

Ship To:
Lilly-Anna Lacount
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	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.32	ERPLG/ERXLG-N2	2/12/2025	8:03	SED	Frozen			1	1			
T779.32	ERPLG/ERXLG-S1	2/12/2025	11:23	SED	Frozen			1	1			
T779.32	ERPLG/ERXLG-S2	2/12/2025	13:22	SED	Frozen			1	1			
T779.32	ERREF2-A	2/12/2025	17:20	SED	Frozen			1	1			
T779.32	ERREF2-B	2/12/2025	17:37	SED	Frozen			1	1			
T779.32	ERREF2-C	2/12/2025	17:59	SED	Frozen			1	1			
T779.32	JKPLC1-E1	2/22/2025	22:20	SED	Frozen			1	1			
T779.32	JKPLC1-E2	2/22/2025	22:06	SED	Frozen			1	1			
T779.32	JKPLC1-M1	2/22/2025	16:10	SED	Frozen			1	1			
T779.32	JKPLC1-M2	2/22/2025	16:24	SED	Frozen			1	1			
T779.32	JKPLC1-M3	2/22/2025	19:19	SED	Frozen			1	1			
T779.32	JKPLC1-M4	2/22/2025	19:01	SED	Frozen			1	1			
T779.32	JKPLC1-W1	2/22/2025	13:44	SED	Frozen			1	1			
T779.32	JKPLC1-W2	2/22/2025	13:25	SED	Frozen			1	1			
T779.32	ERPLG/ERXLG-EQ	2/12/2025	6:10	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-M2-SW-1	2/12/2025	9:17	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-M2-SW-20	2/12/2025	9:25	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-M2-SW-40	2/12/2025	9:36	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-M2-SW-B	2/12/2025	9:47	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-N2-SW-1	2/12/2025	6:57	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-N2-SW-20	2/12/2025	7:05	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-N2-SW-40	2/12/2025	7:17	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-N2-SW-B	2/12/2025	7:28	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-S2-SW-1	2/12/2025	12:20	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-S2-SW-1-FD	2/12/2025	12:25	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-S2-SW-20	2/12/2025	12:31	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-S2-SW-40	2/12/2025	12:39	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-S2-SW-B	2/12/2025	12:50	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-WB	2/12/2025	6:05	SW	Frozen					1		1
T779.32	ERREF2-A-SW-1	2/12/2025	16:23	SW	Frozen					1		1
T779.32	ERREF2-A-SW-20	2/12/2025	16:31	SW	Frozen					1		1
T779.32	ERREF2-A-SW-40	2/12/2025	16:38	SW	Frozen					1		1
T779.32	ERREF2-A-SW-B	2/12/2025	16:48	SW	Frozen					1		1
T779.32	JKPLC1-E2-SW-1	2/22/2025	21:09	SW	Frozen					1		1
T779.32	JKPLC1-E2-SW-20	2/22/2025	21:15	SW	Frozen					1		1
T779.32	JKPLC1-E2-SW-40	2/22/2025	21:22	SW	Frozen					1		1
T779.32	JKPLC1-E2-SW-B	2/22/2025	21:33	SW	Frozen					1		1
T779.32	JKPLC1-EQ	2/22/2025	12:14	SW	Frozen					1		1
T779.32	JKPLC1-M1-SW-1	2/22/2025	15:13	SW	Frozen					1		1
T779.32	JKPLC1-M1-SW-20	2/22/2025	15:18	SW	Frozen					1		1
T779.32	JKPLC1-M1-SW-40	2/22/2025	15:26	SW	Frozen					1		1
T779.32	JKPLC1-M1-SW-B	2/22/2025	15:36	SW	Frozen					1		1
T779.32	JKPLC1-M4-SW-1	2/22/2025	18:03	SW	Frozen					1		1
T779.32	JKPLC1-M4-SW-20	2/22/2025	18:09	SW	Frozen					1		1

Relinquished by:

AR
26 FEB 2025

Relinquished by:

Received by:

Received by:

Jesse Sny (ftw)
3/6/25
18:32

11 of 12

Ship To:
Lilly-Anna Lacount
Eurofins Specialty Metals Testing
5755 8th St. E
Fife, WA 98424
USA

CHAIN of CUSTODY

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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 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.32	JKPLC1-M4-SW-40	2/22/2025	18:17	SW	Frozen					1		1
T779.32	JKPLC1-M4-SW-B	2/22/2025	18:27	SW	Frozen					1		1
T779.32	JKPLC1-N2-SW-1	2/22/2025	12:25	SW	Frozen					1		1
T779.32	JKPLC1-N2-SW-20	2/22/2025	12:31	SW	Frozen					1		1
T779.32	JKPLC1-N2-SW-20-FD	2/22/2025	12:37	SW	Frozen					1		1
T779.32	JKPLC1-N2-SW-40	2/22/2025	12:44	SW	Frozen					1		1
T779.32	JKPLC1-N2-SW-B	2/22/2025	12:54	SW	Frozen					1		1
T779.32	JKPLC1-WB	2/22/2025	12:08	SW	Frozen					1		1

Relinquished by:


26 FEB 2025

Relinquished by:

Received by:

Received by:

Jesse Smy (EETN)

3/6/25

18:38

12 of 12

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -1.1/-1.3°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #22

Tetatech 3/6/25

• received 18:30 3/6/25
Jesse Syl (CTN)

Therm. ID: ~~SC0~~ EFG51A2 Cust. Seal: Y / N
Uncorr./Corr. Temp: -12/-11.4°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #24

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -5.7/-5.9°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #29

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -6.6/-7.2°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #28

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -1.5/-1.4°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #19

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -6.2/-6.8°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #13

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -12/-12.6°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #27

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -12.2/-12.4°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #21

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -11.8/-12.0°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #20

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -1.6/-1.6°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #17

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -2.6/-8.2°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 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.: 04/31/15 Packing: _____

Box #14

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -6.5/-7.1°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #26

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -15.2/-15.4°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

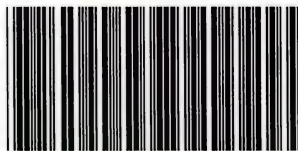
Box #18

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -1.5/-1.6°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #23

5 mL additions \Rightarrow 5 mL at a time

<5mL additions \Rightarrow ~~20-50~~ MP-1000 pipette



Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-112	A	Y	5/2 4.5/2	
350-1619-B-113	A	Y	5/2	
350-1619-B-114	A	Y	5/2	
350-1619-B-115	A	Y	5/2	
350-1619-B-116	A	Y	5/2	
350-1619-B-117	A	Y	5/2	
350-1619-B-118	A	Y	4.5/2	
350-1619-B-119	A	Y	5/2	
350-1619-B-120	A	Y	5/2	
350-1619-B-121	A	Y	5/2	
350-1619-B-122	A	Y	5/2	
350-1619-B-123	A	Y	5/2	
350-1619-B-124	A	Y	5/2	
350-1619-B-125	A	Y	5/2	
350-1619-B-126	A	Y	5/2	
350-1619-B-127	A	Y	5/2	
350-1619-B-128	A	Y	5/2	
350-1619-B-129	A	Y	5/2	
350-1619-B-130	A	Y	5/2	
350-1619-B-131	A	Y	5/2	
350-1619-B-132	A	Y	5/2	
350-1619-B-133	A	Y	5/2	
350-1619-B-134	A	Y	5/2	
350-1619-B-135	A	Y	5/2	
350-1619-B-136	A	Y	4.5/2	
350-1619-B-137	A	Y	5/2	
350-1619-B-138	A	Y	4.5/2	
350-1619-B-139	A	Y	5/2	
350-1619-B-140	A	Y	5/2	
350-1619-B-141	A	Y	5/2	
350-1619-B-142	A	Y	5/2	
350-1619-B-143	A	Y	5/2	
350-1619-B-144	A	Y	3.5/2	
350-1619-B-145	A	Y	3.5/2	
350-1619-B-146	A	Y	5/2	

Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-145				
350-1619-B-146				JS 3/12/25
350-1619-B-147	A	Y	5/2	
350-1619-B-148	A	Y	5/2	
350-1619-B-149	A	Y	5/2	
350-1619-B-150	A	Y	5/2	
350-1619-B-151	A	Y	5/2	
350-1619-B-152	A	Y	5/2	
350-1619-B-153	A	Y	5/2	
350-1619-B-154	A	Y	5/2	
350-1619-B-155	A	Y	5/2	
350-1619-B-156	A	Y	5/2	
350-1619-B-157	A	Y	5/2	
350-1619-B-158	A	Y	5/2	
350-1619-B-159	A	Y	5/2	
350-1619-B-160	A	Y	5/2	
350-1619-B-161	A	Y	5/2	
350-1619-B-162	A	Y	5/2	
350-1619-B-163	A	Y	5/2	
350-1619-B-164	A	Y	4.5/2	
350-1619-B-165	A	Y	4.5/2	
350-1619-B-166	A	Y	5/2	
350-1619-B-167	A	Y	5/2	
350-1619-B-168	A	Y	4.5/2	
350-1619-B-169	A	Y	5/2	
350-1619-B-170	A	Y	5/2	
350-1619-B-171	A	Y	5/2	
350-1619-B-172	A	Y	5/2	
350-1619-B-173	A	Y	5/2	
350-1619-B-174	A	Y	5/2	
350-1619-B-175	A	Y	5/2	
350-1619-B-176	A	Y	5/2	
350-1619-B-177	A	Y	5/2	
350-1619-B-178	A	Y	5/2	
350-1619-B-179	A	Y	5/2	

Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-178				
350-1619-B-179				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	

B Bromine Monochloride (0.2N), 57368

Date:	3/11/2025
End Time:	17:36
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-211				
350-1619-B-212				JS 3/10/25
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	



Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

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-369	A	Y	5/2	
350-1619-B-370	A	Y	4.5/2	
350-1619-B-371	A	Y	5/2	
350-1619-B-372	A	Y	5/2	
350-1619-B-373	A	Y	5/2	
350-1619-B-374	A	Y	5/2	
350-1619-B-375	A	Y	4.5/2	
350-1619-B-376	A	Y	5/2	
350-1619-B-377	A	Y	5/2	
350-1619-B-378	A	Y	3.5/2	
350-1619-B-379	A	Y	5/2	
350-1619-B-380	A	Y	5/2	
350-1619-B-381	A	Y	5/2	
350-1619-B-382	A	Y	5/2	
350-1619-B-383	A	Y	5/2	
350-1619-B-384	A	Y	5/2	

Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-383				
350-1619-B-384				JS 3/11/25
350-1619-B-385	A	Y	5/2	
350-1619-B-386	A	Y	5/2	
350-1619-B-387	A	Y	3.5/2	
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

Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	SS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-416				
350-1619-B-417			SS 3	11/25
350-1619-B-418	A	Y	5/2	
350-1619-B-419	A	Y	5/2	
350-1619-B-420	A	Y	5/2	
350-1619-B-421	A	Y	5/2	
350-1619-B-422	A	Y	5/2	
350-1619-B-423	A	Y	5/2	
350-1619-B-424	A	Y	5/2	
350-1619-B-425	A	Y	5/2	
350-1619-B-426	A	Y	3.5/2	
350-1619-B-445	A	Y	4.5/2	
350-1619-B-446	A	Y	5/2	
350-1619-B-447	A	Y	5/2	
350-1619-B-448	A	Y	5/2	
350-1619-B-449	A	Y	5/2	
350-1619-B-450	A	Y	5/2	
350-1619-B-451	A	Y	4.5/2	
350-1619-B-452	A	Y	4.5/2	
350-1619-B-453	A	Y	5/2	
350-1619-B-454	A	Y	5/2	
350-1619-B-455	A	Y	5/2	
350-1619-B-456	A	Y	5/2	
350-1619-B-457	A	Y	5/2	
350-1619-B-458	A	Y	5/2	
350-1619-B-459	A	Y	3.5/2	
350-1619-B-460	A	Y	5/2	
350-1619-B-461	A	Y	5/2	
350-1619-B-462	A	Y	5/2	
350-1619-B-463	A	Y	5/2	
350-1619-B-464	A	Y	5/2	
350-1619-B-465	A	Y	5/2	
350-1619-B-466	A	Y	5/2	
350-1619-B-467	A	Y	5/2	
350-1619-B-468	A	Y	4/2	

Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-467				
350-1619-B-468				
350-1619-B-469	A	Y	5/2	
350-1619-B-470	A	Y	5/2	
350-1619-B-471	A	Y	5/2	
350-1619-B-472	A	Y	5/2	
350-1619-B-473	A	Y	5/2	
350-1619-B-474	A	Y	5/2	
350-1619-B-475	A	Y	5/2	
350-1619-B-476	A	Y	5/2	
350-1619-B-477	A	Y	5/2	
350-1619-B-478	A	Y	5/2	
350-1619-B-479	A	Y	5/2	
350-1619-B-480	A	Y	5/2	
350-1619-B-481	A	Y	5/2	
350-1619-B-482	A	Y	3.5/2	
350-1619-B-484	A	Y	5/2	
350-1619-B-485	A	Y	5/2	
350-1619-B-486	A	Y	5/2	
350-1619-B-487	A	Y	5/2	

55 3/14/25



3/19/25 JS 3/19/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	HC4417214
Analyst:	JS

MD-TM & pretty

[illegible]

(μ L) JS 3/18/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-112	>2	<2	A	625	
350-1619-A-113	>2	<2	A	562	
350-1619-A-114	>2	<2	A	625	
350-1619-A-115	>2	<2	A	625	
350-1619-A-116	>2	<2	A	625	
350-1619-A-117	>2	<2	A	625	
350-1619-A-118	>2	<2	A	625	
350-1619-A-119	>2	<2	A	625	
350-1619-A-120	>2	<2	A	625	
350-1619-A-121	>2	<2	A	625	
350-1619-A-122	>2	<2	A	625	
350-1619-A-123	>2	<2	A	625	
350-1619-A-124	>2	<2	A	625	
350-1619-A-125	>2	<2	A	625	
350-1619-A-126	>2	<2	A	625	
350-1619-A-127	>2	<2	A	625	
350-1619-A-128	>2	<2	A	625	
350-1619-A-129	>2	<2	A	625	
350-1619-A-130	>2	<2	A	625	
350-1619-A-131	>2	<2	A	625	
350-1619-A-132	>2	<2	A	625	
350-1619-A-133	>2	<2	A	562	
350-1619-A-134	>2	<2	A	625	
350-1619-A-135	>2	<2	A	625	
350-1619-A-136	>2	<2	A	625	
350-1619-A-137	>2	<2	A	625	
350-1619-A-138	>2	<2	A	625	
350-1619-A-139	>2	<2	A	625	
350-1619-A-140	>2	<2	A	625	
350-1619-A-141	>2	<2	A	625	
350-1619-A-142	>2	<2	A	625	
350-1619-A-143	>2	<2	A	625	
350-1619-A-144	>2	<2	A	437	
350-1619-A-145	>2	<2	A	437	
350-1619-A-146	>2	<2	A	625	

JS 3/19/25

3/19/25 JS 3/19/15

Date:	2/11/2025
End Time:	8:59
pH Paper Lot:	HC441724
Analyst:	JS

[illegible]

(ML) JS 3119125

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-145					
350-1619-A-146				JS 3/19/25	repeated sample
350-1619-A-147	>2	<2	A	562	
350-1619-A-148	>2	<2	A	625	
350-1619-A-149	>2	<2	A	625	
350-1619-A-150	>2	<2	A	625	
350-1619-A-151	>2	<2	A	625	
350-1619-A-152	>2	<2	A	625	
350-1619-A-153	>2	<2	A	625	
350-1619-A-154	>2	<2	A	625	
350-1619-A-155	>2	<2	A	625	
350-1619-A-156	>2	<2	A	625	
350-1619-A-157	>2	<2	A	625	
350-1619-A-158	>2	<2	A	625	
350-1619-A-159	>2	<2	A	625	
350-1619-A-160	>2	<2	A	625	
350-1619-A-161	>2	<2	A	625	
350-1619-A-162	>2	<2	A	625	
350-1619-A-163	>2	<2	A	625	
350-1619-A-164	>2	<2	A	625	
350-1619-A-165	>2	<2	A	625	
350-1619-A-166	>2	<2	A	625	
350-1619-A-167	>2	<2	A	625	
350-1619-A-168	>2	<2	A	625	
350-1619-A-169	>2	<2	A	625	
350-1619-A-170	>2	<2	A	625	
350-1619-A-171	>2	<2	A	625	
350-1619-A-172	>2	<2	A	625	
350-1619-A-173	>2	<2	A	625	
350-1619-A-174	>2	<2	A	625	
350-1619-A-175	>2	<2	A	625	
350-1619-A-176	>2	<2	A	625	
350-1619-A-177	>2	<2	A	625	
350-1619-A-178	>2	<2	A	625	
350-1619-A-179	>2	<2	A	625	JS 3/19/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	MC441724
Analyst:	JS

MP-TM & pipette

[illegible]

(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-178					
350-1619-A-179					3/19/25 repeated
350-1619-A-180	>2	<2	A	625	
350-1619-A-181	>2	<2	A	625	
350-1619-A-182	>2	<2	A	437	
350-1619-A-183	>2	<2	A	437	
350-1619-A-184	>2	<2	A	625	
350-1619-A-185	>2	<2	A	625	
350-1619-A-186	>2	<2	A	625	
350-1619-A-187	>2	<2	A	625	
350-1619-A-188	>2	<2	A	625	
350-1619-A-189	>2	<2	A	625	
350-1619-A-190	>2	<2	A	625	
350-1619-A-191	>2	<2	A	625	
350-1619-A-192	>2	<2	A	625	
350-1619-A-193	>2	<2	A	625	
350-1619-A-194	>2	<2	A	625	
350-1619-A-195	>2	<2	A	625	
350-1619-A-196	>2	<2	A	625	
350-1619-A-197	>2	<2	A	625	
350-1619-A-198	>2	<2	A	625	
350-1619-A-199	>2	<2	A	625	
350-1619-A-200	>2	<2	A	625	
350-1619-A-201	>2	<2	A	625	
350-1619-A-202	>2	<2	A	625	
350-1619-A-203	>2	<2	A	625	
350-1619-A-204	>2	<2	A	625	
350-1619-A-205	>2	<2	A	625	
350-1619-A-206	>2	<2	A	625	
350-1619-A-207	>2	<2	A	625	
350-1619-A-208	>2	<2	A	625	
350-1619-A-209	>2	<2	A	437	
350-1619-A-210	>2	<2	A	437	
350-1619-A-211	>2	<2	A	625	
350-1619-A-212	>2	<2	A	625	3/19/25

SS 3/14/25

3/19/25 JS 3/19/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	HC411704
Analyst:	JJ

mp - TM 26 pipette

[illegible]

(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-211	>2	<2	A		
350-1619-A-212	>2	<2	A		JS 3/19/25 repeated
350-1619-A-213	>2	<2	A	625	
350-1619-A-214	>2	<2	A	625	
350-1619-A-215	>2	<2	A	562	
350-1619-A-216	>2	<2	A	625	
350-1619-A-217	>2	<2	A	562	
350-1619-A-218	>2	<2	A	625	
350-1619-A-219	>2	<2	A	625	
350-1619-A-220	>2	<2	A	625	
350-1619-A-221	>2	<2	A	625	
350-1619-A-222	>2	<2	A	625	
350-1619-A-223	>2	<2	A	625	
350-1619-A-224	>2	<2	A	562	
350-1619-A-225	>2	<2	A	562	
350-1619-A-226	>2	<2	A	625	
350-1619-A-227	>2	<2	A	825	
350-1619-A-228	>2	<2	A	625	
350-1619-A-229	>2	<2	A	625	
350-1619-A-230	>2	<2	A	625	
350-1619-A-231	>2	<2	A	625	
350-1619-A-232	>2	<2	A	625	
350-1619-A-233	>2	<2	A	625	
350-1619-A-234	>2	<2	A	625	
350-1619-A-235	>2	<2	A	625	
350-1619-A-236	>2	<2	A	625	
350-1619-A-237	>2	<2	A	625	
350-1619-A-238	>2	<2	A	625	
350-1619-A-239	>2	<2	A	625	
350-1619-A-240	>2	<2	A	625	
350-1619-A-241	>2	<2	A	625	
350-1619-A-242	>2	<2	A	625	
350-1619-A-243	>2	<2	A	625	
350-1619-A-244	>2	<2	A	500	
350-1619-A-245	>2	<2	A	437	JS 3/19/25

3/19/25 JS 3/19/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	HCN1724
Analyst:	JS

[illegible]

(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-244					
350-1619-A-245					JS 3/19/25 repeated
350-1619-A-259	>2	<2	A	625	
350-1619-A-260	>2	<2	A	625	
350-1619-A-261	>2	<2	A	625	
350-1619-A-262	>2	<2	A	625	
350-1619-A-263	>2	<2	A	625	
350-1619-A-264	>2	<2	A	625	
350-1619-A-265	>2	<2	A	625	
350-1619-A-266	>2	<2	A	625	
350-1619-A-267	>2	<2	A	625	
350-1619-A-268	>2	<2	A	625	
350-1619-A-269	>2	<2	A	625	
350-1619-A-270	>2	<2	A	625	
350-1619-A-271	>2	<2	A	625	
350-1619-A-272	>2	<2	A	625	
350-1619-A-273	>2	<2	A	625	
350-1619-A-274	>2	<2	A	625	
350-1619-A-275	>2	<2	A	625	
350-1619-A-276	>2	<2	A	562	
350-1619-A-277	>2	<2	A	562	
350-1619-A-369	>2	<2	A	625	
350-1619-A-370	>2	<2	A	562	
350-1619-A-371	>2	<2	A	625	
350-1619-A-372	>2	<2	A	562	
350-1619-A-373	>2	<2	A	625	
350-1619-A-374	>2	<2	A	625	
350-1619-A-375	>2	<2	A	562	

JS 3/19/25

3/19/25 or 3/19/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	4C4N1724
Analyst:	33

MR. TMA6 pipette

[illegible]

(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-376	>2	<2	A	625	
350-1619-A-377	>2	<2	A	625	
350-1619-A-378	>2	<2	A	437	
350-1619-A-379	>2	<2	A	625	
350-1619-A-380	>2	<2	A	625	
350-1619-A-381	>2	<2	A	625	
350-1619-A-382	>2	<2	A	625	
350-1619-A-383	>2	<2	A	625	
350-1619-A-384	>2	<2	A	625	
350-1619-A-385	>2	<2	A	625	
350-1619-A-386	>2	<2	A	625	
350-1619-A-387	>2	<2	A	437	
350-1619-A-388	>2	<2	A	625	
350-1619-A-389	>2	<2	A	625	
350-1619-A-390	>2	<2	A	625	
350-1619-A-391	>2	<2	A	625	
350-1619-A-392	>2	<2	A	625	
350-1619-A-393	>2	<2	A	625	
350-1619-A-394	>2	<2	A	625	
350-1619-A-395	>2	<2	A	625	
350-1619-A-396	>2	<2	A	625	
350-1619-A-397	>2	<2	A	625	
350-1619-A-398	>2	<2	A	625	
350-1619-A-399	>2	<2	A	625	
350-1619-A-400	>2	<2	A	625	
350-1619-A-401	>2	<2	A	437	
350-1619-A-402	>2	<2	A	437	
350-1619-A-403	>2	<2	A	625	
350-1619-A-404	>2	<2	A	625	
350-1619-A-405	>2	<2	A	625	
350-1619-A-406	>2	<2	A	625	
350-1619-A-407	>2	<2	A	625	
350-1619-A-408	>2	<2	A	625	
350-1619-A-409	>2	<2	A	625	
350-1619-A-410	>2	<2	A	625	

JS 3/19/28

31/9/25 JS 31/9/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	HC441704
Analyst:	JS

MD-TM26 pipette

[illegible]

Final pH	Initial Initial pH
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(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-409					
350-1619-A-410				35	3/19/25 repeated
350-1619-A-411	<2	>2	A	625	
350-1619-A-412	<2	>2	A	625	
350-1619-A-413	<2	>2	A	625	
350-1619-A-414	<2	>2	A	625	
350-1619-A-415	<2	>2	A	625	
350-1619-A-416	<2	>2	A	437	
350-1619-A-417	<2	>2	A	625	
350-1619-A-418	<2	>2	A	625	
350-1619-A-419	<2	>2	A	625	
350-1619-A-420	<2	>2	A	625	
350-1619-A-421	<2	>2	A	625	
350-1619-A-422	<2	>2	A	625	
350-1619-A-423	<2	>2	A	625	
350-1619-A-424	<2	>2	A	625	
350-1619-A-425	<2	>2	A	625	
350-1619-A-426	<2	>2	A	375	
350-1619-A-445	<2	>2	A	625	
350-1619-A-446	<2	>2	A	562	
350-1619-A-447	<2	>2	A	625	
350-1619-A-448	<2	>2	A	625	
350-1619-A-449	<2	>2	A	625	
350-1619-A-450	<2	>2	A	625	
350-1619-A-451	<2	>2	A	625	
350-1619-A-452	<2	>2	A	625	
350-1619-A-453	<2	>2	A	625	
350-1619-A-454	<2	>2	A	625	
350-1619-A-455	<2	>2	A	625	
350-1619-A-456	<2	>2	A	625	
350-1619-A-457	<2	>2	A	625	
350-1619-A-458	<2	>2	A	625	
350-1619-A-459	<2	>2	A	562	
350-1619-A-460	<2	>2	A	625	
350-1619-A-461	<2	>2	A	625	TS 3/19/25

3/19/25 JS 3/14/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	H1441704
Analyst:	JS

mp-TM26 phette

[illegible]

(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-460					
350-1619-A-461				JS 3/19	25 repeated
350-1619-A-462	>2	<2	A	625	
350-1619-A-463	>2	<2	A	625	
350-1619-A-464	>2	<2	A	625	
350-1619-A-465	>2	<2	A	625	
350-1619-A-466	>2	<2	A	625	
350-1619-A-467	>2	<2	A	625	
350-1619-A-468	>2	<2	A	437	
350-1619-A-469	>2	<2	A	625	
350-1619-A-470	>2	<2	A	625	
350-1619-A-471	>2	<2	A	625	
350-1619-A-472	>2	<2	A	625	
350-1619-A-473	>2	<2	A	625	
350-1619-A-474	>2	<2	A	625	
350-1619-A-475	>2	<2	A	625	
350-1619-A-476	>2	<2	A	625	
350-1619-A-477	>2	<2	A	625	
350-1619-A-478	>2	<2	A	625	
350-1619-A-479	>2	<2	A	625	
350-1619-A-480	>2	<2	A	625	
350-1619-A-481	>2	<2	A	625	
350-1619-A-482	>2	<2	A	437	
350-1619-A-484	>2	<2	A	625	
350-1619-A-485	>2	<2	A	562	
350-1619-A-486	>2	<2	A	625	
350-1619-A-487	>2	<2	A	625	2/19/25

JS 3/19/25

Login Sample Receipt Checklist

Client: Tetra Tech Inc

Job Number: 350-1619-5

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 \leq 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 $<6\text{mm}$ (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



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

27 February 2025

Ted Donn
Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette, CA 94549

RE: Gulf of Thailand (T779.30)

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)
25B0382

Associated SDG ID(s)
N/A

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.



Ship To:
Sue Duñnihoo
Analytical Resources LLC
4611 South 134 Place
Tukwilla, WA
USA

25B0382
CHAIN of CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech Inc.
3697 Mt. Diablo Blvd., Suite 150
Lafayette, CA
ted.donn@tetrattech.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 EDD deliverable

Project	Sample ID	Date	Time	Medium	Preserve	TOC	Dry Weight
T779.30	SRWA-1B2X-A ✓	2/8/2025	19:36	Sediment	Frozen	1	1
T779.30	SRWA-2B2X-A ✓	2/8/2025	20:18	Sediment	Frozen	1	1
T779.30	SRWA-2B2X-A-FD ✓	2/8/2025	20:25	Sediment	Frozen	1	1
T779.30	SRWA-3B2X-A ✓	2/8/2025	20:50	Sediment	Frozen	1	1
T779.30	SRWA-4B2X-A ✓	2/8/2025	21:21	Sediment	Frozen	1	1
T779.30	SRWB-1B2-A ✓	2/9/2025	17:30	Sediment	Frozen	1	1
T779.30	SRWB-1CP2-A ✓	2/9/2025	16:56	Sediment	Frozen	1	1
T779.30	SRWB-1D2-A	2/9/2025	16:08	Sediment	Frozen	1	1
T779.30	SRWB-2B2-A	2/9/2025	18:03	Sediment	Frozen	1	1
T779.30	SRWB-2B2-A-FD	2/9/2025	18:11:10	Sediment	Frozen	1	1
T779.30	SRWB-3B2-A	2/9/2025	6:33	Sediment	Frozen	1	1
T779.30	SRWB-3CP2-A	2/9/2025	6:41:15	Sediment	Frozen	1	1
T779.30	SRWB-3D2-A	2/9/2025	5:02	Sediment	Frozen	1	1
T779.30	SRWB-4B2-A	2/9/2025	5:47	Sediment	Frozen	1	1

T779.31	FUREF-A	2/5/2025	5:01	Sediment	Frozen	1	1
T779.31	FUREF-B	2/5/2025	5:28	Sediment	Frozen	1	1
T779.31	FUREF-C	2/5/2025	6:09	Sediment	Frozen	1	1
T779.31	PMWA-1B2X-C1	2/7/2025	10:25	Sediment	Frozen	1	1
T779.31	PMWA-1B2X-C2	2/7/2025	10:38:39	Sediment	Frozen	1	1
T779.31	PMWA-1B2X-C3	2/7/2025	10:50	Sediment	Frozen	1	1
T779.31	PMWA-1B2X-(0-5)	2/7/2025	13:41	Sediment	Frozen	1	1
T779.31	PMWA-1B2X-(10-15)	2/7/2025	13:41	Sediment	Frozen	1	1
T779.31	PMWA-1B2X-(15-20)	2/7/2025	13:41	Sediment	Frozen	1	1
T779.31	PMWA-1B2X-(5-10)	2/7/2025	13:41	Sediment	Frozen	1	1
T779.31	PMWA-1C2-C1	2/7/2025	9:42	Sediment	Frozen	1	1
T779.31	PMWA-1C2-C2	2/7/2025	9:54	Sediment	Frozen	1	1
T779.31	PMWA-1C2-C3	2/7/2025	10:07	Sediment	Frozen	1	1
T779.31	PMWA-1D2-C1	2/7/2025	11:17	Sediment	Frozen	1	1
T779.31	PMWA-1D2-C2	2/7/2025	11:28	Sediment	Frozen	1	1
T779.31	PMWA-1D2-C3	2/7/2025	11:39	Sediment	Frozen	1	1
T779.31	PMWA-2B2-C1	2/8/2025	2:00	Sediment	Frozen	1	1
T779.31	PMWA-2B2-C2	2/8/2025	2:41	Sediment	Frozen	1	1
T779.31	PMWA-2B2-C3	2/8/2025	2:15	Sediment	Frozen	1	1
T779.31	PMWA-2B2-(0-5)	2/7/2025	14:33	Sediment	Frozen	1	1
T779.31	PMWA-2B2-(5-10)	2/7/2025	14:33	Sediment	Frozen	1	1

Relinquished by: *Chole*

Relinquished by:

09 FEB 2025

Received by:

Received by:

R. Leeseemann ARI

2/20/25 11:20



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SRWA-1B2X-A	25B0382-01	Solid	08-Feb-2025 19:36	20-Feb-2025 11:30
SRWA-2B2X-A	25B0382-02	Solid	08-Feb-2025 20:18	20-Feb-2025 11:30
SRWA-2B2X-A-FD	25B0382-03	Solid	08-Feb-2025 20:25	20-Feb-2025 11:30
SRWA-3B2X-A	25B0382-04	Solid	08-Feb-2025 20:50	20-Feb-2025 11:30
SRWA-4B2X-A	25B0382-05	Solid	08-Feb-2025 21:21	20-Feb-2025 11:30
SRWB-1B2-A	25B0382-06	Solid	09-Feb-2025 17:30	20-Feb-2025 11:30
SRWB-1CP2-A	25B0382-07	Solid	09-Feb-2025 16:56	20-Feb-2025 11:30
SRWB-1D2-A	25B0382-08	Solid	09-Feb-2025 16:08	20-Feb-2025 11:30
SRWB-2B2-A	25B0382-09	Solid	09-Feb-2025 18:03	20-Feb-2025 11:30
SRWB-2B2-A-FD	25B0382-10	Solid	09-Feb-2025 18:10	20-Feb-2025 11:30
SRWB-3B2-A	25B0382-11	Solid	09-Feb-2025 06:33	20-Feb-2025 11:30
SRWB-3CP2-A	25B0382-12	Solid	09-Feb-2025 04:00	20-Feb-2025 11:30
SRWB-3D2-A	25B0382-13	Solid	09-Feb-2025 05:02	20-Feb-2025 11:30
SRWB-4B2-A	25B0382-14	Solid	09-Feb-2025 05:47	20-Feb-2025 11:30
CONTROL-3-A	25B0382-15	Solid	08-Feb-2025 11:49	20-Feb-2025 11:30
CONTROL-3-B	25B0382-16	Solid	08-Feb-2025 13:51	20-Feb-2025 11:30
CONTROL-3-C	25B0382-17	Solid	08-Feb-2025 11:30	20-Feb-2025 11:30



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

Work Order Case Narrative

Client: Tetra Tech, Inc. (Lafayette)

Project: Gulf of Thailand

Work Order: 25B0382

Sample receipt

Samples as listed on the preceding page were received 20-Feb-2025 11:30 under ARI work order 25B0382. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Samples were stored frozen until thawed for analysis.

Wet Chemistry (Total Organic Carbon)

The sample(s) were prepared and analyzed within the recommended holding times.

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 difference (RPD) were within advisory control limits.



Cooler Receipt Form

ARI Client: Tetra Tech

Project Name: Port of Thailand

COC No(s): NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: NA

Assigned ARI Job No: 25B0382

Tracking No: 7720 9659 0740 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 1130 -4.8 Temp Gun ID#: 1009708

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: RL Date: 2/20/25 Time: 1130

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: NA

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 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: 1638 Equipment: SA Split by: SA

Samples Logged by: SA Date: 02/20/25 Time: 1551 Labels checked by: SA

**** Notify Project Manager of discrepancies or concerns **** 2/20/25

Additional Notes, Discrepancies, & Resolutions:

Samples arrived frozen.

Some sample label date/times do not match what is listed on COC. Logging per sample label.

(-10 and -12) - SA

- control samples control-3-A, B, C added at end as per PM request. - SA

By: SA for RL Date: 2/20/25



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWA-1B2X-A
25B0382-01 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/08/2025 19:36
Analyzed: 02/24/2025 18:54

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNB0420 Sample Size: 0.3007 g (wet)
Prepared: 02/21/2025 Final Volume: 0.3007 mL
Extract ID: 25B0382-01 A
Dry Weight: 0.17 g
% Solids: 55.27

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: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWA-1B2X-A
25B0382-01 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/08/2025 19:36

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-01

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 55.27

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	55.27	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWA-2B2X-A
25B0382-02 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/08/2025 20:18
Analyzed: 02/25/2025 02:29

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5231 g (wet)	Extract ID: 25B0382-02 A
	Preparation Batch: BNB0420	Final Volume: 0.5231 mL	Dry Weight: 0.27 g
	Prepared: 02/21/2025		% Solids: 51.00

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: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWA-2B2X-A
25B0382-02 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/08/2025 20:18

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-02

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 51.00

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	51.00	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWA-2B2X-A-FD
25B0382-03 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/08/2025 20:25
Analyzed: 02/25/2025 03:00

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5332 g (wet)	Extract ID: 25B0382-03 A
	Preparation Batch: BNB0420	Final Volume: 0.5332 mL	Dry Weight: 0.26 g
	Prepared: 02/21/2025		% Solids: 49.35

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: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWA-2B2X-A-FD
25B0382-03 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/08/2025 20:25

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-03

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 49.35

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	49.35	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWA-3B2X-A
25B0382-04 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/08/2025 20:50
Analyzed: 02/25/2025 03:30

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.4918 g (wet)	Extract ID: 25B0382-04 A
	Preparation Batch: BNB0420	Final Volume: 0.4918 mL	Dry Weight: 0.30 g
	Prepared: 02/21/2025		% Solids: 60.66

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
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWA-3B2X-A
25B0382-04 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/08/2025 20:50

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-04

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 60.66

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	60.66	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWA-4B2X-A
25B0382-05 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/08/2025 21:21
Analyzed: 02/25/2025 04:00

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5027 g (wet)	Extract ID: 25B0382-05 A
	Preparation Batch: BNB0420	Final Volume: 0.5027 mL	Dry Weight: 0.28 g
	Prepared: 02/21/2025		% Solids: 54.95

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: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWA-4B2X-A
25B0382-05 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/08/2025 21:21

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-05

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 54.95

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	54.95	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-1B2-A
25B0382-06 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/09/2025 17:30
Analyzed: 02/25/2025 04:31

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5027 g (wet)	Extract ID: 25B0382-06 A
	Preparation Batch: BNB0420	Final Volume: 0.5027 mL	Dry Weight: 0.23 g
	Prepared: 02/21/2025		% Solids: 46.28

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	1.50	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-1B2-A
25B0382-06 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/09/2025 17:30

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-06

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 46.28

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	46.28	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-1CP2-A
25B0382-07 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/09/2025 16:56
Analyzed: 02/25/2025 05:01

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5629 g (wet)	Extract ID: 25B0382-07 A
	Preparation Batch: BNB0420	Final Volume: 0.5629 mL	Dry Weight: 0.27 g
	Prepared: 02/21/2025		% Solids: 47.41

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: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-1CP2-A
25B0382-07 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/09/2025 16:56

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-07

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 47.41

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	47.41	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-1D2-A
25B0382-08 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/09/2025 16:08
Analyzed: 02/25/2025 06:32

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNB0420 Sample Size: 0.5041 g (wet)
Prepared: 02/21/2025 Final Volume: 0.5041 mL
Extract ID: 25B0382-08 A
Dry Weight: 0.27 g
% Solids: 53.19

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: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-1D2-A
25B0382-08 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/09/2025 16:08

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-08

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 53.19

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	53.19	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-2B2-A
25B0382-09 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/09/2025 18:03
Analyzed: 02/25/2025 07:02

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5382 g (wet)	Extract ID: 25B0382-09 A
	Preparation Batch: BNB0420	Final Volume: 0.5382 mL	Dry Weight: 0.26 g
	Prepared: 02/21/2025		% Solids: 48.07

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.49	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-2B2-A
25B0382-09 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/09/2025 18:03

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-09

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 48.07

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	48.07	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-2B2-A-FD
25B0382-10 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/09/2025 18:10
Analyzed: 02/25/2025 07:33

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5698 g (wet)	Extract ID: 25B0382-10 A
	Preparation Batch: BNB0420	Final Volume: 0.5698 mL	Dry Weight: 0.25 g
	Prepared: 02/21/2025		% Solids: 44.55

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.46	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-2B2-A-FD
25B0382-10 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/09/2025 18:10

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-10

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 44.55

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	44.55	%	



Tetra Tech, Inc. (Lafayette)
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Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-3B2-A
25B0382-11 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/09/2025 06:33
Analyzed: 02/25/2025 08:03

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5587 g (wet)	Extract ID: 25B0382-11 A
	Preparation Batch: BNB0420	Final Volume: 0.5587 mL	Dry Weight: 0.30 g
	Prepared: 02/21/2025		% Solids: 54.49

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	1.52	%	



Tetra Tech, Inc. (Lafayette)
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Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-3B2-A
25B0382-11 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/09/2025 06:33

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-11

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 54.49

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	54.49	%	



Tetra Tech, Inc. (Lafayette)
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Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-3CP2-A
25B0382-12 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/09/2025 04:00
Analyzed: 02/25/2025 08:33

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNB0420 Sample Size: 0.5349 g (wet)
Prepared: 02/21/2025 Final Volume: 0.5349 mL
Extract ID: 25B0382-12 A
Dry Weight: 0.29 g
% Solids: 54.37

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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Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-3CP2-A
25B0382-12 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/09/2025 04:00

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-12

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 54.37

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	54.37	%	



Tetra Tech, Inc. (Lafayette)
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Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-3D2-A
25B0382-13 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/09/2025 05:02
Analyzed: 02/25/2025 09:04

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5298 g (wet)	Extract ID: 25B0382-13 A
	Preparation Batch: BNB0420	Final Volume: 0.5298 mL	Dry Weight: 0.25 g
	Prepared: 02/21/2025		% Solids: 47.29

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)
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Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-3D2-A
25B0382-13 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/09/2025 05:02

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-13

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 47.29

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	47.29	%	



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Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-4B2-A
25B0382-14 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/09/2025 05:47
Analyzed: 02/25/2025 09:34

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5381 g (wet)	Extract ID: 25B0382-14 A
	Preparation Batch: BNB0420	Final Volume: 0.5381 mL	Dry Weight: 0.26 g
	Prepared: 02/21/2025		% Solids: 49.19

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.39	%	



Tetra Tech, Inc. (Lafayette)
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Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

SRWB-4B2-A
25B0382-14 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/09/2025 05:47

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-14

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% 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)
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Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

CONTROL-3-A
25B0382-15 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/08/2025 11:49
Analyzed: 02/25/2025 12:36

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5586 g (wet)	Extract ID: 25B0382-15 A
	Preparation Batch: BNB0420	Final Volume: 0.5586 mL	Dry Weight: 0.27 g
	Prepared: 02/21/2025		% Solids: 48.22

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)
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Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

CONTROL-3-A
25B0382-15 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/08/2025 11:49

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-15

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 48.22

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	48.22	%	



Tetra Tech, Inc. (Lafayette)
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Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

CONTROL-3-B
25B0382-16 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/08/2025 13:51
Analyzed: 02/25/2025 13:06

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 0.5016 g (wet)	Extract ID: 25B0382-16 A
	Preparation Batch: BNB0420	Final Volume: 0.5016 mL	Dry Weight: 0.18 g
	Prepared: 02/21/2025		% Solids: 36.33

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Organic Carbon		1	0.02	0.02	0.44	%	



Tetra Tech, Inc. (Lafayette)
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Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

CONTROL-3-B
25B0382-16 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/08/2025 13:51

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-16

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 36.33

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	36.33	%	



Tetra Tech, Inc. (Lafayette)
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Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

CONTROL-3-C
25B0382-17 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/08/2025 11:30
Analyzed: 02/25/2025 13:37

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNB0420
Prepared: 02/21/2025

Sample Size: 0.5632 g (wet)
Final Volume: 0.5632 mL

Extract ID: 25B0382-17 A
Dry Weight: 0.28 g
% Solids: 49.15

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: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

CONTROL-3-C
25B0382-17 (Solid)

Wet Chemistry

Method: SM 2540 G-11

Sampled: 02/08/2025 11:30

Instrument: BAL2 Analyst: LM

Analyzed: 02/21/2025 10:30

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 25B0382-17

Preparation Batch: BNB0425

Sample Size: 5 g (wet)

Prepared: 02/21/2025

Final Volume: 5 mL

% Solids: 49.15

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	49.15	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BNB0420 - 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 (BNB0420-BLK1)					Prepared: 21-Feb-2025 Analyzed: 24-Feb-2025 12:21					
Total Organic Carbon	ND	0.02	0.02	%						U
LCS (BNB0420-BS1)					Prepared: 21-Feb-2025 Analyzed: 24-Feb-2025 13:22					
Total Organic Carbon	44.3	0.02	0.02	%	44.4		99.7 80-120			
Duplicate (BNB0420-DUP3)					Source: 25B0382-01 Prepared: 21-Feb-2025 Analyzed: 24-Feb-2025 19:24					
Total Organic Carbon	0.32	0.02	0.02	%		0.32		0.56	20	
Duplicate (BNB0420-DUP4)					Source: 25B0382-01 Prepared: 21-Feb-2025 Analyzed: 24-Feb-2025 19:54					
Total Organic Carbon	0.31	0.02	0.02	%		0.32		4.60	20	
Matrix Spike (BNB0420-MS2)					Source: 25B0382-01 Prepared: 21-Feb-2025 Analyzed: 24-Feb-2025 20:25					
Total Organic Carbon	2.20	0.02	0.02	%	1.91	0.32	98.3 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: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BNB0425 - SM 2540 G-11

Instrument: BAL2 Analyst: LM

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BNB0425-BLK1)					Prepared: 21-Feb-2025 Analyzed: 21-Feb-2025 10:30					
Total Solids	ND	0.04	0.04	%						U
Duplicate (BNB0425-DUP3)					Source: 25B0382-01 Prepared: 21-Feb-2025 Analyzed: 21-Feb-2025 10:30					
Total Solids	54.43	0.04	0.04	%		55.27		1.54	20	



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Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

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	02/28/2025



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
27-Feb-2025 11:23

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.



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

14 April 2025

Ted Donn
Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette, CA 94549

RE: Gulf of Thailand (T779.30)

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)
25C0171

Associated SDG ID(s)
N/A

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.



25C0162, 25C0163, 25C0164, 25C0165

Ship To:
Sue Dunnihoo
Analytical Resources LLC
4611 South 134 Place
Tukwilla, 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	2/20/2025	17:12	SED	Frozen	1	1
T779.27	PAWE-1C2	2/20/2025	1:48	SED	Frozen	1	1
T779.27	PAWE-1CP2	2/20/2025	2:23	SED	Frozen	1	1
T779.27	PAWE-1D2	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	G4/43REF-A	2/10/2025	2:08	SED	Frozen	1	1
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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	0:42	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-(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: Chayungoon Vathanyupracha
3 Mar 2025

Relinquished by:

Received by:

Received by:

Jim Ann
3/10/25 0926



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
G4/43REF-A	25C0171-01	Solid	10-Feb-2025 02:08	10-Mar-2025 09:26



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:47

Work Order Case Narrative

Client: Tetra Tech, Inc. (Lafayette)

Project: Gulf of Thailand

Project Number: T779.30

Work Order: 25C0171

Sample receipt

The sample(s) as listed on the preceding page were received 10-Mar-2025 09:26 under ARI work order 25C0171. 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.



Cooler Receipt Form

ARI Client: petra tech

Project Name: Joe Gulf of Thailand

COC No(s): 25C0165 (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other:

Assigned ARI Job No: 25C0084

Tracking No: 0201 77234810 2121 NA

Preliminary Examination Phase: SA **25C0071**
3/10/25 **3/11/2025 sdrd**

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#: 7009708

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: PIB Date: 03/06/25 Time: 12:19

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: Wet Ice

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 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 16:30

Equipment: SA

Split by: SA

Samples Logged by: SA Date: 3/6/25 Time: 13:33 Labels checked by: SA

3/10/25

**** Notify Project Manager of discrepancies or concerns ****

3/10/25

Additional Notes, Discrepancies, & Resolutions:

① samples were ~~to~~ shipped with dry ice and were received frozen per the project requirements. - PIB 03/06/25

② Extra sample not on COC - "PAWE-2L2-FD" Added at - SA 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: T779.30
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:47

G4/43REF-A
25C0171-01 (Solid)

Wet Chemistry

Method: Plumb 1981, Combustion IR
Instrument: TOC Cube Analyst: ARR

Sampled: 02/10/2025 02:08
Analyzed: 03/31/2025 22:26

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0730 Sample Size: 0.2037 g (wet)
Prepared: 03/28/2025 Final Volume: 0.2037 mL
Extract ID: 25C0171-01 A
Dry Weight: 0.11 g
% Solids: 53.94

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: T779.30
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:47

G4/43REF-A
25C0171-01 (Solid)

Wet Chemistry

Method: SM 2540 G-11
Instrument: BAL2 Analyst: AG

Sampled: 02/10/2025 02:08

Analyzed: 03/13/2025 15:04

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BNC0322 Sample Size: 5 g (wet)
Prepared: 03/13/2025 Final Volume: 5 mL Extract ID: 25C0171-01
% Solids: 53.94

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids		1	0.04	0.04	53.94	%	



Tetra Tech, Inc. (Lafayette)
3697 Mt Diablo Blvd, Suite 150
Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:47

Instrument: BAL2 Analyst: AG

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BNC0322-BLK1)					Prepared: 13-Mar-2025 Analyzed: 13-Mar-2025 15:04					
! Total Solids	ND	0.04	0.04	%						U

! 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: T779.30
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:47

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BNC0730 - 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 (BNC0730-BLK1)					Prepared: 28-Mar-2025 Analyzed: 31-Mar-2025 12:51					
Total Organic Carbon	ND	0.02	0.02	%						U
LCS (BNC0730-BS1)					Prepared: 28-Mar-2025 Analyzed: 31-Mar-2025 14:22					
Total Organic Carbon	44.9	0.02	0.02	%	44.4	101	80-120			
Duplicate (BNC0730-DUP1)					Source: 25C0171-01 Prepared: 28-Mar-2025 Analyzed: 31-Mar-2025 23:57					
Total Organic Carbon	0.44	0.02	0.02	%		0.38		12.70	20	
Duplicate (BNC0730-DUP2)					Source: 25C0171-01 Prepared: 28-Mar-2025 Analyzed: 01-Apr-2025 00:27					
Total Organic Carbon	0.37	0.02	0.02	%		0.38		4.95	20	
Matrix Spike (BNC0730-MS1)					Source: 25C0171-01 Prepared: 28-Mar-2025 Analyzed: 01-Apr-2025 00:58					
Total Organic Carbon	2.80	0.02	0.02	%	2.54	0.38	95.0	75-125		

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



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Lafayette CA, 94549

Project: Gulf of Thailand
Project Number: T779.30
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:47

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: T779.30
Project Manager: Ted Donn

Reported:
14-Apr-2025 12:47

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 : 526406
Report Level : II
Report Date : 02/27/2025

Analytical Report *prepared for:*

Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549

Project: COTL - T779.30 - 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 #:	526406
Tetra Tech, Inc.	Project No:	COTL
3697 Mt. Diablo	Location:	T779.30 - Gulf of Thailand
Bld.	Date Received:	02/20/25
Suite 150		
Lafayette, CA 94549		

Sample ID	Lab ID	Collected	Matrix
SRWA-1B2X-A	526406-001	02/08/25 19:36	Soil
SRWA-2B2X-A	526406-002	02/08/25 20:18	Soil
SRWA-2B2X-A-FD	526406-003	02/08/25 20:25	Soil
SRWA-3B2X-A	526406-004	02/08/25 20:50	Soil
SRWA-4B2X-A	526406-005	02/08/25 21:21	Soil
SRWB-1B2-A	526406-006	02/09/25 17:30	Soil
SRWB-1CP2-A	526406-007	02/09/25 16:56	Soil
SRWB-1D2-A	526406-008	02/09/25 16:08	Soil
SRWB-2B2-A	526406-009	02/09/25 18:03	Soil
SRWB-2B2-A-FD	526406-010	02/09/25 18:11	Soil
SRWB-3B2-A	526406-011	02/09/25 06:33	Soil
SRWB-3CP2-A	526406-012	02/09/25 04:15	Soil
SRWB-3D2-A	526406-013	02/09/25 05:02	Soil
SRWB-4B2-A	526406-014	02/09/25 05:47	Soil

Case Narrative

Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549
Ted Donn

Lab Job Number: 526406
Project No: COTL
Location: T779.30 - Gulf of
Thailand
Date Received: 02/20/25

This data package contains sample and QC results for fourteen soil samples, requested for the above referenced project on 02/20/25. 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 92868

CHAIN of CUSTODY

526406
526407

Report to:
Dr. Ted Donn
Tetra Tech Inc.
3697 Mt. Diablo Blvd., Suite 150
Lafayette, CA
ted.donn@tetrattech.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 EDD deliverable

Project	Sample ID	Date	Time	Medium	Preserve	TPH	Dry Weight
T779.30	SRWA-1B2X-A	2/8/2025	19:36	Sediment	Frozen	1	1
T779.30	SRWA-2B2X-A	2/8/2025	20:18	Sediment	Frozen	1	1
T779.30	SRWA-2B2X-A-FD	2/8/2025	20:25	Sediment	Frozen	1	1
T779.30	SRWA-3B2X-A	2/8/2025	20:50	Sediment	Frozen	1	1
T779.30	SRWA-4B2X-A	2/8/2025	21:21	Sediment	Frozen	1	1
T779.30	SRWB-1B2-A	2/9/2025	17:30	Sediment	Frozen	1	1
T779.30	SRWB-1CP2-A	2/9/2025	16:56	Sediment	Frozen	1	1
T779.30	SRWB-1D2-A	2/9/2025	16:08	Sediment	Frozen	1	1
T779.30	SRWB-2B2-A	2/9/2025	18:03	Sediment	Frozen	1	1
T779.30	SRWB-2B2-A-FD	2/9/2025	18:11	Sediment	Frozen	1	1
T779.30	SRWB-3B2-A	2/9/2025	6:33	Sediment	Frozen	1	1
T779.30	SRWB-3CP2-A	2/9/2025	4:15	Sediment	Frozen	1	1
T779.30	SRWB-3D2-A	2/9/2025	5:02	Sediment	Frozen	1	1
T779.30	SRWB-4B2-A	2/9/2025	5:47	Sediment	Frozen	1	1

T779.33	TFPSO-1B2	2/6/2025	22:34	Sediment	Frozen	1	1
T779.33	TFPSO-1C2	2/6/2025	16:54	Sediment	Frozen	1	1
T779.33	TFPSO-1CP2	2/6/2025	16:39	Sediment	Frozen	1	1
T779.33	TFPSO-1D2	2/6/2025	16:13	Sediment	Frozen	1	1
T779.33	TFPSO-1D2-FD	2/6/2025	16:23	Sediment	Frozen	1	1
T779.33	TFPSO-2B2	2/6/2025	22:10	Sediment	Frozen	1	1
T779.33	TFPSO-2CP2	2/6/2025	21:48	Sediment	Frozen	1	1
T779.33	TFPSO-3B2	2/7/2025	0:57	Sediment	Frozen	1	1
T779.33	TFPSO-3CP2	2/7/2025	1:28	Sediment	Frozen	1	1
T779.33	TFPSO-4B2	2/7/2025	0:36	Sediment	Frozen	1	1
T779.33	TFPSO-4CP2	2/6/2025	23:05	Sediment	Frozen	1	1
T779.33	YAREF-A	2/7/2025	5:16	Sediment	Frozen	1	1
T779.33	YAREF-B	2/7/2025	5:43	Sediment	Frozen	1	1
T779.33	YAREF-C	2/7/2025	6:05	Sediment	Frozen	1	1

Relinquished by: *Chale*

Relinquished by:

Recieved by: **9 FEB 2025**

Recieved by: *[Signature]*

02/09/25 20/25
11:34

SAMPLE RECEIPT CHECKLIST



Section 1: General Info

Date Received: 2/20/25 WO# 526406 Client: Tetra Tech, Inc.

Section 2: Shipping / Custody

Are custody seals present? ☐ Yes ☒ No

Custody seals intact on arrival? ☒ N/A ☐ Yes ☐ No ☐ On cooler / box ☐ On samples

☐ Courier ☒ Walk-In ☐ Field Sampling ☐ Shipping Info: _____

Section 3a: Condition / Packaging

☐ Outside 0.0 - 6.0°C (0.0 - 10.0°C for microbiology) (PM notified)

Date Opened 2/20/25 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: _____ CF: _____

Cooler Temp (°C) #1: 1.6 / 1.6 #2: 2.5 / 2.5 #3: _____ / _____ #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?	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.)

3.a) Residual dry ice also in cooler; Sediments were still frozen.

4.6) 009: COC lists ID as "SRWB-2B2-A" but the label lists "SRWB-2B2X-A"

4.6) 010: COC lists ID as "SRWB-2B2-A-FD" but the label lists "SRWB-2B2X-A-FD"

4.6) 010: COC lists collection time as 18:11 but the label lists 18:10

☐ No additional discrepancies

Date Logged 2/14/25

By (print) Emeryville

(sign) _____

Date Labeled 2/20/25

By (print) Orange

(sign) Cavay

ORIGIN ID:CCRA (925) 283-3771
BARBARA MAGOON
TETRA TECH, INC
3697 MT. DIABLO BLVD #150
LAFAYETTE, CA 94549
UNITED STATES US

SHIP DATE: 14FEB25
ACTWGT: 45.00 LB
CAD: 250616822/INET4535
DIMS: 24x18x12 IN
DRY ICE: 2.27 KG
BILL SENDER

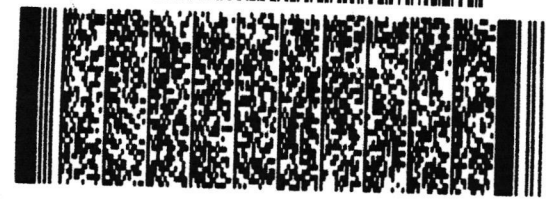
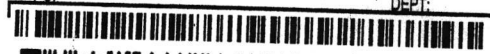
TO **SAMPLE CONTROL**
ENTHALPY ANALYTICAL
931 W. BARKLEY AVE.

ORANGE CA 92868

(714) 771-8900
INV:
PO:

REF: TED - CHEVRON

DEPT:



58CJ4/26DE/C8C4

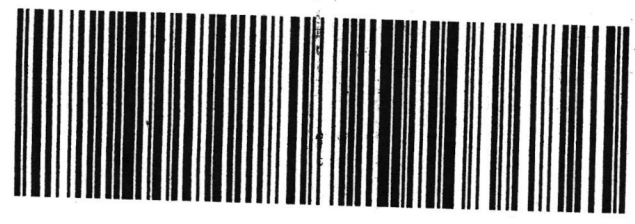
1 of 3
TRK# 7720 9666 6509
0201
MASTER

MON - 17 FEB 10:30A
PRIORITY OVERNIGHT

WZ APVA

ICE
92868

CA-US SNA



1-6/1-4
1/2/3

ORIGIN ID:CCRA (925) 283-3771
BARBARA MAGOON
TETRA TECH, INC
3697 MT. DIABLO BLVD #150
LAFAYETTE, CA 94549
UNITED STATES US

SHIP DATE: 14 FEB 25
ACTWGT: 45.00 LB
CAD: 250616822/INET4535
DIMS: 24x18x12 IN
DRY ICE: 2.27 KG
BILL SENDER

TO **SAMPLE CONTROL**
ENTHALPY ANALYTICAL
931 W. BARKLEY AVE.

ORANGE CA 92868

(714) 771-6900
INV:
PO:

REF: TED - CHEVRON

DEPT:



FedEx
Express



2 of 3

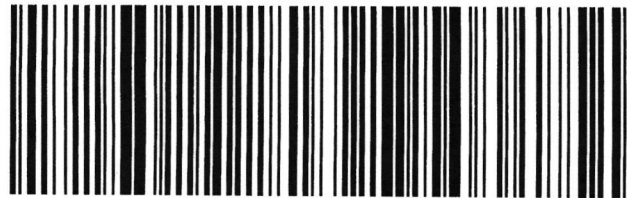
MON - 17 FEB 10:30A
PRIORITY OVERNIGHT

MPS# 7720 9666 6510
0263

MPS# 7720 9666 6510
0263

92 APVA

MOI
PRI
ICE
928
CA-US
SN/



0426007 20Feb 00:06 OAKH 647C1/A622/A17C

2-5/2-5 1/2 13

Extractable Carbon Chain

Lab #: 526406		Project#: COTL		
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand		
Field ID: SRWA-1B2X-A	Moisture: 43%	Prepared: 02/23/25		
Type: SAMPLE	DF: 0.9940	Analyzed: 02/26/25		
Lab ID: 526406-001	Batch#: 363921	Prep: EPA 3580M		
Matrix: Soil	Sampled: 02/08/25	Analysis: EPA 8015M		
Basis: dry	Received: 02/20/25	Analyst: KMB		
526406-001 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
526406-001 Surrogate	%REC		Limits	
n-Triacontane	89		70-130	
Field ID: SRWA-2B2X-A		Moisture: 57%		Prepared: 02/23/25
Type: SAMPLE		DF: 0.9945		Analyzed: 02/26/25
Lab ID: 526406-002		Batch#: 363921		Prep: EPA 3580M
Matrix: Soil		Sampled: 02/08/25		Analysis: EPA 8015M
Basis: dry		Received: 02/20/25		Analyst: KMB
526406-002 Analyte	Result	RL	MDL	Units
TPH (C10-C14)	ND	23	8.5	mg/Kg
TPH (C14-C24)	ND	23	8.5	mg/Kg
ORO C28-C44	ND	46	8.5	mg/Kg
526406-002 Surrogate	%REC		Limits	
n-Triacontane	89		70-130	
Field ID: SRWA-2B2X-A-FD		Moisture: 49%		Prepared: 02/23/25
Type: SAMPLE		DF: 0.9930		Analyzed: 02/26/25
Lab ID: 526406-003		Batch#: 363921		Prep: EPA 3580M
Matrix: Soil		Sampled: 02/08/25		Analysis: EPA 8015M
Basis: dry		Received: 02/20/25		Analyst: KMB
526406-003 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
526406-003 Surrogate	%REC		Limits	
n-Triacontane	89		70-130	

Extractable Carbon Chain

Lab #: 526406		Project#: COTL		
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand		
Field ID: SRWA-3B2X-A	Moisture: 49%	Prepared: 02/23/25		
Type: SAMPLE	DF: 0.9911	Analyzed: 02/26/25		
Lab ID: 526406-004	Batch#: 363921	Prep: EPA 3580M		
Matrix: Soil	Sampled: 02/08/25	Analysis: EPA 8015M		
Basis: dry	Received: 02/20/25	Analyst: KMB		
526406-004 Analyte		Result	RL	MDL
TPH (C10-C14)		ND	19	7.1
TPH (C14-C24)		ND	19	7.1
ORO C28-C44		ND	39	7.1
526406-004 Surrogate		%REC		Limits
n-Triacontane		86		70-130
Field ID: SRWA-4B2X-A		Moisture: 56%	Prepared: 02/23/25	
Type: SAMPLE		DF: 0.9921	Analyzed: 02/26/25	
Lab ID: 526406-005		Batch#: 363921	Prep: EPA 3580M	
Matrix: Soil		Sampled: 02/08/25	Analysis: EPA 8015M	
Basis: dry		Received: 02/20/25	Analyst: KMB	
526406-005 Analyte		Result	RL	MDL
TPH (C10-C14)		ND	23	8.3
TPH (C14-C24)		ND	23	8.3
ORO C28-C44		ND	45	8.3
526406-005 Surrogate		%REC		Limits
n-Triacontane		87		70-130
Field ID: SRWB-1B2-A		Moisture: 49%	Prepared: 02/23/25	
Type: SAMPLE		DF: 0.9911	Analyzed: 02/26/25	
Lab ID: 526406-006		Batch#: 363921	Prep: EPA 3580M	
Matrix: Soil		Sampled: 02/09/25	Analysis: EPA 8015M	
Basis: dry		Received: 02/20/25	Analyst: KMB	
526406-006 Analyte		Result	RL	MDL
TPH (C10-C14)		210	19	7.1
TPH (C14-C24)		280	19	7.1
ORO C28-C44		ND	39	7.1
526406-006 Surrogate		%REC		Limits
n-Triacontane		84		70-130

Extractable Carbon Chain

Lab #: 526406		Project#: COTL		
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand		
Field ID: SRWB-1CP2-A	Moisture: 57%	Prepared: 02/23/25		
Type: SAMPLE	DF: 0.9921	Analyzed: 02/26/25		
Lab ID: 526406-007	Batch#: 363921	Prep: EPA 3580M		
Matrix: Soil	Sampled: 02/09/25	Analysis: EPA 8015M		
Basis: dry	Received: 02/20/25	Analyst: KMB		
526406-007 Analyte		Result	RL	MDL
TPH (C10-C14)		ND	23	8.5
TPH (C14-C24)		ND	23	8.5
ORO C28-C44		ND	46	8.5
526406-007 Surrogate		%REC		Limits
n-Triacontane		86		70-130
Field ID: SRWB-1D2-A		Moisture: 53%	Prepared: 02/23/25	
Type: SAMPLE		DF: 0.9995	Analyzed: 02/26/25	
Lab ID: 526406-008		Batch#: 363921	Prep: EPA 3580M	
Matrix: Soil		Sampled: 02/09/25	Analysis: EPA 8015M	
Basis: dry		Received: 02/20/25	Analyst: KMB	
526406-008 Analyte		Result	RL	MDL
TPH (C10-C14)		ND	21	7.8
TPH (C14-C24)		ND	21	7.8
ORO C28-C44		ND	43	7.8
526406-008 Surrogate		%REC		Limits
n-Triacontane		88		70-130
Field ID: SRWB-2B2-A		Moisture: 67%	Prepared: 02/23/25	
Type: SAMPLE		DF: 0.9916	Analyzed: 02/26/25	
Lab ID: 526406-009		Batch#: 363921	Prep: EPA 3580M	
Matrix: Soil		Sampled: 02/09/25	Analysis: EPA 8015M	
Basis: dry		Received: 02/20/25	Analyst: KMB	
526406-009 Analyte		Result	RL	MDL
TPH (C10-C14)		95	30	11
TPH (C14-C24)		150	30	11
ORO C28-C44		ND	60	11
526406-009 Surrogate		%REC		Limits
n-Triacontane		90		70-130

Extractable Carbon Chain

Lab #: 526406		Project#: COTL		
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand		
Field ID: SRWB-2B2-A-FD	Moisture: 58%	Prepared: 02/23/25		
Type: SAMPLE	DF: 0.9975	Analyzed: 02/26/25		
Lab ID: 526406-010	Batch#: 363921	Prep: EPA 3580M		
Matrix: Soil	Sampled: 02/09/25	Analysis: EPA 8015M		
Basis: dry	Received: 02/20/25	Analyst: KMB		
526406-010 Analyte		Result	RL	MDL Units
TPH (C10-C14)		40	24	8.7 mg/Kg
TPH (C14-C24)		66	24	8.7 mg/Kg
ORO C28-C44		ND	48	8.7 mg/Kg
526406-010 Surrogate		%REC		Limits
n-Triacontane		91		70-130
Field ID: SRWB-3B2-A		Moisture: 48%	Prepared: 02/23/25	
Type: SAMPLE		DF: 0.9950	Analyzed: 02/26/25	
Lab ID: 526406-011		Batch#: 363921	Prep: EPA 3580M	
Matrix: Soil		Sampled: 02/09/25	Analysis: EPA 8015M	
Basis: dry		Received: 02/20/25	Analyst: KMB	
526406-011 Analyte		Result	RL	MDL Units
TPH (C10-C14)		980	19	7.0 mg/Kg
TPH (C14-C24)		1,300	19	7.0 mg/Kg
ORO C28-C44		8.2 J	38	7.0 mg/Kg
526406-011 Surrogate		%REC		Limits
n-Triacontane		97		70-130
Field ID: SRWB-3CP2-A		Moisture: 58%	Prepared: 02/23/25	
Type: SAMPLE		DF: 0.9965	Analyzed: 02/26/25	
Lab ID: 526406-012		Batch#: 363921	Prep: EPA 3580M	
Matrix: Soil		Sampled: 02/09/25	Analysis: EPA 8015M	
Basis: dry		Received: 02/20/25	Analyst: KMB	
526406-012 Analyte		Result	RL	MDL Units
TPH (C10-C14)		24	24	8.7 mg/Kg
TPH (C14-C24)		35	24	8.7 mg/Kg
ORO C28-C44		ND	47	8.7 mg/Kg
526406-012 Surrogate		%REC		Limits
n-Triacontane		101		70-130

Extractable Carbon Chain

Lab #: 526406	Project#: COTL	
Client: Tetra Tech, Inc.	Location: T779.30 - Gulf of Thailand	
Field ID: SRWB-3D2-A	Moisture: 58%	Prepared: 02/23/25
Type: SAMPLE	DF: 0.9990	Analyzed: 02/26/25
Lab ID: 526406-013	Batch#: 363921	Prep: EPA 3580M
Matrix: Soil	Sampled: 02/09/25	Analysis: EPA 8015M
Basis: dry	Received: 02/20/25	Analyst: KMB

526406-013 Analyte	Result	RL	MDL	Units
TPH (C10-C14)	ND	24	8.7	mg/Kg
TPH (C14-C24)	ND	24	8.7	mg/Kg
ORO C28-C44	ND	48	8.7	mg/Kg

526406-013 Surrogate	%REC	Limits
n-Triacontane	97	70-130

Field ID: SRWB-4B2-A	Moisture: 52%	Prepared: 02/23/25
Type: SAMPLE	DF: 0.9995	Analyzed: 02/26/25
Lab ID: 526406-014	Batch#: 363921	Prep: EPA 3580M
Matrix: Soil	Sampled: 02/09/25	Analysis: EPA 8015M
Basis: dry	Received: 02/20/25	Analyst: KMB

526406-014 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

526406-014 Surrogate	%REC	Limits
n-Triacontane	101	70-130

Type: BLANK	Batch#: 363921	Analysis: EPA 8015M
Lab ID: QC1232323	Prepared: 02/23/25	Analyst: KMB
Matrix: Soil	Analyzed: 02/25/25	
DF: 0.9945	Prep: EPA 3580M	

QC1232323 Analyte	Result	RL	MDL	Units
TPH (C10-C14)	ND	9.9	3.7	mg/Kg
TPH (C14-C24)	ND	9.9	3.7	mg/Kg
ORO C28-C44	ND	20	3.7	mg/Kg

QC1232323 Surrogate	%REC	Limits
n-Triacontane	91	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 #: 526406		Project#: COTL			
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand			
Type: LCS		Batch#: 363921		Analysis: EPA 8015M	
Lab ID: QC1232324		Prepared: 02/23/25		Analyst: KMB	
Matrix: Soil		Analyzed: 02/25/25			
DF: 0.9930		Prep: EPA 3580M			
QC1232324 Analyte		Spiked	Result	%REC	Limits
Diesel C10-C28		248.3	203.9	82	76-122
QC1232324 Surrogate				%REC	Limits
n-Triacontane				84	70-130

Extractable Carbon Chain: Batch QC

Lab #: 526406		Project#: COTL									
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand									
Field ID: ZZZZZZZZZZ		Matrix: Soil		Batch#: 363921		Analyzed: 02/25/25					
Type: MS		Basis: dry		Sampled: 02/21/25		Prep: EPA 3580M					
MSS Lab ID: 527150-001		Moisture: 12%		Received: 02/21/25		Analysis: EPA 8015M					
Lab ID: QC1232325		DF: 0.9995		Prepared: 02/23/25		Analyst: KMB					
QC1232325 Analyte		MSS Result		Spiked		Result		%REC	Limits	Units	
Diesel C10-C28		5.847		283.9		249.5		86	62-126	mg/Kg	
QC1232325 Surrogate								%REC	Limits		
n-Triacontane								82	70-130		
Field ID: ZZZZZZZZZZ		Matrix: Soil		Batch#: 363921		Analyzed: 02/25/25					
Type: MSD		Basis: dry		Sampled: 02/21/25		Prep: EPA 3580M					
MSS Lab ID: 527150-001		Moisture: 12%		Received: 02/21/25		Analysis: EPA 8015M					
Lab ID: QC1232326		DF: 0.9960		Prepared: 02/23/25		Analyst: KMB					
QC1232326 Analyte		Spiked		Result		%REC		Limits	Units	RPD	Lim
Diesel C10-C28		283.0		230.6		79		62-126	mg/Kg	8	35
QC1232326 Surrogate								%REC	Limits		
n-Triacontane								83	70-130		

Legend
RPD: Relative Percent
Difference

Moisture

Lab #: 526406		Project#: COTL		
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand		
Field ID: SRWA-1B2X-A	Batch#: 363939	Analyzed: 02/24/25		
Lab ID: 526406-001	Sampled: 02/08/25	Prep: METHOD		
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216		
DF: 1.000	Prepared: 02/23/25	Analyst: CDR		
526406-001 Analyte		Result	RL	Units
Moisture, Percent		43	1	%
Field ID: SRWA-2B2X-A	Batch#: 363939	Analyzed: 02/24/25		
Lab ID: 526406-002	Sampled: 02/08/25	Prep: METHOD		
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216		
DF: 1.000	Prepared: 02/23/25	Analyst: CDR		
526406-002 Analyte		Result	RL	Units
Moisture, Percent		57	1	%
Field ID: SRWA-2B2X-A-FD	Batch#: 363939	Analyzed: 02/24/25		
Lab ID: 526406-003	Sampled: 02/08/25	Prep: METHOD		
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216		
DF: 1.000	Prepared: 02/23/25	Analyst: CDR		
526406-003 Analyte		Result	RL	Units
Moisture, Percent		49	1	%
Field ID: SRWA-3B2X-A	Batch#: 363939	Analyzed: 02/24/25		
Lab ID: 526406-004	Sampled: 02/08/25	Prep: METHOD		
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216		
DF: 1.000	Prepared: 02/23/25	Analyst: CDR		
526406-004 Analyte		Result	RL	Units
Moisture, Percent		49	1	%
Field ID: SRWA-4B2X-A	Batch#: 363939	Analyzed: 02/24/25		
Lab ID: 526406-005	Sampled: 02/08/25	Prep: METHOD		
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216		
DF: 1.000	Prepared: 02/23/25	Analyst: CDR		
526406-005 Analyte		Result	RL	Units
Moisture, Percent		56	1	%
Field ID: SRWB-1B2-A	Batch#: 363939	Analyzed: 02/24/25		
Lab ID: 526406-006	Sampled: 02/09/25	Prep: METHOD		
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216		
DF: 1.000	Prepared: 02/23/25	Analyst: CDR		
526406-006 Analyte		Result	RL	Units
Moisture, Percent		49	1	%

Moisture

Lab #: 526406		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand	
Field ID: SRWB-1CP2-A	Batch#: 363939	Analyzed: 02/24/25	
Lab ID: 526406-007	Sampled: 02/09/25	Prep: METHOD	
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 02/23/25	Analyst: CDR	
526406-007 Analyte		Result	RL Units
Moisture, Percent		57	1 %
Field ID: SRWB-1D2-A	Batch#: 363939	Analyzed: 02/24/25	
Lab ID: 526406-008	Sampled: 02/09/25	Prep: METHOD	
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 02/23/25	Analyst: CDR	
526406-008 Analyte		Result	RL Units
Moisture, Percent		53	1 %
Field ID: SRWB-2B2-A	Batch#: 363939	Analyzed: 02/24/25	
Lab ID: 526406-009	Sampled: 02/09/25	Prep: METHOD	
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 02/23/25	Analyst: CDR	
526406-009 Analyte		Result	RL Units
Moisture, Percent		67	1 %
Field ID: SRWB-2B2-A-FD	Batch#: 363939	Analyzed: 02/24/25	
Lab ID: 526406-010	Sampled: 02/09/25	Prep: METHOD	
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 02/23/25	Analyst: CDR	
526406-010 Analyte		Result	RL Units
Moisture, Percent		58	1 %
Field ID: SRWB-3B2-A	Batch#: 363939	Analyzed: 02/24/25	
Lab ID: 526406-011	Sampled: 02/09/25	Prep: METHOD	
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 02/23/25	Analyst: CDR	
526406-011 Analyte		Result	RL Units
Moisture, Percent		48	1 %
Field ID: SRWB-3CP2-A	Batch#: 363939	Analyzed: 02/24/25	
Lab ID: 526406-012	Sampled: 02/09/25	Prep: METHOD	
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 02/23/25	Analyst: CDR	
526406-012 Analyte		Result	RL Units
Moisture, Percent		58	1 %

Moisture

Lab #: 526406		Project#: COTL		
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand		
Field ID: SRWB-3D2-A	Batch#: 363939	Analyzed: 02/24/25		
Lab ID: 526406-013	Sampled: 02/09/25	Prep: METHOD		
Matrix: Soil	Received: 02/20/25	Analysis: ASTM D2216		
DF: 1.000	Prepared: 02/23/25	Analyst: CDR		
526406-013 Analyte		Result	RL	Units
Moisture, Percent		58	1	%
Field ID: SRWB-4B2-A		Analyzed: 02/23/25		
Lab ID: 526406-014		Prep: METHOD		
Matrix: Soil		Analysis: ASTM D2216		
DF: 1.000		Analyst: CDR		
526406-014 Analyte		Result	RL	Units
Moisture, Percent		52	1	%

Legend

RL: Reporting Limit

Moisture: Batch QC

Lab #: 526406

Project#: COTL

Client: Tetra Tech, Inc.

