPP- 3C2Y	PACPP- 3CP2	PACPP- 3D2X	PACPP- 4C2X	PACPP- 4CP2X
<i>Bythys</i> io	4						1
<i>Bythys</i> sp.	2						
<i>Haplopus</i> sp.1							
Amphilocheidae							
<i>Amphilocheus</i> sp.1							
<i>Amphilocheus</i> sp.2							
Aoridae							
<i>Grandidorella gilesi</i>							
Caprellidae							
<i>Caprella</i> sp.1						1	
<i>Caprella</i> sp.2							
Caprellidae sp.3							
Caprellidae sp.5							
Dexaminidae							
<i>Dexaminidae</i> sp.2							
Eriopisidae							
<i>Eriopisella sechellensis</i>		1				1	
<i>Eriopisella</i> sp.							
<i>Eriopisella</i> sp.1							
Eriopisidae							
<i>Victoriopsis</i> sp.1		1					2
Leucothoidae							
<i>Leucothoe furina</i>							
Oedicerotidae							
<i>Oedicerotium nonmiraculum</i>							
Oedicerotidae sp.3							
<i>Pericardodes</i> sp.1							
<i>Syncheilidium</i> sp.1							
Photidae							
<i>Gammaropsis</i> sp.6							
<i>Latigammaropsis</i> sp.1							
Photidae							
<i>Photis kapapa</i>							
<i>Photis</i> sp.2							
Phoxocephalidae							
<i>Harpinopsis vadiculus</i>							
Synopiidae							
<i>Synopia</i> sp.2							
Synopiidae sp.3							
Tryphosidae							
<i>Tryphosella</i> sp.1							
<i>Tryphosella</i> sp.1							1
Urothoidae							
<i>Urothoe denticulata</i>							
<i>Urothoe gelasina</i>		1					
Cumacea							
Bodotriidae							
<i>Pseudosymphodomma</i> sp.1							
Diastylidae							
Diastylidae							
<i>Diastylis</i> sp.1							
Leucodidae							
<i>Eudorella</i> sp.1							
<i>Eudorella</i> sp.2						2	
Nannastacidae							
<i>Campylaspis</i> sp.12							



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 2CP2	PACPP- 2D2	PACPP- 3C2Y	PACPP- 3CP2	PACPP- 3D2X	PACPP- 4C2X	PACPP- 4CP2X
<i>Campylaspis</i> sp.5							
<i>Nannastacus</i> sp.5							
Decapoda							
Alpheidae							
Alpheidae							
Alpheidae sp.4							
<i>Alpheus acutocarinatus</i>							
<i>Alpheus paracrinatus</i>							
<i>Alpheus rapacida</i>							
<i>Alpheus</i> sp.					2		
<i>Alpheus</i> sp.6							
<i>Athanas</i> sp.							
<i>Bermudacaris</i> sp.							
<i>Bermudacaris</i> sp.1		2					
<i>Bermudacaris</i> sp.2							
<i>Salmones</i> sp.2							
Callinassidae							
<i>Aqaballanassa brevirostris</i>						1	
Callinassidae							
<i>Jocullianassa matzi</i>		2	2			2	
<i>Lipkecallanassa</i> sp.1			1		2		
<i>Scallasis contipes</i>							
Chasmocarcinidae							
<i>Chasmocarcinops gelasimoides</i>					1		
Ctenochelidae							
Ctenochelidae							
Ctenochelidae sp.1							
Euryplacidae							
<i>Platyozus laevis</i>							
Leucosidae							
<i>Arcania</i> sp.3			1				
<i>Nuclops modestus</i>							
Ogyrididae							
<i>Ogyrides</i> sp.1							
<i>Ogyrides</i> sp.4							
<i>Ogyrides</i> sp.7							
Palaemonidae							
Palaemonidae							
Palaemonidae sp.5							
Palaemonidae sp.6							
Pandalidae							
<i>Pandalidae</i> sp.1							
Pasiphaeidae							
<i>Leptochela pugnax</i>							
Penaeidae							
<i>Altyopenaeus</i> sp.1							
Pilumnidae							
<i>Arges marginatus</i>							
<i>Arges transversus</i>							
<i>Carnatopsis</i> sp.1							
<i>Carnatopsis</i> sp.2							
<i>Carnatopsis fulgida</i>					2		
Portunidae							
<i>Alionectes pulchricristatus</i>							
<i>Charybdis</i> (Archias) hongkongensis			1				
<i>Eodemus unidens</i>							



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 2CP2	PACPP- 2D2	PACPP- 3C2Y	PACPP- 3CP2	PACPP- 3D2X	PACPP- 4C2X	PACPP- 4CP2X
<i>Thalassia admete</i>		1					
Processidae							
<i>Processa</i> sp.1							
Scalopidae							
<i>Scalopidia spinosipes</i>							
Scalopidae							
Upogebiidae							
<i>Gebicacantha</i> sp.1							
<i>Gebicula</i> sp.1							
<i>Gebicula</i> sp.3							
<i>Upogebia</i> sp.1							
Isopoda							
Anthuridae							
<i>Amakusanthura</i> sp.1							
Cirolanidae							
<i>Cirolanidae</i> sp.2							
Gnathidae							
<i>Caecognathia andamanensis</i>		4		3	1	1	2
<i>Gnathia</i> sp.4							
Hyssuridae							
<i>Hyssuridae</i> sp.1							
<i>Kupellonura</i> sp.1							
Mysidacea							
Myiidae							
<i>Anchialina</i> sp.							
<i>Anchialina</i> sp.1							
<i>Anchialina</i> sp.2							
<i>Haplostylus bengalensis</i>							
Myiidae							
<i>Siriella</i> sp.							
<i>Siriella</i> sp.3							
<i>Siriella</i> sp.4							
<i>Siriella</i> sp.5							
Stomatopoda							
Nannosquillidae							
<i>Acanthosquilla derjardi</i>							
<i>Acanthosquilla multifasciata</i>							
Squillidae							
<i>Anchisquilla fasciata</i>							
Tanaidacea							
Apseuroidae							
<i>Apseudes</i> sp.1							
<i>Apseudes</i> sp.4							
Kalliapseuroidae							
<i>Kalliapseudes</i> sp.2							
Leptochelidae							
<i>Leptochella</i> sp.1							
<i>Leptochella</i> sp.2							
Pagurapseuroidae							
Pagurapseuroidae							
Pagurapseuroidae sp.1							
Pagurapseuroidae sp.2							
Parapseuroidae							
<i>Pakistanapseudes</i> sp.1							
Echinodermata							
Ophiuroidea							



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 2CP2	PACPP- 2D2	PACPP- 3C2Y	PACPP- 3CP2	PACPP- 3D2X	PACPP- 4C2X	PACPP- 4CP2X
Ophiurida							
Amphiuridae							
<i>Amphioplus (Lymanella) andreae</i>							
<i>Amphioplus</i> sp.							
<i>Amphiura</i> sp.1					1		
<i>Amphiura</i> sp.2							
<i>Amphiura</i> sp.6							
<i>Amphiuridae</i> sp.2					1		
<i>Amphiuridae</i> sp.3						1	
<i>Amphiuridae</i> sp.4							1
Mollusca							
Aplacophora							
Cavibelonia							
Simrothiellidae							
<i>Helicoradomenia</i> sp.1	1	1					
<i>Helicoradomenia</i> sp.2				2			
Chaetodermatida							
Chaetodermatidae							
<i>Chaetoderma</i> sp.1							
Bivalvia							
Adapedonta							
Pharidae							
<i>Phaxas</i> sp.							
<i>Phaxas</i> sp.2				1			
Arcida							
Arcidae							
<i>Verlarcia mortenseni</i>							
Cardiida							
Cardiidae							
<i>Fulvia</i> sp.1				1			
Psammobiidae							
<i>Gari truncata</i>							
Semelidae							
<i>Abra</i> sp.1							
<i>Abra</i> sp.2							
Lucinida							
Lucinidae							
<i>Anodonta edentula</i>							
<i>Cavaleris imajimai</i>							
Myioida							
Corbulidae							
<i>Potamocorbula</i> sp.1					1		
<i>Potamocorbula</i> sp.2							
Mytiloida							
Mytilidae							
<i>Amygdalum soyae</i>							
Nuculoida							
Nuculidae							
<i>Ennucula niponica</i>		1					
Pholadomyioida							
Cuspidariidae							
<i>Cardiomya singaporensis</i>							
Pandoridae							
<i>Pandora</i> sp.1							
Pterioidea							
Pinnidae							



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 2CP2	PACPP- 2D2	PACPP- 3C2Y	PACPP- 3CP2	PACPP- 3D2X	PACPP- 4C2X	PACPP- 4CP2X
Pinna sp.							
Peridae							
<i>Pinctada</i> sp.2							1
Venerida							
Ungulinidae							
<i>Felaniella</i> sp.1							
Bivalvia							
Gastropoda							
Archaeogastropoda							
Orbistellidae							
<i>Microdiscula</i> sp.							
Neogastropoda							
Nassariidae							
<i>Nassarius comptus</i>							
Neotaenioglossa							
Naticidae							
Naticidae							
Pteropoda							
Hyalocylidae							
<i>Hyalocylis</i> sp.1							
Thecosomata							
Cavolinidae							
<i>Diacaevolinia flexipes</i>			1				
Gastropoda							
Scaphopoda							
Dentaliida							
Laevitentaliidae							
<i>Laevitentalium</i> sp.							
Total	29	13	31	47	28	25	27
No. of Taxa	19	12	27	36	22	22	23



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 4D2X	PAREF- A	PAREF- B	PAREF- C	PAWB- 1C2	PAWB- 1CP2	PAWB- 1D2
Cnidaria							
Anthozoa							
Actiniaria							
Edwardsiidae				1			
<i>Edwardsiidae</i> sp.1							
Nematoda							
Nematoda sp.1							
Nemertea							
Anopla							
Heteronemertea							
Lineidae							
<i>Lineus</i> sp.1							
<i>Micrura</i> sp.1							
Palaeonemertea							
Tubulanidae							
<i>Callinera</i> sp.1					1		
Sipuncula							
Phascolosomatidea							
Aspidosiphoniformes							
Aspidosiphonidae							
<i>Aspidosiphon</i> sp.3							
Phascolosomatiformes							
Phascolosomatidae							
<i>Aplonsoma</i> sp.2				2		1	
Sipunculidea							
Golfingiformes							
Phascolionidae							
<i>Phascolion</i> sp.1							
<i>Phascolion strombus</i>							
Sipunculiformes							
Sipunculidae							
<i>Sipunculus</i> sp.1							
Annelida							
Polychaeta							
Aciculata							
Acoetidae							
<i>Eupanthalis</i> sp.1							
Amphitomididae							
<i>Chloela violacea</i>							
<i>Linopherus</i> sp.1							
<i>Linopherus</i> sp.2							
<i>Linopherus</i> sp.4							
Dorvilleidae							
<i>Schistomerings</i> sp.1							
Eunicidae							
<i>Eunice</i> sp.3							
<i>Euniphysa</i> sp.1						1	
<i>Euniphysa</i> sp.2							
<i>Lysidice</i> sp.6							
<i>Marphysa</i> sp.2							
Glyceridae							
<i>Glycera alba</i>							
<i>Glycera lapidum</i>							
<i>Glycera</i> sp.							
Goniadidae					1		



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 4D2X	PAREF- A	PAREF- B	PAREF- C	PAWB- 1C2	PAWB- 1CP2	PAWB- 1D2
<i>Glycinde cf. oligodon</i>							
<i>Goniada maculata</i>							
Hartmaniellidae							
<i>Hartmaniella</i> sp.1							
Hesionidae							
<i>Hesiosphina</i> sp.1							1
<i>Oxydromus</i> sp.1							
<i>Podarkeopsis</i> sp.1					1		
Lumbrineridae							
<i>Gallardoneris thailandensis</i>							
<i>Geseneris</i> sp.1							
<i>Hilbigneris</i> sp.1							
<i>Hilbigneris</i> sp.2							
<i>Loboneris</i> sp.1							
Lumbrineridae							
<i>Lumbrinerides</i> sp.1		1					
<i>Lumbrineris latrelli</i>		1					
<i>Ninoe nr. bruuni</i>			1				
<i>Ninoe</i> sp.2							
<i>Scoletona</i> sp.1							
Nephtyidae							
<i>Aglaophamus cf. dicroides</i>		1		1			3
<i>Aglaophamus orientalis</i>							
<i>Micronephthys oligobranchia</i>							
<i>Micronephthys</i> sp.2							
Nereididae							
<i>Neanthes arenaceodentata</i>							
<i>Tambalagamia fauveli</i>							
Oenonidae							
<i>Arabella</i> sp.1							
<i>Dilonereis</i> sp.1							
<i>Dilonereis</i> sp.2							
<i>Dilonereis</i> sp.3							
<i>Notocirrus biaculus</i>							
Onuphiidae							
<i>Diopatra</i> sp.							
<i>Diopatra</i> sp.3							
<i>Diopatra</i> sp.6							
<i>Onuphis</i> sp.1		2				2	1
<i>Onuphis</i> sp.6							
<i>Paradiopatra</i> sp.1							
Paralacydoniidae							
<i>Paralacydonia</i> sp.1		1					
Phyllodoceidae							
<i>Phyllodoce</i> sp.1							
Pilargidae							
<i>Ancistrosyllis suksani</i>							
<i>Litocorsa nr. antennata</i>							
<i>Pilargis</i> sp.1							
<i>Sigambra</i> sp.							
<i>Sigambra</i> sp.1							
<i>Sigambra</i> sp.6							
<i>Sigambra</i> sp.8							
<i>Synelmis albin</i>							
<i>Synelmis rigida</i>							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 4D2X	PAREF- A	PAREF- B	PAREF- C	PAWB- 1C2	PAWB- 1CP2	PAWB- 1D2
Polynoidae							
<i>Harmothoe</i> sp.					1		
<i>Harmothoe</i> sp.1							
<i>Harmothoe</i> sp.8							
Sigalionidae							
<i>Sthenelais</i> sp.3							
<i>Sthenelaisella ehlersi</i>							
<i>Sthenolepis japonica</i>			1				
Sphaerodoridae							
<i>Sphaerodordium songkhaense</i>							
Syllidae							
<i>Exogone</i> (Exogone) sp.2							
<i>Perkinsyllis</i> sp.2							
<i>Sphaerosyllis</i> sp.1							1
<i>Syllis</i> sp.							
<i>Syllis</i> sp.1							
Canalipalpata							
Ampharetidae							
<i>Ampharetis</i> sp.3							
<i>Anobothrus</i> sp.1							
<i>Auchenoplax crinita</i>						1	
<i>Eusamythella</i> sp.1							
<i>Lysippe labiata</i>						2	
<i>Sanytha</i> sp.1							
<i>Sosane</i> sp.2							
Chaetopteridae							
<i>Spiochaetopterus</i> sp.1	1						
Cirratulidae							
<i>Aphelochaeta</i> sp.1	2				1		
<i>Aphelochaeta</i> sp.2							
<i>Caulerella</i> sp.1	1			1			
<i>Chaetozone</i> sp.1							
<i>Chaetozone</i> sp.7							
<i>Chaetozone</i> sp.9					2		
<i>Cirratulus</i> sp.1							
<i>Kirkegaardia</i> sp.1							
<i>Kirkegaardia</i> sp.2	1						
<i>Kirkegaardia</i> sp.3							
<i>Kirkegaardia</i> sp.5						1	
<i>Kirkegaardia</i> sp.6							
<i>Kirkegaardia</i> sp.7							
Fabriciidae							
<i>Fabriciella</i> sp.1							
<i>Pseudofabriciella</i> sp.1							
Flabelligeridae							
<i>Bradybysia</i> sp.1							
<i>Diplocirrus</i> sp.							
<i>Diplocirrus</i> sp.1							
<i>Diplocirrus</i> sp.3							
<i>Diplocirrus</i> sp.5	1						
<i>Stylarioides</i> sp.1							
Longosomatidae							
<i>Heterospio longissima</i>							
Magelonidae							



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 4D2X	PAREF- A	PAREF- B	PAREF- C	PAWB- 1C2	PAWB- 1CP2	PAWB- 1D2
<i>Magelona</i> sp.13							
<i>Magelona</i> sp.7							
Oweniidae							
<i>Galathowenia</i> sp.1							
Poecilochaetidae							
<i>Poecilochaetus koshikiensis</i>							
<i>Poecilochaetus</i> sp.							
<i>Poecilochaetus</i> sp.3							
<i>Poecilochaetus</i> sp.4							
<i>Poecilochaetus tricaratus</i>				2			
Sabellidae							
<i>Chone</i> sp.1							
<i>Euchone</i> sp.1							1
<i>Leonome</i> sp.1							
Spionidae							
<i>Laonice</i> sp.1		1					
<i>Laonice</i> sp.3							
<i>Malacoceros indicus</i>							
<i>Paraprionospio</i> sp. 1	1			1			
<i>Prionospio ehlersi</i>	1						
<i>Prionospio elegantula</i>							
<i>Prionospio</i> sp.							
<i>Prionospio</i> sp.10						1	
<i>Prionospio</i> sp.11							
<i>Prionospio</i> sp.13							
<i>Prionospio</i> sp.6							
<i>Prionospio</i> sp.7							
<i>Scolecopsis</i> sp.2	6						
<i>Scolecopsis</i> sp.3							
<i>Spio</i> sp.2							
<i>Spiochanes afer</i>							
<i>Spiochanes kroeyeri</i>							
<i>Spiochanes malayensis</i>							
<i>Spiochanes</i> sp.3							
<i>Spiochanes</i> sp.4							
Sternaspidae							
<i>Caulerapsis</i> sp.1							1
<i>Sternaspis cf. spinosa</i>							
<i>Sternaspis</i> sp.1							
Terebellidae							
<i>Amatea occidentalis</i>							
<i>Pista</i> sp.1							
<i>Pista</i> sp.4							
<i>Polycirrus</i> sp.2							
<i>Streblosoma</i> sp.1							
Trichobranchidae							
<i>Terebellides</i> sp.1							
<i>Terebellides</i> sp.2	2	2	1				1
<i>Trichobranchus roseus</i>							
(blank)							
Capitellidae							
<i>Capitella capitata</i>							
<i>Capitella minima</i>						2	
<i>Capitella</i> sp.1							
<i>Capitella</i> sp.2							



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 4D2X	PAREF- A	PAREF- B	PAREF- C	PAWB- 1C2	PAWB- 1CP2	PAWB- 1D2
<i>Capitella</i> sp.3							
<i>Capitella</i> sp.4							
<i>Capitella</i> sp.8							
<i>Capitellatus</i> sp.1		2					
<i>Capitellatus</i> sp.2							
<i>Capitellatus</i> sp.3							
<i>Decamastus</i> sp.1				1			
<i>Mediomastus</i> sp.1			2				
<i>Mediomastus</i> sp.2	1						
<i>Neomediomastus</i> sp.1				1			
<i>Neomediomastus</i> sp.2							
<i>Notomastus latericus</i>							
<i>Notomastus lineatus</i>							
<i>Notomastus</i> sp.2							
<i>Promastobranchus hutchinsoni</i>							
<i>Scyphoproctus</i> sp.1		1					
Cossuridae							
<i>Cossura</i> sp.2							
Maldanidae							
<i>Asychis</i> sp.2							
<i>Axiobella</i> sp.1							
<i>Clymenella</i> sp.1							
<i>Euclymene</i> sp.1							
<i>Euclymene</i> sp.3							
<i>Euclymene</i> sp.4							
<i>Praxillella nr. gracilis</i>						1	
<i>Praxillella</i> sp.3							
Ophelidae							
<i>Armandia</i> sp.1							
Orbinidae							
<i>Leodamas</i> sp.1							
Parosidae							
<i>Aricidea</i> (Acmira) sp.5							
<i>Aricidea</i> (Acmira) sp.7							
<i>Aricidea</i> (Strelzovia) sp.2							
<i>Aricidea</i> (Strelzovia) sp.3							
<i>Cirrophorus</i> sp.4							
<i>Levensenia</i> sp.1							
<i>Levensenia</i> sp.16							
<i>Levensenia</i> sp.2				1			1
<i>Levensenia</i> sp.4							
<i>Levensenia</i> sp.5							
<i>Levensenia</i> sp.9							
Arthropoda							
Crustacea							
Amphipoda							
Ampeliscidae							
<i>Ampelisca bocki</i>	1						
<i>Ampelisca brevicornis</i>							
<i>Ampelisca chinensis</i>		1					
<i>Ampelisca cyclops</i>							
<i>Ampelisca maia</i>					1		
<i>Ampelisca</i> sp.							
<i>Byblis calisto</i>							
<i>Byblis febris</i>						4	



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 4D2X	PAREF- A	PAREF- B	PAREF- C	PAWB- 1C2	PAWB- 1CP2	PAWB- 1D2
<i>Byblis</i> sp.							
<i>Byblis</i> sp.							
<i>Haploopsis</i> sp.1							
Amphilocheidae							
<i>Amphilocheus</i> sp.1							
<i>Amphilocheus</i> sp.2							
Aoridae							
<i>Grandidierella gilesi</i>							
Caprellidae							
<i>Caprella</i> sp.1				2			
<i>Caprella</i> sp.2							
Caprellidae sp.3							
Caprellidae sp.5							
Dexaminidae							
<i>Dexaminidae</i> sp.2							
Eriopisidae							
<i>Eriopisella sechellensis</i>							
<i>Eriopisella</i> sp.							
<i>Eriopisella</i> sp.1							
Eriopisidae							
<i>Victoriopsis</i> sp.1		3		2			
Leucothoidae							
<i>Leucothoe furina</i>							
Oedicerotidae							
<i>Oedicerotium nonmiraculum</i>							
Oedicerotidae sp.3							
<i>Pericratus</i> sp.1	1			2			
<i>Syncheldium</i> sp.1				1			
Pholidae							
<i>Gammaropsis</i> sp.6							
<i>Latigammaropsis</i> sp.1							
Photidae							
<i>Photis kapapa</i>							
<i>Photis</i> sp.2							
Phoxocephalidae							
<i>Harpiopsis vadiculus</i>							
Synopiidae							
<i>Synopia</i> sp.2							
<i>Synopiidae</i> sp.3							
Tryphosidae							
<i>Tryphosella</i> sp.1			1				
Tryphosidae sp.1							
Urothoidae							
<i>Urothoe denticulata</i>							
<i>Urothoe gelasina</i>							
Cumacea							
Bodotidae							
<i>Pseudosymphodomma</i> sp.1							
Diastylidae							
<i>Diastylis</i> sp.1		1					
Leuconidae							
<i>Eudorella</i> sp.1				2			
<i>Eudorella</i> sp.2							
Nannastacidae							
<i>Campylaspis</i> sp.12							



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 4D2X	PAREF- A	PAREF- B	PAREF- C	PAWB- 1C2	PAWB- 1CP2	PAWB- 1D2
<i>Campylaspis</i> sp.5							
<i>Nannastacus</i> sp.5							
Decapoda							
Alpheidae							
Alpheidae							
Alpheidae sp.4							
<i>Alpheus acutocarinatus</i>	1			1		1	
<i>Alpheus paracrinatus</i>							
<i>Alpheus rapacida</i>							
<i>Alpheus</i> sp.							
<i>Alpheus</i> sp.6	1						
<i>Athanas</i> sp.							
<i>Bermudacaris</i> sp.							1
<i>Bermudacaris</i> sp.1							
<i>Bermudacaris</i> sp.2							
<i>Salmones</i> sp.2							
Callinassidae							
<i>Aqaballianassa brevirostris</i>							
Callinassidae							
<i>Jocullianassa matzi</i>	1		2				
<i>Lipkecallianassa</i> sp.1							
<i>Scallasis contipes</i>			1				2
Chasmocarcinidae							
<i>Chasmocarcinops gelasimoides</i>							
Ctenochelidae							
Ctenochelidae							
Ctenochelidae sp.1							
Euryplacidae							
<i>Platyozus laevis</i>							
Leucosidae							
<i>Arcania</i> sp.3							
<i>Nuclops modestus</i>							
Ogyrididae							
<i>Ogyrides</i> sp.1							
<i>Ogyrides</i> sp.4							
<i>Ogyrides</i> sp.7							
Palaemonidae							
Palaemonidae							
Palaemonidae sp.5							
Palaemonidae sp.6							
Pandalidae							
Pandalidae sp.1							
Pasiphaeidae							
<i>Leptocheila pugnax</i>							
Penaeidae							
<i>Altyopenaeus</i> sp.1							
Pilumnidae							
<i>Arges marginatus</i>	1				1		
<i>Arges transversus</i>							
<i>Camatopsis</i> sp.1							
<i>Camatopsis</i> sp.2							
<i>Caratoplax fulgida</i>							
Portunidae							
<i>Alionectes pulchricristatus</i>							
<i>Charybdis (Archias) hongkongensis</i>							
<i>Eodemus unidens</i>							



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 4D2X	PAREF- A	PAREF- B	PAREF- C	PAWB- 1C2	PAWB- 1CP2	PAWB- 1D2
<i>Thalassia admete</i>				1			
Processidae							
<i>Processa</i> sp.1							
Scalopidae							
<i>Scalopida spinosipes</i>							
Upogebidae							
<i>Gebiacantha</i> sp.1							
<i>Gebicula</i> sp.1							
<i>Gebicula</i> sp.3							
<i>Upogebia</i> sp.1							
Isopoda							
Anthuridae							
<i>Anakusanthura</i> sp.1							
Cirolanidae							
<i>Cirolanidae</i> sp.2							
Gnathiidae							
<i>Caecognathia andamanensis</i>	2	2				1	1
<i>Gnathia</i> sp.4							
Hyssuridae							
<i>Hyssuridae</i> sp.1							
<i>Kupellonura</i> sp.1							
Mysidacea							
Myidae							
<i>Anchialina</i> sp.							
<i>Anchialina</i> sp.1							
<i>Anchialina</i> sp.2							
<i>Haplostylus bengalensis</i>							
Myidae							
<i>Siriella</i> sp.							
<i>Siriella</i> sp.3							
<i>Siriella</i> sp.4							
<i>Siriella</i> sp.5							
Stomatopoda							
<i>Nannosquilla</i>							
<i>Acanthosquilla derijardi</i>							
<i>Acanthosquilla multifasciata</i>							
Squillidae							
<i>Anchisquilla fasciata</i>							
Tanaidacea							
Apseuroidae							
<i>Apseudes</i> sp.1	8			1			
<i>Apseudes</i> sp.4				1			
Kalliapseuroidae							
<i>Kalliapseudes</i> sp.2							
Leptocheilidae							
<i>Leptocheila</i> sp.1							
<i>Leptocheila</i> sp.2							
Pagurapseuroidae							
Pagurapseuroidae							
Pagurapseuroidae sp.1							
Pagurapseuroidae sp.2							
Parapseuroidae							
<i>Pakistanapseudes</i> sp.1							
Echinodermata							
Ophiuroidea							



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 4D2X	PAREF- A	PAREF- B	PAREF- C	PAWB- 1C2	PAWB- 1CP2	PAWB- 1D2
Ophiurida							
Amphiuridae							
<i>Amphiopus (Lymanella) andreae</i>							
<i>Amphiopus</i> sp.				2			
<i>Amphiura</i> sp.1							
<i>Amphiura</i> sp.2							
<i>Amphiura</i> sp.6							
Amphiuridae sp.2							
Amphiuridae sp.3			1				
Amphiuridae sp.4							
Mollusca							
Aplacophora							
Cavibelonia							
Simrothiellidae							
<i>Helicoradomenia</i> sp.1							
<i>Helicoradomenia</i> sp.2							
Chaetodermatida							
Chaetodermatidae							
<i>Chaetoderma</i> sp.1							
Bivalvia							
Adapedonta							
Pharidae							
<i>Phaxas</i> sp.							
<i>Phaxas</i> sp.2							
Arcida							
Arcidae							
<i>Verilarca mortenseni</i>							
Cardiida							
Cardiidae							
<i>Fulvia</i> sp.1							
Psammobiidae							
<i>Gari truncata</i>							
Semellidae							
<i>Abra</i> sp.1							
<i>Abra</i> sp.2			1				
Lucinida							
Lucinidae							
<i>Anodonta edentula</i>							
<i>Cavalerius imajimai</i>							
Myiida							
Corbidae							
<i>Potamocorbula</i> sp.1							
<i>Potamocorbula</i> sp.2							
Mytiloidea							
Mytilidae							
<i>Amegdalum soyae</i>							
Nuculoidea							
Nuculidae							
<i>Ennucula niponica</i>							
Pholadomyioida							
Cuspidariidae				1			
<i>Cardinya singaporensis</i>							
Pandoridae							
<i>Pandora</i> sp.1							
Pterioidea							
Pinnidae							



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Density of Benthos (individuals per 0.04 squ

TAXA	PACPP- 4D2X	PAREF- A	PAREF- B	PAREF- C	PAWB- 1C2	PAWB- 1CP2	PAWB- 1D2
<i>Prinia</i> sp.							
Periidae							
<i>Pinctada</i> sp.2							
Venerida							
Ungulinidae							
<i>Felaniella</i> sp.1				1			
Bivalvia							
Gastropoda							
Archaeogastropoda							
Orbistellidae							
<i>Microdiscula</i> sp.							
Neogastropoda							
Nassariidae							
<i>Nassarius comptus</i>							
Neotaenioglossa							
Naticidae							
Naticidae				1			
Pteropoda							
Hyalocylidae							
<i>Hyalocylis</i> sp.1							
Thecosomata							
Cavolinidae							
<i>Diacaivolina flexipes</i>							
Gastropoda							
Scaphopoda							
Dentaliida							
Laevidentallidae							
<i>Laevidentallium</i> sp.		1					
Total	40	16	11	30	9	7	22
No. of Taxa	24	11	9	23	7	6	15



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Density of Benthos (individuals per 0.04 sqm)

TAXA	PAWB- 2B1X	PAWB- 2C2	PAWB- 3B2	PAWB- 3C2	PAWB- 3CP2	PAWB- 3D2	PAWB- 4B2X
Cnidaria							
Anthozoa							
Actiniaria							
Edwardsiidae							
Edwardsiidae sp.1							
Nematoda							
Nematoda sp.1							
Nemertea							
Anopla							
Heteronemertea							
Lineidae							
Lineus sp.1							
Mcrua sp.1							
Palaeonemertea							
Tubulanidae							
Callinera sp.1	1		1			1	1
Sipuncula							
Phascolosomatidea							
Aspidosiphoniformes							
Aspidosiphonidae							
Aspidosiphon sp.3							
Phascolosomatiformes							
Phascolosomatidae							
Aplousoma sp.2	1	3			1		1
Sipunculidea							
Golfingiformes							
Phascolionidae							
Phascolion sp.1							
Phascolion strombus							
Sipunculiformes							
Sipunculidae							
Sipunculus sp.1							
Annelida							
Polychaeta							
Aciculate							
Acetidae							
Euphanthalis sp.1							
Amphitomididae							
Chloia violacea							
Linopherus sp.1							
Linopherus sp.2							
Linopherus sp.4							
Dorvilleidae							
Schistomeringos sp.1							
Eunicidae							
Eunice sp.3							
Euniphyssa sp.1							
Euniphyssa sp.2							
Lyidice sp.6							
Marphysa sp.2							
Glyceridae							
Glycera alba							
Glycera lapidum							
Glycera sp.							
Goniadidae		1		1			



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	PAWB- 2B1X	PAWB- 2C2	PAWB- 3B2	PAWB- 3C2	PAWB- 3CP2	PAWB- 3D2	PAWB- 4B2X
Glycinde cf. oligodon							
Goniada mesulata							
Hartmaniellidae							
Hartmaniella sp.1							
Heslonidae							
Hesiospina sp.1							
Oxydromus sp.1							
Podarkeopsis sp.1			2				
Lumbrineridae							
Gallardoneris thailandensis		1					
Gesaneris sp.1							
Hilbigneris sp.1	1						
Hilbigneris sp.2							
Loboneris sp.1							
Lumbrineridae							
Lumbrineris sp.1		2					
Lumbrineris latreilli							
Ninoe nr. bruuni	1					1	
Ninoe sp.2							
Scoletoma sp.1		1					
Nephtyidae							
Aglaophamus cf. dicirroides	1	1					
Aglaophamus orientalis							
Micronephthys oligobranchia							
Micronephthys sp.2							
Nereididae							
Neanthes arenaeodentata			8				
Tambalagania fauveli				1			
Oenonidae							
Arabella sp.1							
Dilonereis sp.1							
Dilonereis sp.2							
Dilonereis sp.3							
Notocirrus biaculus							
Onuphiidae							
Diopatra sp.							
Diopatra sp.3							
Diopatra sp.6							
Onuphis sp.1	1	3					
Onuphis sp.6							
Paradiopatra sp.1						1	
Paralacydonidae							
Paralacydonia sp.1							
Phyllodoceidae							
Phyllodoce sp.1							
Pilargidae							
Ancistrosyllis suksani							
Litocora nr. antennata							
Pilargis sp.1							
Sigambra sp.							
Sigambra sp.1							1
Sigambra sp.6							
Sigambra sp.8							
Synelmis abini							
Synelmis rigida							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	PAWB- 2B1X	PAWB- 2C2	PAWB- 3B2	PAWB- 3C2	PAWB- 3CP2	PAWB- 3D2	PAWB- 4B2X
Polynoidae							
Harmothoe sp.							
Harmothoe sp.1							
Harmothoe sp.8							
Sigalionidae							
Sthenelais sp.3							
Sthenelais ehlersi							
Sthenolepis japonica							
Sphaerodoridae							
Sphaerodoridium songklaense							
Syllidae							
Exogone (Exogone) sp.2		1					
Parkinsyllis sp.2							
Sphaerosyllis sp.1							
Syllis sp.							
Syllis sp.1							
Canalipalpata							
Ampharetidae							
Amphicteis sp.3							
Anobothrus sp.1		1					
Auchenoplax crinita							
Eusamythella sp.1							
Lysippe labiata							
Sanytha sp.1							
Sosane sp.2							
Chaetopteridae							
Spiochaetopterus sp.1							
Cirratulidae							
Aphelochaeta sp.1	1					1	
Aphelochaeta sp.2							
Caulerella sp.1							
Chaetozone sp.1							
Chaetozone sp.7							
Chaetozone sp.9							
Cirratoma sp.1							
Kirkegaardia sp.1							
Kirkegaardia sp.2							
Kirkegaardia sp.3							
Kirkegaardia sp.5				1			
Kirkegaardia sp.6							
Kirkegaardia sp.7							
Fabricidae							
Fabriciidae							
Pseudofabriciella sp.1		1					
Flabelligeridae							
Bradybysa sp.1	1						
Diplocirrus sp.		1					
Diplocirrus sp.1							
Diplocirrus sp.3							
Diplocirrus sp.5							
Stylarioides sp.1							
Longosomatidae							
Heterospio longissima							
Magelonidae							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	PAWB- 2B1X	PAWB- 2C2	PAWB- 3B2	PAWB- 3C2	PAWB- 3CP2	PAWB- 3D2	PAWB- 4B2X
Magelona sp.13							
Magelona sp.7							
Oweniidae							
Galathowenia sp.1							
Poecilochaetidae							
Poecilochaetus koshikiensis							
Poecilochaetus sp.							
Poecilochaetus sp.3					1		
Poecilochaetus sp.4							
Poecilochaetus tricaratus							
Sabellidae							
Chone sp.1						1	
Euchone sp.1							
Laonome sp.1							
Spionidae							
Laonice sp.1							
Laonice sp.3							
Malacoceros indicus							
Paraprionospio sp.1				1			
Prionospio ehlersi							
Prionospio elegantula							
Prionospio sp.		1		1			
Prionospio sp.10							
Prionospio sp.11							
Prionospio sp.13							
Prionospio sp.6						1	
Prionospio sp.7							
Scoletopsis sp.2							
Scoletopsis sp.3							
Spio sp.2							
Spiochanes aler							
Spiochanes kroeyeri							
Spiochanes malayensis							
Spiochanes sp.3							
Spiochanes sp.4							
Sternaspidae							
Cauleryaspis sp.1		1					
Sternaspis cf. spinosa							
Sternaspis sp.1							
Terebellidae							
Amatea occidentalis							
Pista sp.1							
Pista sp.4							
Polycirrus sp.2							
Streblosoma sp.1							
Trichobranchidae							
Terebellides sp.1							
Terebellides sp.2		1			2	1	
Trichobranchus roseus							
(blank)							
Capitellidae							
Capitella capitata							
Capitella minima							
Capitella sp.1							2
Capitella sp.2			1				



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 2B1X	PAWB- 2C2	PAWB- 3B2	PAWB- 3C2	PAWB- 3CP2	PAWB- 3D2	PAWB- 4B2X
<i>Capitella</i> sp.3			11				
<i>Capitella</i> sp.4			4				
<i>Capitella</i> sp.8			2				2
<i>Capitellithus</i> sp.1		1		1			
<i>Capitellithus</i> sp.2							
<i>Capitellithus</i> sp.3							
<i>Decamastus</i> sp.1							
<i>Mediomastus</i> sp.1							
<i>Mediomastus</i> sp.2							
<i>Neomediomastus</i> sp.1							
<i>Neomediomastus</i> sp.2							
<i>Notomastus latericeus</i>							
<i>Notomastus lineatus</i>							
<i>Notomastus</i> sp.2							
<i>Promastobranchius fulvoti</i>							
<i>Scyphoproctus</i> sp.1							
Cossuridae							
<i>Cossura</i> sp.2		1					
Maldanidae							
<i>Asychis</i> sp.2							
<i>Axiobella</i> sp.1				2			
<i>Clymenella</i> sp.1	1						
<i>Euclymene</i> sp.1							
<i>Euclymene</i> sp.3		1					
<i>Euclymene</i> sp.4						1	
<i>Praxillella nr. gracilis</i>					1		
<i>Praxillella</i> sp.3							
Ophelidae							
<i>Armandia</i> sp.1						2	
Orbinidae							
<i>Leodarnas</i> sp.1							
Paracidae							
<i>Aricidea</i> (Acmira) sp.5							
<i>Aricidea</i> (Acmira) sp.7							
<i>Aricidea</i> (Strelzovia) sp.2							
<i>Aricidea</i> (Strelzovia) sp.3							
<i>Cirrophorus</i> sp.4							
<i>Levinsonia</i> sp.1							
<i>Levinsonia</i> sp.16							
<i>Levinsonia</i> sp.2							
<i>Levinsonia</i> sp.4		1					
<i>Levinsonia</i> sp.5							
<i>Levinsonia</i> sp.9							
Arthropoda							
Crustacea							
Amphipoda							
Ampeliscidae							
<i>Ampelisca bocki</i>	1						
<i>Ampelisca brevicornis</i>							
<i>Ampelisca chinensis</i>							
<i>Ampelisca cyclops</i>							
<i>Ampelisca maia</i>						1	
<i>Ampelisca</i> sp.							
<i>Bythia calisto</i>							
<i>Bythia febris</i>		1		1			



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 2B1X	PAWB- 2C2	PAWB- 3B2	PAWB- 3C2	PAWB- 3CP2	PAWB- 3D2	PAWB- 4B2X
<i>Bythia</i> io							
<i>Bythia</i> sp.							
<i>Haploopsis</i> sp.1							
Amphilocheidae							
<i>Amphilocheus</i> sp.1							
<i>Amphilocheus</i> sp.2							
Aoridae							
<i>Grandidorella gilesi</i>							
Caprellidae							
<i>Caprella</i> sp.1							
<i>Caprella</i> sp.2							
Caprellidae sp.3							
Caprellidae sp.5							
Dexaminidae							
Dexaminidae sp.2							
Eriopisidae							
<i>Eriopisella sechellensis</i>							
<i>Eriopisella</i> sp.							
<i>Eriopisella</i> sp.1							
Eriopisidae							
<i>Victoriopsis</i> sp.1							
Leucothoidae							
<i>Leucothoe furina</i>							
Oedicerotidae							
<i>Eschschidium nonmiraculum</i>							
Oedicerotidae sp.3							
<i>Periculodes</i> sp.1							
<i>Syncheildium</i> sp.1							
Photidae							
<i>Gammareopsis</i> sp.6							
<i>Latigammareopsis</i> sp.1							
Photidae							
<i>Photis kapapa</i>							
<i>Photis</i> sp.2							
Phoxocephalidae							
<i>Harpinopsis vaduculus</i>							
Synopiidae							
<i>Synopia</i> sp.2							
<i>Synopiidae</i> sp.3							
Tryphosidae							
<i>Tryphosella</i> sp.1		1					
Tryphosidae sp.1							
Urothoidae							
<i>Urothoe denticulata</i>							
<i>Urothoe gelasina</i>							
Cumacea							
Bodotriidae							
<i>Pseudosymphodomma</i> sp.1							
Diastylidae							
Diastylidae							
<i>Diastylis</i> sp.1							
Leucodidae							
<i>Eudorella</i> sp.1							
<i>Eudorella</i> sp.2							
Nannastacidae							
<i>Campylaspis</i> sp.12							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 2B1X	PAWB- 2C2	PAWB- 3B2	PAWB- 3C2	PAWB- 3CP2	PAWB- 3D2	PAWB- 4B2X
<i>Campylaspis</i> sp.5							
<i>Nannastacus</i> sp.5							
Decapoda							
Alpheidae							
Alpheidae							
Alpheidae sp.4							
<i>Alpheus acutocarinatus</i>							
<i>Alpheus paracrinatus</i>							
<i>Alpheus rapacida</i>							
<i>Alpheus</i> sp.	1	1					
<i>Alpheus</i> sp.6							
<i>Athanas</i> sp.							
<i>Bermudacaris</i> sp.							
<i>Bermudacaris</i> sp.1	1	2			1		
<i>Bermudacaris</i> sp.2						1	
<i>Salmonus</i> sp.2							
Callinassidae							
<i>Aqaballanassa brevirostris</i>							
Callinassidae		2					
<i>Jocullanassa matzi</i>						1	
<i>Lipkecallanassa</i> sp.1	2				1	1	
<i>Scallasis contipes</i>				1			
Chasmocarcinidae							
<i>Chasmocarcinops gelasimoides</i>							
Ctenochelidae							
Ctenochelidae							
Ctenochelidae sp.1							
Euryplacidae							
<i>Platyozus laevis</i>							
Leucosidae							
<i>Arcania</i> sp.3							
<i>Nuclops modestus</i>							
Ogyrididae							
<i>Ogyridis</i> sp.1		1					
<i>Ogyridis</i> sp.4							
<i>Ogyridis</i> sp.7							
Palaemonidae							
Palaemonidae							
Palaemonidae sp.5							
Palaemonidae sp.6							
Pandalidae							
<i>Pandalidae</i> sp.1					1		
Pasiphaeidae							
<i>Leptochela pugnax</i>	1	1					
Penaeidae							
<i>Altyopenaeus</i> sp.1							
Pilumnidae							
<i>Arges marginatus</i>							
<i>Arges transversus</i>							
<i>Carnatopsis</i> sp.1						1	
<i>Carnatopsis</i> sp.2							
<i>Ceratoplax fulgida</i>							1
Portunidae							
<i>Alionectes pulchricristatus</i>							
<i>Charybdis</i> (Archias) hongkongensis				1			
<i>Eodemus undens</i>							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 2B1X	PAWB- 2C2	PAWB- 3B2	PAWB- 3C2	PAWB- 3CP2	PAWB- 3D2	PAWB- 4B2X
<i>Talaimita admete</i>							
Processidae							
<i>Processa</i> sp.1							
Scalopidae							
<i>Scalopidia spinosipes</i>							
Scalopidae							
Upogebiidae							
<i>Gebiacantha</i> sp.1							
<i>Gebicula</i> sp.1							
<i>Gebicula</i> sp.3							
<i>Upogebia</i> sp.1							
Isopoda							
Anthuridae							
<i>Amakusanthura</i> sp.1							
Cirolanidae							
<i>Cirolanidae</i> sp.2							
Gnathidae							
<i>Caecognathia andamanensis</i>			3				
<i>Gnathia</i> sp.4							
Hyssuridae							
<i>Hyssuridae</i> sp.1							
<i>Kupellonura</i> sp.1							
Mysidacea							
Mysidae							
<i>Anchialina</i> sp.							
<i>Anchialina</i> sp.1							
<i>Anchialina</i> sp.2							
<i>Haplostylus bengalensis</i>							
Mysidae							
<i>Siriella</i> sp.							
<i>Siriella</i> sp.3							
<i>Siriella</i> sp.4							
<i>Siriella</i> sp.5							
Stomatopoda							
Nannosquillidae							
<i>Acanthosquilla derjardi</i>			1				
<i>Acanthosquilla multifasciata</i>							
Squillidae							
<i>Anchisquilla fasciata</i>							
Tanaidacea							
Apseuroidae							
<i>Apseudes</i> sp.1							
<i>Apseudes</i> sp.4						1	
Kalliapseudidae							
<i>Kalliapseudes</i> sp.2							
Leptochelidae							
<i>Leptochella</i> sp.1							
<i>Leptochella</i> sp.2							
Pagurapseudidae							
Pagurapseudidae							
Pagurapseudidae sp.1							
Pagurapseudidae sp.2							
Parapseudidae							
<i>Pakistanapseudes</i> sp.1							
Echinodermata							
Ophiuroidea							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 2B1X	PAWB- 2C2	PAWB- 3B2	PAWB- 3C2	PAWB- 3CP2	PAWB- 3D2	PAWB- 4B2X
Ophiurida							
Amphiuridae							
<i>Amphioplus (Lymanella) andreae</i>							
<i>Amphioplus</i> sp.							
<i>Amphiura</i> sp.1							
<i>Amphiura</i> sp.2						1	
<i>Amphiura</i> sp.6							
<i>Amphiuridae</i> sp.2							
<i>Amphiuridae</i> sp.3							
<i>Amphiuridae</i> sp.4							
Mollusca							
Aplacophora							
Cavibelonia							
Simrothiellidae							
<i>Hellicoradomenia</i> sp.1							
<i>Hellicoradomenia</i> sp.2		1					
Chaetodermatida							
Chaetodermatidae							
<i>Chaetoderma</i> sp.1							
Bivalvia							
Adapedonta							
Pharidae							
<i>Phaxas</i> sp.							
<i>Phaxas</i> sp.2							
Arcida							
Arcidae							
<i>Verlarcia mortenseni</i>							
Cardiida							
Cardiidae							
<i>Fulvia</i> sp.1							
Psammobiidae							
<i>Gari truncata</i>							
Semelidae							
<i>Abra</i> sp.1							
<i>Abra</i> sp.2							
Lucinida							
Lucinidae							
<i>Anodonta edentula</i>			6				
<i>Cavaleris imajimai</i>			12				
Myoida							
Corbulae							
<i>Potamocorbula</i> sp.1							
<i>Potamocorbula</i> sp.2							
Mytiloida							
Mytilidae							
<i>Amygdalum soyae</i>							
Nuculoida							
Nuculidae							
<i>Ennucula niponica</i>			1				
Pholadomyoida							
Cuspidariidae							
<i>Cardiomya singaporensis</i>							
Pandoridae							
<i>Pandora</i> sp.1							
Pteroida							
Pinnidae							



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 2B1X	PAWB- 2C2	PAWB- 3B2	PAWB- 3C2	PAWB- 3CP2	PAWB- 3D2	PAWB- 4B2X
Pinna sp.							
Peridae							
<i>Pinctada</i> sp.2							
Venerida							
Ungulinidae							
<i>Felaniella</i> sp.1							
Bivalvia		1					
Gastropoda							
Archaeogastropoda							
Orbistellidae							
<i>Microdiscula</i> sp.							
Neogastropoda							
Nassariidae							
<i>Nassarius comptus</i>							1
Neotaenioglossa							
Naticidae							
Naticidae							
Pteropoda							
Hyalocylidae							
<i>Hyalocylis</i> sp.1							
Thecosomata							
Cavolinidae							
<i>Diacaevolinia flexipes</i>							
Gastropoda							
Scaphopoda							
Dentaliida							
Laevidentaliidae							
<i>Laevidentulum</i> sp.							
Total	18	36	49	11	10	13	11
No. of Taxa	17	27	11	10	9	13	8



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 4C2	PAWE- 1B1	PAWE- 1C2	PAWE- 1CP2	PAWE- 1D2	PAWE- 2B3	PAWE- 2C2
Cnidaria							
Anthozoa							
Actiniaria							
Actiniaria							
Edwardsiidae							
<i>Edwardsiidae</i> sp.1							
Nematoda							
<i>Nematoda</i> sp.1			1				
Nemertea							
Anopla							
Heteronemertea							
Lineidae							
<i>Lineus</i> sp.1							
<i>Micrura</i> sp.1							
Palaeonemertea							
Tubulanidae							
<i>Callinera</i> sp.1	1		1	1		1	
Sipuncula							
Phascolosomatidea							
Aspidosiphoniformes							
Aspidosiphonidae							
<i>Aspidosiphon</i> sp.3							
Phascolosomatiformes							
Phascolosomatidae							
<i>Aplonsoma</i> sp.2	5	3	3	1	2		
Sipunculidea							
Golfingiformes							
Phascolionidae							
<i>Phascolion</i> sp.1							
<i>Phascolion strombus</i>							
Sipunculiformes							
Sipunculidae							
<i>Sipunculus</i> sp.1							
Annelida							
Polychaeta							
Aciculata							
Acetidae							
<i>Eupanthalis</i> sp.1							
Amphitomididae							
<i>Chloela violacea</i>			3				
<i>Linopherus</i> sp.1							
<i>Linopherus</i> sp.2							
<i>Linopherus</i> sp.4			1				
Dorvilleidae							
<i>Schistomerings</i> sp.1							
Eunicidae							
<i>Eunice</i> sp.3							
<i>Euniphysa</i> sp.1							
<i>Euniphysa</i> sp.2	1						
<i>Lyridice</i> sp.6							
<i>Marphysa</i> sp.2							
Glyceridae							
<i>Glycera alba</i>							
<i>Glycera lapidum</i>							
<i>Glycera</i> sp.							
Goniadidae							1



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 4C2	PAWE- 1B1	PAWE- 1C2	PAWE- 1CP2	PAWE- 1D2	PAWE- 2B3	PAWE- 2C2
<i>Glycinde cf. oligodon</i>							1
<i>Goniada maculata</i>							
Hartmaniellidae							
<i>Hartmaniella</i> sp.1				2			
Hesoniidae							
<i>Hesiosphina</i> sp.1							
<i>Oxydromus</i> sp.1							
<i>Podarkeopsis</i> sp.1							
Lumbrineridae							
<i>Gallardoneris thailandensis</i>			1				
<i>Geseneris</i> sp.1							
<i>Hilbigneris</i> sp.1							
<i>Hilbigneris</i> sp.2							
<i>Loboneris</i> sp.1							
Lumbrineridae							
<i>Lumbrinerides</i> sp.1							
<i>Lumbrineris latreilli</i>							
<i>Ninoe nr. bruuni</i>	1						
<i>Ninoe</i> sp.2							
<i>Scoletona</i> sp.1							
Nephtyidae							
<i>Aglaophamus cf. dicirroides</i>	1			1			
<i>Aglaophamus orientalis</i>	1			1			1
<i>Micronephthys oligobranchia</i>							
<i>Micronephthys</i> sp.2							
Nereididae							
<i>Neanthes arenaceodentata</i>							
<i>Tambalagamia fauveli</i>							
Oenonidae							
<i>Arabella</i> sp.1							
<i>Dritonereis</i> sp.1							
<i>Dritonereis</i> sp.2							
<i>Dritonereis</i> sp.3							
<i>Notocirrus biaculus</i>							
Onuphiidae							
<i>Diopatra</i> sp.							
<i>Diopatra</i> sp.3							
<i>Diopatra</i> sp.6							
<i>Onuphis</i> sp.1						1	1
<i>Onuphis</i> sp.6						1	
<i>Paradiopatra</i> sp.1							
Paralacydoniidae							
<i>Paralacydonia</i> sp.1		1	1		3		
Phyllodoctidae							
<i>Phyllodoce</i> sp.1							
Pilargidae							
<i>Ancistrosyllis suksani</i>							
<i>Litocorsa nr. antennata</i>							1
<i>Pilargis</i> sp.1			1				
<i>Sigambra</i> sp.							
<i>Sigambra</i> sp.1	1						
<i>Sigambra</i> sp.6							
<i>Sigambra</i> sp.8							1
<i>Synelmis abini</i>							
<i>Synelmis rigida</i>							1



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Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 4C2	PAWE- 1B1	PAWE- 1C2	PAWE- 1CP2	PAWE- 1D2	PAWE- 2B3	PAWE- 2C2
Polynoidae							
<i>Harmothoe</i> sp.							
<i>Harmothoe</i> sp.1							
<i>Harmothoe</i> sp.8							
Sigalionidae							
<i>Sthenelais</i> sp.3							
<i>Sthenelaisella ehlersi</i>							
<i>Sthenelais japonica</i>							
Sphaerodoridae							
<i>Sphaerodordium songklaense</i>							
Syllidae							
<i>Exogone</i> (Exogone) sp.2							
<i>Perkinsyllis</i> sp.2							
<i>Sphaerosyllis</i> sp.1							
<i>Syllis</i> sp.							
<i>Syllis</i> sp.1		1		1			
Canalipalpata							
Ampharetidae							
<i>Ampharetis</i> sp.3							
<i>Anobothrus</i> sp.1							
<i>Auchenoplax crinita</i>							
<i>Eusamythella</i> sp.1							
<i>Lysippe labiata</i>							
<i>Sanytha</i> sp.1							
<i>Sosane</i> sp.2							
Chaetopteridae							
<i>Spiochaetopterus</i> sp.1							
Cirratulidae							
<i>Aphelochaeta</i> sp.1	1					1	
<i>Aphelochaeta</i> sp.2							
<i>Caulerella</i> sp.1							
<i>Chaetozone</i> sp.1			1				
<i>Chaetozone</i> sp.7							
<i>Chaetozone</i> sp.9							
<i>Cirratulus</i> sp.1							
<i>Kirkegaardia</i> sp.1							
<i>Kirkegaardia</i> sp.2							
<i>Kirkegaardia</i> sp.3							
<i>Kirkegaardia</i> sp.5							
<i>Kirkegaardia</i> sp.6	1	1				1	
<i>Kirkegaardia</i> sp.7						1	
Fabriciidae							
<i>Fabriciella</i> sp.1			2				
<i>Pseudofabriciella</i> sp.1							
Flabelligeridae							
<i>Bradybysa</i> sp.1							
<i>Diplocirrus</i> sp.1							
<i>Diplocirrus</i> sp.1							
<i>Diplocirrus</i> sp.3	1						
<i>Diplocirrus</i> sp.5							
<i>Stylarioides</i> sp.1							
Longosomatidae							
<i>Heterospio longissima</i>							
Magelonidae							



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Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 4C2	PAWE- 1B1	PAWE- 1C2	PAWE- 1CP2	PAWE- 1D2	PAWE- 2B3	PAWE- 2C2
<i>Magelona</i> sp.13			1				
<i>Magelona</i> sp.7							
Oweniidae							
<i>Galathowenia</i> sp.1							
Poecilochaetidae							
<i>Poecilochaetus koshikiensis</i>							
<i>Poecilochaetus</i> sp.							
<i>Poecilochaetus</i> sp.3							
<i>Poecilochaetus</i> sp.4							
<i>Poecilochaetus tricaratus</i>							
Sabellidae							
<i>Chone</i> sp.1							
<i>Euchone</i> sp.1							
<i>Laonome</i> sp.1							
Spionidae							
<i>Laonice</i> sp.1							
<i>Laonice</i> sp.3							
<i>Malacoceros indicus</i>							
<i>Paraprionospio</i> sp. 1							
<i>Prionospio ehlersi</i>							
<i>Prionospio elegantula</i>							
<i>Prionospio</i> sp.							
<i>Prionospio</i> sp.10							
<i>Prionospio</i> sp.11							
<i>Prionospio</i> sp.13							
<i>Prionospio</i> sp.6							
<i>Prionospio</i> sp.7							
<i>Scolecopsis</i> sp.2							
<i>Scolecopsis</i> sp.3							
<i>Spio</i> sp.2							
<i>Spio</i> sp.3							
<i>Spio</i> sp.4							
<i>Spio</i> sp.5							
<i>Spio</i> sp.6							
<i>Spio</i> sp.7							
<i>Spio</i> sp.8							
<i>Spio</i> sp.9							
<i>Spio</i> sp.10							
<i>Spio</i> sp.11							
<i>Spio</i> sp.12							
<i>Spio</i> sp.13							
<i>Spio</i> sp.14							
<i>Spio</i> sp.15							
<i>Spio</i> sp.16							
<i>Spio</i> sp.17							
<i>Spio</i> sp.18							
<i>Spio</i> sp.19							
<i>Spio</i> sp.20							
<i>Spio</i> sp.21							
<i>Spio</i> sp.22							
<i>Spio</i> sp.23							
<i>Spio</i> sp.24							
<i>Spio</i> sp.25							
<i>Spio</i> sp.26							
<i>Spio</i> sp.27							
<i>Spio</i> sp.28							
<i>Spio</i> sp.29							
<i>Spio</i> sp.30							
<i>Spio</i> sp.31							
<i>Spio</i> sp.32							
<i>Spio</i> sp.33							
<i>Spio</i> sp.34							
<i>Spio</i> sp.35							
<i>Spio</i> sp.36							
<i>Spio</i> sp.37							
<i>Spio</i> sp.38							
<i>Spio</i> sp.39							
<i>Spio</i> sp.40							
<i>Spio</i> sp.41							
<i>Spio</i> sp.42							
<i>Spio</i> sp.43							
<i>Spio</i> sp.44							
<i>Spio</i> sp.45							
<i>Spio</i> sp.46							
<i>Spio</i> sp.47							
<i>Spio</i> sp.48							
<i>Spio</i> sp.49							
<i>Spio</i> sp.50							
<i>Spio</i> sp.51							
<i>Spio</i> sp.52							
<i>Spio</i> sp.53							
<i>Spio</i> sp.54							
<i>Spio</i> sp.55							
<i>Spio</i> sp.56							
<i>Spio</i> sp.57							
<i>Spio</i> sp.58							
<i>Spio</i> sp.59							
<i>Spio</i> sp.60							
<i>Spio</i> sp.61							
<i>Spio</i> sp.62							
<i>Spio</i> sp.63							
<i>Spio</i> sp.64							
<i>Spio</i> sp.65							
<i>Spio</i> sp.66							
<i>Spio</i> sp.67							
<i>Spio</i> sp.68							
<i>Spio</i> sp.69							
<i>Spio</i> sp.70							
<i>Spio</i> sp.71							
<i>Spio</i> sp.72							
<i>Spio</i> sp.73							
<i>Spio</i> sp.74							
<i>Spio</i> sp.75							
<i>Spio</i> sp.76							
<i>Spio</i> sp.77							
<i>Spio</i> sp.78							
<i>Spio</i> sp.79							
<i>Spio</i> sp.80							
<i>Spio</i> sp.81							
<i>Spio</i> sp.82							
<i>Spio</i> sp.83							
<i>Spio</i> sp.84							
<i>Spio</i> sp.85							
<i>Spio</i> sp.86							
<i>Spio</i> sp.87							
<i>Spio</i> sp.88							
<i>Spio</i> sp.89							
<i>Spio</i> sp.90							
<i>Spio</i> sp.91							
<i>Spio</i> sp.92							
<i>Spio</i> sp.93							
<i>Spio</i> sp.94							
<i>Spio</i> sp.95							
<i>Spio</i> sp.96							
<i>Spio</i> sp.97							
<i>Spio</i> sp.98							
<i>Spio</i> sp.99							
<i>Spio</i> sp.100							
<i>Spio</i> sp.101							
<i>Spio</i> sp.102							
<i>Spio</i> sp.103							
<i>Spio</i> sp.104							
<i>Spio</i> sp.105							
<i>Spio</i> sp.106							
<i>Spio</i> sp.107							
<i>Spio</i> sp.108							
<i>Spio</i> sp.109							
<i>Spio</i> sp.110							
<i>Spio</i> sp.111							
<i>Spio</i> sp.112							
<i>Spio</i> sp.113							
<i>Spio</i> sp.114							
<i>Spio</i> sp.115							
<i>Spio</i> sp.116							
<i>Spio</i> sp.117							
<i>Spio</i> sp.118							
<i>Spio</i> sp.119							
<i>Spio</i> sp.120							
<i>Spio</i> sp.121							
<i>Spio</i> sp.122							
<i>Spio</i> sp.123							
<i>Spio</i> sp.124							
<i>Spio</i> sp.125							
<i>Spio</i> sp.126							
<i>Spio</i> sp.127							
<i>Spio</i> sp.128							
<i>Spio</i> sp.129							
<i>Spio</i> sp.130							
<i>Spio</i> sp.131							
<i>Spio</i> sp.132							
<i>Spio</i> sp.133							
<i>Spio</i> sp.134							
<i>Spio</i> sp.135							
<i>Spio</i> sp.136							
<i>Spio</i> sp.137							
<i>Spio</i> sp.138							
<i>Spio</i> sp.139							
<i>Spio</i> sp.140							
<i>Spio</i> sp.141							
<i>Spio</i> sp.142							
<i>Spio</i> sp.143							
<i>Spio</i> sp.144							
<i>Spio</i> sp.145							
<i>Spio</i> sp.146							
<i>Spio</i> sp.147							
<i>Spio</i> sp.148							
<i>Spio</i> sp.149							
<i>Spio</i> sp.150							
<i>Spio</i> sp.151							
<i>Spio</i> sp.152							
<i>Spio</i> sp.153							
<i>Spio</i> sp.154							
<i>Spio</i> sp.155							
<i>Spio</i> sp.156							
<i>Spio</i> sp.157							
<i>Spio</i> sp.158							
<i>Spio</i> sp.159							
<i>Spio</i> sp.160							
<i>Spio</i> sp.161							

Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 4C2	PAWE- 1B1	PAWE- 1C2	PAWE- 1CP2	PAWE- 1D2	PAWE- 2B3	PAWE- 2C2
<i>Campylaspis</i> sp.5			1				
<i>Nannastacus</i> sp.5							
Decapoda							
Alpheidae							
Alpheidae							
Alpheidae sp.4				1			
<i>Alpheus acutocarinatus</i>							
<i>Alpheus paracinctus</i>							
<i>Alpheus rapacida</i>							
<i>Alpheus</i> sp.	1				1		
<i>Alpheus</i> sp.6							
<i>Athanas</i> sp.							
<i>Bermudacaris</i> sp.							
<i>Bermudacaris</i> sp.1			1	1			1
<i>Bermudacaris</i> sp.2						1	1
<i>Salmones</i> sp.2							
Callinassidae							
<i>Aqaballianassa brevirostris</i>							
Callinassidae							
<i>Callinassia matzi</i>		1	4				
<i>Lipkecallinassa</i> sp.1		1	3				
<i>Scallasis contipes</i>							
Chasmocarcinidae							
<i>Chasmocarcinops gelasimoides</i>							
Ctenochelidae							
Ctenochelidae							
Ctenochelidae sp.1							
Euryplacidae							
<i>Platyozus laevis</i>							
Leucosidae							
<i>Arcania</i> sp.3							
<i>Nuclops modestus</i>			1				
Ogyridae							
<i>Ogyrides</i> sp.1	1						
<i>Ogyrides</i> sp.4							
<i>Ogyrides</i> sp.7							
Palaemonidae							
Palaemonidae							
Palaemonidae sp.5							
Palaemonidae sp.6							
Pandalidae							
Pandalidae sp.1							
Pasiphaeidae							
<i>Leptocheila pugnax</i>							
Penaeidae							
<i>Altyopenaeus</i> sp.1							
Pilumnidae							
<i>Arges marginatus</i>							
<i>Arges transversus</i>							
<i>Camatopsis</i> sp.1							
<i>Camatopsis</i> sp.2							
<i>Caratoplax fulgida</i>							
Portunidae							
<i>Alionectes pulchricristatus</i>							
<i>Charybdis (Archias) hongkongensis</i>							
<i>Eodemus unidens</i>							



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Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 4C2	PAWE- 1B1	PAWE- 1C2	PAWE- 1CP2	PAWE- 1D2	PAWE- 2B3	PAWE- 2C2
<i>Thalantia admete</i>							
Processidae							
<i>Processa</i> sp.1							
Scalopidae							
<i>Scalopida spinosipes</i>							
Scalopidae							
Upogebidae							
<i>Gebicacantha</i> sp.1							1
<i>Gebicula</i> sp.1							
<i>Gebicula</i> sp.3							
<i>Upogebia</i> sp.1							
Isopoda							
Anthuridae							
<i>Anakusanthura</i> sp.1							
Cirolanidae							
<i>Cirolanidae</i> sp.2					1		
Gnathiidae							
<i>Caecognathia andamanensis</i>	1	6		1			1
<i>Gnathia</i> sp.4							
Hyssuridae							
<i>Hyssuridae</i> sp.1							
<i>Kupellonura</i> sp.1							
Mysidacea							
Mysidae							
<i>Anchialina</i> sp.							
<i>Anchialina</i> sp.1							1
<i>Anchialina</i> sp.2							
<i>Haplostylus bengalensis</i>							
Mysidae							
<i>Siriella</i> sp.							
<i>Siriella</i> sp.3							
<i>Siriella</i> sp.4							
<i>Siriella</i> sp.5							
Stomatopoda							
<i>Nannosquilla</i>							
<i>Acanthosquilla derijardi</i>							
<i>Acanthosquilla multifasciata</i>		1					
Squillidae							
<i>Anchisquilla fasciata</i>							
Tanaidacea							
Apseuroidae							
<i>Apseudes</i> sp.1							
<i>Apseudes</i> sp.4						1	
Kalliapseudidae							
<i>Kalliapseudes</i> sp.2							
Leptocheilidae							
<i>Leptocheila</i> sp.1							
<i>Leptocheila</i> sp.2						1	
Pagurapseudidae							
Pagurapseudidae							
Pagurapseudidae sp.1							1
Pagurapseudidae sp.2							
Parapseudidae							
<i>Pakistanapseudes</i> sp.1							
Echinodermata							
Ophiuroidea							



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Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 4C2	PAWE- 1B1	PAWE- 1C2	PAWE- 1CP2	PAWE- 1D2	PAWE- 2B3	PAWE- 2C2
Ophiurida							
Amphiuridae							
<i>Amphiphus (Lymanella) andreae</i>							
<i>Amphiphus</i> sp.		1					
<i>Amphura</i> sp.1							
<i>Amphura</i> sp.2							
<i>Amphura</i> sp.6							
<i>Amphuridae</i> sp.2							
<i>Amphuridae</i> sp.3						1	
<i>Amphuridae</i> sp.4							
Mollusca							
Aplacophora							
Cavibelonia							
Simrothiellidae							
<i>Helicoradomenia</i> sp.1							
<i>Helicoradomenia</i> sp.2							
Chaetodermatida							
Chaetodermatidae							
<i>Chaetoderma</i> sp.1							
Bivalvia							
Adapedonta							
Pharidae							
<i>Phaxas</i> sp.							
<i>Phaxas</i> sp.2							
Arcida							
Arcidae							
<i>Verilarca mortenseni</i>							
Cardiida							
Cardiidae							
<i>Fulvia</i> sp.1							
Psammobidae							
<i>Gari truncata</i>							
Semellidae							
<i>Abra</i> sp.1							
<i>Abra</i> sp.2							
Lucinida							
Lucinidae							
<i>Anodonta edentula</i>							
<i>Cavaleris imajimai</i>							
Myoida							
Corbidae							
<i>Potamocorbula</i> sp.1							
<i>Potamocorbula</i> sp.2							
Mytiloida							
Mytilidae							
<i>Amygdalum soyae</i>							
Nuculoida							
Nuculidae							
<i>Ennucula niponica</i>							
Pholadomyoida							
Cuspidariidae							
<i>Cardinya singaporensis</i>							
Pandoridae							
<i>Pandora</i> sp.1							
Pteroida							
Pinnidae							



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Density of Benthos (individuals per 0.04 squ

TAXA	PAWB- 4C2	PAWE- 1B1	PAWE- 1C2	PAWE- 1CP2	PAWE- 1D2	PAWE- 2B3	PAWE- 2C2
<i>Prinia</i> sp.							
Peridae							
<i>Pinctada</i> sp.2							
Venerida							
Ungulinidae							
<i>Felaniella</i> sp.1							
Bivalvia							
Gastropoda							
Archaeogastropoda							
Orbistellidae							
<i>Microdiscula</i> sp.							
Neogastropoda							
Nassariidae							
<i>Nassarius comptus</i>							
Neotaenioglossa							
Naticidae							
Naticidae							
Pteropoda							
Hyalocylidae							
<i>Hyalocylis</i> sp.1							
Thecosomata							
Cavolinidae							
<i>Diacaivolina flexipes</i>							
Gastropoda							
Scaphopoda							
Dentalida							
Laevidentallidae							
<i>Laevidentallium</i> sp.							
Total	23	30	39	23	15	14	24
No. of Taxa	18	20	28	19	10	13	23



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Density of Benthos (individuals per 0.04 sqm)

TAXA	PAWE- 3B3	PAWE- 3C2	PAWE- 3CP2	PAWE- 3D2	PAWE- 4B2	PAWE- 4C2
Cnidaria						
Anthozoa						
Actiniaria						
Actiniaria						
Edwardsiidae						
Edwardsiidae sp.1						
Nematoda						
Nematoda sp.1						
Nemertea						
Anopla						
Heteronemertea						
Lineidae						
Lineus sp.1		1				
Mcrua sp.1						
Palaeonemertea						
Tubulanidae						
Callinera sp.1		1				
Sipuncula						
Phascolosomatidea						
Aspidosiphoniformes						
Aspidosiphonidae						
Aspidosiphon sp.3						
Phascolosomatiformes						
Phascolosomatidae						
Aplousoma sp.2		1			1	
Sipunculidea						
Golfingiformes						
Phascolonidae						
Phascolon sp.1						
Phascolon strombus						
Sipunculiformes						
Sipunculidae						
Sipunculus sp.1						
Annelida						
Polychaeta						
Aciculate						
Acoetidae						
Eupanthalis sp.1						
Amphitomididae						
Chloea violacea				1		
Linopherus sp.1						
Linopherus sp.2						
Linopherus sp.4						
Dorvilleidae						
Schistomerings sp.1						
Eunicidae						
Eunice sp.3						
Euniphyssa sp.1		1	1			
Euniphyssa sp.2						
Lyridae sp.6						
Marphysa sp.2						
Glyceridae						
Glycera alba						
Glycera lapidum						
Glycera sp.		1				1
Goniadidae						



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Density of Benthos (individuals per 0.04 sqm)

TAXA	PAWE- 3B3	PAWE- 3C2	PAWE- 3CP2	PAWE- 3D2	PAWE- 4B2	PAWE- 4C2
Glycide cf. oligodon						
Goniada nesciata						
Hartmaniellidae						
Hartmaniella sp.1						1
Heslonidae						
Hesiospina sp.1						
Oxydromus sp.1						
Podarkeopsis sp.1						
Lumbrineridae						
Gallardoneris thailandensis						
Geseneris sp.1				1		
Hilbigneris sp.1						
Hilbigneris sp.2						
Loboneris sp.1						
Lumbrineridae						
Lumbrineris sp.1						
Lumbrineris latreilli		1				
Ninoe nr. bruuni		1			1	
Ninoe sp.2						
Scoletoma sp.1					1	
Nephtyidae						
Aglaophamus cf. dicirroides		1	2	1	1	
Aglaophamus orientalis						
Micronephthys oligobranchia						
Micronephthys sp.2						
Nereididae						
Neanthes arenaeodentata						
Tamalgamia fauveli		1			1	
Oenonidae						
Arabella sp.1						
Dilonereis sp.1						1
Dilonereis sp.2						
Dilonereis sp.3						
Notocirrus biaculus						
Onuphiidae						
Diopatra sp.						
Diopatra sp.3						
Diopatra sp.6						
Onuphis sp.1					1	
Onuphis sp.6						
Paradiopatra sp.1						
Paralacydonidae						
Paralacydonia sp.1	1			1		
Phyllodoceidae						
Phyllodoce sp.1						
Pilargidae						
Ancistrosyllis suksani						
Litocora nr. antennata						
Pilargis sp.1						
Sigambra sp.						
Sigambra sp.1						
Sigambra sp.6						
Sigambra sp.8						
Synelmis abini						
Synelmis rigida						



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	PAWE- 3B3	PAWE- 3C2	PAWE- 3CP2	PAWE- 3D2	PAWE- 4B2	PAWE- 4C2
Polynoidae						
Harmothoe sp.						
Harmothoe sp.1						
Harmothoe sp.8				1		
Sigalionidae						
Sthenelais sp.3						
Sthenelais ehlersi						
Sthenolepis japonica						
Sphaerodoridae						
Sphaerodordium songkhaense						
Syllidae						
Exogone (Exogone) sp.2		1				
Parkinsyllis sp.2		2				
Sphaerosyllis sp.1						
Syllis sp.						
Syllis sp.1		1				
Canalipalpata						
Ampharetidae						
Amphictelis sp.3						
Anobothrus sp.1						
Auchenoplax crinita						
Eusamythella sp.1						
Lysippe labiata						
Sanytha sp.1						
Sosane sp.2						
Chaetopteridae						
Spiochaetopterus sp.1						
Cirratulidae						
Aphelochaeta sp.1			1			
Aphelochaeta sp.2						
Caulerella sp.1			1			
Chaetozone sp.1						
Chaetozone sp.7						
Chaetozone sp.9						
Cirratoma sp.1						
Kirkegaardia sp.1		1				
Kirkegaardia sp.2						
Kirkegaardia sp.3						
Kirkegaardia sp.5					1	
Kirkegaardia sp.6				2		
Kirkegaardia sp.7						
Fabricidae						
Fabriciella sp.1						
Pseudofabriciella sp.1						
Flabelligeridae						
Bradybysa sp.1						
Diplocirrus sp.						
Diplocirrus sp.1						
Diplocirrus sp.3						
Diplocirrus sp.5						
Stylarioides sp.1						
Longosomatidae						
Heterospio longissima						
Mageloniidae						



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Principal Taxonomist

Density of Benthos (individuals per 0.04 sqm)

TAXA	PAWE- 3B3	PAWE- 3C2	PAWE- 3CP2	PAWE- 3D2	PAWE- 4B2	PAWE- 4C2
Magelona sp.13						
Magelona sp.7						
Oweniidae						
Galathowenia sp.1						
Poecilochaetidae						
Poecilochaetus koshikiensis						
Poecilochaetus sp.						1
Poecilochaetus sp.3						
Poecilochaetus sp.4						
Poecilochaetus tricaratus						
Sabellidae						
Chone sp.1						
Euchone sp.1						
Laonome sp.1	1					
Spionidae						
Laonice sp.1						
Laonice sp.3						
Malacoceros indicus	1					
Parapionospio sp.1		1				
Prionospio ehlersi						
Prionospio elegantula				1		1
Prionospio sp.						
Prionospio sp.10						
Prionospio sp.11						
Prionospio sp.13						
Prionospio sp.6						
Prionospio sp.7						
Scoletopsis sp.2						
Scoletopsis sp.3						
Spio sp.2						
Spiochanes aler						
Spiochanes kroeyeri				1		
Spiochanes malayensis					1	
Spiochanes sp.3						
Spiochanes sp.4						
Sternaspidae						
Cauleryaspis sp.1					1	
Sternaspis cf. spinosa						
Sternaspis sp.1						
Terebellidae						
Amatea occidentalis						
Pista sp.1						
Pista sp.4						
Polycirrus sp.2						
Streblosoma sp.1	1					
Trichobranchidae						
Terebellides sp.1	1			1		
Terebellides sp.2						
Trichobranchus roseus						
(blank)						
Capitellidae						
Capitella capitata						
Capitella minima						
Capitella sp.1						
Capitella sp.2						



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWE- 3B3	PAWE- 3C2	PAWE- 3CP2	PAWE- 3D2	PAWE- 4B2	PAWE- 4C2
<i>Capitella</i> sp.3						
<i>Capitella</i> sp.4						
<i>Capitella</i> sp.8						
<i>Capitellatus</i> sp.1		2	2			
<i>Capitellatus</i> sp.2						
<i>Capitellatus</i> sp.3	1					
<i>Decamastus</i> sp.1						
<i>Mediomastus</i> sp.1						
<i>Mediomastus</i> sp.2						1
<i>Neomediomastus</i> sp.1						
<i>Neomediomastus</i> sp.2						
<i>Notomastus latericeus</i>					1	
<i>Notomastus lineatus</i>						
<i>Notomastus</i> sp.2						
<i>Promastobranchius fulvoti</i>						
<i>Scyphoproctus</i> sp.1				1		
Cossuridae						
<i>Cossura</i> sp.2	1	1				
Maldanidae						
<i>Asychis</i> sp.2						
<i>Axiotello</i> sp.1						
<i>Clymenella</i> sp.1		1		1		
<i>Euclymene</i> sp.1						
<i>Euclymene</i> sp.3		1				
<i>Euclymene</i> sp.4						
<i>Praxillella</i> nr. <i>gracilis</i>				1		
<i>Praxillella</i> sp.3						
Ophelidae						
<i>Armandia</i> sp.1						
Orbinidae						
<i>Leodarnas</i> sp.1						
Paracidae						
<i>Aricidea</i> (Acmira) sp.5		1				
<i>Aricidea</i> (Acmira) sp.7						
<i>Aricidea</i> (Strelzovia) sp.2						
<i>Aricidea</i> (Strelzovia) sp.3						
<i>Cirrophorus</i> sp.4						
<i>Levinsonia</i> sp.1						
<i>Levinsonia</i> sp.16						
<i>Levinsonia</i> sp.2						
<i>Levinsonia</i> sp.4						
<i>Levinsonia</i> sp.5						
<i>Levinsonia</i> sp.9						
Arthropoda						
Crustacea						
Amphipoda						
Ampeliscidae						
<i>Ampelisca bocki</i>		1				
<i>Ampelisca brevicornis</i>						
<i>Ampelisca chinensis</i>						
<i>Ampelisca cyclops</i>			1			2
<i>Ampelisca maia</i>			1			
<i>Ampelisca</i> sp.						
<i>Bythia calisto</i>						
<i>Bythia febris</i>		1	1	3		



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWE- 3B3	PAWE- 3C2	PAWE- 3CP2	PAWE- 3D2	PAWE- 4B2	PAWE- 4C2
<i>Bythia</i> io						
<i>Bythia</i> sp.						
<i>Haploopsis</i> sp.1						
Amphilocheidae						
<i>Amphilochus</i> sp.1						
<i>Amphilochus</i> sp.2						
Aoridae						
<i>Grandidorella gilesi</i>						
Caprellidae						
<i>Caprella</i> sp.1						
<i>Caprella</i> sp.2						
Caprellidae sp.3						
Caprellidae sp.5						
Dexaminidae						
<i>Dexaminidae</i> sp.2						
Eriopisidae						
<i>Eriopisella sechellensis</i>						
<i>Eriopisella</i> sp.						1
<i>Eriopisella</i> sp.1						
Eriopisidae						
<i>Victoriopsis</i> sp.1		1		1	3	
Leucothoidae						
<i>Leucothoe furina</i>						
Oedicerotidae						
<i>Eochelidium nonmiraculum</i>						
Oedicerotidae sp.3		2				
<i>Periculodes</i> sp.1						
<i>Synchelidium</i> sp.1						
Photidae						
<i>Gammaropsis</i> sp.6						
<i>Latigammaropsis</i> sp.1						
Photidae						
<i>Photis kapapa</i>						
<i>Photis</i> sp.2						
Phoxocephalidae						
<i>Harpinopsis vaduculus</i>						
Synopiidae						
<i>Synopia</i> sp.2						
<i>Synopiidae</i> sp.3						
Tryphosidae						
<i>Tryphosella</i> sp.1						
Tryphosidae sp.1						
Urothoidae						
<i>Urothoe denticulata</i>						
<i>Urothoe gelasina</i>						
Cumacea						
Bodotriidae						
<i>Pseudosymphodomma</i> sp.1						
Diastylidae						
Diastylidae						
<i>Diastylis</i> sp.1						
Leucodidae						
<i>Eudorella</i> sp.1						
<i>Eudorella</i> sp.2						
Nannastacidae						
<i>Campylaspis</i> sp.12						



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWE- 3B3	PAWE- 3C2	PAWE- 3CP2	PAWE- 3D2	PAWE- 4B2	PAWE- 4C2
<i>Campylaspis</i> sp.5						
<i>Nannastacus</i> sp.5						
Decapoda						
Alpheidae						
Alpheidae						
Alpheidae sp.4					1	
<i>Alpheus acutocarinatus</i>						
<i>Alpheus paracrinatus</i>						
<i>Alpheus rapacida</i>						1
<i>Alpheus</i> sp.						
<i>Alpheus</i> sp.6			1			
<i>Athanas</i> sp.						
<i>Bermudacaris</i> sp.						1
<i>Bermudacaris</i> sp.1	1					
<i>Bermudacaris</i> sp.2						
<i>Salmonius</i> sp.2						
Callinassidae						
<i>Aqaballanassa brevirostris</i>				2		
Callinassidae						
<i>Jocullianassa matzi</i>					3	
<i>Lipkecallanassa</i> sp.1	3		2			
<i>Scallasis contipes</i>						
Chasmocarcinidae						
<i>Chasmocarcinops gelasimoides</i>						1
Ctenochelidae						
Ctenochelidae				1		
Ctenochelidae sp.1						
Euryplacidae						
<i>Platyozus laevis</i>						
Leucosidae						
<i>Arcania</i> sp.3						
<i>Nuclops modestus</i>						
Ogyrididae						
<i>Ogyrides</i> sp.1						
<i>Ogyrides</i> sp.4						
<i>Ogyrides</i> sp.7						
Palaemonidae						
Palaemonidae						
Palaemonidae sp.5						
Palaemonidae sp.6						
Pandalidae						
<i>Pandalidae</i> sp.1						
Pasiphaeidae						
<i>Leptochela pugnax</i>						
Penaeidae						
<i>Altyopenaeus</i> sp.1			1			
Pilumnidae						
<i>Arges marginatus</i>						
<i>Arges transversus</i>						
<i>Carnatopsis</i> sp.1						
<i>Carnatopsis</i> sp.2						
<i>Carnatopsis fulgida</i>			1			
Portunidae						
<i>Alionectes pulchricristatus</i>						
<i>Charybdis</i> (Archias) hongkongensis						
<i>Eodemus undens</i>						



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWE- 3B3	PAWE- 3C2	PAWE- 3CP2	PAWE- 3D2	PAWE- 4B2	PAWE- 4C2
<i>Talaimita admete</i>						
Processidae						
<i>Processa</i> sp.1						
Scalopidae						
<i>Scalopidia spinosipes</i>						
Scalopidae						
Upogebiidae						
<i>Gebiacantha</i> sp.1						
<i>Gebicula</i> sp.1						
<i>Gebicula</i> sp.3						
<i>Upogebia</i> sp.1						
Isopoda						
Anthuridae						
<i>Amakusanthura</i> sp.1						
Cirolanidae						
<i>Cirolanidae</i> sp.2						
Gnathiidae						
<i>Caecognathia andamanensis</i>		1	2			
<i>Gnathia</i> sp.4						
Hyssuridae						
<i>Hyssuridae</i> sp.1						
<i>Kupellonura</i> sp.1						
Mysidacea						
Mysidae						
<i>Anchialina</i> sp.						
<i>Anchialina</i> sp.1						
<i>Anchialina</i> sp.2						
<i>Haplostylus bengalensis</i>						
Mysidae						
<i>Siriella</i> sp.						
<i>Siriella</i> sp.3						
<i>Siriella</i> sp.4						
<i>Siriella</i> sp.5						
Stomatopoda						
Nannosquillidae						
<i>Acanthosquilla derjardi</i>						
<i>Acanthosquilla multifasciata</i>						
Squillidae						
<i>Anchisquilla fasciata</i>						
Tanaidacea						
Apseudeidae						
<i>Apseudes</i> sp.1						
<i>Apseudes</i> sp.4		1		1		1
Kalliapseudidae						
<i>Kalliapseudes</i> sp.2						
Leptochelidae						
<i>Leptochella</i> sp.1						
<i>Leptochella</i> sp.2					1	
Pagurapseudidae						
Pagurapseudidae						
Pagurapseudidae sp.1						
Pagurapseudidae sp.2						
Parapseudidae						
<i>Pakistanapseudes</i> sp.1						
Echinodermata						
Ophiuroidea						



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Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWE- 3B3	PAWE- 3C2	PAWE- 3CP2	PAWE- 3D2	PAWE- 4B2	PAWE- 4C2
Ophiurida						
Amphiuridae						
<i>Amphioplus (Lymanella) andreae</i>				1		
<i>Amphioplus</i> sp.						1
<i>Amphiura</i> sp.1						
<i>Amphiura</i> sp.2				2		
<i>Amphiura</i> sp.6						
<i>Amphiuridae</i> sp.2			1			1
<i>Amphiuridae</i> sp.3						
<i>Amphiuridae</i> sp.4						
Mollusca						
Aplicophora						
Cavibelonia						
Simrothiellidae						
<i>Helicoradomenia</i> sp.1						
<i>Helicoradomenia</i> sp.2						1
Chaetodermatida						
Chaetodermatidae						
<i>Chaetoderma</i> sp.1						
Bivalvia						
Adapedonta						
Pharidae						
<i>Phaxas</i> sp.						
<i>Phaxas</i> sp.2						
Arcida						
Arcidae						
<i>Verlarca mortenseni</i>						
Cardiida						
Cardiidae						
<i>Fulvia</i> sp.1						
Psammobiidae						
<i>Gari truncata</i>						
Semelidae						
<i>Abra</i> sp.1						
<i>Abra</i> sp.2						
Lucinida						
Lucinidae						
<i>Anodonta edentula</i>						
<i>Cavaleris imajimai</i>						
Myoida						
Corbulidae						
<i>Potamocorbula</i> sp.1						
<i>Potamocorbula</i> sp.2						
Mytiloida						
Mytilidae						
<i>Amygdalum soyae</i>						
Nuculoida						
Nuculidae						
<i>Ennucula niponica</i>				2		
Pholadomyoida						
Cuspidariidae						
<i>Cardiomya singaporensis</i>						
Pandoridae						
<i>Pandora</i> sp.1						
Pterioidea						
Pinnidae						



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Principal Taxonomist



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August 20th, 2025
Ted Donn,
Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300 Lafayette, CA 94549

RE: Environmental Studies for Chevron Thailand, February 2025 (T779.28)

Enclosed are the analytical results for samples received by MEM from Tetra Tech Inc. The identification result was submitted by the Coral Reef and Benthos Research Unit, Division of Biological Science, Faculty of Science, Prince of Songkla University, which are enclosed with this letter.