Location: T779.30 - Gulf of Thailand

Field ID: SRWB-3D2-A

DF: 1.000

Analyzed: 02/24/25

Type: SDUP

Batch#: 363939

Prep: METHOD

MSS Lab ID: 526406-013

Sampled: 02/09/25

Analysis: ASTM D2216

Lab ID: QC1232395

Received: 02/20/25

Analyst: CDR

Matrix: Soil

Prepared: 02/23/25

QC1232395 Analyte	MSS Result	Result	RL	Units	RPD	Lim
Moisture, Percent	58.40	58.45	1.000	%	0	20

Field ID: SRWB-4B2-A

DF: 1.000

Analyzed: 02/23/25

Type: SDUP

Batch#: 363940

Prep: METHOD

MSS Lab ID: 526406-014

Sampled: 02/09/25

Analysis: ASTM D2216

Lab ID: QC1232397

Received: 02/20/25

Analyst: CDR

Matrix: Soil

Prepared: 02/23/25

QC1232397 Analyte	MSS Result	Result	RL	Units	RPD	Lim
Moisture, Percent	51.58	51.36	1.000	%	0	20

Legend

RL: Reporting Limit

RPD: Relative Percent
Difference



Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number : 528246
Report Level : II
Report Date : 03/28/2025

Analytical Report *prepared for:*

Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549

Project: COTL - T779.30 - 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
Bld.
Suite 150
Lafayette, CA 94549

Lab Job #: 528246
Project No: COTL
Location: T779.30 - Gulf of Thailand
Date Received: 03/06/25

Sample ID	Lab ID	Collected	Matrix
G4/43REF-A	528246-001	02/10/25 02:08	Soil

Case Narrative

Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, CA 94549
Ted Donn

Lab Job Number: 528246
Project No: COTL
Location: T779.29 - Gulf of
Thailand
Date Received: 03/06/25

This data package contains sample and QC results for one soil sample, requested for the above referenced project on 03/06/25. The sample was received cold and intact.

TPH-Extractables by GC (EPA 8015M):

- High response was observed for diesel C10-C28 in the CCV analyzed 03/27/25 12:48; 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
931 West Barkley Ave
Orange, CA 92868

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-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	2/20/2025	17:12	SED	Frozen	1	1
T779.27	PAWE-1C2	2/20/2025	1:48	SED	Frozen	1	1
T779.27	PAWE-1CP2	2/20/2025	2:23	SED	Frozen	1	1
T779.27	PAWE-1D2	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-2C2-FD	2/20/2025	4:56	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

T779.28	MGWA-1B2Y	2/4/2025	13:36	SED	Frozen	1	1
T779.28	MGWA-1C2	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	14:38	SED	Frozen	1	1
T779.28	MGWA-2C2	2/4/2025	15:06	SED	Frozen	1	1
T779.28	MGWA-3B2X	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

T779.30	G4/43REF-A	2/10/2025	2:08	SED	Frozen	1	1
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T779.32	ERPLG/ERXLG-M1	2/12/2025	10:43	SED	Frozen	1	1
T779.32	ERPLG/ERXLG-M2	2/12/2025	10:23	SED	Frozen	1	1
T779.32	ERPLG/ERXLG-N1	2/12/2025	8:21	SED	Frozen	1	1
T779.32	ERPLG/ERXLG-N1-FD	2/12/2025	8:30	SED	Frozen	1	1
T779.32	ERPLG/ERXLG-N2	2/12/2025	8:03	SED	Frozen	1	1
T779.32	ERPLG/ERXLG-S1	2/12/2025	11:23	SED	Frozen	1	1
T779.32	ERPLG/ERXLG-S2	2/12/2025	13:22	SED	Frozen	1	1
T779.32	ERREF2-A	2/12/2025	17:20	SED	Frozen	1	1
T779.32	ERREF2-B	2/12/2025	17:37	SED	Frozen	1	1
T779.32	ERREF2-C	2/12/2025	17:59	SED	Frozen	1	1
T779.32	JKPLC1-E1	2/22/2025	22:20	SED	Frozen	1	1
T779.32	JKPLC1-E2	2/22/2025	22:06	SED	Frozen	1	1
T779.32	JKPLC1-M1	2/22/2025	16:10	SED	Frozen	1	1

Relinquished by: Chayunggon Vathanyupracha

Relinquished by:

3 Mar 2025

Recieved by:

Recieved by:

SAMPLE RECEIPT CHECKLIST



Section 1: General Info

Date Received: 3/6/25 WO# 528246 Client: Tetra Tech

Section 2: Shipping / Custody

Are custody seals present? ☐ Yes ☒ No

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

☐ Outside 0.0 - 6.0°C (0.0 - 10.0°C for microbiology) (PM notified)

Date Opened 3/6/25 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 CF: +0.1

Cooler Temp (°C) #1: -8.1 / -8.0 #2: -7.8 / -7.7 #3: -0.1 / -0.0 #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?

☐ YES ☒ NO ☐ N/A

2) Is the sampler's name present on the CoC?

☐ YES ☒ NO ☐ N/A

3) Were containers received in good condition (unbroken / unopened / uncompromised)?

☒ YES ☐ NO ☐ N/A

4) Were the samples bagged? (required for microbiology samples; recommended for soil samples)

☒ YES ☐ NO ☐ N/A

5) Were all of, and only, the correct samples received?

☐ YES ☐ NO ☐ N/A

6) Are sample labels present, legible, and in agreement with the CoC?

☐ YES ☐ NO ☐ N/A

7) Does the container count match the CoC?

☐ YES ☐ NO ☒ N/A

8) Was sufficient sample volume / mass received for the analyses requested?

☒ YES ☐ NO ☐ N/A

9) Were samples received in proper containers for the analyses requested?

☒ YES ☐ NO ☐ N/A

10) Were samples received with > 1/2 holding time remaining?

☒ YES ☐ NO ☐ N/A

11) Are samples properly preserved as indicated by CoC / labels?

☐ YES ☐ NO ☐ N/A

12) Unpreserved VOAs received - If necessary, was the hold time changed in LIMS?

☐ YES ☐ NO ☒ N/A

13) Are VOA vials free from headspace/bubbles > 6mm?

☐ YES ☐ NO ☒ N/A

Section 5: Explanations / Comments

(If no comments are made, then no discrepancies noted.)

This sample was not on the CoC, see 529290 for CoC it was shipped with.

☐ No additional discrepancies

Date Logged 3/6/25

By (print) ABD

(sign) ABD

Date Labeled 3/6/25

By (print) ABD

(sign) ABD



Login 528246



Extractable Carbon Chain

Lab #: 528246		Project#: COTL
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand
Field ID: G4/43REF-A	Moisture: 51%	Prepared: 03/26/25
Type: SAMPLE	DF: 0.9950	Analyzed: 03/27/25
Lab ID: 528246-001	Batch#: 367135	Prep: EPA 3580M
Matrix: Soil	Sampled: 02/10/25	Analysis: EPA 8015M
Basis: dry	Received: 03/06/25	Analyst: DIB

528246-001 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

528246-001 Surrogate	%REC	Limits
n-Triacontane	82	70-130

Type: BLANK	Batch#: 367135	Analysis: EPA 8015M
Lab ID: QC1243007	Prepared: 03/26/25	Analyst: DIB
Matrix: Soil	Analyzed: 03/27/25	
DF: 1.000	Prep: EPA 3580M	

QC1243007 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

QC1243007 Surrogate	%REC	Limits
n-Triacontane	80	70-130

Legend

MDL: Method Detection Limit
ND: Not Detected at or above MDL
RL: Reporting Limit

Extractable Carbon Chain: Batch QC

Lab #: 528246

Project#: COTL

Client: Tetra Tech, Inc.

Location: T779.30 - Gulf of Thailand

Type: LCS

Batch#: 367135

Analysis: EPA 8015M

Lab ID: QC1243008

Prepared: 03/26/25

Analyst: DIB

Matrix: Soil

Analyzed: 03/27/25

DF: 0.9950

Prep: EPA 3580M

QC1243008 Analyte	Spiked	Result	%REC	Limits	Units	Qual
Diesel C10-C28	248.8	239.4	96	76-122	mg/Kg	b

QC1243008 Surrogate	%REC	Limits
n-Triacontane	72	70-130

Legend

b: See narrative

Extractable Carbon Chain: Batch QC

Lab #: 528246			Project#: COTL		
Client: Tetra Tech, Inc.			Location: T779.30 - Gulf of Thailand		
Field ID: ZZZZZZZZZZ		Basis: as received		Prepared: 03/26/25	
Type: MS		DF: 1.992		Analyzed: 03/27/25	
MSS Lab ID: 529637-001		Batch#: 367135		Prep: EPA 3580M	
Lab ID: QC1243009		Sampled: 03/24/25		Analysis: EPA 8015M	
Matrix: Miscell.		Received: 03/25/25		Analyst: DIB	
QC1243009 Analyte			MSS Result	Spiked	Result
Diesel C10-C28			49.60	498.0	502.0
QC1243009 Surrogate			%REC		Limits
n-Triacontane			111		70-130
Field ID: ZZZZZZZZZZ			Basis: as received		Prepared: 03/26/25
Type: MSD			DF: 1.970		Analyzed: 03/27/25
MSS Lab ID: 529637-001			Batch#: 367135		Prep: EPA 3580M
Lab ID: QC1243010			Sampled: 03/24/25		Analysis: EPA 8015M
Matrix: Miscell.			Received: 03/25/25		Analyst: DIB
QC1243010 Analyte			Spiked	Result	%REC
Diesel C10-C28			492.6	489.9	89
QC1243010 Surrogate			%REC		Limits
n-Triacontane			106		70-130
Legend			RPD: Relative Percent Difference		

Moisture

Lab #: 528246		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand	
Field ID: G4/43REF-A	Batch#: 367174	Analyzed: 03/27/25	
Lab ID: 528246-001	Sampled: 02/10/25	Prep: METHOD	
Matrix: Soil	Received: 03/06/25	Analysis: ASTM D2216	
DF: 1.000	Prepared: 03/26/25	Analyst: TRR	
528246-001 Analyte		Result	RL
Moisture, Percent		51	1
			Units
			%

Legend

RL: Reporting Limit

Moisture: Batch QC

Lab #: 528246		Project#: COTL	
Client: Tetra Tech, Inc.		Location: T779.30 - Gulf of Thailand	
Field ID: G4/43REF-A	DF: 1.000	Analyzed: 03/27/25	
Type: SDUP	Batch#: 367174	Prep: METHOD	
MSS Lab ID: 528246-001	Sampled: 02/10/25	Analysis: ASTM D2216	
Lab ID: QC1243117	Received: 03/06/25	Analyst: TRR	
Matrix: Soil	Prepared: 03/26/25		
QC1243117 Analyte	MSS Result	Result	RL Units RPD Lim
Moisture, Percent	50.95	50.93	1.000 % 0 20

Legend
RL: Reporting Limit
RPD: Relative Percent Difference

MTEC0870/68

Report of Samples Analysis

Issued Date : 22 May 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 : 13-19 May 2025

Samples : Seabed Sediment Project No. T43779.30 (13 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 : 85.0

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.

MTEC0870/68

1/4



Samples detail :

Sample No.	Sample Name	Sample No.	Sample Name
1	G4/43 REF-A	8	SRWB-1D2-A
2	SRWA-1B2X-A	9	SRWB-2B2-A
3	SRWA-2B2X-A	10	SRWB-3B2-A
4	SRWA-3B2X-A	11	SRWB-3CP2-A
5	SRWA-4B2X-A	12	SRWB-3D2-A
6	SRWB-1B2-A	13	SRWB-4B2-A
7	SRWB-1CP2-A		

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 – 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	Mastersizer 2000 results of G4/43 REF-A
4 – 6	Mastersizer 2000 results of SRWA-1B2X-A
7 – 9	Mastersizer 2000 results of SRWA-2B2X-A
10 – 12	Mastersizer 2000 results of SRWA-3B2X-A
13 – 15	Mastersizer 2000 results of SRWA-4B2X-A
16 – 18	Mastersizer 2000 results of SRWB-1B2-A
19 – 21	Mastersizer 2000 results of SRWB-1CP2-A
22 – 24	Mastersizer 2000 results of SRWB-1D2-A
25 – 27	Mastersizer 2000 results of SRWB-2B2-A
28 – 30	Mastersizer 2000 results of SRWB-3B2-A
31 – 33	Mastersizer 2000 results of SRWB-3CP2-A
34 – 36	Mastersizer 2000 results of SRWB-3D2-A
37 – 39	Mastersizer 2000 results of SRWB-4B2-A

Work performed by :



(Mr.Arintarached Sirinantawittaya)

Approved by :



(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.

Result : Analysis Report

Attached page 1

Sample Details

Sample ID : G4/43 REF-A_1

Measured : 13 พฤษภาคม 2568 15:23:24

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T43770_30\Raw data

Analysed : 13 พฤษภาคม 2568 15:23:26

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

System Details

Accessory Name : Hydro 2000S (A)

Beam Length (mm) : 2.35

Obscuration (%) : 19.50

Residual (%) : 0.774

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 : 1.31 m²/g

Mean Diameters :

D (0.1) : 1.63 um

D (0.5) : 19.58 um

D (0.9) : 80.66 um

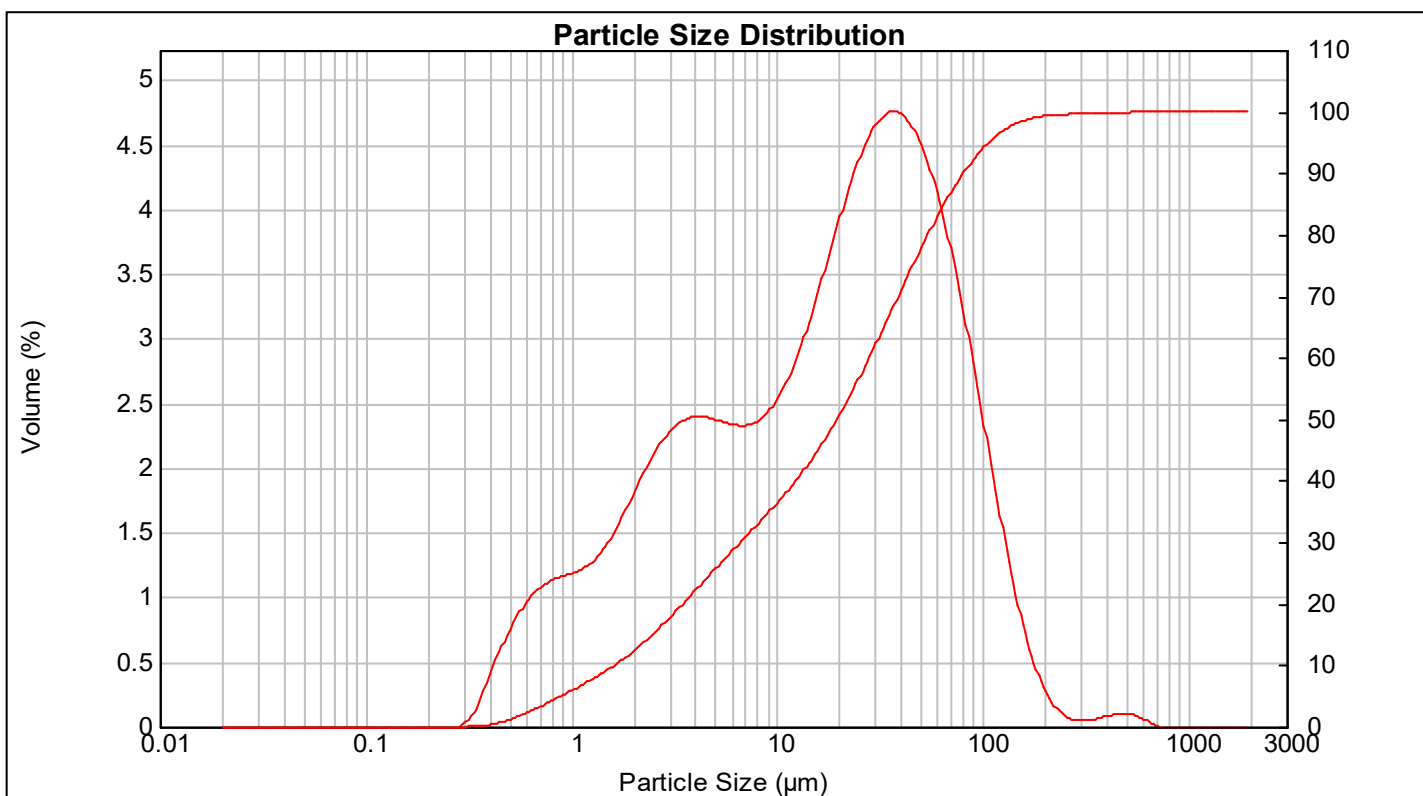
D [4,3] : 33.22 um

D [3,2] : 4.58 um

Span : 4.037

Uniformity : 1.35

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.24	7.962	2.40	58.573	4.01	430.887	0.10
0.023	0.00	0.172	0.00	1.262	1.33	9.283	2.54	68.291	3.54	502.377	0.09
0.027	0.00	0.200	0.00	1.471	1.49	10.823	2.75	79.621	3.00	585.729	0.04
0.032	0.00	0.233	0.00	1.715	1.69	12.619	3.03	92.832	2.40	682.910	0.00
0.037	0.00	0.272	0.01	2.000	1.91	14.713	3.37	108.234	1.79	796.214	0.00
0.043	0.00	0.317	0.13	2.332	2.11	17.154	3.74	126.191	1.23	928.318	0.00
0.050	0.00	0.370	0.41	2.719	2.27	20.000	4.09	147.128	0.75	1082.339	0.00
0.059	0.00	0.431	0.64	3.170	2.37	23.318	4.41	171.539	0.41	1261.915	0.00
0.068	0.00	0.502	0.85	3.696	2.40	27.187	4.63	200.000	0.19	1471.285	0.00
0.080	0.00	0.586	1.00	4.309	2.39	31.698	4.75	233.183	0.08	1715.392	0.00
0.093	0.00	0.683	1.10	5.024	2.36	36.957	4.75	271.871	0.05	2000.000	0.00
0.108	0.00	0.796	1.15	5.857	2.34	43.089	4.62	316.979	0.06		
0.126	0.00	0.928	1.19	6.829	2.34	50.238	4.37	369.570	0.08		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 2

Sample Details

Sample ID : G4/43 REF-A_2

Measured : 13 พฤษภาคม 2568 15:24:59

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T43770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 15:25:00

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

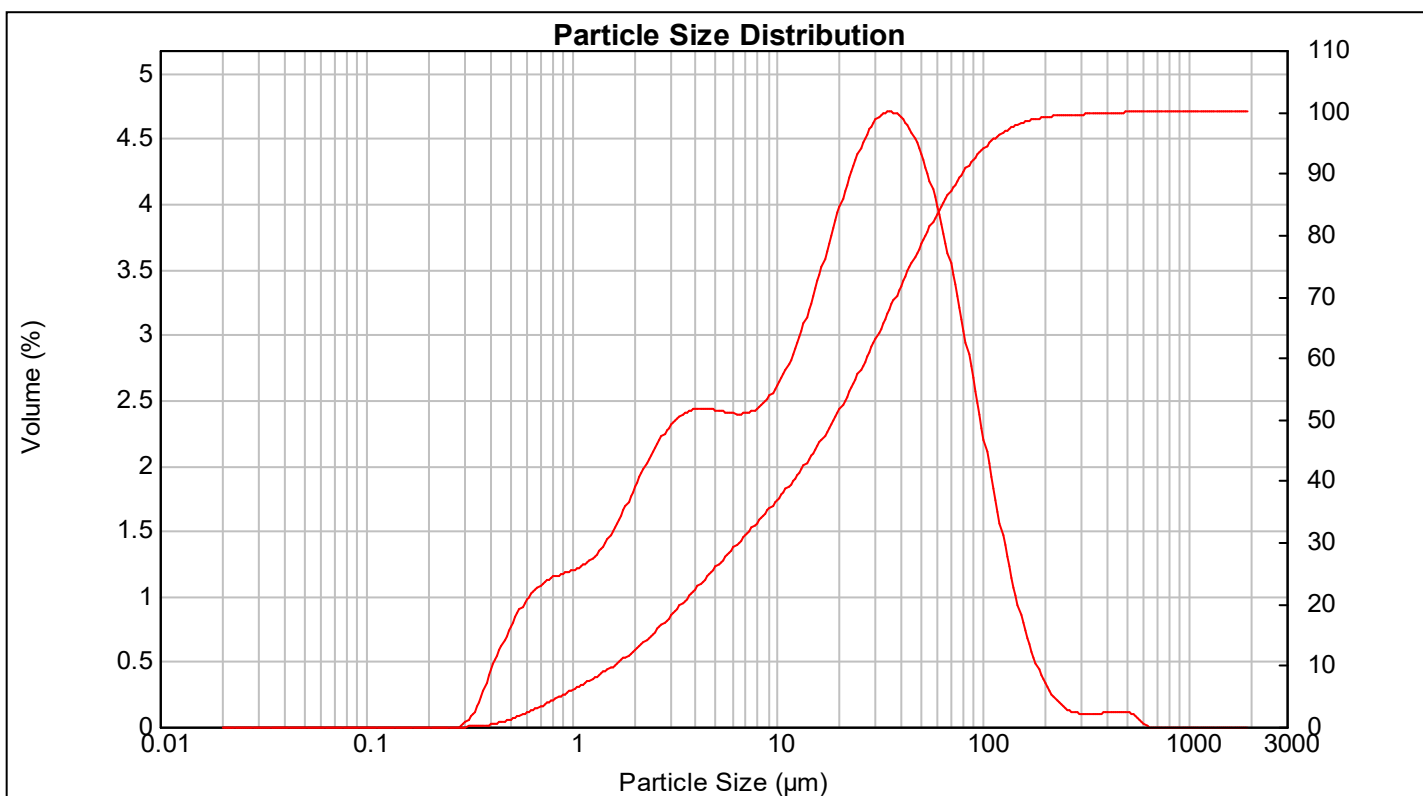
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.03 Residual (%) : 0.761
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 : 1.32 m²/g
Mean Diameters : D (0.1) : 1.62 um D (0.5) : 18.97 um D (0.9) : 80.09 um
D [4,3] : 33.1 um D [3,2] : 4.55 um Span : 4.137 Uniformity : 1.4

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.25	7.962	2.48	58.573	3.85	430.887	0.12
0.023	0.00	0.172	0.00	1.262	1.34	9.283	2.61	68.291	3.37	502.377	0.09
0.027	0.00	0.200	0.00	1.471	1.50	10.823	2.83	79.621	2.83	585.729	0.01
0.032	0.00	0.233	0.00	1.715	1.70	12.619	3.10	92.832	2.26	682.910	0.00
0.037	0.00	0.272	0.01	2.000	1.92	14.713	3.44	108.234	1.70	796.214	0.00
0.043	0.00	0.317	0.13	2.332	2.12	17.154	3.79	126.191	1.18	928.318	0.00
0.050	0.00	0.370	0.41	2.719	2.28	20.000	4.13	147.128	0.76	1082.339	0.00
0.059	0.00	0.431	0.64	3.170	2.43	23.318	4.42	171.539	0.45	1261.915	0.00
0.068	0.00	0.502	0.85	3.696	2.44	27.187	4.68	200.000	0.25	1471.285	0.00
0.080	0.00	0.586	1.01	4.309	2.40	31.698	4.51	233.183	0.10	1715.392	0.00
0.093	0.00	0.683	1.11	5.024	2.41	36.957	4.23	271.871	0.11	2000.000	0.00
0.108	0.00	0.796	1.16	5.857		43.089		316.979			
0.126	0.00	0.928	1.20	6.829		50.238		369.570			
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 3

Sample Details

Sample ID : G4/43 REF-A_3

Measured : 13 พฤษภาคม 2568 15:25:46

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\data\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 15:25:47

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

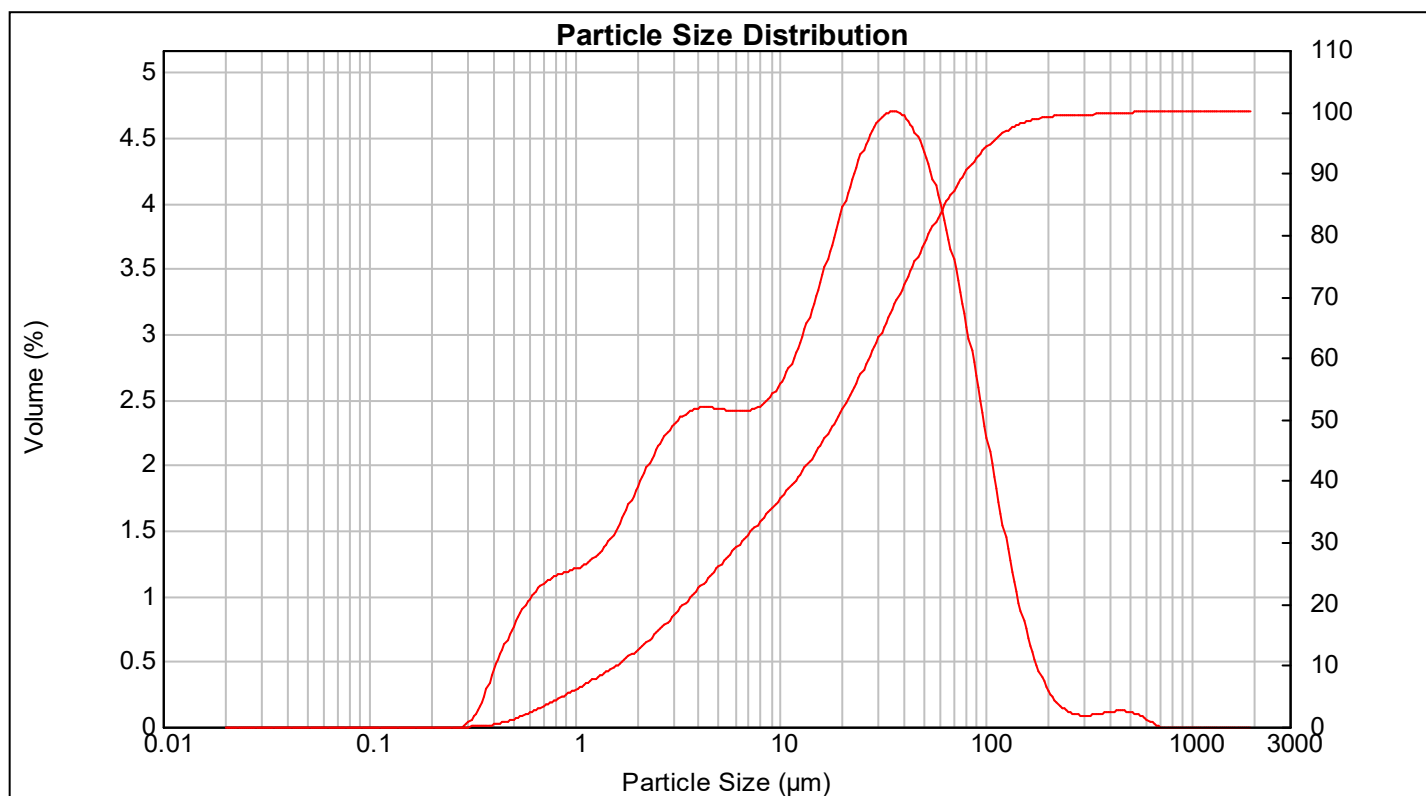
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 18.90 Residual (%) : 0.760
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 : 1.33 m²/g
Mean Diameters : D (0.1) : 1.61 um D (0.5) : 18.85 um D (0.9) : 79.35 um
D [4,3] : 32.94 um D [3,2] : 4.52 um Span : 4.124 Uniformity : 1.4

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.26	7.962	2.49	58.573	3.87	430.887	0.12
0.023	0.00	0.172	0.00	1.262	1.35	9.283	2.63	68.291	3.40	502.377	0.10
0.027	0.00	0.200	0.00	1.471	1.50	10.823	2.83	79.621	2.86	585.729	0.04
0.032	0.00	0.233	0.00	1.715	1.71	12.619	3.10	92.832	2.27	682.910	0.00
0.037	0.00	0.272	0.01	2.000	1.92	14.713	3.43	108.234	1.68	796.214	0.00
0.043	0.00	0.317	0.13	2.332	2.13	17.154	3.78	126.191	1.15	928.318	0.00
0.050	0.00	0.370	0.41	2.719	2.28	20.000	4.11	147.128	0.71	1082.339	0.00
0.059	0.00	0.431	0.64	3.170	2.39	23.318	4.40	171.539	0.40	1261.915	0.00
0.068	0.00	0.502	0.86	3.696	2.44	27.187	4.61	200.000	0.21	1471.285	0.00
0.080	0.00	0.586	1.01	4.309	2.44	31.698	4.71	233.183	0.11	1715.392	0.00
0.093	0.00	0.683	1.11	5.024	2.43	36.957	4.68	271.871	0.09	2000.000	0.00
0.108	0.00	0.796	1.17	5.857	2.41	43.089	4.53	316.979	0.09		
0.126	0.00	0.928	1.21	6.829	2.43	50.238	4.25	369.570	0.11		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 4

Sample Details

Sample ID : SRWA-1B2X-A_1

Measured : 13 พฤษภาคม 2568 15:51:31

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data 7

Analysed : 13 พฤษภาคม 2568 15:51:33

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

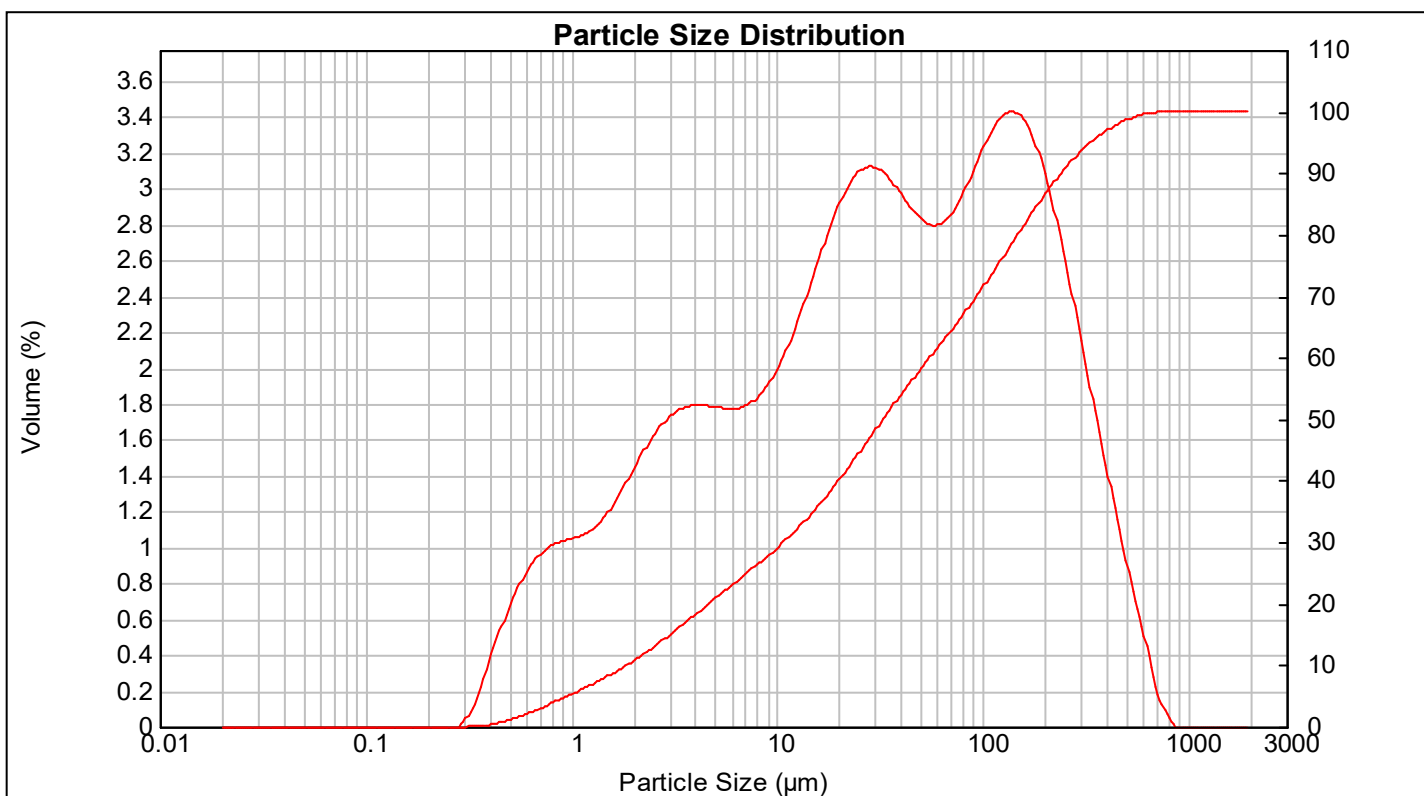
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.00 Residual (%) : 0.683
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0196 %Vol Specific Surface Area : 1.11 m²/g
Mean Diameters : D (0.1) : 1.86 um D (0.5) : 32.77 um D (0.9) : 240.16 um
D [4,3] : 84.36 um D [3,2] : 5.41 um Span : 7.272 Uniformity : 2.25

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.08	7.962	1.88	58.573	2.82	430.887	1.09
0.023	0.00	0.172	0.00	1.262	1.14	9.283	2.00	68.291	2.90	502.377	0.74
0.027	0.00	0.200	0.00	1.471	1.24	10.823	2.17	79.621	3.05	585.729	0.43
0.032	0.00	0.233	0.00	1.715	1.37	12.619	2.38	92.832	3.23	682.910	0.14
0.037	0.00	0.272	0.01	2.000	1.51	14.713	2.61	108.234	3.37	796.214	0.01
0.043	0.00	0.317	0.14	2.332	1.63	17.154	2.82	126.191	3.44	928.318	0.00
0.050	0.00	0.370	0.38	2.719	1.72	20.000	3.00	147.128	3.39	1082.339	0.00
0.059	0.00	0.431	0.58	3.170	1.78	23.318	3.11	171.539	3.23	1261.915	0.00
0.068	0.00	0.502	0.76	3.696	1.80	27.187	3.13	200.000	2.96	1471.285	0.00
0.080	0.00	0.586	0.90	4.309	1.79	31.698	3.08	233.183	2.61	1715.392	0.00
0.093	0.00	0.683	0.98	5.024	1.78	36.957	2.98	271.871	2.23	2000.000	0.00
0.108	0.00	0.796	1.03	5.857	1.81	43.089	2.88	316.979	1.83		
0.126	0.00	0.928	1.05	6.829	1.81	50.238	2.81	369.570	1.45		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 5

Sample Details

Sample ID : SRWA-1B2X-A_2

Measured : 13 พฤษภาคม 2568 15:53:38

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770 30\Raw data 7

Analysed : 13 พฤษภาคม 2568 15:53:40

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

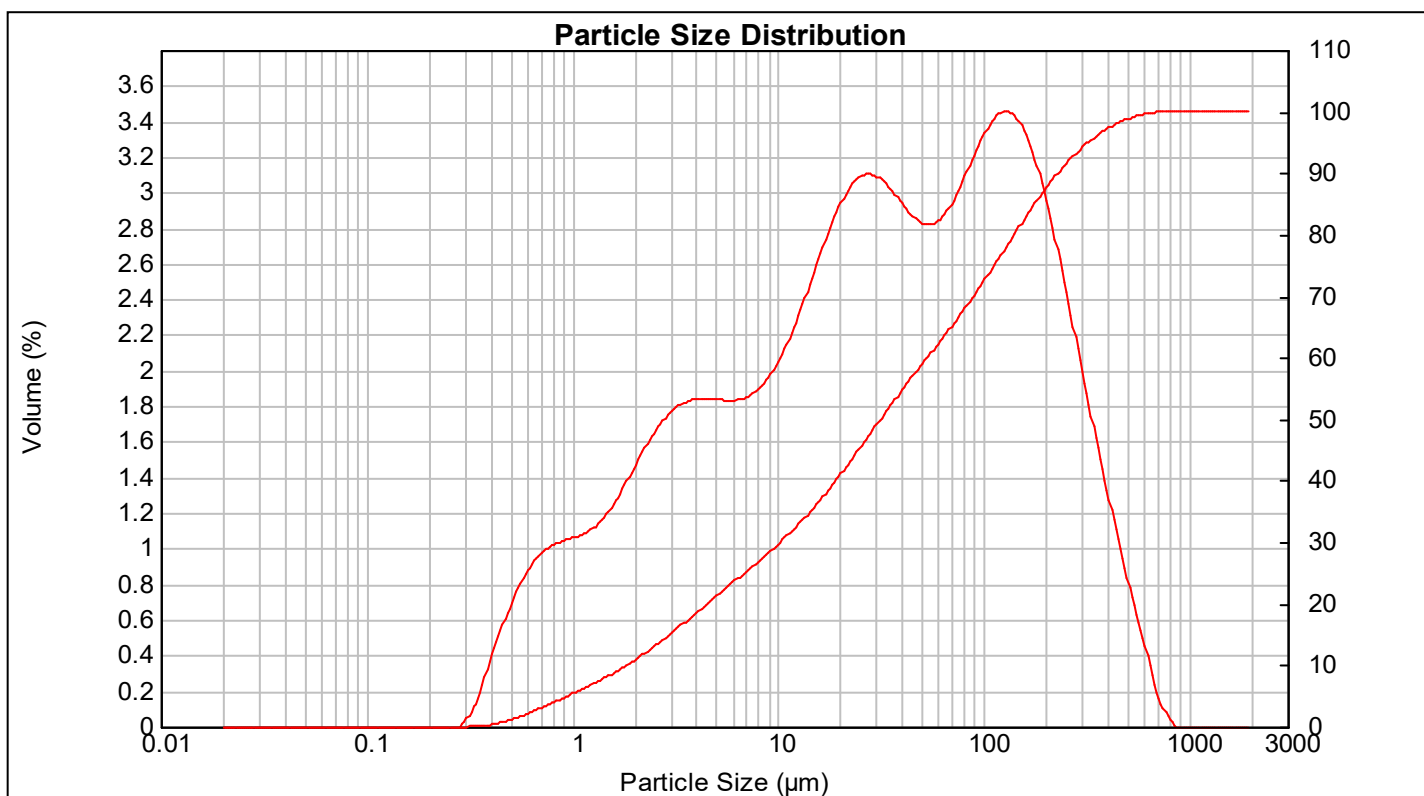
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.53 Residual (%) : 0.671
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0188 %Vol Specific Surface Area : 1.12 m²/g
Mean Diameters : D (0.1) : 1.84 um D (0.5) : 31.54 um D (0.9) : 228.97 um
D [4,3] : 80.93 um D [3,2] : 5.34 um Span : 7.202 Uniformity : 2.25

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.09	7.962	1.93	58.573	2.87	430.887	0.99
0.023	0.00	0.172	0.00	1.262	1.15	9.283	2.05	68.291	2.99	502.377	0.67
0.027	0.00	0.200	0.00	1.471	1.25	10.823	2.22	79.621	3.16	585.729	0.38
0.032	0.00	0.233	0.00	1.715	1.39	12.619	2.42	92.832	3.33	682.910	0.12
0.037	0.00	0.272	0.01	2.000	1.53	14.713	2.64	108.234	3.44	796.214	0.00
0.043	0.00	0.317	0.14	2.332	1.66	17.154	2.85	126.191	3.45	928.318	0.00
0.050	0.00	0.370	0.38	2.719	1.76	20.000	3.01	147.128	3.34	1082.339	0.00
0.059	0.00	0.431	0.58	3.170	1.82	23.318	3.10	171.539	3.12	1261.915	0.00
0.068	0.00	0.502	0.77	3.696	1.84	27.187	3.10	200.000	2.81	1471.285	0.00
0.080	0.00	0.586	0.91	4.309	1.85	31.698	3.04	233.183	2.45	1715.392	0.00
0.093	0.00	0.683	0.99	5.024	1.84	36.957	2.95	271.871	2.07	2000.000	0.00
0.108	0.00	0.796	1.04	5.857	1.87	43.089	2.86	316.979	1.69		
0.126	0.00	0.928	1.06	6.829	1.87	50.238	2.83	369.570	1.32		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 6

Sample Details

Sample ID : SRWA-1B2X-A_3

Measured : 13 พฤษภาคม 2568 15:55:45

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 15:55:46

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

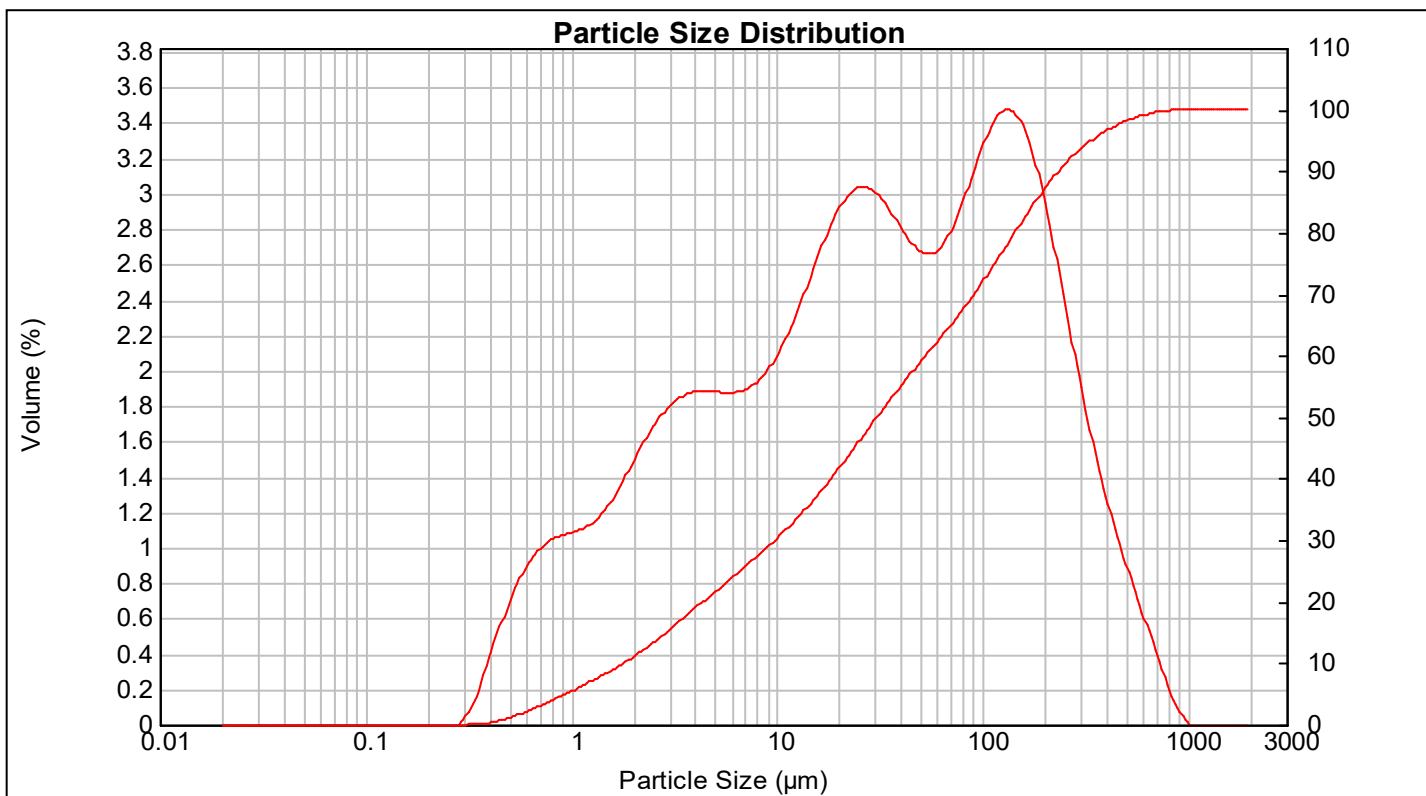
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.26 Residual (%) : 0.643
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0182 %Vol Specific Surface Area : 1.15 m²/g
Mean Diameters : D (0.1) : 1.79 um D (0.5) : 30.6 um D (0.9) : 234.09 um
D [4,3] : 84.07 um D [3,2] : 5.24 um Span : 7.591 Uniformity : 2.43

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.12	7.962	1.98	58.573	2.71	430.887	1.02
0.023	0.00	0.172	0.00	1.262	1.18	9.283	2.09	68.291	2.85	502.377	0.78
0.027	0.00	0.200	0.00	1.471	1.28	10.823	2.25	79.621	3.06	585.729	0.55
0.032	0.00	0.233	0.00	1.715	1.41	12.619	2.45	92.832	3.28	682.910	0.34
0.037	0.00	0.272	0.01	2.000	1.56	14.713	2.66	108.234	3.44	796.214	0.13
0.043	0.00	0.317	0.14	2.332	1.69	17.154	2.84	126.191	3.48	928.318	0.01
0.050	0.00	0.370	0.39	2.719	1.79	20.000	2.98	147.128	3.38	1082.339	0.00
0.059	0.00	0.431	0.60	3.170	1.86	23.318	3.04	171.539	3.13	1261.915	0.00
0.068	0.00	0.502	0.79	3.696	1.89	27.187	3.02	200.000	2.79	1471.285	0.00
0.080	0.00	0.586	0.93	4.309	1.88	31.698	2.94	233.183	2.38	1715.392	0.00
0.093	0.00	0.683	1.02	5.024	1.88	36.957	2.82	271.871	1.98	2000.000	0.00
0.108	0.00	0.796	1.06	5.857	1.91	43.089	2.71	316.979	1.60		
0.126	0.00	0.928	1.09	6.829		50.238	2.67	369.570	1.29		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 7

Sample Details

Sample ID : SRWA-2B2X-A_1

Measured : 13 พฤษภาคม 2568 16:16:27

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 16:16:28

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

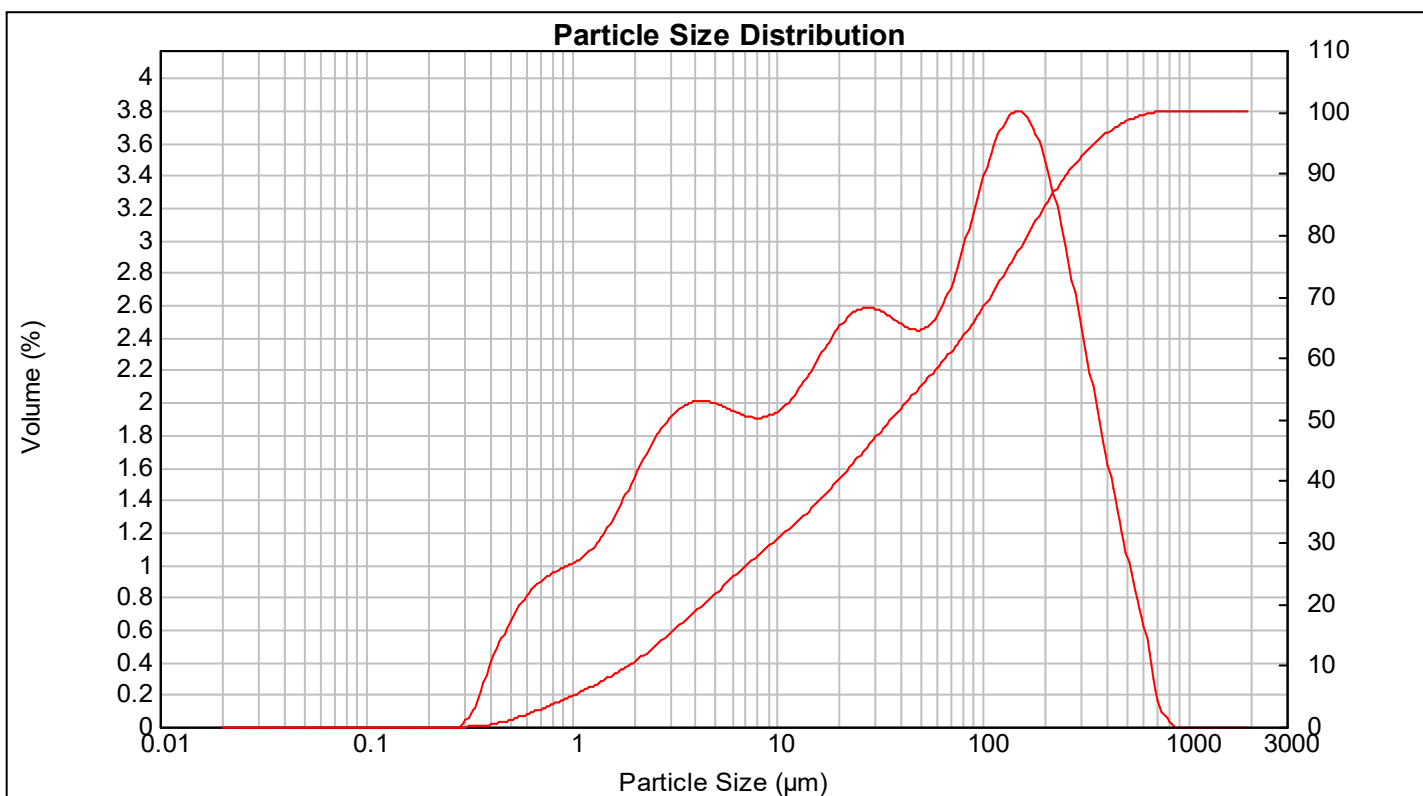
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 18.54 Residual (%) : 0.298
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0180 %Vol Specific Surface Area : 1.1 m²/g
Mean Diameters : D (0.1) : 1.91 um D (0.5) : 35.92 um D (0.9) : 259 um
D [4,3] : 91.59 um D [3,2] : 5.47 um Span : 7.157 Uniformity : 2.26

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.06	7.962	1.91	58.573	2.59	430.887	1.26
0.023	0.00	0.172	0.00	1.262	1.15	9.283	1.95	68.291	2.80	502.377	0.88
0.027	0.00	0.200	0.00	1.471	1.28	10.823	2.02	79.621	3.08	585.729	0.51
0.032	0.00	0.233	0.00	1.715	1.44	12.619	2.14	92.832	3.38	682.910	0.11
0.037	0.00	0.272	0.01	2.000	1.61	14.713	2.27	108.234	3.63	796.214	0.00
0.043	0.00	0.317	0.13	2.332	1.77	17.154	2.41	126.191	3.78	928.318	0.00
0.050	0.00	0.370	0.38	2.719	1.89	20.000	2.52	147.128	3.78	1082.339	0.00
0.059	0.00	0.431	0.56	3.170	1.97	23.318	2.58	171.539	3.63	1261.915	0.00
0.068	0.00	0.502	0.72	3.696	2.01	27.187	2.55	200.000	2.98	1471.285	0.00
0.080	0.00	0.586	0.91	4.309	1.98	31.698	2.49	233.183	2.55	1715.392	0.00
0.093	0.00	0.683	0.97	5.024	1.91	36.957	2.47	271.871	1.67	2000.000	0.00
0.108	0.00	0.796	1.01	5.857		43.089		316.979			
0.126	0.00	0.928		6.829		50.238		369.570			
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 8

Sample Details

Sample ID : SRWA-2B2X-A_2

Measured : 13 พฤษภาคม 2568 16:20:15

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770 30\Raw data 7

Analysed : 13 พฤษภาคม 2568 16:20:17

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

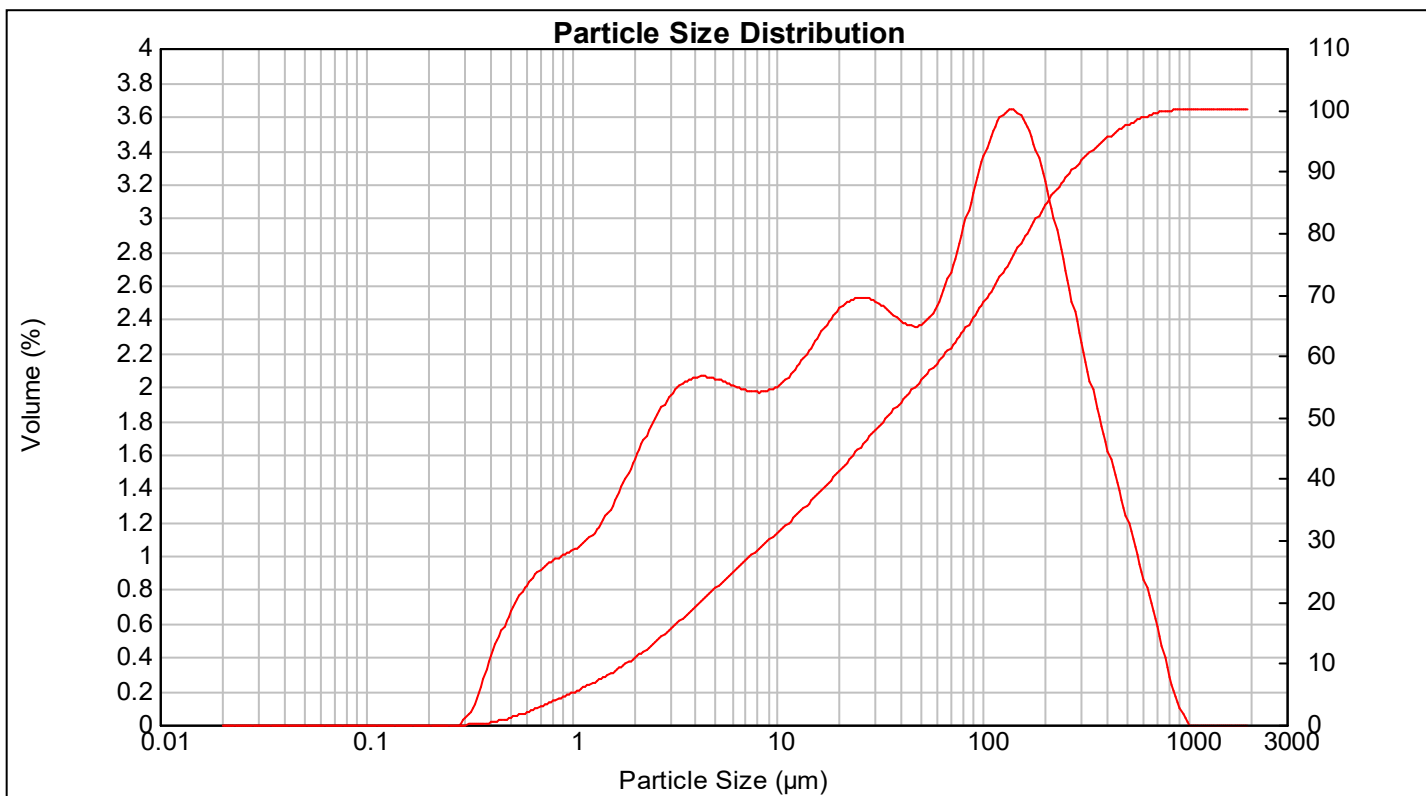
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 18.10 Residual (%) : 0.312
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0171 %Vol Specific Surface Area : 1.12 m²/g
Mean Diameters : D (0.1) : 1.87 um D (0.5) : 34.27 um D (0.9) : 270.74 um
D [4,3] : 95.85 um D [3,2] : 5.35 um Span : 7.845 Uniformity : 2.51

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.09	7.962	1.98	58.573	2.54	430.887	1.38
0.023	0.00	0.172	0.00	1.262	1.18	9.283	2.01	68.291	2.78	502.377	1.09
0.027	0.00	0.200	0.00	1.471	1.31	10.823	2.08	79.621	3.07	585.729	0.79
0.032	0.00	0.233	0.00	1.715	1.47	12.619	2.18	92.832	3.35	682.910	0.50
0.037	0.00	0.272	0.01	2.000	1.64	14.713	2.30	108.234	3.56	796.214	0.18
0.043	0.00	0.317	0.13	2.332	1.80	17.154	2.42	126.191	3.65	928.318	0.01
0.050	0.00	0.370	0.39	2.719	1.93	20.000	2.50	147.128	3.58	1082.339	0.00
0.059	0.00	0.431	0.57	3.170	2.02	23.318	2.52	171.539	3.07	1261.915	0.00
0.068	0.00	0.502	0.73	3.696	2.06	27.187	2.46	200.000	2.71	1471.285	0.00
0.080	0.00	0.586	0.85	4.309	2.04	31.698	2.36	233.183	1.98	1715.392	0.00
0.093	0.00	0.683	0.94	5.024	2.01	36.957	2.41	271.871	1.67	2000.000	0.00
0.108	0.00	0.796	0.99	5.857	1.98	43.089		316.979			
0.126	0.00	0.928	1.03	6.829		50.238		369.570			
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 9

Sample Details

Sample ID : SRWA-2B2X-A_3

Measured : 13 พฤษภาคม 2568 16:21:35

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 16:21:37

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

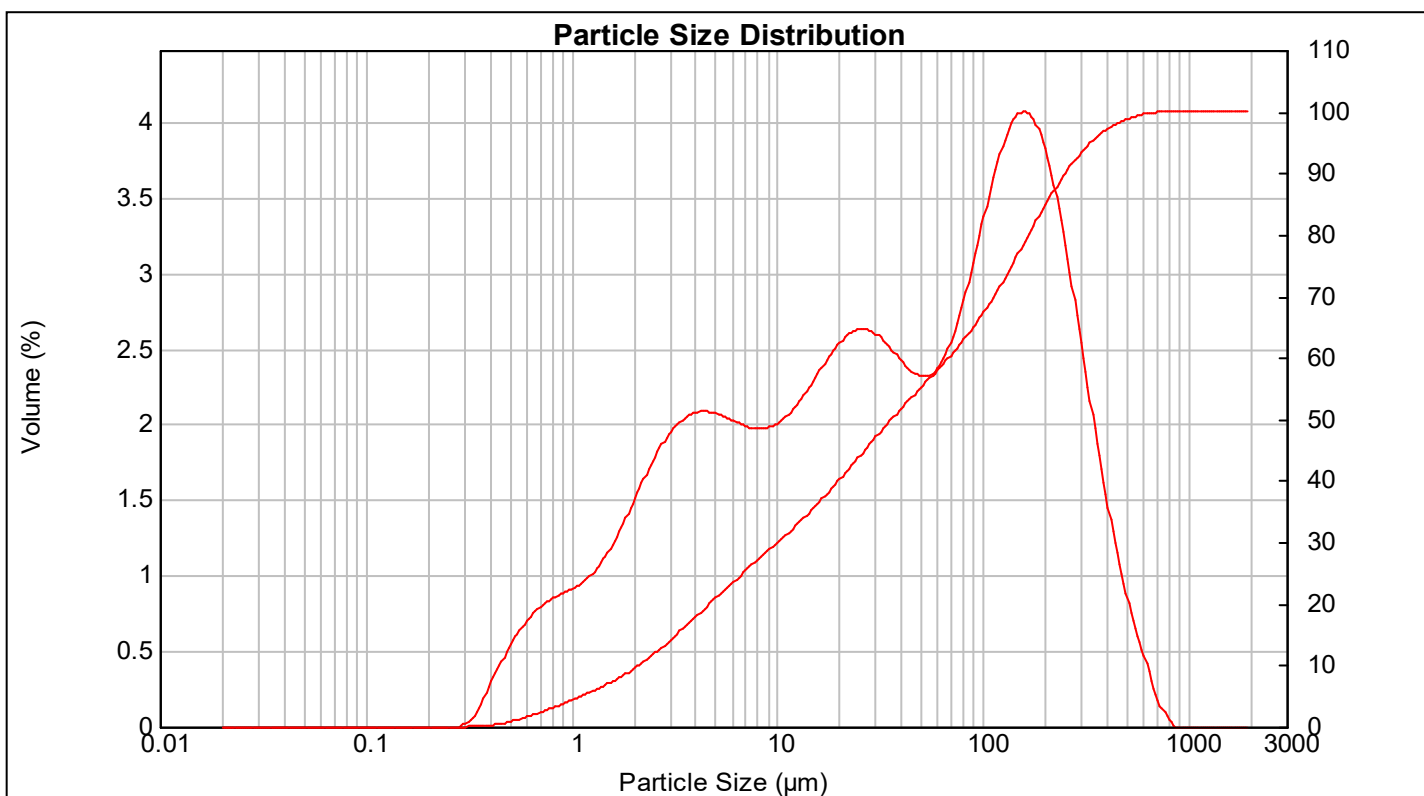
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 17.98 Residual (%) : 0.672
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0183 %Vol Specific Surface Area : 1.01 m²/g
Mean Diameters : D (0.1) : 2.13 um D (0.5) : 36.05 um D (0.9) : 252.37 um
D [4,3] : 90.86 um D [3,2] : 5.94 um Span : 6.941 Uniformity : 2.22

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.97	7.962	1.98	58.573	2.42	430.887	1.06
0.023	0.00	0.172	0.00	1.262	1.07	9.283	2.01	68.291	2.64	502.377	0.69
0.027	0.00	0.200	0.00	1.471	1.21	10.823	2.09	79.621	2.96	585.729	0.40
0.032	0.00	0.233	0.00	1.715	1.39	12.619	2.21	92.832	3.35	682.910	0.13
0.037	0.00	0.272	0.01	2.000	1.59	14.713	2.34	108.234	3.72	796.214	0.01
0.043	0.00	0.317	0.08	2.332	1.77	17.154	2.48	126.191	3.98	928.318	0.00
0.050	0.00	0.370	0.28	2.719	1.92	20.000	2.59	147.128	4.08	1082.339	0.00
0.059	0.00	0.431	0.45	3.170	2.03	23.318	2.63	171.539	3.67	1261.915	0.00
0.068	0.00	0.502	0.61	3.696	2.08	27.187	2.62	200.000	3.20	1471.285	0.00
0.080	0.00	0.586	0.73	4.309	2.09	31.698	2.54	233.183	2.64	1715.392	0.00
0.093	0.00	0.683	0.81	5.024	2.06	36.957	2.43	271.871	2.06	2000.000	0.00
0.108	0.00	0.796	0.87	5.857	2.02	43.089	2.34	316.979	1.52		
0.126	0.00	0.928	0.91	6.829	1.98	50.238	2.33	369.570			
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 10

Sample Details

Sample ID : SRWA-3B2X-A_1

Measured : 13 พฤษภาคม 2568 16:35:11

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 16:35:12

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

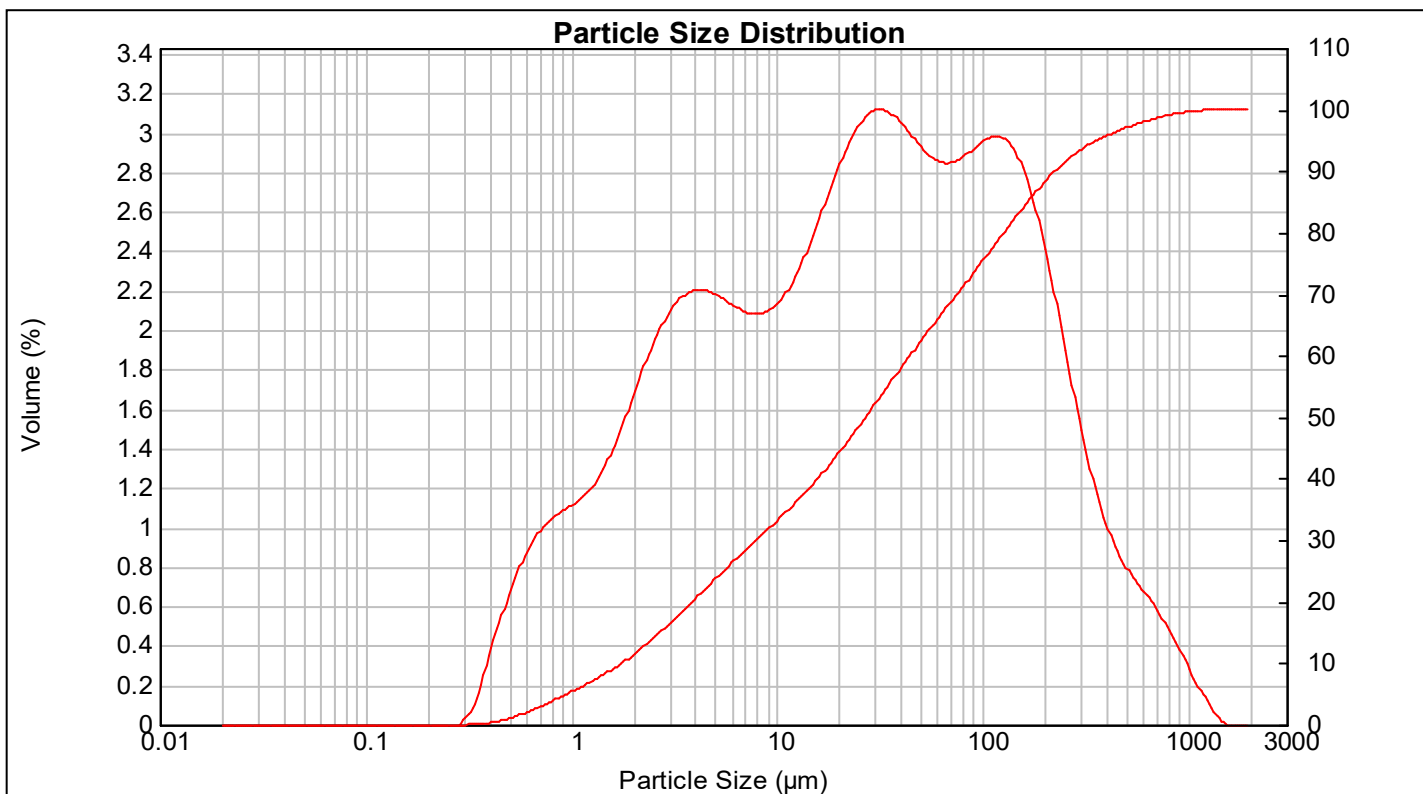
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.10 Residual (%) : 0.585
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0181 %Vol Specific Surface Area : 1.18 m²/g
Mean Diameters : D (0.1) : 1.76 um D (0.5) : 26.96 um D (0.9) : 224.47 um
D [4,3] : 84.53 um D [3,2] : 5.07 um Span : 8.262 Uniformity : 2.82

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.17	7.962	2.09	58.573	2.86	430.887	0.85
0.023	0.00	0.172	0.00	1.262	1.26	9.283	2.14	68.291	2.86	502.377	0.74
0.027	0.00	0.200	0.00	1.471	1.40	10.823	2.23	79.621	2.91	585.729	0.65
0.032	0.00	0.233	0.00	1.715	1.57	12.619	2.38	92.832	2.96	682.910	0.55
0.037	0.00	0.272	0.01	2.000	1.77	14.713	2.56	108.234	2.99	796.214	0.43
0.043	0.00	0.317	0.11	2.332	1.94	17.154	2.75	126.191	2.95	928.318	0.29
0.050	0.00	0.370	0.36	2.719	2.08	20.000	2.92	147.128	2.81	1082.339	0.16
0.059	0.00	0.431	0.57	3.170	2.17	23.318	3.05	171.539	2.27	1261.915	0.05
0.068	0.00	0.502	0.76	3.696	2.21	27.187	3.12	200.000	1.91	1471.285	0.00
0.080	0.00	0.586	0.91	4.309	2.12	31.698	3.06	233.183	1.56	1715.392	0.00
0.093	0.00	0.683	1.01	5.024	2.12	36.957	2.98	271.871	1.02	2000.000	
0.108	0.00	0.796	1.07	5.857	2.09	43.089	2.90	316.979			
0.126	0.00	0.928	1.11	6.829		50.238		369.570			
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 11

Sample Details

Sample ID : SRWA-3B2X-A_2

Measured : 13 พฤษภาคม 2568 16:42:00

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 16:42:02

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

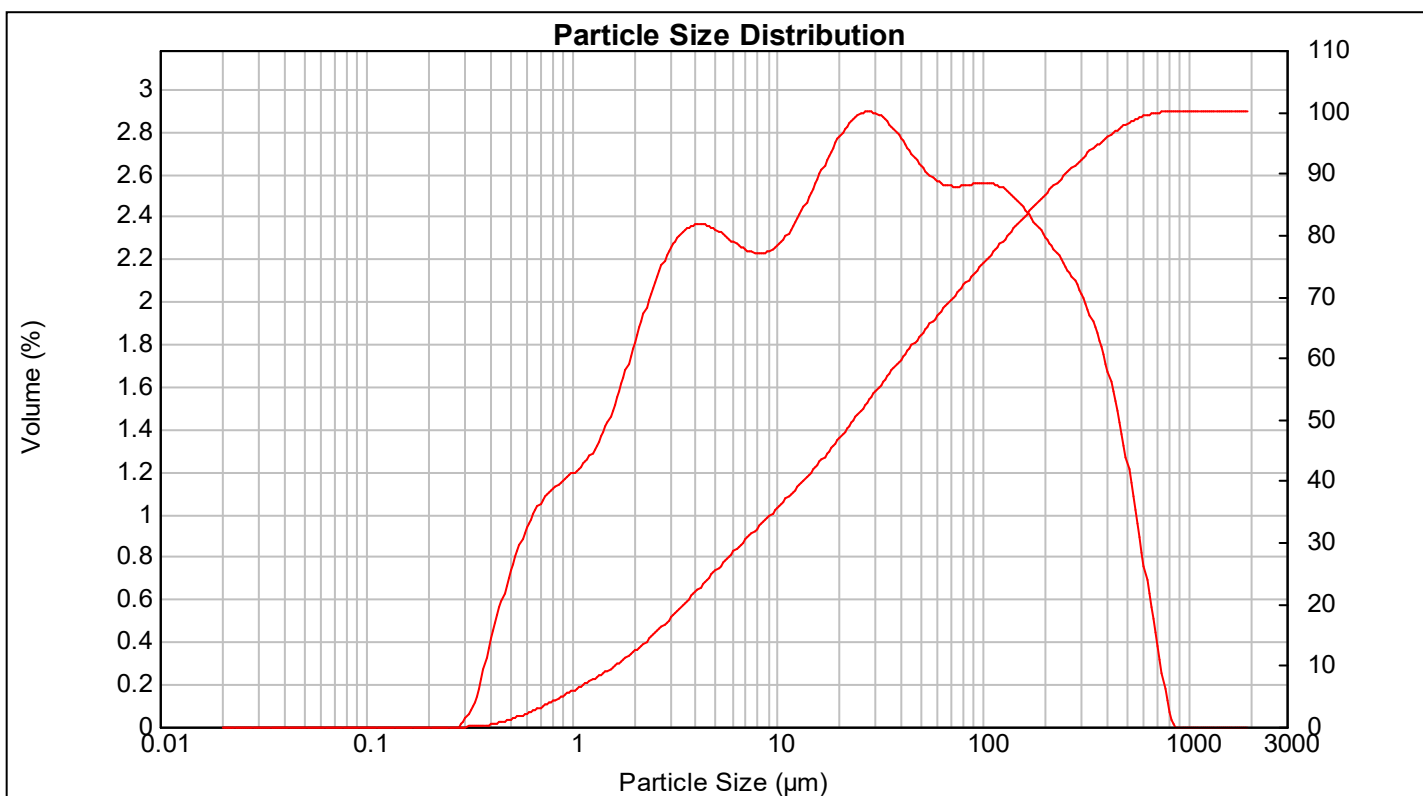
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.41 Residual (%) : 0.480
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 : 1.26 m²/g
Mean Diameters : D (0.1) : 1.65 um D (0.5) : 23.8 um D (0.9) : 255.59 um
D [4,3] : 81.41 um D [3,2] : 4.77 um Span : 10.671 Uniformity : 3.11

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.25	7.962	2.23	58.573	2.56	430.887	1.42
0.023	0.00	0.172	0.00	1.262	1.35	9.283	2.27	68.291	2.55	502.377	1.07
0.027	0.00	0.200	0.00	1.471	1.49	10.823	2.34	79.621	2.55	585.729	0.67
0.032	0.00	0.233	0.00	1.715	1.69	12.619	2.46	92.832	2.56	682.910	0.29
0.037	0.00	0.272	0.01	2.000	1.89	14.713	2.59	108.234	2.55	796.214	0.01
0.043	0.00	0.317	0.12	2.332	2.08	17.154	2.72	126.191	2.51	928.318	0.00
0.050	0.00	0.370	0.39	2.719	2.23	20.000	2.82	147.128	2.44	1082.339	0.00
0.059	0.00	0.431	0.61	3.170	2.32	23.318	2.89	171.539	2.36	1261.915	0.00
0.068	0.00	0.502	0.82	3.696	2.36	27.187	2.90	200.000	2.27	1471.285	0.00
0.080	0.00	0.586	0.97	4.309	2.36	31.698	2.85	233.183	2.17	1715.392	0.00
0.093	0.00	0.683	1.08	5.024	2.32	36.957	2.78	271.871	2.06	2000.000	0.00
0.108	0.00	0.796	1.14	5.857	2.28	43.089	2.69	316.979	1.91		
0.126	0.00	0.928	1.19	6.829	2.24	50.238	2.61	369.570	1.71		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 12

Sample Details

Sample ID : SRWA-3B2X-A_3

Measured : 13 พฤษภาคม 2568 16:44:55

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770 30\Raw data 7

Analysed : 13 พฤษภาคม 2568 16:44:56

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

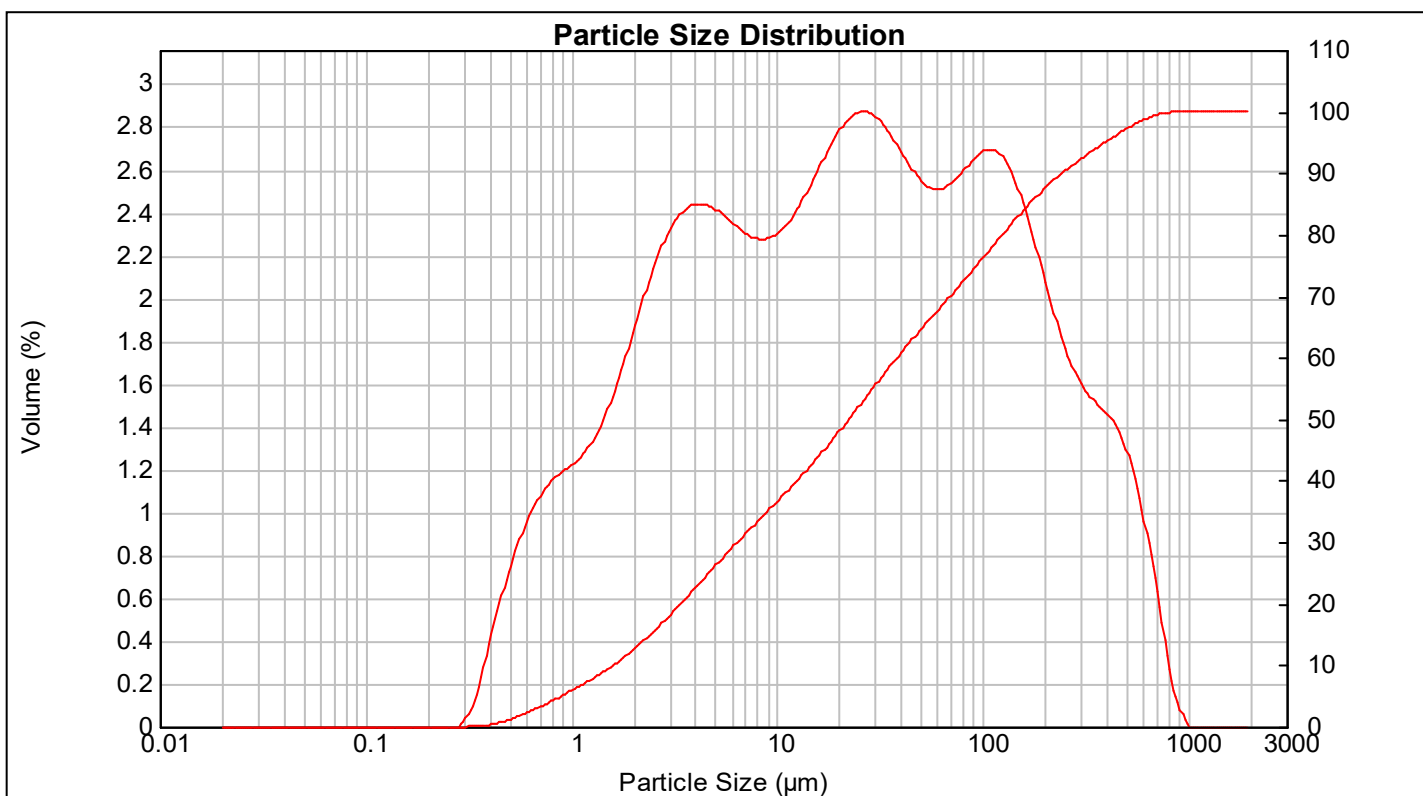
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.23 Residual (%) : 0.486
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 : 1.29 m²/g
Mean Diameters : D (0.1) : 1.6 um D (0.5) : 22.34 um D (0.9) : 243.68 um
D [4,3] : 81.2 um D [3,2] : 4.65 um Span : 10.837 Uniformity : 3.33

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.29	7.962	2.28	58.573	2.52	430.887	1.37
0.023	0.00	0.172	0.00	1.262	1.39	9.283	2.31	68.291	2.56	502.377	1.19
0.027	0.00	0.200	0.00	1.471	1.54	10.823	2.38	79.621	2.63	585.729	0.89
0.032	0.00	0.233	0.00	1.715	1.74	12.619	2.48	92.832	2.69	682.910	0.53
0.037	0.00	0.272	0.01	2.000	1.95	14.713	2.61	108.234	2.69	796.214	0.16
0.043	0.00	0.317	0.13	2.332	2.15	17.154	2.73	126.191	2.61	928.318	0.01
0.050	0.00	0.370	0.40	2.719	2.30	20.000	2.83	147.128	2.44	1082.339	0.00
0.059	0.00	0.431	0.62	3.170	2.40	23.318	2.88	171.539	2.21	1261.915	0.00
0.068	0.00	0.502	0.84	3.696	2.44	27.187	2.86	200.000	1.98	1471.285	0.00
0.080	0.00	0.586	1.00	4.309	2.44	31.698	2.80	233.183	1.77	1715.392	0.00
0.093	0.00	0.683	1.11	5.024	2.40	36.957	2.69	271.871	1.62	2000.000	0.00
0.108	0.00	0.796	1.17	5.857	2.34	43.089	2.59	316.979	1.53		
0.126	0.00	0.928	1.22	6.829	2.30	50.238	2.53	369.570	1.47		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 13

Sample Details

Sample ID : SRWA-4B2X-A_1

Measured : 13 พฤษภาคม 2568 16:57:21

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data 7

Analysed : 13 พฤษภาคม 2568 16:57:23

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

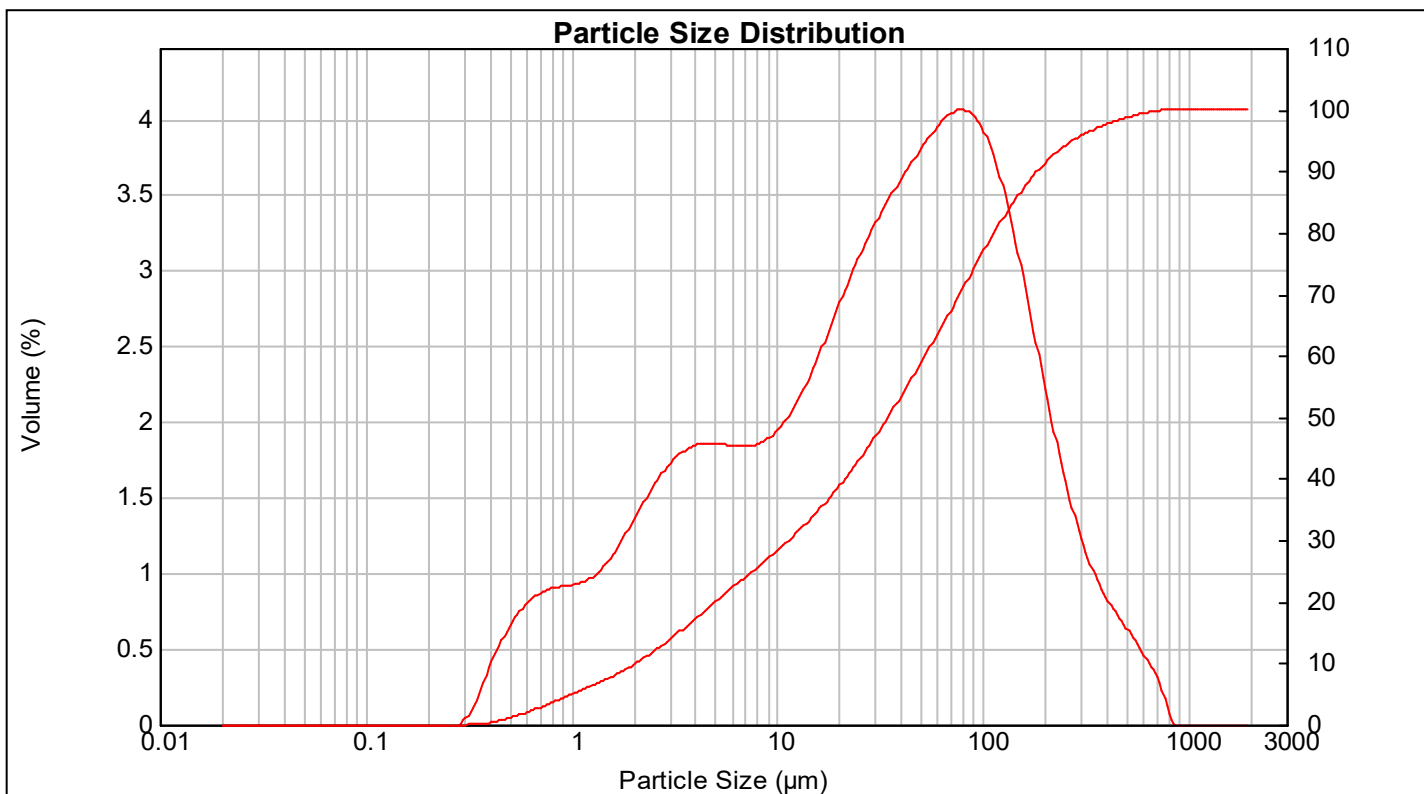
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.36 Residual (%) : 0.284
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0210 %Vol Specific Surface Area : 1.06 m²/g
Mean Diameters : D (0.1) : 2.06 um D (0.5) : 34.62 um D (0.9) : 184.39 um
D [4,3] : 72.56 um D [3,2] : 5.67 um Span : 5.266 Uniformity : 1.77

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.95	7.962	1.88	58.573	3.99	430.887	0.70
0.023	0.00	0.172	0.00	1.262	1.01	9.283	1.95	68.291	4.06	502.377	0.57
0.027	0.00	0.200	0.00	1.471	1.12	10.823	2.07	79.621	4.06	585.729	0.42
0.032	0.00	0.233	0.00	1.715	1.27	12.619	2.24	92.832	3.94	682.910	0.25
0.037	0.00	0.272	0.01	2.000	1.43	14.713	2.44	108.234	3.71	796.214	0.01
0.043	0.00	0.317	0.14	2.332	1.58	17.154	2.66	126.191	3.36	928.318	0.00
0.050	0.00	0.370	0.39	2.719	1.71	20.000	2.89	147.128	2.93	1082.339	0.00
0.059	0.00	0.431	0.57	3.170	1.85	23.318	3.10	171.539	2.47	1261.915	0.00
0.068	0.00	0.502	0.72	3.696	1.85	27.187	3.29	200.000	2.02	1471.285	0.00
0.080	0.00	0.586	0.82	4.309	1.86	31.698	3.46	233.183	1.62	1715.392	0.00
0.093	0.00	0.683	0.88	5.024	1.86	36.957	3.61	271.871	1.28	2000.000	0.00
0.108	0.00	0.796	0.91	5.857	1.85	43.089	3.75	316.979	1.03		
0.126	0.00	0.928	0.93	6.829	1.85	50.238	3.88	369.570	0.84		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 14

Sample Details

Sample ID : SRWA-4B2X-A_2

Measured : 13 พฤษภาคม 2568 16:58:25

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770 30\Raw data 7

Analysed : 13 พฤษภาคม 2568 16:58:26

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

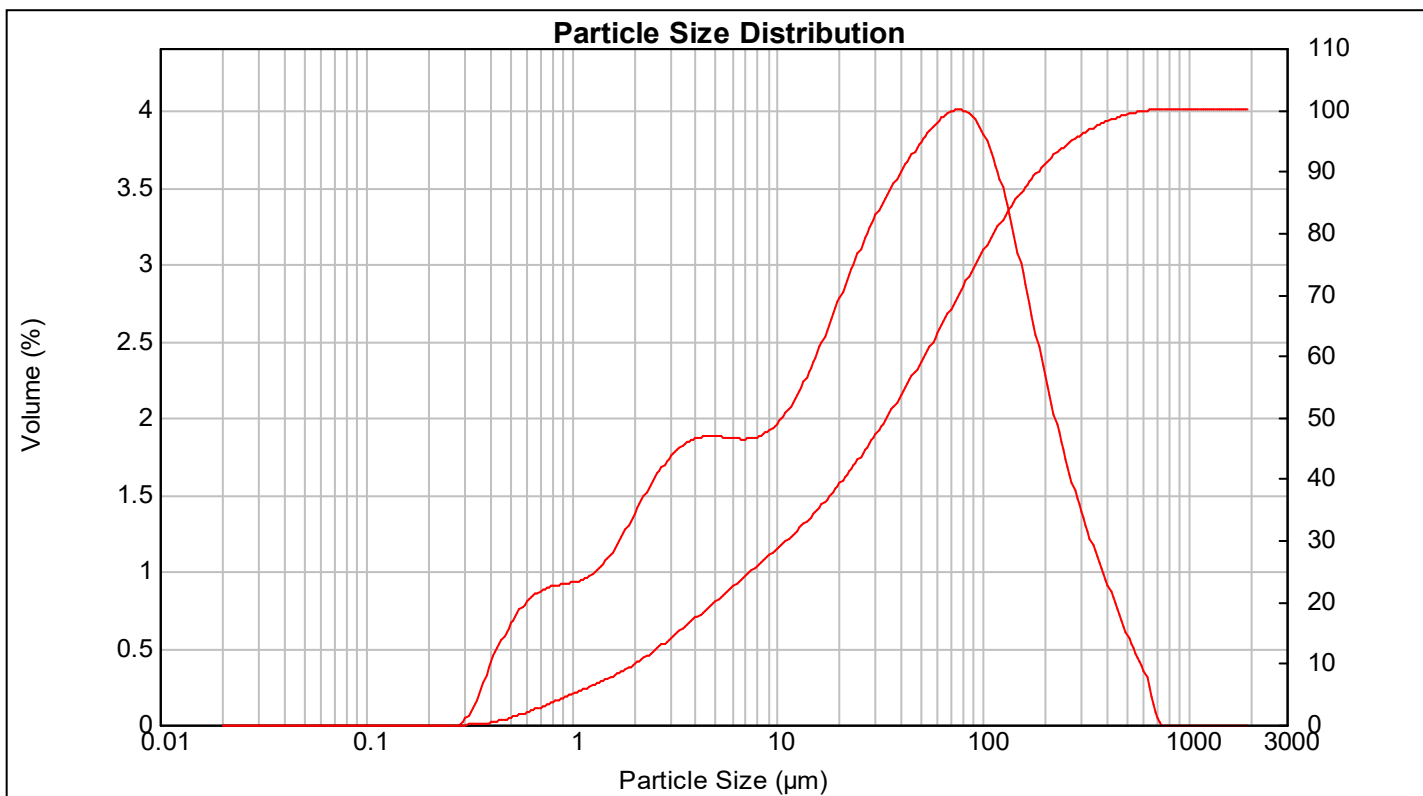
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.16 Residual (%) : 0.294
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0207 %Vol Specific Surface Area : 1.06 m²/g
Mean Diameters : D (0.1) : 2.06 um D (0.5) : 34.27 um D (0.9) : 186.25 um
D [4,3] : 70.93 um D [3,2] : 5.66 um Span : 5.375 Uniformity : 1.75

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.96	7.962	1.90	58.573	3.96	430.887	0.71
0.023	0.00	0.172	0.00	1.262	1.02	9.283	1.97	68.291	4.01	502.377	0.49
0.027	0.00	0.200	0.00	1.471	1.13	10.823	2.08	79.621	3.99	585.729	0.29
0.032	0.00	0.233	0.00	1.715	1.28	12.619	2.24	92.832	3.87	682.910	0.01
0.037	0.00	0.272	0.01	2.000	1.44	14.713	2.44	108.234	3.63	796.214	0.00
0.043	0.00	0.317	0.14	2.332	1.60	17.154	2.66	126.191	3.30	928.318	0.00
0.050	0.00	0.370	0.39	2.719	1.73	20.000	2.88	147.128	2.91	1082.339	0.00
0.059	0.00	0.431	0.56	3.170	1.82	23.318	3.10	171.539	2.49	1261.915	0.00
0.068	0.00	0.502	0.72	3.696	1.87	27.187	3.29	200.000	2.10	1471.285	0.00
0.080	0.00	0.586	0.82	4.309	1.88	31.698	3.46	233.183	1.75	1715.392	0.00
0.093	0.00	0.683	0.88	5.024	1.88	36.957	3.61	271.871	1.44	2000.000	0.00
0.108	0.00	0.796	0.91	5.857	1.87	43.089	3.74	316.979	1.17		
0.126	0.00	0.928	0.93	6.829	1.87	50.238	3.86	369.570	0.94		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 15

Sample Details

Sample ID : SRWA-4B2X-A_3

Measured : 13 พฤษภาคม 2568 17:00:47

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:00:48

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

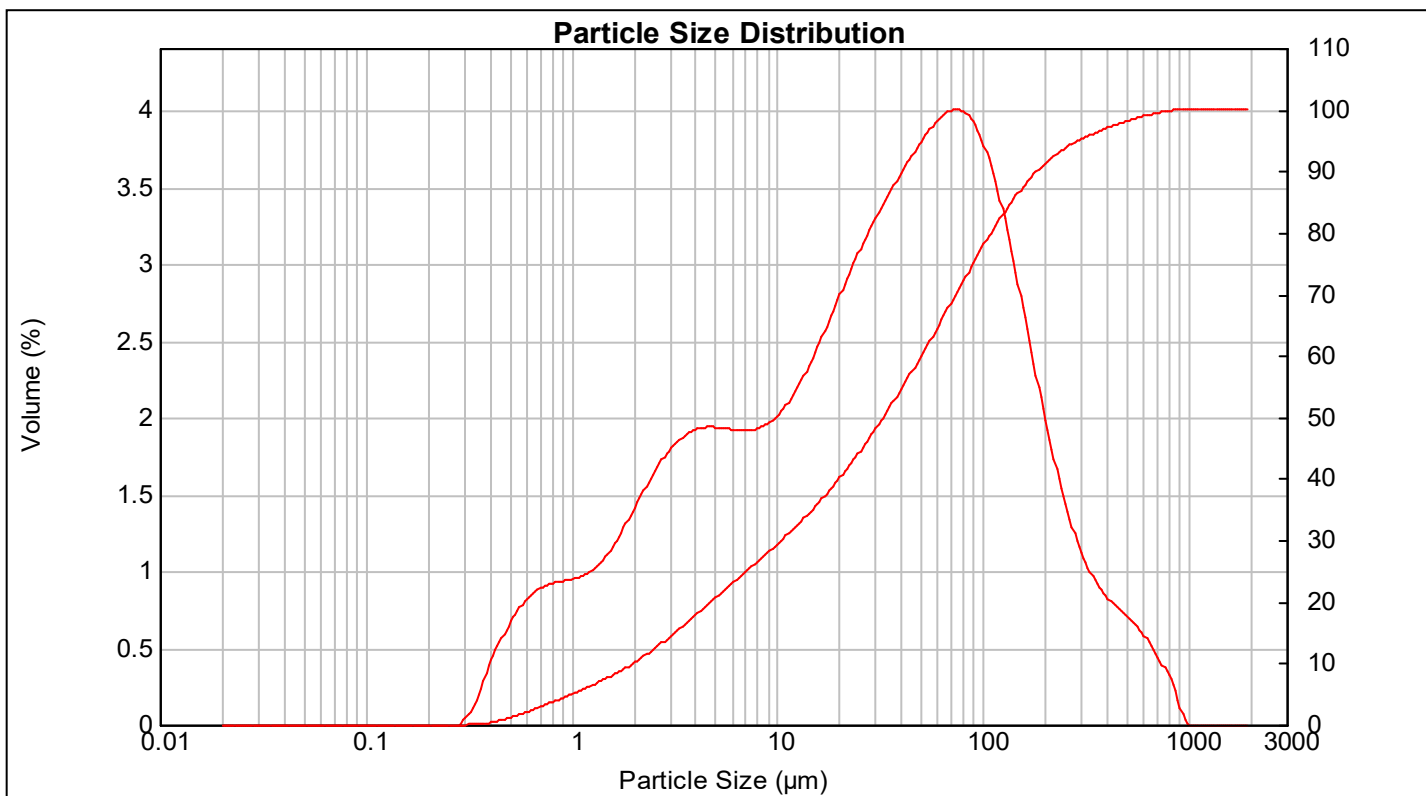
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.81 Residual (%) : 0.285
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0198 %Vol Specific Surface Area : 1.08 m²/g
Mean Diameters : D (0.1) : 2.01 um D (0.5) : 32.86 um D (0.9) : 183.92 um
D [4,3] : 74.21 um D [3,2] : 5.54 um Span : 5.536 Uniformity : 1.94

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.98	7.962	1.95	58.573	3.97	430.887	0.75
0.023	0.00	0.172	0.00	1.262	1.05	9.283	2.02	68.291	4.02	502.377	0.66
0.027	0.00	0.200	0.00	1.471	1.16	10.823	2.13	79.621	3.97	585.729	0.55
0.032	0.00	0.233	0.00	1.715	1.31	12.619	2.29	92.832	3.80	682.910	0.40
0.037	0.00	0.272	0.01	2.000	1.48	14.713	2.48	108.234	3.52	796.214	0.24
0.043	0.00	0.317	0.14	2.332	1.64	17.154	2.68	126.191	3.13	928.318	0.00
0.050	0.00	0.370	0.39	2.719	1.78	20.000	2.89	147.128	2.68	1082.339	0.00
0.059	0.00	0.431	0.57	3.170	1.87	23.318	3.09	171.539	2.23	1261.915	0.00
0.068	0.00	0.502	0.73	3.696	1.92	27.187	3.28	200.000	1.81	1471.285	0.00
0.080	0.00	0.586	0.84	4.309	1.94	31.698	3.44	233.183	1.45	1715.392	0.00
0.093	0.00	0.683	0.90	5.024	1.94	36.957	3.59	271.871	1.17	2000.000	0.00
0.108	0.00	0.796	0.93	5.857	1.92	43.089	3.74	316.979	0.97		
0.126	0.00	0.928	0.95	6.829	1.92	50.238	3.87	369.570	0.84		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 16

Sample Details

Sample ID : SRWB-1B2-A_1

Measured : 13 พฤษภาคม 2568 17:13:02

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:13:04

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

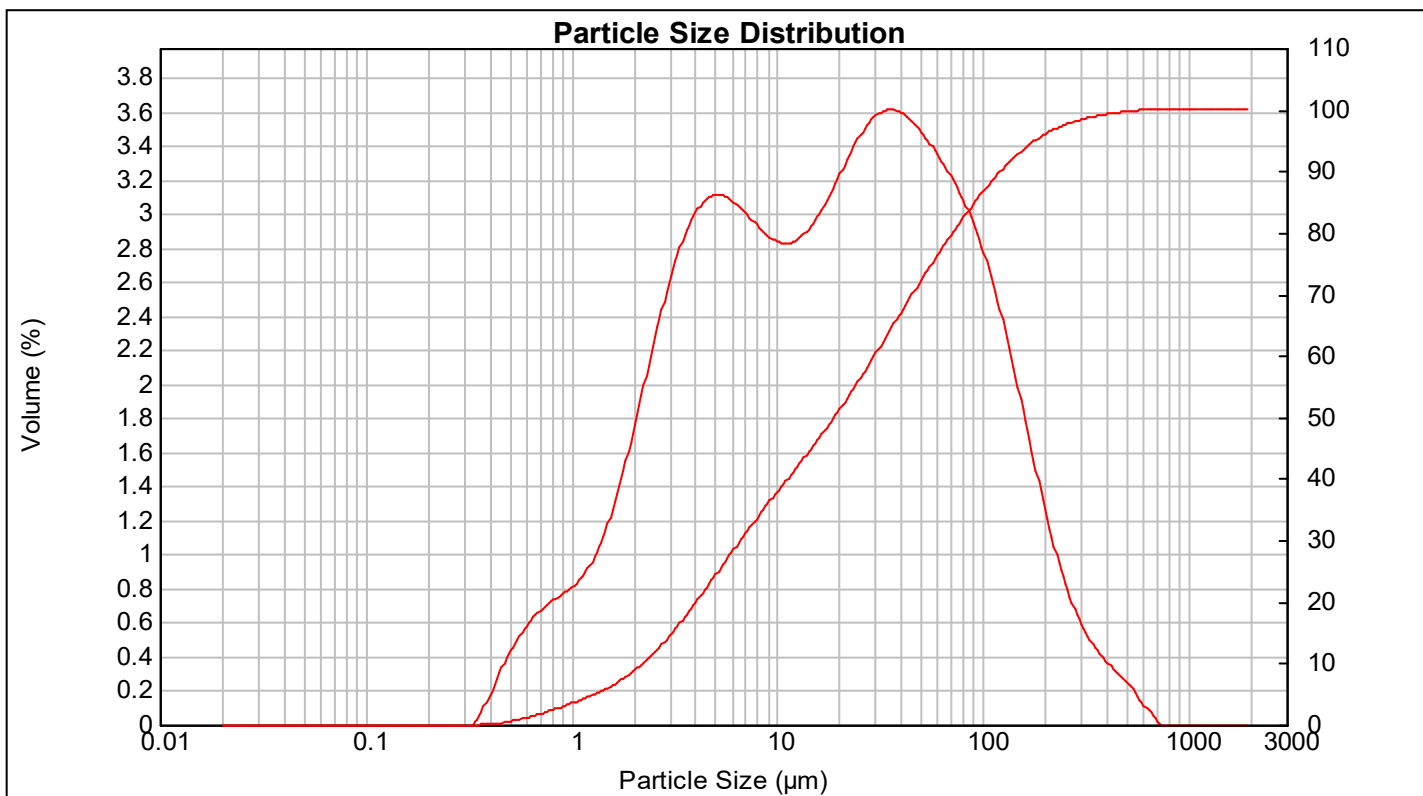
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.66 Residual (%) : 0.555
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0182 %Vol Specific Surface Area : 1.06 m²/g
Mean Diameters : D (0.1) : 2.24 um D (0.5) : 18.96 um D (0.9) : 122.06 um
D [4,3] : 46.28 um D [3,2] : 5.67 um Span : 6.320 Uniformity : 2.09

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.90	7.962	2.91	58.573	3.32	430.887	0.29
0.023	0.00	0.172	0.00	1.262	1.04	9.283	2.85	68.291	3.18	502.377	0.20
0.027	0.00	0.200	0.00	1.471	1.27	10.823	2.84	79.621	3.02	585.729	0.09
0.032	0.00	0.233	0.00	1.715	1.56	12.619	2.89	92.832	2.80	682.910	0.01
0.037	0.00	0.272	0.00	2.000	1.90	14.713	3.00	108.234	2.53	796.214	0.00
0.043	0.00	0.317	0.02	2.332	2.25	17.154	3.15	126.191	2.19	928.318	0.00
0.050	0.00	0.370	0.16	2.719	2.57	20.000	3.31	147.128	1.82	1082.339	0.00
0.059	0.00	0.431	0.35	3.170	2.83	23.318	3.46	171.539	1.45	1261.915	0.00
0.068	0.00	0.502	0.49	3.696	3.01	27.187	3.57	200.000	1.11	1471.285	0.00
0.080	0.00	0.586	0.61	4.309	3.10	31.698	3.62	233.183	0.84	1715.392	0.00
0.093	0.00	0.683	0.69	5.024	3.12	36.957	3.61	271.871	0.62	2000.000	0.00
0.108	0.00	0.796	0.75	5.857	3.07	43.089	3.54	316.979	0.48		
0.126	0.00	0.928	0.81	6.829	2.99	50.238	3.44	369.570	0.37		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 17

Sample Details

Sample ID : SRWB-1B2-A_2

Measured : 13 พฤษภาคม 2568 17:14:37

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:14:39

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

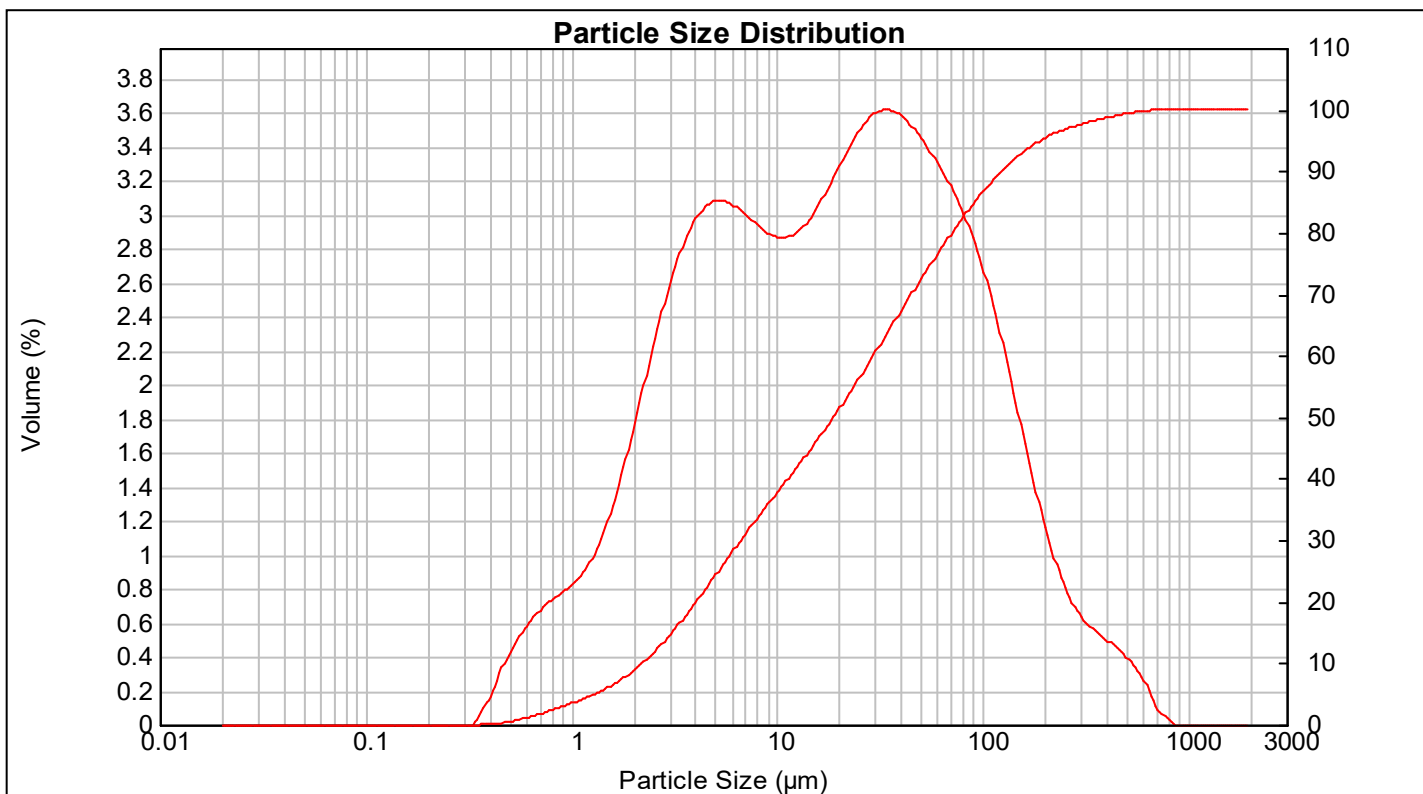
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.24 Residual (%) : 0.579
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0177 %Vol Specific Surface Area : 1.06 m²/g
Mean Diameters : D (0.1) : 2.22 um D (0.5) : 18.82 um D (0.9) : 123.59 um
D [4,3] : 48.66 um D [3,2] : 5.66 um Span : 6.450 Uniformity : 2.23

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.92	7.962	2.92	58.573	3.27	430.887	0.44
0.023	0.00	0.172	0.00	1.262	1.06	9.283	2.88	68.291	3.12	502.377	0.35
0.027	0.00	0.200	0.00	1.471	1.29	10.823	2.88	79.621	2.93	585.729	0.22
0.032	0.00	0.233	0.00	1.715	1.58	12.619	2.95	92.832	2.70	682.910	0.07
0.037	0.00	0.272	0.00	2.000	1.91	14.713	3.06	108.234	2.40	796.214	0.00
0.043	0.00	0.317	0.02	2.332	2.24	17.154	3.21	126.191	2.05	928.318	0.00
0.050	0.00	0.370	0.16	2.719	2.55	20.000	3.37	147.128	1.68	1082.339	0.00
0.059	0.00	0.431	0.35	3.170	2.80	23.318	3.60	171.539	1.33	1261.915	0.00
0.068	0.00	0.502	0.49	3.696	2.97	27.187	3.63	200.000	1.03	1471.285	0.00
0.080	0.00	0.586	0.61	4.309	3.07	31.698	3.59	233.183	0.81	1715.392	0.00
0.093	0.00	0.683	0.70	5.024	3.09	36.957	3.51	271.871	0.66	2000.000	0.00
0.108	0.00	0.796	0.76	5.857	3.05	43.089	3.40	316.979	0.56		
0.126	0.00	0.928	0.82	6.829	2.98	50.238		369.570			
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 18

Sample Details

Sample ID : SRWB-1B2-A_3

Measured : 13 พฤษภาคม 2568 17:15:25

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\data\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:15:27

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.10 Residual (%) : 0.559

Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

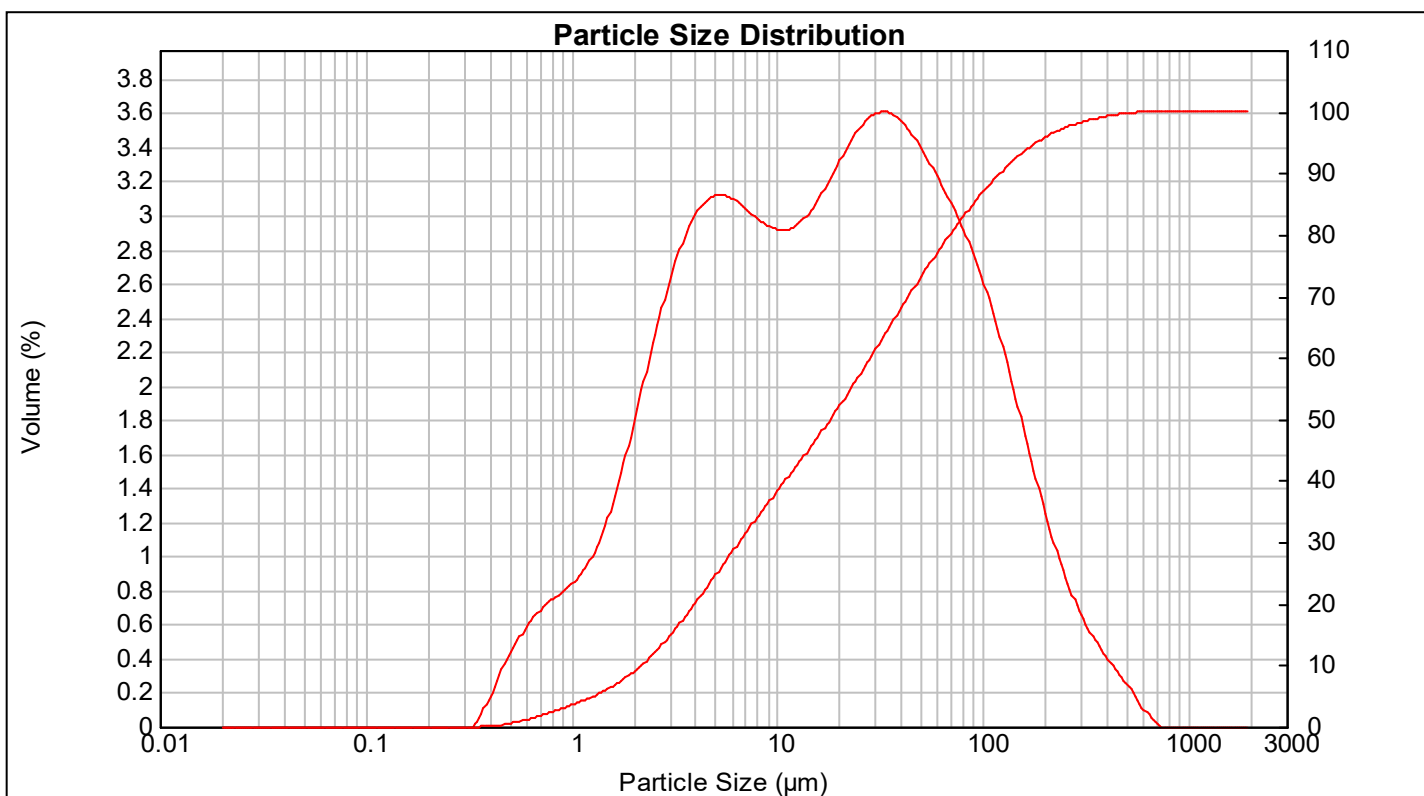
Result Statistics

Distribution Type : Volume Concentration : 0.0173 %Vol Specific Surface Area : 1.07 m²/g

Mean Diameters : D (0.1) : 2.19 um D (0.5) : 18.19 um D (0.9) : 121.44 um

D [4,3] : 45.78 um D [3,2] : 5.58 um Span : 6.555 Uniformity : 2.16

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.93	7.962	2.96	58.573	3.19	430.887	0.30
0.023	0.00	0.172	0.00	1.262	1.09	9.283	2.92	68.291	3.03	502.377	0.20
0.027	0.00	0.200	0.00	1.471	1.31	10.823	2.93	79.621	2.85	585.729	0.08
0.032	0.00	0.233	0.00	1.715	1.61	12.619	2.99	92.832	2.63	682.910	0.00
0.037	0.00	0.272	0.00	2.000	1.94	14.713	3.10	108.234	2.36	796.214	0.00
0.043	0.00	0.317	0.02	2.332	2.27	17.154	3.24	126.191	2.06	928.318	0.00
0.050	0.00	0.370	0.16	2.719	2.58	20.000	3.39	147.128	1.74	1082.339	0.00
0.059	0.00	0.431	0.35	3.170	2.83	23.318	3.52	171.539	1.42	1261.915	0.00
0.068	0.00	0.502	0.49	3.696	3.01	27.187	3.60	200.000	1.13	1471.285	0.00
0.080	0.00	0.586	0.62	4.309	3.10	31.698	3.62	233.183	0.88	1715.392	0.00
0.093	0.00	0.683	0.71	5.024	3.13	36.957	3.57	271.871	0.69	2000.000	0.00
0.108	0.00	0.796	0.77	5.857	3.09	43.089	3.47	316.979	0.53		
0.126	0.00	0.928	0.84	6.829	3.03	50.238	3.33	369.570	0.41		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 19

Sample Details

Sample ID : SRWB-1CP2-A_1

Measured : 13 พฤษภาคม 2568 17:26:29

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:26:31

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

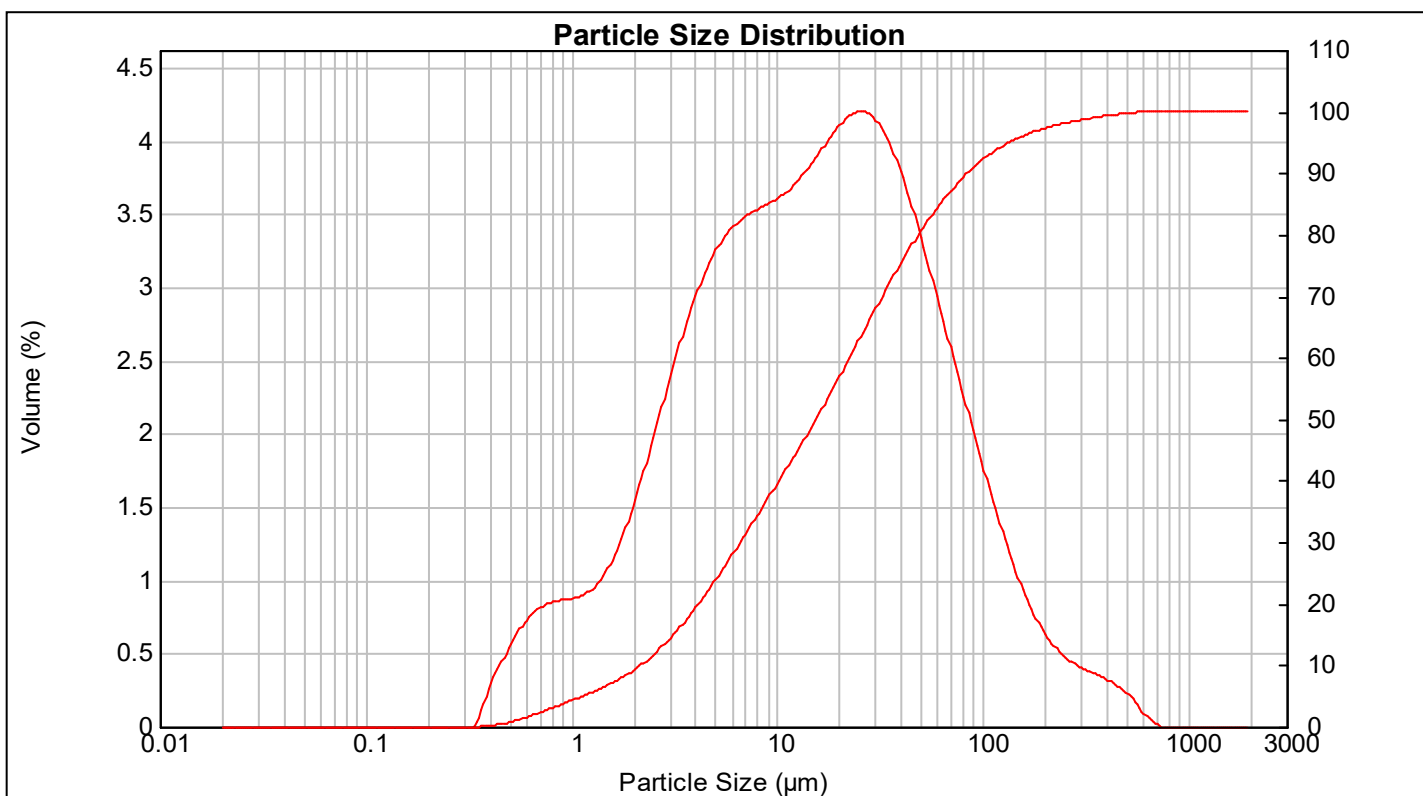
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.91 Residual (%) : 0.721
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0187 %Vol Specific Surface Area : 1.14 m²/g
Mean Diameters : D (0.1) : 2.18 um D (0.5) : 15.44 um D (0.9) : 84.57 um
D [4,3] : 35.95 um D [3,2] : 5.24 um Span : 5.338 Uniformity : 1.93

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.91	7.962	3.56	58.573	2.82	430.887	0.27
0.023	0.00	0.172	0.00	1.262	0.99	9.283	3.61	68.291	2.47	502.377	0.19
0.027	0.00	0.200	0.00	1.471	1.14	10.823	3.69	79.621	2.13	585.729	0.07
0.032	0.00	0.233	0.00	1.715	1.37	12.619	3.79	92.832	1.79	682.910	0.00
0.037	0.00	0.272	0.00	2.000	1.66	14.713	3.92	108.234	1.47	796.214	0.00
0.043	0.00	0.317	0.02	2.332	1.99	17.154	4.05	126.191	1.17	928.318	0.00
0.050	0.00	0.370	0.27	2.719	2.33	20.000	4.16	147.128	0.92	1082.339	0.00
0.059	0.00	0.431	0.46	3.170	2.65	23.318	4.21	171.539	0.72	1261.915	0.00
0.068	0.00	0.502	0.63	3.696	2.93	27.187	4.17	200.000	0.57	1471.285	0.00
0.080	0.00	0.586	0.76	4.309	3.16	31.698	4.04	233.183	0.48	1715.392	0.00
0.093	0.00	0.683	0.83	5.024	3.33	36.957	3.81	271.871	0.41	2000.000	0.00
0.108	0.00	0.796	0.86	5.857	3.44	43.089	3.51	316.979	0.37		
0.126	0.00	0.928	0.88	6.829	3.51	50.238	3.17	369.570	0.33		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 20

Sample Details

Sample ID : SRWB-1CP2-A_2

Measured : 13 พฤษภาคม 2568 17:27:49

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_20\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:27:50

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

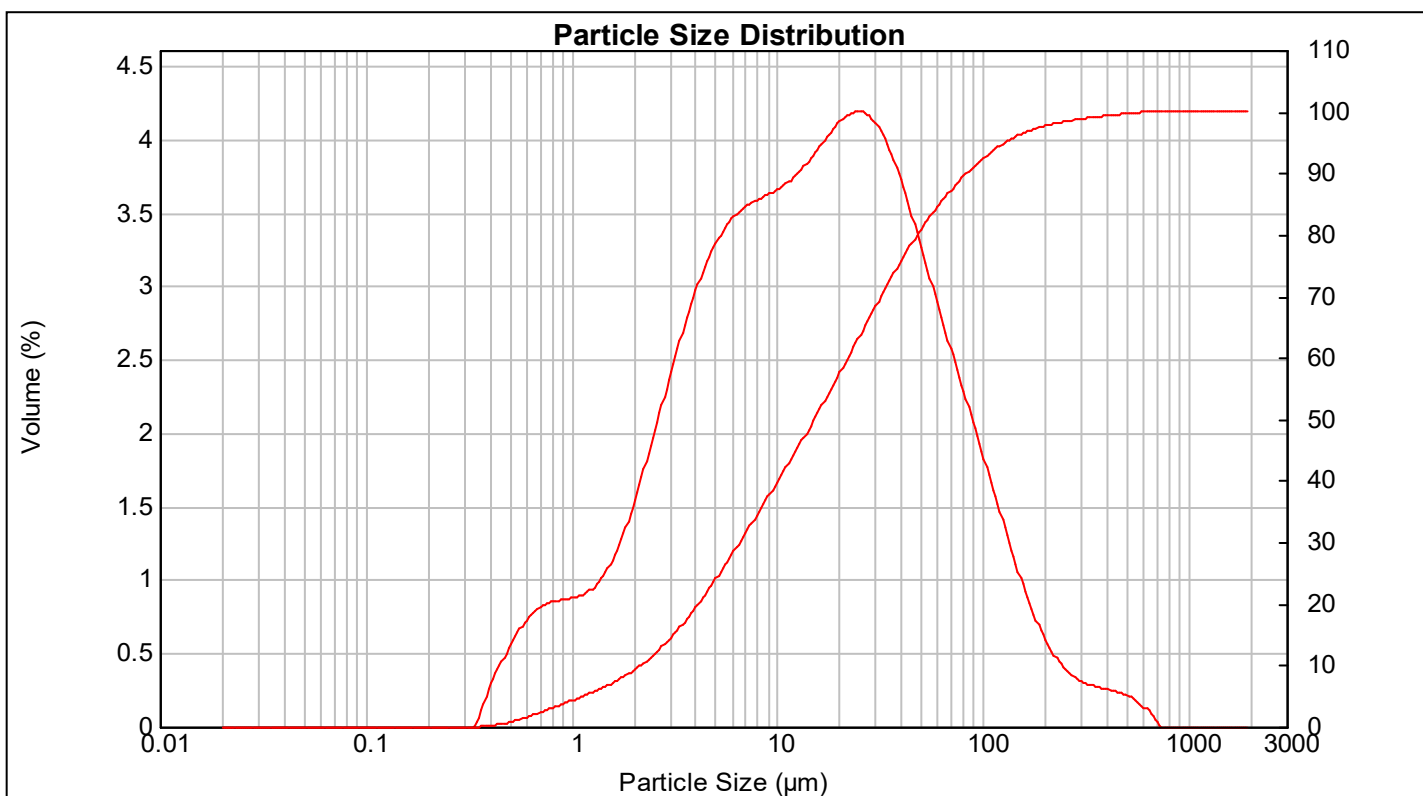
System Details

Accessory Name : Hydro 2000S (A) **Beam Length (mm) :** 2.35 **Obscuration (%) :** 20.43 **Residual (%) :** 0.731
Particle RI : 1.530 **Absorption :** 0.1 **Dispersant Name :** Water **Dispersant RI :** 1.330

Result Statistics

Distribution Type : Volume **Concentration :** 0.0182 %Vol **Specific Surface Area :** 1.15 m²/g
Mean Diameters : **D (0.1) :** 2.18 um **D (0.5) :** 15.19 um **D (0.9) :** 83.81 um
D [4,3] : 35.13 um **D [3,2] :** 5.24 um **Span :** 5.373 **Uniformity :** 1.91

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.91	7.962	3.62	58.573	2.79	430.887	0.23
0.023	0.00	0.172	0.00	1.262	0.99	9.283	3.66	68.291	2.47	502.377	0.19
0.027	0.00	0.200	0.00	1.471	1.14	10.823	3.73	79.621	2.17	585.729	0.12
0.032	0.00	0.233	0.00	1.715	1.37	12.619	3.83	92.832	1.86	682.910	0.01
0.037	0.00	0.272	0.00	2.000	1.66	14.713	3.95	108.234	1.54	796.214	0.00
0.043	0.00	0.317	0.02	2.332	1.99	17.154	4.07	126.191	1.23	928.318	0.00
0.050	0.00	0.370	0.27	2.719	2.33	20.000	4.16	147.128	0.94	1082.339	0.00
0.059	0.00	0.431	0.45	3.170	2.66	23.318	4.20	171.539	0.70	1261.915	0.00
0.068	0.00	0.502	0.63	3.696	2.96	27.187	4.14	200.000	0.52	1471.285	0.00
0.080	0.00	0.586	0.76	4.309	3.20	31.698	3.98	233.183	0.39	1715.392	0.00
0.093	0.00	0.683	0.83	5.024	3.38	36.957	3.74	271.871	0.32	2000.000	0.00
0.108	0.00	0.796	0.86	5.857	3.50	43.089	3.44	316.979	0.28		
0.126	0.00	0.928	0.88	6.829	3.57	50.238	3.11	369.570	0.26		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 21

Sample Details

Sample ID : SRWB-1CP2-A_3

Measured : 13 พฤษภาคม 2568 17:29:08

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:29:10

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

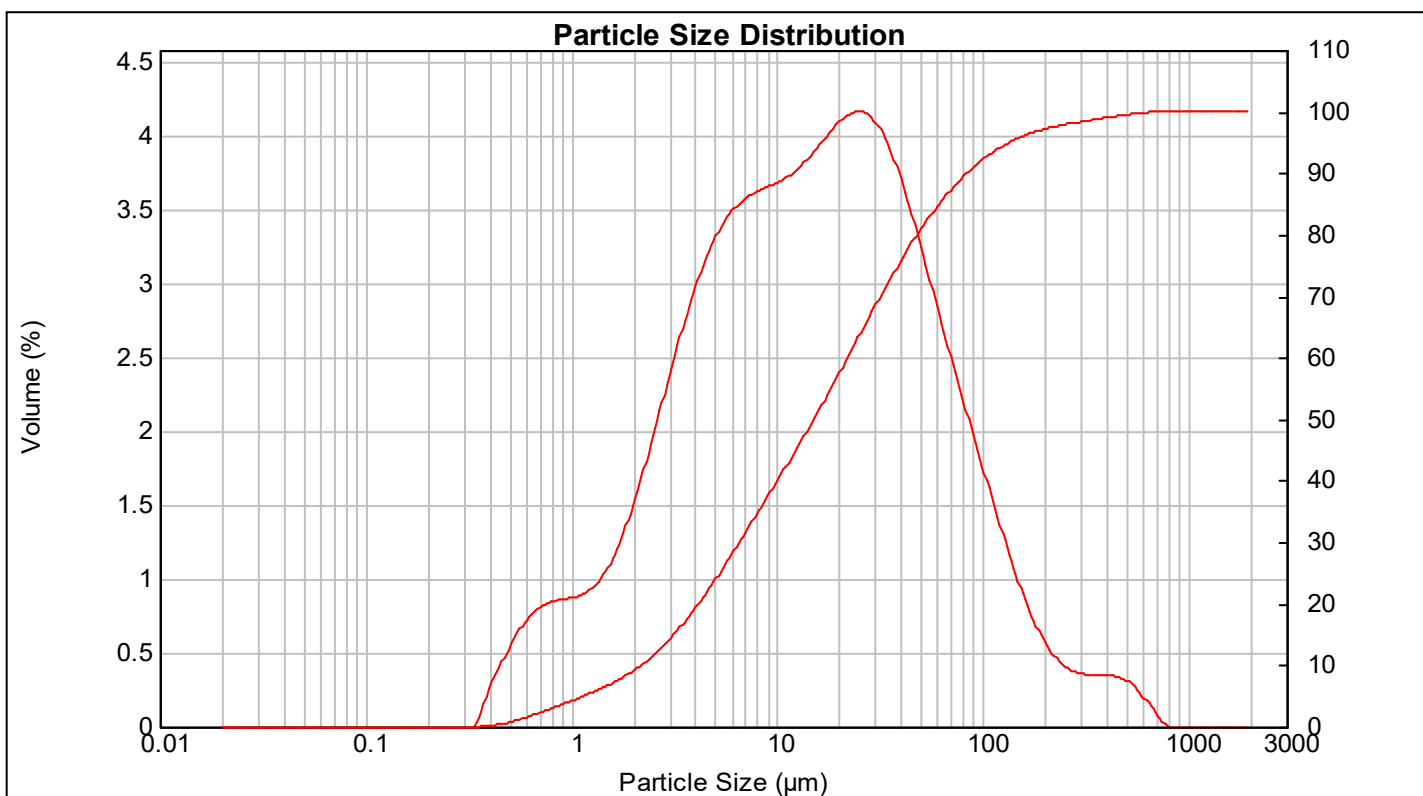
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 20.16 Residual (%) : 0.737
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0179 %Vol Specific Surface Area : 1.14 m²/g
Mean Diameters : D (0.1) : 2.19 um D (0.5) : 15.06 um D (0.9) : 84.13 um
D [4,3] : 36.76 um D [3,2] : 5.24 um Span : 5.442 Uniformity : 2.04

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.91	7.962	3.65	58.573	2.74	430.887	0.33
0.023	0.00	0.172	0.00	1.262	0.99	9.283	3.70	68.291	2.40	502.377	0.28
0.027	0.00	0.200	0.00	1.471	1.14	10.823	3.75	79.621	2.08	585.729	0.17
0.032	0.00	0.233	0.00	1.715	1.37	12.619	3.84	92.832	1.76	682.910	0.04
0.037	0.00	0.272	0.00	2.000	1.66	14.713	3.94	108.234	1.45	796.214	0.00
0.043	0.00	0.317	0.02	2.332	1.99	17.154	4.06	126.191	1.15	928.318	0.00
0.050	0.00	0.370	0.27	2.719	2.34	20.000	4.15	147.128	0.88	1082.339	0.00
0.059	0.00	0.431	0.45	3.170	2.67	23.318	4.18	171.539	0.66	1261.915	0.00
0.068	0.00	0.502	0.63	3.696	2.97	27.187	4.13	200.000	0.51	1471.285	0.00
0.080	0.00	0.586	0.75	4.309	3.22	31.698	3.97	233.183	0.41	1715.392	0.00
0.093	0.00	0.683	0.83	5.024	3.41	36.957	3.73	271.871	0.36	2000.000	0.00
0.108	0.00	0.796	0.86	5.857	3.53	43.089	3.42	316.979	0.35		
0.126	0.00	0.928	0.88	6.829	3.61	50.238	3.08	369.570	0.35		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 22