Should you have any questions concerning this report, please feel free to contact me.

Yours sincerely,

Jintana Plathong
General Manager
Marine Ecoserch Management Co., Ltd.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Principal Taxonomist

Density of Benthos (individuals per 0.04 squ

TAXA	PAWE- 3B3	PAWE- 3C2	PAWE- 3CP2	PAWE- 3D2	PAWE- 4B2	PAWE- 4C2
Pinna sp.						
Pteridae						
<i>Pinctada</i> sp.2						
Venerida						
Ungulinidae						
<i>Felaniella</i> sp.1						
Bivalvia						
Gastropoda						
Archaeogastropoda						
Orbistellidae						
<i>Microdiscula</i> sp.						
Neogastropoda						
Nassariidae						
<i>Nassarius comptus</i>						
Neotaenioglossa						
Naticidae						
Naticidae						
Pteropoda						
Hyalocylidae						
<i>Hyalocylis</i> sp.1						
Thecosomata						
Cavolinidae						
<i>Diacavolinia flexipes</i>						
Gastropoda						
Scaphopoda						
Dentaliida						
Laevidentaliidae						
<i>Laevidentalium</i> sp.						
Total	13	27	18	28	14	17
No. of Taxa	11	24	14	22	10	16



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Principal Taxonomist



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List of Samples received T779.28

Benthos

No.	Date	Sample ID	Location	Time	No. of Bottle		
					100 ml.	500 ml.	1,000 ml.
1	4/2/2025	MGWA-1B2Y	Moragot A	13.36	1S	1B	1A
2	4/2/2025	MGWA-1C2	Moragot A	5.25	0	1 (A+B)	0
3	4/2/2025	MGWA-1CP2	Moragot A	3.53	1S	1B	1A
4	4/2/2025	MGWA-1D2	Moragot A	4.32	1S	1 (A+B)	0
5	4/2/2025	MGWA-2B2X	Moragot A	14.19	1S	1B	1A
6	4/2/2025	MGWA-2C2	Moragot A	15.06	1S	1 (A+B)	0
7	3/2/2025	MGWA-3B2X	Moragot A	20.30	1S	1B	1A
8	3/2/2025	MGWA-3C2	Moragot A	21.24	1S	1 (A+B)	0
9	3/2/2025	MGWA-3CP2	Moragot A	22.10	1S	1 (A+B)	0
10	3/2/2025	MGWA-3D2	Moragot A	22.49	1S	1 (A+B)	0
11	4/2/2025	MGWA-4B2X	Moragot A	12.44	1S	1B	1A
12	3/2/2025	MGWA-4C2	Moragot A	23.24	1S	1B	1A

Phytoplankton

No	Date	Sample ID	Location	Time	100 ml.
1	4/2/2025	MGWA-1CP2-PS-1	Moragot A	8.12-8.17	1
2	4/2/2025	MGWA-1CP2-PS-2	Moragot A	8.17-8.25	1
3	4/2/2025	MGWA-1CP2-PB-1	Moragot A	8.31-8.57	1
4	4/2/2025	MGWA-1CP2-PB-2	Moragot A	8.57-9.27	1
5	3/2/2025	MGWA-3CP2-PS-1	Moragot A	14.57-15.12	1
6	3/2/2025	MGWA-3CP2-PS-2	Moragot A	15.15-15.20	1
7	3/2/2025	MGWA-3CP2-PB-1	Moragot A	15.25-15.49	1
8	3/2/2025	MGWA-3CP2-PB-2	Moragot A	15.49-16.14	1

Zooplankton

No.	Date	Sample ID	Location	Time	1,000 ml.
1	4/2/2025	MGWA-1CP2	Moragot A	10.47-11.21	1
2	3/2/2025	MGWA-3CP2	Moragot A	13.42-14.15	1

Ichthyoplankton

No.	Date	Sample ID	Location	Time	1,000 ml.
1	4/2/2025	MGWA-1CP2	Moragot A	10.47-11.21	1
2	3/2/2025	MGWA-3CP2	Moragot A	13.42-14.15	1

Principal Taxonomist



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CASE NARRATIVE
Environmental Studies for Chevron Thailand, 2025 February
T779.28

SAMPLE RECEIPT

Twelve (12) 0.04 m² benthic community samples, eight (8) phytoplankton samples, two (2) zooplankton and two (2) ichthyoplankton were received on February 25th, 2025, for the Environmental Studies for Chevron Thailand, February 2025 project.

BENTHOS

All sediments and benthos were stored with 10% formalin in sealed plastic containers. All samples were submitted for sorting and identification and biomass measurement.

Sediment samples were sorted to separate benthos from sediment by researchers from the Coral Reef and Benthos Research Unit, Division of Biological Science, Faculty of Science, Prince of Songkla University.

After the benthic invertebrates have been sorted, the wet weight biomass of Polychaetes, Crustaceans, Molluscs, Echinoderms, and Other Phyla in each sample was measured to the nearest 0.001 gram.

Biomass of benthos at T779.28 project

No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
1	MGWA-1B2Y	0.0738	0.0033	-	-	0.0010
2	MGWA-1C2	0.0144	0.0246	-	-	0.0004
3	MGWA-1CP2	0.0473	0.1188	-	-	0.0012
4	MGWA-1D2	0.0082	0.2440	0.0004	-	0.0009
5	MGWA-2B2X	0.0684	0.0497	-	-	0.0021
6	MGWA-2C2	0.0091	0.0211	-	-	0.0176
7	MGWA-3B2X	0.0696	0.0777	0.0038	-	0.0008
8	MGWA-3C2	0.0101	0.0107	0.0009	-	0.0104
9	MGWA-3CP2	0.0792	0.0114	0.0011	0.0044	0.0012
10	MGWA-3D2	0.1136	0.0137	0.0016	0.0011	0.0004
11	MGWA-4B2X	0.0233	0.0281	-	-	0.0122
12	MGWA-4C2	0.0682	0.0285	0.0008	0.0675	-


Principal Taxonomist



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PHYTOPLANKTON

Phytoplankton samples were preserved with 4% formalin. The densities of phytoplankton were examined and counted with a Sedgewick Rafter chamber under a light microscope. Where possible, identification was made to the genus level. The identification of phytoplankton and their taxonomic categories were given according to various taxonomic papers listed in the references. Unidentified phytoplankton are assigned species numbers for future reference. Data are reported as number of individuals in the bottle.

ZOOPLANKTON

The zooplankton from each tow was preserved with 4% formalin. The samples were identified according to various taxonomic papers listed in the references. The total amount of zooplankton of each tow was counted and calculated to the number of zooplankton in the bottle.

ICHTHYOPLANKTON (Fish larvae)

The ichthyoplankton from each tow was preserved with 4% formalin. The samples were identified according to various taxonomic papers listed in the references. The total amount of ichthyoplankton of each tow was counted and calculated to the number of ichthyoplankton in the bottle.

References for identification of benthos and plankton

Polychaeta

- Aguirrezabalaga, F. and Gil, J. 2009. Paraonidae (Polychaeta) from the Capbreton Canyon (Bay of Biscay, NE Atlantic) with the description of eight new species. Santa Marina 73(4): 631-666.
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Result
Environmental Studies for Chevron Thailand, 2025 February
T779.28

Benthic fauna was identified at the lowest practical taxa and differentiated between species. One hundred and thirty-nine (139) species of benthos were identified from this project. There were, 1 species of Cnidarian, 1 species of Nematode worm, 2 species of Nemertean, 1 species of flat worm, 2 species of Sipunculid worms, 67 species of Annelid worms, 55 species of Crustacean, 4 species of Echinoderms, and 6 species of Mollusk.

Forty-six (46) species of benthos were identified to species level. Seventy-six (76) benthos species were identified to genus level. Fifteen (15) benthos species were identified to family level. One species was identified to Class level. One species was identified to Phylum level.

Composition of benthos taxa in the project area

Phylum	No. species	Species	Genus	Family	Order	Class	Phylum
Cnidaria	1	0	0	1	0	0	0
Nematoda	1	0	0	0	0	0	1
Nemertea	2	0	2	0	0	0	0
Platyhelminthes	1	0	0	0	0	1	0
Sipuncula	2	1	1	0	0	0	0
Annelida	67	21	46	0	0	0	0
Arthropoda	55	22	19	14	0	0	0
Echinodermata	4	1	3	0	0	0	0
Mollusca	6	1	5	0	0	0	0
Total	139	46	76	15	0	1	1

Unidentified species were named at higher taxa and assigned code to sp.01, sp.02, etc. The benthic fauna was compared with previous benthos samples at the Coral Reef and Benthos Research Unit where data bases of benthos in the Gulf of Thailand were established for long term monitoring. In addition, the specimens were compared with the voucher collection documentation sheets report prepared by Battelle Ocean Science for UNOCAL Thailand Ltd (Battelle 1994), which provides descriptions of a large number of the taxa identified in the earlier surveys in the Gulf of Thailand.

A QA/QC procedure was performed on each of the sorted samples to ensure a minimum of 95% sorting efficiency. A 10% aliquot of each sample was re-sorted by senior researcher trained in invertebrate sorting and the QA/QC procedure. If the sorting efficiency of the sample is below 95%, the remainder of the sample (90%) is to be re-sorted.


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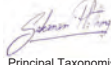


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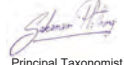
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Principal Taxonomist

Benthos density (Individuals per 0.04 square meter)

TAXA	MgWA-1B2V	MgWA-1C2	MgWA-1C2P2	MgWA-1D2	MgWA-2B2X	MgWA-2C2	MgWA-3B2X	MgWA-3C2
Cnidaria								
Anthozoa								
Actinaria								
Edwardsidae								
Edwardsidae sp.1					1			
Nematoda								
Nematoda sp.1							2	
Nemertea								
Anopla								
Heteronemertea								
Lineidae								
Micruca sp.1				1				
Palaemonemertea								
Tubulanidae								
Callinera sp.1					1	1		1
Platyhelminthes								
Turbellaria								
Turbellaria								1
Spuncula								
Phascolosomatidae								
Phascolosomatiformes								
Phascolosomatidae								
Aplousoma sp.2	3	2	1	1		1	6	1
Spunculidae								
Goffingiformes								
Phascolionidae								
Phascolion strombus								
Annelida								
Polychaeta								
Acicula								
Amphinomidae								
Chloea violacea								
Linophorus sp.2								
Dorvilleidae								
Schistomerings sp.1								
Eunicidae								
Eunice indica				1				
Eunice sp.3								
Euniphysa sp.1		2					1	
Glyceridae								
Glyceria lapidum								
Glyceria sp.								1
Goniadidae								
Goniada maculata								
Hartmanniellidae								
Hartmanniella sp.1	1	1						
Heslonidae								
Oxydromus sp.1								1
Podarkeopsis sp.1			1					
Lumbrineridae								
Gallardoneris thailandensis							1	
Hilbigneris sp.1					1			
Lumbrineris latreilli						1		
Ninoo nr. brunii	1			1			1	1
Nephtyidae								
Aglaophamus cf. dicirroides	2	1					1	



Benthos density (Individuals per 0.04 square meter)

TAXA	MGWA- 1B2Y	MGWA- 1C2	MGWA- 1CP2	MGWA- 1D2	MGWA- 2B2X	MGWA- 2C2	MGWA- 3B2X	MGWA- 3C2
<i>Aglaphanus orientalis</i>	1					2		
Nereididae						1		
<i>Tambalagamia fauveli</i>				4				
Onuphiidae				1	1	1		
<i>Onuphis</i> sp.1								
Paralacydoniidae								
<i>Paralacydonia</i> sp.1			2				1	
Platigiidae								
<i>Synelmis rigida</i>								
Sigalionidae								
<i>Sthenolepis japonica</i>								
Syllidae								
<i>Erogone</i> (Exogone) sp.2								
Canalipalpata								
Ampharetidae								
<i>Ampharete</i> sp.1					1			
<i>Anobothrus</i> sp.1								
Chaetopteridae					3			
<i>Spiochaetopterus</i> sp.1								
Cirratulidae								
<i>Aphelochaeta monilaris</i>								
<i>Aphelochaeta</i> sp.1						1		
<i>Caulierella</i> sp.1								
<i>Kirkegaardia</i> sp.1				2			1	
<i>Kirkegaardia</i> sp.6			1					
Fabriciidae								
<i>Pseudofabriciella</i> sp.1			1					
Fauvellopsidae								
<i>Lauberiopsis</i> sp.1						1		
Flabelligeridae								
<i>Diptocirrus</i> sp.2						1		
Magelonidae								
<i>Magelona</i> sp.13	2	1		1				
Sabellidae								
<i>Euchone</i> sp.1								
Spionidae								
<i>Paraprionospio</i> sp.1					1			
<i>Prionospio elegantula</i>			2		1		1	
<i>Prionospio</i> sp.	1							
<i>Prionospio</i> sp.10					1	1		
<i>Spio</i> sp.2								1
<i>Strophaneis malayensis</i>								
Sternaspidae								
<i>Cauleryaspis</i> sp.1						1		
<i>Petersenaspis apinyae</i>								
Terebellidae						1		
<i>Amaeana occidentalis</i>						1		
Trichobranchidae								
<i>Terebellides</i> sp.1	2					1	1	
<i>Terebellides</i> sp.2					1			
<i>Trichobranchus roseus</i>	1							
(blank)								
Capitellidae					2			
<i>Capitellatus</i> sp.1								
<i>Neomedonastus</i> sp.1			1					



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Principal Taxonomist

Benthos density (Individuals per 0.04 square meter)

TAXA	MGWA- 1B2Y	MGWA- 1C2	MGWA- 1CP2	MGWA- 1D2	MGWA- 2B2X	MGWA- 2C2	MGWA- 3B2X	MGWA- 3C2
<i>Notomastus latericeus</i>			1					
<i>Promastobranthus huloti</i>			1					
Cossuridae								
<i>Cossura</i> sp.2						1		
Maldanidae								
<i>Asychis</i> sp.2								1
<i>Axiobella</i> sp.1								2
<i>Cyrtanella</i> sp.1			2					
<i>Praxillella nr. gracilis</i>								1
<i>Praxillella</i> sp.3								
Opheliidae								
<i>Ophelia</i> sp.			1					
<i>Ophelia</i> sp.1								
Orbinidae								
<i>Leodamas</i> sp.1				1				
Paraonidae								
<i>Levinsonia</i> sp.			1	1				
<i>Levinsonia</i> sp.1		1						
<i>Levinsonia</i> sp.2						1	1	
<i>Levinsonia</i> sp.4								1
<i>Levinsonia</i> sp.5								
Arthropoda								
Crustacea								
Amphipoda								
Ampeliscaidae								
<i>Ampelisca bocki</i>								1
<i>Ampelisca chinensis</i>								
<i>Ampelisca cyclops</i>								1
<i>Ampelisca maia</i>								
<i>Ampelisca</i> sp.		1		1				
<i>Bythia calisto</i>		2						
<i>Bythia febrilis</i>			1	1		2		
<i>Bythia</i> sp.	1							
Aoridae								
<i>Aoridae</i>				1				
Dexaminidae								
<i>Dexaminidae</i> sp.2			1					1
Ischyrocaridae								
<i>Cerapus</i> sp.2							1	
<i>Cerapus</i> sp.4								1
Oedicerotidae								
<i>Synchordium</i> sp.1								1
Pholidae								
<i>Gammaropsis</i> sp.4			3					
Phoxocephalidae								
<i>Harpinopsis vadiculus</i>								
Stenothoidae								
<i>Stenothoe</i> sp.1				1				
Synopiidae								
<i>Synopia</i> sp.2								1
Tryphosidae								
<i>Tryphosella</i> sp.1			1					1
Urothoidae								
<i>Urothoe gelasina</i>				2				
Cumacea								
Nannastacidae								



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Principal Taxonomist

Benthos density (Individuals per 0.04 square meter)

TAXA	MGWA- 1B2Y	MGWA- 1C2	MGWA- 1CP2	MGWA- 1D2	MGWA- 2B2X	MGWA- 2C2	MGWA- 3B2X	MGWA- 3C2
<i>Nannastacus</i> sp.5								1
Decapoda								
Alpheidae								
<i>Alpheidae</i> sp.3							1	
<i>Alpheus acutocarinatus</i>		1			1			
<i>Alpheus rapacida</i>			1					
<i>Alpheus rapax</i>							1	
<i>Bermudezella</i> sp.			1			1		
Callinassidae								
<i>Callinassidae</i>			1					
<i>Jocullianassa matzi</i>					1		1	
<i>Lipkecallinassa</i> sp.1								
Ctenochelidae								
<i>Ctenochelidae</i> sp.1			1					
Diogenidae								
<i>Diogenidae</i>								
<i>Leucosidea</i>				1				
<i>Ebalia</i> sp.1								
Palaemonidae								
<i>Palaemonidae</i> sp.5							1	
Parthenopidae								
<i>Parthenopidae</i> sp.1								
Pasiphaeidae								
<i>Leptochela pugnax</i>			2			1		
Pasiphaeidae								
<i>Pasiphaeidae</i>								
<i>Pasiphaeidae</i>								
<i>Plummidia</i>								
<i>Arges marginatus</i>				1				
<i>Ceratomyx</i> sp.1						1		
<i>Ceratoplax fulgida</i>								
Portunidae								
<i>Thalamita admete</i>			1		2			
Scallopidae								
<i>Scallopidae spinosipes</i>				1				
Upogebiidae								
<i>Upogebia</i> sp.1						1		
Isopoda								
Gnathiidae								
<i>Caecognathia andamanensis</i>	1	2						1
<i>Caecognathia</i> sp.3	3							
<i>Gnathidia</i> (L.)			1					
Leptanthuridae								
<i>Leptanthuridae</i> sp.2				2		1		
Mysidacea								
Mysidae								
<i>Anchialina</i> sp.1			1					
<i>Haplostylus bengalensis</i>								
Mysidae							2	
<i>Siriella</i> sp.1						1		
Stomatopoda								
Nannosquillidae								
<i>Acanthosquilla derjardi</i>							1	
Squillidae								
<i>Cloridina verrucosa</i>			1					
Tanaidacea								



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Principal Taxonomist

Benthos density (Individuals per 0.04 square meter)

TAXA	MGWA- 1B2Y	MGWA- 1C2	MGWA- 1CP2	MGWA- 1D2	MGWA- 2B2X	MGWA- 2C2	MGWA- 3B2X	MGWA- 3C2
Apeudidae								
<i>Apeudidae</i> sp.1	1							
<i>Apeudidae</i> sp.4				1		3		1
Leptochelidae								
<i>Leptochela</i> sp.2								1
Echinodermata								
Ophiuroidea								
Ophiura								
Amphiridae								
<i>Amphirius (Lymanella) andreae</i>								
<i>Amphirius</i> sp.1								
<i>Amphirius</i> sp.2								
<i>Amphirius</i> sp.6								
Mollusca								
Aplacophora								
Cavibelonia								
Simrothiellidae								
<i>Helicoradomenia</i> sp.1								
<i>Helicoradomenia</i> sp.2								1
Chaetodermatida								
<i>Chaetodermatidae</i>								
<i>Chaetoderma</i> sp.2								1
Bivalvia								
Nuculidae								
<i>Nuculidae</i>								
<i>Ennucula niponica</i>								1
Gastropoda								
Pteropoda								
<i>Hydrocyllis</i> sp.1								1
Scaphopoda								
Dentaliida								
<i>Laevidentallidae</i>								
<i>Laevidentallium</i> sp.				1				
Total	21	17	29	18	26	21	39	19
No. of Taxa	14	12	24	16	16	20	31	18



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Principal Taxonomist

Benthos density (Individuals per 0.04 squar

TAXA	MGWA- 3CP2	MGWA- 3D2	MGWA- 4B2X	MGWA- 4C2
Cnidaria				
Anthozoa				
Actiniaria				
Edwardsiidae				
Edwardsiidae sp.1				
Nematoda				
Nematoda sp.1				
Nemertea				
Anopla				
Heteronemertea				
Lineidae				
McCrura sp.1				
Palaeonemertea				
Tubulanidae				
Callinera sp.1	1		1	
Platyhelminthes				
Turbellaria				
Turbellaria				
Sipuncula				
Phascolosomatidea				
Phascolosomatiformes				
Phascolosomatidae				
Aporosoma sp.2		1	1	
Sipunculidea				
Golfingiformes				
Phascolionidae				
Phascolion strombus			2	
Annelida				
Polychaeta				
Aciculata				
Amphinomidae				
Chloea violacea	1	2		
Linopherus sp.2			1	
Dorvilleidae				
Schistomerings sp.1			1	
Eunicidae				
Eunice indica				
Eunice sp.3	1			
Euniphysa sp.1				
Glyceridae				
Glyceria lapidum				1
Glyceria sp.			1	
Goniadidae				
Goniada maculata	1			
Hartmanniellidae				
Hartmanniella sp.1	1		1	
Hesoniidae				
Oxydromus sp.1				
Podarkeopsis sp.1				
Lumbrineridae				
Gallardoneris thailandensis				
Hilbigneris sp.1				
Lumbrineris latreilli				
Ninoe nr. bruni				
Nephtyidae				
Aglaophamus cf. diciroides			1	



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Principal Taxonomist

Benthos density (Individuals per 0.04 squar

TAXA	MGWA- 3CP2	MGWA- 3D2	MGWA- 4B2X	MGWA- 4C2
Aglaophamus orientalis				1
Nereididae				
Tamalegania fauveli				
Onuphiidae				
Onuphis sp.1				
Paralacydonidae				
Paralacydonia sp.1	1	1	1	
Pilargidae				
Synelmis rigida	1			
Sigalionidae				
Sthenolepis japonica	1			
Syllidae				
Exogone (Exogone) sp.2				2
Canalipalpata				
Ampharetidae				
Ampharete sp.1				
Anobothrus sp.1				1
Chaetopteridae				
Spiochaetopterus sp.1				
Cirratulidae				
Aphelochaeta monilaris				1
Aphelochaeta sp.1		1		
Caulierella sp.1				
Kirkegaardia sp.1				1
Kirkegaardia sp.6			1	
Fabriciidae				
Pseudofabriciella sp.1				
Fauvellopsidae				
Laubieropsis sp.1				
Fiabelligidae				
Diptocirrus sp.2				
Magelonidae				
Magelona sp.13	1			
Sabellidae				
Euchone sp.1				1
Sponidae				
Paraprionospio sp.1				
Prionospio elegantula				
Prionospio sp.				1
Prionospio sp.10				
Spio sp.2				1
Spioptanes malayensis	1			
Sternaspidae				
Cauleryaspis sp.1			1	1
Petersenaspis apinyae				
Terebellidae				
Amaseana occidentalis				
Trichobranchidae				
Terebellides sp.1				
Terebellides sp.2				
Trichobranchus roseus				2
(blank)				
Capitellidae				
Capitellus sp.1				
Neomedonastus sp.1				



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Principal Taxonomist

Benthos density (Individuals per 0.04 squar

TAXA	MGWA- 3CP2	MGWA- 3D2	MGWA- 4B2X	MGWA- 4C2
Notomastus latericeus				
Promastobranchus hulu	1			
Cossuridae				
Cossura sp.2				
Maldanidae				
Asychis sp.2				
Asiothella sp.1	1			
Clymenella sp.1				
Praxillella nr. gracilis				
Praxillella sp.3				1
Ophelidae				
Ophelia sp.			1	
Ophelia sp.1				1
Ophidiidae				
Leodamas sp.1				
Paraonidae				
Levensenia sp.				
Levensenia sp.1				
Levensenia sp.2	1	1		
Levensenia sp.4				
Levensenia sp.5	1	1		
Arthropoda				
Crustacea				
Amphipoda				
Ampeliscaidae				
Ampelisca bocki		1		
Ampelisca chinensis				2
Ampelisca cyclops				1
Ampelisca maia		1		
Ampelisca sp.				
Bythia callisto		3		
Bythia fabris	1			
Bythia io				
Aoridae				
Aoridae				
Dexaminidae				
Dexaminidae sp.2				
Ischyroceridae				
Cerapus sp.2				
Cerapus sp.4				
Oedicerotidae				
Synchelidum sp.1				
Pholidae				
Gammaropsis sp.4	1			
Phoxocephalidae				
Harpiopsis vadiculus		1	1	
Stenothoidae				
Stenothoe sp.1				
Synopidae				
Synopia sp.2				
Tryphosidae				
Tryphosella sp.1				
Urothoidae				
Urothoe gelasina			1	
Cumacea				
Nannastacidae				



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Principal Taxonomist

Benthos density (Individuals per 0.04 squar

TAXA	MGWA- 3CP2	MGWA- 3D2	MGWA- 4B2X	MGWA- 4C2
Nannastacus sp.5				
Decapoda				
Alpheidae				
Alpheidae sp.3				1
Alpheus acutocarinatus				
Alpheus rapacida				
Alpheus rapax				
Bermudezaris sp.				
Callinassidae				
Callianassidae				
Jocullianassa matzi				1
Lipkecallianassa sp.1	2			2
Ctenochelidae				
Ctenochelidae sp.1				
Diogenidae				
Diogenidae			1	
Leucosidae				
Ebella sp.1				
Palaeomonidae				
Palaeomonidae sp.5				
Parthenopidae				
Parthenopidae sp.1	1			
Pasiphaeidae				
Leptochela pugnax				
Pasiphaeidae			1	
Peneidae				
Peneidae		1		
Pilumnidae				
Arges marginatus				
Ceratospis sp.1				
Ceratospis fulgida	2			
Portunidae				
Thalamita admete				
Scalopidae				
Scalopidae spinosipes				
Upogebiidae				
Upogebia sp.1				
Isopoda				
Gnathiidae				
Caecognathia andamanensis				2
Caecognathia sp.3				
Gnathiidae (L.)		1		
Leptanthuridae				
Leptanthuridae sp.2				
Mysidacea				
Mysidae				
Anchialina sp.1				
Haplostylus bengalensis				1
Mysidae				
Sirietta sp.1				
Stomatopoda				
Nannosquillidae				
Acanthosquilla derjardi				1
Squillidae				
Cloridina verrucosa				
Tanaidacea				



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Principal Taxonomist

Benthos density (Individuals per 0.04 squar				
TAXA	MGWA- 3CP2	MGWA- 3D2	MGWA- 4B2X	MGWA- 4C2
Apseudidae				
<i>Apseudes</i> sp.1				
<i>Apseudes</i> sp.4	2			
Leptochelidae				
<i>Leptochella</i> sp.2				
Echinodermata				
Ophiuroidea				
Ophiurida				
Amphiuridae				
<i>Amphiopus (Lymanella) andreae</i>				1
<i>Amphiura</i> sp.1		1		
<i>Amphiura</i> sp.2	1			
<i>Amphiura</i> sp.6				1
Mollusca				
Aplacophora				
Cavibelonia				
Simrothiellidae				
<i>Helicoradomenia</i> sp.1	1			
<i>Helicoradomenia</i> sp.2				1
Chaetodermatida				
Chaetodermatidae				
<i>Chaetoderma</i> sp.2				
Bivalvia				
Nuculoida				
Nuculidae				
<i>Ennucula niponica</i>				
Gastropoda				
Pteropoda				
Hyalocyclidae				
<i>Hyalocylis</i> sp.1		1		
Scaphopoda				
Dentaliida				
Laevidentaliidae				
<i>Laevidentalium</i> sp.				
Total	26	18	23	21
No. of Taxa	23	15	20	18



APPENDIX D ANALYTICAL LABORATORY REPORTS: PHYTOPLANKTON COMMUNITY

Phytoplankton density (unit/bottle)					
TAXA	NPCPP-1CP2- PS-1	NPCPP-1CP2- PS-2	NPCPP-1CP2- PB-1	NPCPP-1CP2- PB-2	
Charophyta					
Conjugophyceae					
Desmidiaceae					
Desmidiaceae					
Spondylosium					
Spondylosium sp.1	240	360	240	240	
Staurastrum					
Staurastrum sp.1		240	120	120	
Staurastrum sp.3					
Chlorophyta					
Chlorophyceae					
Chlamydomonadales					
Micractiniaceae					
Golenkinia					
Golenkinia radiata	120		120	120	
Sphaeropleales					
Scenedesmaceae					
Scenedesmus					
Scenedesmus sp.1					
Trebouxiophyceae					
Oocystales					
Oocystaceae					
Ankistrodesmus					
Ankistrodesmus sp.1	180		60	60	
Chrysophyta					
Chrysophyceae					
Dictyochales					
Dictyochaceae					
Dictyocha					
Dictyocha fibula	540	540	630	630	
Dictyocha speculum var. octonaris			120		
Cyanobacteria					
Cyanophyceae					
Chroococcales					
Chroococcaceae					
Gloeocapsa					
Gloeocapsa sp.1			1980		
Nostocales					
Oscillatoriaceae					
Oscillatoria					
Oscillatoria erythraea	31200	28740	34320	35460	
Oscillatoria sp.1	23280	19740	16380	13020	
Rivulariaceae					
Calothrix					
Calothrix crustacea	2040	2040	2400	2610	
Ochrophyta					
Bacillariophyceae					
Asterolamprales					
Asterolampraceae					
Asterolampra					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPCPP-1CP2- PS-1	NPCPP-1CP2- PS-2	NPCPP-1CP2- PB-1	NPCPP-1CP2- PB-2	
<i>Asterolampra marylandica</i>	180	1260	180	180	
<i>Asteromphalus</i>					
<i>Asteromphalus cleveanus</i>	120	120	180	180	
<i>Asteromphalus elegans</i>			120		
<i>Asteromphalus sp.1</i>	240	300	120		
Aulacoseirales					
Aulacoseiraceae					
<i>Aulacoseira</i>					
<i>Aulacoseira sp.1</i>					
Bacillariales					
Bacillariaceae					
<i>Bacillaria</i>					
<i>Bacillaria paxillifer</i>	4080	7740	10920	12120	
<i>Cylindrotheca</i>					
<i>Cylindrotheca closterium</i>	1200			1050	
<i>Cylindrotheca sp.1</i>					
<i>Nitzschia</i>					
<i>Nitzschia longissima</i>	780	840	1050	1110	
<i>Nitzschia lorenziana</i>	1260	2280	1440	1110	
<i>Nitzschia sp.3</i>	1020	660	1020	750	
<i>Nitzschia sp.4</i>	780	780	630	840	
<i>Nitzschia sp.5</i>	1020	420	840	420	
<i>Nitzschia sp.9</i>	540	540	960	420	
<i>Nitzschia sp.10</i>	900	1140	1470	660	
<i>Nitzschia sp.11</i>	1080	480	900	420	
<i>Pseudo-nitzschia</i>					
<i>Pseudo-nitzschia sp.1</i>	1860	1560	2640	3060	
Centrales					
Eupodiscaceae					
<i>Odontella</i>					
<i>Odontella mobiliensis</i>	240	180	60	240	
<i>Odontella sinensis</i>	480	420	780	540	
Chaetocerotales					
Chaetocerotaceae					
<i>Bacteriastrium</i>					
<i>Bacteriastrium comosum</i>	2700	11160	9630	9780	
<i>Bacteriastrium furcatum</i>	2580	8040	7530	8640	
<i>Bacteriastrium hyalinum</i>	3120	12240	10380	12600	
<i>Chaetoceros</i>					
<i>Chaetoceros aequatorialis</i>	420	1020	1560	1470	
<i>Chaetoceros affinis</i>	3000	3600	3030	6120	
<i>Chaetoceros atlanticus</i>	5040	5280	2460	8880	
<i>Chaetoceros coarctatus</i>	5280	6360	3240	7800	
<i>Chaetoceros compressus</i>	2100	2580	2760	9000	
<i>Chaetoceros costatus</i>	1920	3540	3120	4500	
<i>Chaetoceros didymus</i>	2400	3420	3480	8160	
<i>Chaetoceros diversus</i>	3720	4860	6180	7740	
<i>Chaetoceros eibonii</i>	2460	1800	5280	7080	
<i>Chaetoceros lorenzianus</i>	3120	4560	4500	8760	
<i>Chaetoceros messanensis</i>	2100	2280	4500	2640	



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Principal Taxonomist



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPCPP-1CP2- PS-1	NPCPP-1CP2- PS-2	NPCPP-1CP2- PB-1	NPCPP-1CP2- PB-2	
Climacodium					
<i>Climacodium biconcavum</i>	2160	2760	2400	2280	
<i>Climacodium frauenfeldianum</i>	1620	1740	1740	3420	
Eucampia					
<i>Eucampia cornuta</i>	1680	1260	1710	2130	
<i>Eucampia zodiacus</i>	1380	1500	1320	2100	
Hemiaulus					
<i>Hemiaulus hauckii</i>	2040	1860	3180	2040	
<i>Hemiaulus indicus</i>	1500	1500	1800	1920	
<i>Hemiaulus membranaceus</i>	1980	1680	1980	4290	
<i>Hemiaulus sinensis</i>	1680	1920	2850	1740	
Leptocylindrales					
Leptocylindraceae					
<i>Leptocylindrus</i>					
<i>Leptocylindrus danicus</i>	1740	1260	2160	1380	
Licmorphales					
Licmorphaeaceae					
Licmorpha					
<i>Licmorpha flabellata</i>					
Lithodesmiales					
Lithodesmaceae					
<i>Ditylum</i>					
<i>Ditylum brightwellii</i>	360	1920	180	300	
<i>Ditylum sol</i>	480	4320	420	660	
Naviculales					
Diploneidaceae					
Diploneis					
<i>Diploneis sp.1</i>	540	300	240	240	
<i>Diploneis sp.2</i>					
<i>Diploneis sp.3</i>			60		
Naviculaceae					
Anomoeneis					
<i>Anomoeneis sp.1</i>					
Haslea					
<i>Haslea wawriakae</i>	600	360	540	390	
<i>Haslea sp.1</i>	720	240	360	840	
Meuniera					
<i>Meuniera sp.1</i>	1320	780	720	840	
Navicula					
<i>Navicula sp.1</i>	2160	960	840	1020	
<i>Navicula sp.2</i>	1080	1680	1800	1140	
<i>Navicula sp.3</i>	1020	900	1500	600	
<i>Navicula sp.4</i>	1920	960	780	570	
<i>Navicula sp.5</i>	720	600	900	450	
<i>Navicula sp.6</i>	540	660	600	540	
<i>Navicula sp.7</i>	960	540	480	330	
<i>Navicula sp.8</i>	660	840	840	840	
Trachyneis					
<i>Trachyneis sp.1</i>	720	600	540	420	
Pinnulariaceae					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPCPP-1CP2- PS-1	NPCPP-1CP2- PS-2	NPCPP-1CP2- PB-1	NPCPP-1CP2- PB-2	
Pinnularia					
<i>Pinnularia sp.2</i>					
Pleurosigmataceae					
Gyrosigma					
<i>Gyrosigma sp.1</i>	1080	720	600	360	
<i>Gyrosigma sp.2</i>	1080	420	390	1050	
<i>Gyrosigma sp.3</i>	660	480	570	570	
Pleurosigma					
<i>Pleurosigma sp.1</i>	840	420	600	540	
<i>Pleurosigma sp.2</i>	420	360	540	540	
<i>Pleurosigma sp.3</i>	360	360	420	540	
<i>Pleurosigma sp.4</i>	360	300	690	390	
<i>Pleurosigma sp.5</i>	720	300	300	360	
<i>Pleurosigma sp.6</i>	1140	600	900	960	
Stauroneidaceae					
Stauroneis					
<i>Stauroneis salina</i>					
Rhizosoleniales					
Rhizosoleniaceae					
Dactylosolen					
<i>Dactylosolen blavyanus</i>	1560	2100	2520	2640	
<i>Dactylosolen fragilissimus</i>	2100	2040	1440	3420	
<i>Dactylosolen phuketensis</i>	1440	2160	2100	2160	
Guinardia					
<i>Guinardia cylindrus</i>	1680	1440	1260	2010	
<i>Guinardia fleccida</i>	1920	1740	1860	3960	
<i>Guinardia striata</i>	2040	2400	2400	2550	
Proboscia					
<i>Proboscia alata</i>	2400	3300	2040	3450	
Pseudosolenia					
<i>Pseudosolenia calcar avis</i>	1560	2640	1800	2070	
Rhizosolenia					
<i>Rhizosolenia acuminata</i>	180	180	60	120	
<i>Rhizosolenia bergonii</i>	780	1380	1410	1410	
<i>Rhizosolenia cleveii var. cleveii</i>	1200	1320	1080	1560	
<i>Rhizosolenia formosa</i>	240	960	180	120	
<i>Rhizosolenia hyalina</i>	2100	1500	1950	2520	
<i>Rhizosolenia imbricata</i>	240	300	420	120	
<i>Rhizosolenia pungens</i>	720	3120	1860	1650	
<i>Rhizosolenia robusta</i>	600	720	390	390	
<i>Rhizosolenia striata</i>	240	480	390	330	
<i>Rhizosolenia styliformis</i>	360	300	240	300	
<i>Rhizosolenia sp.1</i>	420	300	420	420	
Striatellales					
Striatellaceae					
Striatella					
<i>Striatella sp.1</i>					
Surirellales					
Entomoneidaceae					
Entomoneis					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPCPP-1CP2- PS-1	NPCPP-1CP2- PS-2	NPCPP-1CP2- PB-1	NPCPP-1CP2- PB-2	
<i>Entomoneis sp.1</i>	480	300	480	300	
<i>Entomoneis sp.2</i>	300	360	300	60	
Surirellaceae					
Campylodiscus					
<i>Campylodiscus sp.1</i>	60	180	300	120	
Surirella					
<i>Surirella sp.1</i>	120	240	240	420	
Thalassionematales					
Thalassionemataceae					
Thalassionema					
<i>Thalassionema nitzschoides</i>	6060	7740	9300	14700	
<i>Thalassionema sp.1</i>	3960	5460		6900	
Thalassiothrix					
<i>Thalassiothrix sp.1</i>	2340	5160	4890	4500	
<i>Thalassiothrix sp.2</i>	1440	1140	1980	780	
Thalassiosiphales					
Catenulaceae					
Amphora					
<i>Amphora sp.1</i>	600	240	300	300	
<i>Amphora sp.2</i>					
<i>Amphora sp.3</i>					
Thalassiosirales					
Lauderiaceae					
Lauderia					
<i>Lauderia annulata</i>	1560	1260	1740	1800	
Skeletonemaceae					
Skeletonema					
<i>Skeletonema sp.1</i>					
Stephanodiscaceae					
Cyclotella					
<i>Cyclotella sp.1</i>	1080	1620	780	2250	
Thalassiosiraceae					
Planktoniella					
<i>Planktoniella blanda</i>	960	960	900	480	
<i>Planktoniella sol</i>	360	720	300	240	
Thalassiosira					
<i>Thalassiosira subtilis</i>					
<i>Thalassiosira sp.4</i>	1920	1260	1500	1860	
<i>Thalassiosira sp.5</i>	1440	1500	1800	1800	
<i>Thalassiosira sp.6</i>					
Triceratiales					
Tricerataceae					
Triceratium					
<i>Triceratium favus</i>					
Pyrrophytophyta					
Dinophyceae					
Dinophysiales					
Amphisoleniaceae					
Amphisolenia					
<i>Amphisolenia bidentata</i>	240	240	240	150	



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPCPP-1CP2- PS-1	NPCPP-1CP2- PS-2	NPCPP-1CP2- PB-1	NPCPP-1CP2- PB-2	
Dinophysiaceae					
Histioneis					
<i>Histioneis hyalina</i>			120		
Ornithocercus					
<i>Ornithocercus thumii</i>	60		60		
Phalacroma					
<i>Phalacroma mitra</i>		120			
Gonyaulacales					
Ceratiaceae					
Ceratium					
<i>Ceratium contortum</i>	120				
<i>Ceratium deflexum</i>	180				
<i>Ceratium dens</i>	300				
<i>Ceratium extensum</i>	60				
<i>Ceratium falcatum</i>	420	540	420	300	
<i>Ceratium furca</i>	360	240	330	420	
<i>Ceratium fusus</i>					
<i>Ceratium gibberum</i>					
<i>Ceratium kofoidii</i>					
<i>Ceratium macroceros</i>	60			120	
<i>Ceratium massiliense</i>				240	
<i>Ceratium porrectum</i>	360			240	
<i>Ceratium schmidtii</i>					
<i>Ceratium trichoceros</i>	240	480	360	330	
<i>Ceratium tripos</i>					
Goniodomataceae					
Goniodoma					
<i>Goniodoma sp.1</i>					
Gonyaulacaceae					
Lingulodinium					
<i>Lingulodinium sp.1</i>					
Oxytoxaceae					
Oxytoxum					
<i>Oxytoxum sp.1</i>					
<i>Oxytoxum sp.3</i>			180		
<i>Oxytoxum sp.4</i>					
Pyrophacaceae					
Pyrophacus					
<i>Pyrophacus steinii</i>					
Gymnodiniales					
Gymnodiniaceae					
Gymnodinium					
<i>Gymnodinium sp.2</i>				180	
Gyrodinium					
<i>Gyrodinium falcatum</i>			180	120	
Peridinales					
Podolampadaceae					
Podolampas					
<i>Podolampas bipes</i>		60			
<i>Podolampas palmipes</i>	120	180	60		



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
	NPCPP-1CP2- NPCPP-1CP2- NPCPP-1CP2- NPCPP-1CP2-				
TAXA	PS-1	PS-2	PB-1	PB-2	
Protoperidiniaceae					
Protoperidinium					
<i>Protoperidinium abei</i>					120
<i>Protoperidinium asymmetricum</i>	180	240	120		240
<i>Protoperidinium conicum</i>	120		120		120
<i>Protoperidinium depressum</i>	300	420	240		360
<i>Protoperidinium diabolium</i>		120	120		
<i>Protoperidinium divergens</i>	300	240	300		360
<i>Protoperidinium elegans</i>					
<i>Protoperidinium latispinum</i>	240	240	180		270
<i>Protoperidinium oceanicum</i>					
<i>Protoperidinium pallidum</i>					
Prorocentrales					
Prorocentraceae					
Prorocentrum					
<i>Prorocentrum mexicanum</i>			60		240
<i>Prorocentrum micans</i>					
TOTAL	214800	249000	251910	306270	
Number of Taxa	137	129	139	136	

1. Count as number of filaments
(average cells/unit of filamentous species) n=30

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
	NPCPP-3CP2- NPCPP-3CP2- NPCPP-3CP2- NPCPP-3CP2-				
TAXA	PS-1	PS-2	PB-1	PB-2	
Charophyta					
Conjugophyceae					
Desmidiaceae					
<i>Spondylosium</i>					
<i>Spondylosium</i> sp.1	240	390	240		240
<i>Staurastrum</i>					
<i>Staurastrum</i> sp.1			180		120
<i>Staurastrum</i> sp.3					
Chlorophyta					
Chlorophyceae					
Chlamydomonadales					
Micractiniaceae					
<i>Golenkinia</i>					
<i>Golenkinia radiata</i>	150		60		60
Sphaeropleales					
Scenedesmaceae					
<i>Scenedesmus</i>					
<i>Scenedesmus</i> sp.1			960		
Trebouxiophyceae					
Oocystales					
Oocystaceae					
<i>Ankistrodesmus</i>					
<i>Ankistrodesmus</i> sp.1	120		120		180
Chrysophyta					
Chrysophyceae					
Dictyochales					
Dictyochaceae					
<i>Dictyocha</i>					
<i>Dictyocha fibula</i>	480	600	180		540
<i>Dictyocha speculum</i> var. <i>octonaris</i>					240
Cyanobacteria					
Cyanophyceae					
Chroococcales					
Chroococcaceae					
<i>Gloeocapsa</i>					
<i>Gloeocapsa</i> sp.1					1770
Nostocales					
Oscillatoriaceae					
<i>Oscillatoria</i>					
<i>Oscillatoria erythraea</i>	10140	15300	47520		30180
<i>Oscillatoria</i> sp.1	5280	5340	26100		11820
Rivulariaceae					
<i>Calothrix</i>					
<i>Calothrix crustacea</i>	1560	1560	3120		1680
Ochrophyta					
Bacillariophyceae					
Asterolamprales					
Asterolampraceae					
<i>Asterolampra</i>					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
	NPCPP-3CP2- NPCPP-3CP2- NPCPP-3CP2- NPCPP-3CP2-				
TAXA	PS-1	PS-2	PB-1	PB-2	
<i>Asterolampra marylandica</i>		120	120		240
<i>Asteromphalus</i>					
<i>Asteromphalus cleveanus</i>			60		120
<i>Asteromphalus elegans</i>					
<i>Asteromphalus</i> sp.1		300			780
Aulacoseirales					
Aulacoseiraceae					
Aulacoseira					
<i>Aulacoseira</i> sp.1					
Bacillariales					
Bacillariaceae					
<i>Bacillaria</i>					
<i>Bacillaria paxillifer</i>	5160	6420	10860		7740
<i>Cylindrotheca</i>					
<i>Cylindrotheca closterium</i>		300	1260		1200
<i>Cylindrotheca</i> sp.1	510				
<i>Nitzschia</i>					
<i>Nitzschia longissima</i>	540	630	720		780
<i>Nitzschia lorenziana</i>	780	960	1020		930
<i>Nitzschia</i> sp.3	660	1920	420		690
<i>Nitzschia</i> sp.4			780		600
<i>Nitzschia</i> sp.5			420		810
<i>Nitzschia</i> sp.9			390		780
<i>Nitzschia</i> sp.10	1080	840	390		
<i>Nitzschia</i> sp.11	360	2040	690		
<i>Pseudo-nitzschia</i>					
<i>Pseudo-nitzschia</i> sp.1	1200	2040	2880		4020
Centrales					
Eupodiscaceae					
<i>Odontella</i>					
<i>Odontella mobiliensis</i>			60		120
<i>Odontella sinensis</i>	480	840	480		540
Chaetocerotales					
Chaetocerotaceae					
<i>Bacteriastrium</i>					
<i>Bacteriastrium comosum</i>	4320	4680	8400		7800
<i>Bacteriastrium furcatum</i>	3300	2220	10860		8640
<i>Bacteriastrium hyalinum</i>	3420	7140	10800		10800
<i>Chaetoceros</i>					
<i>Chaetoceros aequatorialis</i>	1020	900	1110		900
<i>Chaetoceros affinis</i>	3480	3300	6720		4920
<i>Chaetoceros atlanticus</i>	4770	4230	5400		4080
<i>Chaetoceros coarctatus</i>		3480	7980		6720
<i>Chaetoceros compressus</i>	3420	3660	5970		4380
<i>Chaetoceros costatus</i>	2760	4020	5820		4500
<i>Chaetoceros didymus</i>	2640	3540	5760		8520
<i>Chaetoceros diversus</i>	2880	5460	5520		6420
<i>Chaetoceros eibenii</i>					5100
<i>Chaetoceros lorenzianus</i>	5700	4260	9960		4290
<i>Chaetoceros messanensis</i>		2460	3360		6540



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
	NPCPP-3CP2- NPCPP-3CP2- NPCPP-3CP2- NPCPP-3CP2-				
TAXA	PS-1	PS-2	PB-1	PB-2	
<i>Chaetoceros peruvianus</i>	2850	660	1260		1410
<i>Chaetoceros pseudocurvisetus</i>	9000	3840	5160		6090
<i>Chaetoceros tenuissimus</i>					
<i>Chaetoceros</i> sp.1			2370		
<i>Chaetoceros</i> sp.3			1680		5460
Corethrales					
Corethraceae					
<i>Corethron</i>					
<i>Corethron criophilum</i>	390	300	180		300
Coscinodiscales					
Coscinodiscaceae					
<i>Coscinodiscus</i>					
<i>Coscinodiscus gigas</i>		600			
<i>Coscinodiscus</i> sp.1	420	450	300		330
<i>Coscinodiscus</i> sp.2		600			180
<i>Coscinodiscus</i> sp.3					60
<i>Coscinodiscus</i> sp.4					
<i>Coscinodiscus</i> sp.5	240	1050	390		390
<i>Coscinodiscus</i> sp.6	300	750	300		300
<i>Coscinodiscus</i> sp.7		450			
<i>Coscinodiscus</i> sp.8	180	450	180		240
<i>Coscinodiscus</i> sp.9	180	450	360		420
<i>Coscinodiscus</i> sp.10	270	450	330		240
<i>Coscinodiscus</i> sp.11	240	150	420		240
<i>Coscinodiscus</i> sp.12		450			
<i>Coscinodiscus</i> sp.13		600			
<i>Gossierella</i>					
<i>Gossierella tropica</i>	180	120	60		60
<i>Palmeria</i>					
<i>Palmeria hardmaniana</i>	120	180	60		60
Heliopeltaceae					
<i>Actinopterychus</i>					
<i>Actinopterychus</i> sp.1	990	690	900		1260
Hemidiscaceae					
<i>Pseudoguardia</i>					
<i>Pseudoguardia recta</i>		1020	2580		1500
Eunotiales					
Eunotiaceae					
<i>Eunotia</i>					
<i>Eunotia</i> sp.1					
Fragilariiales					
Fragilariaceae					
<i>Asterionella</i>					
<i>Asterionella formosa</i>					
<i>Fragilaria</i>					
<i>Fragilaria</i> sp.1					
Hemiaulales					
Hemiaulaceae					
<i>Cerataulina</i>					
<i>Cerataulina</i> sp.1					1080



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPCPP-3CP2- PS-1	NPCPP-3CP2- PS-2	NPCPP-3CP2- PB-1	NPCPP-3CP2- PB-2	
Climacodium					
<i>Climacodium biconcavum</i>	1500	2460	1500	5190	
<i>Climacodium frauenfeldianum</i>	2160	6750	1500	3420	
Eucampia					
<i>Eucampia cornuta</i>	1440	1980	1860	1380	
<i>Eucampia zodiacus</i>	1200	2250	1140	1380	
Hemiaulus					
<i>Hemiaulus hauckii</i>	2160	1740	1560	2100	
<i>Hemiaulus indicus</i>	1980	1500	1200	2220	
<i>Hemiaulus membranaceus</i>	1980	1440	1500	1380	
<i>Hemiaulus sinensis</i>	1740	1860	2160	1380	
Leptocylindrales					
Leptocylindraceae					
<i>Leptocylindrus</i>					
<i>Leptocylindrus danicus</i>	1020			2100	
Licmophales					
Licmophoriaceae					
<i>Licmophora</i>					
<i>Licmophora flabellata</i>				1080	
Lithodesmiales					
Lithodesmaceae					
<i>Ditylum</i>					
<i>Ditylum brightwellii</i>	240	60	390	300	
<i>Ditylum sol</i>	720	600	780	840	
Naviculales					
Diploneidaceae					
<i>Diploneis</i>					
<i>Diploneis sp.1</i>	390	360	420	240	
<i>Diploneis sp.2</i>					
<i>Diploneis sp.3</i>					
Naviculaceae					
<i>Anomoeneis</i>					
<i>Anomoeneis sp.1</i>			240		
<i>Haslea</i>					
<i>Haslea wawriakae</i>	390	420	450	300	
<i>Haslea sp.1</i>	1020	780	1020	360	
<i>Meuniera</i>					
<i>Meuniera sp.1</i>	120	840	600	480	
<i>Navicula</i>					
<i>Navicula sp.1</i>	480	840	690	780	
<i>Navicula sp.2</i>	1020	690	2490	1020	
<i>Navicula sp.3</i>	1140	1200	540	1200	
<i>Navicula sp.4</i>	840	1800	1170	1380	
<i>Navicula sp.5</i>	1260	660	1200	1380	
<i>Navicula sp.6</i>	630	780	1470	990	
<i>Navicula sp.7</i>	390	540	540	750	
<i>Navicula sp.8</i>	420	450	720	630	
<i>Trachyneis</i>					
<i>Trachyneis sp.1</i>	540	630	480	450	
Pinnulariaceae					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPCPP-3CP2- PS-1	NPCPP-3CP2- PS-2	NPCPP-3CP2- PB-1	NPCPP-3CP2- PB-2	
Pinnularia					
<i>Pinnularia sp.2</i>					
Pleurosigmataceae					
<i>Gyrosigma</i>					
<i>Gyrosigma sp.1</i>	780	900	660	600	
<i>Gyrosigma sp.2</i>	840	600	720	390	
<i>Gyrosigma sp.3</i>	450	720	720	780	
<i>Pleurosigma</i>					
<i>Pleurosigma sp.1</i>	900	600	390	720	
<i>Pleurosigma sp.2</i>	480	420	390	660	
<i>Pleurosigma sp.3</i>	720	360	630	1230	
<i>Pleurosigma sp.4</i>	480	300	390	420	
<i>Pleurosigma sp.5</i>	240	240	300	360	
<i>Pleurosigma sp.6</i>	810	660	240	1290	
Stauroneidaceae					
<i>Stauroneis</i>					
<i>Stauroneis salina</i>					
Rhizosoleniales					
Rhizosoleniaceae					
<i>Dactylosolen</i>					
<i>Dactylosolen blavyanus</i>	1830	1920	1080	3000	
<i>Dactylosolen fragilissimus</i>	1500	1560	1800	3060	
<i>Dactylosolen phuketensis</i>	2520	1500	1800	4560	
<i>Guinardia</i>					
<i>Guinardia cylindrus</i>	1830	1200	1980	1260	
<i>Guinardia fleccida</i>	1680	1440	3600	1740	
<i>Guinardia striata</i>	2520	1440	1860	3300	
<i>Proboscia</i>					
<i>Proboscia alata</i>	2040	2280	1140	2280	
<i>Pseudosolenia</i>					
<i>Pseudosolenia calcar avis</i>	1410	780	2340	2310	
<i>Rhizosolenia</i>					
<i>Rhizosolenia acuminata</i>	60	60	60	120	
<i>Rhizosolenia bergonii</i>	420	1650	1470	1440	
<i>Rhizosolenia cleveii var. cleveii</i>	1080	660	990	2790	
<i>Rhizosolenia formosa</i>	120	60	120	120	
<i>Rhizosolenia hyalina</i>	1020	720	1560	1530	
<i>Rhizosolenia imbricata</i>	180	60	240	120	
<i>Rhizosolenia pungens</i>	1440	1140	1530	1980	
<i>Rhizosolenia robusta</i>	840	600	180	450	
<i>Rhizosolenia striata</i>	240	540	180	180	
<i>Rhizosolenia styliformis</i>	360	390	240	390	
<i>Rhizosolenia sp.1</i>	360	360	240	240	
Striatellales					
Striatellaceae					
<i>Striatella</i>					
<i>Striatella sp.1</i>					
Surirellales					
Entomoneidaceae					
<i>Entomoneis</i>					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPCPP-3CP2- PS-1	NPCPP-3CP2- PS-2	NPCPP-3CP2- PB-1	NPCPP-3CP2- PB-2	
<i>Entomoneis sp.1</i>	240	360	600	540	
<i>Entomoneis sp.2</i>	180	180			
Surirellaceae					
<i>Campylodiscus</i>					
<i>Campylodiscus sp.1</i>			180	120	
<i>Surirella</i>					
<i>Surirella sp.1</i>					
Thalassionematales					
Thalassionemataceae					
<i>Thalassionema</i>					
<i>Thalassionema nitzschioides</i>	6600	6600	9600	12840	
<i>Thalassionema sp.1</i>	5100	4770	5010	8040	
<i>Thalassiothrix</i>					
<i>Thalassiothrix sp.1</i>	4140	2940	3360	5640	
<i>Thalassiothrix sp.2</i>	1380	1080	1350	1620	
Thalassiosiphales					
Catenulaceae					
<i>Amphora</i>					
<i>Amphora sp.1</i>	480	240	420	360	
<i>Amphora sp.2</i>					
<i>Amphora sp.3</i>					
Thalassiosirales					
Lauderiaceae					
<i>Lauderia</i>					
<i>Lauderia annulata</i>	1200				
Skeletonemataceae					
<i>Skeletonema</i>					
<i>Skeletonema sp.1</i>					
Stephanodiscaceae					
<i>Cyclotella</i>					
<i>Cyclotella sp.1</i>	900	600	840	2010	
Thalassiosiraceae					
<i>Planktoniella</i>					
<i>Planktoniella blanda</i>	990	1200	300	900	
<i>Planktoniella sol</i>	660	840	240	480	
<i>Thalassiosira</i>					
<i>Thalassiosira subtilis</i>					
<i>Thalassiosira sp.4</i>	1980	1560	3150	3960	
<i>Thalassiosira sp.5</i>	1680	1320	1140	1680	
<i>Thalassiosira sp.6</i>					
Triceratiales					
Tricerataceae					
<i>Triceratium</i>					
<i>Triceratium favus</i>			120	120	
Pyrophytophyta					
Dinophyceae					
Dinophysiales					
Amphisoleniaceae					
<i>Amphisolenia</i>					
<i>Amphisolenia bidentata</i>	120		60	120	



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPCPP-3CP2- PS-1	NPCPP-3CP2- PS-2	NPCPP-3CP2- PB-1	NPCPP-3CP2- PB-2	
Dinophysiaceae					
<i>Histioneis</i>					
<i>Histioneis hyalina</i>					
<i>Ornithocercus</i>					
<i>Ornithocercus thumii</i>			120	60	
<i>Phalacroma</i>					
<i>Phalacroma mitra</i>					
Gonyaulacales					
Ceraticeae					
<i>Ceratium</i>					
<i>Ceratium contortum</i>				60	
<i>Ceratium deflexum</i>				60	
<i>Ceratium dens</i>			300	240	
<i>Ceratium extensum</i>					
<i>Ceratium falcatum</i>	120		120	60	
<i>Ceratium furca</i>	240	360	360	360	
<i>Ceratium fusus</i>	180	300	180	360	
<i>Ceratium gibberum</i>				60	
<i>Ceratium kofoidii</i>	60	180	240	180	
<i>Ceratium macroceros</i>				60	
<i>Ceratium massiliense</i>					
<i>Ceratium porrectum</i>				240	
<i>Ceratium schmidtii</i>				60	
<i>Ceratium trichoceros</i>	300	300	360	240	
<i>Ceratium tripos</i>	60	60	180	120	
Goniidomataceae					
<i>Goniodoma</i>					
<i>Goniodoma sp.1</i>					
Gonyaulacaceae					
<i>Lingulodinium</i>					
<i>Lingulodinium sp.1</i>			240		
Oxytoxaceae					
<i>Oxytoxum</i>					
<i>Oxytoxum sp.1</i>				300	360
<i>Oxytoxum sp.3</i>				360	390
<i>Oxytoxum sp.4</i>					
Pyrophacaceae					
<i>Pyrophacus</i>					
<i>Pyrophacus steinii</i>			60		
Gymnodiniales					
Gymnodiniaceae					
<i>Gymnodinium</i>					
<i>Gymnodinium sp.2</i>	120	60		60	
<i>Gyrodinium</i>					
<i>Gyrodinium falcatum</i>		120		120	
Peridinales					
Podolampadaceae					
<i>Podolampas</i>					
<i>Podolampas bipes</i>			60	240	
<i>Podolampas palmipes</i>			60	300	



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPCPP-3CP2- PS-1	NPCPP-3CP2- PS-2	NPCPP-3CP2- PB-1	NPCPP-3CP2- PB-2
Protoperidiniaceae				
Protoperidinium				
<i>Protoperidinium abei</i>	240	120	180	
<i>Protoperidinium asymmetricum</i>	120	120	120	120
<i>Protoperidinium conicum</i>	60	120	120	60
<i>Protoperidinium depressum</i>	300	300	300	240
<i>Protoperidinium diabolium</i>	60	60	60	60
<i>Protoperidinium divergens</i>	120	120	240	300
<i>Protoperidinium elegans</i>			120	60
<i>Protoperidinium latispinum</i>			120	240
<i>Protoperidinium oceanicum</i>				
<i>Protoperidinium pallidum</i>			120	120
Prorocentrales				
Prorocentraceae				
Prorocentrum				60
<i>Prorocentrum mexicanum</i>				60
<i>Prorocentrum micans</i>	120	120	120	
TOTAL	161490	180030	286500	282840
Number of Taxa	120	125	143	153

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPREF-A-PS- 1	NPREF-A-PS- 2	NPREF-A-PB- 1	NPREF-A-PB- 2
Charophyta				
Conjugophyceae				
Desmidiaceae				
Desmidiaceae				
<i>Spondylosium</i>				
<i>Spondylosium</i> sp.1	240		360	240
<i>Staurastrum</i>				
<i>Staurastrum</i> sp.1				60
<i>Staurastrum</i> sp.3				
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
Golenkinia				
<i>Golenkinia radiata</i>	60		240	240
Sphaeropleales				
Scenedesmaceae				
Scenedesmus				
<i>Scenedesmus</i> sp.1				
Trebouxiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
<i>Ankistrodesmus</i> sp.1	240		360	300
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
<i>Dictyocha fibula</i>	420	300	6420	6120
<i>Dictyocha speculum</i> var. <i>octonaris</i>				300
Cyanobacteria				
Cyanophyceae				
Chroococcales				
Chroococcaceae				
Gloeocapsa				
<i>Gloeocapsa</i> sp.1	1200	1260	1380	1200
Nostocales				
Oscillatoriaceae				
Oscillatoria				
<i>Oscillatoria erythraea</i>	17280	14700	19920	12960
<i>Oscillatoria</i> sp.1	11100	10980	16560	9960
Rivulariaceae				
Calothrix				
<i>Calothrix crustacea</i>	1740	4140	3120	1560
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPREF-A-PS- 1	NPREF-A-PS- 2	NPREF-A-PB- 1	NPREF-A-PB- 2
<i>Asterolampra marylandica</i>	60	240	120	300
Asteromphalus				
<i>Asteromphalus cleveanus</i>	60	240	360	360
<i>Asteromphalus elegans</i>				
<i>Asteromphalus</i> sp.1	120			
Aulacoseirales				
Aulacoseiraceae				
Aulacoseira				
<i>Aulacoseira</i> sp.1	1080			
Bacillariales				
Bacillariaceae				
Bacillaria				
<i>Bacillaria paxillifer</i>		6360	7860	10020
Cylindrotheca				
<i>Cylindrotheca closterium</i>		120	600	480
<i>Cylindrotheca</i> sp.1				
Nitzschia				
<i>Nitzschia longissima</i>	360	240	360	240
<i>Nitzschia lorenziana</i>	240	180	420	300
<i>Nitzschia</i> sp.3	120	480	780	480
<i>Nitzschia</i> sp.4			420	240
<i>Nitzschia</i> sp.5			360	360
<i>Nitzschia</i> sp.9				420
<i>Nitzschia</i> sp.10	120	540	600	
<i>Nitzschia</i> sp.11	60	1200	600	
<i>Pseudo-nitzschia</i>				
<i>Pseudo-nitzschia</i> sp.1		1740	2760	1680
Centrales				
Eupodiscaceae				
Odontella				
<i>Odontella mobiliensis</i>	360	240	360	480
<i>Odontella sinensis</i>	360	1020	660	360
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrium				
<i>Bacteriastrium comosum</i>	3120	2940	2460	4140
<i>Bacteriastrium furcatum</i>	1320	3540	3180	4920
<i>Bacteriastrium hyalinum</i>	1440	3480	2940	6540
Chaetoceros				
<i>Chaetoceros aequatorialis</i>	480	1380	420	1020
<i>Chaetoceros affinis</i>	1560	2040	2820	3540
<i>Chaetoceros atlanticus</i>	3180	2220	2160	2760
<i>Chaetoceros coarctatus</i>			3540	3720
<i>Chaetoceros compressus</i>	840	3240	3000	3360
<i>Chaetoceros costatus</i>		2280	2280	1740
<i>Chaetoceros didymus</i>	900	2100	3840	4380
<i>Chaetoceros diversus</i>	1500	3120	4260	3720
<i>Chaetoceros eibenii</i>				
<i>Chaetoceros lorenzianus</i>		2160	3360	3660
<i>Chaetoceros messanensis</i>			3840	2040



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPREF-A-PS- 1	NPREF-A-PS- 2	NPREF-A-PB- 1	NPREF-A-PB- 2
<i>Chaetoceros peruvianus</i>	240	420	960	420
<i>Chaetoceros pseudocurvisetus</i>	2880	3660	4140	3120
<i>Chaetoceros tenuissimus</i>				
<i>Chaetoceros</i> sp.1				
<i>Chaetoceros</i> sp.3				
Corethrales				
Corethraceae				
Corethron				
<i>Corethron criophilum</i>	240	180	420	180
Coscinodisciales				
Coscinodiscaceae				
Coscinodiscus				
<i>Coscinodiscus gigas</i>				
<i>Coscinodiscus</i> sp.1	300	240	300	300
<i>Coscinodiscus</i> sp.2	300	120	420	240
<i>Coscinodiscus</i> sp.3				300
<i>Coscinodiscus</i> sp.4				240
<i>Coscinodiscus</i> sp.5	300	180	420	300
<i>Coscinodiscus</i> sp.6	120	120	300	360
<i>Coscinodiscus</i> sp.7			300	300
<i>Coscinodiscus</i> sp.8	120	180	360	420
<i>Coscinodiscus</i> sp.9	60	180	420	240
<i>Coscinodiscus</i> sp.10	240	180	360	240
<i>Coscinodiscus</i> sp.11	300		180	240
<i>Coscinodiscus</i> sp.12				
<i>Coscinodiscus</i> sp.13				
Gossierella				
<i>Gossierella tropica</i>			240	300
Palmeria				
<i>Palmeria hardmaniana</i>	60	180	240	540
Heliopeltaceae				
Actinoptychus				
<i>Actinoptychus</i> sp.1	660	480	660	780
Hemidiscaceae				
Pseudoguardia				
<i>Pseudoguardia recta</i>	960	1500	1440	2280
Eunotiales				
Eunotiaceae				
Eunotia				
<i>Eunotia</i> sp.1	120			
Fragilariales				
Fragilariaceae				
Asterionella				
<i>Asterionella formosa</i>				
Fragilaria				
<i>Fragilaria</i> sp.1				
Hemiaulales				
Hemiaulaceae				
Cerataulina				
<i>Cerataulina</i> sp.1	1560	1800		1440