Sample Details

Sample ID : SRWB-1D2-A_1

Measured : 13 พฤษภาคม 2568 17:39:07

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:39:08

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

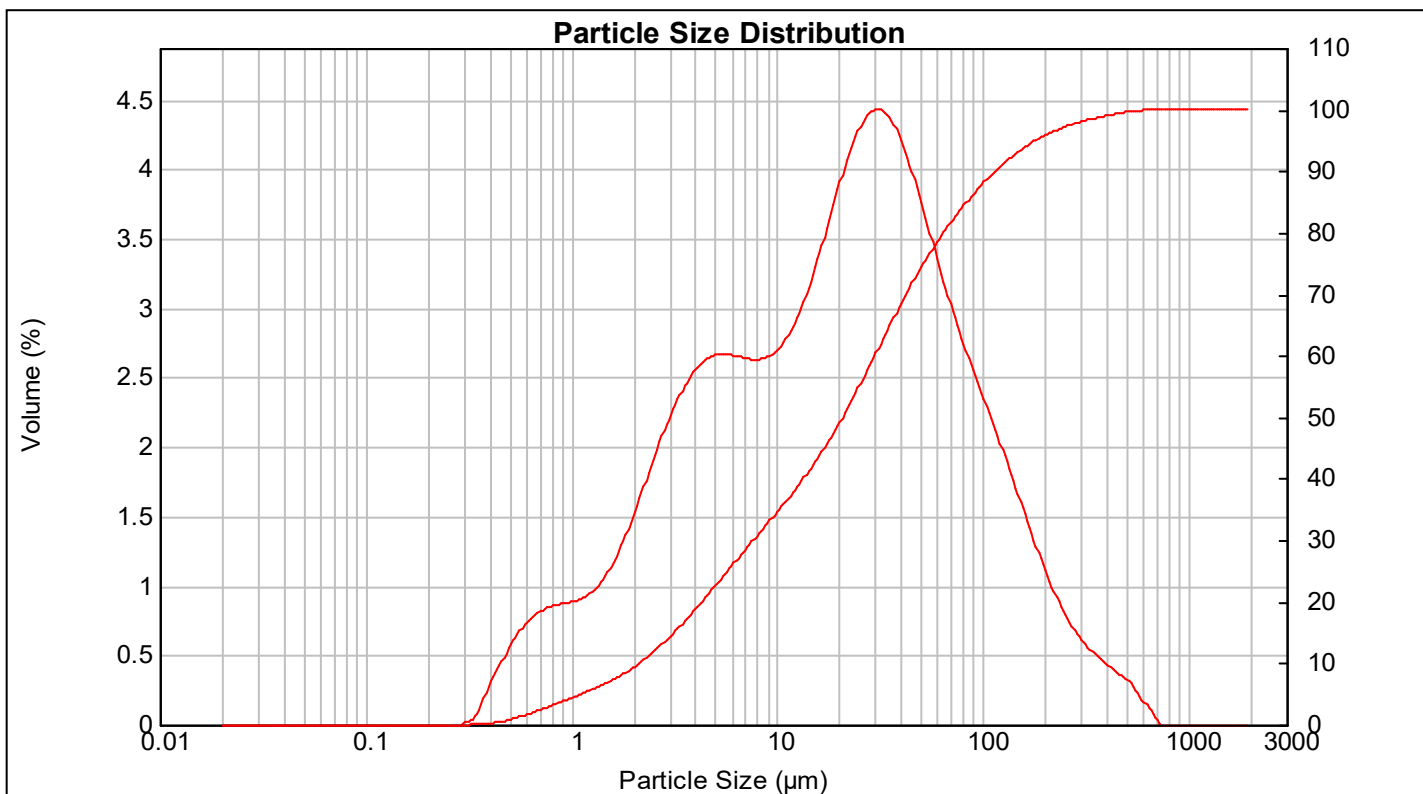
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.98 Residual (%) : 0.729
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0188 %Vol Specific Surface Area : 1.1 m²/g
Mean Diameters : D (0.1) : 2.15 um D (0.5) : 20.84 um D (0.9) : 115.33 um
D [4,3] : 46.03 um D [3,2] : 5.45 um Span : 5.431 Uniformity : 1.85

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.92	7.962	2.64	58.573	3.25	430.887	0.36
0.023	0.00	0.172	0.00	1.262	1.01	9.283	2.70	68.291	2.93	502.377	0.27
0.027	0.00	0.200	0.00	1.471	1.16	10.823	2.84	79.621	2.64	585.729	0.14
0.032	0.00	0.233	0.00	1.715	1.38	12.619	3.07	92.832	2.37	682.910	0.01
0.037	0.00	0.272	0.00	2.000	1.64	14.713	3.38	108.234	2.10	796.214	0.00
0.043	0.00	0.317	0.07	2.332	1.92	17.154	3.72	126.191	1.82	928.318	0.00
0.050	0.00	0.370	0.29	2.719	2.18	20.000	4.05	147.128	1.54	1082.339	0.00
0.059	0.00	0.431	0.47	3.170	2.40	23.318	4.43	171.539	1.26	1261.915	0.00
0.068	0.00	0.502	0.64	3.696	2.56	27.187	4.41	200.000	1.00	1471.285	0.00
0.080	0.00	0.586	0.76	4.309	2.65	31.698	4.23	233.183	0.80	1715.392	0.00
0.093	0.00	0.683	0.83	5.024	2.68	36.957	3.94	271.871	0.64	2000.000	0.00
0.108	0.00	0.796	0.87	5.857	2.64	43.089	3.60	316.979	0.44		
0.126	0.00	0.928	0.89	6.829		50.238		369.570			
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 23

Sample Details

Sample ID : SRWB-1D2-A_2

Measured : 13 พฤษภาคม 2568 17:40:26

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:40:28

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

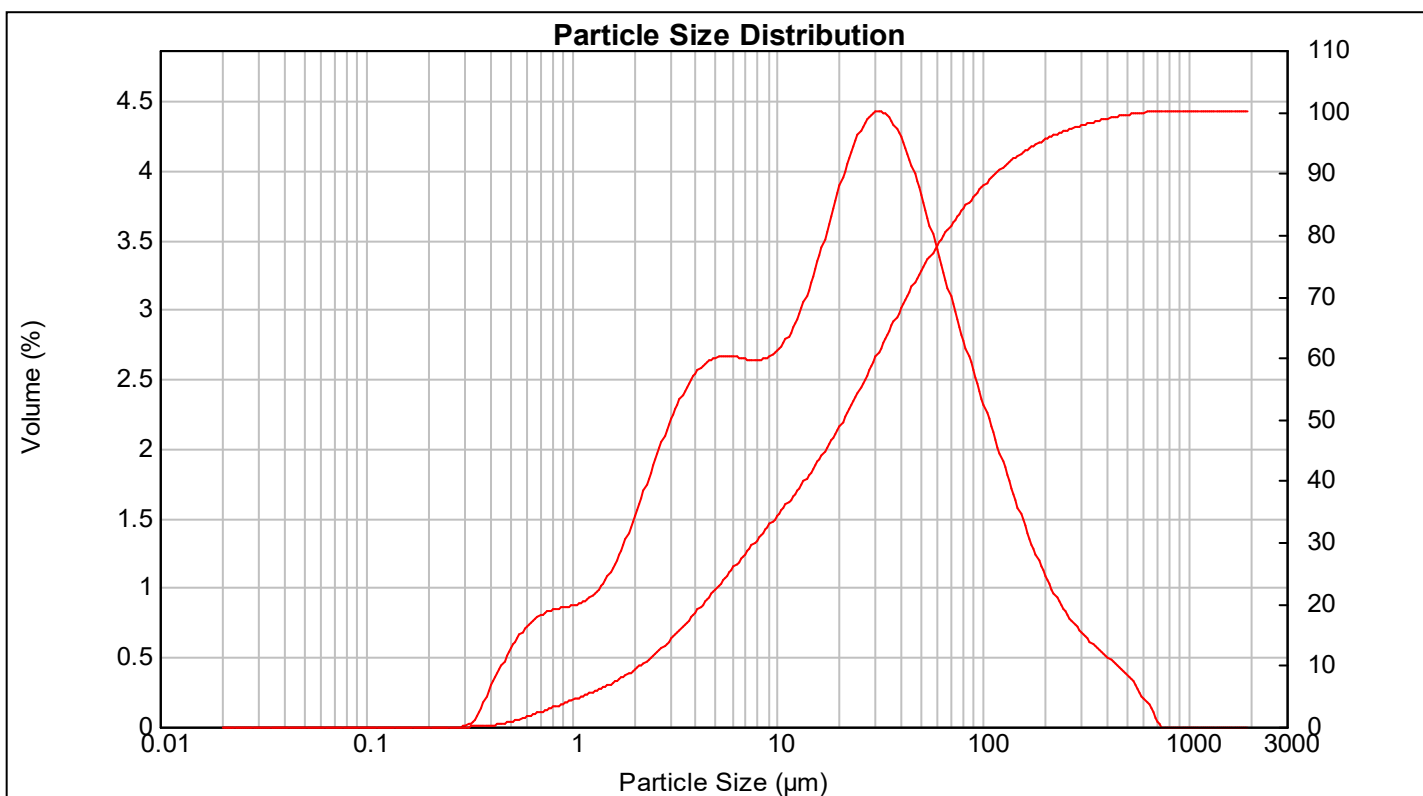
System Details

Accessory Name : Hydro 2000S (A) **Beam Length (mm) :** 2.35 **Obscuration (%) :** 19.61 **Residual (%) :** 0.737
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 :** 1.08 m²/g
Mean Diameters : **D (0.1) :** 2.19 um **D (0.5) :** 21.1 um **D (0.9) :** 116.57 um
D [4,3] : 47.34 um **D [3,2] :** 5.53 um **Span :** 5.422 **Uniformity :** 1.88

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.91	7.962	2.65	58.573	3.32	430.887	0.42
0.023	0.00	0.172	0.00	1.262	0.99	9.283	2.71	68.291	2.98	502.377	0.32
0.027	0.00	0.200	0.00	1.471	1.14	10.823	2.85	79.621	2.66	585.729	0.17
0.032	0.00	0.233	0.00	1.715	1.36	12.619	3.07	92.832	2.35	682.910	0.01
0.037	0.00	0.272	0.00	2.000	1.62	14.713	3.37	108.234	2.04	796.214	0.00
0.043	0.00	0.317	0.06	2.332	1.89	17.154	3.70	126.191	1.74	928.318	0.00
0.050	0.00	0.370	0.28	2.719	2.15	20.000	4.03	147.128	1.46	1082.339	0.00
0.059	0.00	0.431	0.46	3.170	2.37	23.318	4.28	171.539	1.21	1261.915	0.00
0.068	0.00	0.502	0.63	3.696	2.54	27.187	4.41	200.000	1.00	1471.285	0.00
0.080	0.00	0.586	0.75	4.309	2.63	31.698	4.25	233.183	0.83	1715.392	0.00
0.093	0.00	0.683	0.82	5.024	2.66	36.957	3.99	271.871	0.60	2000.000	0.00
0.108	0.00	0.796	0.85	5.857	2.64	43.089	3.66	316.979	0.51		
0.126	0.00	0.928	0.87	6.829		50.238		369.570			
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 24

Sample Details

Sample ID : SRWB-1D2-A_3

Measured : 13 พฤษภาคม 2568 17:43:07

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:43:08

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

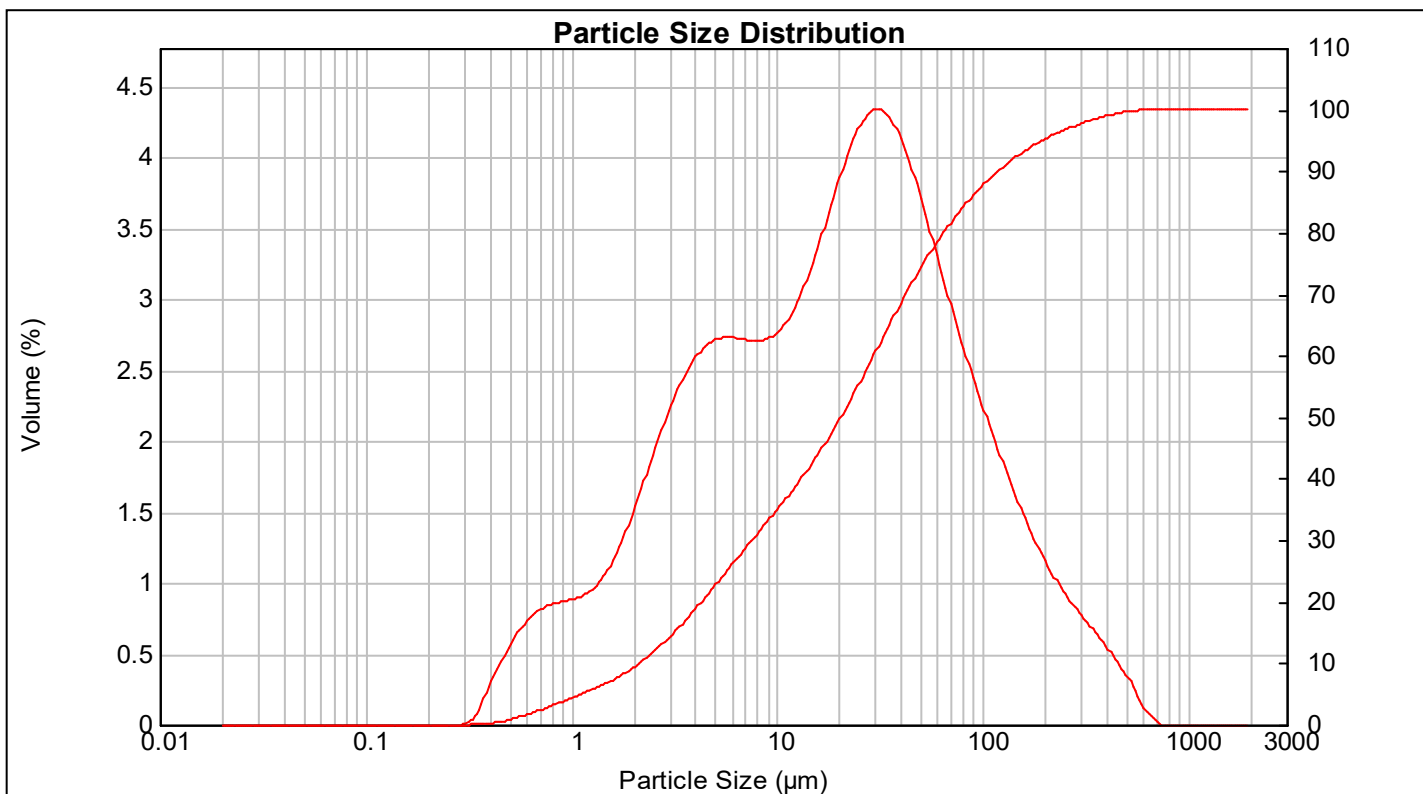
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.15 Residual (%) : 0.713
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0178 %Vol Specific Surface Area : 1.1 m²/g
Mean Diameters : D (0.1) : 2.15 um D (0.5) : 20.42 um D (0.9) : 118.74 um
D [4,3] : 47 um D [3,2] : 5.45 um Span : 5.709 Uniformity : 1.94

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.92	7.962	2.72	58.573	3.19	430.887	0.41
0.023	0.00	0.172	0.00	1.262	1.01	9.283	2.77	68.291	2.86	502.377	0.26
0.027	0.00	0.200	0.00	1.471	1.16	10.823	2.90	79.621	2.54	585.729	0.09
0.032	0.00	0.233	0.00	1.715	1.38	12.619	3.11	92.832	2.25	682.910	0.00
0.037	0.00	0.272	0.00	2.000	1.64	14.713	3.38	108.234	1.98	796.214	0.00
0.043	0.00	0.317	0.06	2.332	1.92	17.154	3.70	126.191	1.72	928.318	0.00
0.050	0.00	0.370	0.28	2.719	2.19	20.000	4.00	147.128	1.47	1082.339	0.00
0.059	0.00	0.431	0.47	3.170	2.42	23.318	4.23	171.539	1.26	1261.915	0.00
0.068	0.00	0.502	0.64	3.696	2.59	27.187	4.34	200.000	1.08	1471.285	0.00
0.080	0.00	0.586	0.76	4.309	2.69	31.698	4.32	233.183	0.93	1715.392	0.00
0.093	0.00	0.683	0.83	5.024	2.74	36.957	4.15	271.871	0.80	2000.000	0.00
0.108	0.00	0.796	0.86	5.857	2.74	43.089	3.88	316.979	0.68		
0.126	0.00	0.928	0.88	6.829	2.72	50.238	3.55	369.570	0.55		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 25

Sample Details

Sample ID : SRWB-2B2-A_1

Measured : 13 พฤษภาคม 2568 17:55:56

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:55:58

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

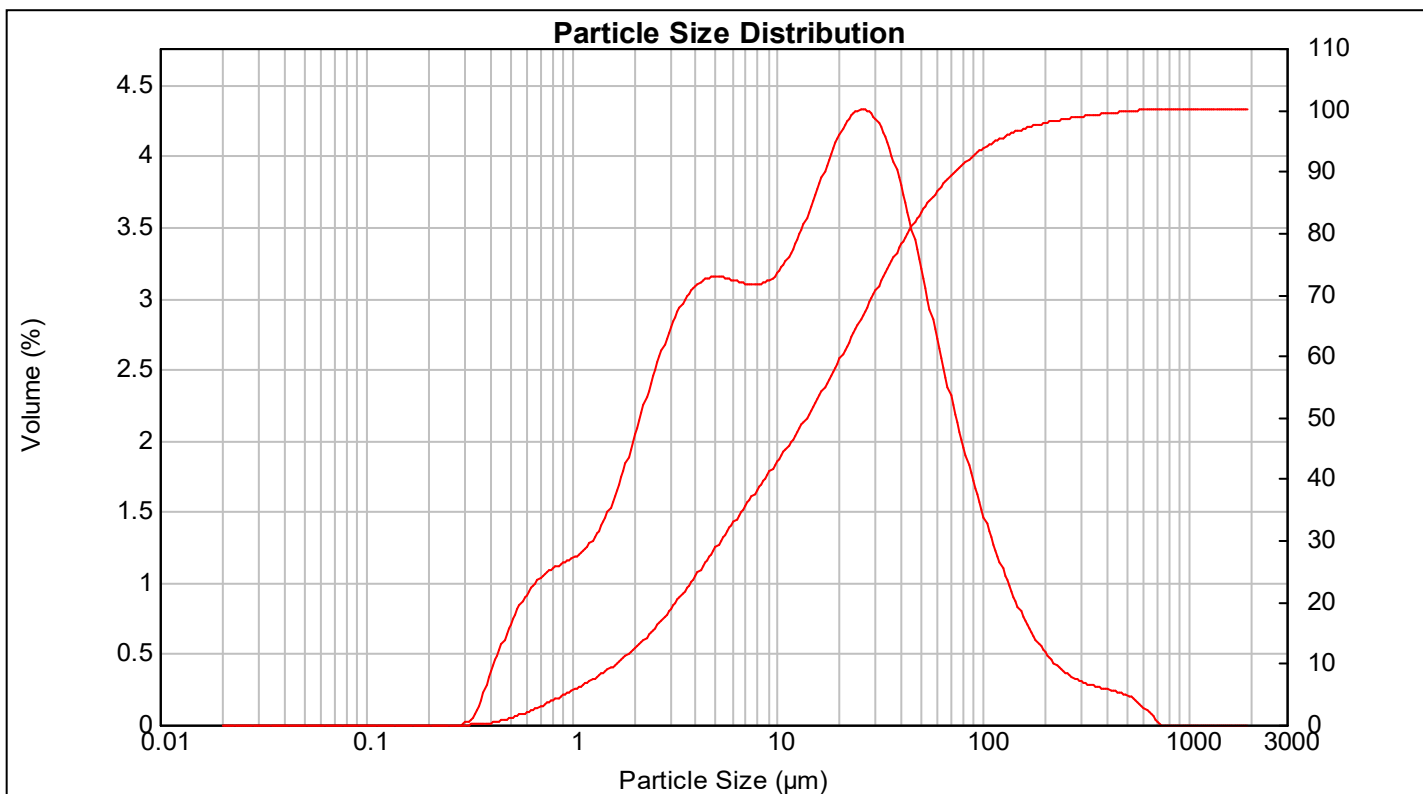
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.99 Residual (%) : 0.679
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 : 1.36 m²/g
Mean Diameters : D (0.1) : 1.67 um D (0.5) : 13.96 um D (0.9) : 73.88 um
D [4,3] : 32.26 um D [3,2] : 4.41 um Span : 5.172 Uniformity : 1.94

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.24	7.962	3.11	58.573	2.57	430.887	0.22
0.023	0.00	0.172	0.00	1.262	1.37	9.283	3.18	68.291	2.18	502.377	0.18
0.027	0.00	0.200	0.00	1.471	1.57	10.823	3.33	79.621	1.82	585.729	0.10
0.032	0.00	0.233	0.00	1.715	1.85	12.619	3.54	92.832	1.50	682.910	0.01
0.037	0.00	0.272	0.00	2.000	2.16	14.713	3.79	108.234	1.21	796.214	0.00
0.043	0.00	0.317	0.08	2.332	2.47	17.154	4.04	126.191	0.96	928.318	0.00
0.050	0.00	0.370	0.35	2.719	2.74	20.000	4.24	147.128	0.75	1082.339	0.00
0.059	0.00	0.431	0.58	3.170	2.95	23.318	4.33	171.539	0.58	1261.915	0.00
0.068	0.00	0.502	0.79	3.696	3.09	27.187	4.29	200.000	0.46	1471.285	0.00
0.080	0.00	0.586	0.95	4.309	3.15	31.698	4.11	233.183	0.37	1715.392	0.00
0.093	0.00	0.683	1.06	5.024	3.15	36.957	3.81	271.871	0.31	2000.000	0.00
0.108	0.00	0.796	1.12	5.857	3.13	43.089	3.42	316.979	0.28		
0.126	0.00	0.928	1.17	6.829	3.10	50.238	3.00	369.570	0.25		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 26

Sample Details

Sample ID : SRWB-2B2-A_2

Measured : 13 พฤษภาคม 2568 17:57:47

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 17:57:48

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

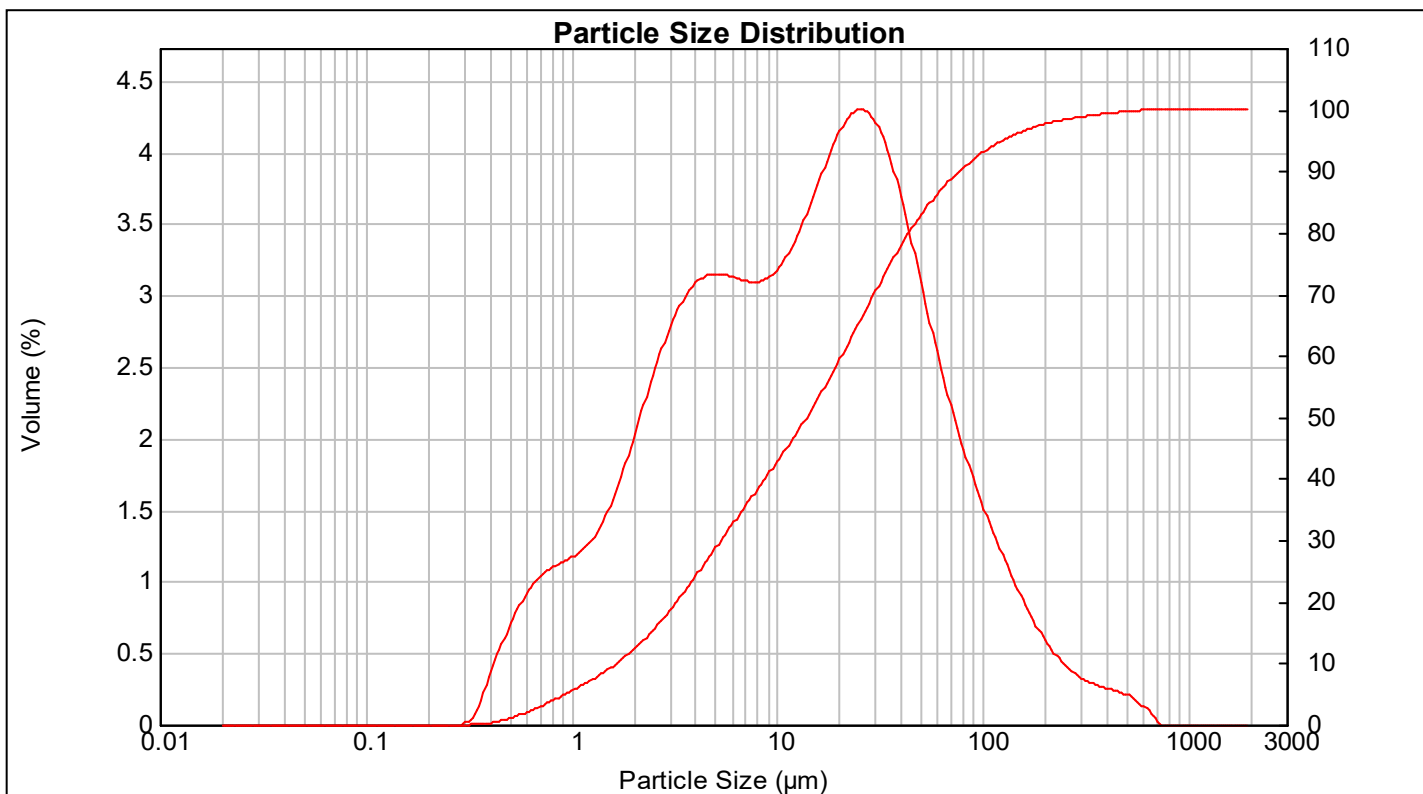
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.79 Residual (%) : 0.682
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0150 %Vol Specific Surface Area : 1.36 m²/g
Mean Diameters : D (0.1) : 1.67 um D (0.5) : 13.95 um D (0.9) : 77.11 um
D [4,3] : 33.09 um D [3,2] : 4.41 um Span : 5.406 Uniformity : 2

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.24	7.962	3.11	58.573	2.48	430.887	0.23
0.023	0.00	0.172	0.00	1.262	1.37	9.283	3.19	68.291	2.12	502.377	0.18
0.027	0.00	0.200	0.00	1.471	1.57	10.823	3.33	79.621	1.81	585.729	0.11
0.032	0.00	0.233	0.00	1.715	1.85	12.619	3.54	92.832	1.54	682.910	0.01
0.037	0.00	0.272	0.00	2.000	2.16	14.713	3.79	108.234	1.29	796.214	0.00
0.043	0.00	0.317	0.08	2.332	2.47	17.154	4.04	126.191	1.06	928.318	0.00
0.050	0.00	0.370	0.35	2.719	2.74	20.000	4.23	147.128	0.85	1082.339	0.00
0.059	0.00	0.431	0.58	3.170	2.95	23.318	4.31	171.539	0.68	1261.915	0.00
0.068	0.00	0.502	0.79	3.696	3.09	27.187	4.25	200.000	0.53	1471.285	0.00
0.080	0.00	0.586	0.95	4.309	3.15	31.698	4.04	233.183	0.42	1715.392	0.00
0.093	0.00	0.683	1.06	5.024	3.16	36.957	3.71	271.871	0.34	2000.000	0.00
0.108	0.00	0.796	1.12	5.857	3.13	43.089	3.31	316.979	0.29		
0.126	0.00	0.928	1.17	6.829	3.10	50.238	2.88	369.570	0.26		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 27

Sample Details

Sample ID : SRWB-2B2-A_3

Measured : 13 พฤษภาคม 2568 18:06:24

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 13 พฤษภาคม 2568 18:06:25

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

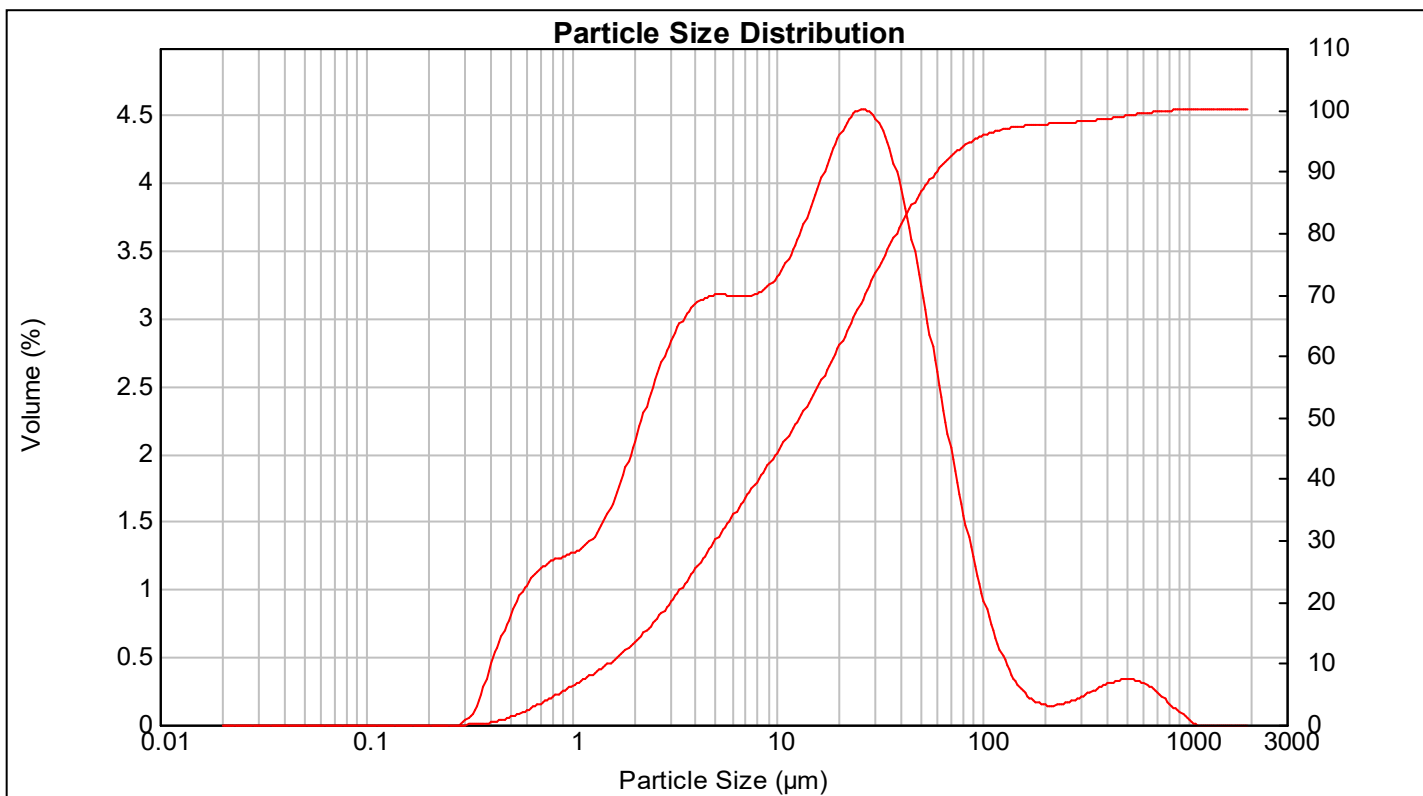
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 18.72 Residual (%) : 0.732
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0134 %Vol Specific Surface Area : 1.46 m²/g
Mean Diameters : D (0.1) : 1.53 um D (0.5) : 12.93 um D (0.9) : 59.9 um
D [4,3] : 32.49 um D [3,2] : 4.12 um Span : 4.514 Uniformity : 2.14

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.32	7.962	3.21	58.573	2.41	430.887	0.33
0.023	0.00	0.172	0.00	1.262	1.44	9.283	3.31	68.291	1.86	502.377	0.33
0.027	0.00	0.200	0.00	1.471	1.64	10.823	3.48	79.621	1.37	585.729	0.29
0.032	0.00	0.233	0.00	1.715	1.91	12.619	3.71	92.832	0.96	682.910	0.22
0.037	0.00	0.272	0.01	2.000	2.21	14.713	3.98	108.234	0.63	796.214	0.12
0.043	0.00	0.317	0.11	2.332	2.52	17.154	4.24	126.191	0.39	928.318	0.04
0.050	0.00	0.370	0.42	2.719	2.78	20.000	4.44	147.128	0.24	1082.339	0.00
0.059	0.00	0.431	0.67	3.170	2.98	23.318	4.51	171.539	0.16	1261.915	0.00
0.068	0.00	0.502	0.90	3.696	3.10	27.187	4.31	200.000	0.14	1471.285	0.00
0.080	0.00	0.586	1.07	4.309	3.17	31.698	3.97	233.183	0.20	1715.392	0.00
0.093	0.00	0.683	1.17	5.024	3.18	36.957	3.51	271.871	0.25	2000.000	0.00
0.108	0.00	0.796	1.23	5.857	3.17	43.089	2.97	316.979	0.30		
0.126	0.00	0.928	1.26	6.829		50.238		369.570			
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 28

Sample Details

Sample ID : SRWB-3B2-A_1

Measured : 19 พฤษภาคม 2568 10:08:16

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770 30\Raw data 7

Analysed : 19 พฤษภาคม 2568 10:08:18

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

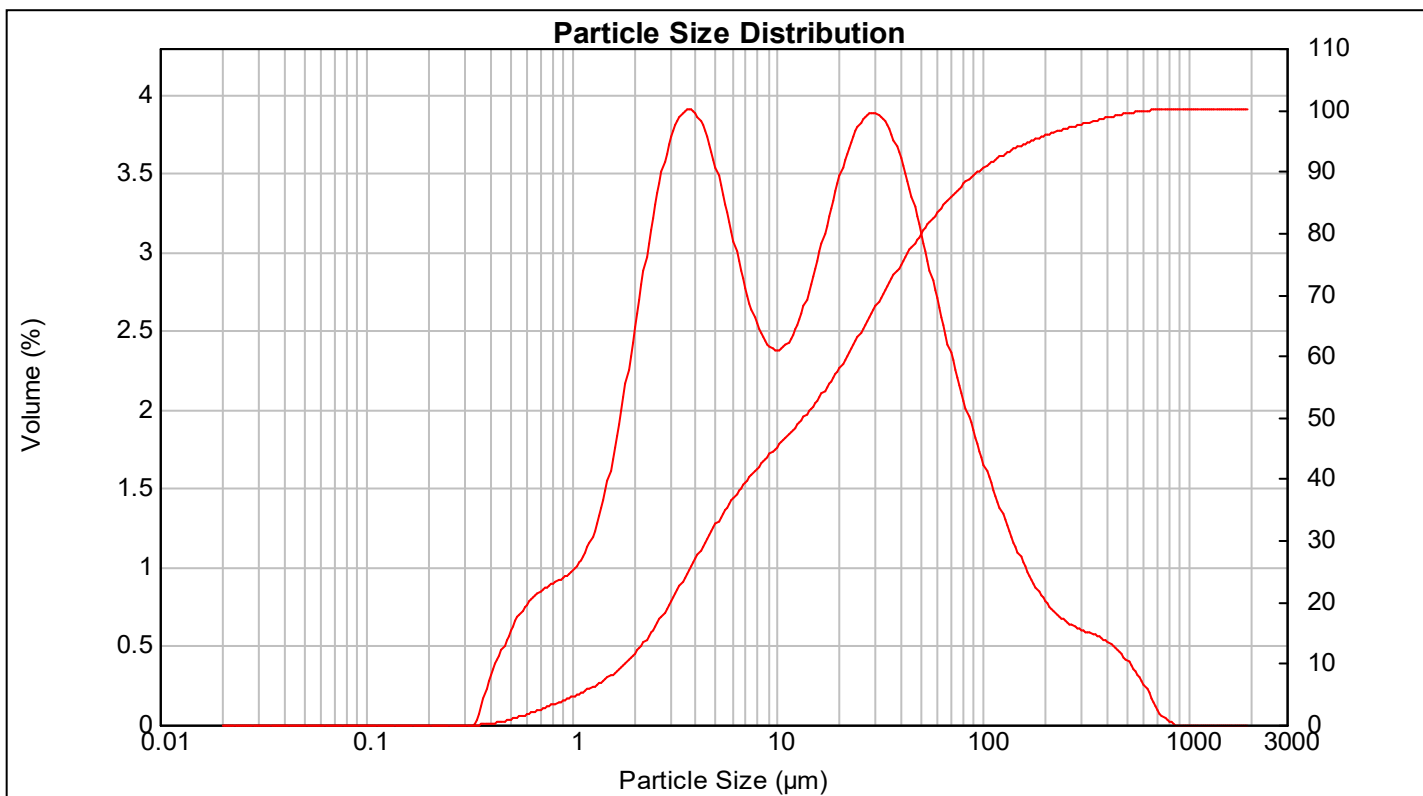
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.61 Residual (%) : 0.584
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 : 1.32 m²/g
Mean Diameters : D (0.1) : 1.83 um D (0.5) : 13.52 um D (0.9) : 96.3 um
D [4,3] : 40.67 um D [3,2] : 4.53 um Span : 6.985 Uniformity : 2.67

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.10	7.962	2.46	58.573	2.59	430.887	0.46
0.023	0.00	0.172	0.00	1.262	1.33	9.283	2.38	68.291	2.25	502.377	0.35
0.027	0.00	0.200	0.00	1.471	1.69	10.823	2.46	79.621	1.95	585.729	0.22
0.032	0.00	0.233	0.00	1.715	2.18	12.619	2.67	92.832	1.68	682.910	0.07
0.037	0.00	0.272	0.00	2.000	2.73	14.713	2.97	108.234	1.44	796.214	0.00
0.043	0.00	0.317	0.02	2.332	3.25	17.154	3.31	126.191	1.21	928.318	0.00
0.050	0.00	0.370	0.29	2.719	3.66	20.000	3.61	147.128	1.02	1082.339	0.00
0.059	0.00	0.431	0.49	3.170	3.88	23.318	3.82	171.539	0.86	1261.915	0.00
0.068	0.00	0.502	0.67	3.696	3.89	27.187	3.89	200.000	0.74	1471.285	0.00
0.080	0.00	0.586	0.79	4.309	3.71	31.698	3.82	233.183	0.66	1715.392	0.00
0.093	0.00	0.683	0.87	5.024	3.39	36.957	3.61	271.871	0.61	2000.000	0.00
0.108	0.00	0.796	0.91	5.857	3.02	43.089	3.30	316.979	0.58		
0.126	0.00	0.928	0.97	6.829	2.69	50.238	2.95	369.570	0.53		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 29

Sample Details

Sample ID : SRWB-3B2-A_2

Measured : 19 พฤษภาคม 2568 10:09:35

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical
service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 19 พฤษภาคม 2568 10:09:36

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before
analysis and stirring at 2000 rpm during measurement.

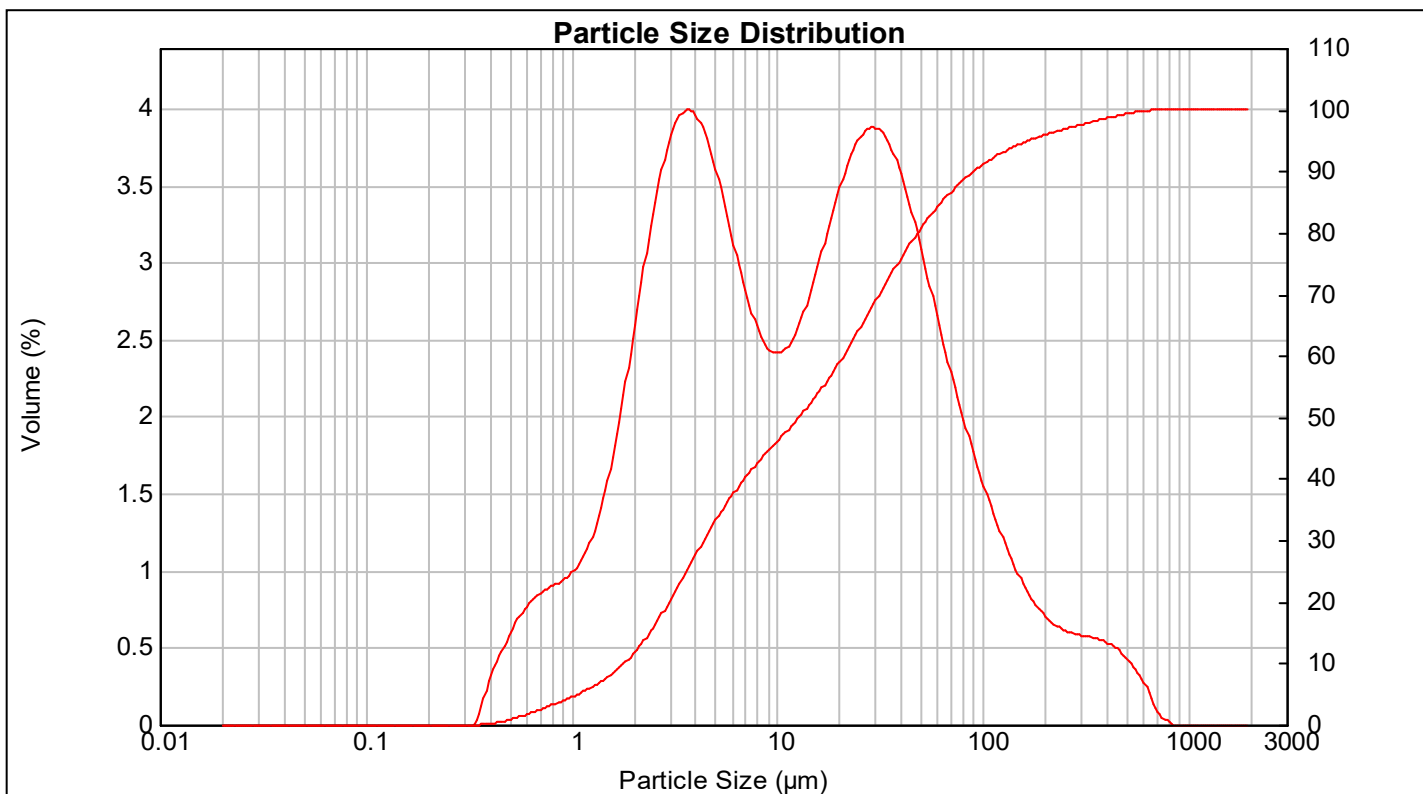
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.33 Residual (%) : 0.587
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 : 1.34 m²/g
Mean Diameters : D (0.1) : 1.81 um D (0.5) : 12.79 um D (0.9) : 90.86 um
D [4,3] : 39.52 um D [3,2] : 4.46 um Span : 6.962 Uniformity : 2.74

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.11	7.962	2.50	58.573	2.53	430.887	0.48
0.023	0.00	0.172	0.00	1.262	1.36	9.283	2.42	68.291	2.18	502.377	0.37
0.027	0.00	0.200	0.00	1.471	1.74	10.823	2.49	79.621	1.86	585.729	0.23
0.032	0.00	0.233	0.00	1.715	2.25	12.619	2.70	92.832	1.57	682.910	0.06
0.037	0.00	0.272	0.00	2.000	2.81	14.713	2.99	108.234	1.32	796.214	0.00
0.043	0.00	0.317	0.02	2.332	3.35	17.154	3.32	126.191	1.09	928.318	0.00
0.050	0.00	0.370	0.29	2.719	3.76	20.000	3.61	147.128	0.90	1082.339	0.00
0.059	0.00	0.431	0.49	3.170	3.97	23.318	3.81	171.539	0.76	1261.915	0.00
0.068	0.00	0.502	0.67	3.696	3.97	27.187	3.88	200.000	0.67	1471.285	0.00
0.080	0.00	0.586	0.79	4.309	3.78	31.698	3.81	233.183	0.61	1715.392	0.00
0.093	0.00	0.683	0.87	5.024	3.45	36.957	3.59	271.871	0.58	2000.000	0.00
0.108	0.00	0.796	0.92	5.857	3.07	43.089	3.28	316.979	0.57		
0.126	0.00	0.928	0.99	6.829	2.73	50.238	2.91	369.570	0.54		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 30

Sample Details

Sample ID : SRWB-3B2-A_3

Measured : 19 พฤษภาคม 2568 10:10:53

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 19 พฤษภาคม 2568 10:10:55

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

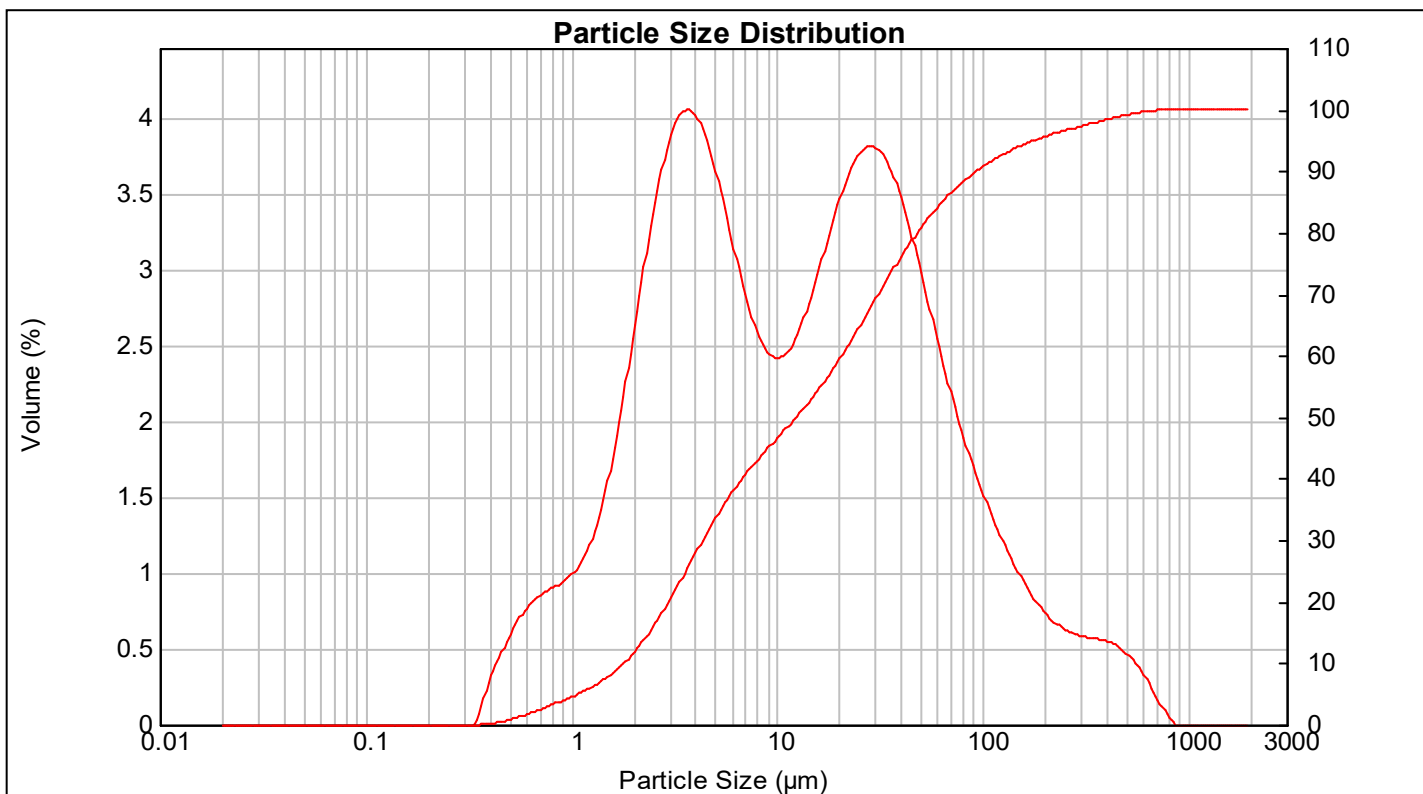
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.16 Residual (%) : 0.614
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 : 1.35 m²/g
Mean Diameters : D (0.1) : 1.81 um D (0.5) : 12.41 um D (0.9) : 93.47 um
D [4,3] : 40.82 um D [3,2] : 4.43 um Span : 7.387 Uniformity : 2.94

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.12	7.962	2.51	58.573	2.43	430.887	0.51
0.023	0.00	0.172	0.00	1.262	1.37	9.283	2.42	68.291	2.08	502.377	0.42
0.027	0.00	0.200	0.00	1.471	1.76	10.823	2.49	79.621	1.79	585.729	0.29
0.032	0.00	0.233	0.00	1.715	2.28	12.619	2.70	92.832	1.53	682.910	0.13
0.037	0.00	0.272	0.00	2.000	2.86	14.713	2.99	108.234	1.11	796.214	0.01
0.043	0.00	0.317	0.02	2.332	3.40	17.154	3.31	126.191	0.94	928.318	0.00
0.050	0.00	0.370	0.29	2.719	3.82	20.000	3.59	147.128	0.80	1082.339	0.00
0.059	0.00	0.431	0.49	3.170	4.04	23.318	3.77	171.539	0.70	1261.915	0.00
0.068	0.00	0.502	0.67	3.696	4.03	27.187	3.82	200.000	0.63	1471.285	0.00
0.080	0.00	0.586	0.80	4.309	3.83	31.698	3.72	233.183	0.59	1715.392	0.00
0.093	0.00	0.683	0.87	5.024	3.48	36.957	3.49	271.871	0.57	2000.000	0.00
0.108	0.00	0.796	0.92	5.857	3.09	43.089	3.17	316.979	0.55		
0.126	0.00	0.928	0.99	6.829	2.74	50.238	2.80	369.570			
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 31

Sample Details

Sample ID : SRWB-3CP2-A_1

Measured : 19 พฤษภาคม 2568 11:00:10

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 19 พฤษภาคม 2568 11:00:11

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

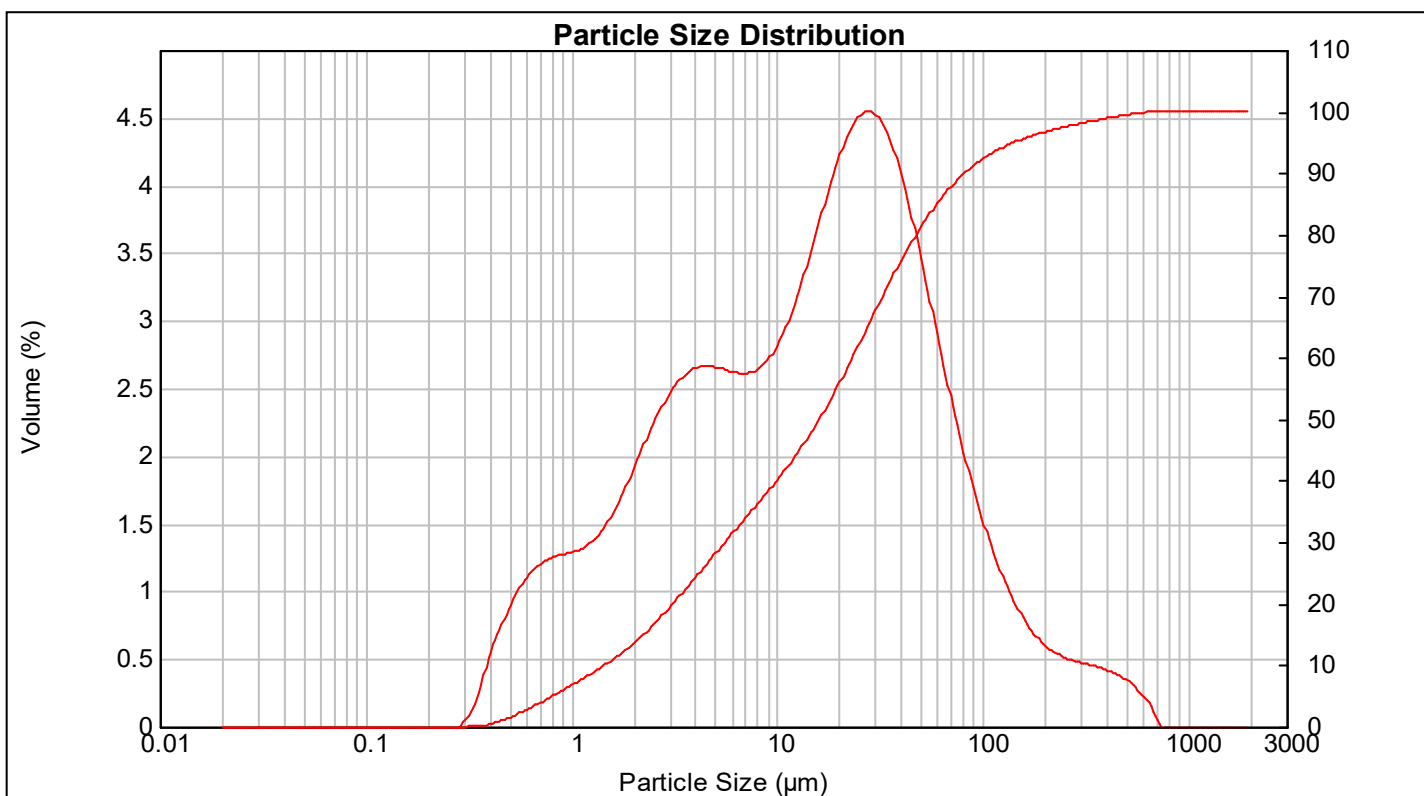
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.98 Residual (%) : 0.358
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0149 %Vol Specific Surface Area : 1.46 m²/g
Mean Diameters : D (0.1) : 1.45 um D (0.5) : 16.04 um D (0.9) : 81.95 um
D [4,3] : 37.49 um D [3,2] : 4.12 um Span : 5.019 Uniformity : 1.99

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.33	7.962	2.68	58.573	2.75	430.887	0.37
0.023	0.00	0.172	0.00	1.262	1.42	9.283	2.82	68.291	2.29	502.377	0.30
0.027	0.00	0.200	0.00	1.471	1.57	10.823	3.05	79.621	1.88	585.729	0.19
0.032	0.00	0.233	0.00	1.715	1.78	12.619	3.36	92.832	1.53	682.910	0.01
0.037	0.00	0.272	0.02	2.000	2.02	14.713	3.71	108.234	1.23	796.214	0.00
0.043	0.00	0.317	0.18	2.332	2.25	17.154	4.06	126.191	0.98	928.318	0.00
0.050	0.00	0.370	0.53	2.719	2.45	20.000	4.34	147.128	0.79	1082.339	0.00
0.059	0.00	0.431	0.77	3.170	2.58	23.318	4.55	171.539	0.66	1261.915	0.00
0.068	0.00	0.502	0.99	3.696	2.66	27.187	4.41	200.000	0.57	1471.285	0.00
0.080	0.00	0.586	1.14	4.309	2.67	31.698	4.11	233.183	0.48	1715.392	0.00
0.093	0.00	0.683	1.22	5.024	2.65	36.957	3.70	271.871	0.45	2000.000	0.00
0.108	0.00	0.796	1.27	5.857	2.62	43.089	3.23	316.979	0.42		
0.126	0.00	0.928	1.29	6.829	2.62	50.238		369.570			
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 32

Sample Details

Sample ID : SRWB-3CP2-A_2

Measured : 19 พฤษภาคม 2568 11:01:45

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770 30\Raw data 7

Analysed : 19 พฤษภาคม 2568 11:01:46

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

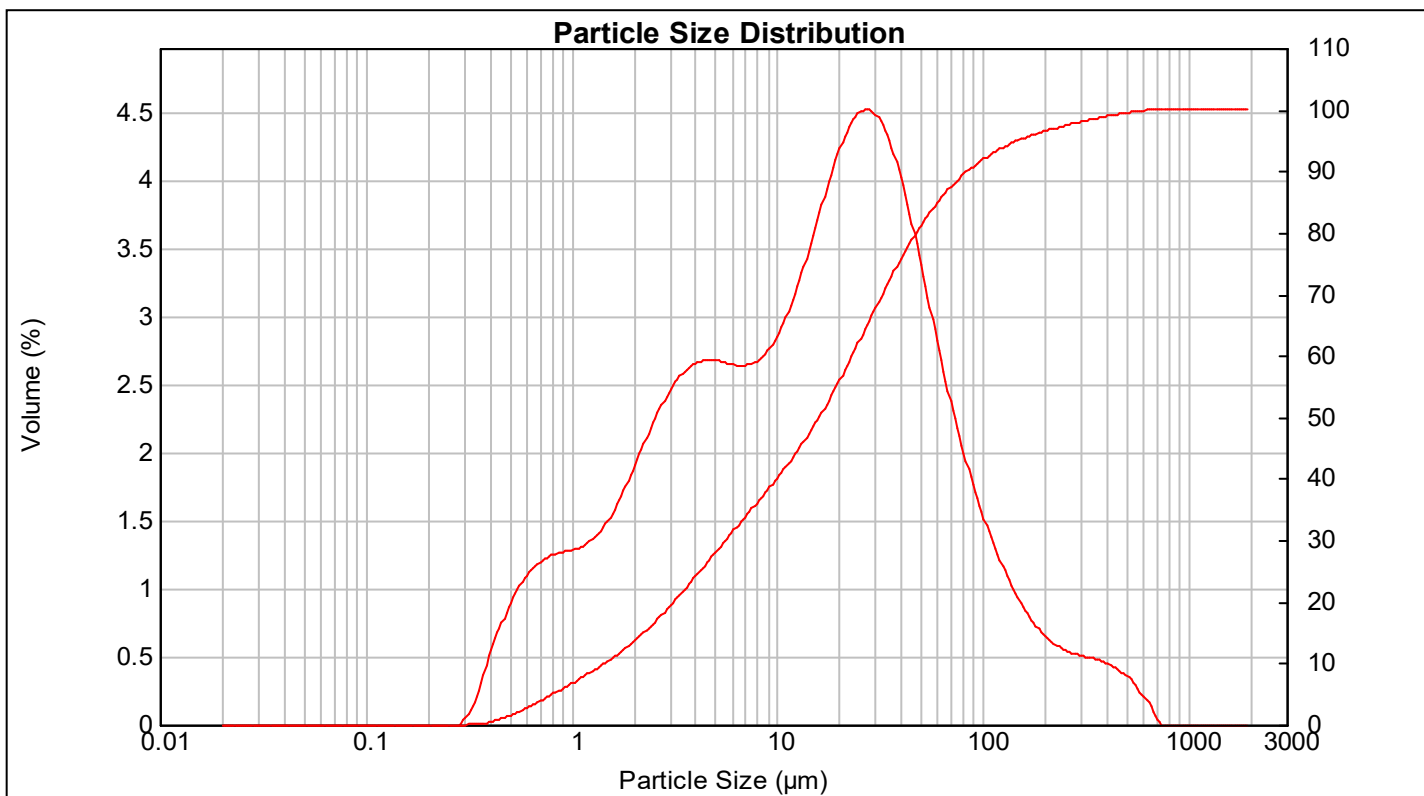
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.53 Residual (%) : 0.360
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 : 1.45 m²/g
Mean Diameters : D (0.1) : 1.46 um D (0.5) : 16 um D (0.9) : 84.62 um
D [4,3] : 38.11 um D [3,2] : 4.15 um Span : 5.198 Uniformity : 2.03

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.32	7.962	2.71	58.573	2.67	430.887	0.39
0.023	0.00	0.172	0.00	1.262	1.41	9.283	2.86	68.291	2.24	502.377	0.30
0.027	0.00	0.200	0.00	1.471	1.56	10.823	3.09	79.621	1.86	585.729	0.17
0.032	0.00	0.233	0.00	1.715	1.77	12.619	3.39	92.832	1.54	682.910	0.01
0.037	0.00	0.272	0.02	2.000	2.00	14.713	3.74	108.234	1.27	796.214	0.00
0.043	0.00	0.317	0.17	2.332	2.23	17.154	4.07	126.191	1.04	928.318	0.00
0.050	0.00	0.370	0.52	2.719	2.43	20.000	4.35	147.128	0.85	1082.339	0.00
0.059	0.00	0.431	0.76	3.170	2.57	23.318	4.50	171.539	0.71	1261.915	0.00
0.068	0.00	0.502	0.98	3.696	2.66	27.187	4.51	200.000	0.61	1471.285	0.00
0.080	0.00	0.586	1.13	4.309	2.68	31.698	4.35	233.183	0.55	1715.392	0.00
0.093	0.00	0.683	1.22	5.024	2.67	36.957	4.04	271.871	0.51	2000.000	0.00
0.108	0.00	0.796	1.26	5.857	2.65	43.089	3.62	316.979	0.49		
0.126	0.00	0.928	1.28	6.829	2.65	50.238	3.14	369.570	0.45		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 33

Sample Details

Sample ID : SRWB-3CP2-A_3

Measured : 19 พฤษภาคม 2568 11:03:04

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 19 พฤษภาคม 2568 11:03:06

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

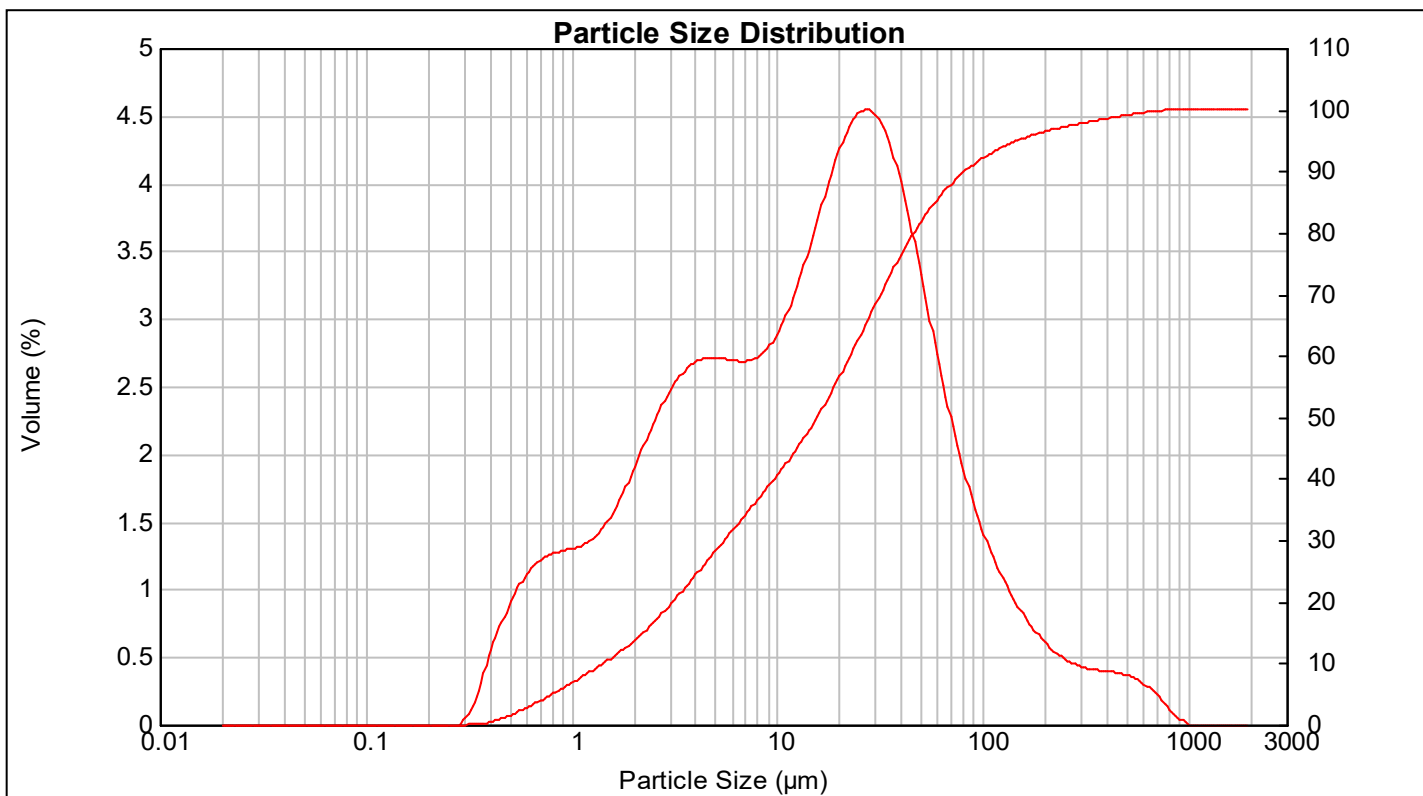
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.29 Residual (%) : 0.354
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0142 %Vol Specific Surface Area : 1.46 m²/g
Mean Diameters : D (0.1) : 1.44 um D (0.5) : 15.65 um D (0.9) : 82.21 um
D [4,3] : 39.35 um D [3,2] : 4.1 um Span : 5.163 Uniformity : 2.17

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.34	7.962	2.76	58.573	2.58	430.887	0.38
0.023	0.00	0.172	0.00	1.262	1.42	9.283	2.90	68.291	2.13	502.377	0.35
0.027	0.00	0.200	0.00	1.471	1.57	10.823	3.12	79.621	1.75	585.729	0.28
0.032	0.00	0.233	0.00	1.715	1.77	12.619	3.42	92.832	1.44	682.910	0.19
0.037	0.00	0.272	0.02	2.000	2.00	14.713	3.76	108.234	1.18	796.214	0.08
0.043	0.00	0.317	0.17	2.332	2.24	17.154	4.10	126.191	0.98	928.318	0.00
0.050	0.00	0.370	0.53	2.719	2.44	20.000	4.38	147.128	0.81	1082.339	0.00
0.059	0.00	0.431	0.77	3.170	2.59	23.318	4.54	171.539	0.67	1261.915	0.00
0.068	0.00	0.502	0.99	3.696	2.72	27.187	4.63	200.000	0.56	1471.285	0.00
0.080	0.00	0.586	1.14	4.309	2.71	31.698	4.03	233.183	0.49	1715.392	0.00
0.093	0.00	0.683	1.24	5.024	2.70	36.957	3.58	271.871	0.40	2000.000	0.00
0.108	0.00	0.796	1.28	5.857	2.70	43.089	3.08	316.979	0.41		
0.126	0.00	0.928	1.30	6.829	2.70	50.238	3.08	369.570	0.40		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 34

Sample Details

Sample ID : SRWB-3D2-A_1

Measured : 19 พฤษภาคม 2568 11:20:27

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770 3D\Raw data 7

Analysed : 19 พฤษภาคม 2568 11:20:28

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

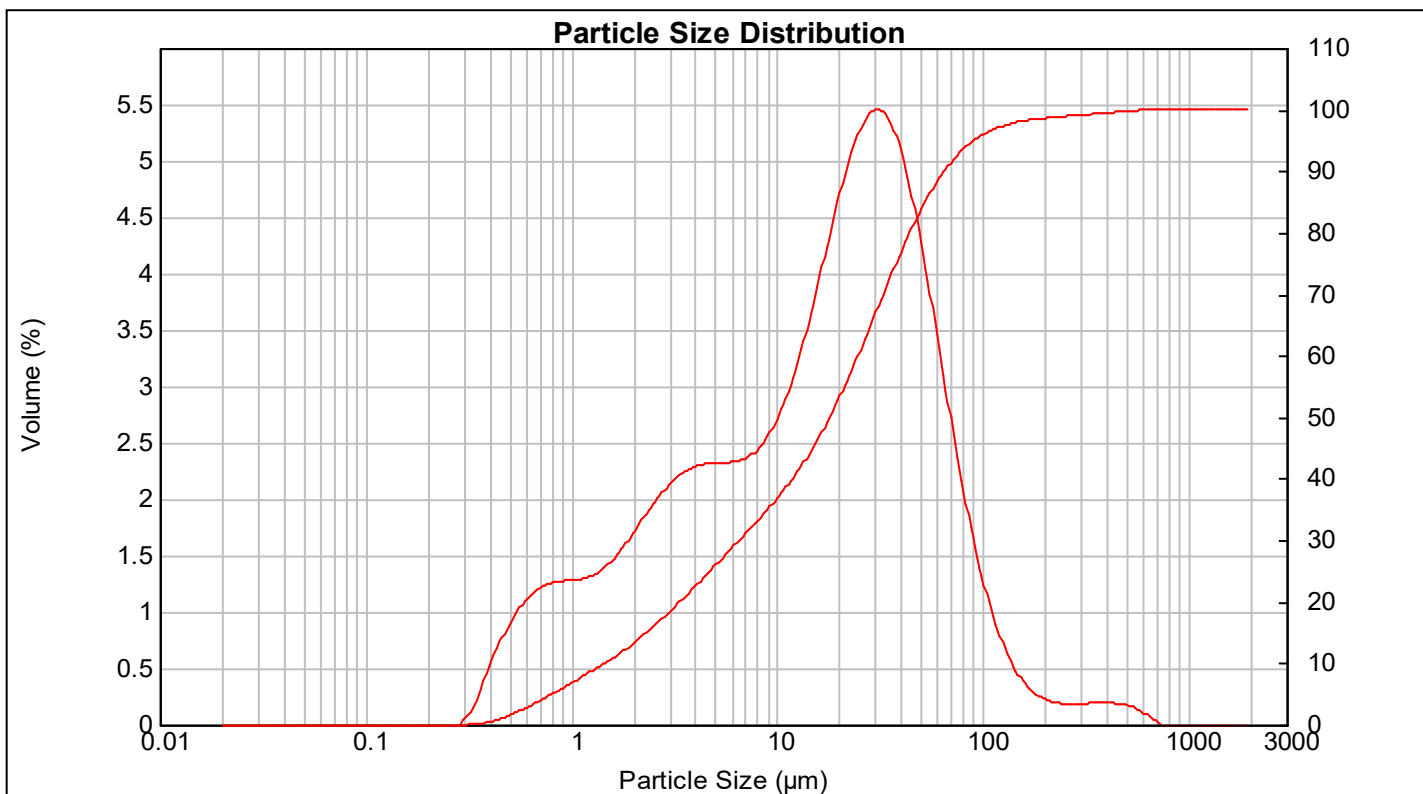
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 18.96 Residual (%) : 0.349
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 : 1.41 m²/g
Mean Diameters : D (0.1) : 1.45 um D (0.5) : 18.05 um D (0.9) : 65.05 um
D [4,3] : 30.71 um D [3,2] : 4.24 um Span : 3.523 Uniformity : 1.35