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPREF-A-PS- 1	NPREF-A-PS- 2	NPREF-A-PB- 1	NPREF-A-PB- 2
Climacodium				
<i>Climacodium biconcavum</i>	1800	2640	3720	2340
<i>Climacodium frauenfeldianum</i>	900		3720	1440
Eucampia				
<i>Eucampia cornuta</i>	1560	1560	1860	1200
<i>Eucampia zodiacus</i>	1920	1920	2580	1560
Hemiaulus				
<i>Hemiaulus hauckii</i>	2940	1320	3420	1320
<i>Hemiaulus indicus</i>	1440	1920	3360	3000
<i>Hemiaulus membranaceus</i>	1440	1020	3420	2040
<i>Hemiaulus sinensis</i>	3360	2280	3600	2940
Leptocylindrales				
Leptocylindraceae				
<i>Leptocylindrus</i>				
<i>Leptocylindrus danicus</i>	1800	840	1560	840
Licmophales				
Licmophoriaceae				
<i>Licmophora</i>				
<i>Licmophora flabellata</i>				
Lithodesmiales				
Lithodesmaceae				
<i>Ditylum</i>				
<i>Ditylum brightwellii</i>	60	60	420	300
<i>Ditylum sol</i>	240	360	360	300
Naviculales				
Diploneidaceae				
<i>Diploneis</i>				
<i>Diploneis</i> sp.1	600	240	420	240
<i>Diploneis</i> sp.2				
<i>Diploneis</i> sp.3				
Naviculaceae				
<i>Anomoeneis</i>				
<i>Anomoeneis</i> sp.1	480	240	360	420
<i>Haslea</i>				
<i>Haslea wawriakae</i>	360	240	240	420
<i>Haslea</i> sp.1	420	360	420	600
<i>Meuniera</i>				
<i>Meuniera</i> sp.1	360	720	840	780
<i>Navicula</i>				
<i>Navicula</i> sp.1	240	300	300	540
<i>Navicula</i> sp.2	300	240	660	1260
<i>Navicula</i> sp.3	240	360	600	480
<i>Navicula</i> sp.4	60	420	720	840
<i>Navicula</i> sp.5	60	360	480	840
<i>Navicula</i> sp.6	120	300	660	720
<i>Navicula</i> sp.7	60	240	300	300
<i>Navicula</i> sp.8	60	180	360	300
<i>Trachyneis</i>				
<i>Trachyneis</i> sp.1	420	420	360	300
Pinnulariaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPREF-A-PS- 1	NPREF-A-PS- 2	NPREF-A-PB- 1	NPREF-A-PB- 2
Pinnularia				
<i>Pinnularia</i> sp.2				
Pleurosigmataceae				
<i>Gyrosigma</i>				
<i>Gyrosigma</i> sp.1	540	360	480	360
<i>Gyrosigma</i> sp.2	420	240	540	300
<i>Gyrosigma</i> sp.3	360	540	480	360
<i>Pleurosigma</i>				
<i>Pleurosigma</i> sp.1	300	300	420	420
<i>Pleurosigma</i> sp.2	300	480	420	360
<i>Pleurosigma</i> sp.3	480	360	300	420
<i>Pleurosigma</i> sp.4	420	300	360	360
<i>Pleurosigma</i> sp.5	480		60	240
<i>Pleurosigma</i> sp.6	240	420	600	420
Stauroneidaceae				
<i>Stauroneis</i>				
<i>Stauroneis salina</i>	60			
Rhizosoleniales				
Rhizosoleniaceae				
<i>Dactylosolen</i>				
<i>Dactylosolen blavyanus</i>	960	780	1320	1320
<i>Dactylosolen fragilissimus</i>	1380	1500	2460	1200
<i>Dactylosolen phuketensis</i>	1800	1560	1800	1440
<i>Guinardia</i>				
<i>Guinardia cylindrus</i>	780	1020	720	480
<i>Guinardia fleccida</i>	1560	2520	2700	1920
<i>Guinardia striata</i>	1920	3120	2400	960
<i>Proboscia</i>				
<i>Proboscia alata</i>	1020	1080	960	2220
<i>Pseudosolenia</i>				
<i>Pseudosolenia calcar avis</i>	480	2040	720	900
<i>Rhizosolenia</i>				
<i>Rhizosolenia acuminata</i>	120	180		300
<i>Rhizosolenia bergonii</i>	480	480	360	600
<i>Rhizosolenia cleveii</i> var. <i>cleveii</i>	1140	300	600	1260
<i>Rhizosolenia formosa</i>	240		180	180
<i>Rhizosolenia hyalina</i>	360	600	480	480
<i>Rhizosolenia imbricata</i>	240	300		180
<i>Rhizosolenia pungens</i>	540	660	360	360
<i>Rhizosolenia robusta</i>	300	300	300	180
<i>Rhizosolenia striata</i>	480	360	180	480
<i>Rhizosolenia styliformis</i>	480	360	240	300
<i>Rhizosolenia</i> sp.1	240	540	300	360
Striatellales				
Striatellaceae				
<i>Striatella</i>				
<i>Striatella</i> sp.1			240	
Surirellales				
Entomoneidaceae				
<i>Entomoneis</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPREF-A-PS- 1	NPREF-A-PS- 2	NPREF-A-PB- 1	NPREF-A-PB- 2
<i>Entomoneis</i> sp.1	600	420	600	420
<i>Entomoneis</i> sp.2	240	360		360
Surirellaceae				
<i>Campylodiscus</i>				
<i>Campylodiscus</i> sp.1	120	240	300	300
<i>Surirella</i>				
<i>Surirella</i> sp.1	300		240	360
Thalassionematales				
Thalassionemataceae				
<i>Thalassionema</i>				
<i>Thalassionema nitzschoides</i>	4380	4560	6180	5100
<i>Thalassionema</i> sp.1	4740	4020	1980	5520
<i>Thalassiothrix</i>				
<i>Thalassiothrix</i> sp.1	2400	1680	3120	3480
<i>Thalassiothrix</i> sp.2	2520	2280	2520	3240
Thalassiosiphonales				
Catenulaceae				
<i>Amphora</i>				
<i>Amphora</i> sp.1	540	240	300	360
<i>Amphora</i> sp.2				360
<i>Amphora</i> sp.3	60			240
Thalassiosirales				
Lauderiaceae				
<i>Lauderia</i>				
<i>Lauderia annulata</i>	1680	960	1920	4440
Skeletonemataceae				
<i>Skeletonema</i>				
<i>Skeletonema</i> sp.1		4620		
Stephanodiscaceae				
<i>Cyclotella</i>				
<i>Cyclotella</i> sp.1	960	780	840	780
Thalassiosiraceae				
<i>Planktoniella</i>				
<i>Planktoniella blanda</i>	600	480	720	1020
<i>Planktoniella sol</i>	660	480	360	420
<i>Thalassiosira</i>				
<i>Thalassiosira subtilis</i>		3540		
<i>Thalassiosira</i> sp.4				
<i>Thalassiosira</i> sp.5	1440	1440	1440	2220
<i>Thalassiosira</i> sp.6		2100	2280	1620
Triceratiales				
Tricerataceae				
<i>Triceratium</i>				
<i>Triceratium favus</i>				
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
<i>Amphisolenia</i>				
<i>Amphisolenia bidentata</i>	420		420	240



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPREF-A-PS- 1	NPREF-A-PS- 2	NPREF-A-PB- 1	NPREF-A-PB- 2
Dinophysiaceae				
<i>Histioneis</i>				
<i>Histioneis hyalina</i>				
<i>Ornithocercus</i>				
<i>Ornithocercus thumii</i>				
<i>Phalacroma</i>				
<i>Phalacroma mitra</i>				
Gonyaulacales				
Ceratiaceae				
<i>Ceratium</i>				
<i>Ceratium contortum</i>	240			180
<i>Ceratium deflexum</i>	120			180
<i>Ceratium dens</i>	480		660	300
<i>Ceratium extensum</i>				120
<i>Ceratium falcatum</i>	240		120	180
<i>Ceratium furca</i>	480	420	420	420
<i>Ceratium fuscum</i>	300	420	480	240
<i>Ceratium gibberum</i>				300
<i>Ceratium kofoidii</i>	300	300	300	360
<i>Ceratium macroceros</i>				300
<i>Ceratium massiliense</i>				
<i>Ceratium porrectum</i>				300
<i>Ceratium schmidtii</i>				120
<i>Ceratium trichoceros</i>	360	420	420	360
<i>Ceratium tripos</i>	360		240	180
Goniidomataceae				
<i>Goniidoma</i>				
<i>Goniidoma</i> sp.1				
Gonyaulacaceae				
<i>Lingulodinium</i>				
<i>Lingulodinium</i> sp.1			180	
Oxytoxaceae				
<i>Oxytoxum</i>				
<i>Oxytoxum</i> sp.1			180	180
<i>Oxytoxum</i> sp.3			240	300
<i>Oxytoxum</i> sp.4			180	
Pyrophacaceae				
<i>Pyrophacus</i>				
<i>Pyrophacus steinii</i>				
Gymnodiniales				
Gymnodiniaceae				
<i>Gymnodinium</i>				
<i>Gymnodinium</i> sp.2				120
<i>Gyrodinium</i>				
<i>Gyrodinium falcatum</i>	180			
Peridinales				
Podolampadaceae				
<i>Podolampas</i>				
<i>Podolampas bipes</i>			360	120
<i>Podolampas palmipes</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPREF-A-PS-	NPREF-A-PS-	NPREF-A-PB-	NPREF-A-PB-
	1	2	1	2
Protoperidiniaceae				
Protoperidinium				
<i>Protoperidinium abei</i>	120	240	240	
<i>Protoperidinium asymmetricum</i>	120	180	180	180
<i>Protoperidinium conicum</i>		300	120	240
<i>Protoperidinium depressum</i>	60	300	360	300
<i>Protoperidinium diabolium</i>		180	120	120
<i>Protoperidinium divergens</i>	120	240	240	360
<i>Protoperidinium elegans</i>				180
<i>Protoperidinium latissimum</i>			240	180
<i>Protoperidinium oceanicum</i>				
<i>Protoperidinium pallidum</i>				180
Prorocentrales				
Prorocentraceae				
Prorocentrum				180
<i>Prorocentrum mexicanum</i>			240	480
<i>Prorocentrum micans</i>	180	180		
TOTAL	122700	152520	197340	187260
Number of Taxa	129	119	138	154

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWB-1CP2-	NPWB-1CP2-	NPWB-1CP2-	NPWB-1CP2-
	PS-1	PS-2	PB-1	PB-2
Charophyta				
Conjugophyceae				
Desmidiaceae				
Desmidiaceae				
<i>Spondylosium</i>			420	480
<i>Spondylosium</i> sp.1				
<i>Staurastrum</i> sp.1			240	420
<i>Staurastrum</i> sp.3				
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
<i>Golenkinia</i>				
<i>Golenkinia radiata</i>	180	300	240	300
Sphaeropleales				
Scenedesmaceae				
Scenedesmus				
<i>Scenedesmus</i> sp.1				
Trebouxiophyceae				
Oocystales				
Oocystaceae				
<i>Ankistrodesmus</i>			300	300
<i>Ankistrodesmus</i> sp.1	180			
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
<i>Dictyocha fibula</i>	180	1200	1860	1380
<i>Dictyocha speculum</i> var. <i>octonaris</i>			840	
Cyanobacteria				
Cyanophyceae				
Chroococcales				
Chroococcaceae				
Gloeocapsa				
<i>Gloeocapsa</i> sp.1			3600	
Nostocales				
Oscillatoriaceae				
Oscillatoria				
<i>Oscillatoria erythraea</i>	39660	44280	59100	52860
<i>Oscillatoria</i> sp.1	16380	16320	22920	19560
Rivulariaceae				
<i>Calothrix</i>				
<i>Calothrix crustacea</i>	2220	3000	3300	2820
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWB-1CP2-	NPWB-1CP2-	NPWB-1CP2-	NPWB-1CP2-
	PS-1	PS-2	PB-1	PB-2
<i>Asterolampra marylandica</i>	300	300	240	240
Asteromphalus				
<i>Asteromphalus cleveanus</i>	300	480	240	180
<i>Asteromphalus elegans</i>			120	
<i>Asteromphalus</i> sp.1		600	180	
Aulacoseirales				
Aulacoseiraceae				
Aulacoseira				
<i>Aulacoseira</i> sp.1	1320	3120	3780	1320
Bacillariales				
Bacillariaceae				
Bacillaria				
<i>Bacillaria paxillifer</i>	3780	7320	17640	23220
Cylindrotheca				
<i>Cylindrotheca closterium</i>	120			1200
<i>Cylindrotheca</i> sp.1				
Nitzschia				
<i>Nitzschia longissima</i>	120	840	480	600
<i>Nitzschia lorenziana</i>	120	1440	180	1080
<i>Nitzschia</i> sp.3	300	600	840	840
<i>Nitzschia</i> sp.4	360	1140	540	900
<i>Nitzschia</i> sp.5	240	1200	1140	840
<i>Nitzschia</i> sp.9	240	960	360	420
<i>Nitzschia</i> sp.10	780	960	960	1140
<i>Nitzschia</i> sp.11	1080	1320	1140	540
<i>Pseudo-nitzschia</i>				
<i>Pseudo-nitzschia</i> sp.1		3840	2820	3480
Centrales				
Eupodiscaceae				
Odontella				
<i>Odontella mobiliensis</i>	240	300	240	300
<i>Odontella sinensis</i>	240	600	660	420
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrium				
<i>Bacteriastrium comosum</i>	4260	12480	10800	14580
<i>Bacteriastrium furcatum</i>	4140	15120	10440	11520
<i>Bacteriastrium hyalinum</i>	6120	22920	21240	25380
Chaetoceros				
<i>Chaetoceros aequatorialis</i>	1260	3000	1260	3780
<i>Chaetoceros affinis</i>	3060	3720	8640	7200
<i>Chaetoceros atlanticus</i>	4440	3840	7620	10440
<i>Chaetoceros coarctatus</i>	2760	9480	10980	15120
<i>Chaetoceros compressus</i>	3240	9360	6480	12960
<i>Chaetoceros costatus</i>	2040	6540	9300	8280
<i>Chaetoceros didymus</i>	4380	12420	13320	16020
<i>Chaetoceros diversus</i>	7620	15180	12780	9780
<i>Chaetoceros eibonii</i>	3600	4620	5100	18000
<i>Chaetoceros lorenzianus</i>	4320	4140	6960	18900
<i>Chaetoceros messanensis</i>	4200	6060	6000	8640



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWB-1CP2-	NPWB-1CP2-	NPWB-1CP2-	NPWB-1CP2-
	PS-1	PS-2	PB-1	PB-2
<i>Chaetoceros peruvianus</i>	1320	1800	1440	2100
<i>Chaetoceros pseudocurvisetus</i>	5040	5940	7980	10620
<i>Chaetoceros tenuissimus</i>			6120	3900
<i>Chaetoceros</i> sp.1				
<i>Chaetoceros</i> sp.3				
Corethrales				
Corethraceae				
Corethron				
<i>Corethron criophilum</i>	300	360	480	540
Coscinodiscales				
Coscinodiscaceae				
Coscinodiscus				
<i>Coscinodiscus gigas</i>			660	2340
<i>Coscinodiscus</i> sp.1	420	840		
<i>Coscinodiscus</i> sp.2	300	720	300	240
<i>Coscinodiscus</i> sp.3				
<i>Coscinodiscus</i> sp.4	360	480	240	120
<i>Coscinodiscus</i> sp.5	480	600	300	420
<i>Coscinodiscus</i> sp.6	240	600	360	300
<i>Coscinodiscus</i> sp.7				
<i>Coscinodiscus</i> sp.8				240
<i>Coscinodiscus</i> sp.9	360	600	300	420
<i>Coscinodiscus</i> sp.10	420	480	840	900
<i>Coscinodiscus</i> sp.11	480	600	660	540
<i>Coscinodiscus</i> sp.12				
<i>Coscinodiscus</i> sp.13				
Gossierella				
<i>Gossierella tropica</i>	60	300	480	300
Palmeria				
<i>Palmeria hardmaniana</i>		240	420	240
Heliopeltaceae				
Actinoptychus				
<i>Actinoptychus</i> sp.1	900	1020	840	660
Hemidiscaceae				
Pseudoguardia				
<i>Pseudoguardia recta</i>	3060	1440	1980	3240
Eunotiales				
Eunotiaceae				
Eunotia				
<i>Eunotia</i> sp.1		540	240	300
Fragilariiales				
Fragilariaceae				
Asterionella				
<i>Asterionella formosa</i>				
Fragilaria				
<i>Fragilaria</i> sp.1				
Hemiaulales				
Hemiaulaceae				
Cerataulina				
<i>Cerataulina</i> sp.1		5640	3780	2280



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWB-1CP2- PS-1	NPWB-1CP2- PS-2	NPWB-1CP2- PB-1	NPWB-1CP2- PB-2
Climacodium				
<i>Climacodium biconcavum</i>	3180	2400	4740	6000
<i>Climacodium frauenfeldianum</i>	1620	3120	3600	3240
Eucampia				
<i>Eucampia cornuta</i>	1320	2880	3420	1200
<i>Eucampia zodiacus</i>	840	2400	3120	2520
Hemiaulus				
<i>Hemiaulus hauckii</i>	3000	3300	3720	3960
<i>Hemiaulus indicus</i>	1260	3360	3180	3120
<i>Hemiaulus membranaceus</i>	1380	2100	3840	4320
<i>Hemiaulus sinensis</i>	3060	3240	3720	5100
Leptocylindrales				
Leptocylindraceae				
<i>Leptocylindrus</i>				
<i>Leptocylindrus danicus</i>	2400	1200	1260	2040
Licmophales				
Licmophoriaceae				
<i>Licmophora</i>				
<i>Licmophora flabellata</i>				
Lithodesmiales				
Lithodesmaceae				
<i>Ditylum</i>				
<i>Ditylum brightwellii</i>	240	360	1980	720
<i>Ditylum sol</i>	300	360	1440	420
Naviculales				
Diploneidaceae				
<i>Diploneis</i>				
<i>Diploneis sp.1</i>	300	480	720	480
<i>Diploneis sp.2</i>				
<i>Diploneis sp.3</i>	120	180		
Naviculaceae				
<i>Anomoeneis</i>				
<i>Anomoeneis sp.1</i>	300	360	480	540
<i>Haslea</i>				
<i>Haslea wawriakae</i>	360	780	420	360
<i>Haslea sp.1</i>	240	420	600	360
<i>Meuniera</i>				
<i>Meuniera sp.1</i>	960	780	1020	1020
<i>Navicula</i>				
<i>Navicula sp.1</i>	420	660	1620	780
<i>Navicula sp.2</i>	420	1800	2160	3060
<i>Navicula sp.3</i>	480	1020	1560	480
<i>Navicula sp.4</i>	720	600	1140	300
<i>Navicula sp.5</i>	480	420	1440	420
<i>Navicula sp.6</i>	360	420	1440	240
<i>Navicula sp.7</i>	300	840	1740	660
<i>Navicula sp.8</i>	180	780	1200	600
<i>Trachyneis</i>				
<i>Trachyneis sp.1</i>	720	960	720	720
Pinnulariaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWB-1CP2- PS-1	NPWB-1CP2- PS-2	NPWB-1CP2- PB-1	NPWB-1CP2- PB-2
Pinnularia				
<i>Pinnularia sp.2</i>				
Pleurosigmataceae				
<i>Gyrosigma</i>				
<i>Gyrosigma sp.1</i>	300	840	660	480
<i>Gyrosigma sp.2</i>	360	720	780	480
<i>Gyrosigma sp.3</i>	240	780	1200	600
<i>Pleurosigma</i>				
<i>Pleurosigma sp.1</i>	360	840	480	660
<i>Pleurosigma sp.2</i>	300	480	540	720
<i>Pleurosigma sp.3</i>	300	840	600	780
<i>Pleurosigma sp.4</i>	240	1320	540	420
<i>Pleurosigma sp.5</i>	240		300	360
<i>Pleurosigma sp.6</i>	360	960	780	900
Stauroneidaceae				
<i>Stauroneis</i>				
<i>Stauroneis salina</i>				
Rhizosoleniales				
Rhizosoleniaceae				
<i>Dactylosolen</i>				
<i>Dactylosolen blavyanus</i>	2220	4320	3720	3480
<i>Dactylosolen fragilissimus</i>	2280	3960	2340	2700
<i>Dactylosolen phuketensis</i>	2280	2940	2700	2940
<i>Guinardia</i>				
<i>Guinardia cylindrus</i>	1080	720	1980	780
<i>Guinardia fleccida</i>	2700	3840	3540	3060
<i>Guinardia striata</i>	2040	4620	4680	4320
<i>Proboscia</i>				
<i>Proboscia alata</i>	1260	1620	2100	1680
<i>Pseudosolenia</i>				
<i>Pseudosolenia calcar avis</i>	780	1560	1260	2040
<i>Rhizosolenia</i>				
<i>Rhizosolenia acuminata</i>	60	300	240	120
<i>Rhizosolenia bergonii</i>	360	1320	1980	600
<i>Rhizosolenia cleveii var. cleveii</i>	360	2280	900	1800
<i>Rhizosolenia formosa</i>			240	180
<i>Rhizosolenia hyalina</i>	480	1380	780	1020
<i>Rhizosolenia imbricata</i>		360	360	300
<i>Rhizosolenia pungens</i>	540	1200	900	1080
<i>Rhizosolenia robusta</i>		600	480	420
<i>Rhizosolenia striata</i>	360	480	240	360
<i>Rhizosolenia styliformis</i>	540	300	300	360
<i>Rhizosolenia sp.1</i>	240	1560	360	360
Striatellales				
Striatellaceae				
<i>Striatella</i>				
<i>Striatella sp.1</i>				
Surirellales				
Entomoneidaceae				
<i>Entomoneis</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWB-1CP2- PS-1	NPWB-1CP2- PS-2	NPWB-1CP2- PB-1	NPWB-1CP2- PB-2
<i>Entomoneis sp.1</i>	360	480	660	660
<i>Entomoneis sp.2</i>		600	300	120
Surirellaceae				
<i>Campylodiscus</i>				
<i>Campylodiscus sp.1</i>	180	120	900	180
<i>Surirella</i>				
<i>Surirella sp.1</i>	120	180	180	480
Thalassionematales				
Thalassionemataceae				
<i>Thalassionema</i>				
<i>Thalassionema nitzschioides</i>	5940	8400	11160	17640
<i>Thalassionema sp.1</i>	24480	27480	13980	8280
<i>Thalassiothrix</i>				
<i>Thalassiothrix sp.1</i>	2760	3120	4980	12960
<i>Thalassiothrix sp.2</i>	2040	2040	3420	3060
Thalassiosiphonales				
Catenulaceae				
<i>Amphora</i>				
<i>Amphora sp.1</i>	240	660	480	660
<i>Amphora sp.2</i>				
<i>Amphora sp.3</i>		300		
Thalassiosirales				
Lauderiaceae				
<i>Lauderia</i>				
<i>Lauderia annulata</i>	1740	1380	1860	1500
Skeletonemataceae				
<i>Skeletonema</i>				
<i>Skeletonema sp.1</i>				
Stephanodiscaceae				
<i>Cyclotella</i>				
<i>Cyclotella sp.1</i>	1620	1500	1020	1560
Thalassiosiraceae				
<i>Planktoniella</i>				
<i>Planktoniella blanda</i>	360	900	600	1080
<i>Planktoniella sol</i>	420	420	240	420
<i>Thalassiosira</i>				
<i>Thalassiosira subtilis</i>				
<i>Thalassiosira sp.4</i>				3180
<i>Thalassiosira sp.5</i>	960	3840	3240	3420
<i>Thalassiosira sp.6</i>		2700	3060	3360
Triceratiales				
Tricerataceae				
<i>Triceratium</i>				
<i>Triceratium favus</i>				
Pyrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
<i>Amphisolenia</i>				
<i>Amphisolenia bidentata</i>	180	300	480	300



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWB-1CP2- PS-1	NPWB-1CP2- PS-2	NPWB-1CP2- PB-1	NPWB-1CP2- PB-2
Dinophysiaceae				
<i>Histioneis</i>				
<i>Histioneis hyalina</i>			120	
<i>Ornithocercus</i>				
<i>Ornithocercus thumii</i>	180		120	
<i>Phalacroma</i>				
<i>Phalacroma mitra</i>				
Gonyaulacales				
Ceratiaceae				
<i>Ceratium</i>				
<i>Ceratium contortum</i>				
<i>Ceratium deflexum</i>				
<i>Ceratium dens</i>	600		180	60
<i>Ceratium extensum</i>				
<i>Ceratium falcatum</i>	360			
<i>Ceratium furca</i>	300	600	600	360
<i>Ceratium fusus</i>	420	600	540	480
<i>Ceratium gibberum</i>				
<i>Ceratium kofoidii</i>				
<i>Ceratium macroceros</i>	360			300
<i>Ceratium massiliense</i>				180
<i>Ceratium porrectum</i>	300			420
<i>Ceratium schmidtii</i>				
<i>Ceratium trichoceros</i>	420	480	540	360
<i>Ceratium tripos</i>				
Goniodomataceae				
<i>Goniodoma</i>				
<i>Goniodoma sp.1</i>				
Gonyaulacaceae				
<i>Lingulodinium</i>				
<i>Lingulodinium sp.1</i>				
Oxytoxaceae				
<i>Oxytoxum</i>				
<i>Oxytoxum sp.1</i>				
<i>Oxytoxum sp.3</i>				
<i>Oxytoxum sp.4</i>			420	
Pyrophacaceae				
<i>Pyrophacus</i>				
<i>Pyrophacus steinii</i>				
Gymnodiniales				
Gymnodiniaceae				
<i>Gymnodinium</i>				
<i>Gymnodinium sp.2</i>				240
<i>Gyrodinium</i>				
<i>Gyrodinium falcatum</i>	180		180	180
Peridinales				
Podolampadaceae				
<i>Podolampas</i>				
<i>Podolampas bipes</i>				
<i>Podolampas palmipes</i>	240		300	



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWB-1CP2- PS-1	NPWB-1CP2- PS-2	NPWB-1CP2- PB-1	NPWB-1CP2- PB-2
Protoperdiniaceae				
Protoperdinium				
Protoperdinium abei				180
Protoperdinium asymmetricum	120	300	120	60
Protoperdinium conicum	120		300	240
Protoperdinium depressum	120	240	480	300
Protoperdinium diabolium		120		240
Protoperdinium divergens	120	120	360	360
Protoperdinium elegans				
Protoperdinium latispinum	120	240	360	360
Protoperdinium oceanicum				
Protoperdinium pallidum				
Prorocentrales				
Prorocentraceae				
Prorocentrum				
Prorocentrum mexicanum			540	420
Prorocentrum micans				
TOTAL	228120	373920	419680	464160
Number of Taxa	129	130	144	143

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
Spondylosium sp.1	45.5	23.06	17	96
Calothrix crustacea	9.73	3.03	5	15
Oscillatoria erythraea	153.87	38.21	86	225
Oscillatoria sp.1	78.5	20.27	44	113

Phytoplankton density (unit/bottle)				
TAXA	NPWB-3CP2- PS-1	NPWB-3CP2- PS-2	NPWB-3CP2- PB-1	NPWB-3CP2- PB-2
Charophyta				
Conjugophyceae				
Desmidiaceae				
Desmidiaceae				
Spondylosium				
Spondylosium sp.1	300	300	300	420
Staurastrum				
Staurastrum sp.1			300	300
Staurastrum sp.3			120	
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
Golenkinia				
Golenkinia radiata	180	120	120	180
Sphaeropleales				
Scenedesmaceae				
Scenedesmus				
Scenedesmus sp.1				
Trebouxiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
Ankistrodesmus sp.1	180	240	240	300
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
Dictyocha fibula	1020	780	1620	1020
Dictyocha speculum var. octonaris				300
Cyanobacteria				
Cyanophyceae				
Chroococcales				
Chroococcaceae				
Gloeocapsa				
Gloeocapsa sp.1	3300	2160	4620	2160
Nostocales				
Oscillatoriaceae				
Oscillatoria				
Oscillatoria erythraea	38340	58140	31620	43200
Oscillatoria sp.1	13200	11580	13860	14940
Rivulariaceae				
Calothrix				
Calothrix crustacea	2580	2820	1380	2340
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				



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Principal Taxonomist



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWB-3CP2- PS-1	NPWB-3CP2- PS-2	NPWB-3CP2- PB-1	NPWB-3CP2- PB-2
Asterolampra marylandica	240	240	360	360
Asteromphalus				
Asteromphalus cleveanus	300	240	420	240
Asteromphalus elegans			120	
Asteromphalus sp.1	240	420		240
Aulacoseirales				
Aulacoseiraceae				
Aulacoseira				
Aulacoseira sp.1	3540	2340	6420	4500
Bacillariales				
Bacillariaceae				
Bacillaria				
Bacillaria paxillifer	16860	16800	20880	19800
Cylindrotheca				
Cylindrotheca closterium	1020	480	1440	720
Cylindrotheca sp.1	420			
Nitzschia				
Nitzschia longissima	180	420	540	660
Nitzschia lorenziana	1140	600	1200	1020
Nitzschia sp.3	780	2520	540	600
Nitzschia sp.4			720	480
Nitzschia sp.5			960	540
Nitzschia sp.9			720	1560
Nitzschia sp.10	1320	1500	780	
Nitzschia sp.11	600	900	1320	
Pseudo-nitzschia				
Pseudo-nitzschia sp.1	4860	6840	5880	6240
Centrales				
Eupodiscaceae				
Odontella				
Odontella mobiliensis	480	300	360	480
Odontella sinensis	420	840	780	840
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrium				
Bacteriastrium comosum	14040	16980	11760	10680
Bacteriastrium furcatum	10920	18180	13380	16080
Bacteriastrium hyalinum	23400	13560	20160	23400
Chaetoceros				
Chaetoceros aequatorialis	2460	1980	2160	1860
Chaetoceros affinis	8940	4860	8460	8760
Chaetoceros atlanticus	9420	7260	4680	12660
Chaetoceros coarctatus	7960	9840	10380	17940
Chaetoceros compressus	7860	10020	8580	11880
Chaetoceros costatus	5820	8460	6960	9060
Chaetoceros didymus	11340	8340	6660	12960
Chaetoceros diversus	11940	8400	6960	16260
Chaetoceros eibonii			5940	6120
Chaetoceros lorenzianus	6840	5580	10860	6300
Chaetoceros messanensis	6960	9780	3480	12120



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWB-3CP2- PS-1	NPWB-3CP2- PS-2	NPWB-3CP2- PB-1	NPWB-3CP2- PB-2
Chaetoceros peruvianus	2640	1260	1200	2340
Chaetoceros pseudocurvisetus	10380	8160	6480	9840
Chaetoceros tenuissimus			4320	
Chaetoceros sp.1			5820	
Chaetoceros sp.3			7800	9300
Corethrales				
Corethraceae				
Corethron				
Corethron criophilum	240	480	300	480
Coscinodiscales				
Coscinodiscaceae				
Coscinodiscus				
Coscinodiscus gigas				
Coscinodiscus sp.1	480	480	660	600
Coscinodiscus sp.2	420	480	300	240
Coscinodiscus sp.3				
Coscinodiscus sp.4				
Coscinodiscus sp.5	300	180	180	480
Coscinodiscus sp.6	420	900	420	300
Coscinodiscus sp.7				
Coscinodiscus sp.8	540		240	240
Coscinodiscus sp.9	240	540	480	360
Coscinodiscus sp.10	300	540	660	360
Coscinodiscus sp.11		300	480	480
Coscinodiscus sp.12				
Coscinodiscus sp.13				
Gossierella				
Gossierella tropica	120	1620	180	240
Palmeria				
Palmeria hardmaniana	300	240	300	420
Heliopeltaceae				
Actinoptychus				
Actinoptychus sp.1	600	720	600	1140
Hemidiscaceae				
Pseudoguardia				
Pseudoguardia recta	3480	1560	3900	6660
Eunotiales				
Eunotiaceae				
Eunotia				
Eunotia sp.1			480	
Fragilariaceae				
Asterionella				
Asterionella formosa				
Fragilaria				
Fragilaria sp.1				
Hemiaulales				
Hemiaulaceae				
Cerataulina				
Cerataulina sp.1	3900	4500		5400



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPWB-3CP2- PS-1	NPWB-3CP2- PS-2	NPWB-3CP2- PB-1	NPWB-3CP2- PB-2	
Climacodium					
<i>Climacodium biconcavum</i>	5520	2220	4920	7020	
<i>Climacodium frauenfeldianum</i>	3900	6300	3960	7200	
Eucampia					
<i>Eucampia cornuta</i>	3360	5040	3960	4080	
<i>Eucampia zodiacus</i>	2520	4320	6480	6120	
Hemiaulus					
<i>Hemiaulus hauckii</i>	4500	2700	4860	4320	
<i>Hemiaulus indicus</i>	3120	5340	3960	5580	
<i>Hemiaulus membranaceus</i>	3180	6780	5580	5220	
<i>Hemiaulus sinensis</i>	4680	6120	4320	6060	
Leptocylindrales					
Leptocylindraceae					
<i>Leptocylindrus</i>					
<i>Leptocylindrus danicus</i>	3600	5100	5460	3600	
Licmophales					
Licmophoriaceae					
Licmophora					
<i>Licmophora flabellata</i>				1380	
Lithodesmiales					
Lithodesmaceae					
<i>Ditylum</i>					
<i>Ditylum brightwellii</i>	240	240	180	300	
<i>Ditylum sol</i>	420	360	300	420	
Naviculales					
Diploneidaceae					
Diploneis					
<i>Diploneis sp.1</i>	720	660	480	300	
<i>Diploneis sp.2</i>					
<i>Diploneis sp.3</i>				180	
Naviculaceae					
Anomoeneis					
<i>Anomoeneis sp.1</i>	420	420	240	480	
Haslea					
<i>Haslea wawriakae</i>	240	480	480	420	
<i>Haslea sp.1</i>	420	420	360	720	
Meuniera					
<i>Meuniera sp.1</i>	540	600	600	2340	
Navicula					
<i>Navicula sp.1</i>	420	1140	840	1500	
<i>Navicula sp.2</i>	6840	420	3660	3780	
<i>Navicula sp.3</i>	1560	960	780	840	
<i>Navicula sp.4</i>	1020	2100	360	2040	
<i>Navicula sp.5</i>	1440	780	480	1080	
<i>Navicula sp.6</i>	420	960	420	780	
<i>Navicula sp.7</i>	480	840	660	480	
<i>Navicula sp.8</i>	420	660	960	660	
Trachyneis					
<i>Trachyneis sp.1</i>	480	660	840	660	
Pinnulariaceae					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPWB-3CP2- PS-1	NPWB-3CP2- PS-2	NPWB-3CP2- PB-1	NPWB-3CP2- PB-2	
Pinnularia					
<i>Pinnularia sp.2</i>	420		540	600	
Pleurosigmataceae					
Gyrosigma					
<i>Gyrosigma sp.1</i>	660	960	600	1140	
<i>Gyrosigma sp.2</i>	840	600	480	780	
<i>Gyrosigma sp.3</i>	840	780	660	1380	
Pleurosigma					
<i>Pleurosigma sp.1</i>	780	1740	1020	600	
<i>Pleurosigma sp.2</i>	600	1380	780	480	
<i>Pleurosigma sp.3</i>	720	480	960	720	
<i>Pleurosigma sp.4</i>	420	360	780	540	
<i>Pleurosigma sp.5</i>	420	180	360	300	
<i>Pleurosigma sp.6</i>	780	1260	660	1260	
Stauroneidaceae					
Stauroneis					
<i>Stauroneis salina</i>					
Rhizosoleniales					
Rhizosoleniaceae					
Dactylosolen					
<i>Dactylosolen blavyanus</i>	1740	8580	5940	5640	
<i>Dactylosolen fragilissimus</i>	1740	7320	4860	3300	
<i>Dactylosolen phuketensis</i>	3600	7200	5400	7440	
Guinardia					
<i>Guinardia cylindrus</i>	1500	7200	3960	480	
<i>Guinardia fleccida</i>	4020	3720	6120	5760	
<i>Guinardia striata</i>	3480	8880	5040	6420	
Proboscia					
<i>Proboscia alata</i>	3420	3360	3660	4200	
Pseudosolenia					
<i>Pseudosolenia calcar avis</i>	2340	3000	3300	1860	
Rhizosolenia					
<i>Rhizosolenia acuminata</i>	60	120	120	120	
<i>Rhizosolenia bergonii</i>	600	1440	1680	1560	
<i>Rhizosolenia cleveii var. cleveii</i>	1800	1800	1140	1380	
<i>Rhizosolenia formosa</i>	240	360	240	240	
<i>Rhizosolenia hyalina</i>	1080	1380	1620	1500	
<i>Rhizosolenia imbricata</i>	360	240	300	240	
<i>Rhizosolenia pungens</i>	2340	2700	1920	1980	
<i>Rhizosolenia robusta</i>	600	720	780	1140	
<i>Rhizosolenia striata</i>	300	300	600	360	
<i>Rhizosolenia styliformis</i>	360	480	540	240	
<i>Rhizosolenia sp.1</i>	480	300	600	420	
Striatellales					
Striatellaceae					
Striatella					
<i>Striatella sp.1</i>			300		
Surirellales					
Entomoneidaceae					
Entomoneis					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPWB-3CP2- PS-1	NPWB-3CP2- PS-2	NPWB-3CP2- PB-1	NPWB-3CP2- PB-2	
<i>Entomoneis sp.1</i>	420	960	480	660	
<i>Entomoneis sp.2</i>	360	300	240	360	
Surirellaceae					
Campylodiscus					
<i>Campylodiscus sp.1</i>	420	480	420	240	
Surirella					
<i>Surirella sp.1</i>		240	420	420	
Thalassionematales					
Thalassionemataceae					
Thalassionema					
<i>Thalassionema nitzschioides</i>	9300	12120	11460	15060	
<i>Thalassionema sp.1</i>	8640	5220	7140	9240	
Thalassiothrix					
<i>Thalassiothrix sp.1</i>	6300	5040	6300	6420	
<i>Thalassiothrix sp.2</i>	2460	2160	1620	2220	
Thalassiosiphonales					
Catenulaceae					
Amphora					
<i>Amphora sp.1</i>	540	300	420	420	
<i>Amphora sp.2</i>					
<i>Amphora sp.3</i>	240			180	
Thalassiosirales					
Lauderiaceae					
Lauderia					
<i>Lauderia annulata</i>		1140	2040	2460	
Skeletonemataceae					
Skeletonema					
<i>Skeletonema sp.1</i>					
Stephanodiscaceae					
Cyclotella					
<i>Cyclotella sp.1</i>	1260	1020	2580	3000	
Thalassiosiraceae					
Planktoniella					
<i>Planktoniella blanda</i>	840	1140	900	1320	
<i>Planktoniella sol</i>	840	780	420	540	
Thalassiosira					
<i>Thalassiosira subtilis</i>					
<i>Thalassiosira sp.4</i>	4440	3060	2820	3660	
<i>Thalassiosira sp.5</i>	3060	2520	5040	2580	
<i>Thalassiosira sp.6</i>					
Triceratiales					
Tricerataceae					
Triceratium					
<i>Triceratium favus</i>					
Pyrrophyceae					
Dinophyceae					
Dinophysiales					
Amphisoleniaceae					
Amphisolenia					
<i>Amphisolenia bidentata</i>	240		420	240	



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Principal Taxonomist



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPWB-3CP2- PS-1	NPWB-3CP2- PS-2	NPWB-3CP2- PB-1	NPWB-3CP2- PB-2	
Protoperdiniaceae					
Protoperdinium					
<i>Protoperdinium abei</i>	60	60	420		
<i>Protoperdinium asymmetricum</i>	120	240	240	300	
<i>Protoperdinium conicum</i>	60	60	240	180	
<i>Protoperdinium depressum</i>	300	300	360	420	
<i>Protoperdinium diabolium</i>	60	120	120	60	
<i>Protoperdinium divergens</i>	300	300	420	480	
<i>Protoperdinium elegans</i>			60	180	
<i>Protoperdinium latispinum</i>			240	240	
<i>Protoperdinium oceanicum</i>					
<i>Protoperdinium pallidum</i>				60	
Prorocentrales					
Prorocentraceae					
Prorocentrum					
<i>Prorocentrum mexicanum</i>				240	
<i>Prorocentrum micans</i>	360	240	420	180	
TOTAL	374220	418440	412800	485280	
Number of Taxa	136	134	152	156	

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPWG-1CP2- PS-1	NPWG-1CP2- PS-2	NPWG-1CP2- PB-1	NPWG-1CP2- PB-2	
Charophyta					
Conjugophyceae					
Desmidiaceae					
Desmidiaceae					
<i>Spondylosium</i>					
<i>Spondylosium</i> sp.1	360	240	480	240	
<i>Staurastrum</i>					
<i>Staurastrum</i> sp.1			240	300	
<i>Staurastrum</i> sp.3					
Chlorophyta					
Chlorophyceae					
Chlamydomonadales					
Micractiniaceae					
Golenkinia					
<i>Golenkinia radiata</i>	120		120	240	
Sphaeropleales					
Scenedesmaceae					
Scenedesmus					
<i>Scenedesmus</i> sp.1					
Trebouxiophyceae					
Oocystales					
Oocystaceae					
Ankistrodesmus					
<i>Ankistrodesmus</i> sp.1	60		240	180	
Chrysophyta					
Chrysophyceae					
Dictyochales					
Dictyochaceae					
Dictyocha					
<i>Dictyocha fibula</i>	900	960	420	1200	
<i>Dictyocha speculum</i> var. <i>octonaris</i>			240		
Cyanobacteria					
Cyanophyceae					
Chroococcales					
Chroococcaceae					
Gloeocapsa					
<i>Gloeocapsa</i> sp.1					
Nostocales					
Oscillatoriaceae					
Oscillatoria					
<i>Oscillatoria erythraea</i>	16260	36240	35580	49560	
<i>Oscillatoria</i> sp.1	8700	13860	9540	14520	
Rivulariaceae					
Calothrix					
<i>Calothrix crustacea</i>	2040	2280	1980	1980	
Ochrophyta					
Bacillariophyceae					
Asterolamprales					
Asterolampraceae					
Asterolampra					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPWG-1CP2- PS-1	NPWG-1CP2- PS-2	NPWG-1CP2- PB-1	NPWG-1CP2- PB-2	
<i>Asterolampra marylandica</i>	240	300	300	180	
Asteromphalus					
<i>Asteromphalus cleveanus</i>	120	120	180	120	
<i>Asteromphalus elegans</i>			120		
<i>Asteromphalus</i> sp.1	360	240	300		
Aulacoseirales					
Aulacoseiraceae					
Aulacoseira					
<i>Aulacoseira</i> sp.1					
Bacillariales					
Bacillariaceae					
Bacillaria					
<i>Bacillaria paxillifer</i>	7500	7620	15660	19500	
Cylindrotheca					
<i>Cylindrotheca closterium</i>	900			1680	
<i>Cylindrotheca</i> sp.1					
Nitzschia					
<i>Nitzschia longissima</i>	300	1020	1260	1560	
<i>Nitzschia lorenziana</i>	900	1440	1680	2340	
<i>Nitzschia</i> sp.3	900	600	660	1380	
<i>Nitzschia</i> sp.4	420	1560	1020	1320	
<i>Nitzschia</i> sp.5	540	1320	600	840	
<i>Nitzschia</i> sp.9	420	600	600	660	
<i>Nitzschia</i> sp.10	1440	2520	1140	1680	
<i>Nitzschia</i> sp.11	1140	660	840	1440	
<i>Pseudo-nitzschia</i>					
<i>Pseudo-nitzschia</i> sp.1	3420	2940	3000	3420	
Centrales					
Eupodiscaceae					
Odontella					
<i>Odontella mobiliensis</i>	480	120	300	300	
<i>Odontella sinensis</i>	840	660	600	900	
Chaetocerotales					
Chaetocerotaceae					
Bacteriastrium					
<i>Bacteriastrium comosum</i>	5340	5040	12720	19440	
<i>Bacteriastrium furcatum</i>	7500	4140	15480	13500	
<i>Bacteriastrium hyalinum</i>	7320	6120	22440	32220	
Chaetoceros					
<i>Chaetoceros aequatorialis</i>	960	1080	1020	1320	
<i>Chaetoceros affinis</i>	3780	5340	9120	3900	
<i>Chaetoceros atlanticus</i>	3660	5760	14160	4380	
<i>Chaetoceros coarctatus</i>	2820	4440	14400	5100	
<i>Chaetoceros compressus</i>	3300	3720	5280	6180	
<i>Chaetoceros costatus</i>	2940	3660	10560	5340	
<i>Chaetoceros didymus</i>	4560	3420	19860	3960	
<i>Chaetoceros diversus</i>	8460	6360	10680	8520	
<i>Chaetoceros eibenii</i>	1920	3300	3120	2400	
<i>Chaetoceros lorenzianus</i>	5760	5220	14160	9600	
<i>Chaetoceros messanensis</i>	3360		12960		



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	NPWG-1CP2- PS-1	NPWG-1CP2- PS-2	NPWG-1CP2- PB-1	NPWG-1CP2- PB-2	
<i>Chaetoceros peruvianus</i>	1200	1020	4800	1560	
<i>Chaetoceros pseudocurvisetus</i>	6780	3480	10800	6180	
<i>Chaetoceros tenuissimus</i>	4440		18480	2580	
<i>Chaetoceros</i> sp.1					
<i>Chaetoceros</i> sp.3					
Corethrales					
Corethraceae					
Corethron					
<i>Corethron criophilum</i>	420	360	240	420	
Coscinodiscales					
Coscinodiscaceae					
Coscinodiscus					
<i>Coscinodiscus gigas</i>					
<i>Coscinodiscus</i> sp.1	600	480	300	660	
<i>Coscinodiscus</i> sp.2		180	240		
<i>Coscinodiscus</i> sp.3					
<i>Coscinodiscus</i> sp.4					
<i>Coscinodiscus</i> sp.5	180	180	240	300	
<i>Coscinodiscus</i> sp.6	240	240	180	420	
<i>Coscinodiscus</i> sp.7					
<i>Coscinodiscus</i> sp.8	120	360	240	180	
<i>Coscinodiscus</i> sp.9	180	240	240	180	
<i>Coscinodiscus</i> sp.10	480	300	420	300	
<i>Coscinodiscus</i> sp.11	300		240	240	
<i>Coscinodiscus</i> sp.12					
<i>Coscinodiscus</i> sp.13					
Gossierella					
<i>Gossierella tropica</i>	60	180	300	240	
Palmeria					
<i>Palmeria hardmaniana</i>	360	420	360	480	
Heliopeltaceae					
Actinoptychus					
<i>Actinoptychus</i> sp.1	1860	960	1200	1140	
Hemidiscaceae					
Pseudoguardia					
<i>Pseudoguardia recta</i>	3420	1800	3060	2760	
Eunotiales					
Eunotiaceae					
Eunotia					
<i>Eunotia</i> sp.1					
Fragilariiales					
Fragilariaceae					
Asterionella					
<i>Asterionella formosa</i>	240				
Fragilaria					
<i>Fragilaria</i> sp.1	1080				
Hemiaulales					
Hemiaulaceae					
Cerataulina					
<i>Cerataulina</i> sp.1		2220	3420	3000	



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWG-1CP2- PS-1	NPWG-1CP2- PS-2	NPWG-1CP2- PB-1	NPWG-1CP2- PB-2
Climacodium				
<i>Climacodium biconcavum</i>	4080	1740	12240	4320
<i>Climacodium frauenfeldianum</i>	1980	4560	16320	4380
Eucampia				
<i>Eucampia cornuta</i>	2220	1380	1980	3540
<i>Eucampia zodiacus</i>	2100	2820	1200	3480
Hemiaulus				
<i>Hemiaulus hauckii</i>	2220	2220	1620	2100
<i>Hemiaulus indicus</i>	2460	2400	1680	2820
<i>Hemiaulus membranaceus</i>	1560	3840	1440	1800
<i>Hemiaulus sinensis</i>	7020	5340	1620	4320
Leptocylindrales				
Leptocylindraceae				
<i>Leptocylindrus</i>				
<i>Leptocylindrus danicus</i>	1440	3180	1800	3660
Licmorphales				
Licmorphiaceae				
<i>Licmorpha</i>				
<i>Licmorpha flabellata</i>				
Lithodesmiales				
Lithodesmaceae				
<i>Ditylum</i>				
<i>Ditylum brightwellii</i>	240	360	540	360
<i>Ditylum sol</i>	360	360	600	600
Naviculales				
Diploneidaceae				
<i>Diploneis</i>				
<i>Diploneis</i> sp.1	420	240	420	300
<i>Diploneis</i> sp.2				
<i>Diploneis</i> sp.3	120	120		
Naviculaceae				
<i>Anomoeneis</i>				
<i>Anomoeneis</i> sp.1	420	540	420	360
<i>Haslea</i>				
<i>Haslea waiwikaie</i>	480	420	420	360
<i>Haslea</i> sp.1	300	480	360	300
<i>Meuniera</i>				
<i>Meuniera</i> sp.1	840	840	840	720
<i>Navicula</i>				
<i>Navicula</i> sp.1	960	660	1020	1380
<i>Navicula</i> sp.2	2760	2520	2880	3000
<i>Navicula</i> sp.3	420	900	660	840
<i>Navicula</i> sp.4	660	840	1500	540
<i>Navicula</i> sp.5	660	480	780	420
<i>Navicula</i> sp.6	480	720	420	600
<i>Navicula</i> sp.7	300	420	360	540
<i>Navicula</i> sp.8	480	960	600	600
<i>Trachyneis</i>				
<i>Trachyneis</i> sp.1	1200	660	660	720
Pinnulariaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWG-1CP2- PS-1	NPWG-1CP2- PS-2	NPWG-1CP2- PB-1	NPWG-1CP2- PB-2
Pinnularia				
<i>Pinnularia</i> sp.2				
Pleurosigmaaceae				
<i>Gyrosigma</i>				
<i>Gyrosigma</i> sp.1	960	660	780	660
<i>Gyrosigma</i> sp.2	420	600	660	1560
<i>Gyrosigma</i> sp.3	720	960	600	900
<i>Pleurosigma</i>				
<i>Pleurosigma</i> sp.1	900	540	660	1320
<i>Pleurosigma</i> sp.2	420	360	660	780
<i>Pleurosigma</i> sp.3	900	300	600	660
<i>Pleurosigma</i> sp.4	360	780	360	780
<i>Pleurosigma</i> sp.5	300	240	420	300
<i>Pleurosigma</i> sp.6	1080	1020	780	1680
Stauroneidaceae				
<i>Stauroneis</i>				
<i>Stauroneis salina</i>				
Rhizosoleniales				
Rhizosoleniaceae				
<i>Dactylosolen</i>				
<i>Dactylosolen blavyanus</i>	2220	1440	1560	2520
<i>Dactylosolen fragilissimus</i>	2940	1800	1800	2820
<i>Dactylosolen phuketensis</i>	1920	1980	2160	3600
<i>Guinardia</i>				
<i>Guinardia cylindrus</i>	900	1200	1020	2520
<i>Guinardia fleccida</i>	6960	1500	2280	5220
<i>Guinardia striata</i>	2940	1800	2040	4080
<i>Proboscia</i>				
<i>Proboscia alata</i>	2400	3540	2880	3900
<i>Pseudosolenia</i>				
<i>Pseudosolenia calcar avis</i>	1740	1980	1020	3120
<i>Rhizosolenia</i>				
<i>Rhizosolenia acuminata</i>		180	60	120
<i>Rhizosolenia bergonii</i>	840	1860	960	1740
<i>Rhizosolenia cleveii</i> var. <i>cleveii</i>	2040	1740	780	1500
<i>Rhizosolenia formosa</i>	300	60	60	120
<i>Rhizosolenia hyalina</i>	1320	2400	1260	1860
<i>Rhizosolenia imbricata</i>	300	480	120	180
<i>Rhizosolenia pungens</i>	1860	2100	1140	1020
<i>Rhizosolenia robusta</i>	780	720	360	660
<i>Rhizosolenia striata</i>	600	420	240	480
<i>Rhizosolenia styliformis</i>	960	360	420	240
<i>Rhizosolenia</i> sp.1	420	540	240	360
Striatellales				
Striatellaceae				
<i>Striatella</i>				
<i>Striatella</i> sp.1				
Surirellales				
Entomoneidaceae				
<i>Entomoneis</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWG-1CP2- PS-1	NPWG-1CP2- PS-2	NPWG-1CP2- PB-1	NPWG-1CP2- PB-2
<i>Entomoneis</i> sp.1	780	540	480	780
<i>Entomoneis</i> sp.2	360	360	360	300
Surirellaceae				
<i>Campylodiscus</i>				
<i>Campylodiscus</i> sp.1			240	300
<i>Surirella</i>				
<i>Surirella</i> sp.1				
Thalassionematales				
Thalassionemataceae				
<i>Thalassionema</i>				
<i>Thalassionema nitzschoides</i>	8520	6480	14880	23520
<i>Thalassionema</i> sp.1	4920	3780		11040
<i>Thalassiothrix</i>				
<i>Thalassiothrix</i> sp.1	2280	5040	5580	13020
<i>Thalassiothrix</i> sp.2	1200	1860	1620	1260
Thalassiosiphysales				
Catenulaceae				
<i>Amphora</i>				
<i>Amphora</i> sp.1	480	540	480	360
<i>Amphora</i> sp.2				
<i>Amphora</i> sp.3	360	300		
Thalassiosirales				
Lauderiaceae				
<i>Lauderia</i>				
<i>Lauderia annulata</i>		1680	1380	2460
Skeletonemaceae				
<i>Skeletonema</i>				
<i>Skeletonema</i> sp.1				
Stephanodiscaceae				
<i>Cyclotella</i>				
<i>Cyclotella</i> sp.1	1620	1500	1320	1380
Thalassiosiraceae				
<i>Planktoniella</i>				
<i>Planktoniella blanda</i>	540	900	420	840
<i>Planktoniella sol</i>	300	360	300	240
<i>Thalassiosira</i>				
<i>Thalassiosira subtilis</i>				
<i>Thalassiosira</i> sp.4				1860
<i>Thalassiosira</i> sp.5	2880	2700	2100	1740
<i>Thalassiosira</i> sp.6	2040	1980	1800	1800
Triceratiales				
Tricerataceae				
<i>Triceratium</i>				
<i>Triceratium favus</i>				
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
<i>Amphisolenia</i>				
<i>Amphisolenia bidentata</i>	420	240	300	120



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWG-1CP2- PS-1	NPWG-1CP2- PS-2	NPWG-1CP2- PB-1	NPWG-1CP2- PB-2
Dinophysiaceae				
<i>Histioneis</i>				
<i>Histioneis hyalina</i>			120	
<i>Ornithocercus</i>				
<i>Ornithocercus thumii</i>			120	
<i>Phalacroma</i>				
<i>Phalacroma mitra</i>		120		
Gonyaulacales				
Ceratiaceae				
<i>Ceratium</i>				
<i>Ceratium contortum</i>				
<i>Ceratium deflexum</i>			120	
<i>Ceratium dens</i>				300
<i>Ceratium extensum</i>				
<i>Ceratium falcatum</i>				180
<i>Ceratium furca</i>	420	360	360	300
<i>Ceratium fuscus</i>	480	240	420	360
<i>Ceratium gibberum</i>				
<i>Ceratium kofoidii</i>				
<i>Ceratium macroceros</i>				120
<i>Ceratium massiliense</i>				180
<i>Ceratium porrectum</i>	180			300
<i>Ceratium schmidtii</i>				
<i>Ceratium trichoceros</i>	240	240	300	360
<i>Ceratium tripos</i>				
Goniidomataceae				
<i>Goniidoma</i>				
<i>Goniidoma</i> sp.1				
Gonyaulacaceae				
<i>Lingulodinium</i>				
<i>Lingulodinium</i> sp.1				
Oxytoxaceae				
<i>Oxytoxum</i>				
<i>Oxytoxum</i> sp.1				
<i>Oxytoxum</i> sp.3			300	
<i>Oxytoxum</i> sp.4				
Pyrophacaceae				
<i>Pyrophacus</i>				
<i>Pyrophacus steinii</i>				
Gymnodiniales				
Gymnodiniaceae				
<i>Gymnodinium</i>				
<i>Gymnodinium</i> sp.2				240
<i>Gyrodinium</i>				
<i>Gyrodinium falcatum</i>			120	120
Peridinales				
Podolampadaceae				
<i>Podolampas</i>				
<i>Podolampas bipes</i>		60		
<i>Podolampas palmipes</i>	180	60	240	



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWG-1CP2- PS-1	NPWG-1CP2- PS-2	NPWG-1CP2- PB-1	NPWG-1CP2- PB-2
Protoperidiniaceae				
Protoperidinium				
Protoperidinium abei				240
Protoperidinium asymmetricum	240	60	240	120
Protoperidinium conicum			240	60
Protoperidinium depressum	240	240	420	240
Protoperidinium diabolium		60	120	
Protoperidinium divergens	480	360	360	360
Protoperidinium elegans				
Protoperidinium latispinum	180	300	180	300
Protoperidinium oceanicum				
Protoperidinium pallidum				
Prorocentrales				
Prorocentraceae				
Prorocentrum				
Prorocentrum mexicanum			420	360
Prorocentrum micans				
TOTAL	235020	246240	401460	393960
Number of Taxa	130	128	139	138

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
Spondylosium sp.1	45.5	23.06	17	96
Calothrix crustacea	9.73	3.03	5	15
Oscillatoria erythraea	153.87	38.21	86	225
Oscillatoria sp.1	78.5	20.27	44	113



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWG-3CP2- PS-1	NPWG-3CP2- PS-2	NPWG-3CP2- PB-1	NPWG-3CP2- PB-2
Charophyta				
Conjugophyceae				
Desmidiaceae				
Desmidiaceae				
Spondylosium				
Spondylosium sp.1	240	300	360	420
Staurastrum				
Staurastrum sp.1			240	180
Staurastrum sp.3				
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
Golenkinia				
Golenkinia radiata		120	180	120
Sphaeropleales				
Scenedesmaceae				
Scenedesmus				
Scenedesmus sp.1				
Trebouxiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
Ankistrodesmus sp.1		60	240	240
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
Dictyocha fibula	480	780	1380	840
Dictyocha speculum var. octonaris				240
Cyanobacteria				
Cyanophyceae				
Chroococcales				
Chroococcaceae				
Gloeocapsa				
Gloeocapsa sp.1				
Nostocales				
Oscillatoriaceae				
Oscillatoria				
Oscillatoria erythraea	30960	26400	46980	45360
Oscillatoria sp.1	9780	12300	28980	18360
Rivulariaceae				
Calothrix				
Calothrix crustacea	1980	2280	2220	2040
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	NPWG-3CP2- PS-1	NPWG-3CP2- PS-2	NPWG-3CP2- PB-1	NPWG-3CP2- PB-2
Asterolampra marylantica	180	300	240	180
Asteromphalus				
Asteromphalus cleveanus	120	60	180	240
Asteromphalus elegans				
Asteromphalus sp.1	300	180		180
Aulacoseirales				
Aulacoseiraceae				
Aulacoseira				
Aulacoseira sp.1				
Bacillariales				
Bacillariaceae				
Bacillaria				
Bacillaria paxillifer	12000	16020	27840	21360
Cylindrotheca				
Cylindrotheca closterium	360	1500	1380	1860
Cylindrotheca sp.1				
Nitzschia				
Nitzschia longissima	1140	2280	660	780
Nitzschia lorenziana	2400	2280	1740	1140
Nitzschia sp.3	720	2040	720	600
Nitzschia sp.4			840	600
Nitzschia sp.5			540	660
Nitzschia sp.9			420	840
Nitzschia sp.10	2340	1140	840	
Nitzschia sp.11	780	960	1080	
Pseudo-nitzschia				
Pseudo-nitzschia sp.1	3420	7860	4920	1860
Centrales				
Eupodiscaceae				
Odontella				
Odontella mobiliensis				
Odontella sinensis	1080	840	480	840
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrium				
Bacteriastrium comosum	10920	9000	13740	10260
Bacteriastrium furcatum	6000	9060	16260	11460
Bacteriastrium hyalinum	13800	9720	26880	31200
Chaetoceros				
Chaetoceros aequatorialis	1320	1320	2280	1020
Chaetoceros affinis	2340	4560	4080	5340
Chaetoceros atlanticus	3960	4560	7440	5160
Chaetoceros coarctatus	6180	6720	9840	8940
Chaetoceros compressus	3360	2340	9900	6300
Chaetoceros costatus	7500	6120	9120	4260
Chaetoceros didymus	9480	14160	9960	9720
Chaetoceros diversus	8340	12060	8280	11580
Chaetoceros eibonii				6480
Chaetoceros lorenzianus	8760	7440	19560	9300
Chaetoceros messanensis				3180



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Phytoplankton density (unit/bottle)				
TAXA	NPWG-3CP2- PS-1	NPWG-3CP2- PS-2	NPWG-3CP2- PB-1	NPWG-3CP2- PB-2
Chaetoceros peruvianus	1380	1020	1620	1500
Chaetoceros pseudocurvisetus	10800	12240	8760	12600
Chaetoceros tenuissimus			7800	
Chaetoceros sp.1			4380	
Chaetoceros sp.3			9060	4800
Corethrales				
Corethraceae				
Corethron				
Corethron criophilum	480	360	420	420
Coscinodiscales				
Coscinodiscaceae				
Coscinodiscus				
Coscinodiscus gigas				
Coscinodiscus sp.1	360	360	960	480
Coscinodiscus sp.2	300	120	480	240
Coscinodiscus sp.3				
Coscinodiscus sp.4				120
Coscinodiscus sp.5	420	420	900	240
Coscinodiscus sp.6	360	240	540	360
Coscinodiscus sp.7			300	60
Coscinodiscus sp.8	420	240	600	180
Coscinodiscus sp.9	180	180	600	240
Coscinodiscus sp.10	300	240	600	240
Coscinodiscus sp.11	120	180	660	180
Coscinodiscus sp.12				
Coscinodiscus sp.13				
Gossierella				
Gossierella tropica	120	120	180	240
Palmeria				
Palmeria hardmaniana		60	300	180
Heliopeltaceae				
Actinoptychus				
Actinoptychus sp.1	780	840	1020	1620
Hemidiscaceae				
Pseudoguardia				
Pseudoguardia recta	2040	1380	2460	1800
Eunotiales				
Eunotiaceae				
Eunotia				
Eunotia sp.1				
Fragilariaceae				
Asterionella				
Asterionella formosa				
Fragilaria				
Fragilaria sp.1				
Hemiaulales				
Hemiaulaceae				
Cerataulina				
Cerataulina sp.1				1320



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Phytoplankton density (unit/bottle)				
TAXA	NPWG-3CP2- PS-1	NPWG-3CP2- PS-2	NPWG-3CP2- PB-1	NPWG-3CP2- PB-2
Climacodium				
<i>Climacodium biconcavum</i>	5400	1440	2700	1800
<i>Climacodium frauenfeldianum</i>	4560	6000	3540	2280
Eucampia				
<i>Eucampia cornuta</i>	2040	2400	3120	1380
<i>Eucampia zodiacus</i>	2340	1440	2520	1680
Hemiaulus				
<i>Hemiaulus hauckii</i>	2280	3720	3420	3120
<i>Hemiaulus indicus</i>	3180	1980	2880	1920
<i>Hemiaulus membranaceus</i>	3120	2220	1920	3780
<i>Hemiaulus sinensis</i>	3960	4500	3900	5280
Leptocylindrales				
Leptocylindraceae				
<i>Leptocylindrus</i>				
<i>Leptocylindrus danicus</i>		1380	3240	3360
Licmophales				
Licmophoriaceae				
<i>Licmophora</i>				
<i>Licmophora flabellata</i>				3720
Lithodesmiales				
Lithodesmaceae				
<i>Ditylum</i>				
<i>Ditylum brightwellii</i>	180	300	240	240
<i>Ditylum sol</i>	420	780	660	600
Naviculales				
Diploneidaceae				
<i>Diploneis</i>				
<i>Diploneis sp.1</i>	300	660	600	360
<i>Diploneis sp.2</i>			180	
<i>Diploneis sp.3</i>				120
Naviculaceae				
<i>Anomoeneis</i>				
<i>Anomoeneis sp.1</i>	420	720	600	480
<i>Haslea</i>				
<i>Haslea wawriakae</i>	540	660	900	540
<i>Haslea sp.1</i>	900	480	480	540
<i>Meuniera</i>				
<i>Meuniera sp.1</i>	1020	1080	840	780
<i>Navicula</i>				
<i>Navicula sp.1</i>	780	1380	1020	1680
<i>Navicula sp.2</i>	1920	1380	2220	3600
<i>Navicula sp.3</i>	1440	660	1260	1560
<i>Navicula sp.4</i>	1620	780	1620	1200
<i>Navicula sp.5</i>	1320	540	360	1140
<i>Navicula sp.6</i>	600	660	240	720
<i>Navicula sp.7</i>	720	720	540	480
<i>Navicula sp.8</i>	840	600	660	780
<i>Trachyneis</i>				
<i>Trachyneis sp.1</i>	780	360	480	480
Pinnulariaceae				



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Phytoplankton density (unit/bottle)				
TAXA	NPWG-3CP2- PS-1	NPWG-3CP2- PS-2	NPWG-3CP2- PB-1	NPWG-3CP2- PB-2
Pinnularia				
<i>Pinnularia sp.2</i>				
Pleurosigmataceae				
<i>Gyrosigma</i>				
<i>Gyrosigma sp.1</i>	1380	780	780	420
<i>Gyrosigma sp.2</i>	1260	900	720	840
<i>Gyrosigma sp.3</i>	1140	1680	720	1380
<i>Pleurosigma</i>				
<i>Pleurosigma sp.1</i>	2220	1320	1080	600
<i>Pleurosigma sp.2</i>	1320	780	600	540
<i>Pleurosigma sp.3</i>	1200	1020	540	480
<i>Pleurosigma sp.4</i>	780	960	360	300
<i>Pleurosigma sp.5</i>	420	660	300	360
<i>Pleurosigma sp.6</i>	1140	780	900	960
Stauroneidaceae				
<i>Stauroneis</i>				
<i>Stauroneis salina</i>				
Rhizosoleniales				
Rhizosoleniaceae				
<i>Dactylosolen</i>				
<i>Dactylosolen blavyanus</i>	1560	1860	3120	3180
<i>Dactylosolen fragilissimus</i>	1620	2820	1620	4500
<i>Dactylosolen phuketensis</i>	3660	1500	1680	2640
<i>Guinardia</i>				
<i>Guinardia cylindrus</i>	1500	2400	2880	2040
<i>Guinardia fleccida</i>	2580	2100	4380	4080
<i>Guinardia striata</i>	2880	2700	3120	3360
<i>Proboscia</i>				
<i>Proboscia alata</i>	4020	3840	1920	2640
<i>Pseudosolenia</i>				
<i>Pseudosolenia calcar avis</i>	2220	2640	2280	3600
<i>Rhizosolenia</i>				
<i>Rhizosolenia acuminata</i>	180	120	180	180
<i>Rhizosolenia bergonii</i>	1500	2340	2100	1500
<i>Rhizosolenia cleveii var. cleveii</i>	2160	2400	780	2640
<i>Rhizosolenia formosa</i>	180	240	180	120
<i>Rhizosolenia hyalina</i>	1680	2100	2400	2100
<i>Rhizosolenia imbricata</i>	360	420	240	660
<i>Rhizosolenia pungens</i>	1380	3600	2160	2040
<i>Rhizosolenia robusta</i>	840	660	660	660
<i>Rhizosolenia striata</i>	360	180	360	300
<i>Rhizosolenia styliformis</i>	300	600	420	660
<i>Rhizosolenia sp.1</i>	480	300	600	360
Striatellales				
Striatellaceae				
<i>Striatella</i>				
<i>Striatella sp.1</i>				
Surirellales				
Entomoneidaceae				
<i>Entomoneis</i>				



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Phytoplankton density (unit/bottle)				
TAXA	NPWG-3CP2- PS-1	NPWG-3CP2- PS-2	NPWG-3CP2- PB-1	NPWG-3CP2- PB-2
<i>Entomoneis sp.1</i>	420	420	420	420
<i>Entomoneis sp.2</i>	180	240	240	300
Surirellaceae				
<i>Campylodiscus</i>				
<i>Campylodiscus sp.1</i>			60	120
<i>Surirella</i>				
<i>Surirella sp.1</i>			240	180
Thalassionematales				
Thalassionemataceae				
<i>Thalassionema</i>				
<i>Thalassionema nitzschoides</i>	12360	16680	22140	20760
<i>Thalassionema sp.1</i>	9000	7200	9780	12480
<i>Thalassiothrix</i>				
<i>Thalassiothrix sp.1</i>	1920	6720	10080	8700
<i>Thalassiothrix sp.2</i>	1140	1140	1740	1680
Thalassiosiphonales				
Catenulaceae				
<i>Amphora</i>				
<i>Amphora sp.1</i>	420	420	420	660
<i>Amphora sp.2</i>	60			
<i>Amphora sp.3</i>	240			240
Thalassiosirales				
Lauderiaceae				
<i>Lauderia</i>				
<i>Lauderia annulata</i>				2160
Skeletonemataceae				
<i>Skeletonema</i>				
<i>Skeletonema sp.1</i>				
Stephanodiscaceae				
<i>Cyclotella</i>				
<i>Cyclotella sp.1</i>	1380	1200	4020	2580
Thalassiosiraceae				
<i>Planktoniella</i>				
<i>Planktoniella blanda</i>	480	540	900	840
<i>Planktoniella sol</i>	360	420	420	240
<i>Thalassiosira</i>				
<i>Thalassiosira subtilis</i>				
<i>Thalassiosira sp.4</i>	2220	2100	1920	3720
<i>Thalassiosira sp.5</i>	1740	1920	2460	1920
<i>Thalassiosira sp.6</i>				
Triceratiales				
Tricerataceae				
<i>Triceratium</i>				
<i>Triceratium favus</i>				
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
<i>Amphisolenia</i>				
<i>Amphisolenia bidentata</i>	240		240	300



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Phytoplankton density (unit/bottle)				
TAXA	NPWG-3CP2- PS-1	NPWG-3CP2- PS-2	NPWG-3CP2- PB-1	NPWG-3CP2- PB-2
Dinophysiaceae				
<i>Histioneis</i>				
<i>Histioneis hyalina</i>				
<i>Ornithocercus</i>				
<i>Ornithocercus thumii</i>			120	120
<i>Phalacroma</i>				
<i>Phalacroma mitra</i>				
Gonyaulacales				
Ceratiaceae				
<i>Ceratium</i>				
<i>Ceratium contortum</i>				
<i>Ceratium deflexum</i>		120		
<i>Ceratium dens</i>			600	
<i>Ceratium extensum</i>		60	120	
<i>Ceratium falcatum</i>	420	420	300	420
<i>Ceratium furca</i>	360	360	240	360
<i>Ceratium gibberum</i>				120
<i>Ceratium kofoidii</i>	300	300	420	240
<i>Ceratium macroceros</i>				120
<i>Ceratium massiliense</i>				
<i>Ceratium porrectum</i>				180
<i>Ceratium schmidtii</i>				60
<i>Ceratium trichoceros</i>	360	420	360	360
<i>Ceratium tripos</i>	120	180	300	240
Goniomomataceae				
<i>Goniomoma</i>				
<i>Goniomoma sp.1</i>				
Gonyaulacaceae				
<i>Lingulodinium</i>				
<i>Lingulodinium sp.1</i>			240	
Oxytoxaceae				
<i>Oxytoxum</i>				
<i>Oxytoxum sp.1</i>			300	240
<i>Oxytoxum sp.3</i>			360	360
<i>Oxytoxum sp.4</i>				
Pyrophacaceae				
<i>Pyrophacus</i>				
<i>Pyrophacus steinii</i>				
Gymnodiniales				
Gymnodiniaceae				
<i>Gymnodinium</i>				
<i>Gymnodinium sp.2</i>	240	240		240
<i>Gyrodinium</i>				
<i>Gyrodinium falcatum</i>	240			60
Peridinales				
Podolampadaceae				
<i>Podolampas</i>				
<i>Podolampas bipes</i>			180	120
<i>Podolampas palmipes</i>			240	240



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Phytoplankton density (unit/bottle)				
TAXA	NPWG-3CP2- PS-1	NPWG-3CP2- PS-2	NPWG-3CP2- PB-1	NPWG-3CP2- PB-2
Protoperidiniaceae				
Protoperidinium				
<i>Protoperidinium abei</i>	240	180	300	
<i>Protoperidinium asymmetricum</i>	180	180	60	360
<i>Protoperidinium conicum</i>	60	60	60	120
<i>Protoperidinium depressum</i>	360	300	240	360
<i>Protoperidinium diabolum</i>		60	120	180
<i>Protoperidinium divergens</i>	360	180	300	300
<i>Protoperidinium elegans</i>			120	120
<i>Protoperidinium latispinum</i>			120	120
<i>Protoperidinium oceanicum</i>				
<i>Protoperidinium pallidum</i>			120	60
Prorocentrales				
Prorocentraceae				
Prorocentrum				
<i>Prorocentrum mexicanum</i>				360
<i>Prorocentrum micans</i>	420	360	300	300
TOTAL	285120	303720	439260	399780
Number of Taxa	123	126	145	153

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113



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Phytoplankton density (unit/bottle)				
TAXA	PACPP- 1CP2X-PS-1	PACPP- 1CP2X-PS-2	PACPP- 1CP2X-PB-1	PACPP- 1CP2X-PB-2
Charophyta				
Conjugophyceae				
Desmidiaceae				
Desmidiaceae				
<i>Spondylosium</i>				
<i>Spondylosium</i> sp.1	240	240	300	300
<i>Staurastrum</i>			60	120
<i>Staurastrum</i> sp.1			60	
<i>Staurastrum</i> sp.3				
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
Golenkinia				
<i>Golenkinia radiata</i>	120		120	120
Sphaeropleales				
Scenedesmaceae				
Scenedesmus				
<i>Scenedesmus</i> sp.1			1080	
Trebouxiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
<i>Ankistrodesmus</i> sp.1	60		120	120
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
<i>Dictyocha fibula</i>	480	420	240	420
<i>Dictyocha speculum</i> var. <i>octonaris</i>				60
Cyanobacteria				
Cyanophyceae				
Chroococcales				
Chroococcaceae				
Gloeocapsa				
<i>Gloeocapsa</i> sp.1		1320	1320	1560
Nostocales				
Oscillatoriaceae				
Oscillatoria				
<i>Oscillatoria erythraea</i>	13080	25140	46920	47040
<i>Oscillatoria</i> sp.1	6480	12300	16020	16380
Rivulariaceae				
Calothrix				
<i>Calothrix crustacea</i>	1860	2100	1980	1620
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				



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Phytoplankton density (unit/bottle)				
TAXA	PACPP- 1CP2X-PS-1	PACPP- 1CP2X-PS-2	PACPP- 1CP2X-PB-1	PACPP- 1CP2X-PB-2
<i>Asterolampra marylandica</i>	60	120	840	180
Asteromphalus				
<i>Asteromphalus cleveanus</i>	60	60	1260	120
<i>Asteromphalus elegans</i>			210	
<i>Asteromphalus</i> sp.1	420	180		60
Aulacoseirales				
Aulacoseiraceae				
Aulacoseira				
<i>Aulacoseira</i> sp.1				
Bacillariales				
Bacillariaceae				
Bacillaria				
<i>Bacillaria paxillifer</i>	10500	10560	24360	11640
Cylindrotheca				
<i>Cylindrotheca closterium</i>	960	900	2160	1800
<i>Cylindrotheca</i> sp.1	600			
Nitzschia				
<i>Nitzschia longissima</i>	600	900	1020	840
<i>Nitzschia lorenziana</i>	720	420	840	960
<i>Nitzschia</i> sp.3	660	1320	900	840
<i>Nitzschia</i> sp.4			1080	420
<i>Nitzschia</i> sp.5			540	960
<i>Nitzschia</i> sp.9			660	900
<i>Nitzschia</i> sp.10	1200	480	840	
<i>Nitzschia</i> sp.11	660	1680	900	
<i>Pseudo-nitzschia</i>				
<i>Pseudo-nitzschia</i> sp.1	2100	1500	1800	2940
Centrales				
Eupodiscaceae				
Odontella				
<i>Odontella mobiliensis</i>	180		60	180
<i>Odontella sinensis</i>	660	480	540	780
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrium				
<i>Bacteriastrium comosum</i>	7440	7980	13650	7380
<i>Bacteriastrium furcatum</i>	6960	13380	15120	6600
<i>Bacteriastrium hyalinum</i>	8160	12180	23520	11160
Chaetoceros				
<i>Chaetoceros aequatorialis</i>	900	1560	1500	1800
<i>Chaetoceros affinis</i>	3360	3660	2100	4320
<i>Chaetoceros atlanticus</i>	5280	6000	4920	2580
<i>Chaetoceros coarctatus</i>	9060	8160	5760	7080
<i>Chaetoceros compressus</i>	2700	3660	10440	7860
<i>Chaetoceros costatus</i>	4140	3600	6060	6480
<i>Chaetoceros didymus</i>	8820	2160	7020	9900
<i>Chaetoceros diversus</i>	5160	7560	6540	9000
<i>Chaetoceros eibonii</i>			4080	3960
<i>Chaetoceros lorenzianus</i>	6300	6480	4320	7380
<i>Chaetoceros messanensis</i>	3780	4680	2940	4200



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Phytoplankton density (unit/bottle)				
TAXA	PACPP- 1CP2X-PS-1	PACPP- 1CP2X-PS-2	PACPP- 1CP2X-PB-1	PACPP- 1CP2X-PB-2
<i>Chaetoceros peruvianus</i>	2340	1680	1320	2220
<i>Chaetoceros pseudocurvisetus</i>	7680	3660	6420	7980
<i>Chaetoceros tenuissimus</i>			1740	
<i>Chaetoceros</i> sp.1			4620	
<i>Chaetoceros</i> sp.3			5220	5220
Corethrales				
Corethraceae				
Corethron				
<i>Corethron criophilum</i>	180	180	120	120
Coscinodiscales				
Coscinodiscaceae				
Coscinodiscus				
<i>Coscinodiscus gigas</i>				
<i>Coscinodiscus</i> sp.1	240	240	300	300
<i>Coscinodiscus</i> sp.2				60
<i>Coscinodiscus</i> sp.3				
<i>Coscinodiscus</i> sp.4				
<i>Coscinodiscus</i> sp.5	240	240	240	180
<i>Coscinodiscus</i> sp.6	360	240	360	300
<i>Coscinodiscus</i> sp.7	120			
<i>Coscinodiscus</i> sp.8	240	120	300	300
<i>Coscinodiscus</i> sp.9	300	240	240	240
<i>Coscinodiscus</i> sp.10	180	300	180	180
<i>Coscinodiscus</i> sp.11	240	120	300	300
<i>Coscinodiscus</i> sp.12				
<i>Coscinodiscus</i> sp.13				
Gossierella				
<i>Gossierella tropica</i>	180	120	120	60
Palmeria				
<i>Palmeria hardmaniana</i>	120	60	240	180
Heliopeltaceae				
Actinoptychus				
<i>Actinoptychus</i> sp.1	1320	840	630	1500
Hemidiscaceae				
Pseudoguardia				
<i>Pseudoguardia recta</i>	1980	1860	10920	2160
Eunotiales				
Eunotiaceae				
Eunotia				
<i>Eunotia</i> sp.1				
Fragilariaceae				
Asterionella				
<i>Asterionella formosa</i>				
Fragilaria				
<i>Fragilaria</i> sp.1				
Hemiaulales				
Hemiaulaceae				
Cerataulina				
<i>Cerataulina</i> sp.1	3360	2100		3480



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Phytoplankton density (unit/bottle)				
TAXA	PACPP- 1CP2X-PS-1	PACPP- 1CP2X-PS-2	PACPP- 1CP2X-PB-1	PACPP- 1CP2X-PB-2
Climacodium				
<i>Climacodium biconcavum</i>	1260	1620	1860	3360
<i>Climacodium frauenfeldianum</i>	2040	1980	1920	2580
Eucampia				
<i>Eucampia cornuta</i>	1380	2400	1920	2160
<i>Eucampia zodiacus</i>	1680	1740	1800	1860
Hemiaulus				
<i>Hemiaulus hauckii</i>	1920	1020	2700	1800
<i>Hemiaulus indicus</i>	1740	2040	1860	1320
<i>Hemiaulus membranaceus</i>	1980	1860	1680	1800
<i>Hemiaulus sinensis</i>	1680	1980	1800	1380
Leptocylindrales				
Leptocylindraceae				
<i>Leptocylindrus</i>				
<i>Leptocylindrus danicus</i>	1860	1440	2280	2400
Licmophales				
Licmophoriaceae				
<i>Licmophora</i>				
<i>Licmophora flabellata</i>				1440
Lithodesmiales				
Lithodesmaceae				
<i>Ditylum</i>				
<i>Ditylum brightwellii</i>	540	240	240	300
<i>Ditylum sol</i>	540	780	540	600
Naviculales				
Diploneidaceae				
<i>Diploneis</i>				
<i>Diploneis sp.1</i>	240	240	240	180
<i>Diploneis sp.2</i>				
<i>Diploneis sp.3</i>				
Naviculaceae				
<i>Anomoeneis</i>				
<i>Anomoeneis sp.1</i>		360		
<i>Haslea</i>				
<i>Haslea wawriakae</i>	360	420	360	300
<i>Haslea sp.1</i>	420	480	420	660
<i>Meuniera</i>				
<i>Meuniera sp.1</i>	420	660	480	420
<i>Navicula</i>				
<i>Navicula sp.1</i>	600	540	600	1200
<i>Navicula sp.2</i>	1980	660	1260	2700
<i>Navicula sp.3</i>	1500	900	660	840
<i>Navicula sp.4</i>	660	900	360	720
<i>Navicula sp.5</i>	720	600	600	780
<i>Navicula sp.6</i>	480	600	660	960
<i>Navicula sp.7</i>	540	420	840	540
<i>Navicula sp.8</i>	540	360	420	360
<i>Trachyneis</i>				
<i>Trachyneis sp.1</i>	480	780	360	480
Pinnulariaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PACPP- 1CP2X-PS-1	PACPP- 1CP2X-PS-2	PACPP- 1CP2X-PB-1	PACPP- 1CP2X-PB-2
<i>Pinnularia</i>				
<i>Pinnularia sp.2</i>	120	120	120	120
Pleurosigmataceae				
<i>Gyrosigma</i>				
<i>Gyrosigma sp.1</i>	660	240	660	420
<i>Gyrosigma sp.2</i>	480	240	480	360
<i>Gyrosigma sp.3</i>	600	540	540	360
<i>Pleurosigma</i>				
<i>Pleurosigma sp.1</i>	360	600	420	420
<i>Pleurosigma sp.2</i>	540	600	540	540
<i>Pleurosigma sp.3</i>	480	660	720	420
<i>Pleurosigma sp.4</i>	420	360	540	480
<i>Pleurosigma sp.5</i>	180	240	300	300
<i>Pleurosigma sp.6</i>	660	840	720	420
Stauroneidaceae				
<i>Stauroneis</i>				
<i>Stauroneis salina</i>	480			
Rhizosoleniales				
Rhizosoleniaceae				
<i>Dactylosolen</i>				
<i>Dactylosolen blavyanus</i>	2100	1800	1860	3180
<i>Dactylosolen fragilissimus</i>	1620	1380	3540	2580
<i>Dactylosolen phuketensis</i>	2040	1800	3900	3300
<i>Guinardia</i>				
<i>Guinardia cylindrus</i>	1260	2340	2160	1680
<i>Guinardia fleccida</i>	2580	2040	11130	4080
<i>Guinardia striata</i>	1920	2100	2340	4440
<i>Proboscia</i>				
<i>Proboscia alata</i>	1980	1680	1020	1680
<i>Pseudosolenia</i>				
<i>Pseudosolenia calcar avis</i>	1020	1740	1440	2520
<i>Rhizosolenia</i>				
<i>Rhizosolenia acuminata</i>	120	60	60	60
<i>Rhizosolenia bergonii</i>	540	600	840	1620
<i>Rhizosolenia cleveii var. cleveii</i>	960	1080	900	1620
<i>Rhizosolenia formosa</i>	120	60	60	60
<i>Rhizosolenia hyalina</i>	1140	420	1080	1860
<i>Rhizosolenia imbricata</i>	60	240	360	120
<i>Rhizosolenia pungens</i>	1080	840	960	1440
<i>Rhizosolenia robusta</i>	420	780	780	540
<i>Rhizosolenia striata</i>	360	300	480	420
<i>Rhizosolenia styliformis</i>	300	360	360	300
<i>Rhizosolenia sp.1</i>	300	300	420	
Striatellales				
Striatellaceae				
<i>Striatella</i>				
<i>Striatella sp.1</i>				
Surirellales				
Entomoneidaceae				
<i>Entomoneis</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PACPP- 1CP2X-PS-1	PACPP- 1CP2X-PS-2	PACPP- 1CP2X-PB-1	PACPP- 1CP2X-PB-2
<i>Entomoneis sp.1</i>	480	480	360	360
<i>Entomoneis sp.2</i>	300	120	120	240
Surirellaceae				
<i>Campylodiscus</i>				
<i>Campylodiscus sp.1</i>	180	300	240	360
<i>Surirella</i>				
<i>Surirella sp.1</i>	360			
Thalassionematales				
Thalassionemataceae				
<i>Thalassionema</i>				
<i>Thalassionema nitzschioides</i>	15180	8100	23460	20460
<i>Thalassionema sp.1</i>	11160	4140	6900	11520
<i>Thalassiothrix</i>				
<i>Thalassiothrix sp.1</i>	4140	4800	6780	2880
<i>Thalassiothrix sp.2</i>	1740	1560	1740	1200
Thalassiosiphonales				
Catenulaceae				
<i>Amphora</i>				
<i>Amphora sp.1</i>	420	240	840	480
<i>Amphora sp.2</i>				
<i>Amphora sp.3</i>				
Thalassiosirales				
Lauderiaceae				
<i>Lauderia</i>				
<i>Lauderia annulata</i>	1560	1800		1620
Skeletonemataceae				
<i>Skeletonema</i>				
<i>Skeletonema sp.1</i>				
Stephanodiscaceae				
<i>Cyclotella</i>				
<i>Cyclotella sp.1</i>	1500	1080	2280	2700
Thalassiosiraceae				
<i>Planktoniella</i>				
<i>Planktoniella blanda</i>	480	240	300	600
<i>Planktoniella sol</i>	360	240	180	240
<i>Thalassiosira</i>				
<i>Thalassiosira subtilis</i>				
<i>Thalassiosira sp.4</i>	1980	2100	1800	1680
<i>Thalassiosira sp.5</i>	1920	1200	1800	1500
<i>Thalassiosira sp.6</i>				
Triceratiales				
Tricerataceae				
<i>Triceratium</i>				
<i>Triceratium favus</i>			120	
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
<i>Amphisolenia</i>				
<i>Amphisolenia bidentata</i>	120		120	120



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PACPP- 1CP2X-PS-1	PACPP- 1CP2X-PS-2	PACPP- 1CP2X-PB-1	PACPP- 1CP2X-PB-2
Dinophysiaceae				
<i>Histioneis</i>				
<i>Histioneis hyalina</i>				
<i>Ornithocercus</i>				
<i>Ornithocercus thumii</i>			120	120
<i>Phalacroma</i>				
<i>Phalacroma mitra</i>				
Gonyaulacales				
Ceratiaceae				
<i>Ceratium</i>				
<i>Ceratium contortum</i>				
<i>Ceratium deflexum</i>		60		
<i>Ceratium dens</i>			300	
<i>Ceratium extensum</i>				
<i>Ceratium falcatum</i>				60
<i>Ceratium furca</i>	420	240	240	240
<i>Ceratium fusus</i>	360	300	180	360
<i>Ceratium gibberum</i>				60
<i>Ceratium kofoidii</i>	120	120	180	240
<i>Ceratium macroceros</i>				120
<i>Ceratium massiliense</i>				
<i>Ceratium porrectum</i>				180
<i>Ceratium schmidtii</i>				60
<i>Ceratium trichoceros</i>	360	240	300	240
<i>Ceratium tripos</i>	180	120	120	120
Goniidomataceae				
<i>Goniodoma</i>				
<i>Goniodoma sp.1</i>				
Gonyaulacaceae				
<i>Lingulodinium</i>				
<i>Lingulodinium sp.1</i>			120	
Oxytoxaceae				
<i>Oxytoxum</i>				
<i>Oxytoxum sp.1</i>			120	240
<i>Oxytoxum sp.3</i>			120	240
<i>Oxytoxum sp.4</i>				
Pyrophacaceae				
<i>Pyrophacus</i>				
<i>Pyrophacus steinii</i>			60	
Gymnodiniales				
Gymnodiniaceae				
<i>Gymnodinium</i>				
<i>Gymnodinium sp.2</i>	180	180		120
<i>Gyrodinium</i>				
<i>Gyrodinium falcatum</i>	60			120
Peridinales				
Podolampadaceae				
<i>Podolampas</i>				
<i>Podolampas bipes</i>			120	60
<i>Podolampas palmipes</i>			180	120



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PACPP- 1CP2X-PS-1	PACPP- 1CP2X-PS-2	PACPP- 1CP2X-PB-1	PACPP- 1CP2X-PB-2
Protoperidiniaceae				
Protoperidinium				
<i>Protoperidinium abei</i>	240	240	300	
<i>Protoperidinium asymmetricum</i>	60	180	120	120
<i>Protoperidinium conicum</i>	180	120	120	120
<i>Protoperidinium depressum</i>	300	360	360	300
<i>Protoperidinium diabolium</i>	60	120	120	60
<i>Protoperidinium divergens</i>	120	360	300	360
<i>Protoperidinium elegans</i>			60	120
<i>Protoperidinium latissimum</i>			120	300
<i>Protoperidinium oceanicum</i>				60
<i>Protoperidinium pallidum</i>			120	60
Prorocentrales				
Prorocentraceae				
Prorocentrum				60
<i>Prorocentrum mexicanum</i>				300
<i>Prorocentrum micans</i>	240	240	120	
TOTAL	228060	231840	363000	321840
Number of Taxa	134	128	149	151

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113



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Phytoplankton density (unit/bottle)				
TAXA	PACPP-3CP2- PS-1	PACPP-3CP2- PS-2	PACPP-3CP2- PB-1	PACPP-3CP2- PB-2
Charophyta				
Conjugophyceae				
Desmidiaceae				
Desmidiaceae				
<i>Spondylosium</i>				
<i>Spondylosium</i> sp.1	300	300	240	240
<i>Staurastrum</i>				
<i>Staurastrum</i> sp.1		60	60	120
<i>Staurastrum</i> sp.3				
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micratiaceae				
Golenkinia				
<i>Golenkinia radiata</i>	120	60	60	60
Sphaeropleales				
Scenedesmaceae				
Scenedesmus				
<i>Scenedesmus</i> sp.1				
Trebouxiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
<i>Ankistrodesmus</i> sp.1	60		120	120
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
<i>Dictyocha fibula</i>	360	600	420	480
<i>Dictyocha speculum</i> var. <i>octonaris</i>			60	
Cyanobacteria				
Cyanophyceae				
Chroococcales				
Chroococcaceae				
Gloeocapsa				
<i>Gloeocapsa</i> sp.1			1800	
Nostocales				
Oscillatoriaceae				
Oscillatoria				
<i>Oscillatoria erythraea</i>	30480	31200	52860	45660
<i>Oscillatoria</i> sp.1	7800	11820	9480	8700
Rivulariaceae				
Calothrix				
<i>Calothrix crustacea</i>	2220	2520	1380	1440
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				



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Phytoplankton density (unit/bottle)				
TAXA	PACPP-3CP2- PS-1	PACPP-3CP2- PS-2	PACPP-3CP2- PB-1	PACPP-3CP2- PB-2
<i>Asterolampra marylandica</i>	120	120	240	120
Asteromphalus				
<i>Asteromphalus cleveanus</i>			120	60
<i>Asteromphalus elegans</i>			60	
<i>Asteromphalus</i> sp.1	120	420	240	
Aulacoseirales				
Aulacoseiraceae				
Aulacoseira				
<i>Aulacoseira</i> sp.1				
Bacillariales				
Bacillariaceae				
Bacillaria				
<i>Bacillaria paxillifer</i>	8940	8100	6120	11340
Cylindrotheca				
<i>Cylindrotheca closterium</i>	1200			660
<i>Cylindrotheca</i> sp.1				
Nitzschia				
<i>Nitzschia longissima</i>	420	1200	660	600
<i>Nitzschia lorenziana</i>	1020	1320	1020	480
<i>Nitzschia</i> sp.3	600	1080	600	480
<i>Nitzschia</i> sp.4	900	1080	480	600
<i>Nitzschia</i> sp.5	600	960	600	540
<i>Nitzschia</i> sp.9	780	540	720	720
<i>Nitzschia</i> sp.10	1860	720	600	600
<i>Nitzschia</i> sp.11	1320	1560	720	720
<i>Pseudo-nitzschia</i>				
<i>Pseudo-nitzschia</i> sp.1	1500	1800	1680	2760
Centrales				
Eupodiscaceae				
Odontella				
<i>Odontella mobiliensis</i>	240	180	60	180
<i>Odontella sinensis</i>	540	600	600	720
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrium				
<i>Bacteriastrium comosum</i>	6780	4440	5400	5520
<i>Bacteriastrium furcatum</i>	7800	3300	5160	5760
<i>Bacteriastrium hyalinum</i>	11460	7380	7380	12600
Chaetoceros				
<i>Chaetoceros aequatorialis</i>	900	960	1440	1860
<i>Chaetoceros affinis</i>	5760	2520	3780	3540
<i>Chaetoceros atlanticus</i>	4440	3120	3180	5220
<i>Chaetoceros coarctatus</i>	3840	3840	4980	7500
<i>Chaetoceros compressus</i>	6120	3540	2700	6480
<i>Chaetoceros costatus</i>	4440	3600	4920	4140
<i>Chaetoceros didymus</i>	8880	6300	7440	7980
<i>Chaetoceros diversus</i>	3480	5100	7320	13560
<i>Chaetoceros eibonii</i>	1920	2340	1980	8940
<i>Chaetoceros lorenzianus</i>	3480	5160	3780	9420
<i>Chaetoceros messanensis</i>	2100	2340	2340	6420



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Phytoplankton density (unit/bottle)				
TAXA	PACPP-3CP2- PS-1	PACPP-3CP2- PS-2	PACPP-3CP2- PB-1	PACPP-3CP2- PB-2
<i>Chaetoceros peruvianus</i>	1440	1500	1080	2220
<i>Chaetoceros pseudocurvisetus</i>	4140	6060	4800	5280
<i>Chaetoceros tenuissimus</i>	1560	1680	1560	3420
<i>Chaetoceros</i> sp.1				
<i>Chaetoceros</i> sp.3				
Corethrales				
Corethraceae				
Corethron				
<i>Corethron criophilum</i>	120	240	240	300
Coscinodisciales				
Coscinodiscaceae				
Coscinodiscus				
<i>Coscinodiscus gigas</i>				
<i>Coscinodiscus</i> sp.1	240	300	300	240
<i>Coscinodiscus</i> sp.2				
<i>Coscinodiscus</i> sp.3				
<i>Coscinodiscus</i> sp.4				
<i>Coscinodiscus</i> sp.5	300	240	240	210
<i>Coscinodiscus</i> sp.6	300	240	180	180
<i>Coscinodiscus</i> sp.7				
<i>Coscinodiscus</i> sp.8	360	240	240	180
<i>Coscinodiscus</i> sp.9	240	360	120	120
<i>Coscinodiscus</i> sp.10	300	300	180	300
<i>Coscinodiscus</i> sp.11	180	240	180	120
<i>Coscinodiscus</i> sp.12				
<i>Coscinodiscus</i> sp.13				
Gossierella				
<i>Gossierella tropica</i>	120	240	180	120
Palmeria				
<i>Palmeria hardmaniana</i>	60	240	120	60
Heliopeltaceae				
Actinoptychus				
<i>Actinoptychus</i> sp.1	1020	900	600	780
Hemidiscaceae				
Pseudoguardia				
<i>Pseudoguardia recta</i>	1860	1080	1200	2760
Eunotiales				
Eunotiaceae				
Eunotia				
<i>Eunotia</i> sp.1				
Fragilariaceae				
Asterionella				
<i>Asterionella formosa</i>				
Fragilaria				
<i>Fragilaria</i> sp.1	1560			
Hemiaulales				
Hemiaulaceae				
Cerataulina				
<i>Cerataulina</i> sp.1		1740	1920	3600



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	PACPP-3CP2- PS-1	PACPP-3CP2- PS-2	PACPP-3CP2- PB-1	PACPP-3CP2- PB-2	
Climacodium					
<i>Climacodium biconcavum</i>	1800	1500	2160	7440	
<i>Climacodium frauenfeldianum</i>	1800	1860	1620	6600	
Eucampia					
<i>Eucampia cornuta</i>	1500	780	1260	1740	
<i>Eucampia zodiacus</i>	2040	960	1200	1260	
Hemiaulus					
<i>Hemiaulus hauckii</i>	1380	1860	1560	4320	
<i>Hemiaulus indicus</i>	1740	1740	1560	6240	
<i>Hemiaulus membranaceus</i>	2040	1080	2520	3480	
<i>Hemiaulus sinensis</i>	1740	1860	2340	5220	
Leptocylindrales					
Leptocylindraceae					
<i>Leptocylindrus</i>					
<i>Leptocylindrus danicus</i>	1800	1620	1380	3540	
Licmophales					
Licmophoriaceae					
<i>Licmophora</i>					
<i>Licmophora flabellata</i>					
Lithodesmiales					
Lithodesmaceae					
<i>Ditylum</i>					
<i>Ditylum brightwellii</i>	360	240	420	480	
<i>Ditylum sol</i>	420	540	840	780	
Naviculales					
Diploneidaceae					
<i>Diploneis</i>					
<i>Diploneis sp.1</i>	240	240	540	420	
<i>Diploneis sp.2</i>					
<i>Diploneis sp.3</i>					
Naviculaceae					
<i>Anomoeneis</i>					
<i>Anomoeneis sp.1</i>	240		420	120	
<i>Haslea</i>					
<i>Haslea wawriakae</i>	300	360	480	480	
<i>Haslea sp.1</i>	300	660	720	660	
<i>Meuniera</i>					
<i>Meuniera sp.1</i>	540	300	1020	540	
<i>Navicula</i>					
<i>Navicula sp.1</i>	540	660	720	360	
<i>Navicula sp.2</i>	840	1020	1080	2040	
<i>Navicula sp.3</i>	420	600	960	420	
<i>Navicula sp.4</i>	1260	840	600	420	
<i>Navicula sp.5</i>	540	480	1560	480	
<i>Navicula sp.6</i>	480	540	960	420	
<i>Navicula sp.7</i>	240	360	420	480	
<i>Navicula sp.8</i>	360	480	300	600	
<i>Trachyneis</i>					
<i>Trachyneis sp.1</i>	480	420	420	540	
Pinnulariaceae					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	PACPP-3CP2- PS-1	PACPP-3CP2- PS-2	PACPP-3CP2- PB-1	PACPP-3CP2- PB-2	
Pinnularia					
<i>Pinnularia sp.2</i>					
Pleurosigmataceae					
<i>Gyrosigma</i>					
<i>Gyrosigma sp.1</i>	480	480	240	180	
<i>Gyrosigma sp.2</i>	420	360	480	600	
<i>Gyrosigma sp.3</i>	300	360	600	420	
<i>Pleurosigma</i>					
<i>Pleurosigma sp.1</i>	780	540	600	420	
<i>Pleurosigma sp.2</i>	360	420	420	540	
<i>Pleurosigma sp.3</i>	540	600	480	420	
<i>Pleurosigma sp.4</i>	360	720	540	420	
<i>Pleurosigma sp.5</i>	240	360	240	180	
<i>Pleurosigma sp.6</i>	780	1020	480	660	
Stauroneidaceae					
<i>Stauroneis</i>					
<i>Stauroneis salina</i>					
Rhizosoleniales					
Rhizosoleniaceae					
<i>Dactylosolen</i>					
<i>Dactylosolen blavyanus</i>	1680	1500	3060	2880	
<i>Dactylosolen fragilissimus</i>	2340	1860	2520	3600	
<i>Dactylosolen phuketensis</i>	1560	2160	1920	2760	
<i>Guinardia</i>					
<i>Guinardia cylindrus</i>	1500	1200	1020	2160	
<i>Guinardia fleccida</i>	2760	1920	1380	2700	
<i>Guinardia striata</i>	1560	1860	2340	2100	
<i>Proboscia</i>					
<i>Proboscia alata</i>	1620	2040	1260	2460	
<i>Pseudosolenia</i>					
<i>Pseudosolenia calcar avis</i>	1680	1680	2580	1200	
<i>Rhizosolenia</i>					
<i>Rhizosolenia acuminata</i>	120	60	60	120	
<i>Rhizosolenia bergonii</i>	1020	1080	960	1140	
<i>Rhizosolenia cleveii var. cleveii</i>	900	1380	1380	960	
<i>Rhizosolenia formosa</i>	60	180	180	60	
<i>Rhizosolenia hyalina</i>	960	1620	1140	1500	
<i>Rhizosolenia imbricata</i>	120	120	60	60	
<i>Rhizosolenia pungens</i>	840	1020	1080	900	
<i>Rhizosolenia robusta</i>	600	600	480	540	
<i>Rhizosolenia striata</i>	240	360	360	480	
<i>Rhizosolenia styliformis</i>	360	240	420	540	
<i>Rhizosolenia sp.1</i>	300	300	240	360	
Striatellales					
Striatellaceae					
<i>Striatella</i>					
<i>Striatella sp.1</i>					
Surirellales					
Entomoneidaceae					
<i>Entomoneis</i>					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	PACPP-3CP2- PS-1	PACPP-3CP2- PS-2	PACPP-3CP2- PB-1	PACPP-3CP2- PB-2	
<i>Entomoneis sp.1</i>	360	300	240	360	
<i>Entomoneis sp.2</i>	180	120	60	180	
Surirellaceae					
<i>Campylodiscus</i>					
<i>Campylodiscus sp.1</i>	120	180	360	180	
<i>Surirella</i>					
<i>Surirella sp.1</i>					
Thalassionematales					
Thalassionemataceae					
<i>Thalassionema</i>					
<i>Thalassionema nitzschoides</i>	19020	14460	13920	18300	
<i>Thalassionema sp.1</i>	11160	7260		4680	
<i>Thalassiothrix</i>					
<i>Thalassiothrix sp.1</i>	8640	6000	3660	6480	
<i>Thalassiothrix sp.2</i>	1980	1860	1200	1560	
Thalassiosiphonales					
Catenulaceae					
<i>Amphora</i>					
<i>Amphora sp.1</i>	360	300	360	480	
<i>Amphora sp.2</i>					
<i>Amphora sp.3</i>					
Thalassiosirales					
Lauderiaceae					
<i>Lauderia</i>					
<i>Lauderia annulata</i>	2280	1080	1080	1920	
Skeletonemataceae					
<i>Skeletonema</i>					
<i>Skeletonema sp.1</i>					
Stephanodiscaceae					
<i>Cyclotella</i>					
<i>Cyclotella sp.1</i>	1740	1080	660	1740	
Thalassiosiraceae					
<i>Planktoniella</i>					
<i>Planktoniella blanda</i>	660	420	420	600	
<i>Planktoniella sol</i>	240	300	600	360	
<i>Thalassiosira</i>					
<i>Thalassiosira subtilis</i>					
<i>Thalassiosira sp.4</i>	1740	1440		1800	
<i>Thalassiosira sp.5</i>	1020	1560	1140	2040	
<i>Thalassiosira sp.6</i>					
Triceratiales					
Tricerataceae					
<i>Triceratium</i>					
<i>Triceratium favus</i>					
Pyrrophytophyta					
Dinophyceae					
Dinophysiales					
Amphisoleniaceae					
<i>Amphisolenia</i>					
<i>Amphisolenia bidentata</i>	120	240	120	60	



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	PACPP-3CP2- PS-1	PACPP-3CP2- PS-2	PACPP-3CP2- PB-1	PACPP-3CP2- PB-2	
Dinophysiaceae					
<i>Histioneis</i>					
<i>Histioneis hyalina</i>			60		
<i>Ornithocercus</i>					
<i>Ornithocercus thumii</i>	60		120		
<i>Phalacroma</i>					
<i>Phalacroma mitra</i>		60			
Gonyaulacales					
Ceratiaceae					
<i>Ceratium</i>					
<i>Ceratium contortum</i>					
<i>Ceratium deflexum</i>					
<i>Ceratium dens</i>					
<i>Ceratium extensum</i>					
<i>Ceratium falcatum</i>	60			120	
<i>Ceratium furca</i>	240	300	300	540	
<i>Ceratium fuscum</i>	300	240	300	360	
<i>Ceratium gibberum</i>					
<i>Ceratium kofoidii</i>					
<i>Ceratium macroceros</i>	120			120	
<i>Ceratium massiliense</i>					
<i>Ceratium porrectum</i>	240			360	
<i>Ceratium schmidtii</i>					
<i>Ceratium trichoceros</i>	240	300	360	300	
<i>Ceratium tripos</i>					
Goniodomataceae					
<i>Goniodoma</i>					
<i>Goniodoma sp.1</i>					
Gonyaulacaceae					
<i>Lingulodinium</i>					
<i>Lingulodinium sp.1</i>					
Oxytoxaceae					
<i>Oxytoxum</i>					
<i>Oxytoxum sp.1</i>					
<i>Oxytoxum sp.3</i>				180	
<i>Oxytoxum sp.4</i>					
Pyrophacaceae					
<i>Pyrophacus</i>					
<i>Pyrophacus steinii</i>					
Gymnodiniales					
Gymnodiniaceae					
<i>Gymnodinium</i>					
<i>Gymnodinium sp.2</i>				120	
<i>Gyrodinium</i>					
<i>Gyrodinium falcatum</i>			60	60	
Peridinales					
Podolampadaceae					
<i>Podolampas</i>					
<i>Podolampas bipes</i>		120			
<i>Podolampas palmipes</i>	120	240	180		



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PACPP-3CP2- PS-1	PACPP-3CP2- PS-2	PACPP-3CP2- PB-1	PACPP-3CP2- PB-2
Protoperdiniaceae				
Protoperdinium				
Protoperdinium abei				360
Protoperdinium asymmetricum	240	300	240	240
Protoperdinium conicum	60		120	120
Protoperdinium depressum	300	420	360	240
Protoperdinium diabolium		240	120	
Protoperdinium divergens	180	300	300	240
Protoperdinium elegans				
Protoperdinium latispinum	60	240	240	240
Protoperdinium oceanicum				
Protoperdinium pallidum				
Prorocentrales				
Prorocentraceae				
Prorocentrum				
Prorocentrum mexicanum			240	360
Prorocentrum micans				
TOTAL	246420	222180	236520	320190
Number of Taxa	133	129	137	136

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
Spondylosium sp.1	45.5	23.06	17	96
Calothrix crustacea	9.73	3.03	5	15
Oscillatoria erythraea	153.87	38.21	86	225
Oscillatoria sp.1	78.5	20.27	44	113



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAREF-A-PS- 1	PAREF-A-PS- 2	PAREF-A-PB- 1	PAREF-A-PB- 2
Charophyta				
Conjugophyceae				
Desmidiaceae				
Desmidiaceae				
Spondylosium				
Spondylosium sp.1	390	240	240	240
Staurastrum				
Staurastrum sp.1		120		120
Staurastrum sp.3				
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
Golenkinia				
Golenkinia radiata	60	60		120
Sphaeropleales				
Scenedesmaceae				
Scenedesmus				
Scenedesmus sp.1				
Trebouxioiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
Ankistrodesmus sp.1	120		60	120
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
Dictyocha fibula	540	480	480	420
Dictyocha speculum var. octonaris			120	
Cyanobacteria				
Cyanophyceae				
Chroococcales				
Chroococcaceae				
Gloeocapsa				
Gloeocapsa sp.1				
Nostocales				
Oscillatoriaceae				
Oscillatoria				
Oscillatoria erythraea	26820	25680	37920	36660
Oscillatoria sp.1	15120	12180	18600	12900
Rivulariaceae				
Calothrix				
Calothrix crustacea	1440	1500	2460	2220
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAREF-A-PS- 1	PAREF-A-PS- 2	PAREF-A-PB- 1	PAREF-A-PB- 2
Asterolampra mariylandica	420	60	240	60
Asteromphalus				
Asteromphalus cleveanus	240	120	180	240
Asteromphalus elegans			60	
Asteromphalus sp.1	360	360	300	
Aulacoseirales				
Aulacoseiraceae				
Aulacoseira				
Aulacoseira sp.1				
Bacillariales				
Bacillariaceae				
Bacillaria				
Bacillaria paxillifer	5820	8370	11580	15420
Cylindrotheca				
Cylindrotheca closterium	1260			540
Cylindrotheca sp.1				
Nitzschia				
Nitzschia longissima	810	780	1260	960
Nitzschia lorenziana	1080	990	960	1380
Nitzschia sp.3	1350	960	480	480
Nitzschia sp.4	780	1110	780	720
Nitzschia sp.5	690	1020	780	1200
Nitzschia sp.9	750	600	1260	1740
Nitzschia sp.10	2040	1560	600	600
Nitzschia sp.11	2850	1440	900	480
Pseudo-nitzschia				
Pseudo-nitzschia sp.1	4590	1740	3240	3120
Centrales				
Eupodiscaceae				
Odontella				
Odontella mobiliensis	180	300	120	180
Odontella sinensis	480	900	780	660
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrium				
Bacteriastrium comosum	5340	9240	8700	9840
Bacteriastrium furcatum	4800	10020	9660	10380
Bacteriastrium hyalinum	9600	28650	7500	10380
Chaetoceros				
Chaetoceros aequatorialis	1050	1080	1680	1560
Chaetoceros affinis	3870	4650	8040	5820
Chaetoceros atlanticus	2910	4380	6780	3720
Chaetoceros coarctatus	5220	6780	5340	3420
Chaetoceros compressus	5970	6360	5820	4800
Chaetoceros costatus	5040	7890	4380	3480
Chaetoceros didymus	6240	7560	7740	7920
Chaetoceros diversus	9960	9060	5040	5940
Chaetoceros eibonii	4890	5850	3840	5100
Chaetoceros lorenzianus	9360	5100	4920	3000
Chaetoceros messanensis	4680	6750	2520	5880



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAREF-A-PS- 1	PAREF-A-PS- 2	PAREF-A-PB- 1	PAREF-A-PB- 2
Chaetoceros peruvianus	1680	2250	1500	2100
Chaetoceros pseudocurvisetus	5460	7440	4800	4740
Chaetoceros tenuissimus	5130	5340	3180	3540
Chaetoceros sp.1				
Chaetoceros sp.3				
Corethrales				
Corethraceae				
Corethron				
Corethron criophilum	240	180	240	300
Coscinodiscals				
Coscinodiscaceae				
Coscinodiscus				
Coscinodiscus gigas				
Coscinodiscus sp.1	420	300	480	180
Coscinodiscus sp.2		60		
Coscinodiscus sp.3				
Coscinodiscus sp.4				
Coscinodiscus sp.5	180	180	180	180
Coscinodiscus sp.6	240	240	240	300
Coscinodiscus sp.7				
Coscinodiscus sp.8	300	180	180	240
Coscinodiscus sp.9	300	180	240	360
Coscinodiscus sp.10	240	300	480	240
Coscinodiscus sp.11	300	270	420	120
Coscinodiscus sp.12		180		
Coscinodiscus sp.13				
Gossierella				
Gossierella tropica	180	240	60	180
Palmeria				
Palmeria hardmaniana	60	240	120	240
Heliopeltaceae				
Actinoptychus				
Actinoptychus sp.1	1320	1020	1140	900
Hemidiscaceae				
Pseudoguardia				
Pseudoguardia recta	2160	840	2850	2160
Eunotiales				
Eunotiaceae				
Eunotia				
Eunotia sp.1				
Fragilariaceae				
Asterionella				
Asterionella formosa				
Fragilaria				
Fragilaria sp.1	1440			
Hemiaulales				
Hemiaulaceae				
Cerataulina				
Cerataulina sp.1		2160	3060	1500



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAREF-A-PS- 1	PAREF-A-PS- 2	PAREF-A-PB- 1	PAREF-A-PB- 2
Climacodium				
<i>Climacodium biconcavum</i>	2940	3270	1560	2040
<i>Climacodium frauenfeldianum</i>	1740	3240	2460	3120
Eucampia				
<i>Eucampia cornuta</i>	2250	1980	1080	840
<i>Eucampia zodiacus</i>	1560	900	1440	900
Hemiaulus				
<i>Hemiaulus hauckii</i>	2340	3000	1980	4200
<i>Hemiaulus indicus</i>	1260	1500	1560	2940
<i>Hemiaulus membranaceus</i>	1380	1140	1620	2820
<i>Hemiaulus sinensis</i>	1620	1320	3090	2520
Leptocylindrales				
Leptocylindraceae				
<i>Leptocylindrus</i>				
<i>Leptocylindrus danicus</i>	3780	1740	1620	1800
Licmophales				
Licmophoriaceae				
<i>Licmophora</i>				
<i>Licmophora flabellata</i>				
Lithodesmiales				
Lithodesmaceae				
<i>Ditylum</i>				
<i>Ditylum brightwellii</i>	420	480	360	240
<i>Ditylum sol</i>	540	840	600	540
Naviculales				
Diploneidaceae				
<i>Diploneis</i>				
<i>Diploneis</i> sp.1	420	390	240	360
<i>Diploneis</i> sp.2				
<i>Diploneis</i> sp.3				
Naviculaceae				
<i>Anomoeneis</i>				
<i>Anomoeneis</i> sp.1			420	240
<i>Haslea</i>				
<i>Haslea wawriakae</i>	420	420	480	360
<i>Haslea</i> sp.1	420	540	540	420
<i>Meuniera</i>				
<i>Meuniera</i> sp.1	900	660	600	720
<i>Navicula</i>				
<i>Navicula</i> sp.1	1350	960	540	840
<i>Navicula</i> sp.2	750	1710	600	1560
<i>Navicula</i> sp.3	630	1800	660	540
<i>Navicula</i> sp.4	1380	1050	540	540
<i>Navicula</i> sp.5	1200	720	480	660
<i>Navicula</i> sp.6	690	660	420	420
<i>Navicula</i> sp.7	780	600	360	420
<i>Navicula</i> sp.8	420	630	540	480
<i>Trachyneis</i>				
<i>Trachyneis</i> sp.1	600	360	600	420
Pinnulariaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAREF-A-PS- 1	PAREF-A-PS- 2	PAREF-A-PB- 1	PAREF-A-PB- 2
Pinnularia				
<i>Pinnularia</i> sp.2				
Pleurosigmataceae				
<i>Gyrosigma</i>				
<i>Gyrosigma</i> sp.1	780	540	720	600
<i>Gyrosigma</i> sp.2	480	420	1050	420
<i>Gyrosigma</i> sp.3	600	780	720	420
<i>Pleurosigma</i>				
<i>Pleurosigma</i> sp.1	780	600	480	600
<i>Pleurosigma</i> sp.2	600	420	510	480
<i>Pleurosigma</i> sp.3	390	600	360	360
<i>Pleurosigma</i> sp.4	660	420	420	300
<i>Pleurosigma</i> sp.5	420	240	300	180
<i>Pleurosigma</i> sp.6	960	420	720	420
Stauroneidaceae				
<i>Stauroneis</i>				
<i>Stauroneis salina</i>				
Rhizosoleniales				
Rhizosoleniaceae				
<i>Dactylosolen</i>				
<i>Dactylosolen blavyanus</i>	840	4500	1800	1620
<i>Dactylosolen fragilissimus</i>	2460	3060	1320	1380
<i>Dactylosolen phuketensis</i>	2520	4410	1200	1800
<i>Guinardia</i>				
<i>Guinardia cylindrus</i>	1110	1260	960	1860
<i>Guinardia fleccida</i>	2160	2460	5040	2280
<i>Guinardia striata</i>	2100	2460	1500	1920
<i>Proboscia</i>				
<i>Proboscia alata</i>	2910	1980	2160	3180
<i>Pseudosolenia</i>				
<i>Pseudosolenia calcar avis</i>	3180	1620	1800	2400
<i>Rhizosolenia</i>				
<i>Rhizosolenia acuminata</i>	240	60	120	180
<i>Rhizosolenia bergonii</i>	1500	840	660	1140
<i>Rhizosolenia cleveii</i> var. <i>cleveii</i>	1380	2790	840	900
<i>Rhizosolenia formosa</i>	60	60	120	120
<i>Rhizosolenia hyalina</i>	1830	2250	1020	1860
<i>Rhizosolenia imbricata</i>	180	60	240	180
<i>Rhizosolenia pungens</i>	1590	2010	1020	840
<i>Rhizosolenia robusta</i>	630	540	900	480
<i>Rhizosolenia striata</i>	360	360	420	300
<i>Rhizosolenia styliformis</i>	360	360	360	420
<i>Rhizosolenia</i> sp.1	420	420	120	240
Striatellales				
Striatellaceae				
<i>Striatella</i>				
<i>Striatella</i> sp.1				
Surirellales				
Entomoneidaceae				
<i>Entomoneis</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAREF-A-PS- 1	PAREF-A-PS- 2	PAREF-A-PB- 1	PAREF-A-PB- 2
<i>Entomoneis</i> sp.1	300	540	360	300
<i>Entomoneis</i> sp.2		240	300	240
Surirellaceae				
<i>Campylodiscus</i>				
<i>Campylodiscus</i> sp.1	180	120	120	180
<i>Surirella</i>				
<i>Surirella</i> sp.1	240		120	
Thalassionematales				
Thalassionemataceae				
<i>Thalassionema</i>				
<i>Thalassionema nitzschoides</i>	13650	10980	12960	15180
<i>Thalassionema</i> sp.1	7710	7500	7260	8460
<i>Thalassiothrix</i>				
<i>Thalassiothrix</i> sp.1	7530	7020	6840	6360
<i>Thalassiothrix</i> sp.2	1560	2010	5640	900
Thalassiosiphonales				
Catenulaceae				
<i>Amphora</i>				
<i>Amphora</i> sp.1	240	420	780	300
<i>Amphora</i> sp.2				
<i>Amphora</i> sp.3				
Thalassiosirales				
Lauderiaceae				
<i>Lauderia</i>				
<i>Lauderia annulata</i>	2100	1260	1140	1800
Skeletonemataceae				
<i>Skeletonema</i>				
<i>Skeletonema</i> sp.1				
Stephanodiscaceae				
<i>Cyclotella</i>				
<i>Cyclotella</i> sp.1	1380	2400	1260	1260
Thalassiosiraceae				
<i>Planktoniella</i>				
<i>Planktoniella blanda</i>	840	540	540	720
<i>Planktoniella sol</i>	540	300	240	240
<i>Thalassiosira</i>				
<i>Thalassiosira subtilis</i>				
<i>Thalassiosira</i> sp.4	2310	1500	1620	2520
<i>Thalassiosira</i> sp.5	1860	1620	1620	1980
<i>Thalassiosira</i> sp.6				
Triceratiales				
Tricerataceae				
<i>Triceratium</i>				
<i>Triceratium favus</i>				
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
<i>Amphisolenia</i>				
<i>Amphisolenia bidentata</i>	180	240	120	120



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAREF-A-PS- 1	PAREF-A-PS- 2	PAREF-A-PB- 1	PAREF-A-PB- 2
Dinophysiaceae				
<i>Histioneis</i>				
<i>Histioneis hyalina</i>			60	
<i>Ornithocercus</i>				
<i>Ornithocercus thumii</i>	60		120	
<i>Phalacroma</i>				
<i>Phalacroma mitra</i>		60		
Gonyaulacales				
Ceratiaceae				
<i>Ceratium</i>				
<i>Ceratium contortum</i>				
<i>Ceratium deflexum</i>			60	
<i>Ceratium dens</i>				
<i>Ceratium extensum</i>				
<i>Ceratium falcatum</i>				
<i>Ceratium furca</i>	240	300	420	240
<i>Ceratium fuscus</i>	420	300	300	360
<i>Ceratium gibberum</i>				
<i>Ceratium kofoidii</i>				
<i>Ceratium macroceros</i>	120			60
<i>Ceratium massiliense</i>				120
<i>Ceratium porrectum</i>	240			240
<i>Ceratium schmidtii</i>				
<i>Ceratium trichoceros</i>	390	180	360	240
<i>Ceratium tripos</i>				
Goniidomataceae				
<i>Goniidoma</i>				
<i>Goniidoma</i> sp.1	120			
Gonyaulacaceae				
<i>Lingulodinium</i>				
<i>Lingulodinium</i> sp.1				
Oxytoxaceae				
<i>Oxytoxum</i>				
<i>Oxytoxum</i> sp.1				
<i>Oxytoxum</i> sp.3			120	
<i>Oxytoxum</i> sp.4				
Pyrophacaceae				
<i>Pyrophacus</i>				
<i>Pyrophacus steinii</i>			120	
Gymnodiniales				
Gymnodiniaceae				
<i>Gymnodinium</i>				
<i>Gymnodinium</i> sp.2				240
<i>Gyrodinium</i>				
<i>Gyrodinium falcatum</i>	60			180
Peridinales				
Podolampadaceae				
<i>Podolampas</i>				
<i>Podolampas bipes</i>		60		
<i>Podolampas palmipes</i>	180	240	120	



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAREF-A-PS-1	PAREF-A-PS-2	PAREF-A-PB-1	PAREF-A-PB-2
Protoperdiniaceae				
Protoperdinium				
Protoperdinium abei				120
Protoperdinium asymmetricum	240	60	240	180
Protoperdinium conicum	60		60	120
Protoperdinium depressum	300	360	240	240
Protoperdinium diabolium		180	120	
Protoperdinium divergens	180	240	240	300
Protoperdinium elegans				
Protoperdinium latispinum	180	240	180	240
Protoperdinium oceanicum				
Protoperdinium pallidum				
Prorocentrales				
Prorocentraceae				
Prorocentrum				
Prorocentrum mexicanum			240	180
Prorocentrum micans				
TOTAL	271470	300300	279720	279540
Number of Taxa	134	132	138	136

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-1CP2-PS-1	PAWB-1CP2-PS-2	PAWB-1CP2-PB-1	PAWB-1CP2-PB-2
Charophyta				
Conjugophyceae				
Desmidiaceae				
Desmidiaceae				
Spondylosium				
<i>Spondylosium</i> sp.1	240	240	240	360
<i>Staurastrum</i>				
<i>Staurastrum</i> sp.1			180	120
<i>Staurastrum</i> sp.3				
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
Golenkinia				
<i>Golenkinia radiata</i>				60
Sphaeropleales				
Scenedesmaceae				
Scenedesmus				
<i>Scenedesmus</i> sp.1				
Trebouxiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
<i>Ankistrodesmus</i> sp.1	60			60
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
<i>Dictyocha fibula</i>	540	480	420	420
<i>Dictyocha speculum</i> var. <i>octonaris</i>				240
Cyanobacteria				
Cyanophyceae				
Chroococcales				
Chroococcaceae				
Gloeocapsa				
<i>Gloeocapsa</i> sp.1				
Nostocales				
Oscillatoriaceae				
Oscillatoria				
<i>Oscillatoria erythraea</i>	42600	31740	44520	41520
<i>Oscillatoria</i> sp.1	11880	13620	24180	10140
Rivulariaceae				
Calothrix				
<i>Calothrix crustacea</i>	1200	1020	1920	1440
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-1CP2-PS-1	PAWB-1CP2-PS-2	PAWB-1CP2-PB-1	PAWB-1CP2-PB-2
<i>Asterolampra marylandica</i>	240	120	120	240
<i>Asteromphalus</i>				
<i>Asteromphalus cleveanus</i>	60	180	60	240
<i>Asteromphalus elegans</i>			120	
<i>Asteromphalus</i> sp.1	180	120		120
Aulacoseirales				
Aulacoseiraceae				
Aulacoseira				
<i>Aulacoseira</i> sp.1				
Bacillariales				
Bacillariaceae				
Bacillaria				
<i>Bacillaria paxillifer</i>	9420	6960	8040	7440
<i>Cylindrotheca</i>				
<i>Cylindrotheca closterium</i>	660	780	1200	1140
<i>Cylindrotheca</i> sp.1				
<i>Nitzschia</i>				
<i>Nitzschia longissima</i>	480	540	420	840
<i>Nitzschia lorenziana</i>	780	960	480	900
<i>Nitzschia</i> sp.3	600	840	300	780
<i>Nitzschia</i> sp.4			300	360
<i>Nitzschia</i> sp.5			420	660
<i>Nitzschia</i> sp.9			360	600
<i>Nitzschia</i> sp.10	600	480	480	
<i>Nitzschia</i> sp.11	540	660	540	
<i>Pseudo-nitzschia</i>				
<i>Pseudo-nitzschia</i> sp.1	3000	3420	2160	1740
Centrales				
Eupodiscaceae				
Odontella				
<i>Odontella mobiliensis</i>	240	180	60	180
<i>Odontella sinensis</i>	960	780	660	900
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrium				
<i>Bacteriastrium comosum</i>	6180	4740	5940	5040
<i>Bacteriastrium furcatum</i>	5100	6420	6480	8220
<i>Bacteriastrium hyalinum</i>	8640	6720	7320	9840
<i>Chaetoceros</i>				
<i>Chaetoceros aequatorialis</i>	1560	1320	1080	1320
<i>Chaetoceros affinis</i>	4800	5340	4320	4680
<i>Chaetoceros atlanticus</i>	4740	3360	2760	6660
<i>Chaetoceros coarctatus</i>	5460	4020	5220	8760
<i>Chaetoceros compressus</i>	5700	2700	4500	5940
<i>Chaetoceros costatus</i>	2940	2940	3420	4860
<i>Chaetoceros didymus</i>	4740	5280	3300	6660
<i>Chaetoceros diversus</i>	4920	4320	3540	9720
<i>Chaetoceros eibonii</i>			2340	3060
<i>Chaetoceros lorenzianus</i>	3420	2760	6180	3180
<i>Chaetoceros messanensis</i>	2880	2760	1800	2580



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-1CP2-PS-1	PAWB-1CP2-PS-2	PAWB-1CP2-PB-1	PAWB-1CP2-PB-2
<i>Chaetoceros peruvianus</i>	1740	780	840	1200
<i>Chaetoceros pseudocurvisetus</i>	3180	4590	3720	5100
<i>Chaetoceros tenuissimus</i>			3060	
<i>Chaetoceros</i> sp.1			2760	
<i>Chaetoceros</i> sp.3			3960	4380
Corethrales				
Corethraceae				
Corethron				
<i>Corethron criophilum</i>	180	180	120	180
Coscinodiscales				
Coscinodiscaceae				
Coscinodiscus				
<i>Coscinodiscus gigas</i>				
<i>Coscinodiscus</i> sp.1	240	180	180	360
<i>Coscinodiscus</i> sp.2		180	120	240
<i>Coscinodiscus</i> sp.3				180
<i>Coscinodiscus</i> sp.4				120
<i>Coscinodiscus</i> sp.5	360	300	240	300
<i>Coscinodiscus</i> sp.6	240	360	360	360
<i>Coscinodiscus</i> sp.7		120	60	180
<i>Coscinodiscus</i> sp.8	300	120	240	240
<i>Coscinodiscus</i> sp.9	300	240	300	240
<i>Coscinodiscus</i> sp.10	300	180	300	180
<i>Coscinodiscus</i> sp.11	300	180	300	240
<i>Coscinodiscus</i> sp.12	180	120		
<i>Coscinodiscus</i> sp.13		60		
Gossierella				
<i>Gossierella tropica</i>			120	120
Palmeria				
<i>Palmeria hardmaniana</i>	120	60	120	180
Heliopeltaceae				
Actinoptychus				
<i>Actinoptychus</i> sp.1	660	120	900	660
Hemidiscaceae				
Pseudoguardia				
<i>Pseudoguardia recta</i>	5160			
Eunotiales				
Eunotiaceae				
Eunotia				
<i>Eunotia</i> sp.1				
Fragilariaceae				
Asterionella				
<i>Asterionella formosa</i>				
Fragilaria				
<i>Fragilaria</i> sp.1				
Hemiaulales				
Hemiaulaceae				
Cerataulina				
<i>Cerataulina</i> sp.1	2040	2220		2700



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-1CP2- PS-1	PAWB-1CP2- PS-2	PAWB-1CP2- PB-1	PAWB-1CP2- PB-2
Climacodium				
<i>Climacodium biconcavum</i>	2760	1440	2460	1980
<i>Climacodium frauenfeldianum</i>	1200	2040	1980	2460
Eucampia				
<i>Eucampia cornuta</i>	2580	840	1380	2340
<i>Eucampia zodiacus</i>	2940	780	1560	2400
Hemiaulus				
<i>Hemiaulus hauckii</i>	1740	1320	2430	2160
<i>Hemiaulus indicus</i>	3060	1080	2340	3000
<i>Hemiaulus membranaceus</i>	1440	1440	1680	3180
<i>Hemiaulus sinensis</i>	3240	1440	1740	3480
Leptocylindrales				
Leptocylindraceae				
<i>Leptocylindrus</i>				
<i>Leptocylindrus danicus</i>	1260	1440	2640	1260
Licmophales				
Licmophoriaceae				
<i>Licmophora</i>				
<i>Licmophora flabellata</i>				2520
Lithodesmiales				
Lithodesmaceae				
<i>Ditylum</i>				
<i>Ditylum brightwellii</i>	480	240	240	300
<i>Ditylum sol</i>	840	600	480	600
Naviculales				
Diploneidaceae				
<i>Diploneis</i>				
<i>Diploneis sp.1</i>	300	240	300	360
<i>Diploneis sp.2</i>				
<i>Diploneis sp.3</i>				
Naviculaceae				
<i>Anomoeneis</i>				
<i>Anomoeneis sp.1</i>				
<i>Haslea</i>				
<i>Haslea wawriakae</i>	360	360	300	240
<i>Haslea sp.1</i>	600	660	420	300
<i>Meuniera</i>				
<i>Meuniera sp.1</i>	540	360	600	540
<i>Navicula</i>				
<i>Navicula sp.1</i>	540	480	480	480
<i>Navicula sp.2</i>	3420	480	2100	1920
<i>Navicula sp.3</i>	1080	480	480	660
<i>Navicula sp.4</i>	960	840	600	600
<i>Navicula sp.5</i>	840	540	420	540
<i>Navicula sp.6</i>	660	480	780	540
<i>Navicula sp.7</i>	720	600	420	240
<i>Navicula sp.8</i>	840	300	600	420
<i>Trachyneis</i>				
<i>Trachyneis sp.1</i>	480	480	300	420
Pinnulariaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-1CP2- PS-1	PAWB-1CP2- PS-2	PAWB-1CP2- PB-1	PAWB-1CP2- PB-2
Pinnularia				
<i>Pinnularia sp.2</i>	180	60	120	300
Pleurosigmataceae				
<i>Gyrosigma</i>				
<i>Gyrosigma sp.1</i>	240	300	240	240
<i>Gyrosigma sp.2</i>	480	420	360	360
<i>Gyrosigma sp.3</i>	420	480	180	420
<i>Pleurosigma</i>				
<i>Pleurosigma sp.1</i>	660	660	420	480
<i>Pleurosigma sp.2</i>	480	900	420	540
<i>Pleurosigma sp.3</i>	720	780	300	540
<i>Pleurosigma sp.4</i>	600	660	300	480
<i>Pleurosigma sp.5</i>	420	180	180	240
<i>Pleurosigma sp.6</i>	480	660	480	600
Stauroneidaceae				
<i>Stauroneis</i>				
<i>Stauroneis salina</i>				
Rhizosoleniales				
Rhizosoleniaceae				
<i>Dactylosolen</i>				
<i>Dactylosolen blavyanus</i>	840	1200	1020	2340
<i>Dactylosolen fragilissimus</i>	960	1980	1560	1620
<i>Dactylosolen phuketensis</i>	1800	2040	1800	1560
<i>Guinardia</i>				
<i>Guinardia cylindrus</i>	780	1560	1980	1320
<i>Guinardia fleccida</i>	4200	2520	4740	2880
<i>Guinardia striata</i>	1680	1260	2220	1860
<i>Proboscia</i>				
<i>Proboscia alata</i>	1560	3240	1260	2340
<i>Pseudosolenia</i>				
<i>Pseudosolenia calcar avis</i>	1200	2520	1800	1320
<i>Rhizosolenia</i>				
<i>Rhizosolenia acuminata</i>	240	180	180	120
<i>Rhizosolenia bergonii</i>	660	960	960	1020
<i>Rhizosolenia cleveii var. cleveii</i>	1260	720	840	1860
<i>Rhizosolenia formosa</i>	180	240	60	240
<i>Rhizosolenia hyalina</i>	540	780	1020	1020
<i>Rhizosolenia imbricata</i>	60	240	120	60
<i>Rhizosolenia pungens</i>	1140	1320	1020	1500
<i>Rhizosolenia robusta</i>	420	420	600	600
<i>Rhizosolenia striata</i>	480	300	420	300
<i>Rhizosolenia styliformis</i>	840	540	480	360
<i>Rhizosolenia sp.1</i>	540	240	600	240
Striatellales				
Striatellaceae				
<i>Striatella</i>				
<i>Striatella sp.1</i>				
Surirellales				
Entomoneidaceae				
<i>Entomoneis</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-1CP2- PS-1	PAWB-1CP2- PS-2	PAWB-1CP2- PB-1	PAWB-1CP2- PB-2
<i>Entomoneis sp.1</i>	540	480	480	480
<i>Entomoneis sp.2</i>	360	240	120	240
Surirellaceae				
<i>Campylodiscus</i>				
<i>Campylodiscus sp.1</i>	300	120	240	480
<i>Surirella</i>				
<i>Surirella sp.1</i>				
Thalassionematales				
Thalassionemataceae				
<i>Thalassionema</i>				
<i>Thalassionema nitzschoides</i>	5340	6180	5580	7860
<i>Thalassionema sp.1</i>	3480	4980	3000	4680
<i>Thalassiothrix</i>				
<i>Thalassiothrix sp.1</i>	5100	2520	3780	5160
<i>Thalassiothrix sp.2</i>	660	420	660	540
Thalassiosiphales				
Catenulaceae				
<i>Amphora</i>				
<i>Amphora sp.1</i>	600	180	300	540
<i>Amphora sp.2</i>				
<i>Amphora sp.3</i>				
Thalassiosirales				
Lauderiaceae				
<i>Lauderia</i>				
<i>Lauderia annulata</i>	1020	1140	1140	900
Skeletonemataceae				
<i>Skeletonema</i>				
<i>Skeletonema sp.1</i>				
Stephanodiscaceae				
<i>Cyclotella</i>				
<i>Cyclotella sp.1</i>	600	420	1140	1200
Thalassiosiraceae				
<i>Planktoniella</i>				
<i>Planktoniella blanda</i>	780	540	360	660
<i>Planktoniella sol</i>	480	240	240	240
<i>Thalassiosira</i>				
<i>Thalassiosira subtilis</i>				
<i>Thalassiosira sp.4</i>	1200	780	840	900
<i>Thalassiosira sp.5</i>	1260	840	1020	
<i>Thalassiosira sp.6</i>				
Triceratiales				
Tricerataceae				
<i>Triceratium</i>				
<i>Triceratium favus</i>				120
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
<i>Amphisolenia</i>				
<i>Amphisolenia bidentata</i>	180		180	180



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-1CP2- PS-1	PAWB-1CP2- PS-2	PAWB-1CP2- PB-1	PAWB-1CP2- PB-2
Dinophysiaceae				
<i>Histioneis</i>				
<i>Histioneis hyalina</i>				
<i>Ornithocercus</i>				
<i>Ornithocercus thumii</i>			120	120
<i>Phalacroma</i>				
<i>Phalacroma mitra</i>				
Gonyaulacales				
Ceratiaceae				
<i>Ceratium</i>				
<i>Ceratium contortum</i>				
<i>Ceratium deflexum</i>				
<i>Ceratium dens</i>				
<i>Ceratium extensum</i>				
<i>Ceratium falcatum</i>			120	60
<i>Ceratium furca</i>	240	240	240	240
<i>Ceratium fuscum</i>	360	300	240	180
<i>Ceratium gibberum</i>				
<i>Ceratium kofoidii</i>	120	120	180	120
<i>Ceratium macroceros</i>				
<i>Ceratium massiliense</i>				
<i>Ceratium porrectum</i>				180
<i>Ceratium schmidtii</i>				
<i>Ceratium trichoceros</i>	240	240	180	240
<i>Ceratium tripos</i>	60	120	240	120
Goniidomataceae				
<i>Goniodoma</i>				
<i>Goniodoma sp.1</i>				
Gonyaulacaceae				
<i>Lingulodinium</i>				
<i>Lingulodinium sp.1</i>			240	
Oxytoxaceae				
<i>Oxytoxum</i>				
<i>Oxytoxum sp.1</i>				300
<i>Oxytoxum sp.3</i>				360
<i>Oxytoxum sp.4</i>				240
Pyrophacaceae				
<i>Pyrophacus</i>				
<i>Pyrophacus steinii</i>				
Gymnodiniales				
Gymnodiniaceae				
<i>Gymnodinium</i>				
<i>Gymnodinium sp.2</i>				120
<i>Gyrodinium</i>				
<i>Gyrodinium falcatum</i>				
Peridinales				
Podolampadaceae				
<i>Podolampas</i>				
<i>Podolampas bipes</i>			60	120
<i>Podolampas palmipes</i>			240	180



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	PAWB-1CP2- PS-1	PAWB-1CP2- PS-2	PAWB-1CP2- PB-1	PAWB-1CP2- PB-2	
Protoperidiniaceae					
Protoperidinium					
<i>Protoperidinium abei</i>	120	120	180		
<i>Protoperidinium asymmetricum</i>	120	60	120	240	
<i>Protoperidinium conicum</i>	120	120	120	180	
<i>Protoperidinium depressum</i>	240	360	300	300	
<i>Protoperidinium diabolium</i>	60	120	120	60	
<i>Protoperidinium divergens</i>	240	300	360	240	
<i>Protoperidinium elegans</i>			120	120	
<i>Protoperidinium latispinum</i>			120	120	
<i>Protoperidinium oceanicum</i>					
<i>Protoperidinium pallidum</i>			60		
Prorocentrales					
Prorocentraceae					
Prorocentrum				180	
<i>Prorocentrum mexicanum</i>				300	
<i>Prorocentrum micans</i>	120	120	180		
TOTAL	231540	193410	238770	256020	
Number of Taxa	127	127	144	147	

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	PAWB-3CP2- PS-1	PAWB-3CP2- PS-2	PAWB-3CP2- PB-1	PAWB-3CP2- PB-2	
Charophyta					
Conjugophyceae					
Desmidiaceae					
Desmidiaceae					
<i>Spondylosium</i>					
<i>Spondylosium</i> sp.1	300	300	240	240	
<i>Staurastrum</i>					
<i>Staurastrum</i> sp.1			120	60	
<i>Staurastrum</i> sp.3					
Chlorophyta					
Chlorophyceae					
Chlamydomonadales					
Micractiniaceae					
Golenkinia					
<i>Golenkinia radiata</i>			60	60	
Sphaeropleales					
Scenedesmaceae					
Scenedesmus					
<i>Scenedesmus</i> sp.1					
Trebouxiophyceae					
Oocystales					
Oocystaceae					
Ankistrodesmus					
<i>Ankistrodesmus</i> sp.1	60		120	60	
Chrysophyta					
Chrysophyceae					
Dictyochales					
Dictyochaceae					
Dictyocha					
<i>Dictyocha fibula</i>	120	180	180	240	
<i>Dictyocha speculum</i> var. <i>octonaris</i>			120		
Cyanobacteria					
Cyanophyceae					
Chroococcales					
Chroococcaceae					
Gloeocapsa					
<i>Gloeocapsa</i> sp.1					
Nostocales					
Oscillatoriaceae					
Oscillatoria					
<i>Oscillatoria erythraea</i>	46980	33240	49260	45960	
<i>Oscillatoria</i> sp.1	7620	8760	12660	6840	
Rivulariaceae					
Calothrix					
<i>Calothrix crustacea</i>	840	1500	2400	5100	
Ochrophyta					
Bacillariophyceae					
Asterolamprales					
Asterolampraceae					
Asterolampra					



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	PAWB-3CP2- PS-1	PAWB-3CP2- PS-2	PAWB-3CP2- PB-1	PAWB-3CP2- PB-2	
<i>Asterolampra marylandica</i>	120	300	120	120	
Asteromphalus					
<i>Asteromphalus cleveanus</i>	60	120	60	60	
<i>Asteromphalus elegans</i>			60		
<i>Asteromphalus</i> sp.1	120	360	780		
Aulacoseirales					
Aulacoseiraceae					
Aulacoseira					
<i>Aulacoseira</i> sp.1					
Bacillariales					
Bacillariaceae					
Bacillaria					
<i>Bacillaria paxillifer</i>	7080	5520	7980	9720	
Cylindrotheca					
<i>Cylindrotheca closterium</i>	600			1020	
<i>Cylindrotheca</i> sp.1					
Nitzschia					
<i>Nitzschia longissima</i>	540	780	480	720	
<i>Nitzschia lorenziana</i>	660	840	360	1380	
<i>Nitzschia</i> sp.3	480	720	420	1020	
<i>Nitzschia</i> sp.4	600	540	780	960	
<i>Nitzschia</i> sp.5	720	660	780	1080	
<i>Nitzschia</i> sp.9	660	660	720	900	
<i>Nitzschia</i> sp.10	840	1260	780	600	
<i>Nitzschia</i> sp.11	720	660	540	900	
<i>Pseudo-nitzschia</i>					
<i>Pseudo-nitzschia</i> sp.1	1260	2400	1980	2100	
Centrales					
Eupodiscaceae					
Odontella					
<i>Odontella mobiliensis</i>	180	120	60	300	
<i>Odontella sinensis</i>	600	600	420	900	
Chaetocerotales					
Chaetocerotaceae					
Bacteriastrium					
<i>Bacteriastrium comosum</i>	4920	2880	6540	5400	
<i>Bacteriastrium furcatum</i>	3780	1980	7200	6480	
<i>Bacteriastrium hyalinum</i>	7380	2460	7680	8820	
Chaetoceros					
<i>Chaetoceros aequatorialis</i>	1020	1200	1380	1920	
<i>Chaetoceros affinis</i>	3540	2640	2580	3420	
<i>Chaetoceros atlanticus</i>	3180	2880	4680	4740	
<i>Chaetoceros coarctatus</i>	3720	4020	3420	7980	
<i>Chaetoceros compressus</i>	3960	4140	7140	4200	
<i>Chaetoceros costatus</i>	3960	4440	2940	4020	
<i>Chaetoceros didymus</i>	3300	4200	7920	8400	
<i>Chaetoceros diversus</i>	6180	10200	3720	5400	
<i>Chaetoceros eibonii</i>	2580	3540	3240	2580	
<i>Chaetoceros lorenzianus</i>	5220	3120	7800	6780	
<i>Chaetoceros messanensis</i>	2940	5100	2160	3840	



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Principal Taxonomist

Phytoplankton density (unit/bottle)					
TAXA	PAWB-3CP2- PS-1	PAWB-3CP2- PS-2	PAWB-3CP2- PB-1	PAWB-3CP2- PB-2	
<i>Chaetoceros peruvianus</i>	1440	1320	1020	6900	
<i>Chaetoceros pseudocurvisetus</i>	5160	6660	5220	6480	
<i>Chaetoceros tenuissimus</i>	3000	2940	2700	1320	
<i>Chaetoceros</i> sp.1					
<i>Chaetoceros</i> sp.3					
Corethrales					
Corethraceae					
Corethron					
<i>Corethron criophilum</i>	120	240	180	240	
Coscinodisciales					
Coscinodiscaceae					
Coscinodiscus					
<i>Coscinodiscus gigas</i>					
<i>Coscinodiscus</i> sp.1	240	300	180	300	
<i>Coscinodiscus</i> sp.2	240	180	180	120	
<i>Coscinodiscus</i> sp.3					
<i>Coscinodiscus</i> sp.4	120	180	180	60	
<i>Coscinodiscus</i> sp.5	660	240	360	240	
<i>Coscinodiscus</i> sp.6	240	360	300	120	
<i>Coscinodiscus</i> sp.7	120	120	60	120	
<i>Coscinodiscus</i> sp.8	300	300	240	180	
<i>Coscinodiscus</i> sp.9	360	360	180	180	
<i>Coscinodiscus</i> sp.10	360	180	240	180	
<i>Coscinodiscus</i> sp.11	300	240	300	180	
<i>Coscinodiscus</i> sp.12	120	120	60	240	
<i>Coscinodiscus</i> sp.13	120	240	120	60	
Gossierella					
<i>Gossierella tropica</i>		60	60	120	
Palmeria					
<i>Palmeria hardmaniana</i>	120	240	120	120	
Heliopeltaceae					
Actinoptychus					
<i>Actinoptychus</i> sp.1	960	720	1380	420	
Hemidiscaceae					
Pseudoguinaridia					
<i>Pseudoguinaridia recta</i>					
Eunotiales					
Eunotiaceae					
Eunotia					
<i>Eunotia</i> sp.1					
Fragilariales					
Fragilariaceae					
Asterionella					
<i>Asterionella formosa</i>	120				
Fragilaria					
<i>Fragilaria</i> sp.1	240				
Hemiaulales					
Hemiaulaceae					
Cerataulina					
<i>Cerataulina</i> sp.1		2880	2820	2520	



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-3CP2- PS-1	PAWB-3CP2- PS-2	PAWB-3CP2- PB-1	PAWB-3CP2- PB-2
Climacodium				
<i>Climacodium biconcavum</i>	2040	1740	1920	2280
<i>Climacodium frauenfeldianum</i>	1140	2340	1500	1380
Eucampia				
<i>Eucampia cornuta</i>	1320	1680	1440	1320
<i>Eucampia zodiacus</i>	1200	1260	1020	1440
Hemiaulus				
<i>Hemiaulus hauckii</i>	1320	1080	1620	1380
<i>Hemiaulus indicus</i>	900	1320	1740	2460
<i>Hemiaulus membranaceus</i>	1440	1260	1980	2160
<i>Hemiaulus sinensis</i>	960	2100	1380	2100
Leptocylindrales				
Leptocylindraceae				
<i>Leptocylindrus</i>				
<i>Leptocylindrus danicus</i>	1200	960	1500	2100
Licmophales				
Licmophoriaceae				
<i>Licmophora</i>				
<i>Licmophora flabellata</i>				
Lithodesmiales				
Lithodesmaceae				
<i>Ditylum</i>				
<i>Ditylum brightwellii</i>	120	60	300	240
<i>Ditylum sol</i>	600	540	600	660
Naviculales				
Diploneidaceae				
<i>Diploneis</i>				
<i>Diploneis sp.1</i>	180	180	240	240
<i>Diploneis sp.2</i>				
<i>Diploneis sp.3</i>				
Naviculaceae				
<i>Anomoeneis</i>				
<i>Anomoeneis sp.1</i>	480			
<i>Haslea</i>				
<i>Haslea wawrikiae</i>	240	300	300	300
<i>Haslea sp.1</i>	480	480	360	420
<i>Meuniera</i>				
<i>Meuniera sp.1</i>	480	300	480	600
<i>Navicula</i>				
<i>Navicula sp.1</i>	540	600	540	1020
<i>Navicula sp.2</i>	780	720	2040	1740
<i>Navicula sp.3</i>	420	660	420	360
<i>Navicula sp.4</i>	420	480	420	420
<i>Navicula sp.5</i>	420	360	720	960
<i>Navicula sp.6</i>	360	600	780	540
<i>Navicula sp.7</i>	300	600	420	420
<i>Navicula sp.8</i>	360	480	360	360
<i>Trachyneis</i>				
<i>Trachyneis sp.1</i>	360	420	300	420
Pinnulariaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-3CP2- PS-1	PAWB-3CP2- PS-2	PAWB-3CP2- PB-1	PAWB-3CP2- PB-2
Pinnularia				
<i>Pinnularia sp.2</i>				
Pleurosigma				
<i>Gyrosigma</i>				
<i>Gyrosigma sp.1</i>	540	420	600	540
<i>Gyrosigma sp.2</i>	420	360	480	720
<i>Gyrosigma sp.3</i>	360	240	420	420
<i>Pleurosigma</i>				
<i>Pleurosigma sp.1</i>	480	600	540	540
<i>Pleurosigma sp.2</i>	600	420	360	480
<i>Pleurosigma sp.3</i>	480	600	420	720
<i>Pleurosigma sp.4</i>	540	480	420	720
<i>Pleurosigma sp.5</i>	180	240	300	300
<i>Pleurosigma sp.6</i>	480	660	780	660
Stauroneidaceae				
<i>Stauroneis</i>				
<i>Stauroneis salina</i>				
Rhizosoleniales				
Rhizosoleniaceae				
<i>Dactylosolen</i>				
<i>Dactylosolen blavyanus</i>	900	1800	2100	1380
<i>Dactylosolen fragilissimus</i>	1440	2100	1380	1440
<i>Dactylosolen phuketensis</i>	1440	2820	2280	1980
<i>Guinardia</i>				
<i>Guinardia cylindrus</i>		780	1500	1200
<i>Guinardia fleccida</i>	1740	2340	3300	3960
<i>Guinardia striata</i>	1440	1200	1680	2100
<i>Proboscia</i>				
<i>Proboscia alata</i>	1020	1800	2520	2460
<i>Pseudosolenia</i>				
<i>Pseudosolenia calcar avis</i>	660	1080	1200	1740
<i>Rhizosolenia</i>				
<i>Rhizosolenia acuminata</i>	60	360	120	180
<i>Rhizosolenia bergonii</i>	780	1020	900	1200
<i>Rhizosolenia cleveii var. cleveii</i>	420	1620	1140	1500
<i>Rhizosolenia formosa</i>	60	120	120	120
<i>Rhizosolenia hyalina</i>	1020	1320	1020	1020
<i>Rhizosolenia imbricata</i>	60	180	240	240
<i>Rhizosolenia pungens</i>	840	1200	1200	960
<i>Rhizosolenia robusta</i>	660	480	600	480
<i>Rhizosolenia striata</i>	360	300	360	180
<i>Rhizosolenia styliformis</i>	360	300	300	360
<i>Rhizosolenia sp.1</i>	600	420	240	300
Striatellales				
Striatellaceae				
<i>Striatella</i>				
<i>Striatella sp.1</i>				
Surirellales				
Entomoneidaceae				
<i>Entomoneis</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-3CP2- PS-1	PAWB-3CP2- PS-2	PAWB-3CP2- PB-1	PAWB-3CP2- PB-2
<i>Entomoneis sp.1</i>	360	360	300	420
<i>Entomoneis sp.2</i>	180	180	180	300
Surirellaceae				
<i>Campylodiscus</i>				
<i>Campylodiscus sp.1</i>	240	240	660	180
<i>Surirella</i>				
<i>Surirella sp.1</i>				
Thalassionematales				
Thalassionemataceae				
<i>Thalassionema</i>				
<i>Thalassionema nitzschoides</i>	8100	7740	17880	20460
<i>Thalassionema sp.1</i>	4740	6180	8700	10440
<i>Thalassiothrix</i>				
<i>Thalassiothrix sp.1</i>	5580	4140	7500	8640
<i>Thalassiothrix sp.2</i>	720	960	780	1260
Thalassiosiphonales				
Catenulaceae				
<i>Amphora</i>				
<i>Amphora sp.1</i>	300	420	360	360
<i>Amphora sp.2</i>				
<i>Amphora sp.3</i>				
Thalassiosirales				
Lauderiaceae				
<i>Lauderia</i>				
<i>Lauderia annulata</i>		960	1140	1200
Skeletonemataceae				
<i>Skeletonema</i>				
<i>Skeletonema sp.1</i>				
Stephanodiscaceae				
<i>Cyclotella</i>				
<i>Cyclotella sp.1</i>	1680	1500	1080	1080
Thalassiosiraceae				
<i>Planktoniella</i>				
<i>Planktoniella blanda</i>	540	480	540	840
<i>Planktoniella sol</i>	240	240	300	420
<i>Thalassiosira</i>				
<i>Thalassiosira subtilis</i>				
<i>Thalassiosira sp.4</i>				
<i>Thalassiosira sp.5</i>				
<i>Thalassiosira sp.6</i>				
Triceratiales				
Tricerataceae				
<i>Triceratium</i>				
<i>Triceratium favus</i>				
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
<i>Amphisolenia</i>				
<i>Amphisolenia bidentata</i>	180	120	180	180



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-3CP2- PS-1	PAWB-3CP2- PS-2	PAWB-3CP2- PB-1	PAWB-3CP2- PB-2
Dinophysiaceae				
<i>Histioneis</i>				
<i>Histioneis hyalina</i>			120	
<i>Ornithocercus</i>				
<i>Ornithocercus thumii</i>			120	
<i>Phalacroma</i>				
<i>Phalacroma mitra</i>				
Gonyaulacales				
Ceratiaceae				
<i>Ceratium</i>				
<i>Ceratium contortum</i>				
<i>Ceratium deflexum</i>			120	60
<i>Ceratium dens</i>				240
<i>Ceratium extensum</i>				
<i>Ceratium falcatum</i>	60			120
<i>Ceratium furca</i>	240	240	300	360
<i>Ceratium fusus</i>	180	180	360	300
<i>Ceratium gibberum</i>				
<i>Ceratium kofoidii</i>				
<i>Ceratium macroceros</i>				120
<i>Ceratium massiliense</i>				60
<i>Ceratium porrectum</i>	240			180
<i>Ceratium schmidtii</i>				
<i>Ceratium trichoceros</i>	180	180	240	240
<i>Ceratium tripos</i>				
Goniodomataceae				
<i>Goniodoma</i>				
<i>Goniodoma sp.1</i>				
Gonyaulacaceae				
<i>Lingulodinium</i>				
<i>Lingulodinium sp.1</i>				
Oxytoxaceae				
<i>Oxytoxum</i>				
<i>Oxytoxum sp.1</i>				
<i>Oxytoxum sp.3</i>			60	
<i>Oxytoxum sp.4</i>				
Pyrophacaceae				
<i>Pyrophacus</i>				
<i>Pyrophacus steinii</i>				
Gymnodiniales				
Gymnodiniaceae				
<i>Gymnodinium</i>				
<i>Gymnodinium sp.2</i>				
<i>Gyrodinium</i>				
<i>Gyrodinium falcatum</i>				
Peridinales				
Podolampadaceae				
<i>Podolampas</i>				
<i>Podolampas bipes</i>				
<i>Podolampas palmipes</i>	120		120	



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWB-3CP2- PS-1	PAWB-3CP2- PS-2	PAWB-3CP2- PB-1	PAWB-3CP2- PB-2
Protoperdiniaceae				
Protoperdinium				
Protoperdinium abei				60
Protoperdinium asymmetricum	180	120	120	120
Protoperdinium conicum	120		60	120
Protoperdinium depressum	300	180	300	240
Protoperdinium diabolium		60	60	
Protoperdinium divergens	180	60	300	180
Protoperdinium elegans				
Protoperdinium latispinum	180	120	240	180
Protoperdinium oceanicum				
Protoperdinium pallidum				
Prorocentrales				
Prorocentraceae				
Prorocentrum				
Prorocentrum mexicanum			180	240
Prorocentrum micans				
TOTAL	202020	200640	256980	276360
Number of Taxa	131	127	139	139

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
Spondylosium sp.1	45.5	23.06	17	96
Calothrix crustacea	9.73	3.03	5	15
Oscillatoria erythraea	153.87	38.21	86	225
Oscillatoria sp.1	78.5	20.27	44	113



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Phytoplankton density (unit/bottle)				
TAXA	PAWE-1CP2- PS-1	PAWE-1CP2- PS-2	PAWE-1CP2- PB-1	PAWE-1CP2- PB-2
Charophyta				
Conjugophyceae				
Desmidiaceae				
Desmidiaceae				
Spondylosium				
Spondylosium sp.1	240	300	240	360
Staurastrum				
Staurastrum sp.1			60	60
Staurastrum sp.3				
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
Golenkinia				
Golenkinia radiata	120	60	60	60
Sphaeropleales				
Scenedesmaceae				
Scenedesmus				
Scenedesmus sp.1				
Trebouxiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
Ankistrodesmus sp.1	180	120	60	120
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
Dictyocha fibula	540	630	600	420
Dictyocha speculum var. octonaris				120
Cyanobacteria				
Cyanophyceae				
Chroococcales				
Chroococcaceae				
Gloeocapsa				
Gloeocapsa sp.1	1740	840	1500	1080
Nostocales				
Oscillatoriaceae				
Oscillatoria				
Oscillatoria erythraea	48540	31800	44760	46860
Oscillatoria sp.1	16560	11700	13980	11400
Rivulariaceae				
Calothrix				
Calothrix crustacea	1200	1260	1860	1860
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-1CP2- PS-1	PAWE-1CP2- PS-2	PAWE-1CP2- PB-1	PAWE-1CP2- PB-2
Asterolampra marylandica	480	60	120	180
Asteromphalus				
Asteromphalus cleveanus	240	60	120	60
Asteromphalus elegans			60	
Asteromphalus sp.1	600	360		180
Aulacoseirales				
Aulacoseiraceae				
Aulacoseira				
Aulacoseira sp.1				
Bacillariales				
Bacillariaceae				
Bacillaria				
Bacillaria paxillifer	9420	6840	10440	7440
Cylindrotheca				
Cylindrotheca closterium	660	1500	720	1020
Cylindrotheca sp.1	240			
Nitzschia				
Nitzschia longissima	720	660	420	420
Nitzschia lorenziana	420	1200	480	540
Nitzschia sp.3	600	1260	420	420
Nitzschia sp.4			600	420
Nitzschia sp.5			540	540
Nitzschia sp.9			300	600
Nitzschia sp.10	600	840	480	
Nitzschia sp.11	540	2220	660	
Pseudo-nitzschia				
Pseudo-nitzschia sp.1	3060	3420	3000	3060
Centrales				
Eupodiscaceae				
Odontella				
Odontella mobiliensis	180	240	60	120
Odontella sinensis	480	780	540	720
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrium				
Bacteriastrium comosum	6780	6060	5880	4980
Bacteriastrium furcatum	5400	6360	6480	7080
Bacteriastrium hyalinum	6360	6780	10020	11700
Chaetoceros				
Chaetoceros aequatorialis	1560	840	1140	1800
Chaetoceros affinis	4800	5400	4140	4800
Chaetoceros atlanticus	4740	3600	3240	5700
Chaetoceros coarctatus	5520	5160	5340	7800
Chaetoceros compressus	6900	7500	4500	5940
Chaetoceros costatus	5460	4200	3420	4860
Chaetoceros didymus	7020	5280	3300	6660
Chaetoceros diversus	7440	4320	3420	9660
Chaetoceros eibenzii			2940	3240
Chaetoceros lorenzianus	3420	2760	6000	3900
Chaetoceros messanensis	3840	4800	1800	7080