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.30	7.962	2.50	58.573	3.20	430.887	0.18
0.023	0.00	0.172	0.00	1.262	1.36	9.283	2.71	68.291	2.48	502.377	0.15
0.027	0.00	0.200	0.00	1.471	1.46	10.823	3.03	79.621	1.83	585.729	0.09
0.032	0.00	0.233	0.00	1.715	1.62	12.619	3.44	92.832	1.29	682.910	0.01
0.037	0.00	0.272	0.02	2.000	1.79	14.713	3.93	108.234	0.87	796.214	0.00
0.043	0.00	0.317	0.19	2.332	1.97	17.154	4.44	126.191	0.57	928.318	0.00
0.050	0.00	0.370	0.53	2.719	2.12	20.000	4.92	147.128	0.38	1082.339	0.00
0.059	0.00	0.431	0.78	3.170	2.23	23.318	5.28	171.539	0.26	1261.915	0.00
0.068	0.00	0.502	1.00	3.696	2.29	27.187	5.46	200.000	0.21	1471.285	0.00
0.080	0.00	0.586	1.15	4.309	2.32	31.698	5.41	233.183	0.19	1715.392	0.00
0.093	0.00	0.683	1.23	5.024	2.33	36.957	5.11	271.871	0.19	2000.000	0.00
0.108	0.00	0.796	1.27	5.857	2.34	43.089	4.60	316.979	0.19		
0.126	0.00	0.928	1.29	6.829	2.39	50.238	3.94	369.570	0.19		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 35

Sample Details

Sample ID : SRWB-3D2-A_2

Measured : 19 พฤษภาคม 2568 11:21:14

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770 30\Raw data 7

Analysed : 19 พฤษภาคม 2568 11:21:16

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

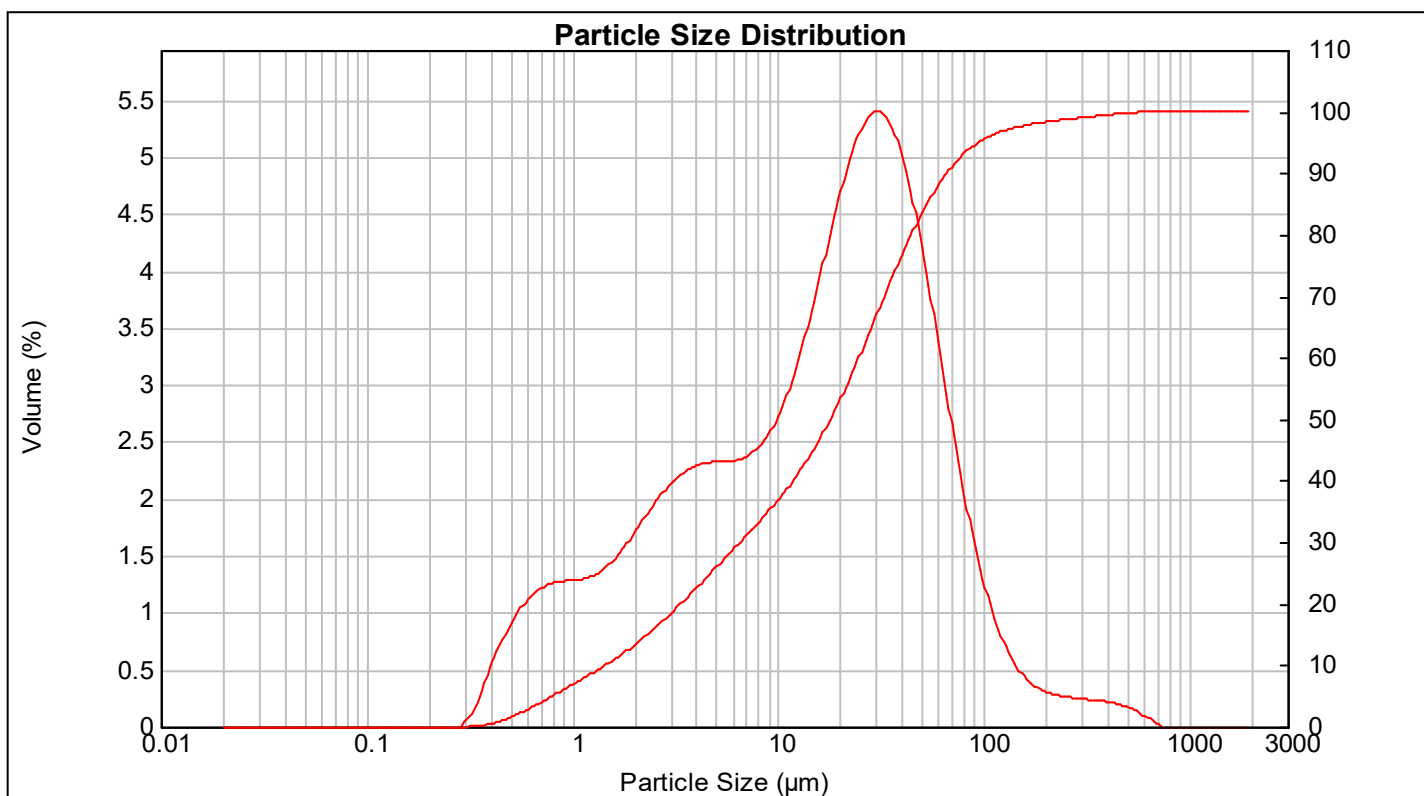
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 18.88 Residual (%) : 0.350
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 : 1.42 m²/g
Mean Diameters : D (0.1) : 1.45 um D (0.5) : 17.98 um D (0.9) : 66.15 um
D [4,3] : 31.43 um D [3,2] : 4.24 um Span : 3.599 Uniformity : 1.39

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.31	7.962	2.52	58.573	3.14	430.887	0.19
0.023	0.00	0.172	0.00	1.262	1.36	9.283	2.73	68.291	2.43	502.377	0.15
0.027	0.00	0.200	0.00	1.471	1.46	10.823	3.04	79.621	1.79	585.729	0.08
0.032	0.00	0.233	0.00	1.715	1.62	12.619	3.46	92.832	1.27	682.910	0.00
0.037	0.00	0.272	0.02	2.000	1.79	14.713	3.94	108.234	0.88	796.214	0.00
0.043	0.00	0.317	0.19	2.332	1.97	17.154	4.44	126.191	0.60	928.318	0.00
0.050	0.00	0.370	0.53	2.719	2.12	20.000	4.90	147.128	0.43	1082.339	0.00
0.059	0.00	0.431	0.78	3.170	2.23	23.318	5.24	171.539	0.34	1261.915	0.00
0.068	0.00	0.502	1.00	3.696	2.29	27.187	5.40	200.000	0.29	1471.285	0.00
0.080	0.00	0.586	1.15	4.309	2.32	31.698	5.34	233.183	0.26	1715.392	0.00
0.093	0.00	0.683	1.24	5.024	2.33	36.957	5.04	271.871	0.25	2000.000	0.00
0.108	0.00	0.796	1.28	5.857	2.35	43.089	4.53	316.979	0.23		
0.126	0.00	0.928	1.29	6.829	2.40	50.238	3.87	369.570	0.22		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 36

Sample Details

Sample ID : SRWB-3D2-A_3

Measured : 19 พฤษภาคม 2568 11:22:02

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770 30\Raw data 7

Analysed : 19 พฤษภาคม 2568 11:22:04

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

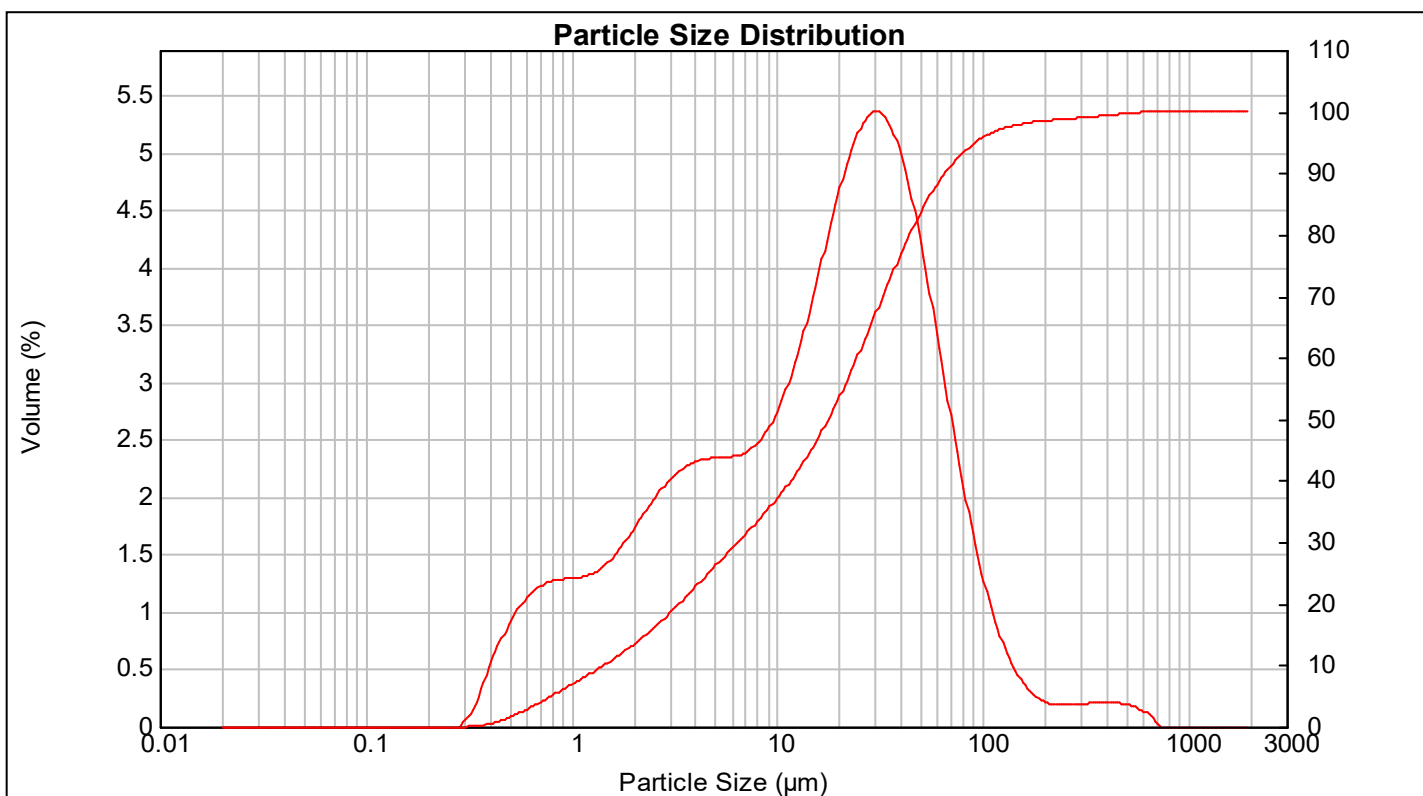
System Details

Accessory Name : Hydro 2000S (A) **Beam Length (mm) :** 2.35 **Obscuration (%) :** 18.80 **Residual (%) :** 0.347
Particle RI : 1.530 **Absorption :** 0.1 **Dispersant Name :** Water **Dispersant RI :** 1.330

Result Statistics

Distribution Type : Volume **Concentration :** 0.0144 %Vol **Specific Surface Area :** 1.42 m²/g
Mean Diameters : **D (0.1) :** 1.44 um **D (0.5) :** 17.78 um **D (0.9) :** 65.57 um
D [4,3] : 31.1 um **D [3,2] :** 4.21 um **Span :** 3.607 **Uniformity :** 1.39

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	1.31	7.962	2.54	58.573	3.18	430.887	0.20
0.023	0.00	0.172	0.00	1.262	1.37	9.283	2.75	68.291	2.48	502.377	0.18
0.027	0.00	0.200	0.00	1.471	1.48	10.823	3.06	79.621	1.85	585.729	0.12
0.032	0.00	0.233	0.00	1.715	1.63	12.619	3.47	92.832	1.31	682.910	0.01
0.037	0.00	0.272	0.02	2.000	1.81	14.713	3.94	108.234	0.89	796.214	0.00
0.043	0.00	0.317	0.19	2.332	1.98	17.154	4.43	126.191	0.57	928.318	0.00
0.050	0.00	0.370	0.54	2.719	2.13	20.000	4.88	147.128	0.37	1082.339	0.00
0.059	0.00	0.431	0.79	3.170	2.24	23.318	5.21	171.539	0.25	1261.915	0.00
0.068	0.00	0.502	1.01	3.696	2.31	27.187	5.36	200.000	0.20	1471.285	0.00
0.080	0.00	0.586	1.16	4.309	2.34	31.698	5.30	233.183	0.19	1715.392	0.00
0.093	0.00	0.683	1.24	5.024	2.35	36.957	5.01	271.871	0.19	2000.000	0.00
0.108	0.00	0.796	1.28	5.857	2.36	43.089	4.52	316.979	0.21		
0.126	0.00	0.928	1.30	6.829	2.42	50.238	3.88	369.570	0.21		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 37

Sample Details

Sample ID : SRWB-4B2-A_1

Measured : 19 พฤษภาคม 2568 11:39:49

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770 30\Raw data 7

Analysed : 19 พฤษภาคม 2568 11:39:50

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

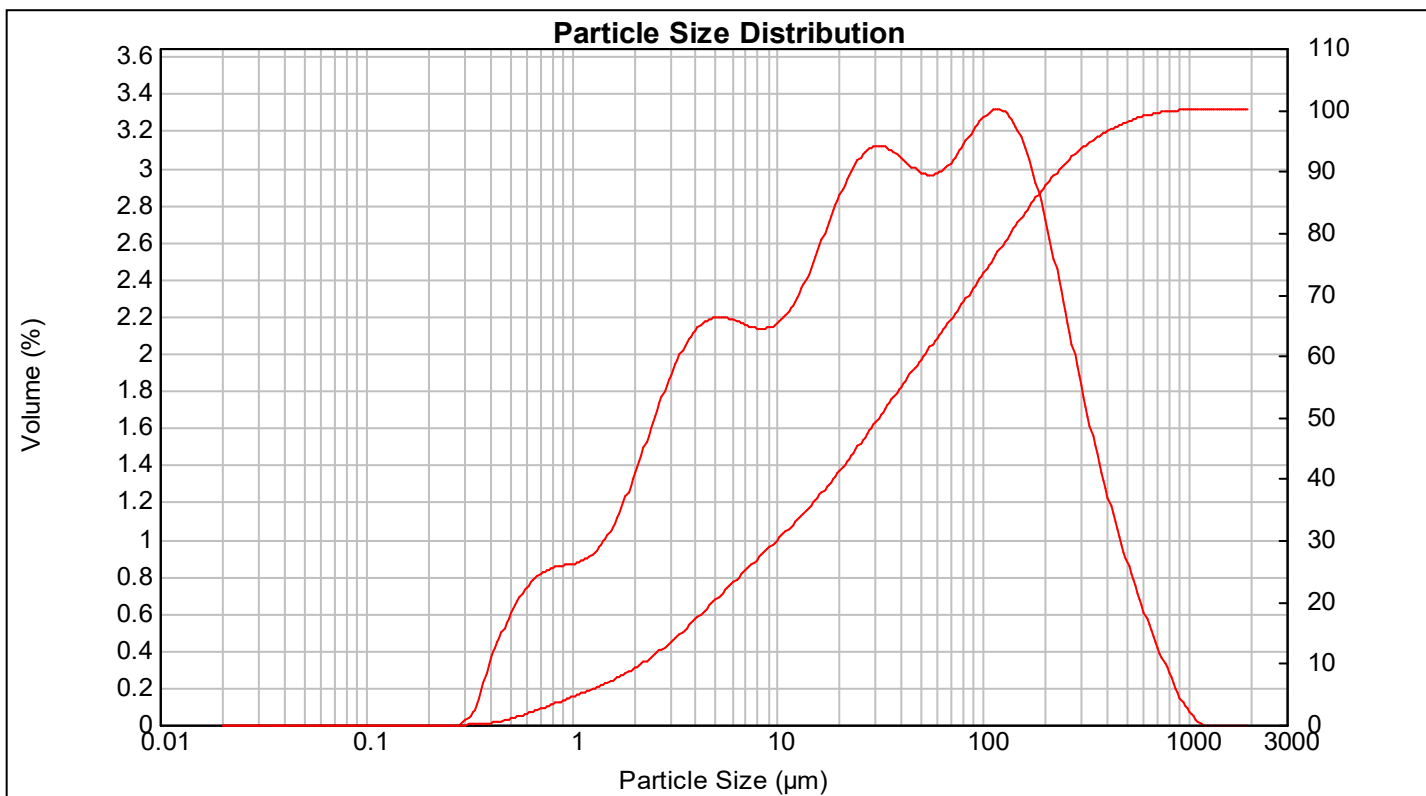
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 19.81 Residual (%) : 0.288
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0205 %Vol Specific Surface Area : 1.02 m²/g
Mean Diameters : D (0.1) : 2.22 um D (0.5) : 31.4 um D (0.9) : 232.42 um
D [4,3] : 84.14 um D [3,2] : 5.86 um Span : 7.332 Uniformity : 2.36

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.89	7.962	2.14	58.573	2.99	430.887	1.00
0.023	0.00	0.172	0.00	1.262	0.96	9.283	2.17	68.291	3.07	502.377	0.77
0.027	0.00	0.200	0.00	1.471	1.07	10.823	2.25	79.621	3.18	585.729	0.56
0.032	0.00	0.233	0.00	1.715	1.23	12.619	2.39	92.832	3.28	682.910	0.37
0.037	0.00	0.272	0.01	2.000	1.43	14.713	2.56	108.234	3.32	796.214	0.21
0.043	0.00	0.317	0.09	2.332	1.64	17.154	2.76	126.191	3.28	928.318	0.08
0.050	0.00	0.370	0.33	2.719	1.84	20.000	2.93	147.128	3.13	1082.339	0.00
0.059	0.00	0.431	0.51	3.170	2.01	23.318	3.12	171.539	2.89	1261.915	0.00
0.068	0.00	0.502	0.66	3.696	2.12	27.187	3.06	200.000	2.58	1471.285	0.00
0.080	0.00	0.586	0.76	4.309	2.19	31.698	3.11	233.183	2.24	1715.392	0.00
0.093	0.00	0.683	0.83	5.024	2.20	36.957	3.06	271.871	1.89	2000.000	0.00
0.108	0.00	0.796	0.85	5.857	2.18	43.089	3.00	316.979	1.56		
0.126	0.00	0.928	0.87	6.829	2.15	50.238	2.97	369.570	1.27		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 38

Sample Details

Sample ID : SRWB-4B2-A_2

Measured : 19 พฤษภาคม 2568 11:47:20

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\data\MTEC0870_68_13sam_T42770_30\Raw data_7

Analysed : 19 พฤษภาคม 2568 11:47:22

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

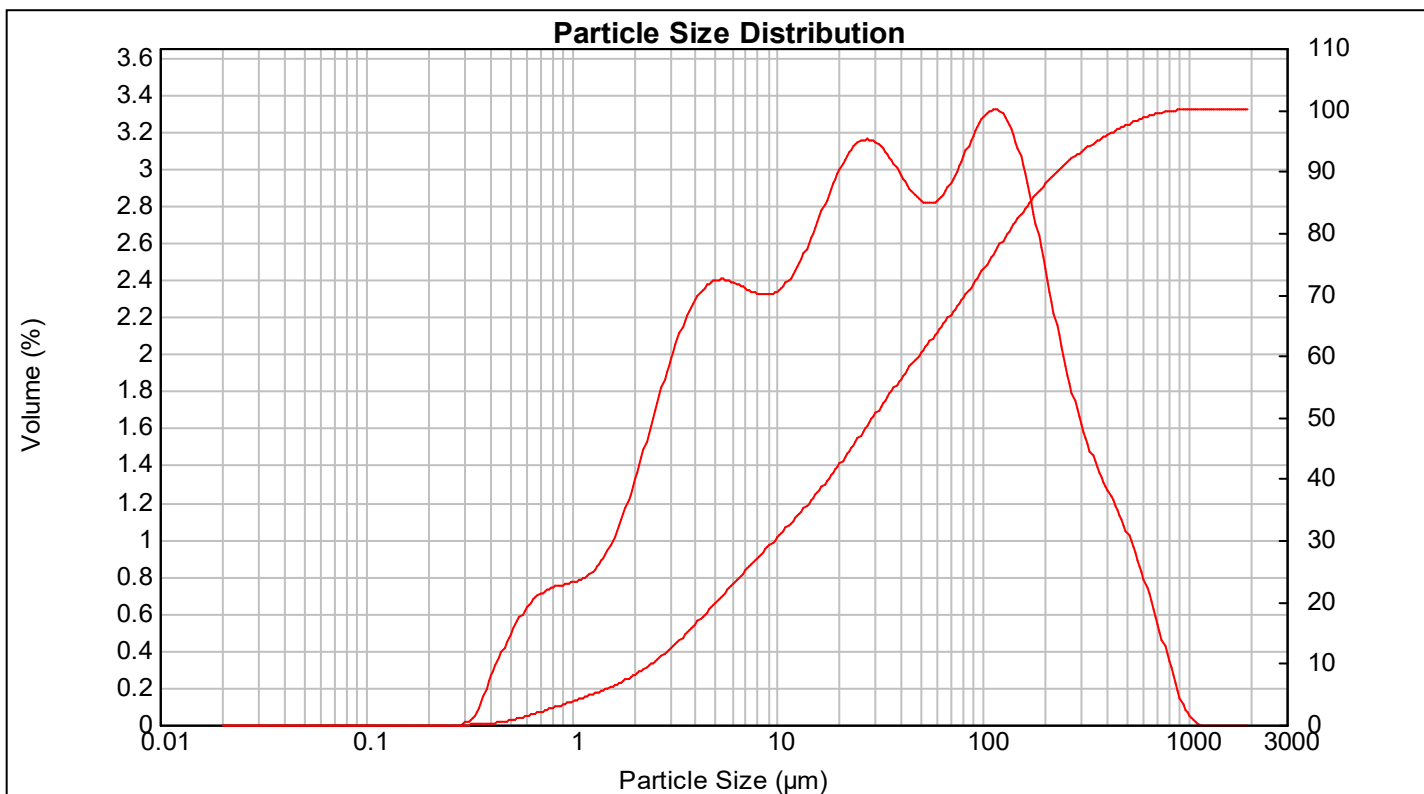
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 18.92 Residual (%) : 0.607
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0204 %Vol Specific Surface Area : 0.951 m²/g
Mean Diameters : D (0.1) : 2.47 um D (0.5) : 29.36 um D (0.9) : 232.04 um
D [4,3] : 84.46 um D [3,2] : 6.31 um Span : 7.820 Uniformity : 2.54

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.80	7.962	2.32	58.573	2.85	430.887	1.13
0.023	0.00	0.172	0.00	1.262	0.87	9.283	2.34	68.291	2.97	502.377	0.95
0.027	0.00	0.200	0.00	1.471	0.99	10.823	2.42	79.621	3.14	585.729	0.73
0.032	0.00	0.233	0.00	1.715	1.18	12.619	2.55	92.832	3.28	682.910	0.48
0.037	0.00	0.272	0.00	2.000	1.42	14.713	2.73	108.234	3.32	796.214	0.24
0.043	0.00	0.317	0.05	2.332	1.67	17.154	2.91	126.191	3.23	928.318	0.05
0.050	0.00	0.370	0.24	2.719	1.92	20.000	3.06	147.128	3.00	1082.339	0.00
0.059	0.00	0.431	0.40	3.170	2.13	23.318	3.15	171.539	2.66	1261.915	0.00
0.068	0.00	0.502	0.55	3.696	2.29	27.187	3.16	200.000	2.29	1471.285	0.00
0.080	0.00	0.586	0.65	4.309	2.38	31.698	3.09	233.183	1.95	1715.392	0.00
0.093	0.00	0.683	0.72	5.024	2.41	36.957	2.97	271.871	1.66	2000.000	0.00
0.108	0.00	0.796	0.75	5.857	2.39	43.089	2.87	316.979	1.45		
0.126	0.00	0.928	0.77	6.829	2.35	50.238	2.82	369.570	1.28		
0.147	0.00	1.082		7.962		58.573		430.887			



Result : Analysis Report

Attached page 39

Sample Details

Sample ID : SRWB-4B2-A_3

Measured : 19 พฤษภาคม 2568 11:49:43

Sample File : C:\Users\001827\OneDrive - NSTDA\Desktop\MTEC work\Technical service\Tetra tech\mea\MTEC0870_68_13sam_T42770 30\Raw data 7

Analysed : 19 พฤษภาคม 2568 11:49:44

Sample Notes : Dispersion medium : De-ionized water.
Treatment : Ultrasound 10 minutes with ultrasonic bath before analysis and stirring at 2000 rpm during measurement.

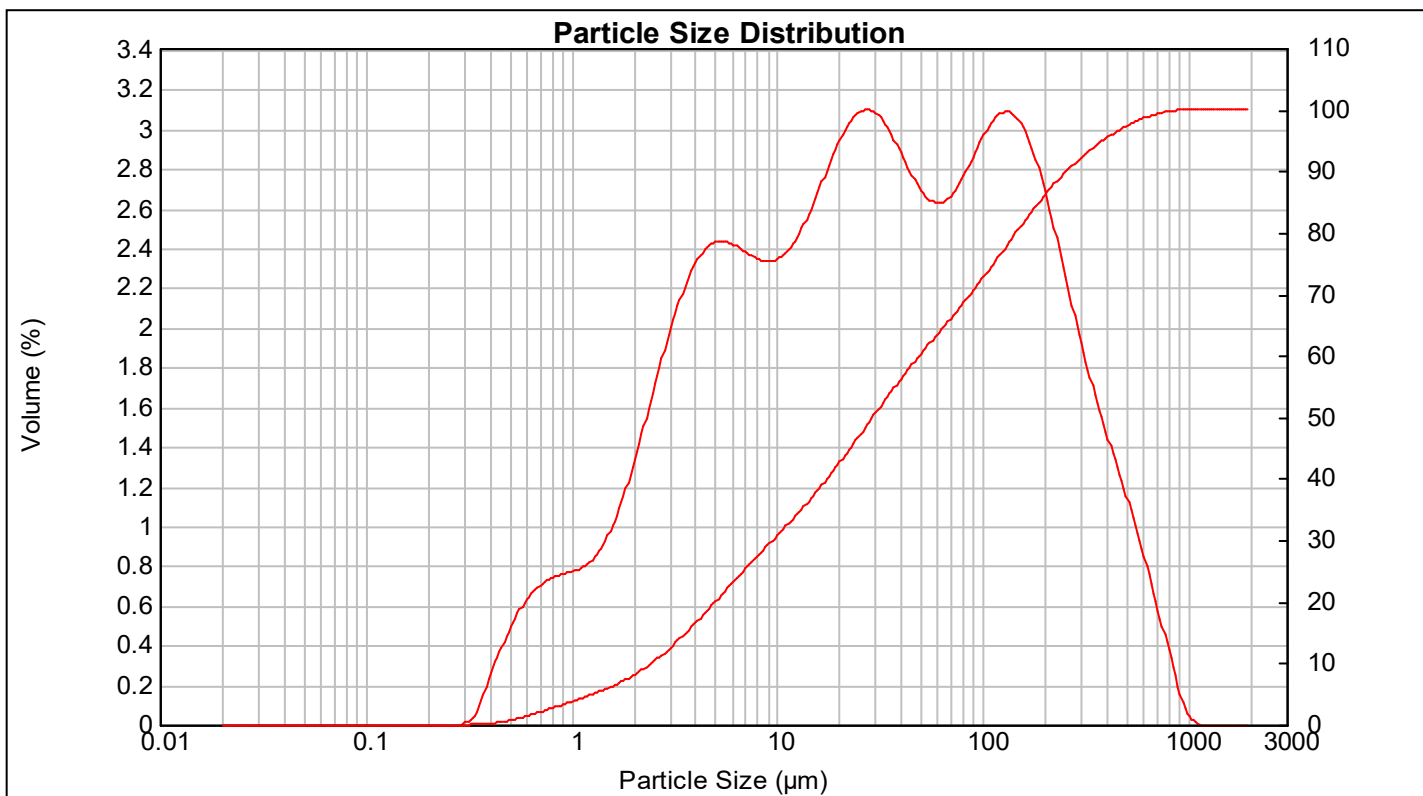
System Details

Accessory Name : Hydro 2000S (A) Beam Length (mm) : 2.35 Obscuration (%) : 18.79 Residual (%) : 0.569
Particle RI : 1.530 Absorption : 0.1 Dispersant Name : Water Dispersant RI : 1.330

Result Statistics

Distribution Type : Volume Concentration : 0.0201 %Vol Specific Surface Area : 0.956 m²/g
Mean Diameters : D (0.1) : 2.45 um D (0.5) : 29.2 um D (0.9) : 254.62 um
D [4,3] : 88.9 um D [3,2] : 6.28 um Span : 8.635 Uniformity : 2.71

Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %	Size (µm)	Volume In %
0.020	0.00	0.147	0.00	1.082	0.80	7.962	2.34	58.573	2.64	430.887	1.26
0.023	0.00	0.172	0.00	1.262	0.88	9.283	2.35	68.291	2.70	502.377	1.03
0.027	0.00	0.200	0.00	1.471	1.01	10.823	2.42	79.621	2.83	585.729	0.79
0.032	0.00	0.233	0.00	1.715	1.20	12.619	2.53	92.832	2.97	682.910	0.52
0.037	0.00	0.272	0.00	2.000	1.43	14.713	2.69	108.234	3.07	796.214	0.27
0.043	0.00	0.317	0.05	2.332	1.69	17.154	2.86	126.191	3.09	928.318	0.05
0.050	0.00	0.370	0.24	2.719	1.95	20.000	3.01	147.128	3.01	1082.339	0.00
0.059	0.00	0.431	0.40	3.170	2.16	23.318	3.09	171.539	2.82	1261.915	0.00
0.068	0.00	0.502	0.55	3.696	2.32	27.187	3.10	200.000	2.57	1471.285	0.00
0.080	0.00	0.586	0.66	4.309	2.42	31.698	3.02	233.183	2.27	1715.392	0.00
0.093	0.00	0.683	0.72	5.024	2.44	36.957	2.89	271.871	1.97	2000.000	0.00
0.108	0.00	0.796	0.75	5.857	2.42	43.089	2.75	316.979	1.71		
0.126	0.00	0.928	0.77	6.829	2.38	50.238	2.66	369.570	1.47		
0.147	0.00	1.082		7.962		58.573		430.887			



APPENDIX B
SEAWATER ANALYTICAL LABORATORY REPORTS

ANALYTICAL REPORT

PREPARED FOR

Attn: Ted Donn
Tetra Tech Inc
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, California 94549

Generated 4/23/2025 6:29:48 AM

JOB DESCRIPTION

Gulf of Thailand - 2025

JOB NUMBER

350-1559-1

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



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Authorized for release by
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Definitions/Glossary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery 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)
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

Case Narrative

Client: Tetra Tech Inc
Project: Gulf of Thailand - 2025

Job ID: 350-1559-1

Job ID: 350-1559-1

Eurofins Seattle Specialty Metals

Job Narrative 350-1559-1

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 2/19/2025 3:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 8 coolers at receipt time were -12.8°C, -11.5°C, -9.8°C, -6.9°C, -4.0°C, -3.9°C, -3.4°C and -3.0°C.

Metals

Method 1631E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 350-5384 were outside control limits for one analyte. See QC Sample Results for detail. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 1638: The method blank for preparation batch 350-5206 and analytical batch 350-5338 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 1638: The continuing calibration blank (CCB) for analytical batch 350-5338 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-5226 and analytical batch 350-6294 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 350-6294 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 350-5226 and analytical batch 350-6294 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 continuing calibration blank (CCB) for analytical batch 350-6294 contained Barium and Iron 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 for preparation batch 350-5184 and 350-5188 and analytical batch 350-5238 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 continuing calibration verification (CCV) associated with batch 350-5238 recovered above the upper control limit for Iron. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: SRWB-WB (350-1559-146) and SRWB-EQ (350-1559-147).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Seattle Specialty Metals

Case Narrative

Client: Tetra Tech Inc
Project: Gulf of Thailand - 2025

Job ID: 350-1559-1

Job ID: 350-1559-1 (Continued)Eurofins Seattle Specialty Metals

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: 350-1559-1

Client Sample ID: SRWB-1CP2-SW-1

Lab Sample ID: 350-1559-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.23	J F1	0.50	0.20	ng/L	1		1631E	Total/NA
Arsenic	1.9		0.70	0.63	ug/L	1		1640	Total/NA
Chromium	0.71	J	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	7.3		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	0.59		0.050	0.030	ug/L	1		1640	Total/NA

Client Sample ID: SRWB-1CP2-SW-20

Lab Sample ID: 350-1559-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.20	J	0.50	0.20	ng/L	1		1631E	Total/NA
Arsenic	2.0	F1	0.70	0.63	ug/L	1		1640	Total/NA
Chromium	0.79	J	1.0	0.11	ug/L	1		1640	Total/NA
Copper	0.43	J	0.50	0.43	ug/L	1		1640	Total/NA
Nickel	0.22	J	0.50	0.15	ug/L	1		1640	Total/NA
Barium	7.1		0.50	0.088	ug/L	1		1640	Total/NA
Iron	0.98	J	5.0	0.81	ug/L	1		1640	Total/NA
Manganese	0.54		0.050	0.030	ug/L	1		1640	Total/NA

Client Sample ID: SRWB-1CP2-SW-40

Lab Sample ID: 350-1559-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.1		0.70	0.63	ug/L	1		1640	Total/NA
Chromium	0.78	J	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	7.7		0.50	0.088	ug/L	1		1640	Total/NA
Manganese	0.47		0.050	0.030	ug/L	1		1640	Total/NA

Client Sample ID: SRWB-1CP2-SW-40-FD

Lab Sample ID: 350-1559-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.8		0.70	0.63	ug/L	1		1640	Total/NA
Chromium	0.68	J	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	7.0		0.50	0.088	ug/L	1		1640	Total/NA
Manganese	0.45		0.050	0.030	ug/L	1		1640	Total/NA

Client Sample ID: SRWB-1CP2-SW-B

Lab Sample ID: 350-1559-5

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	2.2		0.70	0.63	ug/L	1		1640	Total/NA
Chromium	0.80	J	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	0.21	J	0.50	0.15	ug/L	1		1640	Total/NA
Zinc	0.39	J	1.0	0.31	ug/L	1		1640	Total/NA
Barium	8.0		0.50	0.088	ug/L	1		1640	Total/NA
Iron	24		5.0	0.81	ug/L	1		1640	Total/NA
Manganese	2.0		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
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-3CP2-SW-1

Lab Sample ID: 350-1559-6

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	1.9		0.70	0.63	ug/L	1		1640	Total/NA
Chromium	0.70	J	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	8.3		0.50	0.088	ug/L	1		1640	Total/NA
Manganese	0.58		0.050	0.030	ug/L	1		1640	Total/NA

Client Sample ID: SRWB-3CP2-SW-20

Lab Sample ID: 350-1559-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.21	J	0.50	0.20	ng/L	1		1631E	Total/NA
Arsenic	2.2		0.70	0.63	ug/L	1		1640	Total/NA
Chromium	0.97	J	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	8.0		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	0.60		0.050	0.030	ug/L	1		1640	Total/NA

Client Sample ID: SRWB-3CP2-SW-40

Lab Sample ID: 350-1559-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.9		0.70	0.63	ug/L	1		1640	Total/NA
Chromium	0.79	J	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	8.1		0.50	0.088	ug/L	1		1640	Total/NA
Manganese	0.47		0.050	0.030	ug/L	1		1640	Total/NA

Client Sample ID: SRWB-3CP2-SW-B

Lab Sample ID: 350-1559-9

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	2.2		0.70	0.63	ug/L	1		1640	Total/NA
Chromium	0.78	J	1.0	0.11	ug/L	1		1640	Total/NA
Lead	0.031	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	8.2		0.50	0.088	ug/L	1		1640	Total/NA
Iron	17		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: SRWA-1B2X-A

Lab Sample ID: 350-1559-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	55		4.8	2.3	ng/g	50	✱	1631B	Total/NA
Arsenic	7.0		0.31	0.094	mg/Kg	1	✱	1638	Total/NA
Barium	17000	B	31	0.063	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.12		0.031	0.0031	mg/Kg	1	✱	1638	Total/NA
Chromium	41		0.31	0.31	mg/Kg	1	✱	1638	Total/NA
Copper	13	B	0.16	0.019	mg/Kg	1	✱	1638	Total/NA
Iron	21000		31	6.3	mg/Kg	1	✱	1638	Total/NA
Manganese	680	B ^2	0.16	0.016	mg/Kg	1	✱	1638	Total/NA
Nickel	22	B	0.63	0.025	mg/Kg	1	✱	1638	Total/NA
Lead	21		0.13	0.013	mg/Kg	1	✱	1638	Total/NA
Zinc	43		3.1	1.6	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
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWA-2B2X-A

Lab Sample ID: 350-1559-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	19		2.1	1.0	ng/g	20	✱	1631B	Total/NA
Arsenic	8.9		0.36	0.11	mg/Kg	1	✱	1638	Total/NA
Barium	880	B	36	0.072	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.070		0.036	0.0036	mg/Kg	1	✱	1638	Total/NA
Chromium	45		0.36	0.36	mg/Kg	1	✱	1638	Total/NA
Copper	12	B	0.18	0.022	mg/Kg	1	✱	1638	Total/NA
Iron	25000		36	7.2	mg/Kg	1	✱	1638	Total/NA
Manganese	840	B ^2	0.18	0.018	mg/Kg	1	✱	1638	Total/NA
Nickel	23	B	0.72	0.029	mg/Kg	1	✱	1638	Total/NA
Lead	22		0.14	0.014	mg/Kg	1	✱	1638	Total/NA
Zinc	33		3.6	1.8	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: SRWA-2B2X-A-FD

Lab Sample ID: 350-1559-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	24		2.0	0.99	ng/g	20	✱	1631B	Total/NA
Arsenic	8.7		0.35	0.10	mg/Kg	1	✱	1638	Total/NA
Barium	1100	B	35	0.069	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.078		0.035	0.0035	mg/Kg	1	✱	1638	Total/NA
Chromium	45		0.35	0.35	mg/Kg	1	✱	1638	Total/NA
Copper	11	B	0.17	0.021	mg/Kg	1	✱	1638	Total/NA
Iron	23000		35	6.9	mg/Kg	1	✱	1638	Total/NA
Manganese	810	B ^2	0.17	0.017	mg/Kg	1	✱	1638	Total/NA
Nickel	24	B	0.69	0.028	mg/Kg	1	✱	1638	Total/NA
Lead	22		0.14	0.014	mg/Kg	1	✱	1638	Total/NA
Zinc	33		3.5	1.7	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: SRWA-3B2X-A

Lab Sample ID: 350-1559-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	26		2.0	0.99	ng/g	20	✱	1631B	Total/NA
Arsenic	14		0.32	0.097	mg/Kg	1	✱	1638	Total/NA
Barium	4500	B	32	0.065	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.15		0.032	0.0032	mg/Kg	1	✱	1638	Total/NA
Chromium	58		0.32	0.32	mg/Kg	1	✱	1638	Total/NA
Copper	16	B	0.16	0.019	mg/Kg	1	✱	1638	Total/NA
Iron	36000		32	6.5	mg/Kg	1	✱	1638	Total/NA
Manganese	1200	B ^2	0.16	0.016	mg/Kg	1	✱	1638	Total/NA
Nickel	32	B	0.65	0.026	mg/Kg	1	✱	1638	Total/NA
Lead	33	E	0.13	0.013	mg/Kg	1	✱	1638	Total/NA
Zinc	48		3.2	1.6	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: SRWA-4B2X-A

Lab Sample ID: 350-1559-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	19		2.1	1.0	ng/g	20	✱	1631B	Total/NA
Arsenic	4.1		0.33	0.10	mg/Kg	1	✱	1638	Total/NA
Barium	550	B	33	0.067	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.069		0.033	0.0033	mg/Kg	1	✱	1638	Total/NA
Chromium	35		0.33	0.33	mg/Kg	1	✱	1638	Total/NA
Copper	9.7	B	0.17	0.020	mg/Kg	1	✱	1638	Total/NA
Iron	14000		33	6.7	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: 350-1559-1

Client Sample ID: SRWA-4B2X-A (Continued)

Lab Sample ID: 350-1559-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	880	B ^2	0.17	0.017	mg/Kg	1	✱	1638	Total/NA
Nickel	19	B	0.67	0.027	mg/Kg	1	✱	1638	Total/NA
Lead	18		0.13	0.013	mg/Kg	1	✱	1638	Total/NA
Zinc	26		3.3	1.7	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: SRWB-1B2-A

Lab Sample ID: 350-1559-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	96		5.2	2.5	ng/g	50	✱	1631B	Total/NA
Arsenic	6.2		0.34	0.10	mg/Kg	1	✱	1638	Total/NA
Barium	6000	B	34	0.067	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.35	B	0.034	0.0034	mg/Kg	1	✱	1638	Total/NA
Chromium	43		0.34	0.34	mg/Kg	1	✱	1638	Total/NA
Copper	25	B	0.17	0.020	mg/Kg	1	✱	1638	Total/NA
Iron	18000	B	34	6.7	mg/Kg	1	✱	1638	Total/NA
Manganese	550	B ^2	0.17	0.017	mg/Kg	1	✱	1638	Total/NA
Nickel	23	B	0.67	0.027	mg/Kg	1	✱	1638	Total/NA
Lead	26	B	0.13	0.013	mg/Kg	1	✱	1638	Total/NA
Zinc	88		3.4	1.7	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: SRWB-1CP2-A

Lab Sample ID: 350-1559-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	18		2.3	1.1	ng/g	20	✱	1631B	Total/NA
Arsenic	4.2		0.36	0.11	mg/Kg	1	✱	1638	Total/NA
Barium	260		36	0.072	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.085	B	0.036	0.0036	mg/Kg	1	✱	1638	Total/NA
Chromium	50		0.36	0.36	mg/Kg	1	✱	1638	Total/NA
Copper	13	B	0.18	0.022	mg/Kg	1	✱	1638	Total/NA
Iron	17000	B	36	7.2	mg/Kg	1	✱	1638	Total/NA
Manganese	620	B ^2	0.18	0.018	mg/Kg	1	✱	1638	Total/NA
Nickel	26	B	0.72	0.029	mg/Kg	1	✱	1638	Total/NA
Lead	21	B	0.14	0.014	mg/Kg	1	✱	1638	Total/NA
Zinc	39		3.6	1.8	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: SRWB-1D2-A

Lab Sample ID: 350-1559-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	29		5.5	2.7	ng/g	50	✱	1631B	Total/NA
Arsenic	4.4		0.39	0.12	mg/Kg	1	✱	1638	Total/NA
Barium	460	B	39	0.079	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.083	B	0.039	0.0039	mg/Kg	1	✱	1638	Total/NA
Chromium	47		0.39	0.39	mg/Kg	1	✱	1638	Total/NA
Copper	12	B	0.20	0.024	mg/Kg	1	✱	1638	Total/NA
Iron	16000	B	39	7.9	mg/Kg	1	✱	1638	Total/NA
Manganese	700	B ^2	0.20	0.020	mg/Kg	1	✱	1638	Total/NA
Nickel	24	B	0.79	0.031	mg/Kg	1	✱	1638	Total/NA
Lead	20	B	0.16	0.016	mg/Kg	1	✱	1638	Total/NA
Zinc	37		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
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-2B2X-A

Lab Sample ID: 350-1559-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	29		2.2	1.1	ng/g	20	✱	1631B	Total/NA
Arsenic	3.7		0.36	0.11	mg/Kg	1	✱	1638	Total/NA
Barium	1600	B	36	0.072	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.11	B	0.036	0.0036	mg/Kg	1	✱	1638	Total/NA
Chromium	42		0.36	0.36	mg/Kg	1	✱	1638	Total/NA
Copper	12	B	0.18	0.021	mg/Kg	1	✱	1638	Total/NA
Iron	15000	B	36	7.2	mg/Kg	1	✱	1638	Total/NA
Manganese	500	B ^2	0.18	0.018	mg/Kg	1	✱	1638	Total/NA
Nickel	22	B	0.72	0.029	mg/Kg	1	✱	1638	Total/NA
Lead	19	B	0.14	0.014	mg/Kg	1	✱	1638	Total/NA
Zinc	41		3.6	1.8	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: SRWB-2B2X-A-FD

Lab Sample ID: 350-1559-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	98		6.0	2.9	ng/g	50	✱	1631B	Total/NA
Arsenic	6.7		0.43	0.13	mg/Kg	1	✱	1638	Total/NA
Barium	5800	B	43	0.087	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.25	B	0.043	0.0043	mg/Kg	1	✱	1638	Total/NA
Chromium	57		0.43	0.43	mg/Kg	1	✱	1638	Total/NA
Copper	17	B	0.22	0.026	mg/Kg	1	✱	1638	Total/NA
Iron	21000	B	43	8.7	mg/Kg	1	✱	1638	Total/NA
Manganese	690	B ^2	0.22	0.022	mg/Kg	1	✱	1638	Total/NA
Nickel	30	B	0.87	0.035	mg/Kg	1	✱	1638	Total/NA
Lead	29	B	0.17	0.017	mg/Kg	1	✱	1638	Total/NA
Zinc	83		4.3	2.2	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: SRWB-3B2-A

Lab Sample ID: 350-1559-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	620		19	9.1	ng/g	200	✱	1631B	Total/NA
Arsenic	9.7		0.33	0.098	mg/Kg	1	✱	1638	Total/NA
Barium	24000	B	33	0.065	mg/Kg	1	✱	1638	Total/NA
Cadmium	1.4	B	0.033	0.0033	mg/Kg	1	✱	1638	Total/NA
Chromium	43		0.33	0.33	mg/Kg	1	✱	1638	Total/NA
Copper	22	B	0.16	0.020	mg/Kg	1	✱	1638	Total/NA
Iron	18000	B	33	6.5	mg/Kg	1	✱	1638	Total/NA
Manganese	540	B ^2	0.16	0.016	mg/Kg	1	✱	1638	Total/NA
Nickel	34	B	0.65	0.026	mg/Kg	1	✱	1638	Total/NA
Lead	48	E B	0.13	0.013	mg/Kg	1	✱	1638	Total/NA
Zinc	280		3.3	1.6	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: SRWB-3CP2-A

Lab Sample ID: 350-1559-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	26		2.1	1.0	ng/g	20	✱	1631B	Total/NA
Arsenic	5.7		0.38	0.11	mg/Kg	1	✱	1638	Total/NA
Barium	670	F1 B	38	0.076	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.087	B	0.038	0.0038	mg/Kg	1	✱	1638	Total/NA
Chromium	50		0.38	0.38	mg/Kg	1	✱	1638	Total/NA
Copper	14	B	0.19	0.023	mg/Kg	1	✱	1638	Total/NA
Iron	19000	B	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: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-3CP2-A (Continued)

Lab Sample ID: 350-1559-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	670	F1 B ^2	0.19	0.019	mg/Kg	1	✱	1638	Total/NA
Nickel	27	B	0.76	0.031	mg/Kg	1	✱	1638	Total/NA
Lead	22	B	0.15	0.015	mg/Kg	1	✱	1638	Total/NA
Zinc	43		3.8	1.9	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: SRWB-3D2-A

Lab Sample ID: 350-1559-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	22		2.1	1.0	ng/g	20	✱	1631B	Total/NA
Arsenic	5.0		0.37	0.11	mg/Kg	1	✱	1638	Total/NA
Barium	50000	B	370	0.74	mg/Kg	10	✱	1638	Total/NA
Cadmium	0.087	B	0.037	0.0037	mg/Kg	1	✱	1638	Total/NA
Chromium	47		0.37	0.37	mg/Kg	1	✱	1638	Total/NA
Copper	12	B	0.18	0.022	mg/Kg	1	✱	1638	Total/NA
Iron	16000	B	37	7.4	mg/Kg	1	✱	1638	Total/NA
Manganese	680	B ^2	0.18	0.018	mg/Kg	1	✱	1638	Total/NA
Nickel	25	B	0.74	0.029	mg/Kg	1	✱	1638	Total/NA
Lead	20	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: SRWB-4B2-A

Lab Sample ID: 350-1559-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	25		2.2	1.0	ng/g	20	✱	1631B	Total/NA
Arsenic	6.6		0.38	0.11	mg/Kg	1	✱	1638	Total/NA
Barium	670	B	38	0.076	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.094	B	0.038	0.0038	mg/Kg	1	✱	1638	Total/NA
Chromium	46		0.38	0.38	mg/Kg	1	✱	1638	Total/NA
Copper	12	B	0.19	0.023	mg/Kg	1	✱	1638	Total/NA
Iron	18000	B	38	7.6	mg/Kg	1	✱	1638	Total/NA
Manganese	660	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	22	B	0.15	0.015	mg/Kg	1	✱	1638	Total/NA
Zinc	39		3.8	1.9	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: SRWB-WB

Lab Sample ID: 350-1559-146

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	1.3		0.50	0.43	ug/L	1		1640	Total/NA
Lead	0.092		0.050	0.023	ug/L	1		1640	Total/NA
Manganese	0.13		0.050	0.030	ug/L	1		1640	Total/NA

Client Sample ID: SRWB-EQ

Lab Sample ID: 350-1559-147

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.40	J	1.0	0.31	ug/L	1		1640	Total/NA
Manganese	0.15		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 Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-1CP2-SW-1

Lab Sample ID: 350-1559-1

Date Collected: 02/09/25 01:06

Matrix: Water

Date Received: 02/19/25 15:15

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.23	J F1	0.50	0.20	ng/L			03/04/25 14:51	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		02/24/25 13:30	02/25/25 04:48	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:30	02/25/25 04:48	1
Chromium	0.71	J	1.0	0.11	ug/L		02/24/25 13:30	02/25/25 04:48	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:30	02/25/25 04:48	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:30	02/25/25 04:48	1
Nickel	0.20	J	0.50	0.15	ug/L		02/24/25 13:30	02/25/25 04:48	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:30	02/25/25 04:48	1
Barium	7.3		0.50	0.088	ug/L		02/24/25 13:30	02/25/25 04:48	1
Iron	1.1	J	5.0	0.81	ug/L		02/24/25 13:30	02/25/25 04:48	1
Manganese	0.59		0.050	0.030	ug/L		02/24/25 13:30	02/25/25 04:48	1

Client Sample ID: SRWB-1CP2-SW-20

Lab Sample ID: 350-1559-2

Date Collected: 02/09/25 01:12

Matrix: Water

Date Received: 02/19/25 15:15

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20	J	0.50	0.20	ng/L			03/10/25 21:20	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0	F1	0.70	0.63	ug/L		02/24/25 13:30	02/25/25 05:58	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:30	02/25/25 05:58	1
Chromium	0.79	J	1.0	0.11	ug/L		02/24/25 13:30	02/25/25 05:58	1
Copper	0.43	J	0.50	0.43	ug/L		02/24/25 13:30	02/25/25 05:58	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:30	02/25/25 05:58	1
Nickel	0.22	J	0.50	0.15	ug/L		02/24/25 13:30	02/25/25 05:58	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:30	02/25/25 05:58	1
Barium	7.1		0.50	0.088	ug/L		02/24/25 13:30	02/25/25 05:58	1
Iron	0.98	J	5.0	0.81	ug/L		02/24/25 13:30	02/25/25 05:58	1
Manganese	0.54		0.050	0.030	ug/L		02/24/25 13:30	02/25/25 05:58	1

Client Sample ID: SRWB-1CP2-SW-40

Lab Sample ID: 350-1559-3

Date Collected: 02/09/25 01:20

Matrix: Water

Date Received: 02/19/25 15:15

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			03/10/25 21:24	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.1		0.70	0.63	ug/L		02/24/25 13:30	02/25/25 13:00	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:30	02/25/25 13:00	1
Chromium	0.78	J	1.0	0.11	ug/L		02/24/25 13:30	02/25/25 13:00	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:30	02/25/25 13:00	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:30	02/25/25 13:00	1

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Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-1CP2-SW-40

Lab Sample ID: 350-1559-3

Date Collected: 02/09/25 01:20

Matrix: Water

Date Received: 02/19/25 15:15

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		02/24/25 13:30	02/25/25 13:00	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:30	02/25/25 13:00	1
Barium	7.7		0.50	0.088	ug/L		02/24/25 13:30	02/25/25 13:00	1
Iron	ND		5.0	0.81	ug/L		02/24/25 13:30	02/25/25 13:00	1
Manganese	0.47		0.050	0.030	ug/L		02/24/25 13:30	02/25/25 13:00	1

Client Sample ID: SRWB-1CP2-SW-40-FD

Lab Sample ID: 350-1559-4

Date Collected: 02/09/25 01:30

Matrix: Water

Date Received: 02/19/25 15:15

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			03/10/25 21:28	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		02/24/25 13:30	02/25/25 13:14	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:30	02/25/25 13:14	1
Chromium	0.68	J	1.0	0.11	ug/L		02/24/25 13:30	02/25/25 13:14	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:30	02/25/25 13:14	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:30	02/25/25 13:14	1
Nickel	0.20	J	0.50	0.15	ug/L		02/24/25 13:30	02/25/25 13:14	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:30	02/25/25 13:14	1
Barium	7.0		0.50	0.088	ug/L		02/24/25 13:30	02/25/25 13:14	1
Iron	ND		5.0	0.81	ug/L		02/24/25 13:30	02/25/25 13:14	1
Manganese	0.45		0.050	0.030	ug/L		02/24/25 13:30	02/25/25 13:14	1

Client Sample ID: SRWB-1CP2-SW-B

Lab Sample ID: 350-1559-5

Date Collected: 02/09/25 01:41

Matrix: Water

Date Received: 02/19/25 15:15

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			03/10/25 21:32	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.2		0.70	0.63	ug/L		02/24/25 13:30	02/25/25 13:57	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:30	02/25/25 13:57	1
Chromium	0.80	J	1.0	0.11	ug/L		02/24/25 13:30	02/25/25 13:57	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:30	02/25/25 13:57	1
Lead	0.035	J	0.050	0.023	ug/L		02/24/25 13:30	02/25/25 13:57	1
Nickel	0.21	J	0.50	0.15	ug/L		02/24/25 13:30	02/25/25 13:57	1
Zinc	0.39	J	1.0	0.31	ug/L		02/24/25 13:30	02/25/25 13:57	1
Barium	8.0		0.50	0.088	ug/L		02/24/25 13:30	02/25/25 13:57	1
Iron	24		5.0	0.81	ug/L		02/24/25 13:30	02/25/25 13:57	1
Manganese	2.0		0.050	0.030	ug/L		02/24/25 13:30	02/25/25 13:57	1

Eurofins Seattle Specialty Metals

Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-3CP2-SW-1

Lab Sample ID: 350-1559-6

Date Collected: 02/09/25 02:40

Matrix: Water

Date Received: 02/19/25 15:15

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			03/10/25 21:36	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		02/24/25 13:30	02/25/25 14:11	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:30	02/25/25 14:11	1
Chromium	0.70	J	1.0	0.11	ug/L		02/24/25 13:30	02/25/25 14:11	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:30	02/25/25 14:11	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:30	02/25/25 14:11	1
Nickel	0.19	J	0.50	0.15	ug/L		02/24/25 13:30	02/25/25 14:11	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:30	02/25/25 14:11	1
Barium	8.3		0.50	0.088	ug/L		02/24/25 13:30	02/25/25 14:11	1
Iron	ND		5.0	0.81	ug/L		02/24/25 13:30	02/25/25 14:11	1
Manganese	0.58		0.050	0.030	ug/L		02/24/25 13:30	02/25/25 14:11	1

Client Sample ID: SRWB-3CP2-SW-20

Lab Sample ID: 350-1559-7

Date Collected: 02/09/25 02:46

Matrix: Water

Date Received: 02/19/25 15:15

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.21	J	0.50	0.20	ng/L			03/04/25 15:07	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.2		0.70	0.63	ug/L		02/24/25 13:30	02/25/25 14:25	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:30	02/25/25 14:25	1
Chromium	0.97	J	1.0	0.11	ug/L		02/24/25 13:30	02/25/25 14:25	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:30	02/25/25 14:25	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:30	02/25/25 14:25	1
Nickel	0.20	J	0.50	0.15	ug/L		02/24/25 13:30	02/25/25 14:25	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:30	02/25/25 14:25	1
Barium	8.0		0.50	0.088	ug/L		02/24/25 13:30	02/25/25 14:25	1
Iron	3.8	J	5.0	0.81	ug/L		02/24/25 13:30	02/25/25 14:25	1
Manganese	0.60		0.050	0.030	ug/L		02/24/25 13:30	02/25/25 14:25	1

Client Sample ID: SRWB-3CP2-SW-40

Lab Sample ID: 350-1559-8

Date Collected: 02/09/25 02:54

Matrix: Water

Date Received: 02/19/25 15:15

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	F1	0.50	0.20	ng/L			03/04/25 14:55	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		02/24/25 13:30	02/25/25 14:39	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:30	02/25/25 14:39	1
Chromium	0.79	J	1.0	0.11	ug/L		02/24/25 13:30	02/25/25 14:39	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:30	02/25/25 14:39	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:30	02/25/25 14:39	1

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Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-3CP2-SW-40

Lab Sample ID: 350-1559-8

Date Collected: 02/09/25 02:54

Matrix: Water

Date Received: 02/19/25 15:15

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		02/24/25 13:30	02/25/25 14:39	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:30	02/25/25 14:39	1
Barium	8.1		0.50	0.088	ug/L		02/24/25 13:30	02/25/25 14:39	1
Iron	ND		5.0	0.81	ug/L		02/24/25 13:30	02/25/25 14:39	1
Manganese	0.47		0.050	0.030	ug/L		02/24/25 13:30	02/25/25 14:39	1

Client Sample ID: SRWB-3CP2-SW-B

Lab Sample ID: 350-1559-9

Date Collected: 02/09/25 03:06

Matrix: Water

Date Received: 02/19/25 15:15

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			03/10/25 21:40	1

Method: EPA 1640 - Metals (ICPMS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.2		0.70	0.63	ug/L		02/24/25 13:30	02/25/25 14:53	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:30	02/25/25 14:53	1
Chromium	0.78	J	1.0	0.11	ug/L		02/24/25 13:30	02/25/25 14:53	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:30	02/25/25 14:53	1
Lead	0.031	J	0.050	0.023	ug/L		02/24/25 13:30	02/25/25 14:53	1
Nickel	0.21	J	0.50	0.15	ug/L		02/24/25 13:30	02/25/25 14:53	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:30	02/25/25 14:53	1
Barium	8.2		0.50	0.088	ug/L		02/24/25 13:30	02/25/25 14:53	1
Iron	17		5.0	0.81	ug/L		02/24/25 13:30	02/25/25 14:53	1
Manganese	1.9		0.050	0.030	ug/L		02/24/25 13:30	02/25/25 14:53	1

Client Sample ID: SRWA-1B2X-A

Lab Sample ID: 350-1559-10

Date Collected: 02/08/25 19:36

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 58.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	55		4.8	2.3	ng/g	☆	03/03/25 17:34	03/19/25 10:28	50

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.0		0.31	0.094	mg/Kg	☆	02/25/25 18:24	03/03/25 15:48	1
Barium	17000	B	31	0.063	mg/Kg	☆	02/25/25 18:24	03/03/25 15:48	1
Cadmium	0.12		0.031	0.0031	mg/Kg	☆	02/25/25 18:24	03/03/25 15:48	1
Chromium	41		0.31	0.31	mg/Kg	☆	02/25/25 18:24	03/03/25 15:48	1
Copper	13	B	0.16	0.019	mg/Kg	☆	02/25/25 18:24	03/03/25 15:48	1
Iron	21000		31	6.3	mg/Kg	☆	02/25/25 18:24	03/03/25 15:48	1
Manganese	680	B ^2	0.16	0.016	mg/Kg	☆	02/25/25 18:24	03/03/25 15:48	1
Nickel	22	B	0.63	0.025	mg/Kg	☆	02/25/25 18:24	03/03/25 15:48	1
Lead	21		0.13	0.013	mg/Kg	☆	02/25/25 18:24	03/03/25 15:48	1
Zinc	43		3.1	1.6	mg/Kg	☆	02/25/25 18:24	03/03/25 15:48	1

Eurofins Seattle Specialty Metals

Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWA-2B2X-A

Lab Sample ID: 350-1559-11

Date Collected: 02/08/25 20:18

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 52.8

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	19		2.1	1.0	ng/g	☆	03/03/25 17:34	03/19/25 15:49	20

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.9		0.36	0.11	mg/Kg	☆	02/25/25 18:24	03/03/25 15:50	1
Barium	880	B	36	0.072	mg/Kg	☆	02/25/25 18:24	03/03/25 15:50	1
Cadmium	0.070		0.036	0.0036	mg/Kg	☆	02/25/25 18:24	03/03/25 15:50	1
Chromium	45		0.36	0.36	mg/Kg	☆	02/25/25 18:24	03/03/25 15:50	1
Copper	12	B	0.18	0.022	mg/Kg	☆	02/25/25 18:24	03/03/25 15:50	1
Iron	25000		36	7.2	mg/Kg	☆	02/25/25 18:24	03/03/25 15:50	1
Manganese	840	B ^2	0.18	0.018	mg/Kg	☆	02/25/25 18:24	03/03/25 15:50	1
Nickel	23	B	0.72	0.029	mg/Kg	☆	02/25/25 18:24	03/03/25 15:50	1
Lead	22		0.14	0.014	mg/Kg	☆	02/25/25 18:24	03/03/25 15:50	1
Zinc	33		3.6	1.8	mg/Kg	☆	02/25/25 18:24	03/03/25 15:50	1

Client Sample ID: SRWA-2B2X-A-FD

Lab Sample ID: 350-1559-12

Date Collected: 02/08/25 20:25

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 54.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	24		2.0	0.99	ng/g	☆	03/03/25 17:34	03/19/25 15:53	20

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.7		0.35	0.10	mg/Kg	☆	02/25/25 18:24	03/03/25 15:52	1
Barium	1100	B	35	0.069	mg/Kg	☆	02/25/25 18:24	03/03/25 15:52	1
Cadmium	0.078		0.035	0.0035	mg/Kg	☆	02/25/25 18:24	03/03/25 15:52	1
Chromium	45		0.35	0.35	mg/Kg	☆	02/25/25 18:24	03/03/25 15:52	1
Copper	11	B	0.17	0.021	mg/Kg	☆	02/25/25 18:24	03/03/25 15:52	1
Iron	23000		35	6.9	mg/Kg	☆	02/25/25 18:24	03/03/25 15:52	1
Manganese	810	B ^2	0.17	0.017	mg/Kg	☆	02/25/25 18:24	03/03/25 15:52	1
Nickel	24	B	0.69	0.028	mg/Kg	☆	02/25/25 18:24	03/03/25 15:52	1
Lead	22		0.14	0.014	mg/Kg	☆	02/25/25 18:24	03/03/25 15:52	1
Zinc	33		3.5	1.7	mg/Kg	☆	02/25/25 18:24	03/03/25 15:52	1

Client Sample ID: SRWA-3B2X-A

Lab Sample ID: 350-1559-13

Date Collected: 02/08/25 20:50

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 55.9

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	26		2.0	0.99	ng/g	☆	03/03/25 17:34	03/19/25 15:57	20

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		0.32	0.097	mg/Kg	☆	02/25/25 18:24	03/03/25 15:54	1
Barium	4500	B	32	0.065	mg/Kg	☆	02/25/25 18:24	03/03/25 15:54	1
Cadmium	0.15		0.032	0.0032	mg/Kg	☆	02/25/25 18:24	03/03/25 15:54	1
Chromium	58		0.32	0.32	mg/Kg	☆	02/25/25 18:24	03/03/25 15:54	1
Copper	16	B	0.16	0.019	mg/Kg	☆	02/25/25 18:24	03/03/25 15:54	1

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Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWA-3B2X-A

Lab Sample ID: 350-1559-13

Date Collected: 02/08/25 20:50

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 55.9

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	36000		32	6.5	mg/Kg	☆	02/25/25 18:24	03/03/25 15:54	1
Manganese	1200	B ^2	0.16	0.016	mg/Kg	☆	02/25/25 18:24	03/03/25 15:54	1
Nickel	32	B	0.65	0.026	mg/Kg	☆	02/25/25 18:24	03/03/25 15:54	1
Lead	33	E	0.13	0.013	mg/Kg	☆	02/25/25 18:24	03/03/25 15:54	1
Zinc	48		3.2	1.6	mg/Kg	☆	02/25/25 18:24	03/03/25 15:54	1

Client Sample ID: SRWA-4B2X-A

Lab Sample ID: 350-1559-14

Date Collected: 02/08/25 21:21

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 53.8

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	19		2.1	1.0	ng/g	☆	03/03/25 17:34	03/19/25 16:01	20

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.1		0.33	0.10	mg/Kg	☆	02/25/25 18:24	03/03/25 15:56	1
Barium	550	B	33	0.067	mg/Kg	☆	02/25/25 18:24	03/03/25 15:56	1
Cadmium	0.069		0.033	0.0033	mg/Kg	☆	02/25/25 18:24	03/03/25 15:56	1
Chromium	35		0.33	0.33	mg/Kg	☆	02/25/25 18:24	03/03/25 15:56	1
Copper	9.7	B	0.17	0.020	mg/Kg	☆	02/25/25 18:24	03/03/25 15:56	1
Iron	14000		33	6.7	mg/Kg	☆	02/25/25 18:24	03/03/25 15:56	1
Manganese	880	B ^2	0.17	0.017	mg/Kg	☆	02/25/25 18:24	03/03/25 15:56	1
Nickel	19	B	0.67	0.027	mg/Kg	☆	02/25/25 18:24	03/03/25 15:56	1
Lead	18		0.13	0.013	mg/Kg	☆	02/25/25 18:24	03/03/25 15:56	1
Zinc	26		3.3	1.7	mg/Kg	☆	02/25/25 18:24	03/03/25 15:56	1

Client Sample ID: SRWB-1B2-A

Lab Sample ID: 350-1559-15

Date Collected: 02/09/25 17:30

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 53.5

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	96		5.2	2.5	ng/g	☆	03/03/25 17:34	03/19/25 11:26	50

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2		0.34	0.10	mg/Kg	☆	02/26/25 16:22	04/17/25 21:46	1
Barium	6000	B	34	0.067	mg/Kg	☆	02/26/25 16:22	04/17/25 21:46	1
Cadmium	0.35	B	0.034	0.0034	mg/Kg	☆	02/26/25 16:22	04/17/25 21:46	1
Chromium	43		0.34	0.34	mg/Kg	☆	02/26/25 16:22	04/17/25 21:46	1
Copper	25	B	0.17	0.020	mg/Kg	☆	02/26/25 16:22	04/17/25 21:46	1
Iron	18000	B	34	6.7	mg/Kg	☆	02/26/25 16:22	04/17/25 21:46	1
Manganese	550	B ^2	0.17	0.017	mg/Kg	☆	02/26/25 16:22	04/17/25 21:46	1
Nickel	23	B	0.67	0.027	mg/Kg	☆	02/26/25 16:22	04/17/25 21:46	1
Lead	26	B	0.13	0.013	mg/Kg	☆	02/26/25 16:22	04/17/25 21:46	1
Zinc	88		3.4	1.7	mg/Kg	☆	02/26/25 16:22	04/17/25 21:46	1

Eurofins Seattle Specialty Metals

Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-1CP2-A

Lab Sample ID: 350-1559-16

Date Collected: 02/09/25 16:56

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 50.3

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	18		2.3	1.1	ng/g	☆	03/03/25 17:34	03/19/25 16:22	20

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	☆	02/26/25 16:22	04/17/25 21:49	1
Barium	260		36	0.072	mg/Kg	☆	02/26/25 16:22	04/17/25 21:49	1
Cadmium	0.085	B	0.036	0.0036	mg/Kg	☆	02/26/25 16:22	04/17/25 21:49	1
Chromium	50		0.36	0.36	mg/Kg	☆	02/26/25 16:22	04/17/25 21:49	1
Copper	13	B	0.18	0.022	mg/Kg	☆	02/26/25 16:22	04/17/25 21:49	1
Iron	17000	B	36	7.2	mg/Kg	☆	02/26/25 16:22	04/17/25 21:49	1
Manganese	620	B ^2	0.18	0.018	mg/Kg	☆	02/26/25 16:22	04/17/25 21:49	1
Nickel	26	B	0.72	0.029	mg/Kg	☆	02/26/25 16:22	04/17/25 21:49	1
Lead	21	B	0.14	0.014	mg/Kg	☆	02/26/25 16:22	04/17/25 21:49	1
Zinc	39		3.6	1.8	mg/Kg	☆	02/26/25 16:22	04/17/25 21:49	1

Client Sample ID: SRWB-1D2-A

Lab Sample ID: 350-1559-17

Date Collected: 02/09/25 16:08

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 49.1

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	29		5.5	2.7	ng/g	☆	03/03/25 17:34	03/19/25 10:48	50