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-1CP2- PS-1	PAWE-1CP2- PS-2	PAWE-1CP2- PB-1	PAWE-1CP2- PB-2
Chaetoceros peruvianus	1740	840	720	1200
Chaetoceros pseudocurvisetus	5400	4620	3420	5100
Chaetoceros tenuissimus			3540	240
Chaetoceros sp.1			1680	
Chaetoceros sp.3			2460	4140
Corethrales				
Corethraceae				
Corethron				
Corethron criophilum	420	180	180	180
Coscinodisciales				
Coscinodiscaceae				
Coscinodiscus				
Coscinodiscus gigas				
Coscinodiscus sp.1	360	240	420	480
Coscinodiscus sp.2	240	240	600	240
Coscinodiscus sp.3				240
Coscinodiscus sp.4				360
Coscinodiscus sp.5	300	420	480	360
Coscinodiscus sp.6	420	480	600	540
Coscinodiscus sp.7	420	120	180	180
Coscinodiscus sp.8	480	120	300	480
Coscinodiscus sp.9	540	300	240	420
Coscinodiscus sp.10	480	300	300	240
Coscinodiscus sp.11	660	180	240	300
Coscinodiscus sp.12	360	240		
Coscinodiscus sp.13	300	180		
Gossierella				
Gossierella tropica	120	180	120	120
Palmeria				
Palmeria hardmaniana	60	120	60	120
Heliopeltaceae				
Actinoptychus				
Actinoptychus sp.1	960	180	780	660
Hemidiscaceae				
Pseudoguardia				
Pseudoguardia recta			4320	1260
Eunotiales				
Eunotiaceae				
Eunotia				
Eunotia sp.1				
Fragilariiales				
Fragilariaceae				
Asterionella				
Asterionella formosa				
Fragilaria				
Fragilaria sp.1				
Hemiaulales				
Hemiaulaceae				
Cerataulina				
Cerataulina sp.1	2040	2220		2700



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-1CP2- PS-1	PAWE-1CP2- PS-2	PAWE-1CP2- PB-1	PAWE-1CP2- PB-2
Climacodium				
<i>Climacodium biconcavum</i>	3780	840	3060	3420
<i>Climacodium frauenfeldianum</i>	5460	1380	1980	3600
Eucampia				
<i>Eucampia cornuta</i>	3600	1920	1980	1740
<i>Eucampia zodiacus</i>	2340	1560	2460	3000
Hemiaulus				
<i>Hemiaulus hauckii</i>	1380	1320	2400	2160
<i>Hemiaulus indicus</i>	3060	3180	2340	4500
<i>Hemiaulus membranaceus</i>	1500	4620	2760	2520
<i>Hemiaulus sinensis</i>	3240	5100	2340	3540
Leptocylindrales				
Leptocylindraceae				
<i>Leptocylindrus</i>				
<i>Leptocylindrus danicus</i>	3900	3120	2520	1320
Licmophorales				
Licmophoriaceae				
<i>Licmophora</i>				
<i>Licmophora flabellata</i>				
Lithodesmiales				
Lithodesmaceae				
<i>Ditylum</i>				
<i>Ditylum brightwellii</i>	240	180	420	240
<i>Ditylum sol</i>	660	540	540	600
Naviculales				
Diploneidaceae				
<i>Diploneis</i>				
<i>Diploneis</i> sp.1	300	420	240	420
<i>Diploneis</i> sp.2				
<i>Diploneis</i> sp.3				
Naviculaceae				
<i>Anomoeneis</i>				
<i>Anomoeneis</i> sp.1			240	360
<i>Haslea</i>				
<i>Haslea wawriakae</i>	360	360	420	600
<i>Haslea</i> sp.1	600	660	660	900
<i>Meuniera</i>				
<i>Meuniera</i> sp.1	540	960	540	1200
<i>Navicula</i>				
<i>Navicula</i> sp.1	540	600	450	810
<i>Navicula</i> sp.2	2280	480	2040	840
<i>Navicula</i> sp.3	780	720	780	720
<i>Navicula</i> sp.4	780	1080	600	1260
<i>Navicula</i> sp.5	720	540	360	780
<i>Navicula</i> sp.6	660	540	780	840
<i>Navicula</i> sp.7	720	600	420	480
<i>Navicula</i> sp.8	780	600	600	480
<i>Trachyneis</i>				
<i>Trachyneis</i> sp.1	600	240	480	480
Pinnulariaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-1CP2- PS-1	PAWE-1CP2- PS-2	PAWE-1CP2- PB-1	PAWE-1CP2- PB-2
Pinnularia				
<i>Pinnularia</i> sp.2	180	180	180	120
Pleurosigmataceae				
<i>Gyrosigma</i>				
<i>Gyrosigma</i> sp.1	540	540	420	540
<i>Gyrosigma</i> sp.2	480	360	360	480
<i>Gyrosigma</i> sp.3	420	540	540	540
<i>Pleurosigma</i>				
<i>Pleurosigma</i> sp.1	480	720	480	660
<i>Pleurosigma</i> sp.2	480	900	240	420
<i>Pleurosigma</i> sp.3	720	600	540	600
<i>Pleurosigma</i> sp.4	600	480	420	540
<i>Pleurosigma</i> sp.5	540	240	240	300
<i>Pleurosigma</i> sp.6	420	600	420	600
Stauroneidaceae				
<i>Stauroneis</i>				
<i>Stauroneis salina</i>				
Rhizosoleniales				
Rhizosoleniaceae				
<i>Dactylosolen</i>				
<i>Dactylosolen blavyanus</i>	900	2460	2940	2760
<i>Dactylosolen fragilissimus</i>	960	3420	2400	1800
<i>Dactylosolen phuketensis</i>	1800	3600	2340	3720
<i>Guinardia</i>				
<i>Guinardia cylindrus</i>	1620	3600	1980	720
<i>Guinardia fleccida</i>	4800	5040	3660	1860
<i>Guinardia striata</i>	2640	4980	2040	3480
<i>Proboscia</i>				
<i>Proboscia alata</i>	2220	3180	1140	2940
<i>Pseudosolenia</i>				
<i>Pseudosolenia calcar avis</i>	1200	3060	1800	1380
<i>Rhizosolenia</i>				
<i>Rhizosolenia acuminata</i>	360	240	120	480
<i>Rhizosolenia bergonii</i>	780	960	960	840
<i>Rhizosolenia cleveii</i> var. <i>cleveii</i>	1140	960	780	1860
<i>Rhizosolenia formosa</i>	300	120	120	60
<i>Rhizosolenia hyalina</i>	540	780	840	990
<i>Rhizosolenia imbricata</i>	240	300	60	120
<i>Rhizosolenia pungens</i>	1140	1380	1020	1500
<i>Rhizosolenia robusta</i>	420	660	420	480
<i>Rhizosolenia striata</i>	480	420	420	420
<i>Rhizosolenia styliformis</i>	900	480	240	420
<i>Rhizosolenia</i> sp.1	540	540	240	240
Striatellales				
Striatellaceae				
<i>Striatella</i>				
<i>Striatella</i> sp.1				
Surirellales				
Entomoneidaceae				
<i>Entomoneis</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-1CP2- PS-1	PAWE-1CP2- PS-2	PAWE-1CP2- PB-1	PAWE-1CP2- PB-2
<i>Entomoneis</i> sp.1	480	480	480	540
<i>Entomoneis</i> sp.2	300	180	300	480
Surirellaceae				
<i>Campylodiscus</i>				
<i>Campylodiscus</i> sp.1	540	300	540	240
<i>Surirella</i>				
<i>Surirella</i> sp.1				
Thalassionematales				
Thalassionemataceae				
<i>Thalassionema</i>				
<i>Thalassionema nitzschioides</i>	6540	6120	5580	7740
<i>Thalassionema</i> sp.1	4320	4140	2940	4680
<i>Thalassiothrix</i>				
<i>Thalassiothrix</i> sp.1	5040	3720	3840	5220
<i>Thalassiothrix</i> sp.2	1020	840	960	840
Thalassiosiphonales				
Catenulaceae				
<i>Amphora</i>				
<i>Amphora</i> sp.1	660	90	360	540
<i>Amphora</i> sp.2				
<i>Amphora</i> sp.3				
Thalassiosirales				
Lauderiaceae				
<i>Lauderia</i>				
<i>Lauderia annulata</i>	1920	1440	1200	1260
Skeletonemataceae				
<i>Skeletonema</i>				
<i>Skeletonema</i> sp.1			6570	
Stephanodiscaceae				
<i>Cyclotella</i>				
<i>Cyclotella</i> sp.1	720	360	1560	1200
Thalassiosiraceae				
<i>Planktoniella</i>				
<i>Planktoniella blanda</i>	720	780	480	840
<i>Planktoniella sol</i>	300	360	240	300
<i>Thalassiosira</i>				
<i>Thalassiosira subtilis</i>				
<i>Thalassiosira</i> sp.4	1560	1320	960	1200
<i>Thalassiosira</i> sp.5	1020	1140	1020	1500
<i>Thalassiosira</i> sp.6				
Triceratiales				
Tricerataceae				
<i>Triceratium</i>				
<i>Triceratium favus</i>				60
Pyrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
<i>Amphisolenia</i>				
<i>Amphisolenia bidentata</i>	180		180	240



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-1CP2- PS-1	PAWE-1CP2- PS-2	PAWE-1CP2- PB-1	PAWE-1CP2- PB-2
Dinophysiaceae				
<i>Histioneis</i>				
<i>Histioneis hyalina</i>				
<i>Ornithocercus</i>				
<i>Ornithocercus thumii</i>			60	120
<i>Phalacroma</i>				
<i>Phalacroma mitra</i>				
Gonyaulacales				
Ceraticeae				
<i>Ceratium</i>				
<i>Ceratium contortum</i>				
<i>Ceratium deflexum</i>			60	
<i>Ceratium dens</i>				
<i>Ceratium extensum</i>				
<i>Ceratium falcatum</i>	60			
<i>Ceratium furca</i>	420	360	240	360
<i>Ceratium fuscum</i>	360	540	360	300
<i>Ceratium gibberum</i>				60
<i>Ceratium kofoidii</i>	120	360	180	120
<i>Ceratium macroceros</i>				120
<i>Ceratium massiliense</i>				
<i>Ceratium porrectum</i>				240
<i>Ceratium schmidtii</i>				180
<i>Ceratium trichoceros</i>	420	600	240	300
<i>Ceratium tripos</i>	300	360	60	180
Goniodomataceae				
<i>Goniodoma</i>				
<i>Goniodoma</i> sp.1				
Gonyaulacaceae				
<i>Lingulodinium</i>				
<i>Lingulodinium</i> sp.1			240	
Oxytoxaceae				
<i>Oxytoxum</i>				
<i>Oxytoxum</i> sp.1				240
<i>Oxytoxum</i> sp.3			180	180
<i>Oxytoxum</i> sp.4				
Pyrophacaceae				
<i>Pyrophacus</i>				
<i>Pyrophacus steinii</i>				
Gymnodiniales				
Gymnodiniaceae				
<i>Gymnodinium</i>				
<i>Gymnodinium</i> sp.2	180	120		180
<i>Gyrodinium</i>				
<i>Gyrodinium falcatum</i>	60	180		60
Peridinales				
Podolampadaceae				
<i>Podolampas</i>				
<i>Podolampas bipes</i>			60	120
<i>Podolampas palmipes</i>			240	120



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-1CP2- PS-1	PAWE-1CP2- PS-2	PAWE-1CP2- PB-1	PAWE-1CP2- PB-2
Protoperdiniaceae				
<i>Protoperdinium</i>				
<i>Protoperdinium abei</i>	360	300	300	
<i>Protoperdinium asymmetricum</i>	180	300	240	180
<i>Protoperdinium conicum</i>	120	120	120	180
<i>Protoperdinium depressum</i>	180	420	480	300
<i>Protoperdinium diabolium</i>	60	120	60	120
<i>Protoperdinium divergens</i>	180	300	300	300
<i>Protoperdinium elegans</i>			120	60
<i>Protoperdinium latispinum</i>			300	240
<i>Protoperdinium oceanicum</i>				
<i>Protoperdinium pallidum</i>			60	60
Prorocentrales				
Prorocentraceae				
<i>Prorocentrum</i>				
<i>Prorocentrum mexicanum</i>				240
<i>Prorocentrum micans</i>	180	300	60	240
TOTAL	267060	238920	254520	281760
Number of Taxa	136	133	150	154

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-3CP2- PS-1	PAWE-3CP2- PS-2	PAWE-3CP2- PB-1	PAWE-3CP2- PB-2
Charophyta				
Conjugophyceae				
Desmidiaceae				
<i>Spondylosium</i>				
<i>Spondylosium</i> sp.1	240	360	240	420
<i>Staurastrum</i>				
<i>Staurastrum</i> sp.1				
<i>Staurastrum</i> sp.3				
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
<i>Golenkinia</i>				
<i>Golenkinia radiata</i>				
Sphaeropleales				
Scenedesmaceae				
<i>Scenedesmus</i>				
<i>Scenedesmus</i> sp.1				
Trebouxiophyceae				
Oocystales				
Oocystaceae				
<i>Ankistrodesmus</i>				
<i>Ankistrodesmus</i> sp.1			120	
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
<i>Dictyocha</i>				
<i>Dictyocha fibula</i>	240	300	240	300
<i>Dictyocha speculum</i> var. <i>octonaris</i>			120	
Cyanobacteria				
Cyanophyceae				
Chroococcales				
Chroococcaceae				
<i>Gloeocapsa</i>				
<i>Gloeocapsa</i> sp.1				
Nostocales				
Oscillatoriaceae				
<i>Oscillatoria</i>				
<i>Oscillatoria erythraea</i>	43740	33240	43500	37440
<i>Oscillatoria</i> sp.1	14640	9120	16200	8640
Rivulariaceae				
<i>Calothrix</i>				
<i>Calothrix crustacea</i>	2280	2100	1380	1320
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
<i>Asterolampra</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-3CP2- PS-1	PAWE-3CP2- PS-2	PAWE-3CP2- PB-1	PAWE-3CP2- PB-2
<i>Asterolampra marylandica</i>	240		60	540
<i>Asteromphalus</i>				
<i>Asteromphalus cleveanus</i>	120	60	60	360
<i>Asteromphalus elegans</i>			60	
<i>Asteromphalus</i> sp.1	120	120	60	
Aulacoseirales				
Aulacoseiraceae				
<i>Aulacoseira</i>				
<i>Aulacoseira</i> sp.1				
Bacillariales				
Bacillariaceae				
<i>Bacillaria</i>				
<i>Bacillaria paxillifer</i>	9420	5580	8940	11610
<i>Cylindrotheca</i>				
<i>Cylindrotheca closterium</i>	1020			1140
<i>Cylindrotheca</i> sp.1				
<i>Nitzschia</i>				
<i>Nitzschia longissima</i>	480	660	1200	840
<i>Nitzschia lorenziana</i>	720	1260	1080	900
<i>Nitzschia</i> sp.3	600	420	540	540
<i>Nitzschia</i> sp.4	540	720	480	600
<i>Nitzschia</i> sp.5	300	420	600	480
<i>Nitzschia</i> sp.9	540	360	780	780
<i>Nitzschia</i> sp.10	1080	660	780	840
<i>Nitzschia</i> sp.11	1380	720	360	780
<i>Pseudo-nitzschia</i>				
<i>Pseudo-nitzschia</i> sp.1	3360	3780	1560	1740
Centrales				
Eupodiscaceae				
<i>Odontella</i>				
<i>Odontella mobiliensis</i>	240	60	120	60
<i>Odontella sinensis</i>	600	480	420	720
Chaetocerotales				
Chaetocerotaceae				
<i>Bacteriastrium</i>				
<i>Bacteriastrium comosum</i>	7800	9360	5400	7290
<i>Bacteriastrium furcatum</i>	5340	9960	5220	5760
<i>Bacteriastrium hyalinum</i>	10800	9600	7920	12690
<i>Chaetoceros</i>				
<i>Chaetoceros aequatorialis</i>	1020	900	2760	1920
<i>Chaetoceros affinis</i>	3540	2700	3660	3540
<i>Chaetoceros atlanticus</i>	2520	2880	2700	5220
<i>Chaetoceros coarctatus</i>	6000	7080	5460	7620
<i>Chaetoceros compressus</i>	4500	7020	3360	6480
<i>Chaetoceros costatus</i>	3840	4980	4920	4620
<i>Chaetoceros didymus</i>	5760	6660	7500	7980
<i>Chaetoceros diversus</i>	6180	9480	5580	13560
<i>Chaetoceros eibonii</i>	5400	3540	2400	5100
<i>Chaetoceros lorenzianus</i>	6480	3060	5280	8340
<i>Chaetoceros messanensis</i>	4080	5040	2760	5880



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Phytoplankton density (unit/bottle)				
TAXA	PAWE-3CP2- PS-1	PAWE-3CP2- PS-2	PAWE-3CP2- PB-1	PAWE-3CP2- PB-2
<i>Chaetoceros peruvianus</i>	2160	1380	1860	2220
<i>Chaetoceros pseudocurvisetus</i>	4200	6480	4080	5340
<i>Chaetoceros tenuissimus</i>	3420	3300	1740	3420
<i>Chaetoceros</i> sp.1				
<i>Chaetoceros</i> sp.3				
Corethrales				
Corethraceae				
<i>Corethron</i>				
<i>Corethron criophilum</i>	120	120	60	240
Coscinodisciales				
Coscinodiscaceae				
<i>Coscinodiscus</i>				
<i>Coscinodiscus gigas</i>				
<i>Coscinodiscus</i> sp.1	1080	240	240	420
<i>Coscinodiscus</i> sp.2	180	60	60	60
<i>Coscinodiscus</i> sp.3				
<i>Coscinodiscus</i> sp.4	540	120	60	
<i>Coscinodiscus</i> sp.5	720	240	240	360
<i>Coscinodiscus</i> sp.6	540	180	120	240
<i>Coscinodiscus</i> sp.7	600	120	60	120
<i>Coscinodiscus</i> sp.8	360	240	360	360
<i>Coscinodiscus</i> sp.9	360	360	240	240
<i>Coscinodiscus</i> sp.10	1260	240	240	300
<i>Coscinodiscus</i> sp.11	660	480	180	240
<i>Coscinodiscus</i> sp.12	660	60	60	120
<i>Coscinodiscus</i> sp.13	480		120	240
<i>Gossierella</i>				
<i>Gossierella tropica</i>	60	120	60	60
Palmeria				
<i>Palmeria hardmaniana</i>	60	60	60	60
Heliopeltaceae				
<i>Actinopterychus</i>				
<i>Actinopterychus</i> sp.1	1020	720	660	360
Hemidiscaceae				
<i>Pseudoguardia</i>				
<i>Pseudoguardia recta</i>	1320		1080	
Eunotiales				
Eunotiaceae				
<i>Eunotia</i>				
<i>Eunotia</i> sp.1				
Fragilariiales				
Fragilariaceae				
<i>Asterionella</i>				
<i>Asterionella formosa</i>	60			
<i>Fragilaria</i>				
<i>Fragilaria</i> sp.1	1080			
Hemiaulales				
Hemiaulaceae				
<i>Cerataulina</i>				
<i>Cerataulina</i> sp.1			1920	3600



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Phytoplankton density (unit/bottle)				
TAXA	PAWE-3CP2- PS-1	PAWE-3CP2- PS-2	PAWE-3CP2- PB-1	PAWE-3CP2- PB-2
Climacodium				
<i>Climacodium biconcavum</i>	4200	2280	2460	4560
<i>Climacodium frauenfeldianum</i>	3240	2340	3720	2100
Eucampia				
<i>Eucampia cornuta</i>	1380	1620	1680	1260
<i>Eucampia zodiacus</i>	2280	1320	1380	1200
Hemiaulus				
<i>Hemiaulus hauckii</i>	2580	2820	900	4320
<i>Hemiaulus indicus</i>	2880	1740	3360	1500
<i>Hemiaulus membranaceus</i>	1800	2280	2520	3480
<i>Hemiaulus sinensis</i>	3480	2880	2040	5160
Leptocylindrales				
Leptocylindraceae				
<i>Leptocylindrus</i>				
<i>Leptocylindrus danicus</i>	2040	2580	1320	1620
Licmophales				
Licmophoriaceae				
<i>Licmophora</i>				
<i>Licmophora flabellata</i>				
Lithodesmiales				
Lithodesmaceae				
<i>Ditylum</i>				
<i>Ditylum brightwellii</i>	240	60	120	240
<i>Ditylum sol</i>	900	480	660	600
Naviculales				
Diploneidaceae				
<i>Diploneis</i>				
<i>Diploneis sp.1</i>	480	240	300	420
<i>Diploneis sp.2</i>				
<i>Diploneis sp.3</i>				
Naviculaceae				
<i>Anomoeneis</i>				
<i>Anomoeneis sp.1</i>	120		120	
<i>Haslea</i>				
<i>Haslea wawriakae</i>	300	300	240	300
<i>Haslea sp.1</i>	600	360	600	360
<i>Meuniera</i>				
<i>Meuniera sp.1</i>	1140	600	780	480
<i>Navicula</i>				
<i>Navicula sp.1</i>	540	720	600	480
<i>Navicula sp.2</i>	480	1140	960	2160
<i>Navicula sp.3</i>	480	1020	900	420
<i>Navicula sp.4</i>	1200	660	600	420
<i>Navicula sp.5</i>	480	600	660	480
<i>Navicula sp.6</i>	600	720	600	360
<i>Navicula sp.7</i>	600	600	840	360
<i>Navicula sp.8</i>	420	540	240	480
<i>Trachyneis</i>				
<i>Trachyneis sp.1</i>	300	420	420	420
Pinnulariaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-3CP2- PS-1	PAWE-3CP2- PS-2	PAWE-3CP2- PB-1	PAWE-3CP2- PB-2
Pinnularia				
<i>Pinnularia sp.2</i>				
Pleurosigma				
<i>Gyrosigma</i>				
<i>Gyrosigma sp.1</i>	780	420	300	420
<i>Gyrosigma sp.2</i>	720	300	300	660
<i>Gyrosigma sp.3</i>	630	240	420	480
<i>Pleurosigma</i>				
<i>Pleurosigma sp.1</i>	420	600	300	420
<i>Pleurosigma sp.2</i>	360	420	420	420
<i>Pleurosigma sp.3</i>	300	420	360	660
<i>Pleurosigma sp.4</i>	420	540	300	420
<i>Pleurosigma sp.5</i>	240	240	120	300
<i>Pleurosigma sp.6</i>	600	720	600	600
Stauroneidaceae				
<i>Stauroneis</i>				
<i>Stauroneis salina</i>				
Rhizosoleniales				
Rhizosoleniaceae				
<i>Dactylosolen</i>				
<i>Dactylosolen blavyanus</i>	1560	2340	2340	2400
<i>Dactylosolen fragilissimus</i>	1920	3780	2520	1380
<i>Dactylosolen phuketensis</i>	1500	2220	1380	2100
<i>Guinardia</i>				
<i>Guinardia cylindrus</i>	1020	960	2220	1680
<i>Guinardia fleccida</i>	1920	2940	2160	4050
<i>Guinardia striata</i>	2520	1560	2340	1680
<i>Proboscia</i>				
<i>Proboscia alata</i>	2940	1800	1200	2400
<i>Pseudosolenia</i>				
<i>Pseudosolenia calcar avis</i>	2820	1080	2100	1200
<i>Rhizosolenia</i>				
<i>Rhizosolenia acuminata</i>	60	120	0	60
<i>Rhizosolenia bergonii</i>	900	1200	720	840
<i>Rhizosolenia cleveii var. cleveii</i>	1080	2160	960	960
<i>Rhizosolenia formosa</i>	60	120	60	60
<i>Rhizosolenia hyalina</i>	960	1320	1140	1980
<i>Rhizosolenia imbricata</i>	60	300	60	120
<i>Rhizosolenia pungens</i>	900	1200	1140	1140
<i>Rhizosolenia robusta</i>	480	660	480	540
<i>Rhizosolenia striata</i>	600	360	420	300
<i>Rhizosolenia styliformis</i>	480	240	240	300
<i>Rhizosolenia sp.1</i>	300	240	360	360
Striatellales				
Striatellaceae				
<i>Striatella</i>				
<i>Striatella sp.1</i>				
Surirellales				
Entomoneidaceae				
<i>Entomoneis</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-3CP2- PS-1	PAWE-3CP2- PS-2	PAWE-3CP2- PB-1	PAWE-3CP2- PB-2
<i>Entomoneis sp.1</i>	600	420	180	300
<i>Entomoneis sp.2</i>	420	120		180
Surirellaceae				
<i>Campylodiscus</i>				
<i>Campylodiscus sp.1</i>	120	240	240	360
<i>Surirella</i>				
<i>Surirella sp.1</i>				
Thalassionematales				
Thalassionemataceae				
<i>Thalassionema</i>				
<i>Thalassionema nitzschoides</i>	8220	7740	17100	8820
<i>Thalassionema sp.1</i>	4740	5400	4500	4800
<i>Thalassiothrix</i>				
<i>Thalassiothrix sp.1</i>	3840	4020	5580	6840
<i>Thalassiothrix sp.2</i>	900	780	1200	720
Thalassiosiphonales				
Catenulaceae				
<i>Amphora</i>				
<i>Amphora sp.1</i>	360	420	480	450
<i>Amphora sp.2</i>				
<i>Amphora sp.3</i>				
Thalassiosirales				
Lauderiaceae				
<i>Lauderia</i>				
<i>Lauderia annulata</i>	1380	1860	1200	2040
Skeletonemataceae				
<i>Skeletonema</i>				
<i>Skeletonema sp.1</i>				
Stephanodiscaceae				
<i>Cyclotella</i>				
<i>Cyclotella sp.1</i>	960	1320	660	2040
Thalassiosiraceae				
<i>Planktoniella</i>				
<i>Planktoniella blanda</i>	480	660	420	600
<i>Planktoniella sol</i>	240	240	240	240
<i>Thalassiosira</i>				
<i>Thalassiosira subtilis</i>				
<i>Thalassiosira sp.4</i>	1440	1980	1560	1320
<i>Thalassiosira sp.5</i>	1320	1500	1140	900
<i>Thalassiosira sp.6</i>				
Triceratiales				
Tricerataceae				
<i>Triceratium</i>				
<i>Triceratium favus</i>				
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
<i>Amphisolenia</i>				
<i>Amphisolenia bidentata</i>	120	180	240	120



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-3CP2- PS-1	PAWE-3CP2- PS-2	PAWE-3CP2- PB-1	PAWE-3CP2- PB-2
Dinophysiaceae				
<i>Histioneis</i>				
<i>Histioneis hyalina</i>			60	
<i>Ornithocercus</i>				
<i>Ornithocercus thumii</i>	120		120	
<i>Phalacroma</i>				
<i>Phalacroma mitra</i>		60		
Gonyaulacales				
Ceratiaceae				
<i>Ceratium</i>				
<i>Ceratium contortum</i>				
<i>Ceratium deflexum</i>				450
<i>Ceratium dens</i>				
<i>Ceratium extensum</i>				
<i>Ceratium falcatum</i>				
<i>Ceratium furca</i>	240	240	180	240
<i>Ceratium fuscum</i>	180	180	240	180
<i>Ceratium gibberum</i>				
<i>Ceratium kofoidii</i>				
<i>Ceratium macroceros</i>	60			60
<i>Ceratium massiliense</i>				60
<i>Ceratium porrectum</i>	180			240
<i>Ceratium schmidtii</i>				
<i>Ceratium trichoceros</i>	240	180	300	240
<i>Ceratium tripos</i>				
Goniodomataceae				
<i>Goniodoma</i>				
<i>Goniodoma sp.1</i>				
Gonyaulacaceae				
<i>Lingulodinium</i>				
<i>Lingulodinium sp.1</i>				
Oxytoxaceae				
<i>Oxytoxum</i>				
<i>Oxytoxum sp.1</i>				
<i>Oxytoxum sp.3</i>			240	
<i>Oxytoxum sp.4</i>				
Pyrophacaceae				
<i>Pyrophacus</i>				
<i>Pyrophacus steinii</i>				
Gymnodiniales				
Gymnodiniaceae				
<i>Gymnodinium</i>				
<i>Gymnodinium sp.2</i>				60
<i>Gyrodinium</i>				
<i>Gyrodinium falcatum</i>				
Peridinales				
Podolampadaceae				
<i>Podolampas</i>				
<i>Podolampas bipes</i>		60		
<i>Podolampas palmipes</i>	60	120	120	



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	PAWE-3CP2- PS-1	PAWE-3CP2- PS-2	PAWE-3CP2- PB-1	PAWE-3CP2- PB-2
Proteroperidiniaceae				
<i>Proteroperidinium</i>				
<i>Proteroperidinium abei</i>				120
<i>Proteroperidinium asymmetricum</i>	240	180	120	180
<i>Proteroperidinium conicum</i>	60		120	60
<i>Proteroperidinium depressum</i>	240	300	300	300
<i>Proteroperidinium diabolium</i>			60	
<i>Proteroperidinium divergens</i>	240	360	360	240
<i>Proteroperidinium elegans</i>				
<i>Proteroperidinium latispinum</i>	240	120	240	120
<i>Proteroperidinium oceanicum</i>				
<i>Proteroperidinium pallidum</i>				
Prorocentrales				
Prorocentraceae				
<i>Prorocentrum</i>				
<i>Prorocentrum mexicanum</i>			120	60
<i>Prorocentrum micans</i>				
TOTAL	262650	242700	247620	277500
Number of Taxa	137	128	139	135

1. Count as number of filaments
(average cells/unit of filamentous species)

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	MGWA- 1CP2-PS-1	MGWA- 1CP2-PS-2	MGWA- 1CP2-PB-1	MGWA- 1CP2-PB-2
Charophyta				
Conjugophyceae				
Desmidiaceae				
<i>Spondylosium</i>				
<i>Spondylosium</i> sp.1	180		240	240
<i>Staurostrum</i>				
<i>Staurostrum</i> sp.1			120	60
Chlorophyta				
Chlorophyceae				
<i>Chlamydomonadales</i>				
Micractiniaceae				
<i>Golenkinia</i>				
<i>Golenkinia radiata</i>			120	120
<i>Sphaeropleales</i>				
Scenedesmacaceae				
<i>Scenedesmus</i>				
<i>Scenedesmus</i> sp.1			2520	
Trebouxioophyceae				
<i>Oocystales</i>				
Oocystaceae				
<i>Ankistrodesmus</i>				
<i>Ankistrodesmus</i> sp.1	120		60	120
Chrysophyta				
Chrysophyceae				
<i>Dictyochales</i>				
Dictyochaceae				
<i>Dictyocha</i>				
<i>Dictyocha fibula</i>	420	180	300	240
<i>Dictyocha speculum</i> var. <i>octonaris</i>				60
Cyanobacteria				
Cyanophyceae				
<i>Nostocales</i>				
Oscillatoriaceae				
<i>Oscillatoria</i>				
<i>Oscillatoria erythraea</i>	25860	31800	44760	40920
<i>Oscillatoria</i> sp.1	7860	7320	23880	24840
Rivulariaceae				
<i>Calothrix</i>				
<i>Calothrix crustacea</i>	1140	1020	1860	1800
Ochrophyta				
Bacillariophyceae				
<i>Asterolamprales</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	MGWA- 1CP2-PS-1	MGWA- 1CP2-PS-2	MGWA- 1CP2-PB-1	MGWA- 1CP2-PB-2
Asterolampraceae				
<i>Asterolampra</i>				
<i>Asterolampra marylandica</i>	180	60	120	120
<i>Asteromphalus</i>				
<i>Asteromphalus cleveanus</i>	240	120	120	180
<i>Asteromphalus elegans</i>			120	
<i>Asteromphalus</i> sp.1	540	360		120
Bacillariales				
Bacillariaceae				
<i>Bacillaria</i>				
<i>Bacillaria paxillifer</i>	9180	5280	10440	11220
<i>Cylindrotheca</i>				
<i>Cylindrotheca closterium</i>	720	780	720	1140
<i>Cylindrotheca</i> sp.1	480			
<i>Nitzschia</i>				
<i>Nitzschia longissima</i>	780	480	660	780
<i>Nitzschia lorenziana</i>	420	480	480	540
<i>Nitzschia</i> sp.3	480	1080	600	600
<i>Nitzschia</i> sp.4			540	480
<i>Nitzschia</i> sp.5			840	600
<i>Nitzschia</i> sp.9			900	600
<i>Nitzschia</i> sp.10	600	840	720	
<i>Nitzschia</i> sp.11	540	660	660	
<i>Pseudo-nitzschia</i>				
<i>Pseudo-nitzschia</i> sp.1	3000	3420	3000	2040
Centrales				
Eupodiscaceae				
<i>Odontella</i>				
<i>Odontella mobiliensis</i>	120	60	120	60
<i>Odontella sinensis</i>	600	420	900	660
Chaetocerotales				
Chaetocerotaceae				
<i>Bacteriastrium</i>				
<i>Bacteriastrium comosum</i>	5160	3840	5880	6240
<i>Bacteriastrium furcatum</i>	3900	3420	6780	8280
<i>Bacteriastrium hyalinum</i>	7080	5520	10020	11760
<i>Chaetoceros</i>				
<i>Chaetoceros aequatorialis</i>	1560	1020	1080	1500
<i>Chaetoceros affinis</i>	4800	4020	4260	4680
<i>Chaetoceros atlanticus</i>	4740	3420	3840	6660
<i>Chaetoceros coarctatus</i>	3960	4620	5400	8850
<i>Chaetoceros compressus</i>	5760	2640	4500	5940
<i>Chaetoceros costatus</i>	4140	4260	3900	4740



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	MGWA- 1CP2-PS-1	MGWA- 1CP2-PS-2	MGWA- 1CP2-PB-1	MGWA- 1CP2-PB-2
<i>Chaetoceros didymus</i>	5580	5160	3360	6600
<i>Chaetoceros diversus</i>	7440	5220	5220	9720
<i>Chaetoceros lorenzianus</i>	3420	2700	5940	3120
<i>Chaetoceros messanensis</i>	3300	2820	2580	6900
<i>Chaetoceros peruvianus</i>	1200	720	720	1080
<i>Chaetoceros pseudocurvisetus</i>	3720	4560	4560	5160
<i>Chaetoceros</i> sp.1			3480	
<i>Chaetoceros</i> sp.3			4020	4680
Corethrales				
Corethraceae				
<i>Corethron</i>				
<i>Corethron criophilum</i>	300	120	120	240
Coscinodiscales				
Coscinodiscaceae				
<i>Coscinodiscus</i>				
<i>Coscinodiscus</i> sp.1	420	240	480	480
<i>Coscinodiscus</i> sp.2	240	60	420	180
<i>Coscinodiscus</i> sp.3				240
<i>Coscinodiscus</i> sp.4				60
<i>Coscinodiscus</i> sp.5	480	240	360	360
<i>Coscinodiscus</i> sp.6	300	300	420	300
<i>Coscinodiscus</i> sp.7	180		180	60
<i>Coscinodiscus</i> sp.8	300	240	420	480
<i>Coscinodiscus</i> sp.9	420	300	480	420
<i>Coscinodiscus</i> sp.10	420	240	420	180
<i>Coscinodiscus</i> sp.11	300	120	240	300
<i>Coscinodiscus</i> sp.12				
<i>Coscinodiscus</i> sp.13				
<i>Gosslerella</i>				
<i>Gosslerella tropica</i>	60	300	120	120
<i>Palmeria</i>				
<i>Palmeria hardmaniana</i>	60	240	240	240
Heliopeltaceae				
<i>Actinopterychus</i>				
<i>Actinopterychus</i> sp.1	900	420	840	600
Hemidiscaceae				
<i>Pseudoguardia</i>				
<i>Pseudoguardia recta</i>	3600	1860	2700	1200
Fragilariales				
Fragilariaceae				
<i>Asterionella</i>				
<i>Asterionella formosa</i>				
<i>Fragilaria</i>				



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 1CP2-PS-1	MGWA- 1CP2-PS-2	MGWA- 1CP2-PB-1	MGWA- 1CP2-PB-2
Fragilaria sp.1				
Hemiaulales				
Hemiaulaceae				
Climacodinium				
<i>Climacodinium biconcavum</i>	1260	1560	2460	2580
<i>Climacodinium frauenfeldianum</i>	1200	1440	1980	1680
Eucampia				
<i>Eucampia cornuta</i>	1380	1980	1740	1740
<i>Eucampia zodiacus</i>	960	1260	3420	1920
Hemiaulus				
<i>Hemiaulus hauckii</i>	2280	1320	2520	1380
<i>Hemiaulus indicus</i>	3060	2640	1800	1740
<i>Hemiaulus membranaceus</i>	1800	2340	2640	1680
<i>Hemiaulus sinensis</i>	2640	1320	2100	2160
Lithodesmiales				
Lithodesmaceae				
Ditylum				
<i>Ditylum brightwellii</i>	300	60	240	180
<i>Ditylum sol</i>	540	540	480	420
Naviculales				
Diploneidaceae				
Diploneis				
<i>Diploneis sp.1</i>	240	120	240	240
<i>Diploneis sp.2</i>			60	
Naviculaceae				
Anomoeneis				
<i>Anomoeneis sp.1</i>	300			
Haslea				
<i>Haslea wawriake</i>	240	300	180	180
<i>Haslea sp.1</i>	600	420	240	240
Meuniera				
<i>Meuniera sp.1</i>	540	480	420	420
Navicula				
<i>Navicula sp.1</i>	540	600	540	660
<i>Navicula sp.2</i>	1200	540	2040	1920
<i>Navicula sp.3</i>	420	480	780	660
<i>Navicula sp.4</i>	1020	900	660	1260
<i>Navicula sp.5</i>	900	480	600	960
<i>Navicula sp.6</i>	660	540	900	1080
<i>Navicula sp.7</i>	720	420	420	420
<i>Navicula sp.8</i>	780	600	600	480
Trachyneis				
<i>Trachyneis sp.1</i>	480	300	540	360



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 1CP2-PS-1	MGWA- 1CP2-PS-2	MGWA- 1CP2-PB-1	MGWA- 1CP2-PB-2
Pinnulariaceae				
Pinnularia				
<i>Pinnularia sp.2</i>	60	60	120	60
Pleurosigmaaceae				
Gyrosigma				
<i>Gyrosigma sp.1</i>	420	540	420	360
<i>Gyrosigma sp.2</i>	480	420	360	360
<i>Gyrosigma sp.3</i>	360	480	240	300
Pleurosigma				
<i>Pleurosigma sp.1</i>	420	480	480	600
<i>Pleurosigma sp.2</i>	480	420	420	420
<i>Pleurosigma sp.3</i>	360	420	540	540
<i>Pleurosigma sp.4</i>	300	360	420	420
<i>Pleurosigma sp.5</i>	120	180	180	240
<i>Pleurosigma sp.6</i>	420	600	360	540
Rhizosoleniales				
Rhizosoleniaceae				
Dactylosolen				
<i>Dactylosolen blavyanus</i>				
<i>Dactylosolen fragilissimus</i>				
<i>Dactylosolen phuketensis</i>	1800	2700	2700	2760
Guinardia				
<i>Guinardia cylindrus</i>	960	1380	1920	840
<i>Guinardia flaccida</i>	3900	1860	4800	2880
<i>Guinardia striata</i>	1140	3360	2880	1980
Proboscia				
<i>Proboscia alata</i>	1560	2700	960	2880
Pseudosolenia				
<i>Pseudosolenia calcar avis</i>	1200	2520	1800	1320
Rhizosolenia				
<i>Rhizosolenia acuminata</i>	180	240	180	480
<i>Rhizosolenia bergonii</i>	780	1020	960	960
<i>Rhizosolenia clevei</i> var. <i>clevei</i>	900	720	660	1320
<i>Rhizosolenia formosa</i>	120	240	240	180
<i>Rhizosolenia hyalina</i>	1140	780	900	960
<i>Rhizosolenia imbricata</i>	240	240	240	300
<i>Rhizosolenia pungens</i>	960	1320	1020	1800
<i>Rhizosolenia robusta</i>	420	420	480	420
<i>Rhizosolenia striata</i>	300	420	420	180
<i>Rhizosolenia styliformis</i>	360	300	420	300
<i>Rhizosolenia sp.1</i>	480	480	420	240
Striatellales				
Striatellaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 1CP2-PS-1	MGWA- 1CP2-PS-2	MGWA- 1CP2-PB-1	MGWA- 1CP2-PB-2
Striatella				
<i>Striatella sp.1</i>			180	
Surirellales				
Entomoneidaceae				
Entomoneis				
<i>Entomoneis sp.1</i>	600	480	360	540
<i>Entomoneis sp.2</i>	60	120	120	300
Surirellaceae				
Campylodiscus				
<i>Campylodiscus sp.1</i>	300	180	480	480
Surirella				
<i>Surirella sp.1</i>				
Thalassionematales				
Thalassionemataceae				
Thalassionema				
<i>Thalassionema nitzschoides</i>	7680	6120	10380	16980
<i>Thalassionema sp.1</i>	4920	4980	5820	4680
Thalassiothrix				
<i>Thalassiothrix sp.1</i>	5040	2520	4500	13080
<i>Thalassiothrix sp.2</i>	600	480	1020	660
Thalassiosiphysales				
Catenulaceae				
Amphora				
<i>Amphora sp.1</i>	600	240	300	300
Thalassiosirales				
Stephanodiscaceae				
Cyclotella				
<i>Cyclotella sp.1</i>	600	480	1500	1140
Thalassiosiraceae				
Planktoniella				
<i>Planktoniella blanda</i>	540	540	780	420
<i>Planktoniella sol</i>	120	240	360	180
Thalassiosira				
<i>Thalassiosira sp.5</i>	1080	1380	1140	1980
<i>Thalassiosira sp.6</i>	1080	780	900	1380
Triceratiales				
Triceratiaceae				
Triceratium				
<i>Triceratium favus</i>			120	60
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 1CP2-PS-1	MGWA- 1CP2-PS-2	MGWA- 1CP2-PB-1	MGWA- 1CP2-PB-2
Amphisolenia				
<i>Amphisolenia bidentata</i>			120	240
Dinophysiaceae				
Histioneis				
<i>Histioneis hyalina</i>				
Ornithocercus				
<i>Ornithocercus thumii</i>			120	120
Phalacroma				
<i>Phalacroma mitra</i>				
Gonyaulacales				
Ceratiaceae				
Ceratium				
<i>Ceratium deflexum</i>			120	
<i>Ceratium dens</i>			240	180
<i>Ceratium falcatum</i>			60	60
<i>Ceratium furca</i>	240	240	300	240
<i>Ceratium fusus</i>	180	240	300	240
<i>Ceratium kofoidii</i>	60	120	120	240
<i>Ceratium macroceros</i>				
<i>Ceratium porrectum</i>				60
<i>Ceratium trichoceros</i>	180	240	120	180
<i>Ceratium tripos</i>	60	60	120	120
Gonyaulacaceae				
Lingulodinium				
<i>Lingulodinium sp.1</i>			120	
Oxytoxaceae				
Oxytoxum				
<i>Oxytoxum sp.1</i>			120	240
<i>Oxytoxum sp.3</i>			60	240
Pyrophacaceae				
Pyrophacus				
<i>Pyrophacus steinii</i>				
Gymnodiniales				
Gymnodiniaceae				
Gymnodinium				
<i>Gymnodinium sp.2</i>	120	120		120
Gyrodinium				
<i>Gyrodinium falcatum</i>	270			
Peridinales				
Podolampadaceae				
Podolampas				
<i>Podolampas bipes</i>			60	120
<i>Podolampas palmipes</i>			120	180



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 1CP2-PS-1	MGWA- 1CP2-PS-2	MGWA- 1CP2-PB-1	MGWA- 1CP2-PB-2
Protoperidiniaceae				
Protoperidinium				
<i>Protoperidinium abei</i>	180	180	240	
<i>Protoperidinium asymmetricum</i>	60	120	120	120
<i>Protoperidinium conicum</i>	60	60	60	240
<i>Protoperidinium depressum</i>	180	240	300	360
<i>Protoperidinium diabolium</i>	60	60	60	60
<i>Protoperidinium divergens</i>	180	180	300	300
<i>Protoperidinium elegans</i>			60	60
<i>Protoperidinium latispinum</i>			180	300
<i>Protoperidinium pallidum</i>			60	60
Prorocentrales				
Prorocentraceae				
Prorocentrum				
<i>Prorocentrum mexicanum</i>				120
<i>Prorocentrum micans</i>	240	60	120	120
TOTAL	196410	178740	261480	283410
Number of Taxa	127	121	147	144

1. Count as number of filaments
(average cells/unit of filamentous species) n=30

Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 3CP2-PS-1	MGWA- 3CP2-PS-2	MGWA- 3CP2-PB-1	MGWA- 3CP2-PB-2
Charophyta				
Conjugophyceae				
Desmidiaceae				
Desmidiaceae				
Spondylosium				
<i>Spondylosium</i> sp.1	240	300	240	240
Staurastrum				
<i>Staurastrum</i> sp.1		60	60	120
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
Golenkinia				
<i>Golenkinia radiata</i>	120	120	60	60
Sphaeropleales				
Scenedesmacaceae				
Scenedesmus				
<i>Scenedesmus</i> sp.1				
Trebouxiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
<i>Ankistrodesmus</i> sp.1	120		120	60
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
<i>Dictyocha fibula</i>	300	180	240	300
<i>Dictyocha speculum</i> var. <i>octonaris</i>			120	
Cyanobacteria				
Cyanophyceae				
Nostocales				
Oscillatoriaceae				
Oscillatoria				
<i>Oscillatoria erythraea</i>	23220	33180	43500	37440
<i>Oscillatoria</i> sp.1	8640	9000	9780	11040
Rivulariaceae				
Calothrix				
<i>Calothrix crustacea</i>	1440	1680	1380	1260
Ochromyza				
Bacillariophyceae				
Asterolamprales				



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 3CP2-PS-1	MGWA- 3CP2-PS-2	MGWA- 3CP2-PB-1	MGWA- 3CP2-PB-2
Asterolampraceae				
Asterolampra				
<i>Asterolampra marylandica</i>	120	60	240	60
Asteromphalus				
<i>Asteromphalus cleveanus</i>	60	120	120	60
<i>Asteromphalus elegans</i>			120	
<i>Asteromphalus</i> sp.1	240	60	120	
Bacillariales				
Bacillariaceae				
Bacillaria				
<i>Bacillaria paxillifer</i>	9420	5820	8940	11700
Cylindrotheca				
<i>Cylindrotheca closterium</i>	840			1260
<i>Cylindrotheca</i> sp.1				
Nitzschia				
<i>Nitzschia longissima</i>	420	600	660	960
<i>Nitzschia lorenziana</i>	420	960	1020	660
<i>Nitzschia</i> sp.3	780	480	600	420
<i>Nitzschia</i> sp.4	540	780	420	600
<i>Nitzschia</i> sp.5	480	900	660	480
<i>Nitzschia</i> sp.9	540	720	660	540
<i>Nitzschia</i> sp.10	2160	1200	480	600
<i>Nitzschia</i> sp.11	1680	600	720	720
Pseudo-nitzschia				
<i>Pseudo-nitzschia</i> sp.1	3360	2880	1440	2700
Centrales				
Eupodiaceae				
Odontella				
<i>Odontella mobiliensis</i>	120	180	240	60
<i>Odontella sinensis</i>	600	600	1020	840
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrium				
<i>Bacteriastrium comosum</i>	6060	4920	5760	7380
<i>Bacteriastrium furcatum</i>	5700	4080	5220	5760
<i>Bacteriastrium hyalinum</i>	7380	7620	8520	12540
Chaetoceros				
<i>Chaetoceros aequatorialis</i>	1020	1020	1740	1920
<i>Chaetoceros affinis</i>	3540	2820	4380	3840
<i>Chaetoceros atlanticus</i>	1920	3180	4740	5220
<i>Chaetoceros coarctatus</i>	6540	5880	5520	7560
<i>Chaetoceros compressus</i>	4440	6600	3300	6420
<i>Chaetoceros costatus</i>	5040	4260	4980	5040



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 3CP2-PS-1	MGWA- 3CP2-PS-2	MGWA- 3CP2-PB-1	MGWA- 3CP2-PB-2
<i>Chaetoceros didymus</i>	5760	5460	7380	7920
<i>Chaetoceros diversus</i>	8280	3720	9420	13560
<i>Chaetoceros lorenzianus</i>	6480	3120	5340	9480
<i>Chaetoceros messanensis</i>				1860
<i>Chaetoceros peruvianus</i>	1380	1260	1800	1560
<i>Chaetoceros pseudocurvisetus</i>	5220	6360	4020	5220
<i>Chaetoceros</i> sp.1				
<i>Chaetoceros</i> sp.3				
Corethrales				
Corethraceae				
Corethron				
<i>Corethron criophilum</i>	180	120	120	300
Coscinodiscales				
Coscinodiscaceae				
Coscinodiscus				
<i>Coscinodiscus</i> sp.1	300	480	420	420
<i>Coscinodiscus</i> sp.2		60	60	120
<i>Coscinodiscus</i> sp.3				60
<i>Coscinodiscus</i> sp.4			180	120
<i>Coscinodiscus</i> sp.5	240	240	360	420
<i>Coscinodiscus</i> sp.6	240	240	300	360
<i>Coscinodiscus</i> sp.7		60	60	120
<i>Coscinodiscus</i> sp.8	240	300	240	240
<i>Coscinodiscus</i> sp.9	180	360	240	240
<i>Coscinodiscus</i> sp.10	240	360	420	300
<i>Coscinodiscus</i> sp.11	180	240	240	240
<i>Coscinodiscus</i> sp.12		240	120	120
<i>Coscinodiscus</i> sp.13		120	60	60
Gosslerella				
<i>Gosslerella tropica</i>	60	60	60	120
Palmeria				
<i>Palmeria hardmaniana</i>	300	240	240	240
Heliopeltaceae				
Actinoptychus				
<i>Actinoptychus</i> sp.1	900	720	960	540
Hemidiscaceae				
Pseudoguardia				
<i>Pseudoguardia recta</i>				
Fragilariaceae				
Asterionella				
<i>Asterionella formosa</i>	60			
Fragilaria				



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 3CP2-PS-1	MGWA- 3CP2-PS-2	MGWA- 3CP2-PB-1	MGWA- 3CP2-PB-2
Fragilaria sp.1	1200			
Hemiaulales				
Hemiaulaceae				
Climacodinium				
<i>Climacodinium biconcavum</i>	2100	1740	2280	3360
<i>Climacodinium frauenfeldianum</i>	2220	1620	1860	2820
Eucampia				
<i>Eucampia cornuta</i>	1680	1560	1560	1560
<i>Eucampia zodiacus</i>	1260	1140	1320	1200
Hemiaulus				
<i>Hemiaulus hauckii</i>	2580	1380	2700	2820
<i>Hemiaulus indicus</i>	2580	1320	2160	1500
<i>Hemiaulus membranaceus</i>	1440	1260	2520	1440
<i>Hemiaulus sinensis</i>	2520	2400	2160	2400
Lithodesmiales				
Lithodesmaceae				
Ditylum				
<i>Ditylum brightwellii</i>	180	420	240	360
<i>Ditylum sol</i>	600	720	480	780
Naviculales				
Diploneidaceae				
Diploneis				
<i>Diploneis sp.1</i>	300	240	300	240
<i>Diploneis sp.2</i>				
Naviculaceae				
Anomoeneis				
<i>Anomoeneis sp.1</i>				
Haslea				
<i>Haslea wawriake</i>	180	180	240	240
<i>Haslea sp.1</i>	300	360	360	480
Meuniera				
<i>Meuniera sp.1</i>	540	420	660	1080
Navicula				
<i>Navicula sp.1</i>	780	720	780	600
<i>Navicula sp.2</i>	480	1320	1020	1140
<i>Navicula sp.3</i>	480	1080	900	600
<i>Navicula sp.4</i>	1380	1020	660	840
<i>Navicula sp.5</i>	900	660	1500	600
<i>Navicula sp.6</i>	480	660	900	780
<i>Navicula sp.7</i>	600	660	780	600
<i>Navicula sp.8</i>	420	720	840	660
Trachyneis				
<i>Trachyneis sp.1</i>	420	600	420	540



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 3CP2-PS-1	MGWA- 3CP2-PS-2	MGWA- 3CP2-PB-1	MGWA- 3CP2-PB-2
Pinnulariaceae				
Pinnularia				
<i>Pinnularia sp.2</i>				
Pleurosomataceae				
Gyrosigma				
<i>Gyrosigma sp.1</i>	480	420	420	300
<i>Gyrosigma sp.2</i>	600	360	480	420
<i>Gyrosigma sp.3</i>	480	540	540	420
Pleurosoma				
<i>Pleurosoma sp.1</i>	540	600	600	420
<i>Pleurosoma sp.2</i>	600	360	420	300
<i>Pleurosoma sp.3</i>	480	480	480	660
<i>Pleurosoma sp.4</i>	420	360	540	480
<i>Pleurosoma sp.5</i>	240	180	300	180
<i>Pleurosoma sp.6</i>	600	420	540	720
Rhizosoleniales				
Rhizosoleniaceae				
Dactylosolen				
<i>Dactylosolen blavyanus</i>			1140	2280
<i>Dactylosolen fragilissimus</i>			1020	1320
<i>Dactylosolen phuketensis</i>	3180	3900	2760	2160
Guinardia				
<i>Guinardia cylindrus</i>	1080	840	1320	1140
<i>Guinardia flaccida</i>	4440	2880	5280	4680
<i>Guinardia striata</i>	2220	1380	1740	1740
Proboscia				
<i>Proboscia alata</i>	2520	1800	1200	2400
Pseudosolenia				
<i>Pseudosolenia calcar avis</i>	2340	1080	2460	1200
Rhizosolenia				
<i>Rhizosolenia acuminata</i>	180	180	240	240
<i>Rhizosolenia bergonii</i>	960	1200	1020	1200
<i>Rhizosolenia clevei</i> var. <i>clevei</i>	1080	2100	1020	900
<i>Rhizosolenia formosa</i>	180	180	180	300
<i>Rhizosolenia hyalina</i>	960	1380	1200	1920
<i>Rhizosolenia imbricata</i>	300	180	300	240
<i>Rhizosolenia pungens</i>	960	1200	1080	1080
<i>Rhizosolenia robusta</i>	480	480	480	660
<i>Rhizosolenia striata</i>	360	480	300	240
<i>Rhizosolenia styliformis</i>	420	360	300	420
<i>Rhizosolenia sp.1</i>	600	360	240	300
Striatellales				
Striatellaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 3CP2-PS-1	MGWA- 3CP2-PS-2	MGWA- 3CP2-PB-1	MGWA- 3CP2-PB-2
Striatella				
<i>Striatella sp.1</i>				
Surirellales				
Entomoneidaceae				
Entomoneis				
<i>Entomoneis sp.1</i>	360	360	360	240
<i>Entomoneis sp.2</i>	120	450		120
Surirellaceae				
Campylodiscus				
<i>Campylodiscus sp.1</i>	300	360	420	360
Surirella				
<i>Surirella sp.1</i>				60
Thalassionematales				
Thalassionemataceae				
Thalassionema				
<i>Thalassionema nitzschoides</i>	8160	9900	14940	25140
<i>Thalassionema sp.1</i>	4740	6840	9180	9060
Thalassiothrix				
<i>Thalassiothrix sp.1</i>	5640	5640	5400	8280
<i>Thalassiothrix sp.2</i>	900	780	600	600
Thalassiophytales				
Catenulaceae				
Amphora				
<i>Amphora sp.1</i>	240	600	360	420
Thalassiosirales				
Stephanodiscaceae				
Cyclotella				
<i>Cyclotella sp.1</i>	1380	1380	840	1140
Thalassiosiraceae				
Planktoniella				
<i>Planktoniella blanda</i>	480	480	420	420
<i>Planktoniella sol</i>	180	300	240	180
Thalassiosira				
<i>Thalassiosira sp.5</i>	1500	840	1200	
<i>Thalassiosira sp.6</i>	1320	1080	1200	1020
Triceratiales				
Triceratiaceae				
Triceratium				
<i>Triceratium favus</i>				
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				



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Principal Taxonomist

Phytoplankton density (unit/bottle)

TAXA	MGWA- 3CP2-PS-1	MGWA- 3CP2-PS-2	MGWA- 3CP2-PB-1	MGWA- 3CP2-PB-2
Amphisolenia				
<i>Amphisolenia bidentata</i>	180	180	120	60
Dinophysiaceae				
Histioneis				
<i>Histioneis hyalina</i>			60	
Ornithocercus				
<i>Ornithocercus thumii</i>			120	
Phalacroma				
<i>Phalacroma mitra</i>		60		
Gonyaulacales				
Ceratiaceae				
Ceratium				
<i>Ceratium deflexum</i>			240	
<i>Ceratium dens</i>				180
<i>Ceratium falcatum</i>				120
<i>Ceratium furca</i>	240	240	240	240
<i>Ceratium fusus</i>	240	180	240	300
<i>Ceratium kofoidii</i>				
<i>Ceratium macroceros</i>				60
<i>Ceratium porrectum</i>	240			120
<i>Ceratium trichoceros</i>	180	240	180	240
<i>Ceratium tripos</i>				
Gonyaulacaceae				
Lingulodinium				
<i>Lingulodinium sp.1</i>				
Oxytoxaceae				
Oxytoxum				
<i>Oxytoxum sp.1</i>				
<i>Oxytoxum sp.3</i>			120	
Pyrophacaceae				
Pyrophacus				
<i>Pyrophacus steinii</i>			120	
Gymnodiniales				
Gymnodiniaceae				
Gymnodinium				
<i>Gymnodinium sp.2</i>				60
Gyrodinium				
<i>Gyrodinium falcatum</i>				
Peridinales				
Podolampadaceae				
Podolampas				
<i>Podolampas bipes</i>		120		
<i>Podolampas palmipes</i>	60	60	120	



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Principal Taxonomist

Phytoplankton density (unit/bottle)				
TAXA	MGWA-3CP2-PS-1	MGWA-3CP2-PS-2	MGWA-3CP2-PB-1	MGWA-3CP2-PB-2
Protoperidiniaceae				
Protoperidinium				
<i>Protoperidinium abei</i>				180
<i>Protoperidinium asymmetricum</i>	180	180	240	240
<i>Protoperidinium conicum</i>	60		180	120
<i>Protoperidinium depressum</i>	300	300	300	300
<i>Protoperidinium diabolium</i>		120	60	
<i>Protoperidinium divergens</i>	300	240	360	420
<i>Protoperidinium elegans</i>				
<i>Protoperidinium latispinum</i>	420	240	360	360
<i>Protoperidinium pallidum</i>				
Prorocentrales				
Prorocentraceae				
Prorocentrum				
<i>Prorocentrum mexicanum</i>				
<i>Prorocentrum micans</i>			180	300
TOTAL	207780	201690	241800	276780
Number of Taxa	123	125	135	135

1. Count as number of filaments				
(average cells/unit of filamentous specie:				
Filamentous phytoplankton species	Average (cells)	SD	Minimum (cells)	Maximum (cells)
<i>Spondylosium</i> sp.1	45.5	23.06	17	96
<i>Calothrix crustacea</i>	9.73	3.03	5	15
<i>Oscillatoria erythraea</i>	153.87	38.21	86	225
<i>Oscillatoria</i> sp.1	78.5	20.27	44	113




Principal Taxonomist

APPENDIX E ANALYTICAL LABORATORY REPORTS: ZOOPLANKTON COMMUNITY

Diversity of Zooplankton (individuals in the bottle) 30 minute tow

TAXA/STATION	NPCPP-		NPREF-A	NPWB-		NPWG-
	1CP2	3CP2		1CP2	3CP2	1CP2
Platyhelminthes						
Turbellaria						
<i>Turbellaria</i> spp.			1			
Ctenophora						
Teniaculata						
Cydidippa						
Pleurobrachiidae						
<i>Pleurobrachiidae</i> spp.	24	55	16	8	22	15
Ciliophora						
Ciliata						
Oligotrichida						
Rhabdonellidae						
<i>Rhabdonella</i>			5			
<i>Rhabdonella</i> sp.						
Cnidaria						
Anthozoa						
<i>Anthozoa</i> spp.	8	35	8	5	14	12
Hydrozoa						
Anthothecata						
Corymorphidae						
<i>Euphysa</i>						
<i>Euphysa</i> sp.1		7	5		3	2
<i>Euphysora</i>						
<i>Euphysora</i> sp.1						
Corynidae						
<i>Corynidae</i> sp.2						
Proboscidiactylidae						
<i>Proboscidiactylidae</i> spp.	11	31	14	4	7	14
Rathkeidae						
<i>Rathkeidae</i> spp.						
Anthothecatae						
Bougainvillidae						
<i>Bougainvillidae</i> sp.1	7	21	8	8	3	5
<i>Bougainvillidae</i> sp.3	4	10	5	4	1	5
Porpitiidae						
<i>Porpitiidae</i> spp.			3	2	1	3
Tubulariidae						
<i>Hybocodon</i>						
<i>Hybocodon</i> sp.1			22		31	
<i>Tubulariidae</i> .unid						
<i>Tubulariidae</i> sp.1	6	14	4	3	2	4
<i>Tubulariidae</i> sp.3	2		3	3	2	6
Hydrozoa.unid						
<i>Hydrozoa</i> spp.	17	42	10	4	4	13
Leptothecata						
Eutimidae						
<i>Eutima</i>						
<i>Eutima</i> sp.1	6	10	4	6	3	4
Leptothecatae						
Eirenidae						



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Principal Taxonomist

Diversity of Zooplankton (individuals in the bottle) 30 minute tow

TAXA/STATION	NPCPP-		NPREF-A	NPWB-		NPWG-
	1CP2	3CP2		1CP2	3CP2	1CP2
Eirene						
<i>Eirene</i> sp.1	4	14	7	3	2	4
<i>Eirene</i> sp.2	5		3	3	2	3
Lovenellidae						
<i>Lovenellidae</i> spp.	6		5		1	3
Mitrocomidae						
<i>Mitrocomidae</i> spp.	15	21	12	8	8	15
Siphonophora						
Abylidae						
<i>Abylidae</i> spp.	35	18	22	15	23	26
Siphonophorae						
Diphyidae						
<i>Diphyidae</i> spp.	72	161	67	27	111	53
Trachymedusae						
Geryoniidae						
<i>Liriope</i>						
<i>Liriope</i> sp.1	16	21	15	14	5	22
<i>Liriope</i> sp.2					2	7
Rhopalonematidae						
<i>Rhopalonematidae</i> spp.	25	14	10	9	10	19
Scyphozoa						
Coronatae						
Nausithoidae						
<i>Nausithoe</i>						
<i>Nausithoe</i> sp.1						
<i>Nausithoe</i> sp.3						
Rhizostomeae						
Rhizostomatidae						
<i>Rhizostomatidae</i> spp.	7	14	6	12	4	5
Annelida						
Polychaeta.unid						
<i>Polychaeta</i> larvae	11	63	7	16	22	22
Arthropoda						
Malacostraca						
Amphipoda						
Amphilocheidae						
<i>Amphilocheidae</i> spp.						
Amphipoda.unid						
<i>Amphipoda</i> sp.		14				
Caprellidae						
<i>Caprellidae</i> spp.	18	12	8	4	12	6
Dexaminidae						
<i>Dexaminidae</i> spp.	4	5	4	4	3	2
Hyperidae						
<i>Hyperidae</i> sp.1	82	370	104	60	266	59
<i>Hyperidae</i> sp.2	140	154	333	250	189	164
<i>Hyperidae</i> sp.3	62	56	159	55	88	76
<i>Hyperidae</i> sp.4	88	105	146	90	142	103
<i>Hyperidae</i> sp.5	47	21	44	60	54	62
Leucothidae						



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Principal Taxonomist

Diversity of Zooplankton (individuals in the bottle) 30 minute tow

TAXA/STATION	NPCPP-		NPREF-A	NPWB-		NPWG-
	1CP2	3CP2		1CP2	3CP2	1CP2
Leucothoidae						
<i>Leucothoidae</i> spp.		2				
Oxycephalidae						
<i>Rhabdosoma</i>						
<i>Rhabdosoma</i> spp.	21	21	7	11	4	10
<i>Tullbergella</i>						
<i>Tullbergella</i> spp.	3	4	2	1	4	1
Phronimidae						
<i>Phronimidae</i> sp.1			3			
Decapoda						
Alpheidae						
<i>Alpheidae</i> spp.	41	28	4	8	26	160
Crangonidae						
<i>Crangonidae</i> sp.1		8	3	4	2	2
Decapoda.unid						
<i>Crab</i> zoea	30	22	5	4	10	6
Dendrobranchiata.unid						
<i>Shrimp</i> larvae sp.C		14	2		3	2
<i>Shrimp</i> larvae sp.E		7	1			1
<i>Shrimp</i> larvae sp.J	18	21	8	4	12	7
<i>Shrimp</i> larvae sp.R	23	14	6	3	8	11
<i>Shrimp</i> larvae sp.S			2			
Diogenidae						
<i>Diogenidae</i> sp.1	14	28	9	4	3	4
<i>Diogenidae</i> sp.2						
<i>Diogenidae</i> sp.3	22	21	11	3	6	12
Hippolytidae						
<i>Hippolytidae</i> spp.	4	4	3	3	3	4
Laomedidae						
<i>Laomedidae</i> spp.	8	5	3	3	3	6
Luciferidae						
<i>Lucifer</i>						
<i>Lucifer</i> spp.	1624	280	110	152	74	206
Paguridae						
<i>Paguridae</i> spp.	13	21	11	3	6	5
Palaemonidae						
<i>Palaemonidae</i> sp.1	9	14	5	3	2	10
<i>Palaemonidae</i> sp.2			2			
<i>Palaemonidae</i> sp.3	12	28	4	2	2	7
Parapaguridae						
<i>Parapaguridae</i> spp.	5	14	6	2	2	7
Pasiphaeidae						
<i>Leptochela</i>						
<i>Leptochela</i> sp.1	6	14	7	5	4	3
Pleocyemata.unid						
<i>Brachyura</i> Larvae	178	84	60	55	251	158
<i>Crab</i> Megalopa	9	14	4	2	2	9
Porcellanidae						
<i>Porcellanidae</i> spp.		35	2	2	4	
Scyllaridae						
<i>Phyllosoma</i> larvae				1	1	



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Principal Taxonomist

Diversity of Zooplankton (individuals in the bottle) 30 minute tow

TAXA/STATION	NPCPP-	NPCPP-	NPWB-	NPWB-	NPWG-
	1CP2	3CP2			
Sergestidae					
Sergestidae spp.	11	3	3	3	4
Solenoceridae					
Solenoceridae spp.	10	8	4	2	6
Upogebiidae					
Upogebiidae spp.	40	41	12	4	23
Malacostraca.unid					
<i>Mysid</i> sp.	18	22	8	2	13
Mysida					
Mysidae					
Siriella					
<i>Siriella</i> sp.1	4	4	2	2	2
Stomatopoda					
Squillidae					
Squilla					
<i>Alma</i> larvae	45	18	37	18	14
Stomatopoda.unid					
<i>Erichthus</i> larvae	10		4	3	2
Maxillopoda					
Calanoida					
Acartiidae					
Acartiidae spp.	101	253	399	105	212
Calanidae					
Calanidae spp.	1144	1303	2416	1784	1432
Centropagidae					
Centropagidae spp.	55	60	80	38	71
Eucalanidae					
Eucalanidae spp.	431	505	553	660	440
Euchaetidae					
Euchaetidae spp.			45	13	38
Paracalanidae					
Paracalanidae spp.	93	35	102	39	88
Pontellidae					
Pontellidae spp.	142	86	87	47	52
Temoridae					
Temoridae spp.	32	64	34	22	61
Tortanidae					
Tortanidae spp.	77	59	28	23	38
Tortanus					
<i>Tortanus</i> spp.	24	25	10	9	6
Copepoda.unid					
Copepod Nauplii	136	158	372	228	160
Cyclopoida					
Oithonidae					
Oithona					
<i>Oithona</i> spp.	100	63	25	18	36
Harpacticoida					
Ectinosomatidae					
Microsetella					
<i>Microsetella</i> spp.	172	168	17	28	84



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Principal Taxonomist

Diversity of Zooplankton (individuals in the bottle) 30 minute tow

TAXA/STATION	NPCPP-	NPCPP-	NPWB-	NPWB-	NPWG-
	1CP2	3CP2			
Poecilostomatoida					
Corycaeiidae					
Corycaeus					
<i>Corycaeus</i> spp.	26		30	6	27
Oncaeidae					
Oncaea					
<i>Oncaea</i> spp.		10	8	11	11
Sapphirinidae					
Copilia					
<i>Copilia</i> spp.	36	26	14	6	25
Sappharina					
<i>Sappharina</i> spp.	13	14	15	9	12
Thecostraca.unid					
Barnacle nauplius					
Ostracoda					
Halocyprida					
Halocyprididae					
Euconchoecia					
<i>Euconchoecia</i> sp.1	84	308	182	108	43
Myodocopida					
Cypridinidae					
Cypridinidae sp.1	102	493	260	59	207
Cypridinidae sp.2	66	230	122	32	153
Mollusca					
Bivalvia					
<i>Bivalve</i> larvae	93	389	44	38	48
Cephalopoda					
<i>Squid</i> larvae	3	4	5	6	2
Gastropoda					
Cephalaspidea					
Gastropodidae					
Gastropodidae spp.	8	21	10	5	17
<i>Gastropoda</i> sp.	38	168	50	33	72
Neotaenioglossa					
Atlantidae					
Atlanta					
<i>Atlanta</i> sp.	13	35	8	16	21
Pterotracheidae					
Pterotracheidae sp.	12	49	11	14	13
Thecosomata					
Cavolinidae					
Cavolinia					
<i>Cavolinia</i> sp.1	8	21	50	69	24
<i>Cavolinia</i> sp.2			23		87
Cresseis					
<i>Cresseis acicula</i>	237	50	15	277	35
<i>Cresseis virgula</i>	114	24			35
Diacria					
<i>Diacria</i> sp.1	1003	890	2013	144	52
<i>Diacria</i> sp.2			1408		98



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Principal Taxonomist

Diversity of Zooplankton (individuals in the bottle) 30 minute tow

TAXA/STATION	NPCPP-	NPCPP-	NPWB-	NPWB-	NPWG-
	1CP2	3CP2			
Echinodermata					
<i>Echinoderm</i> Larvae	24	80	23	41	59
Chaetognatha					
Sagittoidae					
Aphragmophora					
Sagittidae					
Sagitta					
<i>Sagitta</i> sp.1	208	1616	1091	184	262
<i>Sagitta</i> sp.2	161	1022	624	117	149
Chordata					
Actinopterygii					
Fish Egg		126	56	46	40
Fish larvae	45	285	304	194	56
Appendicularia					
Copepoda					
Oikopleuridae					
Oikopleura					
<i>Oikopleura</i> spp.	105	119	58	66	68
Thaliacea					
Doliolida					
Doliolidae					
Doliolidae					
<i>Doliolidae</i> sp.1	59	56	90	14	34
<i>Doliolidae</i> sp.2	37	21	28	5	25
Salpida					
Salpidae					
Salpa					
<i>Salpa</i> sp.1	80	70	77	31	47
<i>Salpa</i> sp.2	46	21	42	17	29
<i>Salpa</i> sp.3					
Total	7743	10524	11988	5407	5953
Number of TAXA	68	75	81	75	75



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Principal Taxonomist

Diversity of Zooplankton (individuals in the bottle) 30 minute tow

TAXA/STATION	NPCPP-	NPCPP-	NPWB-	NPWB-	NPWG-
	1CP2X	3CP2X			
Platyhelminthes					
Turbellaria					
<i>Turbellaria</i> spp.					
Ctenophora					
Teniaculata					
Cyrtippida					
Pleurobrachiidae					
Pleurobrachiidae spp.	14	39	40	36	26
Ciliophora					
Ciliata					
Oligotrichida					
Rhabdonellidae					
Rhabdonella					
<i>Rhabdonella</i> sp.		24	6	10	
Cnidaria					
Anthozoa					
<i>Anthozoa</i> spp.	12	54	30	27	48
Hydrozoa					
Anthothecata					
Corymorphidae					
Euphysa					
<i>Euphysa</i> sp.1	2	8	9	30	7
Euphysora					
<i>Euphysora</i> sp.1			6	15	
Corynidae					
Corynidae sp.2				7	
Proboscidiactylidae					
Proboscidiactylidae spp.	12	18	8	24	18
Rathkeidae					
Rathkeidae spp.	1			6	
Anthothecatae					
Bougainvillidae					
Bougainvillidae sp.1	10	6	6	19	14
Bougainvillidae sp.3	4	3	6	5	12
Porpitiidae					
Porpitiidae spp.	2	10	6	21	3
Tubulariidae					
Hybocodon					
<i>Hybocodon</i> sp.1	27				
Tubulariidae.unid					
Tubulariidae sp.1	3	7	6	12	12
Tubulariidae sp.3	1	6	3	8	9
Hydrozoa.unid					
<i>Hydrozoa</i> spp.	16	54	24	52	40
Leptothecata					
Eutimidae					
Eutima					
<i>Eutima</i> sp.1	5	9	18	10	5
Leptothecatae					
Eirenidae					



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Principal Taxonomist

Diversity of Zooplankton (indivi

TAXA/STATION	NPWG- 3CP2	PACPP- 1CP2X	PACPP- 3CP2	PAREF-A	PAWB- 1CP2	PAWB- 3CP2
Eirene	4	8	15	23	13	11
<i>Eirene sp.1</i>	6	5	9	11	6	8
<i>Eirene sp.2</i>						
Lovenellidae						
<i>Lovenellidae spp.</i>	3		6	17		
Mitrocomidae						
<i>Mitrocomidae spp.</i>	21	27	21	28	16	20
Siphonophora						
Abylidae						
<i>Abylidae spp.</i>	41	81	69	69	68	32
Siphonophorae						
Diphyidae						
<i>Diphyidae spp.</i>	125	147	135	120	172	288
Trachymedusae						
Geryonidae						
<i>Liriope</i>						
<i>Liriope sp.1</i>	15	15	15	32	20	13
<i>Liriope sp.2</i>						
Rhopalonematidae						
<i>Rhopalonematidae spp.</i>	18	18	18	34	36	21
Scyphozoa						
Coronatae						
Nautilidae						
<i>Nautilidae spp.1</i>		3	6	12		
<i>Nautilidae spp.3</i>		6	3	3		
Rhizostomeae						
Rhizostomatidae						
<i>Rhizostomatidae spp.</i>	3	12	6	9	16	8
Annelida						
Polychaeta.unid						
<i>Polychaete larvae</i>	30	33	34	40	32	44
Arthropoda						
Malacostraca						
Amphipoda						
Amphilocheidae						
<i>Amphilocheidae spp.</i>					8	
Amphipoda.unid						
<i>Amphipoda sp.</i>		6	9	16		
Caprellidae						
<i>Caprellidae spp.</i>	10	12	15	24	12	17
Dexaminidae						
<i>Dexaminidae spp.</i>	3	9	12	8	3	
Hyperidae						
<i>Hyperidae sp.1</i>	90	132	341	92	80	106
<i>Hyperidae sp.2</i>	140	192	223	166	176	135
<i>Hyperidae sp.3</i>	75	84	139	68	64	68
<i>Hyperidae sp.4</i>	86	72	266	100	121	84
<i>Hyperidae sp.5</i>	38	30	180	36	24	25
Leucothidae						



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Principal Taxonomist

Diversity of Zooplankton (indivi

TAXA/STATION	NPWG- 3CP2	PACPP- 1CP2X	PACPP- 3CP2	PAREF-A	PAWB- 1CP2	PAWB- 3CP2
Leucothoidae spp.		6	5	8		
Oxycephalidae						
<i>Rhabdosoma</i>	18	39	45	28	24	48
<i>Rhabdosoma spp.</i>						
<i>Tullbergella</i>	2	4	6	6	3	5
<i>Tullbergella spp.</i>						
Phronimidae						
<i>Phronimidae sp.1</i>						
Decapoda						
Alpheidae						
<i>Alpheidae spp.</i>	167	42	35	28	48	36
Crangonidae						
<i>Crangonidae sp.1</i>	2	9				
Decapoda.unid						
<i>Crab zoea</i>	13	36	15	12	26	
Dendrobranchiata.unid						
<i>Shrimp larvae sp.C</i>	1	18	8	12	3	10
<i>Shrimp larvae sp.E</i>		24	5	8	8	4
<i>Shrimp larvae sp.J</i>	19	48	45	25	17	23
<i>Shrimp larvae sp.R</i>	22	39	30	48	22	31
<i>Shrimp larvae sp.S</i>	7				9	18
Diogenidae						
<i>Diogenidae sp.1</i>	8	21	15	13	12	13
<i>Diogenidae sp.2</i>					4	
<i>Diogenidae sp.3</i>	9	36	9	20	15	10
Hippolytidae						
<i>Hippolytidae spp.</i>	2	9	6	12	6	2
Laomedidae						
<i>Laomedidae spp.</i>	5	6	12	5	5	6
Luciferidae						
<i>Lucifer spp.</i>	183	192	375	312	118	200
Paguridae						
<i>Paguridae spp.</i>	4	33	30	16	48	28
Palaemonidae						
<i>Palaemonidae sp.1</i>	4	15	6	12	17	9
<i>Palaemonidae sp.2</i>	6	18	9	16	8	11
<i>Palaemonidae sp.3</i>						
Parapaguridae						
<i>Parapaguridae spp.</i>	4	9	12	9	32	28
Pasiphaeidae						
<i>Leptochela</i>	5	9	30	11	14	15
<i>Leptochela sp.1</i>						
Pleocyemata.unid						
<i>Brachyura Larvae</i>	192	276	268	224	213	188
<i>Crab Megalopa</i>	2	15	15	16	11	8
Porcellanidae						
<i>Porcellanidae spp.</i>		15				
Scyllaridae						
<i>Phyllosoma larvae</i>		5				



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Principal Taxonomist

Diversity of Zooplankton (indivi

TAXA/STATION	NPWG- 3CP2	PACPP- 1CP2X	PACPP- 3CP2	PAREF-A	PAWB- 1CP2	PAWB- 3CP2
Sergestidae						
<i>Sergestidae spp.</i>	4	12	6	7	8	12
Solenoceridae						
<i>Solenoceridae spp.</i>	3	21	15	10	4	14
Upogebiidae						
<i>Upogebiidae spp.</i>	23	36	43	26	32	56
Malacostraca unid						
<i>Mysid sp.</i>	8	30	42	22	12	27
Mysida						
Mysidae						
<i>Siriella</i>						
<i>Siriella sp.1</i>				3	3	2
Stomatopoda						
Squillidae						
<i>Squilla</i>	34	30	21	20	16	33
<i>Alima larvae</i>						
Stomatopoda.unid						
<i>Erichthus larvae</i>	3			6		
Maxillopoda						
Calanoida						
Acartiidae						
<i>Acartiidae spp.</i>	91	153	549	360	160	149
Calanidae						
<i>Calanidae spp.</i>	1732	1867	1974	2024	2200	1768
Centropagidae						
<i>Centropagidae spp.</i>	42	120	117	132	116	71
Eucalanidae						
<i>Eucalanidae spp.</i>	621	429	609	668	832	964
Euchaetidae						
<i>Euchaetidae spp.</i>	9	81				
Paracalanidae						
<i>Paracalanidae spp.</i>	75	99	285	220	364	58
Pontellidae						
<i>Pontellidae spp.</i>	45	75	353	102	152	56
Temoridae						
<i>Temoridae spp.</i>	18	45	165	97	240	84
Tortanidae						
<i>Tortanidae spp.</i>	30	93	113	120	224	44
<i>Tortanus</i>						
<i>Tortanus spp.</i>	11	30	68	46	52	14
Copepoda unid						
<i>Copepod Nauplii</i>	124	471	342	148	129	134
Cyclopoida						
Oithonidae						
<i>Oithona</i>						
<i>Oithona spp.</i>	24	48	60	60	83	26
Harpacticoida						
Ectinosomatidae						
<i>Microsetella</i>						
<i>Microsetella spp.</i>	43	148	250	188	196	203



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Principal Taxonomist

Diversity of Zooplankton (indivi

TAXA/STATION	NPWG- 3CP2	PACPP- 1CP2X	PACPP- 3CP2	PAREF-A	PAWB- 1CP2	PAWB- 3CP2
Poecilostomatoida						
Corycaidae						
<i>Corycaeus</i>	14				28	48
<i>Corycaeus spp.</i>						
Oncaeidae						
<i>Oncaea</i>	6					
<i>Oncaea spp.</i>						
Sapphirinidae						
<i>Copilia</i>	8	27	37	52	24	26
<i>Copilia spp.</i>						
<i>Sappharina</i>	8	12	21	14	13	19
<i>Sappharina spp.</i>						
Thecostraca unid						
<i>Barnacle nauplius</i>		9				
Ostracoda						
<i>Halocyprida</i>						
Halocyprididae						
<i>Euconchoecia</i>	55	177	195	160	166	192
<i>Euconchoecia sp.1</i>						
Myodocopida						
Cypridinidae						
<i>Cypridinidae sp.1</i>	83	125	366	72	212	140
<i>Cypridinidae sp.2</i>	108	68	239	32	128	52
Mollusca						
Bivalvia						
<i>Bivalve larvae</i>	55	1333	137	393	72	92
Cephalopoda						
<i>Squid larvae</i>		3	4		5	3
Gastropoda						
<i>Cephalaspidea</i>						
Gastropodidae						
<i>Gastropodidae spp.</i>	8	12	30	20		3
<i>Gastropoda sp.</i>	32	272	64	284	37	26
<i>Nectanoglossa</i>						
Atlantidae						
<i>Atlanta</i>	23	18	39	16	23	23
<i>Atlanta sp.</i>						
Pterotracheidae						
<i>Pterotracheidae sp.</i>	10	21	45	12	12	9
Thecosomata						
Cavolinidae						
<i>Cavolinia</i>						
<i>Cavolinia sp.1</i>	33		23	84	2418	3249
<i>Cavolinia sp.2</i>				31		
<i>Cresels</i>						
<i>Cresels acicula</i>	1377		162	150	30	23
<i>Cresels virgula</i>	834			96	183	57
<i>Diacria</i>						
<i>Diacria sp.1</i>	66	2556	1499	56	152	87
<i>Diacria sp.2</i>		420	561	20	51	110



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Principal Taxonomist

Diversity of Zooplankton (indivi

TAXA/STATION	NPWG- 3CP2	PACPP- 1CP2X	PACPP- 3CP2	PAWB- PAREF-A	PAWB- 1CP2	PAWB- 3CP2
Echinodermata						
<i>Echinoderm Larvae</i>	37	80	90	44	65	62
Chaetognatha						
Sagittoidae						
<i>Aphragmophora</i>						
Sagittidae						
<i>Sagitta</i>						
<i>Sagitta</i> sp. 1	318	1360	475	459	1304	2720
<i>Sagitta</i> sp. 2	153	828	348	284	576	1056
Chordata						
Actinopterygii						
<i>Fish Egg</i>	40	45	45	16	60	
<i>Fish larvae</i>	38	9	9	57	29	
Appendicularia						
<i>Copepoda</i>						
Oikopleuridae						
<i>Oikopleura</i>						
<i>Oikopleura</i> spp.	70	123	135	96	108	182
Thaliacea						
<i>Doliolida</i>						
Doliolidae						
<i>Doliolletta</i>						
<i>Doliolletta</i> sp. 1	63	39	35	64	44	72
<i>Doliolletta</i> sp. 2	22	63	59	120	88	16
Salpidae						
<i>Salpa</i>						
<i>Salpa</i> sp. 1	45	60	136	44	20	120
<i>Salpa</i> sp. 2	18	33	86	26	32	48
<i>Salpa</i> sp. 3						
Total	7611	12975	12052	8346	11892	13322
Number of TAXA	74	75	72	74	76	70



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Principal Taxonomist

Diversity of Zooplankton (indivi

TAXA/STATION	PAWE- 1CP2	PAWE- 3CP2
Platyhelminthes		
Turbellaria		
<i>Turbellaria</i> spp.		
Ctenophora		
Teniaculata		
<i>Cydlippida</i>		
Pleurobrachiidae		
<i>Pleurobrachiidae</i> spp.	19	49
Ciliophora		
Ciliata		
<i>Oligotrichida</i>		
Rhabdonellidae		
<i>Rhabdonella</i>		
<i>Rhabdonella</i> sp.		3
Cnidaria		
Anthozoa		
<i>Anthozoa</i> spp.	14	41
Hydrozoa		
<i>Anthothecata</i>		
Corymorphidae		
<i>Euphysa</i>		
<i>Euphysa</i> sp. 1	8	7
<i>Euphysora</i>		
<i>Euphysora</i> sp. 1		4
Corynidae		
<i>Corynidae</i> sp. 2		
Proboscidiactylidae		
<i>Proboscidiactylidae</i> spp.	18	36
Rathkeidae		
<i>Rathkeidae</i> spp.	6	
Anthothecatae		
Bougainvillidae		
<i>Bougainvillidae</i> sp. 1	12	34
<i>Bougainvillidae</i> sp. 3	9	10
Porpitiidae		
<i>Porpitiidae</i> spp.	9	
Tubularidae		
<i>Hybocodon</i>		
<i>Hybocodon</i> sp. 1	36	
<i>Tubularidae</i> .unid		
<i>Tubularidae</i> sp. 1	7	16
<i>Tubularidae</i> sp. 3	11	22
Hydrozoa.unid		
<i>Hydrozoa</i> spp.	36	54
Leptothecata		
Eutimidae		
<i>Eutima</i>		
<i>Eutima</i> sp. 1	9	18
Leptothecatae		
Eirenidae		



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Principal Taxonomist

Diversity of Zooplankton (indivi

TAXA/STATION	PAWE- 1CP2	PAWE- 3CP2
Eirene		
<i>Eirene</i> sp. 1	5	9
<i>Eirene</i> sp. 2	3	6
Lovenellidae		
<i>Lovenellidae</i> spp.	14	4
Mitrocomidae		
<i>Mitrocomidae</i> spp.	36	27
Siphonophora		
Abylidae		
<i>Abylidae</i> spp.	121	29
Siphonophorae		
Diphyidae		
<i>Diphyidae</i> spp.	204	82
Trachymedusae		
Geryonidae		
<i>Liriope</i>		
<i>Liriope</i> sp. 1	29	17
<i>Liriope</i> sp. 2		
Rhopalonematidae		
<i>Rhopalonematidae</i> spp.	35	22
Scyphozoa		
Coronatae		
Nausithoidae		
<i>Nausithoe</i>		
<i>Nausithoe</i> sp. 1		14
<i>Nausithoe</i> sp. 3		6
Rhizostomeae		
Rhizostomatidae		
<i>Rhizostomatidae</i> spp.	17	
Annelida		
Polychaeta.unid		
<i>Polychaete larvae</i>	12	19
Arthropoda		
Malacostraca		
Amphipoda		
Amphilocheidae		
<i>Amphilocheidae</i> spp.	8	
Amphipoda.unid		
<i>Amphipoda</i> sp.		24
Caprellidae		
<i>Caprellidae</i> spp.	32	27
Dexaminidae		
<i>Dexaminidae</i> spp.	11	8
Hyperidae		
<i>Hyperidae</i> sp. 1	299	221
<i>Hyperidae</i> sp. 2	369	280
<i>Hyperidae</i> sp. 3	108	129
<i>Hyperidae</i> sp. 4	225	54
<i>Hyperidae</i> sp. 5	90	98
Leucothidae		



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Principal Taxonomist

Diversity of Zooplankton (indivi

TAXA/STATION	PAWE- 1CP2	PAWE- 3CP2
Leucothoidae spp.		5
Oxycephalidae		
<i>Rhabdosoma</i>		
<i>Rhabdosoma</i> spp.	27	25
<i>Tullbergella</i>		
<i>Tullbergella</i> spp.	2	4
Phronimidae		
<i>Phronimidae</i> sp. 1		
Decapoda		
Alpheidae		
<i>Alpheidae</i> spp.	81	62
Crangonidae		
<i>Crangonidae</i> sp. 1		
Decapoda.unid		
<i>Crab zoea</i>	20	
Dendrobranchiata.unid		
<i>Shrimp larvae</i> sp. C		14
<i>Shrimp larvae</i> sp. E		9
<i>Shrimp larvae</i> sp. J	27	36
<i>Shrimp larvae</i> sp. R	36	45
<i>Shrimp larvae</i> sp. S	9	
Diogenidae		
<i>Diogenidae</i> sp. 1	13	33
<i>Diogenidae</i> sp. 2		
<i>Diogenidae</i> sp. 3	21	21
Hippolytidae		
<i>Hippolytidae</i> spp.	3	2
Laomedidae		
<i>Laomedidae</i> spp.	3	3
Luciferidae		
<i>Lucifer</i>		
<i>Lucifer</i> spp.	316	351
Paguridae		
<i>Paguridae</i> spp.	16	45
Palaemonidae		
<i>Palaemonidae</i> sp. 1	17	17
<i>Palaemonidae</i> sp. 2	26	8
<i>Palaemonidae</i> sp. 3		
Parapaguridae		
<i>Parapaguridae</i> spp.	37	26
Pasiphaeidae		
<i>Leptochela</i>		
<i>Leptochela</i> sp. 1	16	35
Pleocyemata.unid		
<i>Brachyura Larvae</i>	297	375
<i>Crab Megalopa</i>	9	14
Porcellanidae		
<i>Porcellanidae</i> spp.	45	
Scyllaridae		
<i>Phyllosoma larvae</i>		



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Principal Taxonomist

Diversity of Zooplankton (indivi

TAXA/STATION	PAWE-1CP2	PAWE-3CP2
Sergestidae		
Sergestidae spp.	14	9
Solenoceridae		
Solenoceridae spp.	22	12
Upogebiidae		
Upogebiidae spp.	117	63
Malacostraca.unid		
<i>Mysid</i> sp.	29	19
Mysida		
Mysidae		
Siriella		
<i>Siriella</i> sp.1	6	
Stomatopoda		
Squillidae		
Squilla		
<i>Alima</i> larvae	45	71
Stomatopoda.unid		
<i>Erichthus</i> larvae		
Maxillopoda		
Calanoida		
Acartiidae		
Acartiidae spp.	258	174
Calanidae		
Calanidae spp.	2880	1449
Centropagidae		
Centropagidae spp.	108	810
Eucalanidae		
Eucalanidae spp.	901	647
Euchaetidae		
Euchaetidae spp.		
Paracalanidae		
Paracalanidae spp.	195	348
Pontellidae		
Pontellidae spp.	45	136
Temoridae		
Temoridae spp.	90	92
Tortanidae		
Tortanidae spp.	64	135
Tortanus		
<i>Tortanus</i> spp.	23	38
Copepoda.unid		
Copepod Nauplii	170	159
Cyclopoida		
Oithonidae		
Oithona		
<i>Oithona</i> spp.	44	49
Harpacticoida		
Ectinosomatidae		
Microsetella		
<i>Microsetella</i> spp.	219	154



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Principal Taxonomist

Diversity of Zooplankton (indivi

TAXA/STATION	PAWE-1CP2	PAWE-3CP2
Poecilostomatoida		
Corycaidae		
Corycaeus		
<i>Corycaeus</i> spp.	54	
Oncaeidae		
Oncaea		
<i>Oncaea</i> spp.		
Sapphirinidae		
Copilia		
<i>Copilia</i> spp.	22	18
Sappharina		
<i>Sappharina</i> spp.	15	8
Thecostraca.unid		
Barnacle nauplius		
Ostracoda		
Halocyprida		
Halocyprididae		
Euconchoecia		
<i>Euconchoecia</i> sp.1	162	55
Myodocopida		
Cypridinidae		
Cypridinidae sp.1	454	196
Cypridinidae sp.2	193	87
Mollusca		
Bivalvia		
<i>Bivalve</i> larvae	77	89
Cephalopoda		
<i>Squid</i> larvae		
Gastropoda		
Cephalaspidea		
Gastropteridae		
Gastropteridae spp.		16
<i>Gastropoda</i> sp.	59	40
Neotaenioglossa		
Atlantidae		
Atlanta		
<i>Atlanta</i> sp.	21	24
Pterotracheidae		
Pterotracheidae sp.	16	13
Thecosomata		
Cavolinidae		
Cavolinia		
<i>Cavolinia</i> sp.1	5002	3392
<i>Cavolinia</i> sp.2		
Cresseis		
<i>Cresseis acicula</i>	68	116
<i>Cresseis virgula</i>	122	317
Diacria		
<i>Diacria</i> sp.1	445	170
<i>Diacria</i> sp.2	219	406



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Principal Taxonomist

Diversity of Zooplankton (indivi

TAXA/STATION	PAWE-1CP2	PAWE-3CP2
Echinodermata		
<i>Echinoderm</i> Larvae	34	14
Chaetognatha		
Sagittoidae		
Aphragmophora		
Sagittidae		
Sagitta		
<i>Sagitta</i> sp.1	2612	2170
<i>Sagitta</i> sp.2	1378	756
Chordata		
Actinopterygii		
Fish Egg	39	
Fish larvae	15	38
Appendicularia		
Copekata		
Oikopleuridae		
Oikopleura		
<i>Oikopleura</i> spp.	150	270
Thaliacea		
Doliolida		
Doliolidae		
Doliioletta		
<i>Doliioletta</i> sp.1	66	88
<i>Doliioletta</i> sp.2	50	135
Salpida		
Salpidae		
Salpa		
<i>Salpa</i> sp.1	128	153
<i>Salpa</i> sp.2	57	
<i>Salpa</i> sp.3		27
Total	18863	14953
Number of TAXA	72	70



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Principal Taxonomist

Zooplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	MGWA-1CP2	MGWA-3CP2
Ctenophora		
Teniaculata		
Cyrtippida		
Pleurobrachiidae		
Pleurobrachiidae spp.	42	27
Cnidaria		
Anthozoa		
Anthozoa.unid		
<i>Anthozoa</i> spp.	60	64
Hydrozoa		
Anthoathecata		
Corymorphidae		
Euphysa		
<i>Euphysa</i> sp.1	9	6
Proboscidiactylidae		
Proboscidiactylidae spp.	24	22
Anthoathecatae		
Bougainvillidae		
Bougainvillidae sp.1	24	4
Bougainvillidae sp.3	18	3
Bougainvillidae sp.4	2	
Porpitidae		
Porpitidae spp.	6	7
Tubulariidae		
Hybocodon		
<i>Hybocodon</i> sp.1	33	84
Tubulariidae.unid		
Tubulariidae sp.1	6	6
Tubulariidae sp.3	12	14
Hydrozoa.unid		
Hydrozoa spp.	39	28
Leptothecata		
Eutimidae		
Eutima		
<i>Eutima</i> sp.1	18	13
Leptothecatae		
Eirenidae		
Eirene		
<i>Eirene</i> sp.1	11	12
<i>Eirene</i> sp.2	4	7
Lovenellidae		
Lovenellidae spp.		5
Mitrocomidae		
Mitrocomidae spp.	30	23
Siphonophora		
Abylidae		
Abylidae spp.	84	53
Siphonophorae		
Diphyidae		
Diphyidae spp.	171	186
Trachymedusae		



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Principal Taxonomist

Zooplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	MGWA-1CP2	MGWA-3CP2
Geryoniidae		
<i>Liriope</i>	30	21
<i>Liriope</i> sp.1		6
<i>Liriope</i> sp.2		
Rhopalonematidae		
Rhopalonematidae spp.	51	44
Scyphozoa		
Rhizostomeae		
Rhizostomatidae		
Rhizostomatidae spp.	12	15
Annelida		
Polychaete larvae	21	66
Arthropoda		
Malacostraca		
Amphipoda		
Caprellidae		
Caprellidae spp.	24	63
Dexaminidae		
Dexaminidae spp.	9	12
Hyperidae		
Hyperidae sp.1	362	254
Hyperidae sp.2	603	367
Hyperidae sp.3	165	105
Hyperidae sp.4	270	250
Hyperidae sp.5	135	54
Oxycephalidae		
Rhabdosoma		
<i>Rhabdosoma</i> spp.	72	31
<i>Tuilbergella</i>		
<i>Tuilbergella</i> spp.		4
Decapoda		
Alpheidae		
Alpheidae spp.	54	78
Crangonidae		
Crangonidae sp.1	3	14
Decapoda.unid		
Crab zoea	27	60
Dendrobranchiata.unid		
Shrimp larvae sp.C	20	26
Shrimp larvae sp.J	29	48
Shrimp larvae sp.R	35	42
Diogenidae		
Diogenidae sp.1	15	24
Diogenidae sp.3	24	18
Hippolytidae		
Hippolytidae spp.	3	8
Laomedidae		
Laomedidae spp.	9	2
Luciferidae		
Lucifer		
<i>Lucifer</i> spp.	297	274



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Principal Taxonomist

Zooplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	MGWA-1CP2	MGWA-3CP2
Paguridae		
Paguridae spp.	39	12
Palaemonidae		
Palaemonidae sp.1	12	7
Palaemonidae sp.3	12	13
Parapaguridae		
Parapaguridae spp.	21	19
Pasiphaeidae		
Leptochela		
<i>Leptochela</i> sp.1	30	18
Pleocyemata.unid		
<i>Brachyura</i> Larvae	318	144
Crab <i>Megalopa</i>	17	21
Sergestidae		
Sergestidae spp.	8	5
Solenoceridae		
Solenoceridae spp.	15	15
Upogebidae		
Upogebidae spp.	33	70
Malacostraca.unid		
<i>Mysid</i> sp.	48	33
Mysida		
Mysidae		
<i>Siriella</i>		
<i>Siriella</i> sp.1	4	
Stomatopoda		
Squillidae		
Squilla		
<i>Alima</i> larvae	120	43
Stomatopoda.unid		
<i>Erichthus</i> larvae	4	7
Maxillopoda		
Calanoida		
Acartiidae		
Acartiidae spp.	450	366
Calanidae		
Calanidae spp.	2103	1560
Centropagidae		
Centropagidae spp.	228	150
Eucalanidae		
Eucalanidae spp.	660	276
Paracalanidae		
Paracalanidae spp.	156	183
Pontellidae		
Pontellidae spp.	258	72
Temoridae		
Temoridae spp.	183	210
Tortanidae		
Tortanidae spp.	123	78
Tortanus		
<i>Tortanus</i> spp.	43	54



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Principal Taxonomist

Zooplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	MGWA-1CP2	MGWA-3CP2
Copepoda.unid		
Copepod Nauplii	146	72
Cyclopoida		
Oithonidae		
Oithona		
<i>Oithona</i> spp.	150	60
Harpacticoida		
Ectinosomatidae		
Microsetella		
<i>Microsetella</i> spp.	240	252
Poecilostomatoida		
Corycaidae		
Corycaeus		
<i>Corycaeus</i> spp.	99	54
Oncaelidae		
Oncaea		
<i>Oncaea</i> spp.	162	24
Sapphirinidae		
Copilia		
<i>Copilia</i> spp.	25	48
Sappharina		
<i>Sappharina</i> spp.	16	16
Ostracoda		
Halocyprida		
Halocyprididae		
Euconchoecia		
<i>Euconchoecia</i> sp.1	144	129
Myodocopida		
Cypridinidae		
Cypridinidae sp.1	228	236
Cypridinidae sp.2	156	147
Mollusca		
Bivalvia		
Bivalve larvae	377	359
Cephalopoda		
Cephalopoda.unid		
Squid larvae	3	4
Gastropoda		
Cephalaspidea		
Gastropoteridae		
Gastropoteridae spp.	15	33
Gastropoda.unid		
<i>Gastropoda</i> sp.	54	277
Neotaenioglossa		
Atlantidae		
Atlanta		
<i>Atlanta</i> sp.	33	24
Pterotracheidae		
Pterotracheidae spp.	7	11
Thecosomata		
Cavolinidae		



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Principal Taxonomist

Zooplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	MGWA-1CP2	MGWA-3CP2
Cavolinia		
<i>Cavolinia</i> sp.1	2479	255
<i>Creseis</i>		
<i>Creseis acicula</i>	18	135
<i>Creseis virgula</i>	38	382
Diacria		
<i>Diacria</i> sp.1	126	157
<i>Diacria</i> sp.2	39	242
Echinodermata		
Echinoderm Larvae	46	74
Chaetognatha		
Sagittoidae		
Aphragmophora		
Sagittidae		
Sagitta		
<i>Sagitta</i> sp.1	1330	628
<i>Sagitta</i> sp.2	711	249
Chordata		
Actinopterygii		
Actinopterygii.unid		
Fish Egg	72	116
Fish larvae	228	252
Appendicularia		
Copeleta		
Oikopleuridae		
Oikopleura		
<i>Oikopleura</i> spp.	198	87
Thaliacea		
Doliolida		
Doliolidae		
Doliolidae		
<i>Doliolidae</i> sp.1	180	60
<i>Doliolidae</i> sp.2	129	39
Salpida		
Salpidae		
Salpa		
<i>Salpa</i> sp.1	66	93
<i>Salpa</i> sp.2	39	102
<i>Salpa</i> sp.3	54	15
Total	14670	9788
Number of TAXA	75	75



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Principal Taxonomist

APPENDIX F

ANALYTICAL LABORATORY

REPORTS: ICHTHYOPLANKTON

COMMUNITY

Ichthyoplankton density (individuals in the bottle)

Taxa	NPREF-A	NPWB-1CP2	NPWB-3CP2	NPWG-1CP2	NPWG-3CP2
Phylum Chordata					
Subphylum Vertebrata					
Superclass Osteichthyes					
Class Actinopterygii					
Order Anguilliformes					
Family Congridae					
Congridae					
Family Muraenesocidae					
Muraenesocidae					
Family Ophichthidae					
Ophichthidae					
Order Autopiformes					
Family Synodontidae					
Synodontidae	20	14	8	4	
Order Clupeiformes					
Family Clupeidae					
Clupeidae				1	
Dussumieriinae	22	4	5		2
Family Engraulidae					
Engraulidae	139	316	187	81	2
Order Gadiformes					
Family Bregmacerotidae					
<i>Bregmaceros</i> sp.	192	20	21	2	8
Order Lophiiformes					
Family Antennariidae					
Antennariidae		1		1	
Order Ophidiiformes					
Family Carapidae					
Carapidae					
Order Perciformes					
Family Apogonidae					
Apogonidae	10	4	5	3	1
Family Blenniidae					
<i>Xiphias</i> <i>sertifer</i>	1	1			
Family Callionymidae					
Callionymidae	15		2	1	1
Family Carangidae					
<i>Atule</i> sp.					
<i>Carangoides</i> sp.					
<i>Scomberoides</i> sp.		1			
<i>Selaroides</i> <i>leptolepis</i>	1	2	1	1	1
Family Cepolidae					
<i>Acanthocephala</i> sp.	1				
Family Champsodontidae					



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Principal Taxonomist

Ichthyoplankton density (individuals in the bottle)

Taxa	NPREF-A	NPWB-1CP2	NPWB-3CP2	NPWG-1CP2	NPWG-3CP2
<i>Champsodon</i> sp.	7	2	4		3
Family Gobiidae					
Gobiidae	67	36	17	12	11
Family Labridae					
Labridae					
Family Leionathidae					
Leionathidae	17	6	1	17	
Family Lethrinidae					
<i>Lethrinus</i> sp.					
Family Lutjanidae					
<i>Lutjanus</i> sp.	1		1	1	
Family Mullidae					
Mullidae			1	5	
Family Nemipteridae					
Nemipteridae	26	11	4	7	4
Family Pomacentridae					
Pomacentridae	2			1	
Family Priacanthidae					
<i>Priacanthus</i> sp.	5	3		1	
Family Scombridae					
<i>Auxis</i> sp.					
<i>Rastrelliger</i> sp.		1			
Family Serranidae					
<i>Epinephelus</i> sp.	1	1			
Serranidae	5	5	2	1	1
Family Sphyrnidae					
<i>Sphyrna</i> sp.		1			
Family Teraponidae					
<i>Terapon</i> <i>theraps</i>		2			
Family Trichiuridae					
<i>Trichiurus</i> sp.		1		1	
Family Uranoscopidae					
<i>Uranoscopus</i> sp.					
Order Pleuronectiformes					
Family Bothidae					
<i>Engyprosopon</i> sp.					
<i>Psettina</i> sp.	20	5	4		2
Family Citharidae					
<i>Brachypleura</i> sp.	9		2		
Family Cynoglossidae					
<i>Cynoglossus</i> sp.				1	
Family Paralichthyidae					
Paralichthyidae					
Order Scorpaeniformes					



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Principal Taxonomist



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Principal Taxonomist

Ichthyoplankton density (individuals in the

Taxa	NPCPP- 1CP2	NPCPP- 3CP2	PAREF-A	PAWB- 1CP2	PAWB- 3CP2
Phylum Chordata					
Subphylum Vertebrata					
Superclass Osteichthyes					
Class Actinopterygii					
Order Anguilliformes					
Family Congridae			1		
Congridae	1				
Family Muraenesocidae					
Muraenesocidae					
Family Ophichthidae					
Ophichthidae				2	
Order Aulopiformes					
Family Synodontidae	12	4	1	5	1
Synodontidae					
Order Clupeiformes					
Family Clupeidae		54			
Clupeidae	6	3	1		1
Dussumieriinae					
Family Engraulidae	162	4	3	23	20
Engraulidae					
Order Gadiformes					
Family Bregmaceridae					
Bregmaceros sp.	33	11	40	84	89
Order Lophiiformes					
Family Antennariidae			1		
Antennariidae				1	
Order Ophidiiformes					
Family Carapidae					
Carapidae				1	
Order Perciformes					
Family Apogonidae					
Apogonidae	11	3	1	8	6
Family Blenniidae					
Xiphias sertifer					
Family Callionymidae					
Callionymidae	2	2	2	4	
Family Carangidae					
Atule sp.			1		13
Carangoides sp.				1	
Scomberoides sp.					
Selaroides leptolepis	1	5		7	
Family Cepolidae					
Acanthocephala sp.					
Family Champsodontidae					



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Principal Taxonomist

Ichthyoplankton density (individuals in the

Taxa	NPCPP- 1CP2	NPCPP- 3CP2	PAREF-A	PAWB- 1CP2	PAWB- 3CP2
Champsodon sp.	4	1	2	1	3
Family Gobiidae					
Gobiidae	50	20	7	72	69
Family Labridae					
Labridae				1	
Family Leiognathidae					
Leiognathidae	4	2	1	6	7
Family Lethrinidae					
Lethrinus sp.					3
Family Lutjanidae					
Lutjanus sp.	3			2	3
Family Mullidae					
Mullidae	3	4	1		
Family Nemipteridae					
Nemipteridae	10	10		20	29
Family Pomacentridae					
Pomacentridae					
Family Priacanthidae					
Priacanthus sp.	2		1	4	5
Family Scombridae					
Auxis sp.					
Rastrelliger sp.					
Family Serranidae					
Epinephelus sp.	2			2	
Serranidae					
Family Sphyraenidae					
Sphyraena sp.					1
Family Teraponidae					
Terapon theraps					
Family Trichuridae					
Trichurus sp.				1	1
Family Uranoscopidae					
Uranoscopus sp.					1
Order Pleuronectiformes					
Family Bothidae					
Engyprosope sp.					
Psettina sp.	11	3		6	2
Family Citharidae					
Brachypleura sp.			1	1	2
Family Cynoglossidae					
Cynoglossus sp.			1	1	1
Family Paralichthyidae					
Paralichthys sp.					1
Order Scorpaeniformes					



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Principal Taxonomist

Ichthyoplankton density (individuals in the

Taxa	NPCPP- 1CP2	NPCPP- 3CP2	PAREF-A	PAWB- 1CP2	PAWB- 3CP2
Family Platycephalidae				2	2
Platycephalidae					
Family Scorpaenidae					
Scorpaenidae					
Order Syngnathiformes					
Family Fistulariidae					
Fistularia sp.		1		1	
Family Syngnathidae					
Syngnathidae		2		1	2
Order Tetraodontiformes					
Family Diodontidae					
Diodon sp.					
Family Monacanthidae					
Monacanthidae					
Monacanthus sp.					
Family Tetraodontidae					
Tetraodontidae		1	3	3	2
Egg (fish)	137	131	42	89	26
Larva (unspecified fish)		2		3	12
Total	454	263	110	350	304
No. of taxa	18	19	18	26	27



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Principal Taxonomist

Ichthyoplankton density (individuals in the

Taxa	PAWE- 1CP2	PAWE- 3CP2	PACPP- 1CP2X	PACPP- 3CP2
Phylum Chordata				
Subphylum Vertebrata				
Superclass Osteichthyes				
Class Actinopterygii				
Order Anguilliformes				
Family Congridae				
Congridae		1		4
Family Muraenesocidae				
Muraenesocidae		1		
Family Ophichthidae				
Ophichthidae		2		
Order Aulopiformes				
Family Synodontidae				
Synodontidae	6	6	10	4
Order Clupeiformes				
Family Clupeidae				
Clupeidae			2	
Dussumieriinae	1	2	12	12
Family Engraulidae				
Engraulidae	55	42	39	15
Order Gadiformes				
Family Bregmaceridae				
Bregmaceros sp.	74	35	26	13
Order Lophiiformes				
Family Antennariidae				
Antennariidae	1	1		1
Order Ophidiiformes				
Family Carapidae				
Carapidae				
Order Perciformes				
Family Apogonidae				
Apogonidae	2	4	1	4
Family Blenniidae				
Xiphias sertifer				
Family Callionymidae				
Callionymidae	1	1	2	
Family Carangidae				
Atule sp.				
Carangoides sp.	1		1	
Scomberoides sp.	3	3		
Selaroides leptolepis	3	6		5
Family Cepolidae				
Acanthocephala sp.				
Family Champsodontidae				



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Principal Taxonomist

Ichthyoplankton density (individuals in the

Taxa	PAWE-1CP2	PAWE-3CP2	PACPP-1CP2X	PACPP-3CP2
<i>Champsodon</i> sp.	3	2	2	2
Family Gobiidae	51	34	36	15
Family Labridae				
Family Leiognathidae				
Leiognathidae	11	7	5	2
Family Lethrinidae				
<i>Lethrinus</i> sp.	1		1	
Family Lutjanidae				
<i>Lutjanus</i> sp.	1			
Family Mullidae				
Mullidae	2	11		3
Family Nemipteridae				
Nemipteridae	15	20	13	8
Family Pomacentridae				
Pomacentridae	1	2		2
Family Priacanthidae				
<i>Priacanthus</i> sp.	3	3	1	
Family Scombridae				
<i>Auxis</i> sp.				1
<i>Rastrelliger</i> sp.				
Family Serranidae				
<i>Epinephelus</i> sp.				
Serranidae	1		4	1
Family Sphyrnidae				
<i>Sphyrna</i> sp.	4			1
Family Teraponidae				
<i>Terapon</i> <i>theraps</i>				
Family Trichiuridae				
<i>Trichiurus</i> sp.		3	3	
Family Uranoscopidae				
<i>Uranoscopus</i> sp.				
Order Pleuronectiformes				
Family Bothidae				
<i>Engyprosopon</i> sp.		1		
<i>Psettina</i> sp.	4		4	1
Family Citharidae				
<i>Brachypleura</i> sp.	1		4	3
Family Cynoglossidae				
<i>Cynoglossus</i> sp.		2		
Family Paralichthyidae				
Paralichthyidae				
Order Scorpaeniformes				



8/9

Principal Taxonomist

Ichthyoplankton density (individuals in the

Taxa	PAWE-1CP2	PAWE-3CP2	PACPP-1CP2X	PACPP-3CP2
Family Platycephalidae				
Platycephalidae	3	2	1	2
Family Scorpaenidae				
Scorpaenidae				
Order Syngnathiformes				
Family Fistulariidae				
<i>Fistularia</i> sp.	2		1	1
Family Syngnathidae				
Syngnathidae			1	
Order Tetraodontiformes				
Family Diodontidae				
<i>Diodon</i> sp.				
Family Monacanthidae				
Monacanthidae				
<i>Monacanthus</i> sp.	1			
Family Tetraodontidae				
Tetraodontidae	2	2	1	
Egg (fish)	303	26	227	111
Larva (unspecified fish)	1			1
Total	557	219	397	212
No. of taxa	29	25	23	23



9/9

Principal Taxonomist

Ichthyoplankton density (individuals in the bottle

Taxa	MGWA-1CP2	MGWA-3CP2
Phylum Chordata		
Subphylum Vertebrata		
Superclass Osteichthyes		
Class Actinopterygii		
Order Anguilliformes		
Family Anguillidae	2	
Anguillidae		
Family Ophichthidae		
Ophichthidae	2	1
Order Aulopiformes		
Family Synodontidae		
Synodontidae	10	3
Order Clupeiformes		
Family Clupeidae		
Clupeidae	1	4
Dussumieriinae	3	
Family Engraulidae		
Engraulidae	16	5
Order Gadiformes		
Family Bregmaceridae		
<i>Bregmaceros</i> sp.	36	27
Order Lophiiformes		
Family Antennariidae		
Antennariidae		1
Order Perciformes		
Family Apogonidae		
Apogonidae	11	6
Family Callionymidae		
Callionymidae	1	1
Family Carangidae		
<i>Scomberoides</i> sp.	1	2
<i>Selaroides leptolepis</i>	32	9
Family Capollidae		
<i>Acanthocephala</i> sp.	2	
Family Champsodontidae		
<i>Champsodon</i> sp.	16	15
Family Gobiidae		
Gobiidae	31	32
Family Leiognathidae		
Leiognathidae	2	3
Family Lutjanidae		
<i>Lutjanus</i> sp.	1	2
Family Mullidae		
Mullidae	1	



1/2

Principal Taxonomist

Ichthyoplankton density (individuals in the bottle

Taxa	MGWA-1CP2	MGWA-3CP2
Family Nemipteridae		
Nemipteridae	45	26
Family Pomacentridae		
Pomacentridae	12	
Family Priacanthidae		
<i>Priacanthus</i> sp.	1	6
Family Scombridae		
<i>Scomberomorus</i> sp.	7	
Family Serranidae		
<i>Epinephelus</i> sp.		1
Family Trichiuridae		
<i>Trichiurus</i> sp.	1	
Order Pleuronectiformes		
Family Bothidae		
<i>Engyprosopon</i> sp.	1	
<i>Psettina</i> sp.	7	13
Family Citharidae		
<i>Brachypleura</i> sp.	3	
Order Scorpaeniformes		
Family Dactylopteridae		
<i>Dactyloptera</i> sp.	1	
Order Syngnathiformes		
Family Fistulariidae		
<i>Fistularia</i> sp.		2
Order Tetraodontiformes		
Family Diodontidae		
<i>Diodon</i> sp.	1	
Family Tetraodontidae		
Tetraodontidae	6	4
Egg (fish)	24	31
Larva (unspecified fish)	3	5
Total	280	199
No. of taxa	30	22



2/2

Principal Taxonomist

ภาคผนวก 16

**ตัวอย่างแบบฟอร์มการตรวจประเมินพื้นที่ปฏิบัติงานบนแท่นหลุมผลิต
(ORCD)**

Checklist Title		W/H Automation P/F Inspection		Document Number		NPWH_WHPI		
Inspector name			Time & Date	12 Aug 25	Location	NPWH		
Position		MOT	Frequency	Monthly	Storage	NPCPP		
Receiver	MOT LEAD	Reviewer	MOT LEAD	Retention	1 Yr	Criticality	Rev.	2021

Note: Any items found out of tolerance or noncompliant require either a site correction with an explanation in the comments section below, notification to the Reviewer (above) or a Work Order generated in the E1 CMMS.

Items to be Inspected		Chk OK	Work Req.	Items to be Inspected		Chk OK	Work Req.
1. Helideck				e. flow-line condition		✓	
a. Obstructions		✓					
b. Surface clean and non slip		✓		7. X'Tree Area			
c. ESD station condition		✓		a. Well number plates and plugs		✓	
d. Portable Diesel tank. (.....%, Number.....)		N/A		b. All gauge's condition		✓	
e. Portable water tank. (100%, Number.....)		✓		c. Check for any leaks		✓	
d. Helideck open drains				d. Valves and handles		✓	
2. Flare Bridge				e. Black Start panel		✓	
a. Handrail		✓		f. All valve thread protectors		✓	
b. Solar panel condition		✓					
c. Grating secure / in good condition		✓		8. W/H Control Panel			
d. Area clean and tidy		✓		a. Hydraulic oil level		✓	
3. Crane Pedestal				b. Check for any leaks		✓	
a. Visual check for any damage				c. Well number module		✓	
: Boom		✓		d. Gauge conditions		✓	
: Cabin		✓		e. Check tubing condition		✓	
: Wire rope		✓		f. Identify SSSV type		✓	
b. Cabin window		N/A		g. Hyd. pump operations Main/Back up pump.		✓	
c. Extinguisher available		✓		h. Operation signs		✓	
d. Load chart available		✓		i. Emergency signs		✓	
e. Hand signal chart available		✓					
f. Check for oil leak		✓		9. Thermoelectric Generator			
g. Check diesel / hyd. Oil level.		✓		a. General condition/ Current reading		✓	
h. Check engine lube oil		✓		b. Filtration system		✓	
i. Check radiator water		✓		c. Electric switch		✓	
j. Access ladder condition		✓		e. Door and windows		✓	
4. Cellar Deck				f. Check tubing condition		✓	
a. Safety shower		✓		g. Check V-set Volt/Amp		✓	
b. Navigation lights: Sun switch		✓					
				10. Booster Compressor			
				a. Lube oil level			
				b. Check for any leaks			
				c. Level and level gauge			
5. Generator							
a. Gen's panel and breakers		✓		11. Piping Condition			
b. Diesel and oil levels		✓		a. Pipe work condition		✓	
c. Guard and exhaust		✓		b. Direction of flow		✓	
d. Check Volt/Amp/Hz/Ground Cable		✓					
6. Manifold and Auto choke				12. Test Separator			
a. Auto chokes	Leakage	✓		a. PSV isolation valve tagged & Car seal open		✓	
	Condition	✓		b. Visual check for leak.		✓	
	Plugs	✓		c. Plugs are in place		✓	
b. ABV	Leakage	✓		d. Level and level gauge		✓	
	Condition	✓		e. Valves and handles		✓	
	Plugs	✓		f. Pressure and Temp gauges		✓	
c. Well number		✓					
				h. All pressure switches in service		✓	

* Note next page. *

* ~~100000~~ Exp. (12000 First Aid)

* Lamp lighting of Life jacket Exp. (1000)

* Blue drum 3 drum (1000 100%)

* Metal drum 1 drum (12000) } Request clear.

Monthly platform inspection well conductor

Platform: NPWH Inspection date: 12 Aug 25

Inspector: [REDACTED]

Slot	Well No.	7" Casing Pressure	9 5/8" Casing Pressure		Conductor Rating (above splash zone)		Conductor Rating (splash zone)		Remark
			Lasted	Present	Lasted	Present	Lasted	Present	
1	NPWH-20		80	115	2		2		
2	NPWH-18		-	0	2		2		9 5/8 PI error Gauge damage
3	NPWH-26		50	50	2		3		
4	NPWH-16		-	0	2		2		9 5/8 PI error Gauge damage
5	NPWH-12		0	0	2		2		
6	NPWH-10		0	0	2		2		
7	NPWH-05		30	30	2		2		
8	NPWH-34		200	200	2		2		
9	NPWH-09		20	20	2		3		
10	NPWH-36		50	50	2		3		
11	NPWH-22		70	70	2		3		
12	NPWH-03		50	50	2		2		
13	NPWH-31		20	20	2		2		
14	NPWH-15		20	20	2		2		
15	NPWH-14		40	50	2		2		
16	NPWH-13		210	210	2		2		
17	NPWH-07		50	50	2		4		
18	NPWH-29		0	0	2		2		
19	NPWH-02		30	30	2		2		
20	NPWH-01	Damage	0	50	2		2		7" casing pressure gauge

WELL & SLOT LOCATION

SLOT 20	SLOT 16	SLOT 12	SLOT 8	SLOT 4
Well 01	Well 13	Well 03	Well 34	Well 16
SLOT 19	SLOT 15	SLOT 11	SLOT 7	SLOT 3
Well 02	Well 14	Well 22	Well 05	Well 26
SLOT 18	SLOT 14	SLOT 10	SLOT 6	SLOT 2
Well 29	Well 15	Well 36	Well 10	Well 18
SLOT 17	SLOT 13	SLOT 9	SLOT 5	SLOT 1
Well 07	Well 31	Well 09	Well 12	Well 20

BOAT LANDING



Rating	Condition	Rusted Surface	Hard Scale	Recommended Corrective Action
1	Good	< 3%	-	Keep monitoring
2	Fair	< 20%	-	Keep monitoring
3	Poor	> 20%	<10%	Keep monitoring or CVI, Repair
4	Serious	> 20%	>10%	CVI, Repair
5	Critical	Through-hole		P&A
6	Critical	Parted conductor		P&A

AI Site V&V Form: Conductor/Casing Shaking and Well Subsidence

WHP name: [redacted] Observation Date: 12 Aug 25 Observer name: [redacted] Workgroup: [signature]

If found issues more than 1 well, please specify Well name after each answer. ถ้าพบว่ามีหลุมที่มีประเด็นมากกว่า 1 หลุมบนแผ่นนี้ กรุณาระบุชื่อหลุมในแต่ละคำตอบ

This report should be done once a month or longer, if you visit WHP more often than once a month, please submit only one report. หากเดินทางไปยัง WHP มากกว่า 1 ครั้งต่อเดือน นำ Report นี้เพียง 1 ฉบับเท่านั้น

Item	Observation Point	Please <input checked="" type="checkbox"/> your answer here (Please attach photos as much as possible กรุณาใส่ภาพประกอบ)
1	Do you see Conductor or Casing shaking / swaying? ห่านสังเกตเห็นคอนดักเตอร์หรือเคสซิ่ง สั่นโยกหรือไม?	<input type="checkbox"/> Yes (เห็น) [Well no. & Slot no. : _____] <input checked="" type="checkbox"/> No (ไม่เห็น) - Please go to No.1 (กรุณาไปยังข้อ 2)
1.1	If 'Yes' in no.1, what is the frequency of shaking, Shake with Calm sea wave, or Shake with Rough sea wave or Shake much faster than sea wave (e.g. By fluid flow or Booster Compressor)? หากห่านเห็นการสั่นโยกในข้อ 1, ความถี่ในการสั่นเป็นอย่างไร, สั่นพร้อมคลื่นเรียบๆ หรือ สั่นพร้อมคลื่นรุนแรง หรือ สั่นเร็วกว่าคลื่นมาก (เช่น การสั่นเพราะการไหลในท่อ หรือ Booster Compressor)?	<input type="checkbox"/> Same as Calm sea condition [Well no. & Slot no. : _____] (สั่นโยกตามคลื่นทะเลที่ค่อนข้างสงบ) <input type="checkbox"/> Same as Rough sea condition [Well no. & Slot no. : _____] (สั่นโยกตามคลื่นทะเลที่รุนแรง) <input type="checkbox"/> Much faster than sea wave [Well no. & Slot no. : _____]
1.2	Is this well still in operation (in operation = producing/water injection/gas lift)? - Please call CCR to check หลุมผลิตนี้ยังคงใช้งานอยู่หรือไม่ (ใช้งาน = ผลิตอยู่/เป็นหลุมที่น้ำ/เป็นหลุม gas lift)? - หากไม่แน่ใจ กรุณาโทรหา CCR สำหรับข้อมูล	<input type="checkbox"/> Producing or Water injection or Gas lift well [Well no. & Slot no. : _____] (หลุมยังผลิตอยู่, หลุมที่น้ำ หรือ หลุมแก๊สลิฟท์) Please go to No.1.4 (กรุณาไปยังข้อ 1.4) <input type="checkbox"/> Depleted or Abandoned well [Well no. & Slot no. : _____] (หลุมที่หยุดผลิตแล้ว หรือ หลุมที่เลิกใช้แล้ว) Please go to No.1.3 (กรุณาไปยังข้อ 1.3)
1.3	If 'Depleted or Abandoned well' in no.3, does Flowline/Gas lift line still connect to Xmas tree? หากหลุมดังกล่าวเป็นหลุมที่หยุดผลิตแล้ว หลุมที่เลิกใช้แล้วในข้อ 3: Flowline หรือ Gas lift line ยังต่อกับหัวหลุมหรือไม่?	<input type="checkbox"/> Still connect [Well no. & Slot no. : _____] (Flowline/Gas lift line ยังต่อกับหัวหลุมอยู่ หรือเส้น blind ไว้อยู่) กรุณาไปยังข้อ 1.4 <input type="checkbox"/> Not connect [Well no. & Slot no. : _____] (Flowline/Gas lift line ไม่ต่อกับหัวหลุมแล้ว) กรุณาไปยังข้อ 2
1.4	Centralizer (Fig. 'A') or Diaphragm rubber (Fig. 'B') is still in Good condition or not? Centralizer (เนลิกที่ประกอบให้คอนดักเตอร์เคสซิ่งอยู่ตรงกลาง ดังรูปภาพ A) หรือ Diaphragm rubber (แผ่นยางที่ประกอบให้คอนดักเตอร์เคสซิ่งอยู่ตรงกลาง ดังรูปภาพ B) ยังอยู่ในสภาพดังรูปภาพ A หรือ B หรือไม่?  	<input type="checkbox"/> Good condition [Well no. & Slot no. : _____] (อยู่ในสภาพดี) <input type="checkbox"/> Bad condition [Well no. & Slot no. : _____] (อยู่ในสภาพไม่ดี หรือหลุดหายไปแล้ว) Please attach photo here (กรุณาใส่ภาพประกอบ)
2	Do you see Well subsidence with indicators as one of following? - Flowline misalignment - Well head dropped from general elevation - Any casing bending, buckling or deteriorate ห่านสังเกตเห็นหลุมทรุดหรือไม่ โดยสังเกตจากความผิดปกติข้อใดข้อหนึ่ง ดังนี้ - Flowline (ไฟลไลน์) มีดเบี้ยวผิดรูปจากปกติ - Wellhead (หัวหลุม) มีการทรุดตัวลงมาจากระดับที่เคยเห็นปกติ - Casing (เคสซิ่ง) มีการงอ, หัก หรือ อาการผิดปกติจากลักษณะของ casing ปกติ	<input type="checkbox"/> Yes (เห็น) [Well no. & Slot no. : _____] <input checked="" type="checkbox"/> No (ไม่เห็น) Please attach photo here (กรุณาใส่ภาพประกอบ)

Thank you for your kind support to Asset Integrity Team - ขอขอบคุณสำหรับความช่วยเหลือ AI Team ครับ/ค่ะ

CHEMICAL AND WASTE INSPECTION CHECKLIST

By: XXXXXXXXXX

Survey Date: 12 Aug 2019

Ver. 2019/01

Location/Area: ๑๙๙๙๙



Inspection Items	Yes	No	N/A	Comments
1. Chemical Inventory (รายการสารเคมี) • Chemical inventory with chemical names and their storage locations available on site. (จัดให้มีรายการสารเคมีที่โรงงานมีอยู่ปัจจุบันอยู่ประจำฐาน มีรายชื่อไปรษณีย์ของสารเคมีและสถานที่จัดเก็บ)	✓			
2. SDS (ข้อมูลความปลอดภัยของเคมีภัณฑ์) • SDS of all chemicals available at working or storage location which shall be easily accessible in emergency case. (จัดให้มีเอกสารข้อมูลความปลอดภัยของเคมีภัณฑ์ที่เกี่ยวกับทุกตัวประจำสถานที่ปฏิบัติงาน และสถานที่จัดเก็บ ที่สามารถค้นหาหรือเข้าถึงได้รวดเร็วเมื่อมีเหตุฉุกเฉิน)	✓			
3. Containers (ภาชนะบรรจุสารเคมี/ของเสีย) • Containers in good condition, e.g. metal drum not rusty or distorted, plastic drum not torn or distorted or swollen, color not faded or changed, and container not bulge that could cause a spill or leakage. (ภาชนะบรรจุอยู่ในสภาพดี เช่น ถ้าเป็นถังเหล็กต้องไม่มีสนิมหรือรอยบุบหรือรอยร้าวหรือรอยบิดงอ ถ้าเป็นถังพลาสติกต้องไม่มีรอยฉีกขาดหรือรอยบวมหรือรอยแตกหรือรอยบิดงอ) • Keeping containers of chemical/wastes that can vaporize closed unless being used (e.g. used oil, paint, mercury wastes, etc.). (ภาชนะบรรจุสารเคมีหรือของเสียที่ระเหยง่ายต้องปิดฝาแน่น เว้นแต่จะนำมาใช้หรือใช้แล้ว) • Transferred containers are appropriate according to chemical types, e.g. use closed top metal drum for oil/thinner; use plastic bottle and metal box as inner and outer packages for elemental mercury, respectively. (ภาชนะบรรจุสารเคมีหรือของเสียที่ถ่ายโอนต้องเหมาะสมกับประเภทของสารเคมีหรือของเสีย เช่น ใช้ถังเหล็กสำหรับน้ำมันหรือทินเนอร์ที่ใช้ถ่ายโอน ใช้ขวดพลาสติกและกล่องโลหะสำหรับปรอท) • Waste containers are suitable with waste types, e.g. use metal drums (200L) for used oil/thinner or oily rags; use metal box for used fluorescent lamp; use plastic UN drum closed top for mercury contaminated material. (ภาชนะบรรจุของเสียเหมาะสมกับประเภทของของเสีย เช่น ใช้ถังเหล็กสำหรับน้ำมัน, ทินเนอร์ที่ใช้แล้วที่ถ่ายโอน ใช้กล่องหรือกล่องพลาสติกสำหรับหลอดไฟฟลูออเรสเซนต์ที่ใช้แล้ว ใช้ถังพลาสติกสำหรับปรอทที่ปนเปื้อน)	✓	✓		ถังเหล็กเก่า 1 ใบ
4. Labeling (การติดฉลากสารเคมี/ของเสีย) • Wastes have the Chevron standard waste labels with filled information, while Chemicals have GHS* format labels adhered on the their containers. Labels are in good condition, not faded or torn, and easy to read. These also apply to all transferred containers used to take chemical from original container or drum. Required information on the waste labels are completely and correctly filled. (ภาชนะบรรจุของเสียมีฉลากตามมาตรฐานของเชฟรอน และสารเคมีมีฉลากตามมาตรฐานของ GHS ติดอยู่บนภาชนะบรรจุ รวมถึงภาชนะที่ใช้ถ่ายโอนสารเคมีหรือของเสียด้วย โดยฉลากต้องอยู่ในสภาพดี ไม่จาง ไม่ฉีกขาด และสามารถอ่านได้อย่างชัดเจน มีการทาสีอย่างชัดเจนในส่วนที่ระบุถึงอันตรายของสารเคมีหรือของเสีย) 5. Chemical and Waste Storage and Handling (การจัดเก็บสารเคมีและของเสีย) • Chemicals are stored in dry, cool (not in extreme temperature), and well ventilated areas. (สถานที่เก็บสารเคมีต้องแห้ง, ไม่ร้อนจัด และมีการระบายอากาศที่ดี) • Avoid layer-stacked storage of chemicals. If necessary, metal drums shall be wrapped but shall not be stored over 2 layers stacked. Blue drums are not allowed for layer-stacked storage. (หลีกเลี่ยงการซ้อนเก็บสารเคมีซ้อนกัน หากจำเป็นต้องใช้ถังเหล็กต้องห่อหุ้มด้วยพลาสติก แต่ไม่อนุญาตให้ซ้อนกันเกิน 2 ชั้น และไม่ใช้ถังสีน้ำเงินสำหรับซ้อนกัน) • Not keeping the expired or not use or unknown chemicals at offshore. Not use or unknown chemicals shall be backloaded to shore and managed properly. (ไม่เก็บสารเคมีที่หมดอายุหรือไม่ใช้หรือไม่ทราบชนิดไว้ที่ฐานปฏิบัติงานนอกชายฝั่ง ส่งสารเคมีที่ไม่ใช่สารเคมีกลับเข้าฝั่งตามข้อกำหนด) • For offshore operations: chemicals must be stored on plate floor and keep away from open drain, storage on grating floor shall be avoided unless with provision of secondary containment. (สำหรับการจัดเก็บสารเคมีที่ Offshore: สารเคมีต้องถูกจัดเก็บไว้บนพื้นผิวและห่างจากระบายน้ำแบบเปิด และหลีกเลี่ยงการจัดเก็บสารเคมีบนพื้นผิวของ Platform ยกเว้นกรณีที่มีการควบคุม) • Flammable chemicals are stored in flame protection cabinets and labeled properly. These also apply to all transferred containers used to take flammable chemicals from original containers or drums. (สารเคมีไวไฟต้องเก็บไว้ในตู้เก็บของเหลวและต้องมีการติดฉลากอย่างถูกต้องเหมาะสม รวมทั้งภาชนะที่ใช้ถ่ายโอนสารเคมีไวไฟด้วย) • Compressed gases cylinders are stored upright and properly chained at all times, including empty cylinders. (ถังบรรจุก๊าซความดันสูงต้องตั้งตรงและมีการยึดด้วยโซ่อย่างแน่นหนาตลอดความสูงถึงถังเปล่าที่ใช้ในแล้ว) • Compressed gas cylinders capped properly, secured, and not stored incompatible materials (e.g. oxygen and acetylene) together when not in use. (ถังบรรจุก๊าซที่ไม่ใช่ไวไฟจะต้องมีฝาปิดในลักษณะที่ปลอดภัยและไม่จัดเก็บกับก๊าซชนิดที่เข้ากันได้ (เช่น ก๊าซออกซิเจนและก๊าซอะเซทิลีน) ไว้ด้วยกัน) • Incompatible chemicals/wastes must be stored separately (e.g. corrosive and flammable, corrosive and oxidizing agents, etc.) to prevent fire, toxic gas, or other reactions when they accidentally met such as in case of spill. (ของเสียและสารเคมีที่เข้ากันไม่ได้ต้องเก็บไว้แยกจากกัน เช่น สารกัดกร่อนกับสารไวไฟ หรือ สารกัดกร่อนกับสารออกซิไดซ์ หรือ สารไวไฟกับสารออกซิไดซ์) • Onsite spill response kits are available especially at chemical storage areas and inspected on the availability of all response kits. (มีอุปกรณ์ที่ใช้สำหรับจัดการในกรณีฉุกเฉินหรือของเสียหกซึม และมีการตรวจสอบความพร้อมของอุปกรณ์ตามรายการของสารเคมี) • Secondary containment is provided if seeing that spilled chemicals can find its way getting to outside environment (sea, soil, waterbody, etc.). (มีการบรรจุถังที่เก็บสารเคมีแล้วสารเคมีสามารถรั่วไหลออกสู่สิ่งแวดล้อมได้ เช่น ลงสู่ทะเล ดิน หรือ น้ำ) • If spill in secondary containment is observed, it shall be cleaned up promptly. (หากพบการรั่วซึมในภาชนะรองรับ ให้ทำความสะอาดทันที) • Rainfall is always drained out from the secondary containment to maintain the containment capacity. (หากพบว่ามีน้ำฝนหรือของเหลวในภาชนะรองรับ ต้องทำการระบายน้ำฝนออก เพื่อป้องกันความจุของสารเคมี หากเกิดการรั่วซึมในภาชนะรองรับ) • Emergency eye wash/shower stations are available and functioning e.g. water pressure, water cleanliness, etc. (มีสถานีล้างตาและล้างตัวฉุกเฉินพร้อมใช้งานดี เช่น ความดันน้ำ ความสะอาดของน้ำ เป็นต้น) • Wastes are segregated properly such as recycle bins (for glass, paper, plastic bottles, etc.); hazardous waste containers (for used oil, Hg contaminated sludge, paint cans, used filter, fluorescent lamp, used PPE, contaminated material, infectious waste, etc.). (ของเสียต้องถูกจัดเก็บไว้ในภาชนะที่เหมาะสมตามประเภทของเสีย เช่น ถังขยะรีไซเคิล (สำหรับแก้ว กระดาษ กระดาษแข็ง ขวดพลาสติก เป้นต้น), ถังขยะอันตราย (สำหรับน้ำมันใช้แล้ว ถังขยะของเสียจากหลอดไฟฟลูออเรสเซนต์ที่ใช้แล้ว ขยะอันตรายอื่น ๆ)) • All chemicals/wastes shall be stored in an orderly manner according to good housekeeping practices, without undesirable odor, leachate, or pests. (สารเคมีหรือของเสียทั้งหมดต้องจัดเก็บอย่างเป็นระเบียบตามหลักปฏิบัติที่ดีในการทำความสะอาด โดยปราศจากกลิ่นเหม็น น้ำซึม หรือ แมลง)	✓	✓	✓	

Reference : *GHS is Globally Harmonized System of Classification and Labelling of Chemicals

Chevron Thailand: RC Critical safeguard assurance checklist - Onsite Observe

This V&V has been develop in order to engage with all level including leadership in onsite safeguard verification and validation.

The more safeguard V&V, the safer operation we can get.





Note: Any items found out of tolerance or noncompliant require either a site correction with an explanation in the comments section below, notification to the Facility Engineer (RCT), SPOC or a Work Order generated in the Work Order Management CMMS.



Version 6 (revised
date 8 Feb 2021)

Conduct By: _____
Time & Date: _____

Department: _____
Platform: _____
Field: _____
RC Type: _____

No.	RC Critical safeguard assurance checklist - Offshore	Meet expectation?			Action if not meet expectation ('N')		Team	Related RC Type						Remarks or explanation if No [Add picture, if available]	
		Y	N	N/A	Immediate SD	Accept to run		A	B	C	B8	D	E		F
1	Observe leakage from Hydraulic pipe flange due to damaged O-ring during operation or start up after replacement. There should be no leakage (Tick 'Y' for no leakage). (Tick 'N' if found leakage)				Yes to stop Hydraulic leakage		All					J	J	J	
3	Found high vibration at discharge line of Hydraulic pump (Visual inspection) (Tick 'Y' for no high vibration. Tick 'N' for high vibration)					Yes but inform Engineer immediately.	All					J	J	J	
8	Heat shield condition of Oxygen sensor if on-board when RC SD. (Tick 'Y' if heat shield is in good condition Tick 'N' if heat shield is in bad condition or not installed.) 					Yes. Then, mitigate by fixing stepping motor.	All					J	J	J	
9	T-tube insulation is installed correctly and in good condition. - No leakage or insulation damaged. - O2 sensors should not be cover. - Tube oil line should not be cover. (Tick 'Y' if insulation is in good condition and installed correctly Tick 'N' if insulation is in bad condition or installed incorrectly.) 				Yes. To prevent fire incident.		All					J	J	J	
10	Check if exhaust gas leak or have obvious exhaust pipe misalignment. (Tick 'Y' for no leakage and no misalignment. Tick 'N' for gas leakage or misalignment.)				Yes. To prevent fire incident. Then, inform engineer		All					J	J	J	
12	Check if condition of tube oil supply and drain line at engine if there is any leakage. (Tick 'Y' for good condition. Tick 'N' for bad condition or leakage.) 				Yes. To prevent fire incident.		Ext only					J	J	J	
13	Turbocharger insulation should not cover tube oil line. (Tick 'Y' if insulation does not cover tube oil line. Tick 'N' if insulation cover tube oil line) 				Yes. To prevent fire incident.		Ext only					J	J	J	
15	No leakage and excessive vibration at pump suction line / discharge line / venturi supply line / venturi discharge line. Check pipe support condition. (Both grey pipe and yellow pipe) (Tick 'Y' if no leakage, no high vibration, and supports of the pipes are in good condition. Tick 'N' if found leakage, vibration, or supports of the pipes are loose / in bad condition.)				Yes to stop LOC and find the cause		All		J	J	J	J	J	J	
18	Check bolt condition and tightness at support of liquid discharge line for RC type B8/D/E/F. (Both grey and yellow pipe) (Tick 'Y' if support is in good condition and tight. Tick 'N' if support is in bad condition or loosen.) For MOT: If found bolt loosen, do not re-tight. But report to Ext Sup first.					Yes. But inform CCR / engineer immediately. For type D/E/F, mitigate by reduce liquid rate below 3500 BPD and	All					J	J	J	
19	SS tube is installed properly. Tube does not have high vibration. (Tick 'Y' if stainless steel tube is installed properly and no vibration. Tick 'N' if stainless steel tube install incorrectly or have vibration)					Yes. But inform engineer immediately.	All	J	J	J	J	J	J	J	
21	Skid drain has any obstruction or not. If yes, clean skid drain. To ensure leaking liquid can go to collecting drain tank. (Tick 'Y' if no obstruction in skid drain line. Tick 'N' if there is obstruction in skid drain line.)					Yes. Then, clean or inform related team to clean.	All			J					

No.	RC Critical safeguard assurance checklist - Offshore	Meet expectation?			Action if not meet expectation ('N')		Team	Related RC Type						Remarks or explanation if No (Add picture, if available)		
		Y	N	N/A	Immediate SD	Accept to run		A	B	C	BB	D	E		F	
22	Team follow up the instruction when troubleshooting engine or not. (Tick 'Y' if team on-board to troubleshoot engine and follow procedure. Tick 'N' if team on-board to troubleshoot engine and <u>not</u> follow procedure. Tick 'NA' if team on-board does not have engine troubleshooting.)						Ext only					✓	✓	✓	✓	
24	Check if there is action to solve those ALM-222 at panel view. (Tick 'Y' if found ALM-222 and complete solving it. Tick 'N' if found ALM-222 but cannot solve it. Tick 'NA' if no ALM-222)					Yes. Then, solve alarm.	Ext only					✓	✓	✓	✓	
25	Oil Type only: set point of pressure regulator at upstream of fuel gas filter is reduced to minimum design allowance limit. (e.g. RC type-D PCV-1670 from 120 psig to 70/75 psig) (Tick 'Y' if set point is reduced to minimum limit. Tick 'N' if set point is not reduced to minimum limit.) For MOT: If found set point is not reduced to minimum limit, report Ext Sup.					Yes. Set point can be changed on-line.	All					✓	✓	✓		
27	Random check bolt at flange if found not good condition. (loosen, heavy rusty, missing) (Tick 'Y' for good condition. Tick 'N' for bad condition)				Yes. Prevent LOC.		All	✓	✓	✓	✓	✓	✓	✓	✓	
29	Check engine wiring/harness condition. It should be in good condition. Example for bad condition: Torn, Burnt as below picture. (Tick 'Y' for good condition. Tick 'N' for bad condition)				Yes. Prevent Fire.		All	✓	✓	✓	✓	✓	✓	✓	✓	
30	Check well liquid cooler tube vibration. Tubes should not have vibration like wave at operating speed. (Tick 'Y' for no wave vibration. Tick 'N' for having wave vibration)					Yes. But change to another safe speed to avoid vibration	Ext only							✓	✓	
28	This item is for another abnormal found.						All	✓	✓	✓	✓	✓	✓	✓	✓	
Note: No.2, 4, 5, 6, 7, 11,14,15, 17, 20, 23 and 26 are cancelled. No. 5 and 20 is moved to office V&V instead. Add no. 29 and 30 in revision 4. Total = 18 items.																
ABV V&V task -ทำทุกแท่น																
1	เช็คABV valve ว่าปิดสนิทหรือไม่ (เลือก Y ถ้าปกติ, เลือก N ถ้าผิดปกติ) เมื่อ ABV valve อยู่ในตำแหน่งเปิดไม่สุด หรือปิดไม่สนิท? หากมี โปรดแจ้ง control room ทันที พร้อมบอกตำแหน่งและตำแหน่งอะไร (Production/RC/Test header)					แจ้ง control room ทันที	All									
2	เช็คABV valve ว่าปิดสนิทหรือไม่ (เลือก Y ถ้าปกติ, เลือก N ถ้าผิดปกติ) เมื่อABV valve มีน้ำหมด, มีเสียง flow ผิดปกติ หรือมี vibration หากมี โปรดแจ้ง control room ทันที พร้อมบอกตำแหน่งและตำแหน่งอะไร (Production/RC/Test header)					แจ้ง control room ทันที	All									

Checklist Title		W/H Automation P/F Inspection		Document Number		NPWK_WHPI	
Inspector name		[REDACTED]		Time & Date		Location	
Position		MOT		Frequency		Monthly	
Receiver		MOT LEAD		Reviewer		MOT LEAD	
Retention		1 Yr		Criticality		Rev. 2021	

Note: Any items found out of tolerance or noncompliant require either a site correction with an explanation in the comments section below, notification to the Reviewer (above) or a Work Order generated in the E1 CMMS.