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.4		0.39	0.12	mg/Kg	☆	02/26/25 16:22	04/17/25 21:51	1
Barium	460	B	39	0.079	mg/Kg	☆	02/26/25 16:22	04/17/25 21:51	1
Cadmium	0.083	B	0.039	0.0039	mg/Kg	☆	02/26/25 16:22	04/17/25 21:51	1
Chromium	47		0.39	0.39	mg/Kg	☆	02/26/25 16:22	04/17/25 21:51	1
Copper	12	B	0.20	0.024	mg/Kg	☆	02/26/25 16:22	04/17/25 21:51	1
Iron	16000	B	39	7.9	mg/Kg	☆	02/26/25 16:22	04/17/25 21:51	1
Manganese	700	B ^2	0.20	0.020	mg/Kg	☆	02/26/25 16:22	04/17/25 21:51	1
Nickel	24	B	0.79	0.031	mg/Kg	☆	02/26/25 16:22	04/17/25 21:51	1
Lead	20	B	0.16	0.016	mg/Kg	☆	02/26/25 16:22	04/17/25 21:51	1
Zinc	37		3.9	2.0	mg/Kg	☆	02/26/25 16:22	04/17/25 21:51	1

Client Sample ID: SRWB-2B2X-A

Lab Sample ID: 350-1559-18

Date Collected: 02/09/25 18:03

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 50.1

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	29		2.2	1.1	ng/g	☆	03/03/25 17:34	03/19/25 16:26	20

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.7		0.36	0.11	mg/Kg	☆	02/26/25 16:22	04/17/25 21:54	1
Barium	1600	B	36	0.072	mg/Kg	☆	02/26/25 16:22	04/17/25 21:54	1
Cadmium	0.11	B	0.036	0.0036	mg/Kg	☆	02/26/25 16:22	04/17/25 21:54	1
Chromium	42		0.36	0.36	mg/Kg	☆	02/26/25 16:22	04/17/25 21:54	1
Copper	12	B	0.18	0.021	mg/Kg	☆	02/26/25 16:22	04/17/25 21:54	1

Eurofins Seattle Specialty Metals

Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-2B2X-A

Lab Sample ID: 350-1559-18

Date Collected: 02/09/25 18:03

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 50.1

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	15000	B	36	7.2	mg/Kg	☆	02/26/25 16:22	04/17/25 21:54	1
Manganese	500	B ^2	0.18	0.018	mg/Kg	☆	02/26/25 16:22	04/17/25 21:54	1
Nickel	22	B	0.72	0.029	mg/Kg	☆	02/26/25 16:22	04/17/25 21:54	1
Lead	19	B	0.14	0.014	mg/Kg	☆	02/26/25 16:22	04/17/25 21:54	1
Zinc	41		3.6	1.8	mg/Kg	☆	02/26/25 16:22	04/17/25 21:54	1

Client Sample ID: SRWB-2B2X-A-FD

Lab Sample ID: 350-1559-19

Date Collected: 02/09/25 18:11

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 44.5

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	98		6.0	2.9	ng/g	☆	03/03/25 17:34	03/19/25 11:38	50

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.7		0.43	0.13	mg/Kg	☆	02/26/25 16:22	04/17/25 21:56	1
Barium	5800	B	43	0.087	mg/Kg	☆	02/26/25 16:22	04/17/25 21:56	1
Cadmium	0.25	B	0.043	0.0043	mg/Kg	☆	02/26/25 16:22	04/17/25 21:56	1
Chromium	57		0.43	0.43	mg/Kg	☆	02/26/25 16:22	04/17/25 21:56	1
Copper	17	B	0.22	0.026	mg/Kg	☆	02/26/25 16:22	04/17/25 21:56	1
Iron	21000	B	43	8.7	mg/Kg	☆	02/26/25 16:22	04/17/25 21:56	1
Manganese	690	B ^2	0.22	0.022	mg/Kg	☆	02/26/25 16:22	04/17/25 21:56	1
Nickel	30	B	0.87	0.035	mg/Kg	☆	02/26/25 16:22	04/17/25 21:56	1
Lead	29	B	0.17	0.017	mg/Kg	☆	02/26/25 16:22	04/17/25 21:56	1
Zinc	83		4.3	2.2	mg/Kg	☆	02/26/25 16:22	04/17/25 21:56	1

Client Sample ID: SRWB-3B2-A

Lab Sample ID: 350-1559-20

Date Collected: 02/09/25 06:33

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 60.4

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	620		19	9.1	ng/g	☆	03/03/25 17:34	03/19/25 16:30	200

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.7		0.33	0.098	mg/Kg	☆	02/26/25 16:22	04/17/25 21:59	1
Barium	24000	B	33	0.065	mg/Kg	☆	02/26/25 16:22	04/17/25 21:59	1
Cadmium	1.4	B	0.033	0.0033	mg/Kg	☆	02/26/25 16:22	04/17/25 21:59	1
Chromium	43		0.33	0.33	mg/Kg	☆	02/26/25 16:22	04/17/25 21:59	1
Copper	22	B	0.16	0.020	mg/Kg	☆	02/26/25 16:22	04/17/25 21:59	1
Iron	18000	B	33	6.5	mg/Kg	☆	02/26/25 16:22	04/17/25 21:59	1
Manganese	540	B ^2	0.16	0.016	mg/Kg	☆	02/26/25 16:22	04/17/25 21:59	1
Nickel	34	B	0.65	0.026	mg/Kg	☆	02/26/25 16:22	04/17/25 21:59	1
Lead	48	E B	0.13	0.013	mg/Kg	☆	02/26/25 16:22	04/17/25 21:59	1
Zinc	280		3.3	1.6	mg/Kg	☆	02/26/25 16:22	04/17/25 21:59	1

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Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-3CP2-A

Lab Sample ID: 350-1559-21

Date Collected: 02/09/25 04:15

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 50.4

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	26		2.1	1.0	ng/g	☆	03/03/25 17:34	03/19/25 16:34	20

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.7		0.38	0.11	mg/Kg	☆	02/26/25 16:22	04/17/25 21:25	1
Barium	670	F1 B	38	0.076	mg/Kg	☆	02/26/25 16:22	04/17/25 21:25	1
Cadmium	0.087	B	0.038	0.0038	mg/Kg	☆	02/26/25 16:22	04/17/25 21:25	1
Chromium	50		0.38	0.38	mg/Kg	☆	02/26/25 16:22	04/17/25 21:25	1
Copper	14	B	0.19	0.023	mg/Kg	☆	02/26/25 16:22	04/17/25 21:25	1
Iron	19000	B	38	7.6	mg/Kg	☆	02/26/25 16:22	04/17/25 21:25	1
Manganese	670	F1 B ^2	0.19	0.019	mg/Kg	☆	02/26/25 16:22	04/17/25 21:25	1
Nickel	27	B	0.76	0.031	mg/Kg	☆	02/26/25 16:22	04/17/25 21:25	1
Lead	22	B	0.15	0.015	mg/Kg	☆	02/26/25 16:22	04/17/25 21:25	1
Zinc	43		3.8	1.9	mg/Kg	☆	02/26/25 16:22	04/17/25 21:25	1

Client Sample ID: SRWB-3D2-A

Lab Sample ID: 350-1559-22

Date Collected: 02/09/25 05:20

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 51.0

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	22		2.1	1.0	ng/g	☆	03/03/25 17:34	03/19/25 16:38	20

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	☆	02/26/25 16:22	04/17/25 22:02	1
Barium	50000	B	370	0.74	mg/Kg	☆	02/26/25 16:22	04/21/25 19:07	10
Cadmium	0.087	B	0.037	0.0037	mg/Kg	☆	02/26/25 16:22	04/17/25 22:02	1
Chromium	47		0.37	0.37	mg/Kg	☆	02/26/25 16:22	04/17/25 22:02	1
Copper	12	B	0.18	0.022	mg/Kg	☆	02/26/25 16:22	04/17/25 22:02	1
Iron	16000	B	37	7.4	mg/Kg	☆	02/26/25 16:22	04/17/25 22:02	1
Manganese	680	B ^2	0.18	0.018	mg/Kg	☆	02/26/25 16:22	04/17/25 22:02	1
Nickel	25	B	0.74	0.029	mg/Kg	☆	02/26/25 16:22	04/17/25 22:02	1
Lead	20	B	0.15	0.015	mg/Kg	☆	02/26/25 16:22	04/17/25 22:02	1
Zinc	41		3.7	1.8	mg/Kg	☆	02/26/25 16:22	04/17/25 22:02	1

Client Sample ID: SRWB-4B2-A

Lab Sample ID: 350-1559-23

Date Collected: 02/09/25 05:47

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 52.2

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	25		2.2	1.0	ng/g	☆	03/03/25 17:34	03/19/25 16:42	20

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.6		0.38	0.11	mg/Kg	☆	02/26/25 16:22	04/17/25 22:04	1
Barium	670	B	38	0.076	mg/Kg	☆	02/26/25 16:22	04/17/25 22:04	1
Cadmium	0.094	B	0.038	0.0038	mg/Kg	☆	02/26/25 16:22	04/17/25 22:04	1
Chromium	46		0.38	0.38	mg/Kg	☆	02/26/25 16:22	04/17/25 22:04	1
Copper	12	B	0.19	0.023	mg/Kg	☆	02/26/25 16:22	04/17/25 22:04	1

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Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-4B2-A

Lab Sample ID: 350-1559-23

Date Collected: 02/09/25 05:47

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 52.2

Method: EPA 1638 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	18000	B	38	7.6	mg/Kg	☆	02/26/25 16:22	04/17/25 22:04	1
Manganese	660	B ^2	0.19	0.019	mg/Kg	☆	02/26/25 16:22	04/17/25 22:04	1
Nickel	24	B	0.76	0.030	mg/Kg	☆	02/26/25 16:22	04/17/25 22:04	1
Lead	22	B	0.15	0.015	mg/Kg	☆	02/26/25 16:22	04/17/25 22:04	1
Zinc	39		3.8	1.9	mg/Kg	☆	02/26/25 16:22	04/17/25 22:04	1

Client Sample ID: SRWB-WB

Lab Sample ID: 350-1559-146

Date Collected: 02/09/25 12:35

Matrix: Water

Date Received: 02/19/25 15:15

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			03/17/25 22:52	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		02/24/25 13:40	02/26/25 01:55	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:40	02/26/25 01:55	1
Chromium	ND		1.0	0.11	ug/L		02/24/25 13:40	02/26/25 01:55	1
Copper	1.3		0.50	0.43	ug/L		02/24/25 13:40	02/26/25 01:55	1
Lead	0.092		0.050	0.023	ug/L		02/24/25 13:40	02/26/25 01:55	1
Nickel	ND		0.50	0.15	ug/L		02/24/25 13:40	02/26/25 01:55	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:40	02/26/25 01:55	1
Barium	ND		0.50	0.088	ug/L		02/24/25 13:40	02/26/25 01:55	1
Iron	ND	^+	5.0	0.81	ug/L		02/24/25 13:40	02/26/25 01:55	1
Manganese	0.13		0.050	0.030	ug/L		04/08/25 15:53	04/09/25 12:04	1

Client Sample ID: SRWB-EQ

Lab Sample ID: 350-1559-147

Date Collected: 02/09/25 12:40

Matrix: Water

Date Received: 02/19/25 15:15

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			03/17/25 22:56	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		02/24/25 13:40	02/26/25 02:09	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:40	02/26/25 02:09	1
Chromium	ND		1.0	0.11	ug/L		02/24/25 13:40	02/26/25 02:09	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:40	02/26/25 02:09	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:40	02/26/25 02:09	1
Nickel	ND		0.50	0.15	ug/L		02/24/25 13:40	02/26/25 02:09	1
Zinc	0.40	J	1.0	0.31	ug/L		02/24/25 13:40	02/26/25 02:09	1
Barium	ND		0.50	0.088	ug/L		02/24/25 13:40	02/26/25 02:09	1
Iron	ND	^+	5.0	0.81	ug/L		02/24/25 13:40	02/26/25 02:09	1
Manganese	0.15		0.050	0.030	ug/L		04/08/25 15:53	04/09/25 12:19	1

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-5298/1-A
Matrix: Solid
Analysis Batch: 5683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		03/03/25 17:34	03/19/25 10:07	20

Lab Sample ID: MB 350-5298/2-A
Matrix: Solid
Analysis Batch: 5683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		03/03/25 17:34	03/19/25 10:11	20

Lab Sample ID: MB 350-5298/3-A
Matrix: Solid
Analysis Batch: 5683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		03/03/25 17:34	03/19/25 10:15	20

Lab Sample ID: LCS 350-5298/4-A
Matrix: Solid
Analysis Batch: 5683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5298

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	397	395		ng/g		99	75 - 125

Lab Sample ID: LCSD 350-5298/5-A
Matrix: Solid
Analysis Batch: 5683

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5298

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	397	377		ng/g		95	75 - 125	5	24

Lab Sample ID: 350-1559-10 MS
Matrix: Solid
Analysis Batch: 5683

Client Sample ID: SRWA-1B2X-A
Prep Type: Total/NA
Prep Batch: 5298

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	55		658	657		ng/g	✱	91	71 - 125

Lab Sample ID: 350-1559-10 MSD
Matrix: Solid
Analysis Batch: 5683

Client Sample ID: SRWA-1B2X-A
Prep Type: Total/NA
Prep Batch: 5298

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	55		666	648		ng/g	✱	89	71 - 125	1	24

Lab Sample ID: 350-1559-17 MS
Matrix: Solid
Analysis Batch: 5683

Client Sample ID: SRWB-1D2-A
Prep Type: Total/NA
Prep Batch: 5298

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	29		763	701		ng/g	✱	88	71 - 125

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: 350-1559-17 MSD
Matrix: Solid
Analysis Batch: 5683

Client Sample ID: SRWB-1D2-A
Prep Type: Total/NA
Prep Batch: 5298

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	29		808	761		ng/g	☆	91	71 - 125	8	24

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-5384/17
Matrix: Water
Analysis Batch: 5384

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			03/04/25 15:16	1

Lab Sample ID: MB 350-5384/18
Matrix: Water
Analysis Batch: 5384

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			03/04/25 15:20	1

Lab Sample ID: MB 350-5384/19
Matrix: Water
Analysis Batch: 5384

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			03/04/25 15:24	1

Lab Sample ID: LCS 350-5384/28
Matrix: Water
Analysis Batch: 5384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	3.95		ng/L		79	77 - 123

Lab Sample ID: LCSD 350-5384/29
Matrix: Water
Analysis Batch: 5384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.16		ng/L		83	77 - 123	5	24

Lab Sample ID: 350-1559-1 MS
Matrix: Water
Analysis Batch: 5384

Client Sample ID: SRWB-1CP2-SW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.23	J F1	5.00	3.15	F1	ng/L		58	71 - 125

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: 350-1559-1 MSD

Matrix: Water

Analysis Batch: 5384

Client Sample ID: SRWB-1CP2-SW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.23	J F1	5.00	3.14	F1	ng/L		58	71 - 125	0	24

Lab Sample ID: 350-1559-8 MS

Matrix: Water

Analysis Batch: 5384

Client Sample ID: SRWB-3CP2-SW-40

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND	F1	5.00	2.97	F1	ng/L		59	71 - 125		

Lab Sample ID: 350-1559-8 MSD

Matrix: Water

Analysis Batch: 5384

Client Sample ID: SRWB-3CP2-SW-40

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND	F1	5.00	2.96	F1	ng/L		59	71 - 125	0	24

Lab Sample ID: MB 350-5476/31

Matrix: Water

Analysis Batch: 5476

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			03/10/25 14:15	1

Lab Sample ID: MB 350-5476/34

Matrix: Water

Analysis Batch: 5476

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			03/10/25 14:27	1

Lab Sample ID: MB 350-5476/35

Matrix: Water

Analysis Batch: 5476

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			03/10/25 14:32	1

Lab Sample ID: LCS 350-5476/42

Matrix: Water

Analysis Batch: 5476

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.24		ng/L		85	77 - 123		

Lab Sample ID: LCSD 350-5476/43

Matrix: Water

Analysis Batch: 5476

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.15		ng/L		83	77 - 123	2	24

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-5615/20
Matrix: Water
Analysis Batch: 5615

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			03/17/25 12:14	1

Lab Sample ID: MB 350-5615/23
Matrix: Water
Analysis Batch: 5615

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			03/17/25 12:26	1

Lab Sample ID: MB 350-5615/24
Matrix: Water
Analysis Batch: 5615

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			03/17/25 12:30	1

Lab Sample ID: LCS 350-5615/30
Matrix: Water
Analysis Batch: 5615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.86		ng/L		97	77 - 123

Lab Sample ID: LCSD 350-5615/31
Matrix: Water
Analysis Batch: 5615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.76		ng/L		95	77 - 123	2	24

Method: 1638 - Metals (ICP/MS)

Lab Sample ID: MB 350-5206/1-A
Matrix: Solid
Analysis Batch: 6354

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5206

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.20	0.060	mg/Kg		02/25/25 18:24	03/03/25 14:56	1
Barium	0.0705	J	20	0.040	mg/Kg		02/25/25 18:24	03/03/25 14:56	1
Cadmium	ND		0.020	0.0020	mg/Kg		02/25/25 18:24	03/03/25 14:56	1
Chromium	ND		0.20	0.20	mg/Kg		02/25/25 18:24	03/03/25 14:56	1
Copper	ND		0.10	0.012	mg/Kg		02/25/25 18:24	03/03/25 14:56	1
Iron	ND		20	4.0	mg/Kg		02/25/25 18:24	03/03/25 14:56	1
Manganese	0.0430	J	0.10	0.010	mg/Kg		02/25/25 18:24	03/03/25 14:56	1
Nickel	0.111	J	0.40	0.016	mg/Kg		02/25/25 18:24	03/03/25 14:56	1
Lead	ND		0.080	0.0080	mg/Kg		02/25/25 18:24	03/03/25 14:56	1
Zinc	ND		2.0	1.0	mg/Kg		02/25/25 18:24	03/03/25 14:56	1

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 350-5206/2-A

Matrix: Solid

Analysis Batch: 6354

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5206

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.20	0.060	mg/Kg		02/25/25 18:24	03/03/25 14:58	1
Barium	0.0907	J	20	0.040	mg/Kg		02/25/25 18:24	03/03/25 14:58	1
Cadmium	ND		0.020	0.0020	mg/Kg		02/25/25 18:24	03/03/25 14:58	1
Chromium	ND		0.20	0.20	mg/Kg		02/25/25 18:24	03/03/25 14:58	1
Copper	0.122		0.10	0.012	mg/Kg		02/25/25 18:24	03/03/25 14:58	1
Iron	ND		20	4.0	mg/Kg		02/25/25 18:24	03/03/25 14:58	1
Manganese	0.0960	J	0.10	0.010	mg/Kg		02/25/25 18:24	03/03/25 14:58	1
Nickel	0.0479	J	0.40	0.016	mg/Kg		02/25/25 18:24	03/03/25 14:58	1
Lead	ND		0.080	0.0080	mg/Kg		02/25/25 18:24	03/03/25 14:58	1
Zinc	ND		2.0	1.0	mg/Kg		02/25/25 18:24	03/03/25 14:58	1

Lab Sample ID: LCS 350-5206/3-A

Matrix: Solid

Analysis Batch: 6354

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5206

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	98.4		mg/Kg		98	75 - 125
Barium	100	102	J	mg/Kg		102	75 - 125
Cadmium	20.0	18.7		mg/Kg		93	75 - 125
Chromium	100	100		mg/Kg		100	75 - 125
Copper	100	104		mg/Kg		104	75 - 125
Iron	2500	2570		mg/Kg		103	75 - 125
Manganese	100	102		mg/Kg		102	75 - 125
Nickel	100	101		mg/Kg		101	75 - 125
Lead	100	102		mg/Kg		102	75 - 125
Zinc	100	102		mg/Kg		102	75 - 125

Lab Sample ID: LCSD 350-5206/4-A

Matrix: Solid

Analysis Batch: 6354

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5206

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	100	97.6		mg/Kg		98	75 - 125	1	20
Barium	100	106	J	mg/Kg		106	75 - 125	4	20
Cadmium	20.0	18.5		mg/Kg		92	75 - 125	1	20
Chromium	100	98.6		mg/Kg		99	75 - 125	2	20
Copper	100	103		mg/Kg		103	75 - 125	1	20
Iron	2500	2500		mg/Kg		100	75 - 125	3	20
Manganese	100	99.5		mg/Kg		100	75 - 125	2	20
Nickel	100	99.4		mg/Kg		99	75 - 125	1	20
Lead	100	98.7		mg/Kg		99	75 - 125	3	20
Zinc	100	101		mg/Kg		101	75 - 125	1	20

Lab Sample ID: MB 350-5226/1-A

Matrix: Solid

Analysis Batch: 6294

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5226

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.20	0.060	mg/Kg		02/26/25 16:22	04/17/25 19:48	1

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 350-5226/1-A
Matrix: Solid
Analysis Batch: 6294

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5226

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.0788	J	20	0.040	mg/Kg		02/26/25 16:22	04/17/25 19:48	1
Cadmium	0.00808	J	0.020	0.0020	mg/Kg		02/26/25 16:22	04/17/25 19:48	1
Chromium	ND		0.20	0.20	mg/Kg		02/26/25 16:22	04/17/25 19:48	1
Copper	0.0593	J	0.10	0.012	mg/Kg		02/26/25 16:22	04/17/25 19:48	1
Iron	ND		20	4.0	mg/Kg		02/26/25 16:22	04/17/25 19:48	1
Manganese	0.0588	J	0.10	0.010	mg/Kg		02/26/25 16:22	04/17/25 19:48	1
Nickel	0.0402	J	0.40	0.016	mg/Kg		02/26/25 16:22	04/17/25 19:48	1
Lead	0.0373	J	0.080	0.0080	mg/Kg		02/26/25 16:22	04/17/25 19:48	1
Zinc	ND		2.0	1.0	mg/Kg		02/26/25 16:22	04/17/25 19:48	1

Lab Sample ID: MB 350-5226/2-A
Matrix: Solid
Analysis Batch: 6294

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5226

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.20	0.060	mg/Kg		02/26/25 16:22	04/17/25 19:51	1
Barium	0.0791	J	20	0.040	mg/Kg		02/26/25 16:22	04/17/25 19:51	1
Cadmium	ND		0.020	0.0020	mg/Kg		02/26/25 16:22	04/17/25 19:51	1
Chromium	ND		0.20	0.20	mg/Kg		02/26/25 16:22	04/17/25 19:51	1
Copper	0.0415	J	0.10	0.012	mg/Kg		02/26/25 16:22	04/17/25 19:51	1
Iron	5.16	J	20	4.0	mg/Kg		02/26/25 16:22	04/17/25 19:51	1
Manganese	0.120		0.10	0.010	mg/Kg		02/26/25 16:22	04/17/25 19:51	1
Nickel	0.188	J	0.40	0.016	mg/Kg		02/26/25 16:22	04/17/25 19:51	1
Lead	0.0127	J	0.080	0.0080	mg/Kg		02/26/25 16:22	04/17/25 19:51	1
Zinc	ND		2.0	1.0	mg/Kg		02/26/25 16:22	04/17/25 19:51	1

Lab Sample ID: LCS 350-5226/3-A
Matrix: Solid
Analysis Batch: 6294

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5226

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	96.0		mg/Kg		96	75 - 125
Barium	100	97.9	J	mg/Kg		98	75 - 125
Cadmium	20.0	18.8		mg/Kg		94	75 - 125
Chromium	100	99.2		mg/Kg		99	75 - 125
Copper	100	101		mg/Kg		101	75 - 125
Iron	2500	2340		mg/Kg		94	75 - 125
Manganese	100	93.6		mg/Kg		94	75 - 125
Nickel	100	95.6		mg/Kg		96	75 - 125
Lead	100	96.5		mg/Kg		96	75 - 125
Zinc	100	97.9		mg/Kg		98	75 - 125

Lab Sample ID: LCSD 350-5226/4-A
Matrix: Solid
Analysis Batch: 6294

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5226

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	100	90.1		mg/Kg		90	75 - 125	6	20
Barium	100	90.9	J	mg/Kg		91	75 - 125	7	20

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 350-5226/4-A
Matrix: Solid
Analysis Batch: 6294

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5226

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	20.0	17.7		mg/Kg		89	75 - 125	6	20
Chromium	100	95.9		mg/Kg		96	75 - 125	3	20
Copper	100	98.7		mg/Kg		99	75 - 125	2	20
Iron	2500	2230		mg/Kg		89	75 - 125	5	20
Manganese	100	92.7		mg/Kg		93	75 - 125	1	20
Nickel	100	93.4		mg/Kg		93	75 - 125	2	20
Lead	100	92.6		mg/Kg		93	75 - 125	4	20
Zinc	100	94.0		mg/Kg		94	75 - 125	4	20

Lab Sample ID: 350-1559-21 MS
Matrix: Solid
Analysis Batch: 6294

Client Sample ID: SRWB-3CP2-A
Prep Type: Total/NA
Prep Batch: 5226

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	5.7		193	186		mg/Kg	✱	93	75 - 125
Barium	670	F1 B	193	994	F1	mg/Kg	✱	170	75 - 125
Cadmium	0.087	B	38.6	35.8		mg/Kg	✱	92	75 - 125
Chromium	50		193	238		mg/Kg	✱	97	75 - 125
Copper	14	B	193	205		mg/Kg	✱	99	70 - 130
Iron	19000	B	4820	22800		mg/Kg	✱	85	75 - 125
Manganese	670	F1 B ^2	193	835		mg/Kg	✱	83	75 - 125
Nickel	27	B	193	212		mg/Kg	✱	96	75 - 125
Lead	22	B	193	208		mg/Kg	✱	96	75 - 125
Zinc	43		193	227		mg/Kg	✱	95	65 - 135

Lab Sample ID: 350-1559-21 MSD
Matrix: Solid
Analysis Batch: 6294

Client Sample ID: SRWB-3CP2-A
Prep Type: Total/NA
Prep Batch: 5226

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	5.7		193	191		mg/Kg	✱	96	75 - 125	3	20
Barium	670	F1 B	193	1130	F1	mg/Kg	✱	243	75 - 125	13	20
Cadmium	0.087	B	38.6	36.2		mg/Kg	✱	93	75 - 125	1	20
Chromium	50		193	242		mg/Kg	✱	99	75 - 125	1	20
Copper	14	B	193	206		mg/Kg	✱	100	70 - 130	0	20
Iron	19000	B	4830	23000		mg/Kg	✱	90	75 - 125	1	20
Manganese	670	F1 B ^2	193	814	F1	mg/Kg	✱	72	75 - 125	2	20
Nickel	27	B	193	214		mg/Kg	✱	97	75 - 125	1	20
Lead	22	B	193	211		mg/Kg	✱	98	75 - 125	1	20
Zinc	43		193	232		mg/Kg	✱	98	65 - 135	2	20

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-5184/1-A
Matrix: Water
Analysis Batch: 5238

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5184

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	0.63	ug/L		02/24/25 13:30	02/25/25 01:31	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:30	02/25/25 01:31	1

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-5184/1-A
Matrix: Water
Analysis Batch: 5238

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5184

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		1.0	0.11	ug/L		02/24/25 13:30	02/25/25 01:31	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:30	02/25/25 01:31	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:30	02/25/25 01:31	1
Nickel	ND		0.50	0.15	ug/L		02/24/25 13:30	02/25/25 01:31	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:30	02/25/25 01:31	1
Barium	ND		0.50	0.088	ug/L		02/24/25 13:30	02/25/25 01:31	1
Iron	ND		5.0	0.81	ug/L		02/24/25 13:30	02/25/25 01:31	1
Manganese	ND		0.050	0.030	ug/L		02/24/25 13:30	02/25/25 01:31	1

Lab Sample ID: MB 350-5184/2-A
Matrix: Water
Analysis Batch: 5238

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5184

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	0.63	ug/L		02/24/25 13:30	02/25/25 01:45	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:30	02/25/25 01:45	1
Chromium	ND		1.0	0.11	ug/L		02/24/25 13:30	02/25/25 01:45	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:30	02/25/25 01:45	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:30	02/25/25 01:45	1
Nickel	ND		0.50	0.15	ug/L		02/24/25 13:30	02/25/25 01:45	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:30	02/25/25 01:45	1
Barium	ND		0.50	0.088	ug/L		02/24/25 13:30	02/25/25 01:45	1
Iron	ND		5.0	0.81	ug/L		02/24/25 13:30	02/25/25 01:45	1
Manganese	ND		0.050	0.030	ug/L		02/24/25 13:30	02/25/25 01:45	1

Lab Sample ID: LCS 350-5184/3-A
Matrix: Water
Analysis Batch: 5238

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5184

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	12.5	11.3		ug/L		90	70 - 130
Cadmium	1.25	1.18		ug/L		94	70 - 130
Chromium	12.5	13.2		ug/L		105	70 - 130
Copper	12.5	13.3		ug/L		107	70 - 130
Lead	2.50	2.38		ug/L		95	70 - 130
Nickel	12.5	12.6		ug/L		101	70 - 130
Zinc	12.5	12.8		ug/L		102	70 - 130
Barium	12.5	12.5		ug/L		100	70 - 130
Iron	62.5	65.6		ug/L		105	70 - 130
Manganese	12.5	13.7		ug/L		110	70 - 130

Lab Sample ID: LCSD 350-5184/4-A
Matrix: Water
Analysis Batch: 5238

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5184

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	12.5	12.2		ug/L		98	70 - 130	8	20
Cadmium	1.25	1.22		ug/L		98	70 - 130	4	20
Chromium	12.5	13.2		ug/L		105	70 - 130	0	20

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCSD 350-5184/4-A

Matrix: Water

Analysis Batch: 5238

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5184

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Copper	12.5	13.9		ug/L		111	70 - 130	4	20
Lead	2.50	2.46		ug/L		98	70 - 130	3	20
Nickel	12.5	13.1		ug/L		105	70 - 130	3	20
Zinc	12.5	13.2		ug/L		106	70 - 130	3	20
Barium	12.5	12.4		ug/L		99	70 - 130	1	20
Iron	62.5	68.4		ug/L		110	70 - 130	4	20
Manganese	12.5	14.2		ug/L		113	70 - 130	3	20

Lab Sample ID: 350-1559-1 MS

Matrix: Water

Analysis Batch: 5238

Client Sample ID: SRWB-1CP2-SW-1

Prep Type: Total/NA

Prep Batch: 5184

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.9		12.5	19.8		ug/L		143	50 - 150		
Cadmium	ND		1.25	1.22		ug/L		98	50 - 150		
Chromium	0.71	J	12.5	11.8		ug/L		88	50 - 150		
Copper	ND		12.5	15.1		ug/L		120	50 - 150		
Lead	ND		2.50	2.22		ug/L		89	50 - 150		
Nickel	0.20	J	12.5	14.2		ug/L		112	50 - 150		
Zinc	ND		12.5	14.5		ug/L		116	50 - 150		
Barium	7.3		12.5	18.4		ug/L		89	50 - 150		
Iron	1.1	J	62.5	78.8		ug/L		124	50 - 150		
Manganese	0.59		12.5	15.9		ug/L		122	50 - 150		

Lab Sample ID: 350-1559-1 MSD

Matrix: Water

Analysis Batch: 5238

Client Sample ID: SRWB-1CP2-SW-1

Prep Type: Total/NA

Prep Batch: 5184

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.9		12.5	20.6		ug/L		149	50 - 150	4	20
Cadmium	ND		1.25	1.22		ug/L		97	50 - 150	1	20
Chromium	0.71	J	12.5	11.7		ug/L		88	50 - 150	1	20
Copper	ND		12.5	14.6		ug/L		117	50 - 150	3	20
Lead	ND		2.50	2.21		ug/L		88	50 - 150	1	20
Nickel	0.20	J	12.5	13.6		ug/L		107	50 - 150	4	20
Zinc	ND		12.5	14.1		ug/L		113	50 - 150	3	20
Barium	7.3		12.5	17.9		ug/L		85	50 - 150	3	20
Iron	1.1	J	62.5	76.2		ug/L		120	50 - 150	3	20
Manganese	0.59		12.5	15.4		ug/L		118	50 - 150	3	20

Lab Sample ID: 350-1559-2 MS

Matrix: Water

Analysis Batch: 5238

Client Sample ID: SRWB-1CP2-SW-20

Prep Type: Total/NA

Prep Batch: 5184

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	2.0	F1	12.5	20.0		ug/L		143	50 - 150		
Cadmium	ND		1.25	1.22		ug/L		98	50 - 150		
Chromium	0.79	J	12.5	11.6		ug/L		87	50 - 150		
Copper	0.43	J	12.5	15.0		ug/L		120	50 - 150		

Eurofins Seattle Specialty Metals

QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 350-1559-2 MS

Matrix: Water

Analysis Batch: 5238

Client Sample ID: SRWB-1CP2-SW-20

Prep Type: Total/NA

Prep Batch: 5184

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	ND		2.50	2.24		ug/L		90	50 - 150
Nickel	0.22	J	12.5	14.0		ug/L		110	50 - 150
Zinc	ND		12.5	14.5		ug/L		116	50 - 150
Barium	7.1		12.5	18.0		ug/L		87	50 - 150
Iron	0.98	J	62.5	76.2		ug/L		120	50 - 150
Manganese	0.54		12.5	15.4		ug/L		119	50 - 150

Lab Sample ID: 350-1559-2 MSD

Matrix: Water

Analysis Batch: 5238

Client Sample ID: SRWB-1CP2-SW-20

Prep Type: Total/NA

Prep Batch: 5184

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	2.0	F1	12.5	21.3	F1	ug/L		154	50 - 150	7	20
Cadmium	ND		1.25	1.22		ug/L		97	50 - 150	0	20
Chromium	0.79	J	12.5	12.1		ug/L		90	50 - 150	3	20
Copper	0.43	J	12.5	14.8		ug/L		119	50 - 150	2	20
Lead	ND		2.50	2.25		ug/L		90	50 - 150	0	20
Nickel	0.22	J	12.5	13.9		ug/L		109	50 - 150	1	20
Zinc	ND		12.5	14.1		ug/L		113	50 - 150	3	20
Barium	7.1		12.5	18.2		ug/L		89	50 - 150	1	20
Iron	0.98	J	62.5	75.2		ug/L		119	50 - 150	1	20
Manganese	0.54		12.5	15.5		ug/L		119	50 - 150	0	20

Lab Sample ID: MB 350-5188/1-A

Matrix: Water

Analysis Batch: 5238

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5188

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	0.63	ug/L		02/24/25 13:40	02/25/25 09:01	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:40	02/25/25 09:01	1
Chromium	ND		1.0	0.11	ug/L		02/24/25 13:40	02/25/25 09:01	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:40	02/25/25 09:01	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:40	02/25/25 09:01	1
Nickel	ND		0.50	0.15	ug/L		02/24/25 13:40	02/25/25 09:01	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:40	02/25/25 09:01	1
Barium	ND		0.50	0.088	ug/L		02/24/25 13:40	02/25/25 09:01	1
Iron	ND		5.0	0.81	ug/L		02/24/25 13:40	02/25/25 09:01	1
Manganese	ND		0.050	0.030	ug/L		02/24/25 13:40	02/25/25 09:01	1

Lab Sample ID: MB 350-5188/2-A

Matrix: Water

Analysis Batch: 5238

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5188

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	0.63	ug/L		02/24/25 13:40	02/25/25 09:15	1
Cadmium	ND		0.020	0.013	ug/L		02/24/25 13:40	02/25/25 09:15	1
Chromium	ND		1.0	0.11	ug/L		02/24/25 13:40	02/25/25 09:15	1
Copper	ND		0.50	0.43	ug/L		02/24/25 13:40	02/25/25 09:15	1
Lead	ND		0.050	0.023	ug/L		02/24/25 13:40	02/25/25 09:15	1

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-5188/2-A

Matrix: Water

Analysis Batch: 5238

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5188

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.50	0.15	ug/L		02/24/25 13:40	02/25/25 09:15	1
Zinc	ND		1.0	0.31	ug/L		02/24/25 13:40	02/25/25 09:15	1
Barium	ND		0.50	0.088	ug/L		02/24/25 13:40	02/25/25 09:15	1
Iron	ND		5.0	0.81	ug/L		02/24/25 13:40	02/25/25 09:15	1
Manganese	ND		0.050	0.030	ug/L		02/24/25 13:40	02/25/25 09:15	1

Lab Sample ID: LCS 350-5188/3-A

Matrix: Water

Analysis Batch: 5238

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5188

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	12.5	11.2		ug/L		90	70 - 130
Cadmium	1.25	1.21		ug/L		97	70 - 130
Chromium	12.5	13.8		ug/L		111	70 - 130
Copper	12.5	13.4		ug/L		107	70 - 130
Lead	2.50	2.43		ug/L		97	70 - 130
Nickel	12.5	12.8		ug/L		102	70 - 130
Zinc	12.5	13.3		ug/L		106	70 - 130
Barium	12.5	13.1		ug/L		105	70 - 130
Iron	62.5	68.6		ug/L		110	70 - 130
Manganese	12.5	14.1		ug/L		112	70 - 130

Lab Sample ID: LCSD 350-5188/4-A

Matrix: Water

Analysis Batch: 5238

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5188

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Arsenic	12.5	12.6		ug/L		101	70 - 130	11	20
Cadmium	1.25	1.24		ug/L		99	70 - 130	2	20
Chromium	12.5	13.4		ug/L		108	70 - 130	3	20
Copper	12.5	13.9		ug/L		111	70 - 130	4	20
Lead	2.50	2.48		ug/L		99	70 - 130	2	20
Nickel	12.5	13.0		ug/L		104	70 - 130	2	20
Zinc	12.5	13.7		ug/L		110	70 - 130	3	20
Barium	12.5	13.1		ug/L		105	70 - 130	0	20
Iron	62.5	71.6		ug/L		115	70 - 130	4	20
Manganese	12.5	14.1		ug/L		113	70 - 130	1	20

Lab Sample ID: MB 350-6089/1-A

Matrix: Water

Analysis Batch: 6254

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6089

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.050	0.030	ug/L		04/08/25 15:53	04/09/25 05:43	1

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-6089/2-A
Matrix: Water
Analysis Batch: 6254

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6089

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		0.050	0.030	ug/L		04/08/25 15:53	04/09/25 05:57	1

Lab Sample ID: LCS 350-6089/3-A
Matrix: Water
Analysis Batch: 6254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6089

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	12.5	9.90		ug/L		79	70 - 130

Lab Sample ID: LCSD 350-6089/4-A
Matrix: Water
Analysis Batch: 6254

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6089

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	12.5	9.81		ug/L		79	70 - 130	1	20

QC Association Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Metals

Prep Batch: 5184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-1	SRWB-1CP2-SW-1	Total/NA	Water	1640	
350-1559-2	SRWB-1CP2-SW-20	Total/NA	Water	1640	
350-1559-3	SRWB-1CP2-SW-40	Total/NA	Water	1640	
350-1559-4	SRWB-1CP2-SW-40-FD	Total/NA	Water	1640	
350-1559-5	SRWB-1CP2-SW-B	Total/NA	Water	1640	
350-1559-6	SRWB-3CP2-SW-1	Total/NA	Water	1640	
350-1559-7	SRWB-3CP2-SW-20	Total/NA	Water	1640	
350-1559-8	SRWB-3CP2-SW-40	Total/NA	Water	1640	
350-1559-9	SRWB-3CP2-SW-B	Total/NA	Water	1640	
MB 350-5184/1-A	Method Blank	Total/NA	Water	1640	
MB 350-5184/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-5184/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-5184/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1559-1 MS	SRWB-1CP2-SW-1	Total/NA	Water	1640	
350-1559-1 MSD	SRWB-1CP2-SW-1	Total/NA	Water	1640	
350-1559-2 MS	SRWB-1CP2-SW-20	Total/NA	Water	1640	
350-1559-2 MSD	SRWB-1CP2-SW-20	Total/NA	Water	1640	

Prep Batch: 5188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-146	SRWB-WB	Total/NA	Water	1640	
350-1559-147	SRWB-EQ	Total/NA	Water	1640	
MB 350-5188/1-A	Method Blank	Total/NA	Water	1640	
MB 350-5188/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-5188/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-5188/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Prep Batch: 5206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-10	SRWA-1B2X-A	Total/NA	Solid	HF Bomb Prep	
350-1559-11	SRWA-2B2X-A	Total/NA	Solid	HF Bomb Prep	
350-1559-12	SRWA-2B2X-A-FD	Total/NA	Solid	HF Bomb Prep	
350-1559-13	SRWA-3B2X-A	Total/NA	Solid	HF Bomb Prep	
350-1559-14	SRWA-4B2X-A	Total/NA	Solid	HF Bomb Prep	
MB 350-5206/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-5206/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5206/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCSD 350-5206/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 5226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-15	SRWB-1B2-A	Total/NA	Solid	HF Bomb Prep	
350-1559-16	SRWB-1CP2-A	Total/NA	Solid	HF Bomb Prep	
350-1559-17	SRWB-1D2-A	Total/NA	Solid	HF Bomb Prep	
350-1559-18	SRWB-2B2X-A	Total/NA	Solid	HF Bomb Prep	
350-1559-19	SRWB-2B2X-A-FD	Total/NA	Solid	HF Bomb Prep	
350-1559-20	SRWB-3B2-A	Total/NA	Solid	HF Bomb Prep	
350-1559-21	SRWB-3CP2-A	Total/NA	Solid	HF Bomb Prep	
350-1559-22	SRWB-3D2-A	Total/NA	Solid	HF Bomb Prep	
350-1559-23	SRWB-4B2-A	Total/NA	Solid	HF Bomb Prep	
MB 350-5226/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	

Eurofins Seattle Specialty Metals

QC Association Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Metals (Continued)

Prep Batch: 5226 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-5226/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5226/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCSD 350-5226/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	
350-1559-21 MS	SRWB-3CP2-A	Total/NA	Solid	HF Bomb Prep	
350-1559-21 MSD	SRWB-3CP2-A	Total/NA	Solid	HF Bomb Prep	

Analysis Batch: 5238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-1	SRWB-1CP2-SW-1	Total/NA	Water	1640	5184
350-1559-2	SRWB-1CP2-SW-20	Total/NA	Water	1640	5184
350-1559-3	SRWB-1CP2-SW-40	Total/NA	Water	1640	5184
350-1559-4	SRWB-1CP2-SW-40-FD	Total/NA	Water	1640	5184
350-1559-5	SRWB-1CP2-SW-B	Total/NA	Water	1640	5184
350-1559-6	SRWB-3CP2-SW-1	Total/NA	Water	1640	5184
350-1559-7	SRWB-3CP2-SW-20	Total/NA	Water	1640	5184
350-1559-8	SRWB-3CP2-SW-40	Total/NA	Water	1640	5184
350-1559-9	SRWB-3CP2-SW-B	Total/NA	Water	1640	5184
350-1559-146	SRWB-WB	Total/NA	Water	1640	5188
350-1559-147	SRWB-EQ	Total/NA	Water	1640	5188
MB 350-5184/1-A	Method Blank	Total/NA	Water	1640	5184
MB 350-5184/2-A	Method Blank	Total/NA	Water	1640	5184
MB 350-5188/1-A	Method Blank	Total/NA	Water	1640	5188
MB 350-5188/2-A	Method Blank	Total/NA	Water	1640	5188
LCS 350-5184/3-A	Lab Control Sample	Total/NA	Water	1640	5184
LCS 350-5188/3-A	Lab Control Sample	Total/NA	Water	1640	5188
LCSD 350-5184/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5184
LCSD 350-5188/4-A	Lab Control Sample Dup	Total/NA	Water	1640	5188
350-1559-1 MS	SRWB-1CP2-SW-1	Total/NA	Water	1640	5184
350-1559-1 MSD	SRWB-1CP2-SW-1	Total/NA	Water	1640	5184
350-1559-2 MS	SRWB-1CP2-SW-20	Total/NA	Water	1640	5184
350-1559-2 MSD	SRWB-1CP2-SW-20	Total/NA	Water	1640	5184

Prep Batch: 5298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-10	SRWA-1B2X-A	Total/NA	Solid	1631B CAR Prep	
350-1559-11	SRWA-2B2X-A	Total/NA	Solid	1631B CAR Prep	
350-1559-12	SRWA-2B2X-A-FD	Total/NA	Solid	1631B CAR Prep	
350-1559-13	SRWA-3B2X-A	Total/NA	Solid	1631B CAR Prep	
350-1559-14	SRWA-4B2X-A	Total/NA	Solid	1631B CAR Prep	
350-1559-15	SRWB-1B2-A	Total/NA	Solid	1631B CAR Prep	
350-1559-16	SRWB-1CP2-A	Total/NA	Solid	1631B CAR Prep	
350-1559-17	SRWB-1D2-A	Total/NA	Solid	1631B CAR Prep	
350-1559-18	SRWB-2B2X-A	Total/NA	Solid	1631B CAR Prep	
350-1559-19	SRWB-2B2X-A-FD	Total/NA	Solid	1631B CAR Prep	

Eurofins Seattle Specialty Metals

QC Association Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Metals (Continued)

Prep Batch: 5298 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-20	SRWB-3B2-A	Total/NA	Solid	1631B CAR	
350-1559-21	SRWB-3CP2-A	Total/NA	Solid	1631B CAR	
350-1559-22	SRWB-3D2-A	Total/NA	Solid	1631B CAR	
350-1559-23	SRWB-4B2-A	Total/NA	Solid	1631B CAR	
MB 350-5298/1-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5298/2-A	Method Blank	Total/NA	Solid	1631B CAR	
MB 350-5298/3-A	Method Blank	Total/NA	Solid	1631B CAR	
LCS 350-5298/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR	
LCSD 350-5298/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR	
350-1559-10 MS	SRWA-1B2X-A	Total/NA	Solid	1631B CAR	
350-1559-10 MSD	SRWA-1B2X-A	Total/NA	Solid	1631B CAR	
350-1559-17 MS	SRWB-1D2-A	Total/NA	Solid	1631B CAR	
350-1559-17 MSD	SRWB-1D2-A	Total/NA	Solid	1631B CAR	

Analysis Batch: 5338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-10	SRWA-1B2X-A	Total/NA	Solid	1638	5206
350-1559-11	SRWA-2B2X-A	Total/NA	Solid	1638	5206
350-1559-12	SRWA-2B2X-A-FD	Total/NA	Solid	1638	5206
350-1559-13	SRWA-3B2X-A	Total/NA	Solid	1638	5206
350-1559-14	SRWA-4B2X-A	Total/NA	Solid	1638	5206
MB 350-5206/1-A	Method Blank	Total/NA	Solid	1638	5206
MB 350-5206/2-A	Method Blank	Total/NA	Solid	1638	5206
LCS 350-5206/3-A	Lab Control Sample	Total/NA	Solid	1638	5206
LCSD 350-5206/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5206

Analysis Batch: 5384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-1	SRWB-1CP2-SW-1	Total/NA	Water	1631E	
350-1559-7	SRWB-3CP2-SW-20	Total/NA	Water	1631E	
350-1559-8	SRWB-3CP2-SW-40	Total/NA	Water	1631E	
MB 350-5384/17	Method Blank	Total/NA	Water	1631E	
MB 350-5384/18	Method Blank	Total/NA	Water	1631E	
MB 350-5384/19	Method Blank	Total/NA	Water	1631E	
LCS 350-5384/28	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-5384/29	Lab Control Sample Dup	Total/NA	Water	1631E	
350-1559-1 MS	SRWB-1CP2-SW-1	Total/NA	Water	1631E	
350-1559-1 MSD	SRWB-1CP2-SW-1	Total/NA	Water	1631E	
350-1559-8 MS	SRWB-3CP2-SW-40	Total/NA	Water	1631E	
350-1559-8 MSD	SRWB-3CP2-SW-40	Total/NA	Water	1631E	

QC Association Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Metals

Analysis Batch: 5476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-2	SRWB-1CP2-SW-20	Total/NA	Water	1631E	
350-1559-3	SRWB-1CP2-SW-40	Total/NA	Water	1631E	
350-1559-4	SRWB-1CP2-SW-40-FD	Total/NA	Water	1631E	
350-1559-5	SRWB-1CP2-SW-B	Total/NA	Water	1631E	
350-1559-6	SRWB-3CP2-SW-1	Total/NA	Water	1631E	
350-1559-9	SRWB-3CP2-SW-B	Total/NA	Water	1631E	
MB 350-5476/31	Method Blank	Total/NA	Water	1631E	
MB 350-5476/34	Method Blank	Total/NA	Water	1631E	
MB 350-5476/35	Method Blank	Total/NA	Water	1631E	
LCS 350-5476/42	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-5476/43	Lab Control Sample Dup	Total/NA	Water	1631E	

Analysis Batch: 5615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-146	SRWB-WB	Total/NA	Water	1631E	
350-1559-147	SRWB-EQ	Total/NA	Water	1631E	
MB 350-5615/20	Method Blank	Total/NA	Water	1631E	
MB 350-5615/23	Method Blank	Total/NA	Water	1631E	
MB 350-5615/24	Method Blank	Total/NA	Water	1631E	
LCS 350-5615/30	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-5615/31	Lab Control Sample Dup	Total/NA	Water	1631E	

Analysis Batch: 5683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-10	SRWA-1B2X-A	Total/NA	Solid	1631B	5298
350-1559-11	SRWA-2B2X-A	Total/NA	Solid	1631B	5298
350-1559-12	SRWA-2B2X-A-FD	Total/NA	Solid	1631B	5298
350-1559-13	SRWA-3B2X-A	Total/NA	Solid	1631B	5298
350-1559-14	SRWA-4B2X-A	Total/NA	Solid	1631B	5298
350-1559-15	SRWB-1B2-A	Total/NA	Solid	1631B	5298
350-1559-16	SRWB-1CP2-A	Total/NA	Solid	1631B	5298
350-1559-17	SRWB-1D2-A	Total/NA	Solid	1631B	5298
350-1559-18	SRWB-2B2X-A	Total/NA	Solid	1631B	5298
350-1559-19	SRWB-2B2X-A-FD	Total/NA	Solid	1631B	5298
350-1559-20	SRWB-3B2-A	Total/NA	Solid	1631B	5298
350-1559-21	SRWB-3CP2-A	Total/NA	Solid	1631B	5298
350-1559-22	SRWB-3D2-A	Total/NA	Solid	1631B	5298
350-1559-23	SRWB-4B2-A	Total/NA	Solid	1631B	5298
MB 350-5298/1-A	Method Blank	Total/NA	Solid	1631B	5298
MB 350-5298/2-A	Method Blank	Total/NA	Solid	1631B	5298
MB 350-5298/3-A	Method Blank	Total/NA	Solid	1631B	5298
LCS 350-5298/4-A	Lab Control Sample	Total/NA	Solid	1631B	5298
LCSD 350-5298/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5298
350-1559-10 MS	SRWA-1B2X-A	Total/NA	Solid	1631B	5298
350-1559-10 MSD	SRWA-1B2X-A	Total/NA	Solid	1631B	5298
350-1559-17 MS	SRWB-1D2-A	Total/NA	Solid	1631B	5298
350-1559-17 MSD	SRWB-1D2-A	Total/NA	Solid	1631B	5298

Prep Batch: 6089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-146	SRWB-WB	Total/NA	Water	1640	

Eurofins Seattle Specialty Metals

QC Association Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Metals (Continued)

Prep Batch: 6089 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-147	SRWB-EQ	Total/NA	Water	1640	
MB 350-6089/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6089/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6089/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-6089/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Analysis Batch: 6254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-146	SRWB-WB	Total/NA	Water	1640	6089
350-1559-147	SRWB-EQ	Total/NA	Water	1640	6089
MB 350-6089/1-A	Method Blank	Total/NA	Water	1640	6089
MB 350-6089/2-A	Method Blank	Total/NA	Water	1640	6089
LCS 350-6089/3-A	Lab Control Sample	Total/NA	Water	1640	6089
LCSD 350-6089/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6089

Analysis Batch: 6294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-15	SRWB-1B2-A	Total/NA	Solid	1638	5226
350-1559-16	SRWB-1CP2-A	Total/NA	Solid	1638	5226
350-1559-17	SRWB-1D2-A	Total/NA	Solid	1638	5226
350-1559-18	SRWB-2B2X-A	Total/NA	Solid	1638	5226
350-1559-19	SRWB-2B2X-A-FD	Total/NA	Solid	1638	5226
350-1559-20	SRWB-3B2-A	Total/NA	Solid	1638	5226
350-1559-21	SRWB-3CP2-A	Total/NA	Solid	1638	5226
350-1559-22	SRWB-3D2-A	Total/NA	Solid	1638	5226
350-1559-23	SRWB-4B2-A	Total/NA	Solid	1638	5226
MB 350-5226/1-A	Method Blank	Total/NA	Solid	1638	5226
MB 350-5226/2-A	Method Blank	Total/NA	Solid	1638	5226
LCS 350-5226/3-A	Lab Control Sample	Total/NA	Solid	1638	5226
LCSD 350-5226/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5226
350-1559-21 MS	SRWB-3CP2-A	Total/NA	Solid	1638	5226
350-1559-21 MSD	SRWB-3CP2-A	Total/NA	Solid	1638	5226

Analysis Batch: 6354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-10	SRWA-1B2X-A	Total/NA	Solid	1638	5206
350-1559-11	SRWA-2B2X-A	Total/NA	Solid	1638	5206
350-1559-12	SRWA-2B2X-A-FD	Total/NA	Solid	1638	5206
350-1559-13	SRWA-3B2X-A	Total/NA	Solid	1638	5206
350-1559-14	SRWA-4B2X-A	Total/NA	Solid	1638	5206
MB 350-5206/1-A	Method Blank	Total/NA	Solid	1638	5206
MB 350-5206/2-A	Method Blank	Total/NA	Solid	1638	5206
LCS 350-5206/3-A	Lab Control Sample	Total/NA	Solid	1638	5206
LCSD 350-5206/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5206

Analysis Batch: 6355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-22	SRWB-3D2-A	Total/NA	Solid	1638	5226

QC Association Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

General Chemistry

Analysis Batch: 5308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1559-10	SRWA-1B2X-A	Total/NA	Solid	Moisture - 2540	
350-1559-11	SRWA-2B2X-A	Total/NA	Solid	Moisture - 2540	
350-1559-12	SRWA-2B2X-A-FD	Total/NA	Solid	Moisture - 2540	
350-1559-13	SRWA-3B2X-A	Total/NA	Solid	Moisture - 2540	
350-1559-14	SRWA-4B2X-A	Total/NA	Solid	Moisture - 2540	
350-1559-15	SRWB-1B2-A	Total/NA	Solid	Moisture - 2540	
350-1559-16	SRWB-1CP2-A	Total/NA	Solid	Moisture - 2540	
350-1559-17	SRWB-1D2-A	Total/NA	Solid	Moisture - 2540	
350-1559-18	SRWB-2B2X-A	Total/NA	Solid	Moisture - 2540	
350-1559-19	SRWB-2B2X-A-FD	Total/NA	Solid	Moisture - 2540	
350-1559-20	SRWB-3B2-A	Total/NA	Solid	Moisture - 2540	
350-1559-21	SRWB-3CP2-A	Total/NA	Solid	Moisture - 2540	
350-1559-22	SRWB-3D2-A	Total/NA	Solid	Moisture - 2540	
350-1559-23	SRWB-4B2-A	Total/NA	Solid	Moisture - 2540	
350-1559-10 DU	SRWA-1B2X-A	Total/NA	Solid	Moisture - 2540	

Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-1CP2-SW-1

Lab Sample ID: 350-1559-1

Date Collected: 02/09/25 01:06

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	5384	AJD	EET SSM	03/04/25 14:51
Total/NA	Prep	1640			5184	COW	EET SSM	02/24/25 13:30
Total/NA	Analysis	1640		1	5238	COW	EET SSM	02/25/25 04:48

Client Sample ID: SRWB-1CP2-SW-20

Lab Sample ID: 350-1559-2

Date Collected: 02/09/25 01:12

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	5476	AJD	EET SSM	03/10/25 21:20
Total/NA	Prep	1640			5184	COW	EET SSM	02/24/25 13:30
Total/NA	Analysis	1640		1	5238	COW	EET SSM	02/25/25 05:58

Client Sample ID: SRWB-1CP2-SW-40

Lab Sample ID: 350-1559-3

Date Collected: 02/09/25 01:20

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	5476	AJD	EET SSM	03/10/25 21:24
Total/NA	Prep	1640			5184	COW	EET SSM	02/24/25 13:30
Total/NA	Analysis	1640		1	5238	COW	EET SSM	02/25/25 13:00

Client Sample ID: SRWB-1CP2-SW-40-FD

Lab Sample ID: 350-1559-4

Date Collected: 02/09/25 01:30

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	5476	AJD	EET SSM	03/10/25 21:28
Total/NA	Prep	1640			5184	COW	EET SSM	02/24/25 13:30
Total/NA	Analysis	1640		1	5238	COW	EET SSM	02/25/25 13:14

Client Sample ID: SRWB-1CP2-SW-B

Lab Sample ID: 350-1559-5

Date Collected: 02/09/25 01:41

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	5476	AJD	EET SSM	03/10/25 21:32
Total/NA	Prep	1640			5184	COW	EET SSM	02/24/25 13:30
Total/NA	Analysis	1640		1	5238	COW	EET SSM	02/25/25 13:57

Client Sample ID: SRWB-3CP2-SW-1

Lab Sample ID: 350-1559-6

Date Collected: 02/09/25 02:40

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	5476	AJD	EET SSM	03/10/25 21:36

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Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-3CP2-SW-1

Lab Sample ID: 350-1559-6

Date Collected: 02/09/25 02:40

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1640			5184	COW	EET SSM	02/24/25 13:30
Total/NA	Analysis	1640		1	5238	COW	EET SSM	02/25/25 14:11

Client Sample ID: SRWB-3CP2-SW-20

Lab Sample ID: 350-1559-7

Date Collected: 02/09/25 02:46

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	5384	AJD	EET SSM	03/04/25 15:07
Total/NA	Prep	1640			5184	COW	EET SSM	02/24/25 13:30
Total/NA	Analysis	1640		1	5238	COW	EET SSM	02/25/25 14:25

Client Sample ID: SRWB-3CP2-SW-40

Lab Sample ID: 350-1559-8

Date Collected: 02/09/25 02:54

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	5384	AJD	EET SSM	03/04/25 14:55
Total/NA	Prep	1640			5184	COW	EET SSM	02/24/25 13:30
Total/NA	Analysis	1640		1	5238	COW	EET SSM	02/25/25 14:39

Client Sample ID: SRWB-3CP2-SW-B

Lab Sample ID: 350-1559-9

Date Collected: 02/09/25 03:06

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	5476	AJD	EET SSM	03/10/25 21:40
Total/NA	Prep	1640			5184	COW	EET SSM	02/24/25 13:30
Total/NA	Analysis	1640		1	5238	COW	EET SSM	02/25/25 14:53

Client Sample ID: SRWA-1B2X-A

Lab Sample ID: 350-1559-10

Date Collected: 02/08/25 19:36

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Client Sample ID: SRWA-1B2X-A

Lab Sample ID: 350-1559-10

Date Collected: 02/08/25 19:36

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 58.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		50	5683	COW	EET SSM	03/19/25 10:28
Total/NA	Prep	HF Bomb Prep			5206		EET SSM	02/25/25 18:24
Total/NA	Analysis	1638		1	5338	V1R	EET SSM	03/03/25 15:48

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Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWA-1B2X-A

Lab Sample ID: 350-1559-10

Date Collected: 02/08/25 19:36

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 58.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	HF Bomb Prep			5206		EET SSM	02/25/25 18:24
Total/NA	Analysis	1638		1	6354	V1R	EET SSM	03/03/25 15:48

Client Sample ID: SRWA-2B2X-A

Lab Sample ID: 350-1559-11

Date Collected: 02/08/25 20:18

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Client Sample ID: SRWA-2B2X-A

Lab Sample ID: 350-1559-11

Date Collected: 02/08/25 20:18

Matrix: Solid

Date Received: 02/19/25 15:15

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			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		20	5683	COW	EET SSM	03/19/25 15:49
Total/NA	Prep	HF Bomb Prep			5206		EET SSM	02/25/25 18:24
Total/NA	Analysis	1638		1	5338	V1R	EET SSM	03/03/25 15:50
Total/NA	Prep	HF Bomb Prep			5206		EET SSM	02/25/25 18:24
Total/NA	Analysis	1638		1	6354	V1R	EET SSM	03/03/25 15:50

Client Sample ID: SRWA-2B2X-A-FD

Lab Sample ID: 350-1559-12

Date Collected: 02/08/25 20:25

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Client Sample ID: SRWA-2B2X-A-FD

Lab Sample ID: 350-1559-12

Date Collected: 02/08/25 20:25

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 54.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		20	5683	COW	EET SSM	03/19/25 15:53
Total/NA	Prep	HF Bomb Prep			5206		EET SSM	02/25/25 18:24
Total/NA	Analysis	1638		1	5338	V1R	EET SSM	03/03/25 15:52
Total/NA	Prep	HF Bomb Prep			5206		EET SSM	02/25/25 18:24
Total/NA	Analysis	1638		1	6354	V1R	EET SSM	03/03/25 15:52

Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWA-3B2X-A

Lab Sample ID: 350-1559-13

Date Collected: 02/08/25 20:50

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Client Sample ID: SRWA-3B2X-A

Lab Sample ID: 350-1559-13

Date Collected: 02/08/25 20:50

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 55.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		20	5683	COW	EET SSM	03/19/25 15:57
Total/NA	Prep	HF Bomb Prep			5206		EET SSM	02/25/25 18:24
Total/NA	Analysis	1638		1	5338	V1R	EET SSM	03/03/25 15:54
Total/NA	Prep	HF Bomb Prep			5206		EET SSM	02/25/25 18:24
Total/NA	Analysis	1638		1	6354	V1R	EET SSM	03/03/25 15:54

Client Sample ID: SRWA-4B2X-A

Lab Sample ID: 350-1559-14

Date Collected: 02/08/25 21:21

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Client Sample ID: SRWA-4B2X-A

Lab Sample ID: 350-1559-14

Date Collected: 02/08/25 21:21

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 53.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		20	5683	COW	EET SSM	03/19/25 16:01
Total/NA	Prep	HF Bomb Prep			5206		EET SSM	02/25/25 18:24
Total/NA	Analysis	1638		1	5338	V1R	EET SSM	03/03/25 15:56
Total/NA	Prep	HF Bomb Prep			5206		EET SSM	02/25/25 18:24
Total/NA	Analysis	1638		1	6354	V1R	EET SSM	03/03/25 15:56

Client Sample ID: SRWB-1B2-A

Lab Sample ID: 350-1559-15

Date Collected: 02/09/25 17:30

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-1B2-A

Lab Sample ID: 350-1559-15

Date Collected: 02/09/25 17:30

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 53.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		50	5683	COW	EET SSM	03/19/25 11:26
Total/NA	Prep	HF Bomb Prep			5226		EET SSM	02/26/25 16:22
Total/NA	Analysis	1638		1	6294	COW	EET SSM	04/17/25 21:46

Client Sample ID: SRWB-1CP2-A

Lab Sample ID: 350-1559-16

Date Collected: 02/09/25 16:56

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Client Sample ID: SRWB-1CP2-A

Lab Sample ID: 350-1559-16

Date Collected: 02/09/25 16:56

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 50.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		20	5683	COW	EET SSM	03/19/25 16:22
Total/NA	Prep	HF Bomb Prep			5226		EET SSM	02/26/25 16:22
Total/NA	Analysis	1638		1	6294	COW	EET SSM	04/17/25 21:49

Client Sample ID: SRWB-1D2-A

Lab Sample ID: 350-1559-17

Date Collected: 02/09/25 16:08

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Client Sample ID: SRWB-1D2-A

Lab Sample ID: 350-1559-17

Date Collected: 02/09/25 16:08

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 49.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		50	5683	COW	EET SSM	03/19/25 10:48
Total/NA	Prep	HF Bomb Prep			5226		EET SSM	02/26/25 16:22
Total/NA	Analysis	1638		1	6294	COW	EET SSM	04/17/25 21:51

Client Sample ID: SRWB-2B2X-A

Lab Sample ID: 350-1559-18

Date Collected: 02/09/25 18:03

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

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Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-2B2X-A

Lab Sample ID: 350-1559-18

Date Collected: 02/09/25 18:03

Matrix: Solid

Date Received: 02/19/25 15:15

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			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		20	5683	COW	EET SSM	03/19/25 16:26
Total/NA	Prep	HF Bomb Prep			5226		EET SSM	02/26/25 16:22
Total/NA	Analysis	1638		1	6294	COW	EET SSM	04/17/25 21:54

Client Sample ID: SRWB-2B2X-A-FD

Lab Sample ID: 350-1559-19

Date Collected: 02/09/25 18:11

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Client Sample ID: SRWB-2B2X-A-FD

Lab Sample ID: 350-1559-19

Date Collected: 02/09/25 18:11

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 44.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		50	5683	COW	EET SSM	03/19/25 11:38
Total/NA	Prep	HF Bomb Prep			5226		EET SSM	02/26/25 16:22
Total/NA	Analysis	1638		1	6294	COW	EET SSM	04/17/25 21:56

Client Sample ID: SRWB-3B2-A

Lab Sample ID: 350-1559-20

Date Collected: 02/09/25 06:33

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Client Sample ID: SRWB-3B2-A

Lab Sample ID: 350-1559-20

Date Collected: 02/09/25 06:33

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 60.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		200	5683	COW	EET SSM	03/19/25 16:30
Total/NA	Prep	HF Bomb Prep			5226		EET SSM	02/26/25 16:22
Total/NA	Analysis	1638		1	6294	COW	EET SSM	04/17/25 21:59

Client Sample ID: SRWB-3CP2-A

Lab Sample ID: 350-1559-21

Date Collected: 02/09/25 04:15

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Eurofins Seattle Specialty Metals

Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-3CP2-A

Lab Sample ID: 350-1559-21

Date Collected: 02/09/25 04:15

Matrix: Solid

Date Received: 02/19/25 15:15

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			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		20	5683	COW	EET SSM	03/19/25 16:34
Total/NA	Prep	HF Bomb Prep			5226		EET SSM	02/26/25 16:22
Total/NA	Analysis	1638		1	6294	COW	EET SSM	04/17/25 21:25

Client Sample ID: SRWB-3D2-A

Lab Sample ID: 350-1559-22

Date Collected: 02/09/25 05:20

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Client Sample ID: SRWB-3D2-A

Lab Sample ID: 350-1559-22

Date Collected: 02/09/25 05:20

Matrix: Solid

Date Received: 02/19/25 15:15

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			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		20	5683	COW	EET SSM	03/19/25 16:38
Total/NA	Prep	HF Bomb Prep			5226		EET SSM	02/26/25 16:22
Total/NA	Analysis	1638		1	6294	COW	EET SSM	04/17/25 22:02
Total/NA	Prep	HF Bomb Prep			5226		EET SSM	02/26/25 16:22
Total/NA	Analysis	1638		10	6355	COW	EET SSM	04/21/25 19:07

Client Sample ID: SRWB-4B2-A

Lab Sample ID: 350-1559-23

Date Collected: 02/09/25 05:47

Matrix: Solid

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture - 2540		1	5308	D1C	EET SSM	03/03/25 16:34

Client Sample ID: SRWB-4B2-A

Lab Sample ID: 350-1559-23

Date Collected: 02/09/25 05:47

Matrix: Solid

Date Received: 02/19/25 15:15

Percent Solids: 52.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5298		EET SSM	03/03/25 17:34
Total/NA	Analysis	1631B		20	5683	COW	EET SSM	03/19/25 16:42
Total/NA	Prep	HF Bomb Prep			5226		EET SSM	02/26/25 16:22
Total/NA	Analysis	1638		1	6294	COW	EET SSM	04/17/25 22:04

Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

Client Sample ID: SRWB-WB

Lab Sample ID: 350-1559-146

Date Collected: 02/09/25 12:35

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	5615	AJD	EET SSM	03/17/25 22:52
Total/NA	Prep	1640			5188	COW	EET SSM	02/24/25 13:40
Total/NA	Analysis	1640		1	5238	COW	EET SSM	02/26/25 01:55
Total/NA	Prep	1640			6089	COW	EET SSM	04/08/25 15:53
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/09/25 12:04

Client Sample ID: SRWB-EQ

Lab Sample ID: 350-1559-147

Date Collected: 02/09/25 12:40

Matrix: Water

Date Received: 02/19/25 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	1631E		1	5615	AJD	EET SSM	03/17/25 22:56
Total/NA	Prep	1640			5188	COW	EET SSM	02/24/25 13:40
Total/NA	Analysis	1640		1	5238	COW	EET SSM	02/26/25 02:09
Total/NA	Prep	1640			6089	COW	EET SSM	04/08/25 15:53
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/09/25 12:19

Laboratory References:

EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

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	07-07-25
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	01-04-26
Washington	State	C788-23a	07-13-25
Wisconsin	State	399133460	07-31-25

Method Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1559-1

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 (ICPMS)	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: 350-1559-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1559-1	SRWB-1CP2-SW-1	Water	02/09/25 01:06	02/19/25 15:15
350-1559-2	SRWB-1CP2-SW-20	Water	02/09/25 01:12	02/19/25 15:15
350-1559-3	SRWB-1CP2-SW-40	Water	02/09/25 01:20	02/19/25 15:15
350-1559-4	SRWB-1CP2-SW-40-FD	Water	02/09/25 01:30	02/19/25 15:15
350-1559-5	SRWB-1CP2-SW-B	Water	02/09/25 01:41	02/19/25 15:15
350-1559-6	SRWB-3CP2-SW-1	Water	02/09/25 02:40	02/19/25 15:15
350-1559-7	SRWB-3CP2-SW-20	Water	02/09/25 02:46	02/19/25 15:15
350-1559-8	SRWB-3CP2-SW-40	Water	02/09/25 02:54	02/19/25 15:15
350-1559-9	SRWB-3CP2-SW-B	Water	02/09/25 03:06	02/19/25 15:15
350-1559-10	SRWA-1B2X-A	Solid	02/08/25 19:36	02/19/25 15:15
350-1559-11	SRWA-2B2X-A	Solid	02/08/25 20:18	02/19/25 15:15
350-1559-12	SRWA-2B2X-A-FD	Solid	02/08/25 20:25	02/19/25 15:15
350-1559-13	SRWA-3B2X-A	Solid	02/08/25 20:50	02/19/25 15:15
350-1559-14	SRWA-4B2X-A	Solid	02/08/25 21:21	02/19/25 15:15
350-1559-15	SRWB-1B2-A	Solid	02/09/25 17:30	02/19/25 15:15
350-1559-16	SRWB-1CP2-A	Solid	02/09/25 16:56	02/19/25 15:15
350-1559-17	SRWB-1D2-A	Solid	02/09/25 16:08	02/19/25 15:15
350-1559-18	SRWB-2B2X-A	Solid	02/09/25 18:03	02/19/25 15:15
350-1559-19	SRWB-2B2X-A-FD	Solid	02/09/25 18:11	02/19/25 15:15
350-1559-20	SRWB-3B2-A	Solid	02/09/25 06:33	02/19/25 15:15
350-1559-21	SRWB-3CP2-A	Solid	02/09/25 04:15	02/19/25 15:15
350-1559-22	SRWB-3D2-A	Solid	02/09/25 05:20	02/19/25 15:15
350-1559-23	SRWB-4B2-A	Solid	02/09/25 05:47	02/19/25 15:15
350-1559-146	SRWB-WB	Water	02/09/25 12:35	02/19/25 15:15
350-1559-147	SRWB-EQ	Water	02/09/25 12:40	02/19/25 15:15



Date:	2/21/2025
End Time:	15:10
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

* MP-MG25 used for all $< 5\text{mL}$ pres. additions

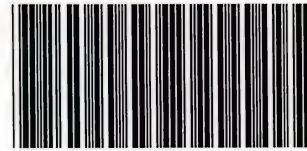
Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1559-B-1	A	Y	4.6/2	
350-1559-B-2	A	Y	4.5/2	
350-1559-B-3	A	Y	4.6/2	
350-1559-B-4	A	Y	4.5/2	
350-1559-B-5	A	Y	5/2	
350-1559-B-6	A	Y	4.6/2	
350-1559-B-7	A	Y	5/2	
350-1559-B-8	A	Y	4.5/2	
350-1559-B-9	A	Y	4.5/2	
350-1559-B-24	A	Y	3.6/2	
350-1559-B-25	A	Y	5/2	
350-1559-B-26	A	Y	5/2	
350-1559-B-27	A	Y	5/2	
350-1559-B-28	A	Y	4.6/2	
350-1559-B-29	A	Y	5/2	
350-1559-B-30	A	Y	4.5/2	
350-1559-B-31	A	Y	5/2	
350-1559-B-32	A	Y	5/2	
350-1559-B-33	A	Y	5/2	
350-1559-B-34	A	Y	3/2	
350-1559-B-35	A	Y	5/2	
350-1559-B-36	A	Y	4.5/2	
350-1559-B-37	A	Y	5/2	
350-1559-B-38	A	Y	5/2	
350-1559-B-39	A	Y	5/2	
350-1559-B-40	A	Y	5/2	
350-1559-B-41	A	Y	5/2	
350-1559-B-42	A	Y	5/2	
350-1559-B-43	A	Y	5/2	
350-1559-B-44	A	Y	5/2	
350-1559-B-45	A	Y	5/2	
350-1559-B-46	A	Y	5/2	
350-1559-B-47	A	Y	4.5/2	
350-1559-B-48	A	Y	4.5/2	
350-1559-B-49	A	Y	4.5/2	

Date:	2/21/2025
End Time:	15:18
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1559-B-48				
350-1559-B-49			55 2/21/65	
350-1559-B-50	A	Y	4.6/2	
350-1559-B-117	A	Y	5/2	
350-1559-B-118	A	Y	5/2	
350-1559-B-119	A	Y	5/2	
350-1559-B-120	A	Y	4.6/2	
350-1559-B-121	A	Y	5/2	
350-1559-B-122	A	Y	5/2	
350-1559-B-123	A	Y	5/2	
350-1559-B-124	A	Y	5/2	
350-1559-B-125	A	Y	5/2	
350-1559-B-126	A	Y	3.3/2	
350-1559-B-127	A	Y	3.6/2	
350-1559-B-128	A	Y	4.5/2	
350-1559-B-129	A	Y	5/2	
350-1559-B-130	A	Y	4.6/2	
350-1559-B-131	A	Y	4.6/2	
350-1559-B-146	A	Y	5/2	
350-1559-B-147	A	Y	4.5/2	

* MP-MG85 used for all 85 mL pres. additions



Date:	2/21/2025
End Time:	15:18
pH Paper Lot:	HC441784
Analyst:	JS

Preservative ID	Preservative Type	Container ID
A	Nitric Acid	53675
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////
////////////////	////////////////	////////////////

• MP-TM06 used for all pres. additions

JS 15:18
(mL)

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1559-A-1	>2	<2	A	562	
350-1559-A-2	>2	<2	A	525	
350-1559-A-3	>2	<2	A	562	
350-1559-A-4	>2	<2	A	625	
350-1559-A-5	>2	<2	A	562	
350-1559-A-6	>2	<2	A	562	
350-1559-A-7	>2	<2	A	562	
350-1559-A-8	>2	<2	A	562	
350-1559-A-9	>2	<2	A	562	
350-1559-A-24	>2	<2	A	562 500	
350-1559-A-25	>2	<2	A	625	
350-1559-A-26	>2	<2	A	625	
350-1559-A-27	>2	<2	A	625	
350-1559-A-28	>2	<2	A	625	
350-1559-A-29	>2	<2	A	625	
350-1559-A-30	>2	<2	A	625	
350-1559-A-31	>2	<2	A	625	
350-1559-A-32	>2	<2	A	625	
350-1559-A-33	>2	<2	A	562	
350-1559-A-34	>2	<2	A	437	
350-1559-A-35	>2	<2	A	625	
350-1559-A-36	>2	<2	A	562	
350-1559-A-37	>2	<2	A	625	
350-1559-A-38	>2	<2	A	625	
350-1559-A-39	>2	<2	A	625	
350-1559-A-40	>2	<2	A	625	
350-1559-A-41	>2	<2	A	625	
350-1559-A-42	>2	<2	A	625	
350-1559-A-43	>2	<2	A	625	
350-1559-A-44	>2	<2	A	625	
350-1559-A-45	>2	<2	A	625	
350-1559-A-46	>2	<2	A	625	
350-1559-A-47	>2	<2	A	562	
350-1559-A-48	>2	<2	A	625	
350-1559-A-49	>2	<2	A	562	

JS 2/21/25

Login Sample Receipt Checklist

Client: Tetra Tech Inc

Job Number: 350-1559-1

Login Number: 1559

List Source: Eurofins Seattle Specialty Metals

List Number: 1

Creator: LaCount, Lilly-Anna E

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
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?	True	
There are no discrepancies between the containers received and the COC.	True	
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Ted Donn
Tetra Tech Inc
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, California 94549

Generated 5/5/2025 6:17:54 AM

JOB DESCRIPTION

Gulf of Thailand - 2025

JOB NUMBER

350-1619-5

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
5/5/2025 6:17:54 AM

Authorized for release by
Lilly-Anna LaCount, Project Manager
Lilly-Anna.Lacount@et.eurofinsus.com
(253)922-2310

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Definitions/Glossary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Qualifiers

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery 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)
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

Case Narrative

Client: Tetra Tech Inc
Project: Gulf of Thailand - 2025

Job ID: 350-1619-5

Job ID: 350-1619-5

Eurofins Seattle Specialty Metals

Job Narrative 350-1619-5

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, -15.4°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 1638: The method blank for preparation batch 350-5865 and analytical batch 350-6050 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 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 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 1640: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 350-6089 and 350-6090 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 and 350-6090 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.