Items to be Inspected	Chk OK	Work Req.	Items to be Inspected	Chk OK	Work Req.
1. Helideck			a. flow-line condition		
a. Obstructions	/				
b. Surface clean and non slip	/		7. X'Tree Area		
c. ESD station condition	/		a. Well number plates and plugs	/	
d. Portable Diesel tank. (...70...%, Number...5...)	/		b. All gauge's condition	/	
e. Portable water tank. (...60...%, Number...)	/		c. Check for any leaks	/	
d. Helideck open drains	/		d. Valves and handles	/	
2. Flare Bridge			e. Black Start panel	/	
a. Handrail	/		f. All valve thread protectors	/	
b. Solar panel condition	/				
c. Grating secure / in good condition	/		8. W/H Control Panel		
d. Area clean and tidy	/		a. Hydraulic oil level	/	
3. Crane Pedestal			b. Check for any leaks	/	
a. Visual check for any damage	/		c. Well number module	/	
: Boom	/		d. Gauge conditions	/	
: Cabin	/		e. Check tubing condition	/	
: Wire rope	/		f. Hyd. pump operations Main/Back up pump.	/	
b. Cabin window	/				
c. Extinguisher available	/				
d. Load chart available	/				
e. Hand signal chart available	/				
f. Check for oil leak	/				
g. Check diesel / hyd. Oil level.	/		9. Thermoelectric Generator		
h. Check engine lube oil	/		a. General condition/ Current reading		
i. Check radiator water	/		b. Electric switch		
j. Access ladder condition	/		c. Auto ignition		
4. Cellar Deck			e. Check tubing condition		
a. Safety shower	/		f. Check V-set Volt/Amp		
b. Navigation lights: Sun switch	/				
			10. Booster Compressor		
			a. Lube oil level		
			b. Check for any leaks		
			c. Level and level gauge		
5. Generator No. 11					
a. Gen's panel and breakers	/		11. Piping Condition		
b. Diesel and oil levels	/		a. Pipe work condition	/	
c. Guard and exhaust	/		b. Direction of flow	/	
d. Check Volt/Amp/Hz/Ground Cable	/				
6. Manifold and Auto choke			12. Test Separator		
a. Auto chokes			a. PSV isolation valve tagged & Car seal open	/	
Leakage	/		b. Visual check for leak.	/	
Condition	/		c. Plugs are in place	/	
Plugs	/		d. Level and level gauge	/	
b. ABV			e. Valves and handles	/	
Leakage	/		f. Pressure and Temp gauges	/	
Condition	/		g. Plugs are in place	/	
Plugs	/				
c. Well number	/				

			i. Check tubing condition	✓	
			j. Check sump pump operation	✓	
13. Launcher & Receiver			k. Check open drain pump operation	✓	
a. PSV isolation valve tagged & Car seal open	✓		l. Check for leak.	✓	
b. Gauges	✓		m. Safety sign condition	✓	
c. Valves and handles/liquid sample point condition.	✓		n. Toilet condition	✓	
d. Barrel door clean and grease apply.	✓		17. Boat Landing		
e. Barrel door cover condition	✓		a. Caution and safety signs	✓	
			b. Swing ropes and fastening	✓	
			c. Spot lights condition	✓	
14. Chemical Skid					
a. Inhibitor tank level			18. Dog House		
b. Level gauge			a. First aid box/Emergency food and Water.	✓	
c. Pumps operation			b. Phone	✓	
d. Pumps flow rate			c. Fire blanket	✓	
e. All pressure gauges			d. Eye wash station	✓	
f. Check for any leaks			e. PLC Module	✓	
g. Skid's relief system			f. 4G Module	✓	
h. MSDS label posted on Chem. TK			g. Condition of weather guard holder rivet and stud bolt	✓	
i. Plugs are in place			19. General		
			a. Spectacle blinds clean grease	✓	
			b. P/F stairway, handrail, grating cond.	✓	
			c. Lifting equipment, color coded, good condition	✓	
			d. sight glass valve	✓	
15. INST / Utility Gas Skid			e. Log book is available	✓	
a. Check for any leaks	✓		f. Hand tool box in locked.	✓	
b. Valves and handles	✓		g. Cleaning equipment	✓	
c. PSV Isolation valve tagged & Car seal open	✓		h. control panel condition	✓	
d. Gauges condition	✓		i. Man/Unman indicator lamp	✓	
e. Plugs are in place	✓		20. Health & Environment Aspect		
f. Level and level gauges	✓		a. House keeping / Hydrocarbon drain pot.	✓	
g. All SDVs and Flare valves no override & Isolated.	✓		b. Chem., oil and used oil drum (drum condition, MSDS label, cap)	✓	
			c. No oil / Chem. Spills / leakage /Tubing condition	✓	
			21. Safety equipment		
			a. Dry chemical extinguisher (hand portable) : Check Co2 cartridge, dry chemical condition	✓	
			b. Life raft: Grease launcher mechanism, Check paint line	✓	
			c. Life buoy, life ring : Check paint line	✓	
16. Sump Tank and Open drain Area					
a. Tank condition	✓		Blue drum..... Drum		
b. Grating condition	✓		HD-32..... Drum		
c. Valves and handles	✓		Empty drum..... Drum		
d. Life raft condition	✓		Use oil..... Drum		
e. PSV isolation valve tagged & Car seal open	✓				
f. Sump pump guards	✓				
g. Level and level gauge	✓				

Item	Defective / Requirement / Other	Item	Defective / Requirement / Other
-	Need HD-32.		
-	lightly of life Jacket GY pipe.		
-	sump pump gasket Mainflow		
	(in gasket area/underflow)		
-	sump pump Need to replace water tap.		
Reviewed by:		Date:	09 NOV 2025

Monthly platform inspection well conductor

Platform: NPWK Inspection date: 2 Nov 25 Inspector: XXXXXXXXXX

Slot	Well No.	7" Casing Pressure	9.5/8" Casing Pressure		Conductor Rating (above splash zone)		Conductor Rating (splash zone)		Remark
			Lasted	Present	Lasted	Present	Lasted	Present	
1	NPWK-15		10	10	2	2	2	2	
2	NPWK-16		20	10	2	2	2	2	
3	NPWK-04		-		2	2	2	2	
4	NPWK-13		20	20	2	2	2	2	
5	NPWK-10		30	30	2	2	2	2	
6	NPWK-19		95	90	2	2	2	2	
7	NPWK-01		40	40	2	2	2	2	
8	NPWK-21	8	15	18	2	2	2	2	
9	NPWK-08		45	48	2	2	2	2	
10	NPWK-14		25	28	2	2	2	2	
11	NPWK-12		20	20	2	2	2	2	
12	NPWK-11		30	30	3	3	2	2	
13	NPWK-07		25	28	2	2	2	2	
14	NPWK-02		20	20	2	2	2	2	
15	NPWK-20		0	0	2	2	2	2	
16	NPWK-06		-	-	2	2	2	2	
17	NPWK-18		20	20	2	2	2	2	
18	NPWK-03		15	15	2	2	2	2	
19	NPWK-22		0	-	2	2	2	2	
20	NPWK-05		30	30	3	3	2	2	

WELL & SLOT LOCATION

SLOT 20 Well 05	SLOT 16 Well 06	SLOT 12 Well 11	SLOT 8 Well 21	SLOT 4 Well 13
SLOT 19 Well 22	SLOT 15 Well 20	SLOT 11 Well 12	SLOT 7 Well 01	SLOT 3 Well 04
SLOT 18 Well 03	SLOT 14 Well 02	SLOT 10 Well 14	SLOT 6 Well 19	SLOT 2 Well 16
SLOT 17 Well 18	SLOT 13 Well 07	SLOT 9 Well 08	SLOT 5 Well 10	SLOT 1 Well 15

BOAT LANDING



Rating	Condition	Rusted Surface	Hard Scale	Recommended Corrective Action
1	Good	< 3%	-	Keep monitoring
2	Fair	< 20%	-	Keep monitoring
3	Poor	> 20%	<10%	Keep monitoring or CVI, Repair
4	Serious	> 20%	>10%	CVI, Repair
5	Critical	Through-hole		P&A
6	Critical	Parted conductor		P&A

AI Site V&V Form: Conductor/Casing Shaking and Well Subsidence

WHP name: MPN/K Observation Date: 2 Nov 25 Observer name: [Redacted] Workgroup: MOT

If found issues more than 1 well, please specify Well name after each answer. หากพบว่ามีปัญหามากกว่า 1 บ่อ กรุณาระบุชื่อบ่อในแต่ละคำตอบ

This report should be done once a month or longer, if you visit WHP more often than once a month, please submit only one report. การสังเกตบ่อ WHP นี้ควรทำ 1 ครั้งต่อเดือน ถ้า Report บ่อ 1 บ่อเท่านั้น

Item	Observation Point	Please <input checked="" type="checkbox"/> your answer here (Please attach photos as much as possible <small>กรุณาใส่ภาพประกอบ</small>)
1	Do you see Conductor or Casing shaking / swaying? <small>ท่านสังเกตเห็นคอนดักเตอร์หรือเคสซิงสั่นไหวหรือไม่?</small>	<input type="checkbox"/> Yes (เห็น) [Well no. & Slot no. : _____] <input checked="" type="checkbox"/> No (ไม่เห็น) - Please go to No.1 (กรุณาไปข้อ 2)
1.1	If "Yes" in no.1, what is the frequency of shaking, Shake with Calm sea wave, or Shake with Rough sea wave or Shake much faster than sea wave (e.g. By fluid flow or Booster Compressor)? <small>หากท่านเห็นการสั่น/ไถ่ในข้อ 1, ความถี่ในการสั่นเป็นอย่างไร, สั่นพร้อมคลื่นเรียบๆ หรือ สั่นพร้อมคลื่นรุนแรง หรือ สั่นเร็วกว่าคลื่นมากๆ (เช่น การสั่นเพราะการไหลในบ่อ หรือ Booster Compressor)?</small>	<input type="checkbox"/> Same as Calm sea condition [Well no. & Slot no. : _____] <small>(สั่นไปมาตามคลื่นทะเลที่ค่อนข้างสงบ)</small> <input type="checkbox"/> Same as Rough sea condition [Well no. & Slot no. : _____] <small>(สั่นไปมาตามคลื่นทะเลที่ค่อนข้างรุนแรง)</small> <input type="checkbox"/> Much faster than sea wave [Well no. & Slot no. : _____] <small>(สั่นเร็วกว่าคลื่นมากๆ เช่น การสั่นเพราะการไหลในบ่อ หรือ Booster Compressor)</small>
1.2	Is this well still in operation (in operation = producing/water injection/gas lift)? - Please call CCR to check. <small>บ่อนี้ยังผลิตหรือยัง/ยังฉีดน้ำ/ยังฉีดแก๊ส (ในกรณี = ผลิต/ยังผลิต/ยังฉีดน้ำ/ยังฉีดแก๊ส) - กรุณาโทรหา CCR ตรวจสอบ</small>	<input type="checkbox"/> Producing or Water injection or Gas lift well [Well no. & Slot no. : _____] <small>(ขุดผลิตหรือขุดฉีดน้ำ หรือ ขุดฉีดแก๊ส) Please go to No.1.4 (กรุณาไปข้อ 1.4)</small> <input type="checkbox"/> Depleted or Abandoned well [Well no. & Slot no. : _____] <small>(ขุดที่หมดหรือขุดที่ทิ้งแล้ว) Please go to No.1.3 (กรุณาไปข้อ 1.3)</small>
1.3	If 'Depleted or Abandoned well' in no.3, does Flowline/Gas lift line still connect to Xmas tree? <small>หากบ่อนี้หมดหรือทิ้งแล้วในข้อ 3, ท่อส่งที่เชื่อมกับบ่อนี้ยังเชื่อมต่อหรือไม่? Flowline หรือ Gas lift line ยังเชื่อมอยู่กับหัวบ่อหรือไม่?</small>	<input type="checkbox"/> Still connect [Well no. & Slot no. : _____] <small>(Flowline/Gas lift line ยังเชื่อมกับหัวบ่ออยู่ หรือเชื่อม blind ไว้) กรุณาไปข้อ 1.4</small> <input type="checkbox"/> Not connect [Well no. & Slot no. : _____] <small>(Flowline/Gas lift line ไม่เชื่อมกับหัวบ่อแล้ว) กรุณาไปข้อ 2</small>
1.4	Centralizer (Fig. 'A') or Diaphragm rubber (Fig. 'B') is still in Good condition or not? Centralizer (Fig. 'A') หรือ Diaphragm rubber (Fig. 'B') ยังอยู่ในสภาพดีหรือไม่? <small>Centralizer (Fig. 'A') หรือ Diaphragm rubber (Fig. 'B') ยังอยู่ในสภาพดีหรือไม่? Centralizer (Fig. 'A') หรือ Diaphragm rubber (Fig. 'B') ยังอยู่ในสภาพดีหรือไม่?</small>	<input type="checkbox"/> Good condition [Well no. & Slot no. : _____] <small>(อยู่ในสภาพดี)</small> <input type="checkbox"/> Bad condition [Well no. & Slot no. : _____] <small>(อยู่ในสภาพไม่ดี หรือหลุดหายไปแล้ว)</small> Please attach photo here (กรุณาใส่ภาพประกอบ)
	 	
2	Do you see Well subsidence with indicators as one of following? - Flowline misalignment - Well head dropped from general elevation - Any casing bending, buckling or deteriorate <small>ท่านสังเกตเห็นบ่อน้ำทรุดหรือไม่ โดยสังเกตจากตัวบ่งชี้ต่อไปนี้หรือไม่? - Flowline (ท่อส่ง) บิดเบี้ยวผิดปกติ - Wellhead (หัวบ่อ) มีระดับต่ำกว่าระดับบ่อ - Casing (เคสซิง) มีการบิด, โค้ง หรือ แตกหักผิดปกติ</small>	<input type="checkbox"/> Yes (เห็น) [Well no. & Slot no. : _____] <input checked="" type="checkbox"/> No (ไม่เห็น) Please attach photo here (กรุณาใส่ภาพประกอบ)

Thank you for your kind support to Asset Integrity Team - ขอขอบคุณสำหรับความช่วยเหลือ AI Team ครับ /ค่ะ

CHEMICAL AND WASTE INSPECTION CHECKLIST

Survey Date: 2 Nov 20 Ver. 2019/01



By: [Redacted]

Location/Area: NPHK

Inspection Items	Yes	No	NTA	Comments
1. Chemical Inventory (รายการสารเคมี) • Chemical inventory with chemical names and their storage locations available on site. (จัดให้มีรายการสารเคมีที่ใช้งานปัจจุบันอยู่ประจำฐาน มีการขึ้นชื่อของสารเคมีและสถานที่จัดเก็บ)	<input checked="" type="checkbox"/>			
2. SDS (ข้อมูลความปลอดภัยของเคมีภัณฑ์) • SDS of all chemicals available at working or storage location which shall be easily accessible in emergency case. (จัดให้มีเอกสารข้อมูลความปลอดภัยของเคมีภัณฑ์ของสารเคมีที่เกี่ยวข้องทุกตัวประจำสถานที่ปฏิบัติงาน และสถานที่จัดเก็บ ที่สามารถค้นหาข้อมูลได้รวดเร็วเมื่อเกิดฉุกเฉิน)	<input checked="" type="checkbox"/>			
3. Containers (ภาชนะบรรจุสารเคมี/ของเสีย) • Containers in good condition, e.g. metal drum not rusty or distorted, plastic drum not torn or distorted or swollen, color not faded or changed, and container not bulge that could cause a spill or leakage. (ภาชนะบรรจุอยู่ในสภาพดี เช่น ถังเป็นถังเหล็กต้องไม่มีสนิมหรือรอยบุบหรือยุบหรือพองบวม ถึงพลาสติกต้องไม่ยุบ สีของถังต้องไม่จางหรือเปลี่ยน หรือผิวเรียบไม่บุบ ขยี้ตามเป็นเหตุให้เกิดการหกหรือรั่วไหลได้) • Keeping containers of chemical/wastes that can vaporize closed unless being used (e.g. used oil, paint, mercury wastes, etc.). (ภาชนะบรรจุสารเคมีหรือของเสียที่ระเหยได้ เช่น น้ำมันใช้แล้ว สี ของเหลวเป็นของเหลว เป็นต้น จะต้องปิดมิดชิดอยู่ตลอดเวลาที่ไม่ได้ใช้งาน) • Transferred containers are appropriate according to chemical types, e.g. use closed top metal drum for oil/thinner; use plastic bottle and metal box as inner and outer packages for elemental mercury, respectively. (ภาชนะบรรจุสารเคมีเหมาะสมกับประเภทของสารเคมีที่บรรจุ เช่น ใช้ถังเหล็กสำหรับน้ำมันหรือทินเนอร์ที่ปิดมิดชิด ใช้ขวดพลาสติกและกล่องโลหะสำหรับปรอทในกระป๋องขนาดเล็ก ส่วนปรอทเหลวควรใส่ในกล่องโลหะ) • Waste containers are suitable with waste types, e.g. use metal drums (200L) for used oil/thinner or oily rags; use metal box for used fluorescent lamp; use plastic UN drum closed top for mercury contaminated material. (ภาชนะบรรจุของเสียเหมาะสมกับประเภทของของเสียที่บรรจุ เช่น ใช้ถังเหล็กสำหรับน้ำมัน, ทินเนอร์ใช้แล้วที่ปิดมิดชิดหรือฝาเป็นแบบน้ำมัน ใช้กล่องเหล็กสำหรับหลอดไฟฟลูออโรไลต์ ใช้ถังพลาสติกมาตรฐาน UN กันรั่วสำหรับของเสียปรอท)	<input checked="" type="checkbox"/>			
4. Labeling (การติดฉลากสารเคมี/ของเสีย) • Wastes have the Chevron standard waste labels with filled information; while Chemicals have GHS-format labels adhered on the their containers. Labels are in good condition, not faded or torn, and easy to read. These also apply to all transferred containers used to take chemical from original container or drum. Required information on the waste labels are completely and correctly filled. (ภาชนะบรรจุของเสียมีฉลากตามมาตรฐานของเชฟรอน และสารเคมีมีฉลากตามมาตรฐานของ GHS ติดอยู่บนภาชนะบรรจุ รวมทั้งภาชนะที่ใช้ขนถ่ายสารเคมีหรือของเสียด้วย โดยฉลากต้องอยู่ในสภาพที่ดี ใสแจ่ม ไม่ฉีกขาด และสามารถอ่านได้ชัดเจน มีการกรอกรายละเอียดในส่วนช่องว่างของฉลากอย่างครบถ้วนและถูกต้อง)	<input checked="" type="checkbox"/>			
5. Chemical and Waste Storage and Handling (การจัดเก็บสารเคมีและของเสีย) • Chemicals are stored in dry, cool (not in extreme temperature), and well ventilated areas. (สถานที่เก็บสารเคมีจะต้องแห้ง, ไม่ร้อนจัด และมีการระบายอากาศที่ดี) • Avoid layer-stacked storage of chemicals. If necessary, metal drums shall be wrapped but shall not be stored over 2 layers stacked. Blue drums are not allowed for layer-stacked storage. (หลีกเลี่ยงการจัดเก็บสารเคมีซ้อนกัน หากจำเป็น ต้องห่อหุ้มถังพลาสติกและห้ามให้มีการซ้อนกัน 2 ชั้น และไม่ให้มีการซ้อนกันเกินสองชั้น) • Not keeping the expired or not use or unknown chemicals at offshore. Not use or unknown chemicals shall be backloaded to shore and managed properly. (ไม่เก็บสารเคมีที่หมดอายุหรือไม่มีการใช้แล้วหรือไม่ทราบชนิดไว้ที่ฐานปฏิบัติการนอกชายฝั่ง ส่งสารเคมีที่ไม่ใช้แล้วกลับมายังฝั่งอย่างเหมาะสม) • For offshore operations: chemicals must be stored on plate floor and keep away from open drain, storage on grating floor shall be avoided unless with provision of secondary containment. (สำหรับการจัดเก็บสารเคมีที่ Offshore: สารเคมีต้องถูกจัดเก็บไว้บนพื้นพื้นและห่างจากกระบอกระบายน้ำบนเรือ และหลีกเลี่ยงการจัดวางสารเคมีบนพื้นและทางของ Platform ยกเว้นกรณีมีภาชนะรองรับ) • Flammable chemicals are stored in flame protection cabinets and labeled properly. These also apply to all transferred containers used to take flammable chemicals from original containers or drums. (สารเคมีไวไฟต้องเก็บไว้ในตู้เก็บแก๊สและต้องติดฉลากติดไว้อย่างถูกต้องเหมาะสม รวมทั้งภาชนะรองรับสารเคมีไวไฟด้วย) • Compressed gases cylinders are stored upright and properly chained at all times, including empty cylinders. (ถังบรรจุแก๊สความดันจะต้องตั้งตรงและมีการมัดสายโซ่อย่างแน่นหนาตลอดเวลารวมถึงถังเปล่าที่ไวไฟด้วย) • Compressed gas cylinders capped properly, secured, and not stored incompatible materials (e.g. oxygen and acetylene) together when not in use. (ถังบรรจุแก๊สที่ไม่ได้ใช้จะต้องมีฝานิคมปิดเรียบร้อยและไม่จัดเก็บถังแก๊สชนิดที่เข้ากันไม่ได้ (เช่น ถังแก๊สอะเซทิลีน และถังแก๊สออกซิเจน) ไว้ด้วยกัน) • Incompatible chemicals/wastes must be stored separately (e.g. corrosive and flammable, corrosive and oxidizing agents, etc.) to prevent fire, toxic gas, or other reactions when they accidentally met such as in case of spill. (ของเสียและสารเคมีที่เข้ากันไม่ได้ต้องเก็บไว้แยกจากกัน เช่น สารกัดกร่อนกับสารไวไฟ หรือ สารกัดกร่อนกับสารออกซิไดซ์ สิ่งกีดขวางกั้นต้องเป็นของแข็งและสามารถทนต่อการชนกันและป้องกันการเกิดปฏิกิริยาได้ เช่น 1. ฟันเหล็ก) • Onsite spill response kits are available especially at chemical storage areas and inspected on the availability of all response kits. (มีอุปกรณ์ที่ใช้สำหรับจัดการในกรณีสารเคมีหรือของเสียหกหรือไหล และมีตรวจสอบความพร้อมของอุปกรณ์ตามรายการอย่างสม่ำเสมอ) • Secondary containment is provided if seeing that spilled chemicals can find its way getting to outside environment (sea, soil, waterbody, etc.). (มีภาชนะรองรับที่กักเก็บสารเคมีถ้าดูแล้วสารเคมีดังกล่าวมีโอกาสที่จะเกิดการรั่วไหลออกไปยังสภาพแวดล้อมได้ เช่น ลงสู่ทะเล ดิน หรือ น้ำ) • If spill in secondary containment is observed, it shall be cleaned up promptly. (หากพบการหกหรือไหลภายในภาชนะรองรับ ให้ทำความสะอาดทันที) • Rainfall is always drained out from the secondary containment to maintain the containment capacity. (หากพบว่ามีน้ำฝนตกอยู่ในภาชนะรองรับ ต้องทำการระบายน้ำฝนออก เพื่อป้องกันการหกของสารเคมี หากเกิดการหกหรือไหลภายในภาชนะรองรับ) • Emergency eye wash/shower stations are available and functioning e.g. water pressure, water cleanliness, etc. (ถังล้างตาและอาบน้ำฉุกเฉินพร้อมใช้งานได้อย่างดี เช่น แรงดันน้ำ ความสะอาดของน้ำ เป็นต้น) • Wastes are segregated properly such as recycle bins (for glass, paper, aluminium can, plastic bottles, etc.); hazardous waste containers (for used oil, Hg contaminated sludge, paint cans, used filter, fluorescent lamp, used PPE, contaminated material, infectious waste, etc.) (ของเสียจะต้องถูกคัดแยกไว้ในภาชนะที่เหมาะสมตามประเภทของเสีย เช่น ขยะทั่วไป (สำหรับแก้ว กระดาษ กระป๋องอลูมิเนียม ขยะพลาสติก เป็นต้น), ขยะอันตราย (สำหรับน้ำมันใช้แล้ว ภาชนะที่ปนเปื้อนของเหลว ภาชนะที่ปนเปื้อนของแข็ง ภาชนะที่ปนเปื้อนของเหลว ภาชนะที่ปนเปื้อนของแข็ง PPE ที่ใช้แล้วแล้ว วัสดุปนเปื้อน ภาชนะที่ปนเปื้อน ภาชนะที่ปนเปื้อน) เป็นต้น) • All chemicals/wastes shall be stored in an orderly manner according to good housekeeping practices, without undesirable odor, leachate, or pests. (เก็บหรือจัดเก็บสารเคมีหรือของเสียต้องสะอาด ปราศจากกลิ่น และแมลงหรือหนู)	<input checked="" type="checkbox"/>			

Reference: *GHS is Globally Harmonized System of Classification and Labelling of Chemicals

			h. Plugs are in place	/	
			i. Check tubing condition	/	
13. Launcher & Receiver			j. Check sump pump operation	/	
a. PSV isolation valve tagged & Car seal open	/		k. Check open drain pump operation	/	
b. Gauges	/		l. Check for leak.	/	
c. Valves and handles/liquid sample point condition.	/		m. Safety sign condition	/	
d. Barrel door clean and grease apply.	/		n. Toilet condition	/	
e. Barrel door cover condition	/		17. Boat Landing		
			a. Caution and safety signs	/	
			b. Swing ropes and fastening	/	
			c. Spot lights	/	
14. Chemical Skid					
a. Inhibitor tank level	/				
b. Level gauge	/		18. Dog House		
c. Pumps operation	/		a. First aid box/Emergency food and Water.	Block to LQ	
d. Pumps flow rate	/		b. Phone	/	
e. All pressure gauges	/		c. Fire blanket	/	
f. Check for any leaks	/		d. Eye wash station	/	
g. Skid's relief system	/		e. PLC Module	/	
h. MSDS label posted on Chem. TK	/		f. 4G Module	/	
i. Plugs are in place	/				
			19. General		
			a. Spectacle blinds clean grease	/	
			b. P/F stairway, handrail, grating cond.	/	
			c. Lifting equipment, color coded, good condition	/	
15. INST / Utility Gas Skid			d. sight glass valve	/	
a. Check for any leaks	/		e. Log book is available	/	
b. Valves and handles	/		f. Hand tool box in locked.	/	
c. PSV isolation valve tagged & Car seal open	/		g. Cleaning equipment	/	
d. Gauges condition	/		h. control panel condition	/	
e. Plugs are in place	/		i. Man/Unman indicator lamp	/	
f. Level and level gauges	/		20. Health & Environment Aspect		
g. All SDVs and Flare valves no override & Isolated.	/		a. House keeping / Hydrocarbon drain pot.	/	
h. Check utility pump operation (Near dog house)	/		b. Chem., oil and used oil drum (drum condition, MSDS label, cap)	/	
			c. No oil / Chem. Spills / leakage /Tubing condition	/	
			21. Safety equipment		
			a. Dry chemical extinguisher (hand portable) : Check Co2 cartridge, dry chemical condition	/	
16. Sump Tank and Open drain Area			b. Life raft: Grease launcher mechanism, Check paint line	/	
a. Tank condition	/		c. Life buoy, life ring: Check paint line	/	
b. Valves and handles	/				
c. Life raft condition	/		Blue drum..... Drum	-	
d. PSV isolation valve tagged & Car seal open	/		HD-32..... ² Drum	/	
e. Sump pump guards	/		Empty drum..... Drum	-	
f. Level and level gauge	/		Use oil..... ² Drum	/	

Item	Defective / Requirement / Other	Item	Defective / Requirement / Other
15.A	First aid to LQ		
Reviewed by:		Date:	

Monthly platform inspection well conductor

Platform: NPWT Inspection date: 26 October 2025 Inspector: [REDACTED]

Slot	Well No.	7" Casing Pressure	9-5/8" Casing Pressure		Conductor Rating (above splash zone)		Conductor Rating (splash zone)		Remark
			Lasted	Present	Lasted	Present	Lasted	Present	
A	NPWT-01	50	100	100	1	1	1	1	
B	NPWT-02	50	150	20	1	1	1	1	13-5/8" = 100
C	NPWT-03	50	100	100	1	1	1	1	13-5/8" = 90 ✓
D	NPWT-09	50	100	100	1	1	1	1	
E	NPWT-15	50	100	100	1	1	1	1	
F	NPWT-13	50	200	160	1	1	1	1	
G	NPWT-04	50	200	200	1	1	1	1	
H	NPWT-29	50	200	200	1	1	1	1	
I	NPWT-21	50	100	100	1	1	1	1	13-5/8" = 80 ✓
J	NPWT-06	50	100	100	1	1	1	1	
K	NPWT-05	50	300	200	1	1	1	1	
L	NPWT-26	50	50	20	1	1	1	1	13-5/8" = 60 90
M	NPWT-22	50	100	40	1	1	1	1	13-5/8" = 90 ✓
N	NPWT-34	50	250	250	1	1	1	1	
O	NPWT-XX			-	-	-	-	-	
P	NPWT-10	50	0	0	1	1	1	1	13-5/8" = 40 60
Q	NPWT-20	50	100	40	1	1	1	1	
R	NPWT-30	50	300	280	1	1	1	1	
S	NPWT-23	50	60	90	1	1	1	1	
T	NPWT-35	50	150	180	1	1	1	1	
U	NPWT-28	50	0	90	1	1	1	1	
V	NPWT-25	50	100	50	1	1	1	1	13-5/8" = 80 60
W	NPWT-24	50	0	0	1	1	1	1	13-5/8" = 0
X	NPWT-31	50	100	80	1	1	1	1	

WELL & SLOT LOCATION

SLOT	U	SLOT	V	SLOT	W	SLOT	X
Well	28	Well	25	Well	24	Well	31
SLOT	Q	SLOT	R	SLOT	S	SLOT	T
Well	20	Well	30	Well	23	Well	35
SLOT	M	SLOT	N	SLOT	O	SLOT	P
Well	22	Well	34	Well	XX	Well	10
SLOT	I	SLOT	J	SLOT	K	SLOT	L
Well	21	Well	06	Well	05	Well	26
SLOT	E	SLOT	F	SLOT	G	SLOT	H
Well	15	Well	13	Well	04	Well	29
SLOT	A	SLOT	B	SLOT	C	SLOT	D
Well	01	Well	02	Well	03	Well	09

BOAT LANDING



Rating	Condition	Pitted Surface	Hard Scale	Recommendation / Corrective Action
1	Good	< 3%	-	Keep monitoring
2	Fair	< 20%	-	Keep monitoring
3	Poor	> 20%	< 10%	Keep monitoring or CVI, Repair
4	Serious	> 20%	> 10%	CVI, Repair
5	Critical	Through-hole		P&A
6	Critical	Parted conductor		P&A

AI Site V&V Form: Conductor/Casing Shaking and Well Subsidence

WHP name: NPWT Observation Date: 26 Oct 25 Observer name: [REDACTED] Workgroup: MOT

found issues more than 1 well, please specify Well name after each answer. จำนวนหลุมที่มีปัญหาเกินกว่า 1 หลุม กรุณาระบุชื่อหลุมในแต่ละคำตอบ

this report should be done once a month or longer, if you visit WHP more often than once a month, please submit only one report. รายงานนี้ควรทำ WHP หนึ่งครั้ง 1 เดือนขึ้นไป หาก Report มากกว่า 1 ฉบับเท่านี้

Item	Observation Point	Please <input checked="" type="checkbox"/> your answer here (Please attach photos as much as possible กรุณาแนบรูปถ่าย)
1	Do you see Conductor or Casing shaking / swaying? พบการสั่นไหวของคาน้ำหรือเสาเข็ม สั่นโยกหรือไม่?	<input type="checkbox"/> Yes (เห็น) [Well no. & Slot no. : _____] <input checked="" type="checkbox"/> No (ไม่เห็น) - Please go to No.1 (กรุณาไปข้อ 2)
1.1	If 'Yes' in no.1, what is the frequency of shaking. Shake with Calm sea wave, or Shake with Rough sea wave or Shake much faster than sea wave (e.g. By fluid flow or Booster Compressor)? หากท่านเห็นการสั่นโยกในข้อ 1, ความถี่ในการสั่นเป็นอย่างไร, สั่นพร้อมคลื่นเรียบๆ หรือ สั่นพร้อมคลื่นรุนแรง หรือ สั่นเร็วกว่าคลื่นมากๆ (เช่น การสั่นเพราะการไหลในท่อ หรือ Booster Compressor)?	<input type="checkbox"/> Same as Calm sea condition [Well no. & Slot no. : _____] (สั่นโยกตามคลื่นหรือระลอกน้ำปกติ) <input type="checkbox"/> Same as Rough sea condition [Well no. & Slot no. : _____] (สั่นโยกตามคลื่นหรือระลอกน้ำรุนแรง) <input type="checkbox"/> Much faster than sea wave [Well no. & Slot no. : _____] (สั่นเร็วกว่าคลื่นมากๆ เช่น การสั่นเพราะการไหลในท่อ หรือ Booster Compressor)
1.2	Is this well still in operation (in operation = producing/water injection/gas lift)? - Please call CCR to check หลุมนี้ยังใช้งานได้หรือไม่ (ใช้งาน = ยังผลิตหรือ/เป็นหลุมที่ฉีดน้ำ/เป็นหลุม gas lift)? - หากไม่แน่ใจ กรุณาโทรหา CCR สำหรับข้อมูล	<input type="checkbox"/> Producing or Water injection or Gas lift well [Well no. & Slot no. : _____] (หลุมที่ผลิตหรือ ฉีดน้ำ หรือ ยกแก๊ส) Please go to No.1,4 (กรุณาไปข้อ 1,4) <input type="checkbox"/> Depleted or Abandoned well [Well no. & Slot no. : _____] (หลุมที่ขุดผลิตแล้ว หรือ หลุมที่เลิกใช้แล้ว) Please go to No.1,3 (กรุณาไปข้อ 1,3)
1.3	If 'Depleted or Abandoned well' in no.3, does Flowline/Gas lift line still connect to X'mas tree? หากหลุมที่เลิกใช้หรือหลุมที่ผลิตแล้ว หลุมที่เลิกใช้แล้วในข้อ 3: Flowline หรือ Gas lift line ยังเชื่อมอยู่กับหัวหลุมหรือไม่?	<input type="checkbox"/> Still connect [Well no. & Slot no. : _____] (Flowline/Gas lift line ยังเชื่อมอยู่กับหัวหลุมอยู่ หรือเชื่อม blind ไว้) กรุณาไปข้อ 1,4 <input type="checkbox"/> Not connect [Well no. & Slot no. : _____] (Flowline/Gas lift line ไม่เชื่อมอยู่กับหัวหลุมแล้ว) กรุณาไปข้อ 2
1.4	Centralizer (Fig. 'A') or Diaphragm rubber (Fig. 'B') is still in Good condition or not? Centralizer (เหล็กที่ประต่อง่ายหรือเหล็กค้ำ/เหล็กค้ำอยู่ตรงกลาง ค้ำรูปทรง A) หรือ Diaphragm rubber (แผ่นยางที่ประต่อง่ายหรือค้ำรูปทรง B) ยังอยู่ในสภาพดีหรือไม่?  	<input type="checkbox"/> Good condition [Well no. & Slot no. : _____] (อยู่ในสภาพดี) <input type="checkbox"/> Bad condition [Well no. & Slot no. : _____] (อยู่ในสภาพไม่ดี หรือชำรุดเสียหายแล้ว) Please attach photo here (กรุณาแนบรูปถ่าย)
2	Do you see Well subsidence with indicators as one of following? - Flowline misalignment - Well head dropped from general elevation - Any casing bending, buckling or deteriorate ท่านสังเกตเห็นหลุมหรือไหม โดยสังเกตจากความผิดปกติของข้อใดข้อหนึ่ง ดังนี้ - Flowline (ไหลไม่ตรง) บิดเบี้ยวหรือค้ำรูปทรงผิดปกติ - Wellhead (หัวหลุม) มีการทรุดตัวลงต่ำ จากระดับที่เคยเห็นปกติ - Casing (เคสซิง) มีการบวม, หัก หรือ มีการบิดเบี้ยวจากลักษณะของ casing ทั่วไป	<input type="checkbox"/> Yes (เห็น) [Well no. & Slot no. : _____] <input checked="" type="checkbox"/> No (ไม่เห็น) Please attach photo here (กรุณาแนบรูปถ่าย)

Thank you for your kind support to Asset Integrity Team - ขอขอบคุณสำหรับความช่วยเหลือ AI Team ครับ /ค่ะ



By: [Redacted]

Location/Area: NPWT

Inspection Items	Yes	No	N/A	Comments
1. Chemical Inventory (รายการสารเคมี)				
<ul style="list-style-type: none"> Chemical inventory with chemical names and their storage locations available on site. (จัดให้มีรายการสารเคมีที่ใช้งานปัจจุบันอยู่ประจำฐาน มีการที่งมือของสารเคมีและสถานที่จัดเก็บ) 	/			
2. SDS (ข้อมูลความปลอดภัยของเคมีภัณฑ์)				
<ul style="list-style-type: none"> SDS of all chemicals available at working or storage location which shall be easily accessible in emergency case. (จัดให้มีเอกสารข้อมูลความปลอดภัยของสารเคมีที่เกี่ยวข้องทุกตัวประจำสถานที่ปฏิบัติงาน และสถานที่จัดเก็บ ที่สามารถค้นหาข้อมูลได้รวดเร็วเมื่อมีเหตุฉุกเฉิน) 	/			
3. Containers (ภาชนะบรรจุสารเคมี/ของเสีย)				
<ul style="list-style-type: none"> Containers in good condition, e.g. metal drum not rusty or distorted, plastic drum not torn or distorted or swollen, color not faded or changed, and container not bulge that could cause a spill or leakage. (ภาชนะบรรจุอยู่ในสภาพดี เช่น ถ้าเป็นถังเหล็กต้องไม่มีสนิมหรือ รุ่ยหรือบุบหรือบวม ถังพลาสติกต้องไม่ยุบ สีของถังต้องไม่จางหรือเปลี่ยน หรือฉีกหรือมีรอยแตก อาจเป็นเหตุให้เกิดการรั่วไหลได้) Keeping containers of chemical/wastes that can vaporize closed unless being used (e.g. used oil, paint, mercury wastes, etc.). (ภาชนะบรรจุสารเคมีหรือของเสียที่ระเหยได้ เช่น น้ำมันใช้แล้ว สี ของเสียปนเปื้อนปรอท เป็นต้น จะต้องปิดมิดชิดอยู่ตลอดเวลาเมื่อไม่ได้นำมาใช้งาน) Transferred containers are appropriate according to chemical types, e.g. use closed top metal drum for oil/thinner; use plastic bottle and metal box as inner and outer packages for elemental mercury, respectively. (ภาชนะบรรจุสารเคมีเหมาะสมกับประเภทของสารเคมีที่บรรจุ เช่น ใช้ถังเหล็กสำหรับน้ำมันหรือทินเนอร์ที่ปิดฝาปิดมิดชิด ใช้ขวดพลาสติกและกล่องเหล็กเป็นบรรจุภัณฑ์สำหรับปรอทเหลวและของเสียอันตรายอื่น ๆ ตามลำดับ) Waste containers are suitable with waste types, e.g. use metal drums (200L) for used oil/thinner or oily rags; use metal box for used fluorescent lamp; use plastic UN drum closed top for mercury contaminated material. (ภาชนะบรรจุของเสียเหมาะสมกับประเภทของเสียที่บรรจุ เช่น ใช้ถังเหล็กสำหรับน้ำมัน, ทินเนอร์ใช้แล้วที่ปิดฝาปิดมิดชิดหรือฝาปิดเป็นน้ำมัน ใช้กล่องเหล็กสำหรับหลอดไฟฟลูออโรสเซนต์ใช้แล้ว ใช้ถังพลาสติกมาตรฐาน UN สำหรับของเสียปนเปื้อนสารปรอท) 	/	/		
4. Labeling (การติดฉลากสารเคมี/ของเสีย)				
<ul style="list-style-type: none"> Wastes have the Chevron standard waste labels with filled information, while Chemicals have GHS* format labels adhered on the their containers. Labels are in good condition, not faded or torn, and easy to read. These also apply to all transferred containers used to take chemical from original container or drum. Required information on the waste labels are completely and correctly filled. (ภาชนะบรรจุของเสียมีฉลากตามมาตรฐานของเชฟรอน และสารเคมีมีฉลากตามมาตรฐานของ GHS ติดอยู่บนภาชนะบรรจุ รวมถึงภาชนะที่โอนถ่ายสารเคมีหรือของเสียด้วย โดยฉลากต้องอยู่ในสภาพที่ชัดเจน ไม่จาง ไม่เสียหาย และสามารถอ่านได้ชัดเจน มีการกรอกข้อมูลอย่างถูกต้องในส่วนของ ข้อมูลของเสียอย่างครบถ้วนและถูกต้อง) 	/			
5. Chemical and Waste Storage and Handling (การจัดเก็บสารเคมีและของเสีย)				
<ul style="list-style-type: none"> Chemicals are stored in dry, cool (not in extreme temperature), and well ventilated areas. (สถานที่เก็บสารเคมีจะต้องแห้ง, ไม่ร้อนจัด และมีการระบายอากาศที่ดี) Avoid layer-stacked storage of chemicals. If necessary, metal drums shall be wrapped but shall not be stored over 2 layers stacked. Blue drums are not allowed for layer-stacked storage. (หลีกเลี่ยงการจัดเก็บสารเคมีซ้อนกัน หากจำเป็น ถังโลหะต้องห่อพลาสติกและไม่ให้มีการซ้อนกัน 2 ชั้น และไม่ใช้ถังพลาสติกซ้อนกันหลายชั้น) Not keeping the expired or not use or unknown chemicals at offshore. Not use or unknown chemicals shall be backloaded to shore and managed properly. (ไม่เก็บสารเคมีที่หมดอายุหรือไม่ใช้หรือไม่ทราบชนิดไว้ที่ฐานปฏิบัติการนอกชายฝั่ง ส่งสารเคมีที่ไม่ใช้แล้วกลับมายังฝั่งอย่างเหมาะสม) For offshore operations: chemicals must be stored on plate floor and keep away from open drain, storage on grating floor shall be avoided unless with provision of secondary containment. (สำหรับการจัดเก็บสารเคมีที่ Offshore: สารเคมีต้องถูกจัดเก็บไว้บนพื้นเรียบและห่างจากกระบอกระบายน้ำแบบเปิด และหลีกเลี่ยงการจัดวางสารเคมีบนพื้นตะแกรงของ Platform ยกเว้นกรณีมีภาชนะรองรับ) Flammable chemicals are stored in flame protection cabinets and labeled properly. These also apply to all transferred containers used to take flammable chemicals from original containers or drums. (สารเคมีไวไฟต้องเก็บไว้ในตู้เก็บแก๊สและต้องติดฉลากติดไว้อย่างถูกต้องเหมาะสม รวมทั้งภาชนะบรรจุถ่ายสารเคมีไวไฟด้วย) Compressed gases cylinders are stored upright and properly chained at all times, including empty cylinders. (ถังบรรจุแก๊สความดันสูงต้องตั้งตรงและมีการยึดด้วยโซ่อย่างเหมาะสมตลอดเวลา รวมถึงถังแก๊สไวไฟด้วย) Compressed gas cylinders capped properly, secured, and not stored incompatible materials (e.g. oxygen and acetylene) together when not in use. (ถังบรรจุแก๊สที่ไม่ได้ใช้จะต้องมีฝาปิดให้เรียบร้อยและไม่จัดเก็บแก๊สที่เข้ากันได้ไม่ดี (เช่น แก๊สออกซิเจน และแก๊สอะเซทิลีน) ไว้ด้วยกัน) Incompatible chemicals/wastes must be stored separately (e.g. corrosive and flammable, corrosive and oxidizing agents, etc.) to prevent fire, toxic gas, or other reactions when they accidentally met such as in case of spill. (ของเสียและสารเคมีที่เข้ากันได้ไม่ดีต้องเก็บไว้แยกจากกัน เช่น สารกัดกร่อนกับสารไวไฟ หรือ สารกัดกร่อนกับสารออกซิไดซ์ เช่น กรดกับด่าง หรือ สารไวไฟกับสารออกซิไดซ์ เป็นต้น และต้องระวังการเกิดปฏิกิริยาเมื่อของเสียเหล่านี้มาพบกันโดยบังเอิญ) Onsite spill response kits are available especially at chemical storage areas and inspected on the availability of all response kits. (มีอุปกรณ์ที่ใช้สำหรับจัดการในกรณีสารเคมีหรือของเสียหกหรือรั่ว และมีการตรวจสอบความพร้อมของอุปกรณ์ตามรายการอย่างสม่ำเสมอ) Secondary containment is provided if seeing that spilled chemicals can find its way getting to outside environment (sea, soil, waterbody, etc.). (มีการรองรับที่เก็บกักสารเคมีแล้วสารเคมีดังกล่าวมีโอกาสที่จะเกิดการรั่วไหลออกไปยังสภาพแวดล้อมได้ เช่น ลงสู่ทะเล ดิน หรือ แม่น้ำ) If spill in secondary containment is observed, it shall be cleaned up promptly. (หากพบการรั่วในภาชนะรองรับ ให้ทำความสะอาดทันที) Rainfall is always drained out from the secondary containment to maintain the containment capacity. (หากพบว่าน้ำฝนยังอยู่ในภาชนะรองรับ ต้องทำการระบายน้ำฝนออก เพื่อป้องกันการหกของสารเคมี หากเกิดการรั่วไหลจากภาชนะบรรจุ) Emergency eye wash/shower stations are available and functioning e.g. water pressure, water cleanliness, etc. (มีอ่างล้างหน้าและสถานีล้างตาพร้อมใช้งานอยู่ เช่น แรงดันน้ำ ความสะอาดของน้ำ เป็นต้น) Wastes are segregated properly such as recycle bins (for glass, paper, aluminium can, plastic bottles, etc.); hazardous waste containers (for used oil, Hg contaminated sludge, paint cans, used filter, fluorescent lamp, used PPE, contaminated material, infectious waste, etc.). (ของเสียต้องถูกคัดแยกไว้ในภาชนะที่เหมาะสมตามประเภทของเสีย เช่น ถังขยะรีไซเคิล (สำหรับแก้ว กระดาษ กระป๋องอลูมิเนียม ขวดพลาสติก เป็นต้น), ถังขยะอันตราย (สำหรับน้ำมันใช้แล้ว ถังขยะก้นถังเป็นปรอท กระป๋องสี สารเคมีใช้แล้ว เป็นต้น) ขยะทั่วไปขยะพลาสติก PPE ที่ใช้แล้ว เป็นต้น ขยะทั่วไปขยะพลาสติก (เช่น แก้ว เป็นต้น)) All chemicals/wastes shall be stored in an orderly manner according to good housekeeping practices, without undesirable odor, leachate, or pests. (เก็บสารเคมีและของเสียอย่างเรียบร้อย ปราศจากกลิ่น และแมลงรบกวน) 	/	/	/	

Chevron Thailand::RC Critical safeguard assurance checklist - Onsite Observe

This V&V has been develop in order to engage with all level including leadership in onsite safeguard verification and validation.

The more safeguard V&V, the safer operation we can get.

Note: Any Items found out of tolerance or noncompliant require either a site correction with an explanation in the comments section below, notification to the Facility Engineer (RCT),

SPOC or a Work Order generated in the Work Order Management CMMS.



Version 6 (revised date 8 Feb 2023)

Conduct By:

Time & Date:

16 Oct 25

Department:

Platform:

MOT






NPT



Field:

RC Type:

NORTH

E

No.	RC Critical safeguard assurance checklist - Offshore	Meet expectation?			Action if not meet expectation ('N')		Team	Related RC Type						Remarks or explanation if No (Add picture, if available)
		Y	N	N/A	Immediate SD	Accept to run		A	B	C	D	E	F	
1	Observe leakage from Hydraulic pipe flange due to damaged O-ring during operation or start up after replacement. There should be no leakage (Tick 'Y' for no leakage). (Tick 'N' if found leakage)	✓			Yes to stop Hydraulic leakage		All				✓	✓	✓	
3	Found high vibration at discharge line of Hydraulic pump (Visual Inspection) (Tick 'Y' for no high vibration. Tick 'N' for high vibration)	✓				Yes but inform Engineer immediately.	All				✓	✓	✓	
8	Heat shield condition of Oxygen sensor if on-board when RC SD. (Tick 'Y' if heat shield is in good condition. Tick 'N' if heat shield is in bad condition or not installed.) 	✓				Yes. Then, mitigate by fixing stepping motor.	All				✓	✓	✓	
9	T-turbo insulation is installed correctly and in good condition. - No leakage or insulation damaged. - O2 sensors should not be cover. - Lube oil line should not be cover. (Tick 'Y' if insulation is in good condition and installed correctly. Tick 'N' if insulation is in bad condition or installed incorrectly.) 	✓			Yes. To prevent fire incident.		All				✓	✓	✓	
10	Check if exhaust gas leak or have obvious exhaust pipe misalignment. (Tick 'Y' for no leakage and no misalignment. Tick 'N' for gas leakage or misalignment.)	✓			Yes. To prevent fire incident. Then, inform engineer.		All				✓	✓	✓	
12	Check if condition of lube oil supply and drain line at engine if there is any leakage. (Tick 'Y' for good condition. Tick 'N' for bad condition or leakage.)  	✓			Yes. To prevent fire incident.		Ext only				✓	✓	✓	
13	Turbocharger insulation should not cover lube oil line. (Tick 'Y' if insulation does not cover lube oil line. Tick 'N' if insulation cover lube oil line) 	✓			Yes. To prevent fire incident.		Ext only				✓	✓	✓	
15	No leakage and excessive vibration at pump suction line / discharge line/ venturi supply line/ venturi discharge line. Check pipe support condition. (Both grey pipe and yellow pipe) (Tick 'Y' if no leakage, no high vibration, and supports of the pipes are in good condition. Tick 'N' if found leakage, vibration, or supports of the pipes are loosen/ in bad condition.)	✓			Yes to stop LOC and find the cause		All	✓	✓	✓	✓	✓	✓	
18	Check bolt condition and tightness at support of liquid discharge line for RC type B8/D/E/F. (Both grey and yellow pipe) (Tick 'Y' if support is in good condition and tight. Tick 'N' if support is in bad condition or loosen.) For MOT: If found bolt loosen, do not re-tight. But report to Ext Sup first.	✓				Yes. But inform CCR / engineer immediately. For type D/E/F, mitigate by reduce liquid rate below 3500 BPD and	All				✓	✓	✓	
19	SS tube is installed properly. Tube does not have high vibration. (Tick 'Y' if stainless steel tube is installed properly and no vibration. Tick 'N' if stainless steel tube install incorrectly or have vibration)	✓				Yes. But inform engineer immediately.	All	✓	✓	✓	✓	✓	✓	
21	Skid drain has any obstruction or not. If yes, clean skid drain. To ensure leaking liquid can go to collecting drain tank. (Tick 'Y' if no obstruction in skid drain line. Tick 'N' if there is obstruction in skid drain line.)	✓				Yes. Then, clean or inform related team to clean.	All				✓			

No.	RC Critical safeguard assurance checklist - Offshore	Meet expectation?			Action if not meet expectation ('N')		Team	Related RC Type						Remarks or explanation if No (Add picture, if available)	
		Y	N	N/A	Immediate SD	Accept to run		A	B	C	BB	D	E		F
22	Team follow up the instruction when troubleshooting engine or not. (Tick 'Y' if team on-board to troubleshoot engine and follow procedure. Tick 'N' if team on-board to troubleshoot engine and <u>not</u> follow procedure. Tick 'NA' if team on-board does not have engine troubleshooting.)	/					Ext only				/	/	/	/	
24	Check if there is action to solve those ALM-222 at panel view. (Tick 'Y' if found ALM-222 and complete solving it. Tick 'N' if found ALM-222 but cannot solve it. Tick 'NA' if no ALM-222)	/				Yes. Then, solve alarm.	Ext only				/	/	/	/	
25	Oil Type only: set point of pressure regulator at upstream of fuel gas filter is reduced to minimum design allowance limit. (e.g. RC type-D PCV-1670 from 120 psig to 70/75 psig) (Tick 'Y' if set point is reduced to minimum limit. Tick 'N' if set point is not reduced to minimum limit.) For MOT: If found set point is not reduced to minimum limit, report EXT Sup.	/				Yes. Set point can be changed on-line.	All				/	/	/	/	
27	Random check bolt at flange if found not good condition. (loosen, heavy rusty, missing) (Tick 'Y' for good condition. Tick 'N' for bad condition)	/			Yes. Prevent LOC.		All	/	/	/	/	/	/	/	
29	Check engine wiring/harness condition. It should be in good condition. Example for bad condition: Torn, Burnt as below picture. (Tick 'Y' for good condition. Tick 'N' for bad condition) 	/			Yes. Prevent Fire.		All	/	/	/	/	/	/	/	
30	Check well liquid cooler tube vibration. Tubes should not have vibration like wave at operating speed. (Tick 'Y' for no wave vibration. Tick 'N' for having wave vibration) 	/				Yes. But change to another safe speed to avoid vibration	Ext only					/	/	/	
28	This item is for another abnormal found. _____	/					All	/	/	/	/	/	/	/	

Note: No. 2, 4, 5, 6, 7, 11, 14, 16, 17, 20, 23 and 26 are cancelled. No. 6 and 20 is moved to office V&V instead. Add no. 29 and 30 in revision 4. Total = 18 items.

ABV V&V task - ทำทุกแท่น

1	เช็ค ABV valve ว่าปกติหรือไม่ (เลือก Y ถ้าปกติ, เลือก N ถ้าผิดปกติ) ผิดปกติ เช็ค ABV valve อยู่ในตำแหน่งเปิดไม่สุด หรือปิดไม่สุด? หากมี โปรดแจ้ง control room ทันที พร้อมบอกจำนวนแท่นและตำแหน่งอะไร (Production/RC/Test header)	/				แจ้ง control room ทันที	All								
2	เช็ค ABV valve ว่าปกติหรือไม่ (เลือก Y ถ้าปกติ, เลือก N ถ้าผิดปกติ) ผิดปกติ เช็ค ABV valve มีน้ำหยด, มีเสียง flow ผิดปกติ หรือมีควัน หากมี โปรดแจ้ง control room ทันที พร้อมบอกจำนวนแท่นและตำแหน่งอะไร (Production/RC/Test header)	/				แจ้ง control room ทันที	All								

M R 2 2020 Ban +
APB - Fall , 750 ab -
Ement
K pm 7w

Well head platform Monthly Inspection									
Inspector Name		Date 05/09/25		Location		PAWJ			
Position		Frequency		Storage		MOT SHOP			
Receiver		Reviewer		Retention		Criticality		Rev. 2022	

Note: Any items found out of tolerance or noncompliant require either a site correction with an explanation in the comments section, notification to the Reviewer (above) or a Work Order generated in the E1 CMMS.

Item	Normal	Problem	Item	Normal	Problem
1. Top deck General Device			6. PLC Room		
a. Solar Panel 24 VDC P/F and Nav aid condition.	✓		a. First aid bag and check expire date of drug / Fire blanket / Emergency food.	✓	
b. Diesel Tank level (...40...%, Number...01...)	✓		b. Eye wash station	✓	
c. P/F water tank level (...70...%, Number...02...)	✓		c. Telephone / 4G Module	✓	
2. Crane			d. BCP Tag & Board available	✓	
a. Boom rest	✓		e. SCADA system	✓	
b. Hoist / Hooks / Safety sling	✓		f. Logbook available		✓
c. Hydraulic line / hoses	✓		7. Black Start Panel		
d. Control operational	✓		a. Check for any leaks	✓	
3. Crane Power			b. Pressure gauges	✓	
a. Cabin window	N/A		8. Instrument Gas / Utility Gas		
b. Load chart available	✓		a. Check for any leaks	✓	
c. Hand signal chart available	✓		b. Pressure gauges	✓	
d. Check for oil leak	✓		c. PSV and BDV isolation valves car seal lock open	✓	
e. Check diesel 40-50 % / hyd. Oil level 70 %	✓		d. Level switches and level gauges	✓	
f. Check engine lube oil	✓		e. PCV / LCV / auto dump valve in service	✓	
g. Check radiator water	✓		9. Launcher/Receiver		
g. Access ladder condition	✓		a. Check for any leaks	✓	
4. AC Power Generator			a. Pig barrel/Receiver barrel condition	✓	
a. Check engine lube oil / radiator water / diesel gen level 75 %	✓		b. Pressure gauges good condition	✓	
b. Hydraulic power line in good conditions	✓		10. Thermoelectric Generators		
c. Enclosure / door conditions	✓		a. Check for any leaks	✓	
d. Control panel / All Gauges in good conditions	✓		b. Check TEG running/ Voltage & Current reading	✓	
e. Wiring / plug secured / receptacle / properly grounded in good condition.	✓		11. Chemical Skid		
f. Start Generator check any leak and on breaker check boom crane lighting and P/F lighting	✓		a. Check for any leaks	✓	
5. Cellar deck Utility Water Pump & Tank			b. Chemical Pumps operation	✓	
a. Check for any leaks			c. Level gauge / Pressure gauge	✓	
b. Utility Water Tank condition have no.			d. Chemical Tank condition and MSDS posted / Chemical Tank level 30%	✓	
c. Level gauge / Pressure gauge					
d. Check pump operation					

Item	Normal	Problem	Item	Normal	Problem
12. Wellhead Area			b. Stair treads/bolts in good conditions	✓	
Check for any leaks	✓		c. Swing ropes checked	✓	
Christmas tree / Hydraulic control line / Safety valves, conductor stopper	✓		d. Jacket legs Studs/Bolts	✓	
Instrument stainless tubing condition, install rubber between tubing and clamp	✓		e. Riser studs/bolts & clamp	✓	
d. Flow line and Support	✓		18. General & Safety Devices		
13. ABV Manifold & Auto Choke			a. All deck clear & unobstructed	✓	
a. Check for any leaks	✓		b. All Surface clean & non slip	✓	
b. ABV valves (ABV-P/T/B) condition	✓		c. All stairway / Handrail / Grating / access ladders /door in good conditions	✓	
c. Auto chokes and solenoid valves condition	✓		d. All Well slot's hatch secured and deck floor with out open hole	✓	
14. Wellhead Control Panel			e. All Open drain	✓	
a. Check for any leaks	✓		f. Spectacle blinds clean grease	✓	
b. Hydraulic oil (HD-32) level. 63% return tank. 70%.	✓		g. Lifting equipment (if available) color coded / good condition	✓	
c. Identify well number on panel	✓		h. Hand tool box in locked.	✓	
d. Hydraulic oil main / back up pumps operations	✓		i. Check Spring return valve Hydro. drain pot	✓	
15. Test Separator			j. Hydraulic hand pump	✓	
a. Nematron / Panel view	✓		k. All instrument stainless tubing condition in tubing tray around platform	✓	
b. Check for any leaks	✓		l. Navigation aid in good	✓	
c. Level transmitter and level gauges (LIT-1010, LIT-1011A, LIT-1012, LG-1010, LIG-1011A, LG-1012)	✓		m. Escape rope in good condition and safety escape marking/clear	✓	
d. Pressure transmitter and Pressure gauges (PT-1010, PT-1011, PI-1010)	✓		n. Emergency shower	✓	
e. Temp transmitter and Temp gauge (TI-1010A, TIT-1012A) Flow transmitter (FIT-1012A)	✓		o. all Eye wash station around well head area	N/A	
f. Flush Flow Transmitter FQI-1012 on Test Separator	✓		p. All ESD station condition	✓	
g. PSV isolation valves car seal open	✓		q. All fusible plugs loop	✓	
16. Below Cellar Deck Closed Drain & Open drain			r. All Fire extinguishers inspected and no any obstruction	✓	
a. Check for any leaks	✓		s. All ring buoy / light buoy / life line / bracket in good condition.	✓	
b. Sump Tank condition	✓		t. Life jacket. 10... ea., life float. 1...ea.	✓	
c. Open Drain Tank condition	N/A		u. Safety sign condition	✓	
d. Level switch and level gauge	✓		v. Toilet condition	✓	
e. Pressure switch and pressure gauge	✓		w. All general housekeeping	✓	
f. PSV isolation valves car seal open	✓		Oil / chemical / cargoes on board		
g. Sump pump guards	✓		Rig wash..... drum Don't keep on grating	N/A	
h. Check Sump pump operation & clear level in sump tank	✓		Blue drum..... drum Don't keep on grating	N/A	
i. check open drain pump operation	N/A		HD-32..... drum Don't keep on grating	N/A	
17. Boat Landing			Empty drum..... drum Don't keep on grating	N/A	
a. Grating / Handrails secured/in good conditions	✓		Use oil..... drum Don't keep on grating	N/A	

Item	Problem list	Item	Problem list
6A	need replaced first aid black bag	(Whiteboard)	
6F	need new rogbok (Whiteboard)		
Reviewed By: [REDACTED]		Date:	07 SEP 2025

Monthly platform inspection well conductor

Platform: PAWJ

Inspection date: 5/09/25

Inspector: [REDACTED]

Well No.	Casing pressure 7"	Casing pressure 9-5/8"	Conductor Rating	Worst Location	Remark
PAWJ-01	0	0	2	-	
PAWJ-02	No gauge	60	2	-	
PAWJ-03	0	0	2	-	No Flowline
PAWJ-04	0	20	2	-	No Flowline
PAWJ-05	No gauge	0	2	-	
PAWJ-07	No gauge	0	2	-	
PAWJ-09	No gauge	25	2	-	
PAWJ-10	0	0	2	-	No Flowline
PAWJ-11	No gauge	0	2	-	
PAWJ-13	0	0	2	-	
PAWJ-14	No gauge	40	2	-	
PAWJ-15	140	17	2	-	No Flowline
PAWJ-16	0	0	2	-	No Flowline
PAWJ-17	0	0	2	-	No Flowline
PAWJ-18	0	0	2	-	No Flowline
PAWJ-24	0	0	2	-	
PAWJ-28	0	0	2	-	
PAWJ-29	0	40	2	-	
PAWJ-36	0	0	2	-	
PAWJ-37	180	0	2	-	

Updated on 19 July 2024

Casing Bleed Down Report (High casing pressure => Sustained casing pressure)

PLATFORM _____
NAME _____

Version 1.0 (31-July-18)

[illegible]

1. ทำ bleed down เฉพาะหลุมที่เป็น High Casing Pressure (HCP)
2. เริ่มบันทึก Pressure Before ของทั้ง Casing และ Tubing ในช่อง 1, 2
3. Bleed down ให้ Casing ต่ำกว่าค่า HCP Threshold โดยพยายามอย่าให้ต่ำกว่า 50 psig แล้วบันทึกเวลาในช่อง 3
4. บันทึก Pressure หลังBleed down ของทั้ง Casing และ Tubing ในช่อง 4, 5
5. บันทึก fluid recovered ในช่อง Remark แล้วเริ่มทำ build up
6. บันทึกเวลาที่ใช้ในการทำ Build up ในช่อง 7 แล้วบันทึก pressure ของ Casing และ Tubing ในช่อง 8
7. ถ้ามีความเห็นเพิ่มเติมให้บันทึกในช่อง Remark
8. โปรดบันทึก Bleed down report ในระบบ EC ภายใน 48 ชั่วโมง

หมายเหตุ

HCP คือ หลุมที่ $\text{Pressure} > \text{Threshold}$ ดังนี้

- 7" Casing ใน หลุม Non-Gas Lift: 200 psi
- 7" Casing ใน หลุม Gas Lift: 1300 psi
- Casing อื่นๆ: 100 psi

การทำ build up ควรเผื่อให้มีเวลาอย่างน้อย 1 ชั่วโมง

CHEMICAL AND WASTE INSPECTION CHECKLIST

Survey Date: 09/09/25

Ver. 2023/01



By: [Redacted]

Location/Area: PANJ.

Inspection Items	Yes	No	N/A	Comments
1. Chemical Inventory (รายการสารเคมี)				
<ul style="list-style-type: none"> Chemical inventory with chemical names and their storage locations available on site. (จัดให้มีรายการสารเคมีที่ใช้งานปัจจุบันอยู่ประจำฐาน มีการขึ้นชื่อของสารเคมีและสถานที่จัดเก็บ) 	✓			
2. SDS (ข้อมูลความปลอดภัยของเคมีภัณฑ์)				
<ul style="list-style-type: none"> SDS of all chemicals available at working or storage location which shall be easily accessible in emergency case. (จัดให้มีเอกสารข้อมูลความปลอดภัยเคมีภัณฑ์ของสารเคมีที่เกี่ยวข้องทุกตัวประจำสถานที่ปฏิบัติงาน และสถานที่จัดเก็บ ที่สามารถค้นหาข้อมูลได้รวดเร็วเมื่อมีเหตุฉุกเฉิน) 	✓			
3. Containers (ภาชนะบรรจุสารเคมี/ของเสีย)				
<ul style="list-style-type: none"> Containers in good condition, e.g. metal drum not rusty or distorted, plastic drum not torn or distorted or swollen, color not faded or changed, and container not bulge that could cause a spill or leakage. (ภาชนะบรรจุอยู่ในสภาพดี เช่น ถ้าเป็นถังเหล็กต้องไม่มีสนิมเขรอะ บวมหรือยุบหรือบวม ดังพลาสติกต้องไม่บวม สีของถังต้องไม่จางหรือเปลี่ยน หรือผิวเรียบไม่บุ๋บ จนอาจเป็นเหตุให้เกิดการหกรั่วไหลได้) 	✓			
<ul style="list-style-type: none"> Keeping containers of chemical/wastes that can vaporize closed unless being used (e.g. used oil, paint, mercury wastes, etc.). (ภาชนะบรรจุสารเคมีหรือของเสียที่ระเหยได้ เช่น น้ำมันใช้แล้ว สี ของเสียปนเบื่อนปรอท เป็นต้น จะต้องปิดมิดชิดอยู่เสมอหากไม่ได้ใช้ระหว่างการใช้งาน) 	✓			
<ul style="list-style-type: none"> Transferred containers are appropriate according to chemical types, e.g. use closed top metal drum for oil/thinner; use plastic bottle and metal box as inner and outer packages for elemental mercury, respectively. (ภาชนะแบ่งถ่ายสารเคมีเหมาะสมกับประเภทของสารเคมีที่บรรจุ เช่น ใช้ถังเหล็กสำหรับน้ำมันหรือทินเนอร์ที่ปิดฝาปิดมิดชิด ใช้ขวดพลาสติกและกล่องเหล็กเป็นบรรจุภัณฑ์ด้านในและด้านนอกสำหรับสารปรอท ตามลำดับ) 	✓			
<ul style="list-style-type: none"> Waste containers are suitable with waste types, e.g. use metal drums (200L) for used oil/thinner or oily rags; use metal box for used fluorescent lamp; use plastic UN drum closed top for mercury contaminated material. (ภาชนะบรรจุของเสียเหมาะสมกับประเภทของเสียที่บรรจุ เช่น ใช้ถังเหล็กสำหรับน้ำมัน, ทินเนอร์ใช้แล้วที่ปิดฝาปิดมิดชิดหรือฝาลบเบื่อนน้ำมัน ใช้กล่องเหล็กสำหรับหลอดไฟที่ใช้แล้ว ใช้ถังพลาสติกมาตรฐาน UN สำหรับของเสียปนเบื่อนสารปรอท) 	✓			
4. Labeling (การติดฉลากสารเคมี/ของเสีย)				
<ul style="list-style-type: none"> Wastes have the Chevron standard waste labels with filled information, while Chemicals have GHS* format labels adhered on the their containers. Labels are in good condition, not faded or torn, and easy to read. These also apply to all transferred containers used to take chemical from original container or drum. Required information on the waste labels are completely and correctly filled. (ภาชนะบรรจุของเสียมีฉลากตามมาตรฐานของเชฟรอน และสารเคมีมีฉลากตามมาตรฐานของ GHS ติดอยู่บนภาชนะบรรจุ รวมถึงภาชนะที่ใช้แบ่งถ่ายสารเคมีหรือของเสียด้วย โดยฉลากต้องอยู่ในสภาพที่ดี ไม่จาง ไม่ฉีกขาด และสามารถอ่านได้ชัดเจน มีการกรอกรายละเอียดในส่วนของ ฉลากของเสียอย่างครบถ้วนและถูกต้อง) 	✓			
5. Chemical and Waste Storage and Handling (การจัดเก็บสารเคมีและของเสีย)				
<ul style="list-style-type: none"> Chemicals are stored in dry, cool (not in extreme temperature), and well ventilated areas. (สถานที่เก็บสารเคมีจะต้องแห้ง, ไม่ร้อนจัด และมีการระบายอากาศที่ดี) 	✓			
<ul style="list-style-type: none"> Avoid layer-stacked storage of chemicals and liquid wastes. If necessary, metal drums shall be wrapped but shall not be stored over 2 layers stacked. Blue drums are not allowed for layer-stacked storage. (หลีกเลี่ยงการจัดเก็บสารเคมีและของเหลวซ้อนกัน หากจำเป็น ถังโลหะต้องพันพลาสติกและไม่ให้มีการซ้อนกัน 2 ชั้น และไม่ให้มีการซ้อนกันสำหรับถังพลาสติก) 	✓			
<ul style="list-style-type: none"> Not keeping the expired or not use or unknown chemicals at offshore. Not use or unknown chemicals shall be backloaded to shore and managed properly. (ไม่เก็บสารเคมีที่หมดอายุหรือไม่ใช้แล้วหรือไม่ทราบชนิดไว้ที่ฐานปฏิบัติการนอกชายฝั่ง ส่งสารเคมีที่ไม่ใช้แล้วกลับมายังจัดการบนฝั่งอย่างเหมาะสม) 	✓			

CHEMICAL AND WASTE INSPECTION CHECKLIST

Survey Date: 05/09/25

Ver. 2023/01



By:

Location/Area: PAHU

Inspecting Items	Yes	No	N/A	Comments
<ul style="list-style-type: none"> For offshore operations: chemicals and wastes must be stored on plate floor and keep away from open drain, storage on grating floor shall be avoided unless with provision of secondary containment. (สำหรับการจัดเก็บสารเคมี Offshore: สารเคมีและของเสียต้องถูกจัดเก็บไว้ในพื้นทับและห่างจากกระบอกระบายน้ำแบบเปิด และหลีกเลี่ยงการจัดวางสารเคมีและของเสียบนพื้นตะแกรงของ Platform ยกเว้นกรณีที่มีการระงับรั่ว) 	✓			
<ul style="list-style-type: none"> Flammable chemicals are stored in flame protection cabinets and labeled properly. These also apply to all transferred containers used to take flammable chemicals from original containers or drums. (สารเคมีไวไฟต้องเก็บไว้ในตู้เก็บเฉพาะและต้องมีฉลากติดไว้อย่างถูกต้องเหมาะสมรวมทั้งภาชนะแปลงถ่ายสารเคมีไวไฟด้วย) 	✓			
<ul style="list-style-type: none"> Compressed gases cylinders are stored upright and properly chained at all times, including empty cylinders. (ถังบรรจุก๊าซความดันจะต้องตั้งตรงและมีการมัดสายโซ่อย่างแน่นหนาตลอดเวลา รวมถึงถังเปล่าที่ในแล้วด้วย) 			✓	
<ul style="list-style-type: none"> Compressed gas cylinders capped properly, secured, and not stored incompatible materials (e.g. oxygen and acetylene) together when not in use. (ถังบรรจุก๊าซที่ไม่ได้ใช้จะต้องมีฝามิดให้เรียบร้อยและไม่จัดเก็บถังก๊าซชนิดที่เข้ากันไม่ได้ (เช่น ถังก๊าซอะซิไธลีน และ ถังก๊าซออกซิเจน) ไว้ด้วยกัน) 			✓	
<ul style="list-style-type: none"> Incompatible chemicals/wastes must be stored separately (e.g. corrosive and flammable, corrosive and oxidizing agents, etc.) to prevent fire, toxic gas, or other reactions when they accidentally met such as in case of spill. (ของเสียและสารเคมีที่เข้ากันไม่ได้ต้องเก็บไว้แยกจากกัน เช่น สารกัดกร่อนกับสารไวไฟ หรือ สารกัดกร่อนกับสารออกซิไดซ์ ซึ่งถ้ามีการหกหรือรั่วไหลอาจมีโอกาสนำมาสัมผัสกันหรือผสมกัน แล้วทำให้เกิดสารพิษ หรือ ไฟไหม้ได้) 	✓			
<ul style="list-style-type: none"> Onsite spill response kits are available especially at chemical storage areas and inspected on the availability of all response kits. (มีอุปกรณ์ใช้สำหรับจัดการในกรณีสารเคมีหรือของเสียหกหรือรั่วไหล และมีการตรวจสอบความพร้อมของอุปกรณ์ตามรายการอย่างสม่ำเสมอ) 	✓			
<ul style="list-style-type: none"> Secondary containment is provided if seeing that spilled chemicals can find its way getting to outside environment (sea, soil, waterbody, etc.). (มีภาชนะรองรั่วที่กักเก็บสารเคมีแล้วสารเคมีดังกล่าวมีโอกาสที่จะเกิดการรั่วไหลออกไปยังสภาพแวดล้อมได้ เช่น ลงสู่ทะเล ดิน หรือ แหล่งน้ำ) 	✓			
<ul style="list-style-type: none"> If spill in secondary containment is observed, it shall be cleaned up promptly. (หากพบการหกหรือรั่วภายในภาชนะรองรั่ว ให้ทำความสะอาดทันที) 	✓			
<ul style="list-style-type: none"> Rainfall is always drained out from the secondary containment to maintain the containment capacity. (หากพบว่าน้ำฝนยังอยู่ในภาชนะรองรั่ว ต้องทำการระบายน้ำฝนออก เพื่อป้องกันการหกของสารเคมี หากเกิดการหกหรือรั่วไหลจากภาชนะบรรจุ) 	✓			
<ul style="list-style-type: none"> Emergency eye wash/shower stations are available and functioning e.g. water pressure, water cleanliness, etc. (ที่ล้างตาฉุกเฉินและฝักบัวฉุกเฉินสามารถใช้งานได้ เช่น แรงดันน้ำ ความสะอาดของน้ำ เป็นต้น) 	✓			
<ul style="list-style-type: none"> Wastes are segregated properly such as recycle bins (for glass, paper, aluminium can, plastic bottles, etc); hazardous waste containers (for used oil, Hg contaminated sludge, paint cans, used filter, fluorescent lamp, used PPE, contaminated material, infectious waste, etc.) (ของเสียจะต้องถูกคัดแยกไว้ในภาชนะที่เหมาะสมตามประเภทของเสีย เช่น ขยะรีไซเคิล (สำหรับแก้ว กระดาษ กระป๋องอลูมิเนียม ขวดพลาสติก เป็นต้น), ขยะอันตราย (สำหรับน้ำมันใช้แล้ว ภาชนะกลืนปนเปื้อนปรอท กระป๋องสี ตัวกรองที่ใช้งานแล้ว หลอดไฟฟลูออเรสเซนต์ PPE ที่ใช้งานแล้ว วัสดุปนเปื้อน ขยะติดเชื้อ เป็นต้น) 	✓			
<ul style="list-style-type: none"> All chemicals/wastes shall be stored in an orderly manner according to good housekeeping practices, without undesirable odor, leachate, or pests. (พื้นที่จัดเก็บสารเคมีหรือของเสียต้องสะอาด ปราศจากกลิ่น และแมลงรบกวน) 	✓			

Reference : *GHS is Globally Harmonized System of Classification and Labelling of Chemicals

Well head platform Monthly Inspection									
Inspector Name			Date	07 Sep 25	Location	MGWH			
Position	MOT		Frequency	Monthly	Storage	MOT SHOP			
Receiver	MOT Lead	Reviewer	MOT Lead	Retention	6 Month	Criticality	N/A	Rev.	2022

Note: Any items found out of tolerance or noncompliant require either a site correction with an explanation in the comments section, notification to the Reviewer (above) or a Work Order generated in the E1 CMMS.

Item	Normal	Problem	Item	Normal	Problem
1. Top deck General Device			6. PLC Room		
a. Solar Panel 24 VDC P/F and Nav aid condition.	✓		a. First aid bag and check expire date of drug / Fire blanket / Emergency food.	✓	
b. Diesel Tank level (.....%, Number.....)	N/A		b. Eye wash station	✓	
c. P/F water tank level (.....%, Number.....)	N/A		c. Telephone / 4G Module	✓	
2. Crane			d. BCP Tag & Board available	✓	
a. Boom rest	✓		e. SCADA system		✓
b. Hoist / Hooks / Safety sling	✓		f. Logbook available	✓	
c. Hydraulic line / hoses	✓		7. Black Start Panel		
d. Control operational	✓		a. Check for any leaks	✓	
3. Crane Power			b. Pressure gauges	✓	
a. Cabin window	✓		8. Instrument Gas / Utility Gas		
b. Load chart available	✓		a. Check for any leaks	✓	
c. Hand signal chart available	✓		b. Pressure gauges	✓	
d. Check for oil leak	✓		c. PSV and BDV isolation valves car seal lock open	✓	
e. Check diesel... 60 % / Hyd. Oil level... 75 %	✓		d. Level switches and level gauges	✓	
f. Check engine lube oil	✓		e. PCV / LCV / auto dump valve in service		✓
g. Check radiator water	✓		9. Launcher/Receiver		
g. Access ladder condition	✓		a. Check for any leaks	✓	
4. AC Power Generator			a. Pig barrel/Receiver barrel condition	✓	
a. Check engine lube oil / radiator water / diesel gen level... 80 %	✓		b. Pressure gauges good condition	✓	
b. Hydraulic power line in good conditions	✓		10. Thermoelectric Generators Solar Panel 100%		
c. Enclosure / door conditions	✓		a. Check for any leaks		
d. Control panel / All Gauges in good conditions	✓		b. Check TEG running/ Voltage & Current reading		
e. Wiring / plug secured / receptacle / properly grounded in good condition.	✓		11. Chemical Skid		
f. Start Generator check any leak and on breaker check boom crane lighting and P/F lighting		✓	a. Check for any leaks	✓	
5. Cellar deck Utility Water Pump & Tank			b. Chemical Pumps operation	✓	
a. Check for any leaks	✓		c. Level gauge / Pressure gauge	✓	
b. Utility Water Tank condition	✓		d. Chemical Tank condition and MSDS posted / Chemical Tank level... 91 %	✓	
c. Level gauge / Pressure gauge	✓				
d. Check pump operation	✓				

Item	Normal	Problem	Item	Normal	Problem
12. Wellhead Area			b. Stair treads/bolts in good conditions	✓	
Check for any leaks	✓		c. Swing ropes checked	✓	
Christmas tree / Hydraulic control line / Safety valves , conductor stopper	✓		d. Jacket legs Studs/Bolts	✓	
Instrument stainless tubing condition, install rubber between tubing and clamp	✓		e. Riser studs/bolts & clamp	✓	
d. Flow line and Support	✓		18. General & Safety Devices		
13. ABV Manifold & Auto Choke			a. All deck clear & unobstructed	✓	
a. Check for any leaks	✓		b. All Surface clean & non slip	✓	
b. ABV valves (ABV-P/T/B) condition	✓		c. All stairway / Handrail / Grating / access ladders /door in good conditions	✓	
c. Auto chokes and solenoid valves condition	✓		d. All Well slot's hatch secured and deck floor with out open hole	✓	
14. Wellhead Control Panel			e. All Open drain	✓	
a. Check for any leaks	✓		f. Spectacle blinds clean grease	✓	
b. Hydraulic oil (HD-32) level: 70% return tank: 4%	✓		g. Lifting equipment (if available) color coded / good condition	✓	
c. Identify well number on panel	✓		h. Hand tool box in locked.	✓	
d. Hydraulic oil main / back up pumps operations	✓		i. Check Spring return valve Hydro. drain pot	✓	
15. Test Separator			j. Hydraulic hand pump	✓	
a. Nematron / Panel view	✓	✓	k. All instrument stainless tubing condition in tubing tray around platform	✓	
b. Check for any leaks	✓		l. Navigation aid in good	✓	
c. Level transmitter and level gauges (LIT-1010, LIT-1011A, LIT-1012, LG-1010, LIG-1011A, LG-1012)	✓		m. Escape rope in good condition and safety escape marking/clear	✓	
d. Pressure transmitter and Pressure gauges (PT-1010, PT-1011, PI-1010)	✓		n. Emergency shower	✓	
e. Temp transmitter and Temp gauge (TI-1010A, TIT-1012A), Flow transmitter (FIT-1012A)	✓		o. all Eye wash station around well head area	✓	
f. Flush Flow Transmitter FQI-1012 on Test Separator	✓		p. All ESD station condition	✓	
g. PSV isolation valves car seal open	✓		q. All fusible plugs loop	✓	
16. Below Cellar Deck Closed Drain & Open drain			r. All Fire extinguishers inspected and no any obstruction	✓	
a. Check for any leaks	✓		s. All ring buoy / light buoy / life line /bracket in good condition.		✓
b. Sump Tank condition	✓		t. Life jacket...12 ea., life float...4 ea.	✓	
c. Open Drain Tank condition	✓		u. Safety sign condition	✓	
d. Level switch and level gauge	✓		v. Toilet condition	✓	
e. Pressure switch and pressure gauge	✓		w. All general housekeeping	✓	
f. PSV isolation valves car seal open	✓		Oil / chemical / cargoes on board		
g. Sump pump guards	✓		Rig wash..... drum Don't keep on grating		
h. Check Sump pump operation & clear level in sump tank	✓		Blue drum..... drum Don't keep on grating		
i. check open drain pump operation	✓		HD-32..... drum Don't keep on grating		
17. Boat Landing			Empty drum.....drum Don't keep on grating		
a. Grating / Handrails secured/in good conditions	✓		Use oil.....drum Don't keep on grating		

Item	Problem list	Item	Problem list
4F.	battery back up 12VDC low can't start up.		(WO# 1264889)
6E.	Willing replace panel when		(WO# 1269453)
18S.	light box Jimmy 2 en. - Near tool container PC - Front out going to "		} Whiteboard
8E.	PCV 4410 of IG PCV 4510 of US		} Isolated unit replace.
			(WO# 1264699 1264700)
1	1 life float 1 en. on board in top deck		(Whiteboard)
Reviewed By:		Date:	13 SEP 2025

Monthly platform inspection well conductor

Platform: MGWH

Inspection date: 07 Sep. 25

Inspector:

[illegible]

Casing Bleed Down Report (High casing pressure => Sustained casing pressure)

PLATFORM _____
NAME _____

Version 1.0 (31-July-18)

Well	THP (psig)	7" (psig)	9-5/8" (psig)	13 3/8" (psig)	Tubing pressure (psig)		7" Pressure (psig)		Bleed duration (mins)	9-5/8" Pressure (psig)		Bleed duration (mins)	13 3/8" Pressure (psig)		Bleed duration (mins)	Final Build up Pressure (psig)				Buildup Duration (mins)	Remark
					Before	After	From	To		From	To		From	To		Tubing	7"	9-5/8"	13-3/8"		
No Bleed HCP																					

1. ทำ bleed down เฉพาะหลุมที่เป็น High Casing Pressure (HCP)
2. เริ่มบันทึก Pressure Before ของทั้ง Casing และ Tubing ในช่อง 1, 2
3. Bleed down ให้ Casing ต่ำกว่าค่า HCP Threshold โดยพยายามอย่าให้ต่ำกว่า 50 psig แล้วบันทึกเวลาในช่อง 3
4. บันทึก Pressure หลังBleed down ของทั้ง Casing และ Tubing ในช่อง 4, 5
5. บันทึก fluid recovered ในช่อง Remark แล้วเริ่มทำ build up
6. บันทึกเวลาที่ใช้ในการทำ Build up ในช่อง 7 แล้วบันทึก pressure ของ Casing และ Tubing ในช่อง 8
7. ถ้ามีความเห็นเพิ่มเติมให้บันทึกในช่อง Remark
8. โปรดบันทึก Bleed down report ในระบบ EC ภายใน 48 ชั่วโมง

หมายเหตุ

HCP คือหลุมขี้น Pressure > Threshold ดังน

- 7" Casing ใน หลุม Non-Gas Lift: 200 psi
- 7" Casing ใน หลุม Gas Lift: 1300 psi
- Casing อื่นๆ: 100 psi

การทำ build up ควรเพื่อให้มีเวลาอย่างน้อย 1 ชั่วโมง

CHEMICAL AND WASTE INSPECTION CHECKLIST

Survey Date: 07 Sep 25 Ver. 2023/01



By:

Location/Area: mwrh.