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.

Eurofins Seattle Specialty Metals

Detection Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Client Sample ID: G4/43REF-A

Lab Sample ID: 350-1619-483

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	17		2.6	1.3	ng/g	20	✱	1631B	Total/NA
Arsenic	5.5		0.44	0.13	mg/Kg	1	✱	1638	Total/NA
Barium	160		44	0.087	mg/Kg	1	✱	1638	Total/NA
Cadmium	0.069		0.044	0.0044	mg/Kg	1	✱	1638	Total/NA
Chromium	52		0.44	0.44	mg/Kg	1	✱	1638	Total/NA
Copper	13		0.22	0.026	mg/Kg	1	✱	1638	Total/NA
Iron	21000		44	8.7	mg/Kg	1	✱	1638	Total/NA
Manganese	870	^2	0.22	0.022	mg/Kg	1	✱	1638	Total/NA
Nickel	28		0.87	0.035	mg/Kg	1	✱	1638	Total/NA
Lead	22		0.17	0.017	mg/Kg	1	✱	1638	Total/NA
Zinc	42		4.4	2.2	mg/Kg	1	✱	1638	Total/NA

Client Sample ID: G4/43REF-A-SW-1

Lab Sample ID: 350-1619-484

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	1.1		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	2.0	J	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: G4/43REF-A-SW-20

Lab Sample ID: 350-1619-485

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.20	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	13	F1	0.50	0.088	ug/L	1		1640	Total/NA
Iron	0.84	J B	5.0	0.81	ug/L	1		1640	Total/NA
Manganese	1.3	F1	0.050	0.030	ug/L	1		1640	Total/NA

Client Sample ID: G4/43REF-A-SW-40

Lab Sample ID: 350-1619-486

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	1.3		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 B	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	F1	0.50	0.088	ug/L	1		1640	Total/NA
Iron	11	B	5.0	0.81	ug/L	1		1640	Total/NA
Manganese	1.3	F1	0.050	0.030	ug/L	1		1640	Total/NA

Client Sample ID: G4/43REF-A-SW-B

Lab Sample ID: 350-1619-487

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
Lead	0.033	J B	0.050	0.023	ug/L	1		1640	Total/NA
Nickel	0.25	J	0.50	0.15	ug/L	1		1640	Total/NA
Barium	13		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

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Client Sample ID: G4/43REF-A-SW-B (Continued)

Lab Sample ID: 350-1619-487

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	28	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 Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Client Sample ID: G4/43REF-A

Lab Sample ID: 350-1619-483

Date Collected: 02/10/25 02:08

Matrix: Solid

Date Received: 03/06/25 10:30

Percent Solids: 43.6

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	17		2.6	1.3	ng/g	☆	04/03/25 20:27	04/10/25 21:01	20

Method: EPA 1638 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.5		0.44	0.13	mg/Kg	☆	03/28/25 17:51	04/03/25 17:31	1
Barium	160		44	0.087	mg/Kg	☆	03/28/25 17:51	04/03/25 17:31	1
Cadmium	0.069		0.044	0.0044	mg/Kg	☆	03/28/25 17:51	04/03/25 17:31	1
Chromium	52		0.44	0.44	mg/Kg	☆	03/28/25 17:51	04/03/25 17:31	1
Copper	13		0.22	0.026	mg/Kg	☆	03/28/25 17:51	04/03/25 17:31	1
Iron	21000		44	8.7	mg/Kg	☆	03/28/25 17:51	04/03/25 17:31	1
Manganese	870	^2	0.22	0.022	mg/Kg	☆	03/28/25 17:51	04/03/25 17:31	1
Nickel	28		0.87	0.035	mg/Kg	☆	03/28/25 17:51	04/03/25 17:31	1
Lead	22		0.17	0.017	mg/Kg	☆	03/28/25 17:51	04/03/25 17:31	1
Zinc	42		4.4	2.2	mg/Kg	☆	03/28/25 17:51	04/03/25 17:31	1

Client Sample ID: G4/43REF-A-SW-1

Lab Sample ID: 350-1619-484

Date Collected: 02/10/25 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	ND		0.50	0.20	ng/L	-		04/25/25 20:12	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		04/08/25 15:53	04/09/25 14:40	1
Cadmium	ND		0.020	0.013	ug/L		04/08/25 15:53	04/09/25 14:40	1
Chromium	1.1		1.0	0.11	ug/L		04/08/25 15:53	04/09/25 14:40	1
Copper	ND		0.50	0.43	ug/L		04/08/25 15:53	04/09/25 14:40	1
Lead	ND		0.050	0.023	ug/L		04/08/25 15:53	04/09/25 14:40	1
Nickel	0.20	J	0.50	0.15	ug/L		04/08/25 15:53	04/09/25 14:40	1
Zinc	ND		1.0	0.31	ug/L		04/08/25 15:53	04/09/25 14:40	1
Barium	12		0.50	0.088	ug/L		04/08/25 15:53	04/09/25 14:40	1
Iron	2.0	J	5.0	0.81	ug/L		04/08/25 15:53	04/09/25 14:40	1
Manganese	0.82		0.050	0.030	ug/L		04/08/25 15:53	04/09/25 14:40	1

Client Sample ID: G4/43REF-A-SW-20

Lab Sample ID: 350-1619-485

Date Collected: 02/10/25 01:07

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	0.20	J	0.50	0.20	ng/L	-		04/25/25 20:16	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	04/10/25 20:07	1
Cadmium	ND		0.020	0.013	ug/L		04/08/25 16:09	04/10/25 20:07	1
Chromium	1.1		1.0	0.11	ug/L		04/08/25 16:09	04/10/25 20:07	1
Copper	ND		0.50	0.43	ug/L		04/08/25 16:09	04/10/25 20:07	1
Lead	ND		0.050	0.023	ug/L		04/08/25 16:09	04/10/25 20:07	1

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Client Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Client Sample ID: G4/43REF-A-SW-20

Lab Sample ID: 350-1619-485

Date Collected: 02/10/25 01:07

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	0.17	J	0.50	0.15	ug/L		04/08/25 16:09	04/10/25 20:07	1
Zinc	ND		1.0	0.31	ug/L		04/08/25 16:09	04/10/25 20:07	1
Barium	13	F1	0.50	0.088	ug/L		04/08/25 16:09	04/10/25 20:07	1
Iron	0.84	J B	5.0	0.81	ug/L		04/08/25 16:09	04/10/25 20:07	1
Manganese	1.3	F1	0.050	0.030	ug/L		04/08/25 16:09	04/09/25 14:54	1

Client Sample ID: G4/43REF-A-SW-40

Lab Sample ID: 350-1619-486

Date Collected: 02/10/25 01:13

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	0.26	J	0.50	0.20	ng/L			04/25/25 20:20	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 15:36	1
Cadmium	ND		0.020	0.013	ug/L		04/08/25 16:09	04/09/25 15:36	1
Chromium	1.2		1.0	0.11	ug/L		04/08/25 16:09	04/09/25 15:36	1
Copper	ND		0.50	0.43	ug/L		04/08/25 16:09	04/09/25 15:36	1
Lead	0.023	J B	0.050	0.023	ug/L		04/08/25 16:09	04/09/25 15:36	1
Nickel	0.21	J	0.50	0.15	ug/L		04/08/25 16:09	04/09/25 15:36	1
Zinc	ND		1.0	0.31	ug/L		04/08/25 16:09	04/09/25 15:36	1
Barium	13	F1	0.50	0.088	ug/L		04/08/25 16:09	04/09/25 15:36	1
Iron	11	B	5.0	0.81	ug/L		04/08/25 16:09	04/09/25 15:36	1
Manganese	1.3	F1	0.050	0.030	ug/L		04/08/25 16:09	04/09/25 15:36	1

Client Sample ID: G4/43REF-A-SW-B

Lab Sample ID: 350-1619-487

Date Collected: 02/10/25 01:26

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			04/25/25 20:24	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 16:18	1
Cadmium	ND		0.020	0.013	ug/L		04/08/25 16:09	04/09/25 16:18	1
Chromium	1.2		1.0	0.11	ug/L		04/08/25 16:09	04/09/25 16:18	1
Copper	ND		0.50	0.43	ug/L		04/08/25 16:09	04/09/25 16:18	1
Lead	0.033	J B	0.050	0.023	ug/L		04/08/25 16:09	04/09/25 16:18	1
Nickel	0.25	J	0.50	0.15	ug/L		04/08/25 16:09	04/09/25 16:18	1
Zinc	ND		1.0	0.31	ug/L		04/08/25 16:09	04/09/25 16:18	1
Barium	13		0.50	0.088	ug/L		04/08/25 16:09	04/09/25 16:18	1
Iron	28	B	5.0	0.81	ug/L		04/08/25 16:09	04/09/25 16:18	1
Manganese	2.8		0.050	0.030	ug/L		04/08/25 16:09	04/09/25 16:18	1

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-5999/1-A
Matrix: Solid
Analysis Batch: 6136

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5999

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		04/03/25 20:27	04/09/25 19:29	20

Lab Sample ID: MB 350-5999/2-A
Matrix: Solid
Analysis Batch: 6136

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5999

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		04/03/25 20:27	04/09/25 19:33	20

Lab Sample ID: MB 350-5999/3-A
Matrix: Solid
Analysis Batch: 6136

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5999

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.2	0.58	ng/g		04/03/25 20:27	04/09/25 19:37	20

Lab Sample ID: LCS 350-5999/4-A
Matrix: Solid
Analysis Batch: 6136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5999

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	397	401		ng/g		101	75 - 125

Lab Sample ID: LCSD 350-5999/5-A
Matrix: Solid
Analysis Batch: 6136

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5999

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	397	422		ng/g		106	75 - 125	5	24

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 350-6472/119
Matrix: Water
Analysis Batch: 6472

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			04/25/25 18:20	1

Lab Sample ID: MB 350-6472/120
Matrix: Water
Analysis Batch: 6472

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			04/25/25 18:24	1

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: MB 350-6472/121

Matrix: Water

Analysis Batch: 6472

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.20	ng/L			04/25/25 18:28	1

Lab Sample ID: LCS 350-6472/122

Matrix: Water

Analysis Batch: 6472

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.93		ng/L		99	77 - 123

Lab Sample ID: LCSD 350-6472/123

Matrix: Water

Analysis Batch: 6472

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.86		ng/L		97	77 - 123	1	24

Method: 1638 - Metals (ICP/MS)

Lab Sample ID: MB 350-5865/1-A

Matrix: Solid

Analysis Batch: 6050

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.20	0.060	mg/Kg		03/28/25 17:51	04/03/25 16:30	1
Barium	0.649	J	20	0.040	mg/Kg		03/28/25 17:51	04/03/25 16:30	1
Cadmium	ND		0.020	0.0020	mg/Kg		03/28/25 17:51	04/03/25 16:30	1
Chromium	ND		0.20	0.20	mg/Kg		03/28/25 17:51	04/03/25 16:30	1
Copper	0.0398	J	0.10	0.012	mg/Kg		03/28/25 17:51	04/03/25 16:30	1
Iron	ND		20	4.0	mg/Kg		03/28/25 17:51	04/03/25 16:30	1
Manganese	0.102		0.10	0.010	mg/Kg		03/28/25 17:51	04/03/25 16:30	1
Nickel	0.0217	J	0.40	0.016	mg/Kg		03/28/25 17:51	04/03/25 16:30	1
Lead	0.00810	J	0.080	0.0080	mg/Kg		03/28/25 17:51	04/03/25 16:30	1
Zinc	ND		2.0	1.0	mg/Kg		03/28/25 17:51	04/03/25 16:30	1

Lab Sample ID: MB 350-5865/2-A

Matrix: Solid

Analysis Batch: 6050

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5865

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.20	0.060	mg/Kg		03/28/25 17:51	04/03/25 16:32	1
Barium	0.495	J	20	0.040	mg/Kg		03/28/25 17:51	04/03/25 16:32	1
Cadmium	ND		0.020	0.0020	mg/Kg		03/28/25 17:51	04/03/25 16:32	1
Chromium	ND		0.20	0.20	mg/Kg		03/28/25 17:51	04/03/25 16:32	1
Copper	0.0299	J	0.10	0.012	mg/Kg		03/28/25 17:51	04/03/25 16:32	1
Iron	17.9	J	20	4.0	mg/Kg		03/28/25 17:51	04/03/25 16:32	1
Manganese	0.110		0.10	0.010	mg/Kg		03/28/25 17:51	04/03/25 16:32	1
Nickel	0.0233	J	0.40	0.016	mg/Kg		03/28/25 17:51	04/03/25 16:32	1
Lead	0.0110	J	0.080	0.0080	mg/Kg		03/28/25 17:51	04/03/25 16:32	1
Zinc	ND		2.0	1.0	mg/Kg		03/28/25 17:51	04/03/25 16:32	1

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Method: 1638 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 350-5865/3-A
Matrix: Solid
Analysis Batch: 6050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5865

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	104		mg/Kg		104	75 - 125
Barium	100	108	J	mg/Kg		108	75 - 125
Cadmium	20.0	20.4		mg/Kg		102	75 - 125
Chromium	100	107		mg/Kg		107	75 - 125
Copper	100	112		mg/Kg		112	75 - 125
Iron	2500	2730		mg/Kg		109	75 - 125
Manganese	100	103		mg/Kg		103	75 - 125
Nickel	100	107		mg/Kg		107	75 - 125
Lead	100	105		mg/Kg		105	75 - 125
Zinc	100	106		mg/Kg		106	75 - 125

Lab Sample ID: LCSD 350-5865/4-A
Matrix: Solid
Analysis Batch: 6050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5865

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	100	98.7		mg/Kg		99	75 - 125	5	20
Barium	100	99.3	J	mg/Kg		99	75 - 125	9	20
Cadmium	20.0	19.1		mg/Kg		95	75 - 125	7	20
Chromium	100	100		mg/Kg		100	75 - 125	7	20
Copper	100	105		mg/Kg		105	75 - 125	6	20
Iron	2500	2580		mg/Kg		103	75 - 125	6	20
Manganese	100	96.6		mg/Kg		97	75 - 125	7	20
Nickel	100	100		mg/Kg		100	75 - 125	6	20
Lead	100	98.9		mg/Kg		99	75 - 125	6	20
Zinc	100	101		mg/Kg		101	75 - 125	6	20

Method: 1640 - Metals (ICPMS)

Lab Sample ID: MB 350-6089/1-A
Matrix: Water
Analysis Batch: 6206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6089

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	0.63	ug/L		04/08/25 15:53	04/09/25 05:43	1
Cadmium	ND		0.020	0.013	ug/L		04/08/25 15:53	04/09/25 05:43	1
Chromium	ND		1.0	0.11	ug/L		04/08/25 15:53	04/09/25 05:43	1
Copper	ND		0.50	0.43	ug/L		04/08/25 15:53	04/09/25 05:43	1
Lead	ND		0.050	0.023	ug/L		04/08/25 15:53	04/09/25 05:43	1
Nickel	ND		0.50	0.15	ug/L		04/08/25 15:53	04/09/25 05:43	1
Zinc	ND		1.0	0.31	ug/L		04/08/25 15:53	04/09/25 05:43	1
Barium	ND		0.50	0.088	ug/L		04/08/25 15:53	04/09/25 05:43	1
Iron	ND		5.0	0.81	ug/L		04/08/25 15:53	04/09/25 05:43	1
Manganese	ND		0.050	0.030	ug/L		04/08/25 15:53	04/09/25 05:43	1

Eurofins Seattle Specialty Metals

QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: MB 350-6089/2-A
Matrix: Water
Analysis Batch: 6206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6089

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.70	0.63	ug/L		04/08/25 15:53	04/09/25 05:57	1
Cadmium	ND		0.020	0.013	ug/L		04/08/25 15:53	04/09/25 05:57	1
Chromium	ND		1.0	0.11	ug/L		04/08/25 15:53	04/09/25 05:57	1
Copper	ND		0.50	0.43	ug/L		04/08/25 15:53	04/09/25 05:57	1
Lead	ND		0.050	0.023	ug/L		04/08/25 15:53	04/09/25 05:57	1
Nickel	ND		0.50	0.15	ug/L		04/08/25 15:53	04/09/25 05:57	1
Zinc	ND		1.0	0.31	ug/L		04/08/25 15:53	04/09/25 05:57	1
Barium	ND		0.50	0.088	ug/L		04/08/25 15:53	04/09/25 05:57	1
Iron	ND		5.0	0.81	ug/L		04/08/25 15:53	04/09/25 05:57	1
Manganese	ND		0.050	0.030	ug/L		04/08/25 15:53	04/09/25 05:57	1

Lab Sample ID: LCS 350-6089/3-A
Matrix: Water
Analysis Batch: 6206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6089

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	12.5	11.3		ug/L		91	70 - 130
Cadmium	1.25	1.18		ug/L		95	70 - 130
Chromium	12.5	11.9		ug/L		95	70 - 130
Copper	12.5	12.0		ug/L		96	70 - 130
Lead	2.50	2.36		ug/L		95	70 - 130
Nickel	12.5	11.7		ug/L		94	70 - 130
Zinc	12.5	12.4		ug/L		99	70 - 130
Barium	12.5	12.1		ug/L		97	70 - 130
Iron	62.5	60.0		ug/L		96	70 - 130
Manganese	12.5	9.90		ug/L		79	70 - 130

Lab Sample ID: LCSD 350-6089/4-A
Matrix: Water
Analysis Batch: 6206

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6089

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	12.5	11.4		ug/L		91	70 - 130	1	20
Cadmium	1.25	1.14		ug/L		91	70 - 130	3	20
Chromium	12.5	12.1		ug/L		97	70 - 130	2	20
Copper	12.5	11.7		ug/L		93	70 - 130	3	20
Lead	2.50	2.27		ug/L		91	70 - 130	4	20
Nickel	12.5	11.3		ug/L		90	70 - 130	4	20
Zinc	12.5	12.0		ug/L		96	70 - 130	3	20
Barium	12.5	11.9		ug/L		95	70 - 130	2	20
Iron	62.5	59.3		ug/L		95	70 - 130	1	20
Manganese	12.5	9.81		ug/L		79	70 - 130	1	20

Lab Sample ID: LCSD 350-6089/4-A
Matrix: Water
Analysis Batch: 6206

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6089

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	12.5	11.0		ug/L		88	70 - 130	3	20

Eurofins Seattle Specialty Metals

QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCSD 350-6089/4-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6089

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	1.25	1.12		ug/L		90	70 - 130	5	20
Chromium	12.5	11.9		ug/L		96	70 - 130	1	20
Copper	12.5	11.1		ug/L		89	70 - 130	8	20
Lead	2.50	2.20		ug/L		88	70 - 130	7	20
Nickel	12.5	10.9		ug/L		88	70 - 130	7	20
Zinc	12.5	11.6		ug/L		93	70 - 130	6	20
Barium	12.5	12.1		ug/L		97	70 - 130	0	20
Iron	62.5	59.6		ug/L		95	70 - 130	1	20

Lab Sample ID: MB 350-6090/1-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6090

Analyte	MB Result	MB 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 06:40	1
Cadmium	ND		0.020	0.013	ug/L		04/08/25 16:09	04/09/25 06:40	1
Chromium	ND		1.0	0.11	ug/L		04/08/25 16:09	04/09/25 06:40	1
Copper	ND		0.50	0.43	ug/L		04/08/25 16:09	04/09/25 06:40	1
Lead	0.0234	J	0.050	0.023	ug/L		04/08/25 16:09	04/09/25 06:40	1
Nickel	ND		0.50	0.15	ug/L		04/08/25 16:09	04/09/25 06:40	1
Zinc	ND		1.0	0.31	ug/L		04/08/25 16:09	04/09/25 06:40	1
Barium	ND		0.50	0.088	ug/L		04/08/25 16:09	04/09/25 06:40	1
Iron	2.07	J	5.0	0.81	ug/L		04/08/25 16:09	04/09/25 06:40	1
Manganese	ND		0.050	0.030	ug/L		04/08/25 16:09	04/09/25 06:40	1

Lab Sample ID: MB 350-6090/2-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6090

Analyte	MB Result	MB 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 06:54	1
Cadmium	ND		0.020	0.013	ug/L		04/08/25 16:09	04/09/25 06:54	1
Chromium	ND		1.0	0.11	ug/L		04/08/25 16:09	04/09/25 06:54	1
Copper	ND		0.50	0.43	ug/L		04/08/25 16:09	04/09/25 06:54	1
Lead	ND		0.050	0.023	ug/L		04/08/25 16:09	04/09/25 06:54	1
Nickel	ND		0.50	0.15	ug/L		04/08/25 16:09	04/09/25 06:54	1
Zinc	ND		1.0	0.31	ug/L		04/08/25 16:09	04/09/25 06:54	1
Barium	ND		0.50	0.088	ug/L		04/08/25 16:09	04/09/25 06:54	1
Iron	ND		5.0	0.81	ug/L		04/08/25 16:09	04/09/25 06:54	1
Manganese	ND		0.050	0.030	ug/L		04/08/25 16:09	04/09/25 06:54	1

Lab Sample ID: LCS 350-6090/3-A

Matrix: Water

Analysis Batch: 6206

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	12.5	11.6		ug/L		93	70 - 130
Cadmium	1.25	1.15		ug/L		92	70 - 130
Chromium	12.5	12.1		ug/L		97	70 - 130

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: LCS 350-6090/3-A
Matrix: Water
Analysis Batch: 6206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	12.5	12.0		ug/L		96	70 - 130
Lead	2.50	2.31		ug/L		92	70 - 130
Nickel	12.5	11.4		ug/L		91	70 - 130
Zinc	12.5	12.1		ug/L		97	70 - 130
Barium	12.5	11.9		ug/L		95	70 - 130
Iron	62.5	58.7		ug/L		94	70 - 130
Manganese	12.5	9.87		ug/L		79	70 - 130

Lab Sample ID: LCSD 350-6090/4-A
Matrix: Water
Analysis Batch: 6206

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6090

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	12.5	11.6		ug/L		93	70 - 130	0	20
Cadmium	1.25	1.16		ug/L		93	70 - 130	2	20
Chromium	12.5	11.9		ug/L		95	70 - 130	2	20
Copper	12.5	12.0		ug/L		96	70 - 130	0	20
Lead	2.50	2.32		ug/L		93	70 - 130	1	20
Nickel	12.5	11.4		ug/L		92	70 - 130	0	20
Zinc	12.5	12.4		ug/L		99	70 - 130	2	20
Barium	12.5	11.7		ug/L		93	70 - 130	2	20
Iron	62.5	60.5		ug/L		97	70 - 130	3	20
Manganese	12.5	10.2		ug/L		82	70 - 130	3	20

Lab Sample ID: 350-1619-485 MS
Matrix: Water
Analysis Batch: 6206

Client Sample ID: G4/43REF-A-SW-20
Prep Type: Total/NA
Prep Batch: 6090

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.1		12.5	14.1		ug/L		104	50 - 150
Cadmium	ND		1.25	1.27		ug/L		102	50 - 150
Chromium	1.1		12.5	14.9		ug/L		110	50 - 150
Copper	ND		12.5	14.1		ug/L		113	50 - 150
Lead	ND		2.50	2.37		ug/L		95	50 - 150
Nickel	0.17	J	12.5	13.6		ug/L		107	50 - 150
Zinc	ND		12.5	14.2		ug/L		114	50 - 150
Barium	13	F1	12.5	32.2	F1	ug/L		151	50 - 150
Iron	0.84	J B	62.5	77.3		ug/L		122	50 - 150
Manganese	1.3	F1	12.5	22.3	F1	ug/L		168	50 - 150

Lab Sample ID: 350-1619-485 MSD
Matrix: Water
Analysis Batch: 6206

Client Sample ID: G4/43REF-A-SW-20
Prep Type: Total/NA
Prep Batch: 6090

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.1		12.5	14.1		ug/L		104	50 - 150	0	20
Cadmium	ND		1.25	1.32		ug/L		106	50 - 150	4	20
Chromium	1.1		12.5	15.2		ug/L		113	50 - 150	2	20
Copper	ND		12.5	14.7		ug/L		118	50 - 150	4	20

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QC Sample Results

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Method: 1640 - Metals (ICPMS) (Continued)

Lab Sample ID: 350-1619-485 MSD

Matrix: Water

Analysis Batch: 6206

Client Sample ID: G4/43REF-A-SW-20

Prep Type: Total/NA

Prep Batch: 6090

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lead	ND		2.50	2.43		ug/L		97	50 - 150	3	20
Nickel	0.17	J	12.5	14.2		ug/L		112	50 - 150	5	20
Zinc	ND		12.5	15.2		ug/L		121	50 - 150	6	20
Barium	13	F1	12.5	32.9	F1	ug/L		157	50 - 150	2	20
Iron	0.84	J B	62.5	81.2		ug/L		129	50 - 150	5	20
Manganese	1.3	F1	12.5	23.0	F1	ug/L		174	50 - 150	3	20

Lab Sample ID: 350-1619-486 MS

Matrix: Water

Analysis Batch: 6206

Client Sample ID: G4/43REF-A-SW-40

Prep Type: Total/NA

Prep Batch: 6090

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.3		12.5	14.2		ug/L		103	50 - 150		
Cadmium	ND		1.25	1.30		ug/L		104	50 - 150		
Chromium	1.2		12.5	14.7		ug/L		108	50 - 150		
Copper	ND		12.5	14.2		ug/L		113	50 - 150		
Lead	0.023	J B	2.50	2.44		ug/L		97	50 - 150		
Nickel	0.21	J	12.5	13.9		ug/L		110	50 - 150		
Zinc	ND		12.5	14.6		ug/L		117	50 - 150		
Barium	13	F1	12.5	32.7	F1	ug/L		157	50 - 150		
Iron	11	B	62.5	89.4		ug/L		125	50 - 150		
Manganese	1.3	F1	12.5	23.0	F1	ug/L		173	50 - 150		

Lab Sample ID: 350-1619-486 MSD

Matrix: Water

Analysis Batch: 6206

Client Sample ID: G4/43REF-A-SW-40

Prep Type: Total/NA

Prep Batch: 6090

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.3		12.5	14.3		ug/L		104	50 - 150	1	20
Cadmium	ND		1.25	1.28		ug/L		102	50 - 150	2	20
Chromium	1.2		12.5	15.0		ug/L		110	50 - 150	2	20
Copper	ND		12.5	14.1		ug/L		113	50 - 150	0	20
Lead	0.023	J B	2.50	2.39		ug/L		95	50 - 150	2	20
Nickel	0.21	J	12.5	13.5		ug/L		107	50 - 150	3	20
Zinc	ND		12.5	14.6		ug/L		117	50 - 150	0	20
Barium	13	F1	12.5	32.5	F1	ug/L		156	50 - 150	0	20
Iron	11	B	62.5	88.1		ug/L		123	50 - 150	1	20
Manganese	1.3	F1	12.5	21.7	F1	ug/L		163	50 - 150	6	20

QC Association Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Metals

Prep Batch: 5865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-483	G4/43REF-A	Total/NA	Solid	HF Bomb Prep	
MB 350-5865/1-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
MB 350-5865/2-A	Method Blank	Total/NA	Solid	HF Bomb Prep	
LCS 350-5865/3-A	Lab Control Sample	Total/NA	Solid	HF Bomb Prep	
LCSD 350-5865/4-A	Lab Control Sample Dup	Total/NA	Solid	HF Bomb Prep	

Prep Batch: 5999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-483	G4/43REF-A	Total/NA	Solid	1631B CAR Prep	
MB 350-5999/1-A	Method Blank	Total/NA	Solid	1631B CAR Prep	
MB 350-5999/2-A	Method Blank	Total/NA	Solid	1631B CAR Prep	
MB 350-5999/3-A	Method Blank	Total/NA	Solid	1631B CAR Prep	
LCS 350-5999/4-A	Lab Control Sample	Total/NA	Solid	1631B CAR Prep	
LCSD 350-5999/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B CAR Prep	

Analysis Batch: 6050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-483	G4/43REF-A	Total/NA	Solid	1638	5865
MB 350-5865/1-A	Method Blank	Total/NA	Solid	1638	5865
MB 350-5865/2-A	Method Blank	Total/NA	Solid	1638	5865
LCS 350-5865/3-A	Lab Control Sample	Total/NA	Solid	1638	5865
LCSD 350-5865/4-A	Lab Control Sample Dup	Total/NA	Solid	1638	5865

Prep Batch: 6089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-484	G4/43REF-A-SW-1	Total/NA	Water	1640	
MB 350-6089/1-A	Method Blank	Total/NA	Water	1640	
MB 350-6089/2-A	Method Blank	Total/NA	Water	1640	
LCS 350-6089/3-A	Lab Control Sample	Total/NA	Water	1640	
LCSD 350-6089/4-A	Lab Control Sample Dup	Total/NA	Water	1640	

Prep Batch: 6090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-485	G4/43REF-A-SW-20	Total/NA	Water	1640	
350-1619-486	G4/43REF-A-SW-40	Total/NA	Water	1640	
350-1619-487	G4/43REF-A-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	
LCSD 350-6090/4-A	Lab Control Sample Dup	Total/NA	Water	1640	
350-1619-485 MS	G4/43REF-A-SW-20	Total/NA	Water	1640	
350-1619-485 MSD	G4/43REF-A-SW-20	Total/NA	Water	1640	
350-1619-486 MS	G4/43REF-A-SW-40	Total/NA	Water	1640	
350-1619-486 MSD	G4/43REF-A-SW-40	Total/NA	Water	1640	

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QC Association Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Metals

Analysis Batch: 6136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 350-5999/1-A	Method Blank	Total/NA	Solid	1631B	5999
MB 350-5999/2-A	Method Blank	Total/NA	Solid	1631B	5999
MB 350-5999/3-A	Method Blank	Total/NA	Solid	1631B	5999
LCS 350-5999/4-A	Lab Control Sample	Total/NA	Solid	1631B	5999
LCSD 350-5999/5-A	Lab Control Sample Dup	Total/NA	Solid	1631B	5999

Analysis Batch: 6150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-483	G4/43REF-A	Total/NA	Solid	1631B	5999

Analysis Batch: 6206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-484	G4/43REF-A-SW-1	Total/NA	Water	1640	6089
350-1619-485	G4/43REF-A-SW-20	Total/NA	Water	1640	6090
350-1619-486	G4/43REF-A-SW-40	Total/NA	Water	1640	6090
350-1619-487	G4/43REF-A-SW-B	Total/NA	Water	1640	6090
MB 350-6089/1-A	Method Blank	Total/NA	Water	1640	6089
MB 350-6089/2-A	Method Blank	Total/NA	Water	1640	6089
MB 350-6090/1-A	Method Blank	Total/NA	Water	1640	6090
MB 350-6090/2-A	Method Blank	Total/NA	Water	1640	6090
LCS 350-6089/3-A	Lab Control Sample	Total/NA	Water	1640	6089
LCS 350-6090/3-A	Lab Control Sample	Total/NA	Water	1640	6090
LCSD 350-6089/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6089
LCSD 350-6089/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6089
LCSD 350-6090/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6090
350-1619-485 MS	G4/43REF-A-SW-20	Total/NA	Water	1640	6090
350-1619-485 MSD	G4/43REF-A-SW-20	Total/NA	Water	1640	6090
350-1619-486 MS	G4/43REF-A-SW-40	Total/NA	Water	1640	6090
350-1619-486 MSD	G4/43REF-A-SW-40	Total/NA	Water	1640	6090

Analysis Batch: 6254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-484	G4/43REF-A-SW-1	Total/NA	Water	1640	6089
350-1619-485	G4/43REF-A-SW-20	Total/NA	Water	1640	6090
350-1619-486	G4/43REF-A-SW-40	Total/NA	Water	1640	6090
350-1619-487	G4/43REF-A-SW-B	Total/NA	Water	1640	6090
MB 350-6089/1-A	Method Blank	Total/NA	Water	1640	6089
MB 350-6089/2-A	Method Blank	Total/NA	Water	1640	6089
MB 350-6090/1-A	Method Blank	Total/NA	Water	1640	6090
MB 350-6090/2-A	Method Blank	Total/NA	Water	1640	6090
LCS 350-6089/3-A	Lab Control Sample	Total/NA	Water	1640	6089
LCS 350-6090/3-A	Lab Control Sample	Total/NA	Water	1640	6090
LCSD 350-6089/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6089
LCSD 350-6090/4-A	Lab Control Sample Dup	Total/NA	Water	1640	6090
350-1619-485 MS	G4/43REF-A-SW-20	Total/NA	Water	1640	6090
350-1619-485 MSD	G4/43REF-A-SW-20	Total/NA	Water	1640	6090
350-1619-486 MS	G4/43REF-A-SW-40	Total/NA	Water	1640	6090
350-1619-486 MSD	G4/43REF-A-SW-40	Total/NA	Water	1640	6090

Eurofins Seattle Specialty Metals

QC Association Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Metals

Analysis Batch: 6472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-484	G4/43REF-A-SW-1	Total/NA	Water	1631E	
350-1619-485	G4/43REF-A-SW-20	Total/NA	Water	1631E	
350-1619-486	G4/43REF-A-SW-40	Total/NA	Water	1631E	
350-1619-487	G4/43REF-A-SW-B	Total/NA	Water	1631E	
MB 350-6472/119	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	
LCS 350-6472/122	Lab Control Sample	Total/NA	Water	1631E	
LCSD 350-6472/123	Lab Control Sample Dup	Total/NA	Water	1631E	

General Chemistry

Analysis Batch: 6068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
350-1619-483	G4/43REF-A	Total/NA	Solid	Moisture - 2540	

Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Client Sample ID: G4/43REF-A

Lab Sample ID: 350-1619-483

Date Collected: 02/10/25 02:08

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	6068	JS	EET SSM	04/07/25 19:36

Client Sample ID: G4/43REF-A

Lab Sample ID: 350-1619-483

Date Collected: 02/10/25 02:08

Matrix: Solid

Date Received: 03/06/25 10:30

Percent Solids: 43.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1631B CAR Prep			5999	JS	EET SSM	04/03/25 20:27
Total/NA	Analysis	1631B		20	6150	AJD	EET SSM	04/10/25 21:01
Total/NA	Prep	HF Bomb Prep			5865	JS	EET SSM	03/28/25 17:51
Total/NA	Analysis	1638		1	6050	V1R	EET SSM	04/03/25 17:31

Client Sample ID: G4/43REF-A-SW-1

Lab Sample ID: 350-1619-484

Date Collected: 02/10/25 01:01

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 20:12
Total/NA	Prep	1640			6089	COW	EET SSM	04/08/25 15:53
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/09/25 14:40
Total/NA	Prep	1640			6089	COW	EET SSM	04/08/25 15:53
Total/NA	Analysis	1640		1	6254	COW	EET SSM	04/09/25 14:40

Client Sample ID: G4/43REF-A-SW-20

Lab Sample ID: 350-1619-485

Date Collected: 02/10/25 01:07

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	6472	CL	EET SSM	04/25/25 20:16
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 14:54
Total/NA	Prep	1640			6090	COW	EET SSM	04/08/25 16:09
Total/NA	Analysis	1640		1	6206	COW	EET SSM	04/10/25 20:07

Client Sample ID: G4/43REF-A-SW-40

Lab Sample ID: 350-1619-486

Date Collected: 02/10/25 01:13

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 20:20
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 15:36
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 15:36

Eurofins Seattle Specialty Metals

Lab Chronicle

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

Client Sample ID: G4/43REF-A-SW-B
Date Collected: 02/10/25 01:26
Date Received: 03/06/25 10:30

Lab Sample ID: 350-1619-487
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 20:24
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 16:18
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 16:18

Laboratory References:
EET SSM = Eurofins Seattle Specialty Metals, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

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	07-07-25
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	01-04-26
Washington	State	C788-23a	07-13-25
Wisconsin	State	399133460	07-31-25

Method Summary

Client: Tetra Tech Inc
Project/Site: Gulf of Thailand - 2025

Job ID: 350-1619-5

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 (ICPMS)	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: 350-1619-5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
350-1619-483	G4/43REF-A	Solid	02/10/25 02:08	03/06/25 10:30
350-1619-484	G4/43REF-A-SW-1	Water	02/10/25 01:01	03/06/25 10:30
350-1619-485	G4/43REF-A-SW-20	Water	02/10/25 01:07	03/06/25 10:30
350-1619-486	G4/43REF-A-SW-40	Water	02/10/25 01:13	03/06/25 10:30
350-1619-487	G4/43REF-A-SW-B	Water	02/10/25 01:26	03/06/25 10:30

Ship To:
Lilly-Anna Lacount
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	Sediment				Seawater		
						Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.27	NPCPP-1C1	2/16/2025	3:55	SED	Frozen	1	1		1			
T779.27	NPCPP-1C1-FD	2/16/2025	4:14	SED	Frozen	1	1		1			
T779.27	NPCPP-1C2X	2/16/2025	2:53	SED	Frozen	1	1		1			
T779.27	NPCPP-1CP1	2/16/2025	8:12	SED	Frozen	1	1		1			
T779.27	NPCPP-1CP2	2/16/2025	7:36	SED	Frozen	1	1		1			
T779.27	NPCPP-1CP3X	2/16/2025	5:55	SED	Frozen	1	1		1			
T779.27	NPCPP-1D2	2/15/2025	1:46	SED	Frozen	1	1		1			
T779.27	NPCPP-1E2	2/15/2025	1:05	SED	Frozen	1	1		1			
T779.27	NPCPP-1F2	2/15/2025	0:22	SED	Frozen	1	1		1			
T779.27	NPCPP-1G2	2/14/2025	22:53	SED	Frozen	1	1		1			
T779.27	NPCPP-2C1X	2/16/2025	4:54	SED	Frozen	1	1		1			
T779.27	NPCPP-2C2	2/16/2025	5:22	SED	Frozen	1	1		1			
T779.27	NPCPP-2CP2	2/15/2025	5:42	SED	Frozen	1	1		1			
T779.27	NPCPP-2D2	2/15/2025	6:22	SED	Frozen	1	1		1			
T779.27	NPCPP-3C1	2/16/2025	8:56	SED	Frozen	1	1		1			
T779.27	NPCPP-3C2	2/15/2025	22:58	SED	Frozen	1	1		1			
T779.27	NPCPP-3C3X	2/15/2025	20:36	SED	Frozen	1	1		1			
T779.27	NPCPP-3C3X-FD	2/15/2025	20:54	SED	Frozen	1	1		1			
T779.27	NPCPP-3CP1	2/15/2025	17:01	SED	Frozen	1	1		1			
T779.27	NPCPP-3CP2	2/15/2025	11:07	SED	Frozen	1	1		1			
T779.27	NPCPP-3CP3X	2/15/2025	16:23	SED	Frozen	1	1		1			
T779.27	NPCPP-3D2	2/16/2025	9:50	SED	Frozen	1	1		1			
T779.27	NPCPP-3E2	2/16/2025	10:28	SED	Frozen	1	1		1			
T779.27	NPCPP-3F2X	2/16/2025	11:05	SED	Frozen	1	1		1			
T779.27	NPCPP-3G2	2/16/2025	13:04	SED	Frozen	1	1		1			
T779.27	NPCPP-4C2	2/15/2025	19:59	SED	Frozen	1	1		1			
T779.27	NPCPP-4CP2	2/15/2025	19:27	SED	Frozen	1	1		1			
T779.27	NPCPP-4D2	2/15/2025	18:54	SED	Frozen	1	1		1			
T779.27	NPREF-A	2/12/2025	21:54	SED	Frozen	1	1		1			
T779.27	NPREF-B	2/12/2025	22:27	SED	Frozen	1	1		1			
T779.27	NPREF-B-FD	2/12/2025	22:47	SED	Frozen	1	1		1			
T779.27	NPREF-C	2/12/2025	23:16	SED	Frozen	1	1		1			
T779.27	NPWB-1C2	2/14/2025	4:51	SED	Frozen	1	1		1			
T779.27	NPWB-1C2-FD	2/14/2025	5:13	SED	Frozen	1	1		1			
T779.27	NPWB-1CP2	2/14/2025	3:00	SED	Frozen	1	1		1			
T779.27	NPWB-1D2	2/14/2025	4:06	SED	Frozen	1	1		1			
T779.27	NPWB-2B3	2/14/2025	18:54	SED	Frozen	1	1		1			

Relinquished by:

Relinquished by:

Received by:

Received by:

26 FEB 2025

Jesse Smith (TTN)
3/6/25
12:32

1 of 12

Ship To:
Lilly-Anna Lacount
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	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.27	NPWB-2C2X	2/14/2025	5:33	SED	Frozen	1	1	1	1			
T779.27	NPWB-3B2	2/14/2025	18:29	SED	Frozen	1	1	1	1			
T779.27	NPWB-3C2	2/14/2025	20:22	SED	Frozen	1	1	1	1			
T779.27	NPWB-3CP2	2/14/2025	21:24	SED	Frozen	1	1	1	1			
T779.27	NPWB-3D2	2/14/2025	21:55	SED	Frozen	1	1	1	1			
T779.27	NPWB-4B3X	2/14/2025	19:19	SED	Frozen	1	1	1	1			
T779.27	NPWB-4C2	2/14/2025	19:52	SED	Frozen	1	1	1	1			
T779.27	NPWG-1B2X	2/17/2025	10:17	SED	Frozen	1	1	1	1			
T779.27	NPWG-1B2X-FD	2/17/2025	10:42	SED	Frozen	1	1	1	1			
T779.27	NPWG-1C2	2/17/2025	5:05	SED	Frozen	1	1	1	1			
T779.27	NPWG-1CP2	2/17/2025	3:37	SED	Frozen	1	1	1	1			
T779.27	NPWG-1D2	2/17/2025	4:14	SED	Frozen	1	1	1	1			
T779.27	NPWG-2B2X	2/16/2025	22:45	SED	Frozen	1	1	1	1			
T779.27	NPWG-2C2	2/16/2025	22:06	SED	Frozen	1	1	1	1			
T779.27	NPWG-3B2X	2/17/2025	15:36	SED	Frozen	1	1	1	1			
T779.27	NPWG-3C2	2/17/2025	14:17	SED	Frozen	1	1	1	1			
T779.27	NPWG-3CP2	2/16/2025	16:47	SED	Frozen	1	1	1	1			
T779.27	NPWG-3D2	2/16/2025	17:16	SED	Frozen	1	1	1	1			
T779.27	NPWG-4B2X	2/17/2025	16:05	SED	Frozen	1	1	1	1			
T779.27	NPWG-4C2	2/17/2025	16:50	SED	Frozen	1	1	1	1			
T779.27	PACPP-1C1	2/19/2025	0:48	SED	Frozen	1	1	1	1			
T779.27	PACPP-1C2X	2/17/2025	22:46	SED	Frozen	1	1	1	1			
T779.27	PACPP-1C3X	2/19/2025	1:32	SED	Frozen	1	1	1	1			
T779.27	PACPP-1CP1	2/18/2025	10:41	SED	Frozen	1	1	1	1			
T779.27	PACPP-1CP2X	2/17/2025	23:19	SED	Frozen	1	1	1	1			
T779.27	PACPP-1CP3	2/18/2025	11:23	SED	Frozen	1	1	1	1			
T779.27	PACPP-1D2	2/18/2025	21:28	SED	Frozen	1	1	1	1			
T779.27	PACPP-1E2	2/18/2025	20:52	SED	Frozen	1	1	1	1			
T779.27	PACPP-1F2	2/18/2025	20:16	SED	Frozen	1	1	1	1			
T779.27	PACPP-1G2	2/18/2025	19:39	SED	Frozen	1	1	1	1			
T779.27	PACPP-2C2	2/19/2025	2:15	SED	Frozen	1	1	1	1			
T779.27	PACPP-2CP2	2/18/2025	23:14	SED	Frozen	1	1	1	1			
T779.27	PACPP-2D2	2/18/2025	22:32	SED	Frozen	1	1	1	1			
T779.27	PACPP-3C1	2/19/2025	10:36	SED	Frozen	1	1	1	1			
T779.27	PACPP-3C2Y	2/19/2025	9:49	SED	Frozen	1	1	1	1			
T779.27	PACPP-3C3X	2/19/2025	9:15	SED	Frozen	1	1	1	1			
T779.27	PACPP-3CP1X	2/19/2025	3:00	SED	Frozen	1	1	1	1			
T779.27	PACPP-3CP2	2/19/2025	4:09	SED	Frozen	1	1	1	1			
T779.27	PACPP-3CP3	2/19/2025	4:44	SED	Frozen	1	1	1	1			
T779.27	PACPP-3D2X	2/19/2025	5:27	SED	Frozen	1	1	1	1			
T779.27	PACPP-3E2X	2/19/2025	11:22	SED	Frozen	1	1	1	1			
T779.27	PACPP-3F2X	2/19/2025	12:46	SED	Frozen	1	1	1	1			
T779.27	PACPP-3G2	2/19/2025	13:35	SED	Frozen	1	1	1	1			
T779.27	PACPP-4C2X	2/18/2025	3:59	SED	Frozen	1	1	1	1			

Relinquished by:

2 6 FEB 2025

Relinquished by:

Received by:

Received by:

Jesse Syl (EFTN)
3/6/25
12:38

Ship To:
Liñy-Anna Lacount
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	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.27	PACPP-4C2X-FD	2/18/2025	4:22	SED	Frozen	1	1		1			
T779.27	PACPP-4CP2X	2/18/2025	4:56	SED	Frozen	1	1		1			
T779.27	PACPP-4D2X	2/18/2025	8:49	SED	Frozen	1	1		1			
T779.27	PAREF-A	2/13/2025	19:06	SED	Frozen	1	1		1			
T779.27	PAREF-B	2/13/2025	19:38	SED	Frozen	1	1		1			
T779.27	PAREF-C	2/13/2025	19:59	SED	Frozen	1	1		1			
T779.27	PAWB-1C2	2/20/2025	23:07	SED	Frozen	1	1		1			
T779.27	PAWB-1CP2	2/20/2025	22:25	SED	Frozen	1	1		1			
T779.27	PAWB-1D2	2/20/2025	21:40	SED	Frozen	1	1		1			
T779.27	PAWB-2B1X	2/21/2025	16:23	SED	Frozen	1	1		1			
T779.27	PAWB-2C2	2/21/2025	16:59	SED	Frozen	1	1		1			
T779.27	PAWB-3B2	2/21/2025	14:36	SED	Frozen	1	1		1			
T779.27	PAWB-3C2	2/21/2025	5:40	SED	Frozen	1	1		1			
T779.27	PAWB-3CP2	2/21/2025	4:55	SED	Frozen	1	1		1			
T779.27	PAWB-3D2	2/21/2025	4:19	SED	Frozen	1	1		1			
T779.27	PAWB-4B2X	2/21/2025	15:54	SED	Frozen	1	1		1			
T779.27	PAWB-4C2	2/21/2025	19:24	SED	Frozen	1	1		1			
T779.27	PAWE-1B1	2/1/20/2025	17:12	SED	Frozen	1	1		1			
T779.27	PAWE-1C2	2/1/20/2025	1:48	SED	Frozen	1	1		1			
T779.27	PAWE-1CP2	2/1/20/2025	2:23	SED	Frozen	1	1		1			
T779.27	PAWE-1D2	2/1/20/2025	3:08	SED	Frozen	1	1		1			
T779.27	PAWE-2B3	2/1/20/2025	17:56	SED	Frozen	1	1		1			
T779.27	PAWE-2C2	2/1/20/2025	4:25	SED	Frozen	1	1		1			
T779.27	PAWE-2C2-FD	2/1/20/2025	4:56	SED	Frozen	1	1		1			
T779.27	PAWE-3B3	2/1/20/2025	15:43	SED	Frozen	1	1		1			
T779.27	PAWE-3C2	2/20/2025	17:13	SED	Frozen	1	1		1			
T779.27	PAWE-3CP2	2/20/2025	16:47	SED	Frozen	1	1		1			
T779.27	PAWE-3D2	2/20/2025	19:49	SED	Frozen	1	1		1			
T779.27	PAWE-4B2	2/20/2025	16:25	SED	Frozen	1	1		1			
T779.27	PAWE-4C2	2/20/2025	1:09	SED	Frozen	1	1		1			
T779.27	NPCPP-1C2X-SW-1	2/16/2025	1:52	SW	Frozen					1	1	
T779.27	NPCPP-1C2X-SW-20	2/16/2025	1:58	SW	Frozen					1	1	
T779.27	NPCPP-1C2X-SW-40	2/16/2025	2:06	SW	Frozen					1	1	
T779.27	NPCPP-1C2X-SW-B	2/16/2025	2:17	SW	Frozen					1	1	
T779.27	NPCPP-1CP2-SW-1	2/15/2025	2:45	SW	Frozen					1	1	
T779.27	NPCPP-1CP2-SW-20	2/15/2025	2:51	SW	Frozen					1	1	
T779.27	NPCPP-1CP2-SW-40	2/15/2025	2:59	SW	Frozen					1	1	
T779.27	NPCPP-1CP2-SW-B	2/15/2025	1:12	SW	Frozen					1	1	
T779.27	NPCPP-2C2-SW-1	2/16/2025	0:12	SW	Frozen					1	1	
T779.27	NPCPP-2C2-SW-20	2/16/2025	0:18	SW	Frozen					1	1	
T779.27	NPCPP-2C2-SW-40	2/16/2025	0:46	SW	Frozen					1	1	
T779.27	NPCPP-2C2-SW-40-FD	2/16/2025	0:58	SW	Frozen					1	1	
T779.27	NPCPP-2C2-SW-B	2/16/2025	1:06	SW	Frozen					1	1	
T779.27	NPCPP-3C2-SW-1	2/15/2025	22:02	SW	Frozen					1	1	

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Ship To:
Lilly-Anna Lacount
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	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.27	NPCPP-3C2-SW-20	2/15/2025	22:09	SW	Frozen					1	1	
T779.27	NPCPP-3C2-SW-40	2/15/2025	22:17	SW	Frozen					1	1	
T779.27	NPCPP-3C2-SW-B	2/15/2025	22:27	SW	Frozen					1	1	
T779.27	NPCPP-3CP2-SW-1	2/15/2025	15:13	SW	Frozen					1	1	
T779.27	NPCPP-3CP2-SW-20	2/15/2025	15:18	SW	Frozen					1	1	
T779.27	NPCPP-3CP2-SW-40	2/15/2025	15:26	SW	Frozen					1	1	
T779.27	NPCPP-3CP2-SW-B	2/15/2025	15:39	SW	Frozen					1	1	
T779.27	NPCPP-4C2-SW-1	2/15/2025	4:20	SW	Frozen					1	1	
T779.27	NPCPP-4C2-SW-20	2/15/2025	4:26	SW	Frozen					1	1	
T779.27	NPCPP-4C2-SW-40	2/15/2025	4:14	SW	Frozen					1	1	
T779.27	NPCPP-4C2-SW-B	2/15/2025	4:45	SW	Frozen					1	1	
T779.27	NPCPP-EQ	2/12/2025	20:00	SW	Frozen					1	1	
T779.27	NPCPP-WB	2/12/2025	20:07	SW	Frozen					1	1	
T779.27	NPREF-A-SW-1	2/12/2025	20:54	SW	Frozen					1	1	
T779.27	NPREF-A-SW-1-FD	2/12/2025	20:59	SW	Frozen					1	1	
T779.27	NPREF-A-SW-20	2/12/2025	21:05	SW	Frozen					1	1	
T779.27	NPREF-A-SW-40	2/12/2025	21:11	SW	Frozen					1	1	
T779.27	NPREF-A-SW-B	2/12/2025	21:21	SW	Frozen					1	1	
T779.27	NPREF-EQ	2/12/2025	20:07	SW	Frozen					1	1	
T779.27	NPREF-WB	2/12/2025	20:00	SW	Frozen					1	1	
T779.27	NPWB-1C2-SW-1	2/14/2025	0:47	SW	Frozen					1	1	
T779.27	NPWB-1C2-SW-20	2/14/2025	0:14	SW	Frozen					1	1	
T779.27	NPWB-1C2-SW-40	2/14/2025	1:02	SW	Frozen					1	1	
T779.27	NPWB-1C2-SW-B	2/14/2025	1:11	SW	Frozen					1	1	
T779.27	NPWB-1CP2-SW-1	2/14/2025	1:51	SW	Frozen					1	1	
T779.27	NPWB-1CP2-SW-20	2/14/2025	1:57	SW	Frozen					1	1	
T779.27	NPWB-1CP2-SW-40	2/14/2025	2:09	SW	Frozen					1	1	
T779.27	NPWB-1CP2-SW-B	2/14/2025	2:20	SW	Frozen					1	1	
T779.27	NPWB-3B2-SW-1	2/14/2025	13:52	SW	Frozen					1	1	
T779.27	NPWB-3B2-SW-20	2/14/2025	13:57	SW	Frozen					1	1	
T779.27	NPWB-3B2-SW-40	2/14/2025	16:08	SW	Frozen					1	1	
T779.27	NPWB-3B2-SW-B	2/14/2025	16:18	SW	Frozen					1	1	
T779.27	NPWB-3CP2-SW-1	2/14/2025	14:11	SW	Frozen					1	1	
T779.27	NPWB-3CP2-SW-20	2/14/2025	14:19	SW	Frozen					1	1	
T779.27	NPWB-3CP2-SW-40	2/14/2025	14:51	SW	Frozen					1	1	
T779.27	NPWB-3CP2-SW-B	2/14/2025	13:02	SW	Frozen					1	1	
T779.27	NPWB-EQ	2/14/2025	0:15	SW	Frozen					1	1	
T779.27	NPWB-WB	2/14/2025	0:10	SW	Frozen					1	1	
T779.27	NPWG-1B2X-SW-1	2/17/2025	0:58	SW	Frozen					1	1	
T779.27	NPWG-1B2X-SW-20	2/17/2025	1:01	SW	Frozen					1	1	
T779.27	NPWG-1B2X-SW-40	2/17/2025	1:12	SW	Frozen					1	1	
T779.27	NPWG-1B2X-SW-B	2/17/2025	1:22	SW	Frozen					1	1	
T779.27	NPWG-1CP2-SW-1	2/17/2025	2:01	SW	Frozen					1	1	

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Ship To:
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Eurofins Specialty Metals Testing
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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, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.27	NPWG-1CP2-SW-20	2/17/2025	2:10	SW	Frozen					1	1	
T779.27	NPWG-1CP2-SW-40	2/17/2025	2:18	SW	Frozen					1	1	
T779.27	NPWG-1CP2-SW-B	2/17/2025	2:29	SW	Frozen					1	1	
T779.27	NPWG-3B2X-SW-1	2/16/2025	20:10	SW	Frozen					1	1	
T779.27	NPWG-3B2X-SW-20	2/16/2025	20:16	SW	Frozen					1	1	
T779.27	NPWG-3B2X-SW-40	2/16/2025	20:41	SW	Frozen					1	1	
T779.27	NPWG-3B2X-SW-B	2/16/2025	20:51	SW	Frozen					1	1	
T779.27	NPWG-3B2X-SW-B-FD	2/16/2025	21:04	SW	Frozen					1	1	
T779.27	NPWG-3CP2-SW-1	2/16/2025	19:16	SW	Frozen					1	1	
T779.27	NPWG-3CP2-SW-20	2/16/2025	19:22	SW	Frozen					1	1	
T779.27	NPWG-3CP2-SW-40	2/16/2025	19:10	SW	Frozen					1	1	
T779.27	NPWG-3CP2-SW-B	2/16/2025	19:40	SW	Frozen					1	1	
T779.27	NPWG-EQ	2/16/2025	19:06	SW	Frozen					1	1	
T779.27	NPWG-WB	2/16/2025	19:00	SW	Frozen					1	1	
T779.27	PACPP-1C2X-SW-1	2/17/2025	20:01	SW	Frozen					1	1	
T779.27	PACPP-1C2X-SW-20	2/17/2025	20:07	SW	Frozen					1	1	
T779.27	PACPP-1C2X-SW-40	2/17/2025	20:14	SW	Frozen					1	1	
T779.27	PACPP-1C2X-SW-B	2/17/2025	20:24	SW	Frozen					1	1	
T779.27	PACPP-1CP2X-SW-1	2/17/2025	21:01	SW	Frozen					1	1	
T779.27	PACPP-1CP2X-SW-20	2/17/2025	21:11	SW	Frozen					1	1	
T779.27	PACPP-1CP2X-SW-40	2/17/2025	21:19	SW	Frozen					1	1	
T779.27	PACPP-1CP2X-SW-B	2/17/2025	21:29	SW	Frozen					1	1	
T779.27	PACPP-2C2-SW-1	2/18/2025	17:05	SW	Frozen					1	1	
T779.27	PACPP-2C2-SW-20	2/18/2025	17:11	SW	Frozen					1	1	
T779.27	PACPP-2C2-SW-40	2/18/2025	17:19	SW	Frozen					1	1	
T779.27	PACPP-2C2-SW-B	2/18/2025	17:09	SW	Frozen					1	1	
T779.27	PACPP-3C2Y-SW-1	2/18/2025	0:59	SW	Frozen					1	1	
T779.27	PACPP-3C2Y-SW-20	2/18/2025	1:06	SW	Frozen					1	1	
T779.27	PACPP-3C2Y-SW-40	2/18/2025	1:15	SW	Frozen					1	1	
T779.27	PACPP-3C2Y-SW-B	2/18/2025	1:25	SW	Frozen					1	1	
T779.27	PACPP-3CP2-SW-1	2/18/2025	2:07	SW	Frozen					1	1	
T779.27	PACPP-3CP2-SW-20	2/18/2025	2:17	SW	Frozen					1	1	
T779.27	PACPP-3CP2-SW-40	2/18/2025	2:25	SW	Frozen					1	1	
T779.27	PACPP-3CP2-SW-B	2/18/2025	2:36	SW	Frozen					1	1	
T779.27	PACPP-4C2-SW-1	2/18/2025	13:47	SW	Frozen					1	1	
T779.27	PACPP-4C2-SW-1-FD	2/18/2025	13:52	SW	Frozen					1	1	
T779.27	PACPP-4C2-SW-20	2/18/2025	13:58	SW	Frozen					1	1	
T779.27	PACPP-4C2-SW-40	2/18/2025	16:06	SW	Frozen					1	1	
T779.27	PACPP-4C2-SW-B	2/18/2025	16:16	SW	Frozen					1	1	
T779.27	PACPP-EQ	2/17/2025	19:07	SW	Frozen					1	1	
T779.27	PACPP-WB	2/17/2025	19:02	SW	Frozen					1	1	
T779.27	PAREF-A-SW-1	2/11/2025	16:21	SW	Frozen					1	1	
T779.27	PAREF-A-SW-20	2/11/2025	16:11	SW	Frozen					1	1	
T779.27	PAREF-A-SW-40	2/11/2025	16:41	SW	Frozen					1	1	

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Ship To:
Lilly-Anna Lacount
Eurofins Specialty Metals Testing
5755 8th St. E
Fife, WA 98424
USA