Inspection Items	Yes	No	N/A	Comments
1. Chemical Inventory (รายการสารเคมี) <ul style="list-style-type: none"> Chemical inventory with chemical names and their storage locations available on site. (จัดให้มีรายการสารเคมีที่ใช้งานปัจจุบันอยู่ประจำฐาน มีการขึ้นชื่อของสารเคมีและสถานที่จัดเก็บ) 	✓			
2. SDS (ข้อมูลความปลอดภัยของเคมีภัณฑ์) <ul style="list-style-type: none"> SDS of all chemicals available at working or storage location which shall be easily accessible in emergency case. (จัดให้มีเอกสารข้อมูลความปลอดภัยเคมีภัณฑ์ที่เกี่ยวข้องทุกตัวประจำสถานที่ปฏิบัติงาน และสถานที่จัดเก็บ ที่สามารถค้นหาข้อมูลได้รวดเร็วเมื่อมีเหตุฉุกเฉิน) 	✓			
3. Containers (ภาชนะบรรจุสารเคมี/ของเสีย) <ul style="list-style-type: none"> Containers in good condition, e.g. metal drum not rusty or distorted, plastic drum not torn or distorted or swollen, color not faded or changed, and container not bulge that could cause a spill or leakage. (ภาชนะบรรจุอยู่ในสภาพดี เช่น ถ้าเป็นถังเหล็กต้องไม่มีสนิมหรือรอยบุบหรือยวบหรือบวม ถังพลาสติกต้องไม่ยุบ สีของถังต้องไม่จางหรือเปลี่ยน หรือควมเรียบไม่บุบจนอาจเป็นเหตุให้เกิดการหกหรือไหลได้) Keeping containers of chemical/wastes that can vaporize closed unless being used (e.g. used oil, paint, mercury wastes, etc.). (ภาชนะบรรจุสารเคมีหรือของเสียที่ระเหยได้ เช่น น้ำมันโซลันท์ สี ของเหลวปนเปื้อนปรอท เป็นต้น จะต้องปิดมิดชิดอยู่เสมอหากไม่ได้ใช้ระหว่างการใช้งาน) Transferred containers are appropriate according to chemical types, e.g. use closed top metal drum for oil/thinner; use plastic bottle and metal box as inner and outer packages for elemental mercury, respectively. (ภาชนะบรรจุสารเคมีเหมาะสมกับประเภทของสารเคมีที่บรรจุ เช่น ใช้ถังเหล็กสำหรับน้ำมันหรือทินเนอร์ที่ปิดฝาปิดมิดชิด ใช้ขวดพลาสติกและกล่องเหล็กเป็นบรรจุภัณฑ์ด้านในและด้านนอกสำหรับสารปรอท ตามลำดับ) Waste containers are suitable with waste types, e.g. use metal drums (200L) for used oil/thinner or oily rags; use metal box for used fluorescent lamp; use plastic UN drum closed top for mercury contaminated material. (ภาชนะบรรจุของเสียเหมาะสมกับประเภทของของเสียที่บรรจุ เช่น ใช้ถังเหล็กสำหรับน้ำมัน, ทินเนอร์โซลันท์ที่ปิดฝาปิดมิดชิดหรือฝาน้ำมัน ใช้กล่องเหล็กสำหรับหลอดไฟฟลูออเรสเซนต์ที่ใช้แล้ว ใช้ถังพลาสติกมาตรฐาน UN กับวัสดุปนเปื้อนสารปรอท) 	✓			
4. Labeling (การติดฉลากสารเคมี/ของเสีย) <ul style="list-style-type: none"> Wastes have the Chevron standard waste labels with filled information, while Chemicals have GHS* format labels adhered on their containers. Labels are in good condition, not faded or torn, and easy to read. These also apply to all transferred containers used to take chemical from original container or drum. Required information on the waste labels are completely and correctly filled. (ภาชนะบรรจุของเสียมีฉลากตามมาตรฐานของเชฟรอน และสารเคมีมีฉลากตามมาตรฐานของ GHS ติดอยู่บนภาชนะบรรจุ รวมถึงภาชนะที่ไปแบ่งถ่ายสารเคมีหรือของเสียด้วย โดยฉลากต้องอยู่ในสภาพที่สี ไม่จาง ไม่ฉีกขาด และสามารถอ่านได้ชัดเจน มีการกรอกรายละเอียดในส่วนข้อมูลของเสียอย่างครบถ้วนและถูกต้อง) 	✓			
5. Chemical and Waste Storage and Handling (การจัดเก็บสารเคมีและของเสีย) <ul style="list-style-type: none"> Chemicals are stored in dry, cool (not in extreme temperature), and well ventilated areas. (สถานที่เก็บสารเคมีจะต้องแห้ง, ไม่ร้อนจัด และมีการระบายอากาศที่ดี) Avoid layer-stacked storage of chemicals and liquid wastes. If necessary, metal drums shall be wrapped but shall not be stored over 2 layers stacked. Blue drums are not allowed for layer-stacked storage. (หลีกเลี่ยงการจัดเก็บสารเคมีและของเหลวซ้อนกัน หากจำเป็น ถังโลหะต้องพันพลาสติกและไม่ให้มีการซ้อนเกิน 2 ชั้น และไม่ให้มีการซ้อนกันสำหรับถังพลาสติก) Not keeping the expired or not use or unknown chemicals at offshore. Not use or unknown chemicals shall be backloaded to shore and managed properly. (ไม่เก็บสารเคมีที่หมดอายุหรือไม่มีการใช้แล้วหรือไม่ทราบชนิดไว้ที่ฐานปฏิบัติการนอกชายฝั่ง ส่งสารเคมีที่ไม่ใช้แล้วกลับมาจัดการบนฝั่งอย่างเหมาะสม) 	✓			

CHEMICAL AND WASTE INSPECTION CHECKLIST

Survey Date:

Ver. 2023/01



By:

Location/Area:

Inspection Items	Yes	No	N/A	Comments
<ul style="list-style-type: none"> For offshore operations: chemicals and wastes must be stored on plate floor and keep away from open drain, storage on grating floor shall be avoided unless with provision of secondary containment. (สำหรับการจัดเก็บสารเคมีที่ Offshore: สารเคมีและของเสียต้องถูกจัดเก็บไว้บนพื้นพื้นที่ห่างจากขอบระนาบพื้นเปิด และหลีกเลี่ยงการจัดวางสารเคมีและของเสียบนพื้นและเกรงของ Platform ยกเว้นกรณีมีภาชนะรองรับ) 	✓			
<ul style="list-style-type: none"> Flammable chemicals are stored in flame protection cabinets and labeled properly. These also apply to all transferred containers used to take flammable chemicals from original containers or drums. (สารเคมีไวไฟต้องเก็บไว้ในตู้เก็บเฉพาะและต้องมียกฉลากติดไว้อย่างถูกต้องเหมาะสม รวมทั้งภาชนะแบ่งถ่ายสารเคมีไวไฟด้วย) 	✓			
<ul style="list-style-type: none"> Compressed gases cylinders are stored upright and properly chained at all times, including empty cylinders. (ถังบรรจุก๊าซความดันจะต้องตั้งตรงและมีการมัดสายโซ่อย่างแน่นหนาตลอดเวลา รวมถึงถังเปล่าที่โซ่แล้วด้วย) 			✓	
<ul style="list-style-type: none"> Compressed gas cylinders capped properly, secured, and not stored incompatible materials (e.g. oxygen and acetylene) together when not in use. (ถังบรรจุก๊าซที่ไม่ได้ใช้จะต้องมีฝามิดไฟหรือมิดและมัดเก็บอย่างแน่นหนาเพื่อป้องกันการเกิดไฟไหม้ได้ (เช่น ถังก๊าซอะเซทิลีน และ ถังก๊าซออกซิเจน) ไว้ด้วยกัน) 			✓	
<ul style="list-style-type: none"> Incompatible chemicals/wastes must be stored separately (e.g. corrosive and flammable, corrosive and oxidizing agents, etc.) to prevent fire, toxic gas, or other reactions when they accidentally met such as in case of spill. (ของเสียและสารเคมีที่เข้ากันไม่ได้ต้องเก็บไว้แยกจากกัน เช่น สารกัดกร่อนกับสารไวไฟ หรือ สารกัดกร่อนกับสารออกซิไดซ์ ซึ่งถ้ามีการหกหรือรั่วไหลอาจมีโอกาสทำให้เกิดปฏิกิริยาหรือผสมกัน แล้วทำให้เกิดสารพิษ หรือ ไฟไหม้ได้) 	✓			
<ul style="list-style-type: none"> Onsite spill response kits are available especially at chemical storage areas and inspected on the availability of all response kits. (มีอุปกรณ์ที่ใช้สำหรับจัดการในกรณีสารเคมีหรือของเสียหกหรือรั่วไหล และมีการตรวจสอบความพร้อมของอุปกรณ์ตามรายการอย่างสม่ำเสมอ) 	✓			
<ul style="list-style-type: none"> Secondary containment is provided if seeing that spilled chemicals can find its way getting to outside environment (sea, soil, waterbody, etc.). (มีภาชนะรองรับที่กักเก็บสารเคมีถ้าดูแล้วสารเคมีดังกล่าวมีโอกาสที่จะเกิดการรั่วไหลออกไปยังสภาพแวดล้อมได้ เช่น ลงสู่ทะเล ดิน หรือ แหล่งน้ำ) 	✓			
<ul style="list-style-type: none"> If spill in secondary containment is observed, it shall be cleaned up promptly. (หากพบการหกหรือรั่วไหลภายในภาชนะรองรับ ให้ทำความสะอาดทันที) 	✓			
<ul style="list-style-type: none"> Rainfall is always drained out from the secondary containment to maintain the containment capacity. (หากพบว่าฝนยังอยู่ในภาชนะรองรับ ต้องทำการระบายน้ำฝนออก เพื่อป้องกันการกลับของสารเคมี หากเกิดการหกหรือรั่วไหลจากภาชนะบรรจุ) 	✓			
<ul style="list-style-type: none"> Emergency eye wash/shower stations are available and functioning e.g. water pressure, water cleanliness, etc. (ที่ล้างตาฉุกเฉินและฝักบัวฉุกเฉินสามารถใช้งานได้ เช่น แรงดันน้ำ ความสะอาดของน้ำ เป็นต้น) 	✓			
<ul style="list-style-type: none"> Wastes are segregated properly such as recycle bins (for glass, paper, aluminium can, plastic bottles, etc); hazardous waste containers (for used oil, Hg contaminated sludge, paint cans, used filter, fluorescent lamp, used PPE, contaminated material, infectious waste, etc.) (ของเสียจะต้องถูกคัดแยกไว้ในภาชนะที่เหมาะสมตามประเภทของเสีย เช่น ถังขยะรีไซเคิล (สำหรับแก้ว กระดาษ กระป๋องอลูมิเนียม ขวดพลาสติก เป็นต้น), ถังขยะอันตราย (สำหรับน้ำมันใช้แล้ว ภาชนะกอลูมิเนียมใช้แล้ว ภาชนะหลอดไฟฟลูออเรสเซนต์ ใช้แล้วแล้ว วัสดุปนเปื้อน ขยะติดเชื้อ เป็นต้น) 	✓			
<ul style="list-style-type: none"> All chemicals/wastes shall be stored in an orderly manner according to good housekeeping practices, without undesirable odor, leachate, or pests. (พื้นที่จัดเก็บสารเคมีหรือของเสียต้องสะอาด ปราศจากกลิ่น และแมลงรบกวน) 	✓			

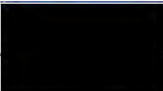
Reference : *GHS is Globally Harmonized System of Classification and Labelling of Chemicals

Well head platform Monthly Inspection									
Inspector Name			Date	08 Sep 23	Location	MGWB			
Position	MOT		Frequency	Monthly	Storage	MOT SHOP			
Receiver	MOT Lead	Reviewer	MOT Lead	Retention	6 Month	Criticality	N/A	Rev.	2022

Note: Any items found out of tolerance or noncompliant require either a site correction with an explanation in the comments section, notification to the Reviewer (above) or a Work Order generated in the E1 CMMS.

Item	Normal	Problem	Item	Normal	Problem
1. Top deck General Device			6. PLC Room		
a. Solar Panel 24 VDC P/F and Nav aid condition.	✓		a. First aid bag and check expire date of drug / Fire blanket / Emergency food.	✓	
b. Diesel Tank level (.....%, Number.....)	N/A		b. Eye wash station	✓	
c. P/F water tank level (.....%, Number.....)	N/A		c. Telephone / 4G Module	✓	
2. Crane			d. BCP Tag & Board available	✓	
a. Boom rest	✓		e. SCADA system	✓	
b. Hoist / Hooks / Safety sling	✓		f. Logbook available	✓	
c. Hydraulic line / hoses	✓		7. Black Start Panel		
d. Control operational	✓		a. Check for any leaks	✓	
3. Crane Power			b. Pressure gauges	✓	
a. Cabin window	✓		8. Instrument Gas / Utility Gas		
b. Load chart available	✓		a. Check for any leaks	✓	
c. Hand signal chart available	✓		b. Pressure gauges	✓	
d. Check for oil leak	✓		c. PSV and BDV isolation valves car seal lock open	✓	
e. Check diesel 80 % / hyd. Oil level 75 %	✓		d. Level switches and level gauges	✓	
f. Check engine lube oil	✓		e. PCV / LCV / auto dump valve in service	✓	
g. Check radiator water	✓		9. Launcher/Receiver		
g. Access ladder condition	✓		a. Check for any leaks	✓	
4. AC Power Generator P/F			a. Pig barrel/Receiver barrel condition	✓	
a. Check engine lube oil / radiator water / diesel gen level 60 %	✓		b. Pressure gauges good condition	✓	
b. Hydraulic power line in good conditions	✓		10. Thermoelectric Generators		
c. Enclosure / door conditions	✓		a. Check for any leaks	✓	
d. Control panel / All Gauges in good conditions	✓		b. Check TEG running/ Voltage & Current reading	✓	
e. Wiring / plug secured / receptacle / properly grounded in good condition.	✓		11. Chemical Skid		
f. Start Generator check any leak and on breaker check boom crane lighting and P/F lighting	✓		a. Check for any leaks	✓	
5. Cellar deck Utility Water Pump & Tank			b. Chemical Pumps operation	✓	
a. Check for any leaks	✓		c. Level gauge / Pressure gauge	✓	
b. Utility Water Tank condition	✓		d. Chemical Tank condition and MSDS posted / Chemical Tank level 2 %	✓	
c. Level gauge / Pressure gauge	✓				
d. Check pump operation	✓				

Item	Normal	Problem	Item	Normal	Problem
12. Wellhead Area			b. Stair treads/bolts in good conditions	✓	
Check for any leaks	✓		c. Swing ropes checked	✓	
Christmas tree / Hydraulic control line / Safety valves, conductor stopper	✓		d. Jacket legs Studs/Bolts	✓	
Instrument stainless tubing condition, install rubber between tubing and clamp	✓		e. Riser studs/bolts & clamp	✓	
d. Flow line and Support	✓		18. General & Safety Devices		
13. ABV Manifold & Auto Choke			a. All deck clear & unobstructed	✓	
a. Check for any leaks	✓		b. All Surface clean & non slip	✓	
b. ABV valves (ABV-P/T/B) condition	✓		c. All stairway / Handrail / Grating / access ladders / door in good conditions	✓	
c. Auto chokes and solenoid valves condition	✓		d. All Well slot's hatch secured and deck floor with out open hole	✓	
14. Wellhead Control Panel			e. All Open drain	✓	
a. Check for any leaks	✓		f. Spectacle blinds clean grease	✓	
b. Hydraulic oil (HD-32) level... 77% return tank 24%	✓		g. Lifting equipment (if available) color coded / good condition	✓	
c. Identify well number on panel	✓		h. Hand tool box in locked.	✓	
d. Hydraulic oil main / back up pumps operations	✓		i. Check Spring return valve Hydro. drain pot	✓	
15. Test Separator			j. Hydraulic hand pump	✓	
a. Nematron (Panel view)		✓	k. All instrument stainless tubing condition in tubing tray around platform	✓	
b. Check for any leaks	✓		l. Navigation aid in good	✓	
c. Level transmitter and level gauges (LIT-1010, LIT-1011A, LIT-1012, LG-1010, LIG-1011A, LG-1012)	✓		m. Escape rope in good condition and safety escape marking/clear	✓	
d. Pressure transmitter and Pressure gauges (PT-1010, PT-1011, PI-1010)	✓		n. Emergency shower	✓	
e. Temp transmitter and Temp gauge (TI-1010A, TIT-1012A), Flow transmitter (FIT-1012A)	✓		o. all Eye wash station around well head area	✓	
f. Flush Flow Transmitter FQI-1012 on Test Separator	✓		p. All ESD station condition	✓	
g. PSV isolation valves car seal open	✓		q. All fusible plugs loop	✓	
16. Below Cellar Deck Closed Drain & Open drain			r. All Fire extinguishers inspected and no any obstruction	✓	
a. Check for any leaks	✓		s. All ring buoy / light buoy / life line / bracket in good condition.		✓
b. Sump Tank condition	✓		t. Life jacket... 17 ea., life float... 2 ea.	✓	
c. Open Drain Tank condition	✓		u. Safety sign condition	✓	
d. Level switch and level gauge	✓		v. Toilet condition	✓	
e. Pressure switch and pressure gauge	✓		w. All general housekeeping	✓	
f. PSV isolation valves car seal open	✓		Oil / chemical / cargoes on board		
g. Sump pump guards	✓		Rig wash..... drum Don't keep on grating		
h. Check Sump pump operation & clear level in sump tank	✓		Blue drum..... drum Don't keep on grating		
i. check open drain pump operation	✓		HD-32..... drum Don't keep on grating		
17. Boat Landing			Empty drum..... drum Don't keep on grating		
a. Grating / Handrails secured/in good conditions	✓		Use oil..... drum Don't keep on grating		

Item	Problem list	Item	Problem list
15a	Went replace Panel item (wo # 1235828)		
18S	light bury 2 en need replace (new BC skid)		whiteboard
*	PT Tubing pressure errors of well 22		Abandon Well, No need action
Reviewed By: 		Date:	13 SEP 2025

Monthly platform inspection well conductor

Platform: **MGWB**

Inspection date: 08 Sep. 25

Inspector: [REDACTED]

Well No.	Casing pressure 7"	Casing pressure 9-5/8"	Conductor Rating	Worst Location	Remark
MGWB-01	0	0	1	-	
MGWB-02	0	50	1	-	
MGWB-03	0	0	1	-	
MGWB-04	0	0	1	-	
MGWB-05	150	0	1	-	Need flexible hose
MGWB-06	0	0	1	-	
MGWB-07	0	0	1	-	
MGWB-08	0	0	1	-	
MGWB-09	0	0	1	-	
MGWB-10	120	0	1	-	Need flexible hose
MGWB-11	400	0	1	-	Need flexible hose
MGWB-12	50	70	1	-	
MGWB-13	0	0	1	-	
MGWB-14	0	0	1	-	
MGWB-15	60	0	1	-	
MGWB-16	80	0	1	-	
MGWB-18	0	0	1	-	
MGWB-19	0	0	1	-	
MGWB-20	0	0	1	-	
MGWB-21	0	0	1	-	
MGWB-22	0	0	1	-	
MGWB-23	120	0	1	-	Need flexible hose
MGWB-24	0	0	1	-	
MGWB-25	0	200	1	-	Need flexible hose

Casing Bleed Down Report (High casing pressure => Sustained casing pressure)

PLATFORM _____
NAME _____

Version 1.0 (31-July-18)

[illegible]

1. ทำ bleed down เฉพาะหลุมที่เป็น High Casing Pressure (HCP)
2. เริ่มบันทึก Pressure Before ของทั้ง Casing และ Tubing ในช่อง 1, 2
3. Bleed down ให้ Casing ต่ำกว่าค่า HCP Threshold โดยพยายามอย่าให้ต่ำกว่า 50 psig แล้วบันทึกเวลาในช่อง 3
4. บันทึก Pressure หลังBleed down ของทั้ง Casing และ Tubing ในช่อง 4, 5
5. บันทึก fluid recovered ในช่อง Remark แล้วเริ่มทำ build up
6. บันทึกเวลาที่ใช้ในการทำ Build up ในช่อง 7 แล้วบันทึก pressure ของ Casing และ Tubing ในช่อง 8
7. ถ้ามีความเห็นเพิ่มเติมให้บันทึกในช่อง Remark
8. ปรินต์บันทึก Bleed down report ในระบบ EC ภายใน 48 ชั่วโมง

พจนานุกรม

HCP คือหลุมที่มี Pressure > Threshold ดังนี้

- 7" Casing ใน หลุม Non-Gas Lift: 200 psi
- 7" Casing ใน หลุม Gas Lift: 1300 psi
- Casing อื่นๆ: 100 psi

การทำ build up ควรเพื่อให้มีเวลาอย่างน้อย 1 ชั่วโมง

CHEMICAL AND WASTE INSPECTION CHECKLIST

Survey Date: 08 Sep. 25 Ver. 2023/01



By: [Redacted]

Location/Area: M&WB

Inspection Items	Yes	No	N/A	Comments
1. Chemical Inventory (รายการสารเคมี) <ul style="list-style-type: none"> Chemical inventory with chemical names and their storage locations available on site. (จัดให้มีรายการสารเคมีที่ใช้งานปัจจุบันอยู่ประจำฐาน มีการขึ้นชื่อของสารเคมีและสถานที่จัดเก็บ) 	✓			
2. SDS (ข้อมูลความปลอดภัยของเคมีภัณฑ์) <ul style="list-style-type: none"> SDS of all chemicals available at working or storage location which shall be easily accessible in emergency case. (จัดให้มีเอกสารข้อมูลความปลอดภัยของเคมีภัณฑ์ที่เกี่ยวข้องทุกตัวประจำสถานที่ปฏิบัติงาน และสถานที่จัดเก็บ ที่สามารถค้นหาข้อมูลได้รวดเร็วเมื่อมีเหตุฉุกเฉิน) 	✓			
3. Containers (ภาชนะบรรจุสารเคมี/ของเสีย) <ul style="list-style-type: none"> Containers in good condition, e.g. metal drum not rusty or distorted, plastic drum not torn or distorted or swollen, color not faded or changed, and container not bulge that could cause a spill or leakage. (ภาชนะบรรจุอยู่ในสภาพดี เช่น ถ้าเป็นถังเหล็กต้องไม่มีสนิมหรือรอยบุบหรือยุบหรือบวม ถ้าพลาสติกต้องไม่ยุบ สีของถังต้องไม่จางหรือเปลี่ยน หรือผิวเรียบไม่บุบ จานอาจเป็นเหตุให้เกิดการหกหรือไหลได้) Keeping containers of chemical/wastes that can vaporize closed unless being used (e.g. used oil, paint, mercury wastes, etc.). (ภาชนะบรรจุสารเคมีหรือของเสียที่ระเหยได้ เช่น น้ำมันใช้แล้ว สี ของเสียปนเปื้อนปรอท เป็นต้น จะต้องปิดมิดชิดอยู่เสมอหากไม่ได้ใช้ระหว่างการปฏิบัติงาน) Transferred containers are appropriate according to chemical types, e.g. use closed top metal drum for oil/thinner; use plastic bottle and metal box as inner and outer packages for elemental mercury, respectively. (ภาชนะบรรจุสารเคมีเหมาะสมกับประเภทของสารเคมีที่บรรจุ เช่น ใช้ถังเหล็กสำหรับน้ำมันหรือทินเนอร์ที่ใช้ปิดฝาปิดมิดชิด ใช้ขวดพลาสติกและกล่องเหล็กเป็นบรรจุภัณฑ์ด้านในและด้านนอกสำหรับสารปรอท ตามลำดับ) Waste containers are suitable with waste types, e.g. use metal drums (200L) for used oil/thinner or oily rags; use metal box for used fluorescent lamp; use plastic UN drum closed top for mercury contaminated material. (ภาชนะบรรจุของเสียเหมาะสมกับประเภทของเสียที่บรรจุ เช่น ใช้ถังเหล็กสำหรับน้ำมัน, ทินเนอร์ใช้แล้วที่ใช้ปิดฝาปิดมิดชิดหรือฝาปิดเป็นน้ำมัน ใช้กล่องเหล็กสำหรับหลอดไฟฟลูออเรสเซนต์ ใช้ถังพลาสติกมาตรฐาน UN กันรั่วสำหรับของเสียปรอท) 	✓			
4. Labeling (การติดฉลากสารเคมี/ของเสีย) <ul style="list-style-type: none"> Wastes have the Chevron standard waste labels with filled information, while Chemicals have GHS* format labels adhered on the their containers. Labels are in good condition, not faded or torn, and easy to read. These also apply to all transferred containers used to take chemical from original container or drum. Required information on the waste labels are completely and correctly filled. (ภาชนะบรรจุของเสียมีฉลากตามมาตรฐานของเชฟรอน และสารเคมีมีฉลากตามมาตรฐานของ GHS ติดอยู่บนภาชนะบรรจุ รวมถึงภาชนะที่ใช้แบ่งถ่ายสารเคมีหรือของเสียด้วย โดยฉลากต้องอยู่ในสภาพที่ดี ไม่จาง ไม่ฉีกขาด และสามารถอ่านได้ชัดเจน มีการกรอกรายละเอียดในส่วนข้อมูลของเสียอย่างครบถ้วนและถูกต้อง) 	✓			
5. Chemical and Waste Storage and Handling (การจัดเก็บสารเคมีและของเสีย) <ul style="list-style-type: none"> Chemicals are stored in dry, cool (not in extreme temperature), and well ventilated areas. (สถานที่เก็บสารเคมีจะต้องแห้ง, ไม่ร้อนจัด และมีการระบายอากาศที่ดี) Avoid layer-stacked storage of chemicals and liquid wastes. If necessary, metal drums shall be wrapped but shall not be stored over 2 layers stacked. Blue drums are not allowed for layer-stacked storage. (หลีกเลี่ยงการจัดเก็บสารเคมีและของเสียซ้อนกัน หากจำเป็น ต้องใช้กล่องพลาสติกและไม่ให้มีการซ้อนกัน 2 ชั้น และไม่ให้มีการซ้อนกันสำหรับถังพลาสติก) Not keeping the expired or not use or unknown chemicals at offshore. Not use or unknown chemicals shall be backloaded to shore and managed properly. (ไม่เก็บสารเคมีที่หมดอายุหรือไม่มีการใช้แล้วหรือไม่ทราบชนิดไว้ที่ฐานปฏิบัติการนอกชายฝั่ง ส่งสารเคมีที่ไม่ใช้แล้วกลับมายังท่าเรือบนฝั่งอย่างเหมาะสม) 	✓			



By:

Location/Area:

Inspection Items	Yes	No	N/A	Comments
<ul style="list-style-type: none"> For offshore operations: chemicals and wastes must be stored on plate floor and keep away from open drain, storage on grating floor shall be avoided unless with provision of secondary containment. (สำหรับการจัดเก็บสารเคมีที่ Offshore: สารเคมีและของเสียต้องถูกจัดเก็บไว้บนพื้นพื้นและห่างจากกรวยระบายน้ำแบบเปิด และหลีกเลี่ยงการจัดวางสารเคมีและของเสียบนพื้นตะแกรงของ Platform ยกเว้นกรณีในภาชนะรองรับ) 	✓			
<ul style="list-style-type: none"> Flammable chemicals are stored in flame protection cabinets and labeled properly. These also apply to all transferred containers used to take flammable chemicals from original containers or drums. (สารเคมีไวไฟต้องเก็บไว้ในตู้เก็บเฉพาะและต้องมีฉลากติดไว้ข้างถูกต้องเหมาะสมรวมทั้งภาชนะแบ่งกักสารเคมีไวไฟด้วย) 	✓			
<ul style="list-style-type: none"> Compressed gases cylinders are stored upright and properly chained at all times, including empty cylinders. (ถังบรรจุก๊าซความดันจะต้องตั้งตรงและมีการมัดสายโซ่อย่างแน่นหนาตลอดเวลา รวมถึงถังเปล่าที่ใช้แล้วด้วย) 			✓	
<ul style="list-style-type: none"> Compressed gas cylinders capped properly, secured, and not stored incompatible materials (e.g. oxygen and acetylene) together when not in use. (ถังบรรจุก๊าซที่ไม่ได้ใช้จะต้องมีฝาปิดให้เรียบร้อยและไม่จัดเก็บถังก๊าซชนิดที่เข้ากันไม่ได้ เช่น ถังก๊าซอะซิโตน และ ถังก๊าซออกซิเจน) ไว้ด้วยกัน) 			✓	
<ul style="list-style-type: none"> Incompatible chemicals/wastes must be stored separately (e.g. corrosive and flammable, corrosive and oxidizing agents, etc.) to prevent fire, toxic gas, or other reactions when they accidentally met such as in case of spill. (ของเสียและสารเคมีที่เข้ากันไม่ได้ต้องเก็บไว้แยกจากกัน เช่น สารกัดกร่อนกับสารไวไฟ หรือ สารกัดกร่อนกับสารออกซิไดซ์ ซึ่งถ้ามีการหกหรือรั่วไหลอาจมีโอกาสนำมาสัมผัสกันหรือผสมกัน แล้วทำให้เกิดสารพิษ หรือ ไฟไหม้ได้) 	✓			
<ul style="list-style-type: none"> Onsite spill response kits are available especially at chemical storage areas and inspected on the availability of all response kits. (มีอุปกรณ์ที่ใช้สำหรับจัดการในกรณีสารเคมีหรือของเสียหกหรือรั่วไหล และมีการตรวจสอบความพร้อมกันของอุปกรณ์ตามรายการอย่างสม่ำเสมอ) 	✓			
<ul style="list-style-type: none"> Secondary containment is provided if seeing that spilled chemicals can find its way getting to outside environment (sea, soil, waterbody, etc.). (มีภาชนะรองรับที่กักเก็บสารเคมีถ้าดูแล้วสารเคมีดังกล่าวมีโอกาสที่จะเกิดการรั่วไหลออกไปถึงสภาพแวดล้อมได้ เช่น ลงสู่ทะเล ดิน หรือ แหล่งน้ำ) 	✓			
<ul style="list-style-type: none"> If spill in secondary containment is observed, it shall be cleaned up promptly. (หากพบการหกหรือรั่วไหลภายในภาชนะรองรับ ให้ทำความสะอาดทันที) 	✓			
<ul style="list-style-type: none"> Rainfall is always drained out from the secondary containment to maintain the containment capacity. (หากพบว่าน้ำฝนยังอยู่ในภาชนะรองรับ ต้องทำการระบายน้ำฝนออก เพื่อป้องกันความหนักของสารเคมี หากเกิดการหกหรือรั่วไหลจากภาชนะบรรจุ) 	✓			
<ul style="list-style-type: none"> Emergency eye wash/shower stations are available and functioning e.g. water pressure, water cleanness, etc. (ให้ล้างตาฉุกเฉินและฝักบัวฉุกเฉินสามารถใช้งานได้ เช่น แรงดันน้ำ ความสะอาดของน้ำ เป็นต้น) 	✓			
<ul style="list-style-type: none"> Wastes are segregated properly such as recycle bins (for glass, paper, aluminium can, plastic bottles, etc); hazardous waste containers (for used oil, Hg contaminated sludge, paint cans, used filter, fluorescent lamp, used PPE, contaminated material, infectious waste, etc.) (ของเสียจะต้องถูกคัดแยกไว้ในภาชนะที่เหมาะสมตามประเภทของเสีย เช่น ถังขยะรีไซเคิล (สำหรับแก้ว กระดาษ กระป๋องอลูมิเนียม ขวดพลาสติก เป็นต้น), ถังขยะอันตราย (สำหรับน้ำมันใช้แล้ว กากตะกอนปนเปื้อนปรอท กระป๋องสี ตัวกรองที่ใช้แล้ว หลอดไฟฟลูออเรสเซนต์ PPE ที่ใช้งานแล้ว วัสดุปนเปื้อน ขยะติดเชื้อ เป็นต้น) 	✓			
<ul style="list-style-type: none"> All chemicals/wastes shall be stored in an orderly manner according to good housekeeping practices, without undesirable odor, leachate, or pests. (พื้นที่จัดเก็บสารเคมีหรือของเสียต้องสะอาด ปราศจากกลิ่น และแมลงรบกวน) 	✓			

Reference : *GHS is Globally Harmonized System of Classification and Labelling of Chemicals

ภาคผนวก 17

กิจกรรม *Corporate Sustainable Responsibility (CSR)*

Community and Social Activities Form

Ref. No.: NBBH/25/06

Project/Activity Name: พิธีมอบอินทผาลัมเพื่อสนับสนุนการประกอบศาสนกิจในเดือนรอมฎอน ประจำปี 2568

Date: 5 มีนาคม 2568

Location (จังหวัด – สถานที่): 22 มัสยิด ในพื้นที่อำเภอเมืองและอำเภอสिंगนคร จังหวัดสงขลา

เชฟรอน VIP และผู้ร่วมงานจากเชฟรอน :



ผู้จัดการฝ่ายฐานส่งกำลังบำรุงบนฝั่ง

หัวหน้าฝ่ายเครื่องจักรกลประจำโรงซ่อมบนฝั่ง

ผู้เชี่ยวชาญฝ่ายกิจการสัมพันธ์

ตัวแทนจากฐานปฏิบัติงานบริษัทเชฟรอนฯ ในจังหวัดสงขลา

คนสำคัญในงาน/ผู้ร่วมงานจากกลุ่มเป้าหมายอื่น ๆ (ถ้ามี):



ปลัดเทศบาลเมืองสิงหนคร

อิหม่ามและคณะกรรมการมัสยิด จำนวน 22 มัสยิด

จำนวนผู้เข้าร่วมงานทั้งหมด: 30 คน

งบประมาณที่ใช้สำหรับกิจกรรม: 99,150.48 บาท

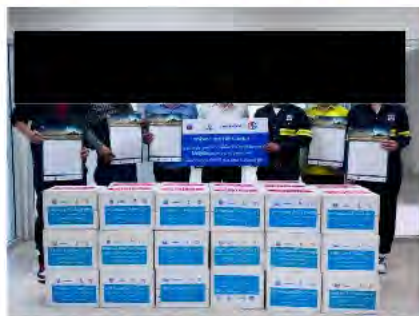
แนวทางการพัฒนา

☐ การศึกษา ☒ การพัฒนาคุณภาพชีวิต ☐ สิ่งแวดล้อม ☒ การมีส่วนร่วมของพนักงาน ☐ เสริมสร้างสุขภาพ ☐ อื่นๆ

จุดเด่นของกิจกรรม:

ด้วยความมุ่งมั่นในการเป็นเพื่อนบ้านที่ดี และการพัฒนาชีวิตของชุมชน ตลอดจนตระหนักถึงความสำคัญของวัฒนธรรมประเพณีในการประกอบศาสนกิจของพี่น้องชาวมุสลิม บริษัท เชฟรอนประเทศไทยสำรวจและผลิต จำกัด ได้จัดทำโครงการสนับสนุนอินทผาลัมและปฏิทินแสดงเวลาปฏิบัติศาสนกิจในเดือนรอมฎอน ปีฮิจเราะห์ศักราช 1446/ปี 2568 (วันที่ 2 – 31 มีนาคม 2568) เพื่อมอบให้แก่มัสยิดในพื้นที่เป้าหมายโดยรอบฐานปฏิบัติงานของบริษัทเชฟรอนในเขตพื้นที่อำเภอเมืองและอำเภอสिंगนคร จังหวัดสงขลา เพื่อเป็นการแสดงออกถึงความเคารพและส่งเสริมให้พี่น้องชาวไทยมุสลิมได้ปฏิบัติศาสนกิจในเดือนรอมฎอนอันประเสริฐ

เมื่อวันที่ 5 มีนาคม 2568 ที่ผ่านมา ผู้บริหารบริษัทเชฟรอนและตัวแทนพนักงานจากฐานปฏิบัติงานเชฟรอนในจังหวัดสงขลา ลงพื้นที่ส่งมอบอินทผาลัมและปฏิทินสำหรับแจ้งเวลาละศีลอดและเวลาละหมาดในช่วงเดือนรอมฎอนให้แก่ตัวแทนอิหม่ามมัสยิดเป้าหมาย ในพื้นที่อำเภอเมืองและอำเภอสिंगนคร จังหวัดสงขลา จำนวน 22 มัสยิด (อินทผาลัม จำนวน 66 กล่อง มัสยิดละ 3 ลัง และปฏิทินเดือนรอมฎอน จำนวน 100 แผ่นต่อมัสยิด) มูลค่าทั้งสิ้น 99,150.48 บาท สำหรับพื้นที่อำเภอเมือง จังหวัดสงขลา ผู้แทนของบริษัทเชฟรอนจะเป็นผู้ส่งมอบให้กับตัวแทนมัสยิดโดยตรง และพื้นที่อำเภอสिंगนคร บริษัทเชฟรอนได้ขอความร่วมมือจากเทศบาลเมืองสิงหนครเป็นผู้ส่งมอบอินทผาลัมและปฏิทินเดือนรอมฎอน จำนวน 42 กล่อง เพื่อส่งมอบให้แก่ 14 มัสยิดในเขตพื้นที่ความรับผิดชอบต่อไป เพื่อลดขั้นตอนการส่งมอบและระยะทางในการเดินทางเพื่อลดความเสี่ยงเรื่องอุบัติเหตุของทีมงานแผนกกิจการสัมพันธ์อีกด้วย โดยได้รับคำชื่นชมจากผู้บริหารส่วนราชการและตัวแทนอิหม่ามแต่ละมัสยิด ในการดำเนินโครงการสนับสนุนอินทผาลัมสำหรับละศีลอดในเดือนรอมฎอนของบริษัทเชฟรอนฯ ที่ให้ความสำคัญและดำเนินการอย่างต่อเนื่องเป็นเวลามากกว่า 20 ปี



[More photo](#)

Community and Social Activities Form

Ref. No.: NBBH/25/08

Project/Activity Name: พิธีมอบทุนการศึกษาแก่บุตรข้าราชการ ทหารเรือภาคที่ 2 ประจำปี 2568

Date: 10 มีนาคม 2568

Location (จังหวัด – สถานที่): กองบัญชาการ ทหารเรือภาคที่ 2

เซฟรอน VIP และผู้ร่วมงานจากเซฟรอน :



ผู้จัดการฝ่ายฐานส่งกำลังบำรุงบนฝั่ง

ผู้เชี่ยวชาญฝ่ายกิจการสัมพันธ์

เจ้าหน้าที่อาวุโสฝ่ายกิจการสัมพันธ์

คนสำคัญในงาน/ผู้ร่วมงานจากกลุ่มเป้าหมายอื่น ๆ (ถ้ามี):



ผู้บัญชาการทหารเรือภาคที่ 2

หัวหน้าส่วนราชการและข้าราชการทหารเรือภาคที่ 2

บุตรธิดาข้าราชการทหารเรือภาคที่ 2

ผู้แทนจากบริษัท ปตท.สผ.เอนเนอร์ยี ดีเวลลอปเม้นท์ จำกัด

ผู้แทนจากบริษัท แวลูรา เอ็นเนอร์ยี (ประเทศไทย)

จำนวนผู้เข้าร่วมงานทั้งหมด: 120 คน

งบประมาณที่ใช้สำหรับกิจกรรม: 30,000 บาท

แนวทางการพัฒนา

☒ การศึกษา ☒ การพัฒนาคุณภาพชีวิต ☐ สิ่งแวดล้อม ☐ การมีส่วนร่วมของพนักงาน ☐ เสริมสร้างสุขภาพ ☐ อื่นๆ

จุดเด่นของกิจกรรม:

ทหารเรือภาคที่ 2 ได้ขอรับการสนับสนุนทุนการศึกษาสำหรับบุตรข้าราชการ ประจำปี 2568 เพื่อช่วยเหลือเป็นสวัสดิการแก่ข้าราชการชั้นผู้น้อย แบ่งเป็น ระดับอนุบาล ทุนละ 2,500 บาท ระดับประถมศึกษา ทุนละ 3,000 บาท ระดับมัธยมศึกษา ทุนละ 3,500 บาท และระดับอุดมศึกษา ทุนละ 4,000 บาท โดยได้จัดพิธีมอบทุนในวันคล้ายวันสถาปนา ทหารเรือภาคที่ 2 ซึ่งสอดคล้องกับนโยบายการพัฒนาทางการศึกษาและการพัฒนาคุณภาพชีวิตของชุมชนโดยรอบฐานปฏิบัติการของบริษัทเซฟรอนฯ และเน้นย้ำการเป็นเพื่อนบ้านที่ดีต่อชุมชนในจังหวัดสงขลาอย่างต่อเนื่อง

เมื่อวันที่ 10 มีนาคม 2568 ที่ผ่านมา [Redacted] ผู้จัดการฝ่ายฐานส่งกำลังบำรุงบนฝั่ง และตัวแทนฝ่ายกิจการสัมพันธ์ เป็นตัวแทนผู้บริหารบริษัทเซฟรอนประเทศไทยสำรวจและผลิต จำกัด ส่งมอบงบประมาณสนับสนุนโครงการ มูลค่า 30,000 บาท พร้อมทั้งร่วมพิธีส่งมอบทุนการศึกษาให้แก่บุตรข้าราชการ ทหารเรือภาคที่ 2 และร่วมงานพิธีเนื่องในวันสถาปนาทหารเรือภาคที่ 2 ครบรอบ 33 ปี ให้แก่ [Redacted] ผู้บัญชาการทหารเรือภาคที่ 2 เพื่อแสดงถึงความสัมพันธ์ที่ดีระหว่างบริษัทเซฟรอนและทหารเรือภาคที่ 2 ที่เปิดโอกาสให้บริษัทได้เข้าร่วมกิจกรรมเพื่อส่งเสริมการศึกษาร่วมกับทหารเรือภาคที่ 2 อย่างต่อเนื่อง โดยมีหน่วยงานและภาคเอกชนร่วมสนับสนุนทุน เช่น บริษัท ปตท.สผ.เอนเนอร์ยี ดีเวลลอปเม้นท์ จำกัด สนับสนุนทุนมูลค่า 20,000 บาท และบริษัท แวลูรา เอ็นเนอร์ยี (ประเทศไทย) สนับสนุนทุนมูลค่า 100,000 บาท



[More photo](#)

Community and Social Activities Form

Ref. No.: NBBH/25/11

Project/Activity Name: พิธีมอบทุนการศึกษาแก่บุตรข้าราชการ ฐานทัพเรือสงขลา ทัพเรือภาคที่ 2 ประจำปี 2568

Date: 3 เมษายน 2568

Location (จังหวัด – สถานที่): ฐานทัพเรือสงขลา อำเภอเมือง จังหวัดสงขลา

เชฟรอน VIP และผู้ร่วมงานจากเชฟรอน :

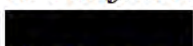


ผู้จัดการฝ่ายฐานส่งกำลังบำรุงบนฝั่ง



ผู้เชี่ยวชาญฝ่ายกิจการสัมพันธ์

คนสำคัญในงาน/ผู้ร่วมงานจากกลุ่มเป้าหมายอื่น ๆ (ถ้ามี):



ผู้บัญชาการฐานทัพเรือสงขลา ทัพเรือภาคที่ 2

หัวหน้าส่วนราชการและข้าราชการฐานทัพเรือสงขลา ทัพเรือภาคที่ 2

บุตรธิดาข้าราชการฐานทัพเรือสงขลา ทัพเรือภาคที่ 2

จำนวนผู้เข้าร่วมงานทั้งหมด: 100 คน

งบประมาณที่ใช้สำหรับกิจกรรม: 30,000 บาท

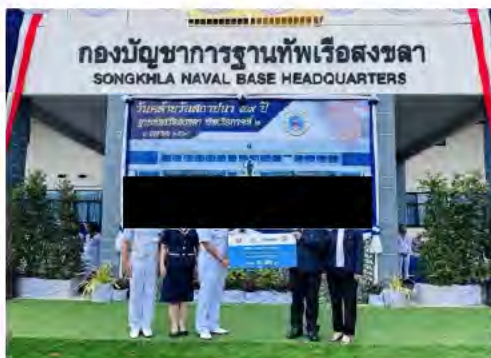
แนวทางการพัฒนา

☒ การศึกษา ☒ การพัฒนาคุณภาพชีวิต ☐ สิ่งแวดล้อม ☐ การมีส่วนร่วมของพนักงาน ☐ เสริมสร้างสุขภาพ ☐ อื่นๆ

จุดเด่นของกิจกรรม:

ฐานทัพเรือสงขลา ทัพเรือภาคที่ 2 ได้ขอรับการสนับสนุนทุนการศึกษาสำหรับบุตรข้าราชการ ประจำปี 2568 เพื่อช่วยเหลือเป็นสวัสดิการแก่ข้าราชการชั้นผู้น้อย แบ่งเป็น ระดับอนุบาล ทุนละ 2,500 บาท ระดับประถมศึกษา ทุนละ 3,000 บาท ระดับมัธยมศึกษา ทุนละ 3,500 บาท และระดับอุดมศึกษา ทุนละ 4,000 บาท โดยได้จัดพิธีมอบทุนในวันคล้ายวันสถาปนาฐานทัพเรือสงขลา ทัพเรือภาคที่ 2 ครบรอบ 59 ปี ฐานทัพเรือสงขลา ทัพเรือภาคที่ 2 ซึ่งสอดคล้องกับนโยบายการพัฒนาศักยภาพและการพัฒนาคุณภาพชีวิตของชุมชนโดยรอบฐานปฏิบัติการของบริษัทเชฟรอนฯ และเน้นย้ำการเป็นเพื่อนบ้านที่ดีต่อชุมชนในจังหวัดสงขลาอย่างต่อเนื่อง

เมื่อวันที่ 3 เมษายน 2568 ที่ผ่านมา [Redacted] ผู้จัดการฝ่ายฐานส่งกำลังบำรุงบนฝั่ง และตัวแทนฝ่ายกิจการสัมพันธ์เป็นตัวแทนผู้บริหารบริษัทเชฟรอนประเทศไทยสำรวจและผลิต จำกัด ส่งมอบงบประมาณสนับสนุนโครงการ มูลค่า 30,000 บาท พร้อมทั้งพิธีส่งมอบทุนการศึกษาให้แก่บุตรข้าราชการ ฐานทัพเรือสงขลา ทัพเรือภาคที่ 2 และร่วมงานพิธีเนื่องในวันสถาปนาฐานทัพเรือสงขลา ทัพเรือภาคที่ 2 ครบรอบ 59 ปี ให้แก่ [Redacted] ผู้บัญชาการฐานทัพเรือสงขลา ทัพเรือภาคที่ 2 เพื่อแสดงถึงความสัมพันธ์ที่ดีระหว่างบริษัทเชฟรอนและฐานทัพเรือสงขลา ทัพเรือภาคที่ 2 ที่เปิดโอกาสให้บริษัทได้เข้าร่วมกิจกรรมเพื่อส่งเสริมการศึกษาร่วมกับฐานทัพเรือสงขลา ทัพเรือภาคที่ 2 อย่างต่อเนื่อง



[More photo](#)

Community and Social Activities Form

Ref. No.: NBBH/25/13

Project/Activity Name: พิธีส่งมอบงบประมาณสนับสนุนงานกาชาดจังหวัดสงขลา ประจำปี 2568

Date: 24 เมษายน 2568

Location (จังหวัด – สถานที่): จวนผู้ว่าราชการจังหวัดสงขลา อำเภอเมือง จังหวัดสงขลา

เชฟรอน VIP และผู้ร่วมงานจากเชฟรอน :



ผู้จัดการศูนย์ซ่อมบำรุงบนฝั่ง

ผู้เชี่ยวชาญฝ่ายกิจการสัมพันธ์

คนสำคัญในงาน/ผู้ร่วมงานจากกลุ่มเป้าหมายอื่น ๆ (ถ้ามี):



ผู้ว่าราชการจังหวัดสงขลา

นายกเหล่ากาชาดจังหวัดสงขลา

พลังงานจังหวัดสงขลา

สมาชิกเหล่ากาชาดจังหวัดสงขลา

นายอำเภอ ตัวแทนส่วนราชการจาก 16 อำเภอ บริษัทเอกชน และห้างร้านต่าง ๆ ในจังหวัดสงขลา

จำนวนผู้เข้าร่วมงานทั้งหมด: 200 คน

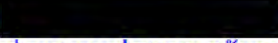
งบประมาณที่ใช้สำหรับกิจกรรม: 50,000 บาท

แนวทางการพัฒนา

☒ การศึกษา ☒ การพัฒนาคุณภาพชีวิต ☐ สิ่งแวดล้อม ☐ การมีส่วนร่วมของพนักงาน ☐ เสริมสร้างสุขภาพ ☐ อื่นๆ

จุดเด่นของกิจกรรม:

ด้วยเหล่ากาชาดจังหวัดสงขลา ได้ประสานขอรับการสนับสนุนงบประมาณจากบริษัทเชฟรอนประเทศไทยสำรวจและผลิต จำกัด ในการดำเนินการจัดงานกาชาดจังหวัดสงขลา ประจำปี 2568 ระหว่างวันที่ 16 – 30 พฤษภาคม 2568 ณ บริเวณสระบัว แหลมสมิหลา อำเภอเมืองสงขลา จังหวัดสงขลา เพื่อเป็นการส่งเสริมประเพณีท้องถิ่น ประชาสัมพันธ์ผลการปฏิบัติงานของส่วนราชการ ส่งเสริมโครงการหนึ่งตำบลหนึ่งผลิตภัณฑ์ และจัดหารายได้ไปช่วยเหลือบรรเทาทุกข์ผู้ประสบสาธารณภัยต่าง ๆ รวมทั้งการพัฒนาคุณภาพชีวิตของผู้ด้อยโอกาสและผู้ยากไร้ในจังหวัดสงขลา การจัดนิทรรศการมีชีวิตและกิจกรรมตลาดย้อนยุค การจำหน่ายสินค้า OTOP และการให้บริการประชาชนของส่วนราชการ โดยมีหน่วยงานเข้าร่วมจัดนิทรรศการมากกว่า 10 กระทรวง

เมื่อวันที่ 24 เมษายน 2568 ที่ผ่านมา  ผู้จัดการศูนย์ซ่อมบำรุงบนฝั่ง บริษัทเชฟรอน ประเทศไทยสำรวจและผลิต จำกัด เป็นตัวแทนผู้บริหารส่งมอบงบประมาณสนับสนุนงานกาชาดจังหวัดสงขลา ประจำปี 2568 มูลค่า 50,000 บาท ให้แก่นายกเหล่ากาชาดจังหวัดสงขลา โดยมีผู้ว่าราชการจังหวัดสงขลา พลังงานจังหวัดสงขลา และหัวหน้าส่วนราชการในจังหวัดสงขลาเข้าร่วมเป็นเกียรติในพิธีรับมอบ เพื่อแสดงความตั้งใจของบริษัทเชฟรอนในการร่วมพัฒนาคุณภาพชีวิตของชุมชนในจังหวัดสงขลาตามวัตถุประสงค์หลักของสำนักงานเหล่ากาชาดจังหวัดสงขลาต่อไป



[More photo](#)

Community and Social Activities Form

Ref. No.: NBBH/25/14

Project/Activity Name: พิธีเปิดกิจกรรม "วันแรงงานแห่งชาติ" จังหวัดสงขลา ประจำปี 2568

Date: 30 เมษายน 2568

Location (จังหวัด – สถานที่): สวนประวัติศาสตร์ พลเอกเปรม ติณสูลานนท์ อำเภอเมือง จังหวัดสงขลา

เชฟรอน VIP และผู้ร่วมงานจากเชฟรอน :

ผู้ช่วยผู้จัดการศูนย์ส่งกำลังบำรุงบนฝั่ง

ตัวแทนพนักงานศูนย์ส่งกำลังบำรุงบนฝั่ง

ทีมงานฝ่ายกิจการสัมพันธ์

คนสำคัญในงาน/ผู้ร่วมงานจากกลุ่มเป้าหมายอื่น ๆ (ถ้ามี):

ผู้ว่าราชการจังหวัดสงขลา

สวัสดิการและคุ้มครองแรงงานจังหวัดสงขลา

แรงงานจังหวัดสงขลา

เจ้าหน้าที่สำนักงานสวัสดิการและคุ้มครองแรงงานจังหวัดสงขลา ภาคีเครือข่ายรักษาสีแวดล้อม หัวหน้าส่วนราชการ

ผู้แทนนายจ้างและแรงงานในสถานประกอบการในจังหวัดสงขลา

จำนวนผู้เข้าร่วมงานทั้งหมด: 1,000 คน

งบประมาณที่ใช้สำหรับกิจกรรม: มูลค่า 20,000 บาท

แนวทางการพัฒนา

☐ การศึกษา ☒ การพัฒนาคุณภาพชีวิต ☒ สิ่งแวดล้อม ☒ การมีส่วนร่วมของพนักงาน ☒ เสริมสร้างสุขภาพ ☐ อื่นๆ

จุดเด่นของกิจกรรม:

สำนักงานสวัสดิการและคุ้มครองแรงงานจังหวัดสงขลา ได้ขอรับการสนับสนุนงบประมาณในการจัดกิจกรรมวันแรงงานแห่งชาติจังหวัดสงขลา ประจำปี 2568 โดยกำหนดจัดกิจกรรมขึ้นในชื่อ "วันแรงงานแห่งชาติ จังหวัดสงขลา ประจำปี 2568" ภายใต้แนวคิด "ปลูกป่า ปลูกใจ ปลูกใจสวนประวัติศาสตร์พลเอกเปรม ติณสูลานนท์" โดยมีวัตถุประสงค์เพื่อส่งเสริมและเชิดชูผู้ใช้แรงงาน ผู้เป็นกำลังสำคัญในการพัฒนาเศรษฐกิจและสังคมของประเทศ อีกทั้งยังเป็นโอกาสที่ผู้ใช้แรงงานจะได้ร่วมกิจกรรมกับนายจ้างและหน่วยงานต่าง ๆ เพื่อแสดงพลังความสามัคคีและเสริมสร้างความสัมพันธ์อันดีต่อกัน จัดกิจกรรมปลูกป่าชายเลน กิจกรรมปล่อยพันธุ์สัตว์น้ำ กิจกรรมปรับปรุงทัศนียภาพ และกิจกรรมบริจาคโลหิตให้แก่สภากาชาดไทย จึงได้ประสานงานขอความร่วมมือจากยังบริษัทเชฟรอนเพื่อสนับสนุนงบประมาณในการดำเนินโครงการให้บรรลุตามวัตถุประสงค์

เมื่อวันที่ 30 เมษายน 2568 ที่ผ่านมา ผู้ช่วยผู้จัดการศูนย์ส่งกำลังบำรุงบนฝั่ง และตัวแทนพนักงานบริษัทเชฟรอนประเทศไทยสำรวจและผลิต จำกัด เป็นผู้แทนหน่วยงานเข้าร่วมในพิธีเปิดโครงการวันแรงงานจังหวัดสงขลา ประจำปี 2568 โดยได้รับเกียรติจากท่านรองผู้ว่าราชการจังหวัดสงขลา เป็นประธานในพิธีเปิด โดยมีหัวหน้าส่วนราชการสังกัดกระทรวงแรงงานในพื้นที่จังหวัดสงขลา ผู้แทนนายจ้าง เครือข่ายแรงงาน และหน่วยงานที่เกี่ยวข้องเข้าร่วมกิจกรรมปลูกป่าชายเลน กิจกรรมปล่อยพันธุ์สัตว์น้ำ กิจกรรมปรับปรุงทัศนียภาพ และกิจกรรมบริจาคโลหิตให้แก่สภากาชาดไทย ซึ่งบริษัทเชฟรอนได้สนับสนุนงบประมาณในการจัดกิจกรรม เพื่อตอกย้ำนโยบายด้านการพัฒนาคุณภาพชีวิตของประชาชนในจังหวัดสงขลาอย่างต่อเนื่อง



[More photo](#)

Community and Social Activities Form

Ref. No.: NBBH/25/15

Project/Activity Name: พิธีเปิดการอบรมทูตความปลอดภัยทางถนน (Road Safety Ambassador) รุ่นที่ 3
ภายใต้โครงการเดินทางปลอดภัยไปโรงเรียน

Date: 7 และ 9 พฤษภาคม 2568

Location (จังหวัด – สถานที่): โรงเรียนวรนาธิเฉลิม อำเภอมือง จังหวัดสงขลา

เซฟรอน VIP และผู้ร่วมงานจากเซฟรอน :



ผู้จัดการฝ่ายฐานส่งกำลังบำรุงบนฝั่ง

ผู้เชี่ยวชาญฝ่ายกิจการสัมพันธ์

คนสำคัญในงาน/ผู้ร่วมงานจากกลุ่มเป้าหมายอื่น ๆ (ถ้ามี):



ผู้อำนวยการโรงเรียนวิเชียรชม

ตัวแทนมูลนิธิป้องกันอุบัติเหตุแห่งเอเชีย

คณะอาจารย์และนักเรียนโรงเรียนวรนาธิเฉลิม (ระดับมัธยมศึกษาตอนต้น ปีที่ 1 และ ระดับมัธยมศึกษาตอนปลาย ปีที่ 4)

จำนวนผู้เข้าร่วมงานทั้งหมด: 1,000 คน

งบประมาณที่ใช้สำหรับกิจกรรม: ภายใต้การสนับสนุนโครงการฯ ประจำปี 2564

แนวทางการพัฒนา

☒ การศึกษา ☒ การพัฒนาคุณภาพชีวิต ☐ สิ่งแวดล้อม ☐ การมีส่วนร่วมของพนักงาน ☒ เสริมสร้างสุขภาพ ☐ อื่นๆ

จุดเด่นของกิจกรรม:

บริษัท เซฟรอนประเทศไทยสำรวจและผลิต จำกัด ร่วมกับ มูลนิธิป้องกันอุบัติเหตุแห่งเอเชีย (AIP Foundation) ได้ดำเนินโครงการเดินทางปลอดภัยไปโรงเรียน "Chevron Street Wise" โดยมีโรงเรียนเป้าหมายระดับประถมศึกษาและระดับมัธยมศึกษาในพื้นที่อำเภอมืองและอำเภอลี้หอนคร จำนวน 12 โรงเรียน ได้แก่ โรงเรียนวัดเปรมศรัทธา โรงเรียนบ้านหัวเขา โรงเรียนบ้านเขาแดง โรงเรียนวัดปอทรัพย์ โรงเรียนวัดปอป่าบ โรงเรียนวัดสถิตย์ชลธาร โรงเรียนเทศบาลเมือง สิงหนคร (บ้านยางงาม) โรงเรียนวัดโลกา โรงเรียนวัดธรรมโฆษณ์ โรงเรียนวัดดาหลวงคง โรงเรียนวิเชียรชม และโรงเรียนวรนาธิเฉลิม (โรงเรียนระดับมัธยมศึกษา)

เมื่อวันที่ 7 และ 9 พฤษภาคม 2568 ที่ผ่านมา [Redacted] ผู้จัดการฝ่ายฐานส่งกำลังบำรุงบนฝั่ง บริษัทเซฟรอนประเทศไทยสำรวจและผลิต จำกัด ได้กล่าวให้โอวาทในพิธีเปิดเปิดการอบรมทูตความปลอดภัยทางถนน (Road Safety Ambassador) รุ่นที่ 3 ภายใต้โครงการเดินทางปลอดภัยไปโรงเรียน ประจำปี 2568 โดยมีวัตถุประสงค์เพื่อสร้างการเรียนรู้เรื่องความปลอดภัยบนท้องถนน ความปลอดภัยของหมวกนิรภัย การตระหนักรู้เกี่ยวกับนักเรียนเดินข้ามถนน และการศึกษาเกี่ยวกับป้ายจราจร กิจกรรมเหล่านี้ดำเนินการโดยวิทยากรผู้เชี่ยวชาญจากสำนักงานสาธารณสุขจังหวัดสงขลาและกรมควบคุมโรค ที่ 12 จังหวัดสงขลา โดยมีมุ่งหวังที่จะปลูกฝังนิสัยการเดินทางที่ปลอดภัยตลอดชีวิตให้กับนักเรียน

ภายใต้โครงการดังกล่าว ได้ส่งมอบหมวกนิรภัยให้แก่แก่นักเรียนทูตความปลอดภัยทางถนน โรงเรียนวรนาธิเฉลิม ระดับชั้นมัธยมศึกษาปีที่ 1 และชั้นมัธยมศึกษาปีที่ 4 จำนวน 600 ใบ เพื่อเน้นย้ำการใส่หมวกนิรภัยเพื่อความปลอดภัยในการใช้ยานพาหนะบนท้องถนน เพื่อลดจำนวนการบาดเจ็บและเสียชีวิตบนท้องถนนลง 50% ภายในปี 2573 ตามที่กำหนดไว้ในทศวรรษที่สองของการดำเนินการเพื่อความปลอดภัยทางถนน พ.ศ.2564-2573 และผู้อำนวยการโรงเรียนและคณะอาจารย์ได้กล่าวขอบคุณบริษัทเซฟรอนฯ ที่ให้ความสำคัญและการสนับสนุนเรื่องการสร้างความตระหนักและรณรงค์เรื่องความปลอดภัยบนท้องถนนให้แก่คณะอาจารย์ นักเรียน ผู้ปกครองและประชาชนในพื้นที่จังหวัดสงขลาอย่างต่อเนื่องด้วยดีเสมอมา



[More photo](#)

Community and Social Activities Form

Ref. No.: NBBH/25/17

Project/Activity Name: ค่ายดาราศาสตร์สำหรับชุมชนดาราศาสตร์ในโรงเรียน ปีที่ 7 ประจำปี 2568

Date: 29 – 31 พฤษภาคม 2568

Location (จังหวัด – สถานที่): หอดูดาวเฉลิมพระเกียรติ 7 รอบ พระชนมพรรษา สงขลา อำเภอเมือง จังหวัดสงขลา และโรงแรมคุ้มไทรงาม แอนด์ รีสอร์ท อำเภอเมือง จังหวัดสงขลา

เซฟรอน VIP และผู้ร่วมงานจากเซฟรอน :



ผู้จัดการศูนย์ซ่อมบำรุงบนฝั่ง

ผู้เชี่ยวชาญฝ่ายกิจการสัมพันธ์

คนสำคัญในงาน/ผู้ร่วมงานจากกลุ่มเป้าหมายอื่น ๆ (ถ้ามี):



หัวหน้าหอดูดาวเฉลิมพระเกียรติ 7 รอบพระชนมพรรษา สงขลา

ผู้อำนวยการฝ่ายเผยแพร่เทคโนโลยี MTEC

สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ (สวทช.)

คณะอาจารย์และนักเรียนชุมชนดาราศาสตร์ จำนวน 10 โรงเรียน จากจังหวัดสตูล จังหวัดปัตตานี จังหวัดชุมพร จังหวัดกระบี่ จังหวัดสงขลา และ จังหวัดยะลา

เจ้าหน้าที่สารสนเทศดาราศาสตร์และคณะทำงานหอดูดาวเฉลิมพระเกียรติ 7 รอบ พระชนมพรรษา สงขลา

จำนวนผู้เข้าร่วมงานทั้งหมด: 50 คน

งบประมาณที่ใช้สำหรับกิจกรรม: ภายใต้งบสนับสนุนงบประมาณ ประจำปี 2567

แนวทางการพัฒนา

☒ การศึกษา ☒ การพัฒนาคุณภาพชีวิต ☐ สิ่งแวดล้อม ☐ การมีส่วนร่วมของพนักงาน ☐ เสริมสร้างสุขภาพ ☐ อื่นๆ

จุดเด่นของกิจกรรม:

บริษัทเซฟรอนประเทศไทยสำรวจและผลิต จำกัด ได้ดำเนินโครงการพัฒนาและเสริมสร้างศักยภาพในการให้บริการทางด้านวิชาการ ร่วมกับสถาบันดาราศาสตร์แห่งชาติและหอดูดาวเฉลิมพระเกียรติ 7 รอบ พระชนมพรรษา สงขลา มาตั้งแต่ ปี พ.ศ. 2560 โดยเน้นการสร้างพื้นที่การเรียนรู้และพัฒนาเครื่องมือในการให้ความรู้ความเข้าใจที่น่าสนใจกับเยาวชน นักเรียน นักศึกษา และประชาชนทั่วไป ผ่านกิจกรรมติดตั้งนิทรรศการดาราศาสตร์ภายในอาคาร ในปี พ.ศ.2560 จนถึงปัจจุบัน เพื่อให้เกิดความต่อเนื่องในการดำเนินโครงการบรรลุเป้าหมายและวัตถุประสงค์ร่วมกัน

เมื่อวันที่ 28 – 31 พฤษภาคม 2568 ที่ผ่านมา หอดูดาวเฉลิมพระเกียรติ 7 รอบ พระชนมพรรษา สงขลา สถาบันวิจัยดาราศาสตร์แห่งชาติ (องค์การมหาชน) กระทรวงการอุดมศึกษา วิทยาศาสตร์ วิจัยและนวัตกรรม ได้จัดค่ายดาราศาสตร์สำหรับชุมชนดาราศาสตร์ในโรงเรียน (จำนวน 4 วัน 3 คืน) โดยมีวัตถุประสงค์เพื่อสร้างประสบการณ์และทักษะในการสื่อสารเรื่องราวเกี่ยวกับดาราศาสตร์ เพื่อนำไปประยุกต์ใช้ในการเรียนการสอนของนักเรียนที่สนใจเรื่องดาราศาสตร์ให้แก่โรงเรียนที่ได้รับการคัดเลือกจากผลงานด้านดาราศาสตร์ที่ส่งเข้ามาประกวด ผ่านการเรียนรู้ดาราศาสตร์จากวิทยากรที่มีความรู้ความเชี่ยวชาญ เช่น การรู้จักลมฟ้าอากาศและก่อนเมฆ [REDACTED] ผู้อำนวยการฝ่ายเผยแพร่เทคโนโลยี MTEC การสังเกตการณ์ท้องฟ้าจริงเบื้องต้นด้วยตาเปล่า กล้องโทรทรรศน์ และกล้องสองตา การเขียนโครงการและกิจกรรมสำหรับชุมชนดาราศาสตร์ เทคนิคการดูดาวเบื้องต้น ลักษณะทรงกลมท้องฟ้า ระบบพิกัดท้องฟ้า และการใช้แผนที่ดาว โดยได้เปิดโอกาสให้ผู้เข้าร่วมค่ายเข้าเยี่ยมชมการทำงานของเจ้าหน้าที่หอดูดาวเฉลิมพระเกียรติ 7 รอบ พระชนมพรรษา สงขลา และได้ทัศนศึกษาเรียนรู้ในพื้นที่ย่านเมืองเก่า (ถนนนครนอก, ถนนนครใน และถนนนางงาม) เพื่อสร้างความสัมพันธ์ที่ดีและสร้างประสบการณ์ระหว่างผู้เข้าร่วมค่ายเพื่อต่อยอดในการทำกิจกรรมดาราศาสตร์ต่อไป



[More photo](#)

Community and Social Activities Form

Ref. No.: NBBH/25/27

Project/Activity Name: พิธีมอบโครงการทุนการศึกษา “ทุนเยาวชนคนดี” ประจำปี 2568

Date: 20 – 22 สิงหาคม 2568

Location (จังหวัด – สถานที่): 8 โรงเรียนเป้าหมายรอบฐานปฏิบัติงานบริษัทเซฟรอน สมาคมประมงจังหวัดสงขลา และหอดูดาวเฉลิมพระเกียรติ 7 รอบ พระชนมพรรษา สงขลา

เซฟรอน VIP และผู้ร่วมงานจากเซฟรอน :



ผู้จัดการศูนย์เศรษฐกิจพัฒนา
หัวหน้างานฝ่ายฐานสงกำลังบำรุงบนฝั่ง
ผู้จัดการศูนย์ซ่อมบำรุงบนฝั่ง
ผู้เชี่ยวชาญฝ่ายกิจการสัมพันธ์

คนสำคัญในงาน/ผู้ร่วมงานจากกลุ่มเป้าหมายอื่น ๆ (ถ้ามี):

ผู้อำนวยการโรงเรียนเป้าหมาย จำนวน 8 โรงเรียน

คณะกรรมการสมาคมประมงจังหวัดสงขลา

ผู้อำนวยการและเจ้าหน้าที่หอดูดาวเฉลิมพระเกียรติ 7 รอบ พระชนมพรรษา สงขลา

คณาจารย์ ผู้ปกครอง และนักเรียนที่ได้รับมอบทุนการศึกษา

จำนวนผู้เข้าร่วมงานทั้งหมด: 200 คน

งบประมาณที่ใช้สำหรับกิจกรรม: 377,000 บาท (จำนวน 137 ทุน)

แนวทางการพัฒนา

☐ Environment สิ่งแวดล้อม ☒ Social การศึกษา-การพัฒนาคุณภาพชีวิต ☒ Governance การมีส่วนร่วมของพนักงาน ☐ อื่นๆ

จุดเด่นของกิจกรรม:

ด้วยตระหนักถึงความสำคัญของการศึกษา และการพัฒนาคุณภาพชีวิตชุมชนรอบฐานปฏิบัติงานของบริษัทเซฟรอน ประเทศไทยสำรวจและผลิต จำกัด จึงได้ร่วมกับ เทศบาลนครสงขลา เทศบาลเมืองสิงหนคร เทศบาลเมืองเขารูปช้าง เทศบาลตำบลพะวง และโรงเรียนเครือข่าย จำนวน 8 โรงเรียน ได้แก่ โรงเรียนบ้านน้ำกระเจา โรงเรียนบ้านดอนขี้เหล็ก โรงเรียนบ้านกลาง โรงเรียนวัดเปรมศรีธา โรงเรียนชัยมงคลวิทย์ โรงเรียนสงขลาวิทยาคม โรงเรียนเทศบาล 1 (บ้านเขาแก้ว) โรงเรียนเทศบาล 4 (บ้านแหลมทราย) และหน่วยงานเป้าหมาย 2 หน่วยงานได้แก่ สมาคมประมงจังหวัดสงขลา และ หอดูดาวเฉลิมพระเกียรติ 7 รอบ พระชนมพรรษา สงขลา ร่วมกันดำเนินโครงการทุนเยาวชนคนดี ประจำปี 2568 ซึ่งในปีนี้ได้จัดทำต่อเนื่องมาเป็นปีที่ 20 ด้วยวัตถุประสงค์หลักในการส่งเสริมโอกาสทางการศึกษาให้แก่เยาวชนที่มีผลการเรียนดี ความประพฤติดีทั้งตนเอง ครอบครัว และสังคม ให้ได้มีโอกาสศึกษาอย่างต่อเนื่อง และมอบทุนการศึกษาระดับอุดมศึกษาสำหรับนักศึกษาที่มีความตั้งใจและมุ่งมั่นในการศึกษาทางด้านดาราศาสตร์และร่วมเป็นอาสาสมัครช่วยกิจกรรมของหอดูดาวเฉลิมพระเกียรติ 7 รอบ พระชนมพรรษา สงขลา

เมื่อวันที่ 20 – 22 สิงหาคม 2568 ที่ผ่านมา บริษัทเซฟรอนฯ ได้ประสานงานกับอาจารย์แกนนำทุกโรงเรียนร่วมจัดพิธีมอบทุนการศึกษาขึ้น ณ บริเวณหน้าเสาธงหรือห้องประชุมของโรงเรียนทั้ง 8 โรงเรียน สมาคมประมงจังหวัดสงขลาและหอดูดาวเฉลิมพระเกียรติ 7 รอบ พระชนมพรรษา สงขลา เพื่อมุ่งหวังให้การมอบทุนดังกล่าวสร้างแรงบันดาลใจแก่นักเรียนในแต่ละโรงเรียน และสร้างขวัญและกำลังใจแก่นักเรียนที่ได้รับทุนการศึกษา ให้มุ่งมั่นตั้งใจศึกษาเล่าเรียนให้บรรลุผลสำเร็จตามวัตถุประสงค์ของโครงการ โดยในวันจัดพิธีส่งมอบมีผู้จัดการฐานปฏิบัติงานของบริษัทเซฟรอนฯ ทั้ง 6 พื้นที่ในอำเภอเมืองและอำเภอสิงหนคร จังหวัดสงขลา ให้เกียรติมอบทุนการศึกษาแก่นักเรียน เพื่อตอกย้ำความเป็นพันธมิตรที่ดีและเพื่อนบ้านที่ใกล้ชิดกับชุมชนเสมอมา และได้กล่าวชื่นชมและให้กำลังใจแก่นักเรียนที่ได้รับมอบทุน และได้ชี้แจงรายละเอียดเกี่ยวกับฐานปฏิบัติงานของบริษัทเซฟรอนฯ ที่อยู่ใกล้เคียงแต่ละโรงเรียนและหน่วยงาน ซึ่งเป็นอีกหนึ่งช่องทางในการประชาสัมพันธ์ข้อมูลเกี่ยวกับธุรกิจบริษัทเซฟรอนฯ ให้ชุมชนรับทราบโดยตรง เพื่อสร้างความเข้าใจที่ถูกต้องเกี่ยวกับธุรกิจของบริษัทให้กับชุมชนอีกทางหนึ่งด้วย



[Click photo](#)

กิจกรรมที่เซฟรอนได้จัดทำร่วมกับ หน่วยงานภาครัฐและพี่น้องชาวนครศรีธรรมราช (มิถุนายน 2568 – พฤศจิกายน 2568)



ในช่วงเดือนพฤศจิกายนที่ผ่านมา บริษัทเซฟรอนฯ ร่วมทอดกฐินสามัคคี ประจำปี 2568 ร่วมกับวัดท่าแพ และวัดศรีมงคล โดยมีวัตถุประสงค์เพื่อส่งเสริม และทำนุบำรุงศาสนา อันเป็นเครื่องยึดเหนี่ยวจิตใจ และเป็นแบบแผนในการดำรงชีวิตของพุทธศาสนิกชน



เซฟรอนฯ และบริษัทผู้ร่วมทุนสนับสนุนงบประมาณแก่โรงพยาบาล มหาราช ภายใต้โครงการกองทุนเซฟรอนเพื่อโรงพยาบาล เพื่อจัดหา อุปกรณ์ทางการแพทย์และสิ่งของจำเป็นสำหรับการรักษาพยาบาลและช่วยเหลือผู้ด้อยโอกาสให้สามารถเข้าถึงการรักษาพยาบาลได้ โดยสะดวกยิ่งขึ้น



เซฟรอนฯ และบริษัทผู้ร่วมทุน สนับสนุนการจัดงานประเพณีบุญสารทเดือนสิบและงานกาชาดจังหวัดนครศรีธรรมราช ประจำปี 2568 เพื่อสืบสานวัฒนธรรมประเพณีจังหวัดนครศรีธรรมราช ส่งเสริมการท่องเที่ยวและความรักความสามัคคีในหมู่คณะของชาวจังหวัดนครศรีธรรมราชและจังหวัดใกล้เคียง



เซฟรอนฯ และบริษัทผู้ร่วมทุน ร่วมกับเทศบาลเมืองปากพูนจัดทำโครงการส่งเสริมระบบนิเวศป่าชายเลน การท่องเที่ยว และพัฒนาการศึกษา ประกอบด้วยกิจกรรมการปลูกป่าชายเลนและปล่อยพันธ์สัตว์น้ำ การจัดซื้อแว่นตาอัจฉริยะ เทศกาลล่องเรือ กินปู ดูหนังห้อยเพื่อสร้างรายได้ให้แก่ชุมชน และมุ่งสู่การเป็นเมืองสิ่งแวดล้อมยั่งยืน

กิจกรรมที่เชฟรอนได้จัดทำร่วมกับหน่วยงานภาครัฐ
และพี่น้องชาวนคร (ธันวาคม 2567-พฤษภาคม 2568)



เชฟรอนและบริษัทผู้ร่วมทุน ร่วมกับสมาคมชาวประมงอำเภอสิชล จัดกิจกรรมปล่อยพันธุ์สัตว์น้ำเฉลิมพระเกียรติ จำนวน 15,030,000 ตัว ลงสู่แหล่งน้ำธรรมชาติ และมอบทุนการศึกษาให้กับนักเรียน 5 โรงเรียนในพื้นที่อำเภอสิชล จำนวน 50 ทุน เพื่อเป็นการรำลึกในพระมหากรุณาธิคุณของสมเด็จพระปรมินทรมหาภูมิพลอดุลยเดช รัชกาลที่ 9 และแสดงความจงรักภักดีต่อพระบาทสมเด็จพระเจ้าอยู่หัวมหาวชิราลงกรณ บดินทรเทพยวรางกูร รัชกาลที่ 10



14 ปีต่อเนื่อง ที่บริษัทเชฟรอนฯ ร่วมกับ สมาคมประมงอำเภอขนอม สนับสนุนโครงการปล่อยพันธุ์สัตว์น้ำเพื่อเพิ่มทรัพยากรสัตว์น้ำลงสู่แหล่งน้ำธรรมชาติและอ่าวไทย วัตถุประสงค์หลักในการสร้างความเข้าใจด้านอนุรักษ์พันธุ์สัตว์น้ำ ให้ความสำคัญและมุ่งมั่นในการสร้างจิตสำนึก ด้านการอนุรักษ์และขยายพันธุ์สัตว์น้ำ โดยเมื่อวันที่ 21 มีนาคม 2568 นายอำเภอขนอม และนายกสมาคมประมงชาวอำเภอขนอมได้ร่วมส่งมอบพันธุ์กุ้งแช่รวบ จำนวน 13,300,000 ตัว ให้กับกลุ่มประมงพื้นบ้าน จำนวน 10 กลุ่ม เพื่อนำไปปล่อยต่อไป



บริษัทเชฟรอนฯ ร่วมกับศูนย์วิทยาศาสตร์เพื่อการศึกษานครศรีธรรมราช จัดค่าย "family science by Chevron ปิดเทอม มาเติมวิทย์" ปีที่ 3 เมื่อวันที่ 9-11 เมษายน 2566 ภายใต้วัตถุประสงค์ เพื่อพัฒนารูปแบบการนำเสนอการให้ความรู้ทางวิทยาศาสตร์ โดยเน้นการทำกิจกรรมร่วมกับครอบครัวผ่านกระบวนการเรียนรู้ทางวิทยาศาสตร์ ควบคู่ไปกับการสร้างความตระหนักในการอนุรักษ์ธรรมชาติและสิ่งแวดล้อม และสามารถนำเอาองค์ความรู้ไปประยุกต์ใช้ในชีวิตประจำวันได้



ยังคงเดินหน้าทำกิจกรรมอย่างต่อเนื่อง "โครงการเดินทางปลอดภัยไปโรงเรียน" โดยเมื่อช่วงเดือน มีนาคม 2568 บริษัทเชฟรอนฯ ร่วมกับทีมมูลนิธิ AIP จัดกิจกรรมส่งมอบหมวกกันน็อคพร้อมกับเก็บแบบสำรวจเพื่อวัดพฤติกรรมการสวมหมวกของนักเรียน และแบบประเมินตนเอง



ต่อเนื่องและยาวนานกว่า 14 ปี เครือข่ายโครงการเชฟรอนพลังใจพลังคน เพื่อชุมชนเข้มแข็ง ขับเคลื่อนโดยแกนนำกรรมการเครือข่ายโครงการ และธนาคารพัฒนาหมู่บ้าน 42 หมู่บ้าน ดำเนินกิจกรรมพัฒนาคุณภาพชีวิต สร้างความเข้มแข็งชุมชนในวิถีของตนเอง โดยมีสถาบันการเงิน เป็นแกนกลาง กองทุนสวัสดิการชุมชน เป็นทุนประกันความเสี่ยง มีสมาชิกกว่า 4,900 คน เมื่อช่วงเดือนกุมภาพันธ์ ที่ผ่านมาได้มีการจัดประชุมประจำปีเพื่อติดตามผลการดำเนินงานเครือข่าย และเมื่อวันที่ 15 มีนาคม 2568 ได้จัดกีฬาเครือข่ายเพื่อเชื่อมความสัมพันธ์ นอกจากนี้ เครือข่ายโครงการยังมีการวางแผนการทำกิจกรรมเพื่อพัฒนาศักยภาพคณะกรรมการอย่างต่อเนื่อง ควบคู่กับการบริหารจัดการธนาคารพัฒนาหมู่บ้าน เพื่อให้กิจการธนาคารและกองทุนสวัสดิการชุมชนมีความเข้มแข็ง และเป็นกำลังใจให้กับกรรมการเครือข่ายขับเคลื่อนงานต่อไปอย่างยั่งยืนเป็นต้นแบบให้กับชุมชนอื่นต่อไป

กิจกรรมที่เชฟรอนได้จัดทำร่วมกับหน่วยงานภาครัฐ
และพี่น้องชาวนคร (ธันวาคม 2567-พฤษภาคม 2568)



ร่วมสนับสนุนของขวัญวันเด็ก แก่ศูนย์วิทยาศาสตร์เพื่อการศึกษา นครศรีธรรมราช



บริษัทเชฟรอนฯ ร่วมกับมหาวิทยาลัยวลัยลักษณ์ ศูนย์วิจัยและพัฒนาทรัพยากรทางทะเลชายฝั่งทะเลอันดามัน ได้จัดทำโครงการค่ายนิเวศวิทยาทางทะเล ครั้งที่ 32 รูปแบบออนไลน์ควบคู่กับภาคสนามที่ศูนย์วิจัยทรัพยากรทางทะเลและชายฝั่งทะเลอันดามันตอนบน จังหวัดภูเก็ต และในครั้งนี้นักศึกษาจบหลักสูตรจำนวน เอก จำนวน 64 คน จาก 19 มหาวิทยาลัยครอบคลุมพื้นที่ 12 จังหวัดทั่วประเทศ โดยการสัมมนา ผ่านระบบ Zoom Meeting ระหว่างวันที่ 8 มีนาคม –5 เมษายน 2568 และจำนวน 20 คน เข้าร่วมกิจกรรมภาคปฏิบัติที่จังหวัดภูเก็ต ในระหว่างวันที่ 20 –28 เมษายน 2568