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, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.27	PAREF-A-SW-B	2/11/2025	16:51	SW	Frozen					1	1	
T779.27	PAWB-1CP2-SW-1	2/21/2025	0:41	SW	Frozen					1	1	
T779.27	PAWB-1CP2-SW-20	2/21/2025	0:50	SW	Frozen					1	1	
T779.27	PAWB-1CP2-SW-40	2/21/2025	0:58	SW	Frozen					1	1	
T779.27	PAWB-1CP2-SW-B	2/21/2025	1:11	SW	Frozen					1	1	
T779.27	PAWB-3B2-SW-1	2/21/2025	13:45	SW	Frozen					1	1	
T779.27	PAWB-3B2-SW-20	2/21/2025	13:51	SW	Frozen					1	1	
T779.27	PAWB-3B2-SW-40	2/21/2025	13:59	SW	Frozen					1	1	
T779.27	PAWB-3B2-SW-B	2/21/2025	14:09	SW	Frozen					1	1	
T779.27	PAWB-3CP2-SW-1	2/21/2025	2:18	SW	Frozen					1	1	
T779.27	PAWB-3CP2-SW-20	2/21/2025	2:25	SW	Frozen					1	1	
T779.27	PAWB-3CP2-SW-40	2/21/2025	2:14	SW	Frozen					1	1	
T779.27	PAWB-3CP2-SW-B	2/21/2025	2:49	SW	Frozen					1	1	
T779.27	PAWE-1B1-SW-1	2/20/2025	14:05	SW	Frozen					1	1	
T779.27	PAWE-1B1-SW-20	2/20/2025	14:11	SW	Frozen					1	1	
T779.27	PAWE-1B1-SW-40	2/20/2025	14:19	SW	Frozen					1	1	
T779.27	PAWE-1B1-SW-B	2/20/2025	14:29	SW	Frozen					1	1	
T779.27	PAWE-1CP2-SW-1	2/19/2025	21:11	SW	Frozen					1	1	
T779.27	PAWE-1CP2-SW-20	2/19/2025	21:16	SW	Frozen					1	1	
T779.27	PAWE-1CP2-SW-40	2/19/2025	21:27	SW	Frozen					1	1	
T779.27	PAWE-1CP2-SW-B	2/19/2025	21:17	SW	Frozen					1	1	
T779.27	PAWE-3B3-SW-1	2/20/2025	12:55	SW	Frozen					1	1	
T779.27	PAWE-3B3-SW-20	2/20/2025	13:01	SW	Frozen					1	1	
T779.27	PAWE-3B3-SW-40	2/20/2025	13:14	SW	Frozen					1	1	
T779.27	PAWE-3B3-SW-B	2/20/2025	13:24	SW	Frozen					1	1	
T779.27	PAWE-3CP2-SW-1	2/19/2025	19:28	SW	Frozen					1	1	
T779.27	PAWE-3CP2-SW-20	2/19/2025	19:14	SW	Frozen					1	1	
T779.27	PAWE-3CP2-SW-20-FD	2/19/2025	19:41	SW	Frozen					1	1	
T779.27	PAWE-3CP2-SW-40	2/19/2025	19:48	SW	Frozen					1	1	
T779.27	PAWE-3CP2-SW-B	2/19/2025	19:58	SW	Frozen					1	1	
T779.27	PAWE-EQ	2/19/2025	19:06	SW	Frozen					1	1	
T779.27	PAWE-WB	2/19/2025	19:00	SW	Frozen					1	1	
T779.28	MGWA-1B2Y	2/4/2025	13:36	SED	Frozen	1	1		1			
T779.28	MGWA-1C2	2/4/2025	5:24	SED	Frozen	1	1		1			
T779.28	MGWA-1CP2	2/4/2025	3:52	SED	Frozen	1	1		1			
T779.28	MGWA-1D2	2/4/2025	4:31	SED	Frozen	1	1		1			
T779.28	MGWA-2B2X	2/4/2025	14:19	SED	Frozen	1	1		1			
T779.28	MGWA-2B2X-FD	2/4/2025	14:38	SED	Frozen	1	1		1			
T779.28	MGWA-2C2	2/4/2025	15:06	SED	Frozen	1	1		1			
T779.28	MGWA-3B2X	2/3/2025	20:31	SED	Frozen	1	1		1			
T779.28	MGWA-3C2	2/3/2025	21:24	SED	Frozen	1	1		1			
T779.28	MGWA-3CP2	2/3/2025	22:10	SED	Frozen	1	1		1			
T779.28	MGWA-3D2	2/3/2025	22:49	SED	Frozen	1	1		1			

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Ship To:
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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 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.28	MGWA-4B2X	2/4/2025	12:44	SED	Frozen	1	1		1			
T779.28	MGWA-4C2	2/3/2025	23:24	SED	Frozen	1	1		1			
T779.28	MGWA-1B2Y-SW-1	2/4/2025	0:46	SW	Frozen					1	1	
T779.28	MGWA-1B2Y-SW-20	2/4/2025	0:52	SW	Frozen					1	1	
T779.28	MGWA-1B2Y-SW-40	2/4/2025	1:01	SW	Frozen					1	1	
T779.28	MGWA-1B2Y-SW-B	2/4/2025	1:13	SW	Frozen					1	1	
T779.28	MGWA-1CP2-SW-1	2/4/2025	2:04	SW	Frozen					1	1	
T779.28	MGWA-1CP2-SW-20	2/4/2025	2:14	SW	Frozen					1	1	
T779.28	MGWA-1CP2-SW-40	2/4/2025	2:22	SW	Frozen					1	1	
T779.28	MGWA-1CP2-SW-B	2/4/2025	2:35	SW	Frozen					1	1	
T779.28	MGWA-3B2X-SW-1	2/1/2025	19:21	SW	Frozen					1	1	
T779.28	MGWA-3B2X-SW-20	2/1/2025	19:14	SW	Frozen					1	1	
T779.28	MGWA-3B2X-SW-40	2/1/2025	19:41	SW	Frozen					1	1	
T779.28	MGWA-3B2X-SW-B	2/1/2025	19:51	SW	Frozen					1	1	
T779.28	MGWA-3CP2-SW-1	2/1/2025	16:21	SW	Frozen					1	1	
T779.28	MGWA-3CP2-SW-20	2/1/2025	16:11	SW	Frozen					1	1	
T779.28	MGWA-3CP2-SW-40	2/1/2025	16:19	SW	Frozen					1	1	
T779.28	MGWA-3CP2-SW-40-FD	2/1/2025	16:48	SW	Frozen					1	1	
T779.28	MGWA-3CP2-SW-B	2/1/2025	16:59	SW	Frozen					1	1	
T779.28	MGWA-EQ	2/3/2025	7:45	SW	Frozen					1	1	
T779.28	MGWA-WB	2/3/2025	7:40	SW	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	0:42	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-(0-5)	2/11/2025	8:41	SED	Frozen			1	1			

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Relinquished by:

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7 of 12

Ship To:
Lilly-Anna Lacount
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	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
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			
T779.31-B	PMWH-1D2-C1	2/10/2025	21:13	SED	Frozen			1	1			
T779.31-B	PMWH-1D2-C2	2/10/2025	21:22	SED	Frozen			1	1			
T779.31-B	PMWH-1D2-C3	2/10/2025	21:30	SED	Frozen			1	1			
T779.31-B	PMWH-2B2X-C1	2/10/2025	22:59	SED	Frozen			1	1			
T779.31-B	PMWH-2B2X-C2	2/10/2025	23:08	SED	Frozen			1	1			
T779.31-B	PMWH-2B2X-C3	2/10/2025	23:16	SED	Frozen			1	1			
T779.31-B	PMWH-2B2X-X-(0-5)	2/11/2025	8:14	SED	Frozen			1	1			
T779.31-B	PMWH-2B2X-X-(10-15)	2/11/2025	8:14	SED	Frozen			1	1			
T779.31-B	PMWH-2B2X-X-(15-20)	2/11/2025	8:14	SED	Frozen			1	1			
T779.31-B	PMWH-2B2X-X-(20-25)	2/11/2025	8:14	SED	Frozen			1	1			
T779.31-B	PMWH-2B2X-X-(5-10)	2/11/2025	8:14	SED	Frozen			1	1			
T779.31-B	PMWH-2C2-C1	2/11/2025	1:57	SED	Frozen			1	1			
T779.31-B	PMWH-2C2-C2	2/11/2025	2:07	SED	Frozen			1	1			
T779.31-B	PMWH-2C2-C3	2/11/2025	2:17	SED	Frozen			1	1			
T779.31-B	PMWH-3B2X-C1	2/10/2025	20:16	SED	Frozen			1	1			
T779.31-B	PMWH-3B2X-C2	2/10/2025	20:25	SED	Frozen			1	1			
T779.31-B	PMWH-3B2X-C3	2/10/2025	20:33	SED	Frozen			1	1			
T779.31-B	PMWH-3B2X-X-(0-5)	2/11/2025	7:45	SED	Frozen			1	1			
T779.31-B	PMWH-3B2X-X-(10-15)	2/11/2025	7:45	SED	Frozen			1	1			
T779.31-B	PMWH-3B2X-X-(15-20)	2/11/2025	7:45	SED	Frozen			1	1			
T779.31-B	PMWH-3B2X-X-(5-10)	2/11/2025	7:45	SED	Frozen			1	1			
T779.31-B	PMWH-3C2-C1	2/11/2025	2:46	SED	Frozen			1	1			
T779.31-B	PMWH-3C2-C2	2/11/2025	2:56	SED	Frozen			1	1			
T779.31-B	PMWH-3C2-C3	2/11/2025	3:05	SED	Frozen			1	1			
T779.31-B	PMWH-3D2-C1	2/11/2025	3:52	SED	Frozen			1	1			
T779.31-B	PMWH-3D2-C2	2/11/2025	4:03	SED	Frozen			1	1			
T779.31-B	PMWH-3D2-C3	2/11/2025	4:12	SED	Frozen			1	1			
T779.31-B	PMWH-4B3X-(0-5)	2/11/2025	19:14	SED	Frozen			1	1			
T779.31-B	PMWH-4B3X-(10-15)	2/11/2025	19:14	SED	Frozen			1	1			
T779.31-B	PMWH-4B3X-(15-20)	2/11/2025	19:14	SED	Frozen			1	1			
T779.31-B	PMWH-4B3X-(20-25)	2/11/2025	19:14	SED	Frozen			1	1			
T779.31-B	PMWH-4B3X-(5-10)	2/11/2025	19:14	SED	Frozen			1	1			
T779.31-B	PMWH-4B3X-C1	2/11/2025	9:47	SED	Frozen			1	1			
T779.31-B	PMWH-4B3X-C2	2/11/2025	9:38	SED	Frozen			1	1			
T779.31-B	PMWH-4B3X-C3	2/11/2025	9:29	SED	Frozen			1	1			
T779.31-B	PMWH-4C2-C1	2/11/2025	4:49	SED	Frozen			1	1			
T779.31-B	PMWH-4C2-C2	2/11/2025	4:59	SED	Frozen			1	1			
T779.31-B	PMWH-4C2-C3	2/11/2025	5:09	SED	Frozen			1	1			

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8 of 12


Ship To:
Lilly-Anna Lacount
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	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.31-B	PMWH-Center-C1	2/11/2025	5:34	SED	Frozen			1	1			
T779.31-B	PMWH-Center-C2	2/11/2025	5:48	SED	Frozen			1	1			
T779.31-B	PMWH-Center-C3	2/11/2025	5:57	SED	Frozen			1	1			
T779.31-B	PMWH-Center-X-(0-5)	2/11/2025	6:12	SED	Frozen			1	1			
T779.31-B	PMWH-Center-X-(10-15)	2/11/2025	6:12	SED	Frozen			1	1			
T779.31-B	PMWH-Center-X-(15-20)	2/11/2025	6:12	SED	Frozen			1	1			
T779.31-B	PMWH-Center-X-(5-10)	2/11/2025	6:12	SED	Frozen			1	1			
T779.31-B	SAREF-A	2/11/2025	14:52	SED	Frozen			1	1			
T779.31-B	SAREF-B	2/11/2025	15:19	SED	Frozen			1	1			
T779.31-B	SAREF-C	2/11/2025	15:45	SED	Frozen			1	1			
T779.31-B	STPLB-M1	2/23/2025	2:31	SED	Frozen			1	1			
T779.31-B	STPLB-M2	2/23/2025	2:09	SED	Frozen			1	1			
T779.31-B	STPLB-M3	2/23/2025	6:31	SED	Frozen			1	1			
T779.31-B	STPLB-M4	2/23/2025	8:42	SED	Frozen			1	1			
T779.31-B	STPLB-N1	2/23/2025	9:20	SED	Frozen			1	1			
T779.31-B	STPLB-N2	2/23/2025	9:42	SED	Frozen			1	1			
T779.31-B	STPLB-S1	2/23/2025	0:53	SED	Frozen			1	1			
T779.31-B	STPLB-S2	2/23/2025	1:21	SED	Frozen			1	1			
T779.31-B	TRXLA-E1	2/23/2025	17:33	SED	Frozen			1	1			
T779.31-B	TRXLA-E2	2/23/2025	17:49	SED	Frozen			1	1			
T779.31-B	TRXLA-M1	2/23/2025	15:12	SED	Frozen			1	1			
T779.31-B	TRXLA-M2	2/23/2025	16:51	SED	Frozen			1	1			
T779.31-B	TRXLA-W1	2/23/2025	12:47	SED	Frozen			1	1			
T779.31-B	TRXLA-W1-FD	2/23/2025	12:36	SED	Frozen			1	1			
T779.31-B	TRXLA-W2	2/23/2025	13:16	SED	Frozen			1	1			
T779.31-B	BAPLH-M3-SW-1	2/22/2025	3:35	SW	Frozen					1		1
T779.31-B	BAPLH-M3-SW-20	2/22/2025	3:41	SW	Frozen					1		1
T779.31-B	BAPLH-M3-SW-40	2/22/2025	3:49	SW	Frozen					1		1
T779.31-B	BAPLH-M3-SW-B	2/22/2025	4:01	SW	Frozen					1		1
T779.31-B	BAPLH-M4-SW-1	2/22/2025	5:19	SW	Frozen					1		1
T779.31-B	BAPLH-M4-SW-1-FD	2/22/2025	5:24	SW	Frozen					1		1
T779.31-B	BAPLH-M4-SW-20	2/22/2025	5:30	SW	Frozen					1		1
T779.31-B	BAPLH-M4-SW-40	2/22/2025	5:38	SW	Frozen					1		1
T779.31-B	BAPLH-M4-SW-B	2/22/2025	5:49	SW	Frozen					1		1
T779.31-B	PDPLB-EQ	2/11/2025	19:07	SW	Frozen					1		1
T779.31-B	PDPLB-M2-SW-1	2/11/2025	21:36	SW	Frozen					1		1
T779.31-B	PDPLB-M2-SW-20	2/11/2025	21:30	SW	Frozen					1		1
T779.31-B	PDPLB-M2-SW-40	2/11/2025	21:20	SW	Frozen					1		1
T779.31-B	PDPLB-M2-SW-B	2/11/2025	21:10	SW	Frozen					1		1
T779.31-B	PDPLB-M3-SW-1	2/11/2025	19:16	SW	Frozen					1		1
T779.31-B	PDPLB-M3-SW-20	2/11/2025	19:22	SW	Frozen					1		1
T779.31-B	PDPLB-M3-SW-40	2/11/2025	19:29	SW	Frozen					1		1
T779.31-B	PDPLB-M3-SW-B	2/11/2025	19:40	SW	Frozen					1		1
T779.31-B	PDPLB-WB	2/11/2025	19:00	SW	Frozen					1		1

Relinquished by:


26 FEB 2025

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Jesse Smith (ETN)
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9 of 12

Ship To:
Lilly-Anna Lacount
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	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.31-B	PMWH-1B2X-SW-1	2/11/2025	0:27	SW	Frozen					1		1
T779.31-B	PMWH-1B2X-SW-20	2/11/2025	0:34	SW	Frozen					1		1
T779.31-B	PMWH-1B2X-SW-40	2/11/2025	0:42	SW	Frozen					1		1
T779.31-B	PMWH-1B2X-SW-B	2/11/2025	0:53	SW	Frozen					1		1
T779.31-B	PMWH-1B2X-SW-B-FD	2/11/2025	1:06	SW	Frozen					1		1
T779.31-B	PMWH-3B2X-SW-1	2/10/2025	19:11	SW	Frozen					1		1
T779.31-B	PMWH-3B2X-SW-20	2/10/2025	19:17	SW	Frozen					1		1
T779.31-B	PMWH-3B2X-SW-40	2/10/2025	19:24	SW	Frozen					1		1
T779.31-B	PMWH-3B2X-SW-B	2/10/2025	19:35	SW	Frozen					1		1
T779.31-B	PMWH-Center-SW-1	2/10/2025	18:01	SW	Frozen					1		1
T779.31-B	PMWH-Center-SW-20	2/10/2025	18:06	SW	Frozen					1		1
T779.31-B	PMWH-Center-SW-40	2/10/2025	18:14	SW	Frozen					1		1
T779.31-B	PMWH-Center-SW-B	2/10/2025	18:27	SW	Frozen					1		1
T779.31-B	PMWH-EQ	2/10/2025	16:06	SW	Frozen					1		1
T779.31-B	PMWH-WB	2/10/2025	16:00	SW	Frozen					1		1
T779.31-B	SAREF-A-SW-1	2/11/2025	13:44	SW	Frozen					1		1
T779.31-B	SAREF-A-SW-20	2/11/2025	13:50	SW	Frozen					1		1
T779.31-B	SAREF-A-SW-40	2/11/2025	13:58	SW	Frozen					1		1
T779.31-B	SAREF-A-SW-B	2/11/2025	14:12	SW	Frozen					1		1
T779.31-B	STPLB-M2-SW-1	2/23/2025	3:32	SW	Frozen					1		1
T779.31-B	STPLB-M2-SW-20	2/23/2025	3:39	SW	Frozen					1		1
T779.31-B	STPLB-M2-SW-20-FD	2/23/2025	3:46	SW	Frozen					1		1
T779.31-B	STPLB-M2-SW-40	2/23/2025	3:55	SW	Frozen					1		1
T779.31-B	STPLB-M2-SW-B	2/23/2025	4:10	SW	Frozen					1		1
T779.31-B	STPLB-M3-SW-1	2/23/2025	5:14	SW	Frozen					1		1
T779.31-B	STPLB-M3-SW-20	2/23/2025	5:20	SW	Frozen					1		1
T779.31-B	STPLB-M3-SW-40	2/23/2025	5:23	SW	Frozen					1		1
T779.31-B	STPLB-M3-SW-B	2/23/2025	15:44	SW	Frozen					1		1
T779.31-B	TRXLA-EQ	2/23/2025	12:14	SW	Frozen					1		1
T779.31-B	TRXLA-M1-SW-1	2/23/2025	13:55	SW	Frozen					1		1
T779.31-B	TRXLA-M1-SW-20	2/23/2025	14:00	SW	Frozen					1		1
T779.31-B	TRXLA-M1-SW-40	2/23/2025	14:08	SW	Frozen					1		1
T779.31-B	TRXLA-M1-SW-B	2/23/2025	14:19	SW	Frozen					1		1
T779.31-B	TRXLA-M2-SW-1	2/23/2025	15:44	SW	Frozen					1		1
T779.31-B	TRXLA-M2-SW-20	2/23/2025	15:51	SW	Frozen					1		1
T779.31-B	TRXLA-M2-SW-20-FD	2/23/2025	15:57	SW	Frozen					1		1
T779.31-B	TRXLA-M2-SW-40	2/23/2025	16:05	SW	Frozen					1		1
T779.31-B	TRXLA-M2-SW-B	2/23/2025	16:17	SW	Frozen					1		1
T779.31-B	TRXLA-WB	2/23/2025	12:07	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-M1	2/12/2025	10:43	SED	Frozen			1	1			
T779.32	ERPLG/ERXLG-M2	2/12/2025	10:23	SED	Frozen			1	1			
T779.32	ERPLG/ERXLG-N1	2/12/2025	8:21	SED	Frozen			1	1			
T779.32	ERPLG/ERXLG-N1-FD	2/12/2025	8:30	SED	Frozen			1	1			

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26 FEB 2025

Jesse Smyk (H-TN)
3/6/25
12:38

10 of 12

Ship To:
Lilly-Anna Lacount
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	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.32	ERPLG/ERXLG-N2	2/12/2025	8:03	SED	Frozen			1	1			
T779.32	ERPLG/ERXLG-S1	2/12/2025	11:23	SED	Frozen			1	1			
T779.32	ERPLG/ERXLG-S2	2/12/2025	13:22	SED	Frozen			1	1			
T779.32	ERREF2-A	2/12/2025	17:20	SED	Frozen			1	1			
T779.32	ERREF2-B	2/12/2025	17:37	SED	Frozen			1	1			
T779.32	ERREF2-C	2/12/2025	17:59	SED	Frozen			1	1			
T779.32	JKPLC1-E1	2/22/2025	22:20	SED	Frozen			1	1			
T779.32	JKPLC1-E2	2/22/2025	22:06	SED	Frozen			1	1			
T779.32	JKPLC1-M1	2/22/2025	16:10	SED	Frozen			1	1			
T779.32	JKPLC1-M2	2/22/2025	16:24	SED	Frozen			1	1			
T779.32	JKPLC1-M3	2/22/2025	19:19	SED	Frozen			1	1			
T779.32	JKPLC1-M4	2/22/2025	19:01	SED	Frozen			1	1			
T779.32	JKPLC1-W1	2/22/2025	13:44	SED	Frozen			1	1			
T779.32	JKPLC1-W2	2/22/2025	13:25	SED	Frozen			1	1			
T779.32	ERPLG/ERXLG-EQ	2/12/2025	6:10	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-M2-SW-1	2/12/2025	9:17	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-M2-SW-20	2/12/2025	9:25	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-M2-SW-40	2/12/2025	9:36	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-M2-SW-B	2/12/2025	9:47	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-N2-SW-1	2/12/2025	6:57	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-N2-SW-20	2/12/2025	7:05	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-N2-SW-40	2/12/2025	7:17	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-N2-SW-B	2/12/2025	7:28	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-S2-SW-1	2/12/2025	12:20	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-S2-SW-1-FD	2/12/2025	12:25	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-S2-SW-20	2/12/2025	12:31	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-S2-SW-40	2/12/2025	12:39	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-S2-SW-B	2/12/2025	12:50	SW	Frozen					1		1
T779.32	ERPLG/ERXLG-WB	2/12/2025	6:05	SW	Frozen					1		1
T779.32	ERREF2-A-SW-1	2/12/2025	16:23	SW	Frozen					1		1
T779.32	ERREF2-A-SW-20	2/12/2025	16:31	SW	Frozen					1		1
T779.32	ERREF2-A-SW-40	2/12/2025	16:38	SW	Frozen					1		1
T779.32	ERREF2-A-SW-B	2/12/2025	16:48	SW	Frozen					1		1
T779.32	JKPLC1-E2-SW-1	2/22/2025	21:09	SW	Frozen					1		1
T779.32	JKPLC1-E2-SW-20	2/22/2025	21:15	SW	Frozen					1		1
T779.32	JKPLC1-E2-SW-40	2/22/2025	21:22	SW	Frozen					1		1
T779.32	JKPLC1-E2-SW-B	2/22/2025	21:33	SW	Frozen					1		1
T779.32	JKPLC1-EQ	2/22/2025	12:14	SW	Frozen					1		1
T779.32	JKPLC1-M1-SW-1	2/22/2025	15:13	SW	Frozen					1		1
T779.32	JKPLC1-M1-SW-20	2/22/2025	15:18	SW	Frozen					1		1
T779.32	JKPLC1-M1-SW-40	2/22/2025	15:26	SW	Frozen					1		1
T779.32	JKPLC1-M1-SW-B	2/22/2025	15:36	SW	Frozen					1		1
T779.32	JKPLC1-M4-SW-1	2/22/2025	18:03	SW	Frozen					1		1
T779.32	JKPLC1-M4-SW-20	2/22/2025	18:09	SW	Frozen					1		1

Relinquished by:

AR
26 FEB 2025

Relinquished by:

Recieved by:

Recieved by:

Jesse Sny (ftw)
3/6/25
18:32

11 of 12

Ship To:
Lilly-Anna Lacount
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	Hg (EPA 1631 B)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1631 M	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1631 M	Dry Weight	Hg (EPA 1631 E)	10 Metals (As, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Pb, Zn) EPA 1640	6 Metals (As, Ba, Cd, Cu, Pb, Zn) EPA 1640
T779.32	JKPLC1-M4-SW-40	2/22/2025	18:17	SW	Frozen					1		1
T779.32	JKPLC1-M4-SW-B	2/22/2025	18:27	SW	Frozen					1		1
T779.32	JKPLC1-N2-SW-1	2/22/2025	12:25	SW	Frozen					1		1
T779.32	JKPLC1-N2-SW-20	2/22/2025	12:31	SW	Frozen					1		1
T779.32	JKPLC1-N2-SW-20-FD	2/22/2025	12:37	SW	Frozen					1		1
T779.32	JKPLC1-N2-SW-40	2/22/2025	12:44	SW	Frozen					1		1
T779.32	JKPLC1-N2-SW-B	2/22/2025	12:54	SW	Frozen					1		1
T779.32	JKPLC1-WB	2/22/2025	12:08	SW	Frozen					1		1

Relinquished by:


26 FEB 2025

Relinquished by:

Received by:

Received by:

Jesse Smy (EETN)

3/6/25

18:38

12 of 12

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -1.1/-1.3°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #22

Tetatech 3/6/25

• received 18:30 3/6/25
Jesse Syl (CTN)

Therm. ID: ~~SC0~~ EFG51A2 Cust. Seal: Y / N
Uncorr./Corr. Temp: -12/-11.4°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #24

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -5.7/-5.9°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #29

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -6.6/-7.2°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #28

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -1.5/-1.4°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #19

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -6.2/-6.8°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #13

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -12/-12.6°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #27

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -12.2/-12.4°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #21

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -11.8/-12.0°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #20

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -1.6/-1.6°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #17

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -2.6/-8.2°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 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.: 04/31/15 Packing: _____

Box #14

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -6.5/-7.1°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #26

Therm. ID: SC02 Cust. Seal: Y / N
Uncorr./Corr. Temp: -15.2/-15.4°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

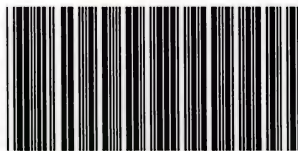
Box #18

Therm. ID: ~~SC0~~ EFG51A1 Cust. Seal: Y / N
Uncorr./Corr. Temp: -1.5/-1.6°C
Delivery: UPS / FedEx / Other: _____
Ice Type: Blue (Dry) / Wet / None
Label Ver.: 04/31/15 Packing: _____

Box #23

5 mL additions \Rightarrow 5 mL at a time

<5 mL additions \Rightarrow ~~100-500~~ MP-1000 pipette



Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-112	A	Y	5/2 4.5/2	
350-1619-B-113	A	Y	5/2	
350-1619-B-114	A	Y	5/2	
350-1619-B-115	A	Y	5/2	
350-1619-B-116	A	Y	5/2	
350-1619-B-117	A	Y	5/2	
350-1619-B-118	A	Y	4.5/2	
350-1619-B-119	A	Y	5/2	
350-1619-B-120	A	Y	5/2	
350-1619-B-121	A	Y	5/2	
350-1619-B-122	A	Y	5/2	
350-1619-B-123	A	Y	5/2	
350-1619-B-124	A	Y	5/2	
350-1619-B-125	A	Y	5/2	
350-1619-B-126	A	Y	5/2	
350-1619-B-127	A	Y	5/2	
350-1619-B-128	A	Y	5/2	
350-1619-B-129	A	Y	5/2	
350-1619-B-130	A	Y	5/2	
350-1619-B-131	A	Y	5/2	
350-1619-B-132	A	Y	5/2	
350-1619-B-133	A	Y	5/2	
350-1619-B-134	A	Y	5/2	
350-1619-B-135	A	Y	5/2	
350-1619-B-136	A	Y	4.5/2	
350-1619-B-137	A	Y	5/2	
350-1619-B-138	A	Y	4.5/2	
350-1619-B-139	A	Y	5/2	
350-1619-B-140	A	Y	5/2	
350-1619-B-141	A	Y	5/2	
350-1619-B-142	A	Y	5/2	
350-1619-B-143	A	Y	5/2	
350-1619-B-144	A	Y	3.5/2	
350-1619-B-145	A	Y	3.5/2	
350-1619-B-146	A	Y	5/2	

Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-145				
350-1619-B-146				JS 3/14/25
350-1619-B-147	A	Y	5/2	
350-1619-B-148	A	Y	5/2	
350-1619-B-149	A	Y	5/2	
350-1619-B-150	A	Y	5/2	
350-1619-B-151	A	Y	5/2	
350-1619-B-152	A	Y	5/2	
350-1619-B-153	A	Y	5/2	
350-1619-B-154	A	Y	5/2	
350-1619-B-155	A	Y	5/2	
350-1619-B-156	A	Y	5/2	
350-1619-B-157	A	Y	5/2	
350-1619-B-158	A	Y	5/2	
350-1619-B-159	A	Y	5/2	
350-1619-B-160	A	Y	5/2	
350-1619-B-161	A	Y	5/2	
350-1619-B-162	A	Y	5/2	
350-1619-B-163	A	Y	5/2	
350-1619-B-164	A	Y	4.5/2	
350-1619-B-165	A	Y	4.5/2	
350-1619-B-166	A	Y	5/2	
350-1619-B-167	A	Y	5/2	
350-1619-B-168	A	Y	4.5/2	
350-1619-B-169	A	Y	5/2	
350-1619-B-170	A	Y	5/2	
350-1619-B-171	A	Y	5/2	
350-1619-B-172	A	Y	5/2	
350-1619-B-173	A	Y	5/2	
350-1619-B-174	A	Y	5/2	
350-1619-B-175	A	Y	5/2	
350-1619-B-176	A	Y	5/2	
350-1619-B-177	A	Y	5/2	
350-1619-B-178	A	Y	5/2	
350-1619-B-179	A	Y	5/2	

Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JR

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-178				
350-1619-B-179				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	

B Bromine Monochloride (0.2N), 57368

Date:	3/11/2025
End Time:	17:36
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-211				
350-1619-B-212				JS 3/10/25
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	



Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

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-369	A	Y	5/2	
350-1619-B-370	A	Y	4.5/2	
350-1619-B-371	A	Y	5/2	
350-1619-B-372	A	Y	5/2	
350-1619-B-373	A	Y	5/2	
350-1619-B-374	A	Y	5/2	
350-1619-B-375	A	Y	4.5/2	
350-1619-B-376	A	Y	5/2	
350-1619-B-377	A	Y	5/2	
350-1619-B-378	A	Y	3.5/2	
350-1619-B-379	A	Y	5/2	
350-1619-B-380	A	Y	5/2	
350-1619-B-381	A	Y	5/2	
350-1619-B-382	A	Y	5/2	
350-1619-B-383	A	Y	5/2	
350-1619-B-384	A	Y	5/2	

Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-383				
350-1619-B-384				JS 3/11/25
350-1619-B-385	A	Y	5/2	
350-1619-B-386	A	Y	5/2	
350-1619-B-387	A	Y	3.5/2	
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

Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	SS

[illegible]

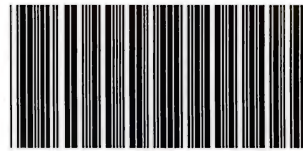
Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-416				
350-1619-B-417			SS 3	11/25
350-1619-B-418	A	Y	5/2	
350-1619-B-419	A	Y	5/2	
350-1619-B-420	A	Y	5/2	
350-1619-B-421	A	Y	5/2	
350-1619-B-422	A	Y	5/2	
350-1619-B-423	A	Y	5/2	
350-1619-B-424	A	Y	5/2	
350-1619-B-425	A	Y	5/2	
350-1619-B-426	A	Y	3.5/2	
350-1619-B-445	A	Y	4.5/2	
350-1619-B-446	A	Y	5/2	
350-1619-B-447	A	Y	5/2	
350-1619-B-448	A	Y	5/2	
350-1619-B-449	A	Y	5/2	
350-1619-B-450	A	Y	5/2	
350-1619-B-451	A	Y	4.5/2	
350-1619-B-452	A	Y	4.5/2	
350-1619-B-453	A	Y	5/2	
350-1619-B-454	A	Y	5/2	
350-1619-B-455	A	Y	5/2	
350-1619-B-456	A	Y	5/2	
350-1619-B-457	A	Y	5/2	
350-1619-B-458	A	Y	5/2	
350-1619-B-459	A	Y	3.5/2	
350-1619-B-460	A	Y	5/2	
350-1619-B-461	A	Y	5/2	
350-1619-B-462	A	Y	5/2	
350-1619-B-463	A	Y	5/2	
350-1619-B-464	A	Y	5/2	
350-1619-B-465	A	Y	5/2	
350-1619-B-466	A	Y	5/2	
350-1619-B-467	A	Y	5/2	
350-1619-B-468	A	Y	4/2	

Date:	3/11/2025
End Time:	17:38
KI Paper Lot:	N/A
Analyst:	JS

[illegible]

Sample ID	Pres. Used (ID)	Oxidized (Y/N)?	Pres. Vol. (mL)/Percent (%)	Comments
350-1619-B-467				
350-1619-B-468				
350-1619-B-469	A	Y	5/2	
350-1619-B-470	A	Y	5/2	
350-1619-B-471	A	Y	5/2	
350-1619-B-472	A	Y	5/2	
350-1619-B-473	A	Y	5/2	
350-1619-B-474	A	Y	5/2	
350-1619-B-475	A	Y	5/2	
350-1619-B-476	A	Y	5/2	
350-1619-B-477	A	Y	5/2	
350-1619-B-478	A	Y	5/2	
350-1619-B-479	A	Y	5/2	
350-1619-B-480	A	Y	5/2	
350-1619-B-481	A	Y	5/2	
350-1619-B-482	A	Y	3.5/2	
350-1619-B-484	A	Y	5/2	
350-1619-B-485	A	Y	5/2	
350-1619-B-486	A	Y	5/2	
350-1619-B-487	A	Y	5/2	

55 3/14/25



3/19/25 JS 3/19/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	HCH41724
Analyst:	JS

MD-TM & pretty

[illegible]

(uL) JS 3/18/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-112	>2	<2	A	625	
350-1619-A-113	>2	<2	A	562	
350-1619-A-114	>2	<2	A	625	
350-1619-A-115	>2	<2	A	625	
350-1619-A-116	>2	<2	A	625	
350-1619-A-117	>2	<2	A	625	
350-1619-A-118	>2	<2	A	625	
350-1619-A-119	>2	<2	A	625	
350-1619-A-120	>2	<2	A	625	
350-1619-A-121	>2	<2	A	625	
350-1619-A-122	>2	<2	A	625	
350-1619-A-123	>2	<2	A	625	
350-1619-A-124	>2	<2	A	625	
350-1619-A-125	>2	<2	A	625	
350-1619-A-126	>2	<2	A	625	
350-1619-A-127	>2	<2	A	625	
350-1619-A-128	>2	<2	A	625	
350-1619-A-129	>2	<2	A	625	
350-1619-A-130	>2	<2	A	625	
350-1619-A-131	>2	<2	A	625	
350-1619-A-132	>2	<2	A	625	
350-1619-A-133	>2	<2	A	562	
350-1619-A-134	>2	<2	A	625	
350-1619-A-135	>2	<2	A	625	
350-1619-A-136	>2	<2	A	625	
350-1619-A-137	>2	<2	A	625	
350-1619-A-138	>2	<2	A	625	
350-1619-A-139	>2	<2	A	625	
350-1619-A-140	>2	<2	A	625	
350-1619-A-141	>2	<2	A	625	
350-1619-A-142	>2	<2	A	625	
350-1619-A-143	>2	<2	A	625	
350-1619-A-144	>2	<2	A	437	
350-1619-A-145	>2	<2	A	437	
350-1619-A-146	>2	<2	A	625	

JS 3/19/25

3/19/25 JS 3/19/15

Date:	2/11/2025
End Time:	8:59
pH Paper Lot:	HC441724
Analyst:	JJ

[illegible]

(ML) JS 3119125

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-145					
350-1619-A-146				JS 3/19/25	repeated sample
350-1619-A-147	>2	<2	A	562	
350-1619-A-148	>2	<2	A	625	
350-1619-A-149	>2	<2	A	625	
350-1619-A-150	>2	<2	A	625	
350-1619-A-151	>2	<2	A	625	
350-1619-A-152	>2	<2	A	625	
350-1619-A-153	>2	<2	A	625	
350-1619-A-154	>2	<2	A	625	
350-1619-A-155	>2	<2	A	625	
350-1619-A-156	>2	<2	A	625	
350-1619-A-157	>2	<2	A	625	
350-1619-A-158	>2	<2	A	625	
350-1619-A-159	>2	<2	A	625	
350-1619-A-160	>2	<2	A	625	
350-1619-A-161	>2	<2	A	625	
350-1619-A-162	>2	<2	A	625	
350-1619-A-163	>2	<2	A	625	
350-1619-A-164	>2	<2	A	625	
350-1619-A-165	>2	<2	A	625	
350-1619-A-166	>2	<2	A	625	
350-1619-A-167	>2	<2	A	625	
350-1619-A-168	>2	<2	A	625	
350-1619-A-169	>2	<2	A	625	
350-1619-A-170	>2	<2	A	625	
350-1619-A-171	>2	<2	A	625	
350-1619-A-172	>2	<2	A	625	
350-1619-A-173	>2	<2	A	625	
350-1619-A-174	>2	<2	A	625	
350-1619-A-175	>2	<2	A	625	
350-1619-A-176	>2	<2	A	625	
350-1619-A-177	>2	<2	A	625	
350-1619-A-178	>2	<2	A	625	
350-1619-A-179	>2	<2	A	625	JS 3/19/25

3/19/25 JS 3/19/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	MC441724
Analyst:	JS

MP-TM & pipette

[illegible]

(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-178					
350-1619-A-179					3/19/25 repeated
350-1619-A-180	>2	<2	A	625	
350-1619-A-181	>2	<2	A	625	
350-1619-A-182	>2	<2	A	437	
350-1619-A-183	>2	<2	A	437	
350-1619-A-184	>2	<2	A	625	
350-1619-A-185	>2	<2	A	625	
350-1619-A-186	>2	<2	A	625	
350-1619-A-187	>2	<2	A	625	
350-1619-A-188	>2	<2	A	625	
350-1619-A-189	>2	<2	A	625	
350-1619-A-190	>2	<2	A	625	
350-1619-A-191	>2	<2	A	625	
350-1619-A-192	>2	<2	A	625	
350-1619-A-193	>2	<2	A	625	
350-1619-A-194	>2	<2	A	625	
350-1619-A-195	>2	<2	A	625	
350-1619-A-196	>2	<2	A	625	
350-1619-A-197	>2	<2	A	625	
350-1619-A-198	>2	<2	A	625	
350-1619-A-199	>2	<2	A	625	
350-1619-A-200	>2	<2	A	625	
350-1619-A-201	>2	<2	A	625	
350-1619-A-202	>2	<2	A	625	
350-1619-A-203	>2	<2	A	625	
350-1619-A-204	>2	<2	A	625	
350-1619-A-205	>2	<2	A	625	
350-1619-A-206	>2	<2	A	625	
350-1619-A-207	>2	<2	A	625	
350-1619-A-208	>2	<2	A	625	
350-1619-A-209	>2	<2	A	437	
350-1619-A-210	>2	<2	A	437	
350-1619-A-211	>2	<2	A	625	
350-1619-A-212	>2	<2	A	625	3/19/25

3/19/25 JS 3/19/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	HC411704
Analyst:	JJ

mp - TM 26 pipette

[illegible]

(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-211	>2	<2	A		
350-1619-A-212	>2	<2	A		JS 3/19/25 repeated
350-1619-A-213	>2	<2	A	625	
350-1619-A-214	>2	<2	A	625	
350-1619-A-215	>2	<2	A	562	
350-1619-A-216	>2	<2	A	625	
350-1619-A-217	>2	<2	A	562	
350-1619-A-218	>2	<2	A	625	
350-1619-A-219	>2	<2	A	625	
350-1619-A-220	>2	<2	A	625	
350-1619-A-221	>2	<2	A	625	
350-1619-A-222	>2	<2	A	625	
350-1619-A-223	>2	<2	A	625	
350-1619-A-224	>2	<2	A	562	
350-1619-A-225	>2	<2	A	562	
350-1619-A-226	>2	<2	A	625	
350-1619-A-227	>2	<2	A	825	
350-1619-A-228	>2	<2	A	625	
350-1619-A-229	>2	<2	A	625	
350-1619-A-230	>2	<2	A	625	
350-1619-A-231	>2	<2	A	625	
350-1619-A-232	>2	<2	A	625	
350-1619-A-233	>2	<2	A	625	
350-1619-A-234	>2	<2	A	625	
350-1619-A-235	>2	<2	A	625	
350-1619-A-236	>2	<2	A	625	
350-1619-A-237	>2	<2	A	625	
350-1619-A-238	>2	<2	A	625	
350-1619-A-239	>2	<2	A	625	
350-1619-A-240	>2	<2	A	625	
350-1619-A-241	>2	<2	A	625	
350-1619-A-242	>2	<2	A	625	
350-1619-A-243	>2	<2	A	625	
350-1619-A-244	>2	<2	A	500	
350-1619-A-245	>2	<2	A	437	JS 3/19/25

3/19/25 JS 3/19/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	HCN1724
Analyst:	JS

[illegible]

(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-244					
350-1619-A-245					JS 3/19/25 repeated
350-1619-A-259	>2	<2	A	625	
350-1619-A-260	>2	<2	A	625	
350-1619-A-261	>2	<2	A	625	
350-1619-A-262	>2	<2	A	625	
350-1619-A-263	>2	<2	A	625	
350-1619-A-264	>2	<2	A	625	
350-1619-A-265	>2	<2	A	625	
350-1619-A-266	>2	<2	A	625	
350-1619-A-267	>2	<2	A	625	
350-1619-A-268	>2	<2	A	625	
350-1619-A-269	>2	<2	A	625	
350-1619-A-270	>2	<2	A	625	
350-1619-A-271	>2	<2	A	625	
350-1619-A-272	>2	<2	A	625	
350-1619-A-273	>2	<2	A	625	
350-1619-A-274	>2	<2	A	625	
350-1619-A-275	>2	<2	A	625	
350-1619-A-276	>2	<2	A	562	
350-1619-A-277	>2	<2	A	562	
350-1619-A-369	>2	<2	A	625	
350-1619-A-370	>2	<2	A	562	
350-1619-A-371	>2	<2	A	625	
350-1619-A-372	>2	<2	A	562	
350-1619-A-373	>2	<2	A	625	
350-1619-A-374	>2	<2	A	625	
350-1619-A-375	>2	<2	A	562	

JS 3/19/25

3/19/25 or 3/19/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	4C4N1724
Analyst:	33

MR. TMA6 pipette

[illegible]

(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-376	>2	<2	A	625	
350-1619-A-377	>2	<2	A	625	
350-1619-A-378	>2	<2	A	437	
350-1619-A-379	>2	<2	A	625	
350-1619-A-380	>2	<2	A	625	
350-1619-A-381	>2	<2	A	625	
350-1619-A-382	>2	<2	A	625	
350-1619-A-383	>2	<2	A	625	
350-1619-A-384	>2	<2	A	625	
350-1619-A-385	>2	<2	A	625	
350-1619-A-386	>2	<2	A	625	
350-1619-A-387	>2	<2	A	437	
350-1619-A-388	>2	<2	A	625	
350-1619-A-389	>2	<2	A	625	
350-1619-A-390	>2	<2	A	625	
350-1619-A-391	>2	<2	A	625	
350-1619-A-392	>2	<2	A	625	
350-1619-A-393	>2	<2	A	625	
350-1619-A-394	>2	<2	A	625	
350-1619-A-395	>2	<2	A	625	
350-1619-A-396	>2	<2	A	625	
350-1619-A-397	>2	<2	A	625	
350-1619-A-398	>2	<2	A	625	
350-1619-A-399	>2	<2	A	625	
350-1619-A-400	>2	<2	A	625	
350-1619-A-401	>2	<2	A	437	
350-1619-A-402	>2	<2	A	437	
350-1619-A-403	>2	<2	A	625	
350-1619-A-404	>2	<2	A	625	
350-1619-A-405	>2	<2	A	625	
350-1619-A-406	>2	<2	A	625	
350-1619-A-407	>2	<2	A	625	
350-1619-A-408	>2	<2	A	625	
350-1619-A-409	>2	<2	A	625	
350-1619-A-410	>2	<2	A	625	

JS 3/19/28

31/9/25 ਤਸ 31/9/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	HC441704
Analyst:	JS

MD-TM26 pipette

[illegible]

Final pH	Initial pH
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(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-409					
350-1619-A-410				35	3/19/25 repeated
350-1619-A-411	<2	>2	A	625	
350-1619-A-412	<2	>2	A	625	
350-1619-A-413	<2	>2	A	625	
350-1619-A-414	<2	>2	A	625	
350-1619-A-415	<2	>2	A	625	
350-1619-A-416	<2	>2	A	437	
350-1619-A-417	<2	>2	A	625	
350-1619-A-418	<2	>2	A	625	
350-1619-A-419	<2	>2	A	625	
350-1619-A-420	<2	>2	A	625	
350-1619-A-421	<2	>2	A	625	
350-1619-A-422	<2	>2	A	625	
350-1619-A-423	<2	>2	A	625	
350-1619-A-424	<2	>2	A	625	
350-1619-A-425	<2	>2	A	625	
350-1619-A-426	<2	>2	A	375	
350-1619-A-445	<2	>2	A	625	
350-1619-A-446	<2	>2	A	562	
350-1619-A-447	<2	>2	A	625	
350-1619-A-448	<2	>2	A	625	
350-1619-A-449	<2	>2	A	625	
350-1619-A-450	<2	>2	A	625	
350-1619-A-451	<2	>2	A	625	
350-1619-A-452	<2	>2	A	625	
350-1619-A-453	<2	>2	A	625	
350-1619-A-454	<2	>2	A	625	
350-1619-A-455	<2	>2	A	625	
350-1619-A-456	<2	>2	A	625	
350-1619-A-457	<2	>2	A	625	
350-1619-A-458	<2	>2	A	625	
350-1619-A-459	<2	>2	A	562	
350-1619-A-460	<2	>2	A	625	
350-1619-A-461	<2	>2	A	625	TS 3/19/25

3/19/25 JS 3/14/25

Date:	3/11/2025
End Time:	8:59
pH Paper Lot:	H1441704
Analyst:	JS

mp-TM26 phette

[illegible]

(ML) JS 3/19/25

Sample ID	Initial pH	Final pH	Preservative ID	Preservative Added (mL)	Comments
350-1619-A-460					
350-1619-A-461				JS 3/19	25 repeated
350-1619-A-462	>2	<2	A	625	
350-1619-A-463	>2	<2	A	625	
350-1619-A-464	>2	<2	A	625	
350-1619-A-465	>2	<2	A	625	
350-1619-A-466	>2	<2	A	625	
350-1619-A-467	>2	<2	A	625	
350-1619-A-468	>2	<2	A	437	
350-1619-A-469	>2	<2	A	625	
350-1619-A-470	>2	<2	A	625	
350-1619-A-471	>2	<2	A	625	
350-1619-A-472	>2	<2	A	625	
350-1619-A-473	>2	<2	A	625	
350-1619-A-474	>2	<2	A	625	
350-1619-A-475	>2	<2	A	625	
350-1619-A-476	>2	<2	A	625	
350-1619-A-477	>2	<2	A	625	
350-1619-A-478	>2	<2	A	625	
350-1619-A-479	>2	<2	A	625	
350-1619-A-480	>2	<2	A	625	
350-1619-A-481	>2	<2	A	625	
350-1619-A-482	>2	<2	A	437	
350-1619-A-484	>2	<2	A	625	
350-1619-A-485	>2	<2	A	562	
350-1619-A-486	>2	<2	A	625	
350-1619-A-487	>2	<2	A	625	

JS 3/19/25

Login Sample Receipt Checklist

Client: Tetra Tech Inc

Job Number: 350-1619-5

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 \leq 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 $<6\text{mm}$ (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



United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260

Tel. 0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

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 T779.30, DDPH Analysis of seawater

This cover letter is to submit the laboratory analysis report for Project T779.30, DDPH Analysis of seawater service provided according to the UAE Quotation No. 2025-002382 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,

Mrs Piyapat Suttamanutwong

Laboratory and Research Development Manager

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
T779.28	MGWA-1CP2-1-LD	2/4/2025	2:05	SW	Hexane	1
T779.28	MGWA-1B2Y-SW-1	2/4/2025	0:46	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	19:33	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	0:40	SW	Hexane	1
T779.30	SRWB-1CP2-1	2/9/2025	1:06	SW	Hexane	1
T779.30	SRWB-1CP2-20	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	3:06	SW	Hexane	1
T779.30	G4/43REF-A-SW-1	2/10/2025	1:01	SW	Hexane	1
T779.30	G4/43REF-A-SW-20	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

Relinquished by: Chayungoon Vathanyaprascha

26 FEB 25

Recieved by:

Papanyant . P

14 MAR 25

Relinquished by:

Recieved by:


United Analyst and Engineering Consultant Co., Ltd.
CHAIN-OF-CUSTODY

 UNITED ANALYST AND ENGINEERING
CONSULTANT COMPANY LIMITED

3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260 Tel. : 0-2763-2828, Fax. : 0-2763-2800

Number : 1

 e-mail : lab@uaeconsultant.com <<mailto:lab@uaeconsultant.com>>

<http://www.uaeconsultant.com>

FOR CLIENT
FOR UAE

CLIENT : TETRA TECH INC.					ANALYSIS NO. : T25AE933-0001 - T25AE933-0017		PROJECT CODE : 25-00193		CLIENT ID : 16-00432	
ADDRESS : 77 SOI UDOMSUK 39/1 SUKHUMVIT 103 ROAD BANG CHAK BANGKOK 10260					QUOTATION NUMBER : 2025-002382-R1		SAMPLING BY : Customer			
TELEPHONE : 089-944-4499 FAX :					PAYMENT TERM : 1 / 1		WITNESS :			
CONTACT PERSON : Khun Chayungoon Vathanyuprach SECTION :					UAE CONTACT : MissSUTTHIDA PHATEE		LOCATION :			
PROJECT NAME : Analysis for T779.30 (13 samples)					SECTION :					

ITEM	ANALYSIS NUMBER	SAMPLE NAME	SAMPLING DATE	SAMPLING TIME	SAMPLE TYPE	SAMPLING METHOD	CONTAINER TYPE	QUANTITY	REQUIRED PARAMETER
1	T25AE933-0001	SRWB-1CP2-1	09 February	01:06	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						
2	T25AE933-0002	SRWB-1CP2-20	09 February	01:12	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						
3	T25AE933-0003	SRWB-1CP2-40	09 February	01:20	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						
4	T25AE933-0004	SRWB-1CP2-40-FD	09 February	01:30	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						
5	T25AE933-0005	SRWB-1CP2-B	09 February	01:41	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						
6	T25AE933-0006	SRWB-3CP2-1	09 February	02:40	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						

ขอรับรอง ISO/IEC 17025

TRANSFER RECORD	NAME	SIGNATURE	DATE	TIME	CHECKMARK RELEASED	CHECKMARK RECEIVED	EXTERNAL SAMPLE CONDITION
	1 m2m	lvj	7/3/25	15.50		<input checked="" type="checkbox"/> Complete	<input type="checkbox"/> Incomplete
						<input type="checkbox"/> Complete	<input type="checkbox"/> Incomplete
						<input type="checkbox"/> Complete	<input type="checkbox"/> Incomplete

Analysis Method	Delivery Analysis	Sample Return	Decision rule	Remarks
<input type="radio"/> standard Method <input type="radio"/> Quation	<input type="radio"/> Mail/Messenger <input type="radio"/> Receive by Hand <input type="radio"/> Report	<input type="radio"/> Yes <input type="radio"/> No (Disposal sample afer send analysis report to customer 12 days)	<input type="radio"/> Yes [<input type="radio"/> Specification, <input type="radio"/> Standard <input type="radio"/> Other (Specify)..... <input type="radio"/> No	


United Analyst and Engineering Consultant Co., Ltd.
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3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260 Tel. : 0-2763-2828, Fax. : 0-2763-2800

Number : 1

 UNITED ANALYST AND ENGINEERING
CONSULTANT COMPANY LIMITED

 e-mail : lab@uaeconsultant.com <<mailto:lab@uaeconsultant.com>>

<http://www.uaeconsultant.com>

FOR CLIENT
FOR UAE

CLIENT : TETRA TECH INC.					ANALYSIS NO. : T25AE933-0001 - T25AE933-0017		PROJECT CODE : 25-00193		CLIENT ID : 16-00432	
ADDRESS : 77 SOI UDOMSUK 39/1 SUKHUMVIT 103 ROAD BANG CHAK BANGKOK 10260					QUOTATION NUMBER : 2025-002382-R1		SAMPLING BY : Customer			
TELEPHONE : 089-944-4499 FAX :					PAYMENT TERM : 1 / 1		WITNESS :			
CONTACT PERSON : Khun Chayunggoon Vathanyuprach SECTION :					UAE. CONTACT : MissSUTTHIDA PHATEE		LOCATION :			
PROJECT NAME : Analysis for T779.30 (13 samples)					SECTION :					

ITEM	ANALYSIS NUMBER	SAMPLE NAME	SAMPLING DATE	SAMPLING TIME	SAMPLE TYPE	SAMPLING METHOD	CONTAINER TYPE	QUANTITY	REQUIRED PARAMETER
7	T25AE933-0007	SRWB-3CP2-20	09 February	02:46	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						
8	T25AE933-0008	SRWB-3CP2-40	09 February	02:54	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						
9	T25AE933-0009	SRWB-3CP2-B	09 February	03:06	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						
10	T25AE933-0010	SRWB-3CP2-B-MS	09 February	03:06	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						
11	T25AE933-0011	SRWB-3CP2-B-MSD	09 February	03:06	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						
12	T25AE933-0012	G4/43REF-A-SW-1	10 February	01:01	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment
			2025						

ขอรับรอง ISO/IEC 17025

TRANSFER RECORD	NAME	SIGNATURE	DATE	TIME	CHECKMARK RELEASED	CHECKMARK RECEIVED	EXTERNAL SAMPLE CONDITION
1	นางสาว	นาง	2/3/61	10.10			<input type="radio"/> Complete <input type="radio"/> Incomplete
							<input type="radio"/> Complete <input type="radio"/> Incomplete
							<input type="radio"/> Complete <input type="radio"/> Incomplete

Analysis Method	Delivery Analysis	Sample Return	Decision rule	Remarks
<input type="radio"/> standard Method <input type="radio"/> Quation	<input type="radio"/> Mail/Messenger <input type="radio"/> Receive by Hand <input type="radio"/> Report	<input type="radio"/> Yes <input type="radio"/> No (Disposal sample afer send analysis report to customer 12 days)	<input type="radio"/> Yes [<input type="radio"/> Specification, <input type="radio"/> Standard <input type="radio"/> Other (Specify)..... <input type="radio"/> No	


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Number : 1


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<http://www.uaeconsultant.com>
FOR CLIENT
FOR UAE

CLIENT : TETRA TECH INC.					ANALYSIS NO. : T25AE933-0001 - T25AE933-0017		PROJECT CODE : 25-00193		CLIENT ID : 16-00432	
ADDRESS : 77 SOI UDOMSUK 39/1 SUKHUMVIT 103 ROAD BANG CHAK BANGKOK 10260					QUOTATION NUMBER : 2025-002382-R1		SAMPLING BY : Customer			
TELEPHONE : 089-944-4499 FAX :					PAYMENT TERM : 1 / 1		WITNESS :			
CONTACT PERSON : Khun Chayunggoon Vathanyuprach SECTION :					UAE. CONTACT : MissSUTTHIDA PHATEE		LOCATION :			
PROJECT NAME : Analysis for T779.30 (13 samples)					SECTION :					
ITEM	ANALYSIS NUMBER	SAMPLE NAME	SAMPLING DATE	SAMPLING TIME	SAMPLE TYPE	SAMPLING METHOD	CONTAINER TYPE	QUANTITY	REQUIRED PARAMETER	
13	T25AE933-0013	G4/43REF-A-SW-20	10 February	01:07	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment	
			2025							
14	T25AE933-0014	G4/43REF-A-SW-40	10 February	01:13	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment	
			2025							
15	T25AE933-0015	G4/43REF-A-SW-B	10 February	01:26	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment	
			2025							
16	T25AE933-0016	SRWB-WB	09 February	00:35	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment	
			2025							
17	T25AE933-0017	SRWB-EQ	09 February	00:40	SEAWATER	-	ขวดแก้วสีชา (GA) 4 ลิตร	1	Attachment	
			2025							

ขอรับรอง ISO/IEC 17025

TRANSFER RECORD	NAME	SIGNATURE	DATE	TIME	CHECKMARK RELEASED	CHECKMARK RECEIVED	EXTERNAL SAMPLE CONDITION
1	man	unb	16/02	18.50		<input checked="" type="radio"/> Complete	<input type="radio"/> Incomplete
						<input type="radio"/> Complete	<input type="radio"/> Incomplete
						<input type="radio"/> Complete	<input type="radio"/> Incomplete
Analysis Method	Delivery Analysis	Sample Return			Decision rule		Remarks
<input type="radio"/> standard Method <input type="radio"/> Quation	<input type="radio"/> Mail/Messenger <input type="radio"/> Receive by Hand <input type="radio"/> Report	<input type="radio"/> Yes <input type="radio"/> No (Disposal sample afer send analysis report to customer 12 days)			<input type="radio"/> Yes [<input type="radio"/> Specification, <input type="radio"/> Standard <input type="radio"/> Other (Specify).....		
					<input type="radio"/> No		

Attachment

CLIENT ID : 16-00432



COC ID : 1

2025-002382-R1

ITEM	SAMPLE NAME	REQUIRED PARAMETER
1	SRWB-1CP2-1	TPH
2	SRWB-1CP2-20	TPH
3	SRWB-1CP2-40	TPH
4	SRWB-1CP2-40-FD	TPH
5	SRWB-1CP2-B	TPH
6	SRWB-3CP2-1	TPH
7	SRWB-3CP2-20	TPH
8	SRWB-3CP2-40	TPH
9	SRWB-3CP2-B	TPH
10	SRWB-3CP2-B-MS	TPH
11	SRWB-3CP2-B-MSD	TPH
12	G4/43REF-A-SW-1	TPH
13	G4/43REF-A-SW-20	TPH
14	G4/43REF-A-SW-40	TPH
15	G4/43REF-A-SW-B	TPH
16	SRWB-WB	TPH
17	SRWB-EQ	TPH

Internal Note : Existing Business

Remark :

Exported by	Checked by
-------------	------------

CASE NARRATIVE

Project T779.30 -:

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.

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 **RECEIVED DATE** : 07-03-2025

SAMPLING DATE : * **ANALYTICAL DATE** : 29-04-2025

SAMPLING TIME : * **ANALYSIS NO.** : **

SAMPLING METHOD : - **WORK NO.** : 2025-002382

ANALYZED BY : MR PRAPANYUT PHAUNGANG **REPORT NO.** : 2025-U043104

PROJECT	SAMPLE NAME	ANALYSIS NO.**	MATRIX	SAMPLING DATE*
T779.30	SRWB-1CP2-1	T25AE933-0001	SEAWATER	09-02-2025
T779.30	SRWB-1CP2-20	T25AE933-0002	SEAWATER	09-02-2025
T779.30	SRWB-1CP2-40	T25AE933-0003	SEAWATER	09-02-2025
T779.30	SRWB-1CP2-40-FD	T25AE933-0004	SEAWATER	09-02-2025
T779.30	SRWB-1CP2-B	T25AE933-0005	SEAWATER	09-02-2025
T779.30	SRWB-3CP2-1	T25AE933-0006	SEAWATER	09-02-2025
T779.30	SRWB-13CP2-20	T25AE933-0007	SEAWATER	09-02-2025
T779.30	SRWB-3CP2-40	T25AE933-0008	SEAWATER	09-02-2025
T779.30	SRWB-3CP2-B	T25AE933-0009	SEAWATER	09-02-2025
T779.30	SRWB-3CP2-B-MS	T25AE933-0010	SEAWATER	09-02-2025
T779.30	SRWB-3CP2-B-MSD	T25AE933-0011	SEAWATER	09-02-2025
T779.30	G4/43REF-A-SW-1	T25AE933-0012	SEAWATER	10-02-2025
T779.30	G4/43REF-A-SW-20	T25AE933-0013	SEAWATER	10-02-2025
T779.30	G4/43REF-A-SW-40	T25AE933-0014	SEAWATER	10-02-2025
T779.30	G4/43REF-A-SW-B	T25AE933-0015	SEAWATER	10-02-2025
T779.30	SRWB-WB	T25AE933-0016	SEAWATER	09-02-2025
T779.30	SRWB-EQ	T25AE933-0017	SEAWATER	09-02-2025

PROJECT T779.30

ANALYTE	METHOD
DISSOLVED/DISPERSED PETROLEUM HYDROCARBON	IOC MARPOLMON-P

SAMPLE NAME	ANALYSIS NO.	PREPARED	ANALYZED	BATCH	RESULT	MDL	RL	UNITS	DILUTION	NOTES
SRWB-1CP2-1	T25AE933-0001	09-02-2025	29-04-2025	539199	0.27	0.04	0.10	ug/L as Chrysene	1	
SRWB-1CP2-20	T25AE933-0002	09-02-2025	29-04-2025	539199	0.13	0.04	0.10	ug/L as Chrysene	1	
SRWB-1CP2-40	T25AE933-0003	09-02-2025	29-04-2025	539199	0.12	0.04	0.10	ug/L as Chrysene	1	
SRWB-1CP2-40-FD	T25AE933-0004	09-02-2025	29-04-2025	539199	0.16	0.04	0.10	ug/L as Chrysene	1	
SRWB-1CP2-B	T25AE933-0005	09-02-2025	29-04-2025	539199	0.13	0.04	0.10	ug/L as Chrysene	1	
SRWB-3CP2-1	T25AE933-0006	09-02-2025	29-04-2025	539199	0.27	0.04	0.10	ug/L as Chrysene	1	
SRWB-13CP2-20	T25AE933-0007	09-02-2025	29-04-2025	539199	0.19	0.04	0.10	ug/L as Chrysene	1	
SRWB-3CP2-40	T25AE933-0008	09-02-2025	29-04-2025	539199	0.21	0.04	0.10	ug/L as Chrysene	1	
SRWB-3CP2-B	T25AE933-0009	09-02-2025	29-04-2025	539199	0.11	0.04	0.10	ug/L as Chrysene	1	
SRWB-3CP2-B-MS	T25AE933-0010	09-02-2025	29-04-2025	539199	0.72	0.04	0.10	ug/L as Chrysene	1	
SRWB-3CP2-B-MSD	T25AE933-0011	09-02-2025	29-04-2025	539199	0.65	0.04	0.10	ug/L as Chrysene	1	
G4/43REF-A-SW-1	T25AE933-0012	10-02-2025	29-04-2025	539199	0.08	0.04	0.10	ug/L as Chrysene	1	J
G4/43REF-A-SW-20	T25AE933-0013	10-02-2025	29-04-2025	539199	0.10	0.04	0.10	ug/L as Chrysene	1	J
G4/43REF-A-SW-40	T25AE933-0014	10-02-2025	29-04-2025	539199	0.19	0.04	0.10	ug/L as Chrysene	1	
G4/43REF-A-SW-B	T25AE933-0015	10-02-2025	29-04-2025	539199	0.09	0.04	0.10	ug/L as Chrysene	1	J
SRWB-WB	T25AE933-0016	09-02-2025	29-04-2025	539199	ND	0.04	0.10	ug/L as Chrysene	1	
SRWB-EQ	T25AE933-0017	09-02-2025	29-04-2025	539199	ND	0.04	0.10	ug/L as Chrysene	1	

QUALITY CONTROL

PROJECT T779.30

ANALYTE	METHOD
DISSOLVED/DISPERSED PETROLEUM HYDROCARBON	IOC MARPOLMON-P

BATCH 534036 **PREPARED** 08- 09 02-2025 **ANALYZED** 29-04-2025

QC TYPE	ANALYSIS NO.	RESULT	MDL	RL	UNITS	SOURCE RESULT	SPIKE LEVEL	%REC	%REC LIMITS	RPD	RPD LIMIT	NOTES
Blank		ND	0.04	0.10	ug/L as Chrysene							
CCS		0.55	0.04	0.10	ug/L as Chrysene		0.50	110	90-110			
CCV		0.51	0.04	0.10	ug/L as Chrysene		0.50	101	90-110			
LCS		0.67	0.04	0.10	ug/L as Chrysene		0.58	112	80-120			
LCS Dup		0.68	0.04	0.10	ug/L as Chrysene		0.58	114	80-120	1.5	20	
Sample	T25AE933-0009	0.11	0.04	0.10	ug/L as Chrysene							
Matrix Spike	T25AE933-0010	0.72	0.04	0.10	ug/L as Chrysene	0.11	0.58	105	80-120			
Matrix Spike Dup	T25AE933-0011	0.65	0.04	0.10	ug/L as Chrysene	T25AE933-0009	0.58	93	80-120	10.1	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

Piyapat 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.



Analysis / Test Report

Report to : Tetra Tech Inc.

77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakhonong, Bangkok Thailand 10260

P/O :

Project Name : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 17, 2025

Report Number : 3233853-1

Page 1 of 11

Summary Samples

Sample Location	ALS Sample ID	Sample Description	Sampling Date / Time	Received Date / Time
SRWB-1CP2-1	2513733-1	Seawater	Feb 09, 2025 01:06 AM	Feb 13, 2025 09:00 AM
SRWB-1CP2-20	2513733-2	Seawater	Feb 09, 2025 01:12 AM	Feb 13, 2025 09:00 AM
SRWB-1CP2-40	2513733-3	Seawater	Feb 09, 2025 01:20 AM	Feb 13, 2025 09:00 AM
SRWB-1CP2-40-FD	2513733-4	Seawater	Feb 09, 2025 01:30 AM	Feb 13, 2025 09:00 AM
SRWB-1CP2-B	2513733-5	Seawater	Feb 09, 2025 01:41 AM	Feb 13, 2025 09:00 AM
SRWB-3CP2-1	2513733-6	Seawater	Feb 09, 2025 02:40 AM	Feb 13, 2025 09:00 AM
SRWB-3CP2-20	2513733-7	Seawater	Feb 09, 2025 02:46 AM	Feb 13, 2025 09:00 AM
SRWB-3CP2-40	2513733-8	Seawater	Feb 09, 2025 02:54 AM	Feb 13, 2025 09:00 AM
SRWB-3CP2-B	2513733-9	Seawater	Feb 09, 2025 03:06 AM	Feb 13, 2025 09:00 AM

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 Bunnak
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 : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 17, 2025

Report Number : 3233853-1

Page 2 of 11

Summary Samples

Sample Location	ALS Sample ID	Sample Description	Sampling Date / Time	Received Date / Time
-----------------	---------------	--------------------	----------------------	----------------------

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 13, 2025 were intact, on-ice within 2 sealed cooler at

Cooler 1 : Temperature 4.8 degree C

Cooler 2 : Temperature 5.2 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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P/O :

Project Name : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 17, 2025

Report Number : 3233853-1

Page 3 of 11

Reference Number 2513733-1
Sampling Date Feb 09, 2025 1:06 AM
Sample Description Seawater
Location SRWB-1CP2-1
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	WL25/03626	Feb 14, 2025	Feb 14, 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, Prakhnong, Bangkok Thailand 10260

P/O :

Project Name : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 17, 2025

Report Number : 3233853-1

Page 4 of 11

Reference Number 2513733-2
Sampling Date Feb 09, 2025 1:12 AM
Sample Description Seawater
Location SRWB-1CP2-20
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	WL25/03626	Feb 14, 2025	Feb 14, 2025	APHA (2023), 2540 D	U

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77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakhonong, Bangkok Thailand 10260

P/O :

Project Name : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 17, 2025

Report Number : 3233853-1

Page 5 of 11

Reference Number 2513733-3
Sampling Date Feb 09, 2025 1:20 AM
Sample Description Seawater
Location SRWB-1CP2-40
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	WL25/03627	Feb 14, 2025	Feb 14, 2025	APHA (2023), 2540 D	U

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77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakhnong, Bangkok Thailand 10260

P/O :

Project Name : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 17, 2025

Report Number : 3233853-1

Page 6 of 11

Reference Number 2513733-4
Sampling Date Feb 09, 2025 1:30 AM
Sample Description Seawater
Location SRWB-1CP2-40-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	WL25/03627	Feb 14, 2025	Feb 14, 2025	APHA (2023), 2540 D	U

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P/O :

Project Name : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 17, 2025

Report Number : 3233853-1

Page 7 of 11

Reference Number	2513733-5
Sampling Date	Feb 09, 2025 1:41 AM
Sample Description	Seawater
Location	SRWB-1CP2-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	WL25/03627	Feb 14, 2025	Feb 14, 2025	APHA (2023), 2540 D	J

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P/O :

Project Name : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 17, 2025

Report Number : 3233853-1

Page 8 of 11

Reference Number 2513733-6
Sampling Date Feb 09, 2025 2:40 AM
Sample Description Seawater
Location SRWB-3CP2-1
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	WL25/03627	Feb 14, 2025	Feb 14, 2025	APHA (2023), 2540 D	U

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P/O :

Project Name : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 17, 2025

Report Number : 3233853-1

Page 9 of 11

Reference Number 2513733-7
Sampling Date Feb 09, 2025 2:46 AM
Sample Description Seawater
Location SRWB-3CP2-20
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	WL25/03627	Feb 14, 2025	Feb 14, 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, Prakhonong, Bangkok Thailand 10260

P/O :

Project Name : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 17, 2025

Report Number : 3233853-1

Page 10 of 11

Reference Number 2513733-8
Sampling Date Feb 09, 2025 2:54 AM
Sample Description Seawater
Location SRWB-3CP2-40
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	WL25/03627	Feb 14, 2025	Feb 14, 2025	APHA (2023), 2540 D	U

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77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakhnong, Bangkok Thailand 10260

P/O :

Project Name : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 17, 2025

Report Number : 3233853-1

Page 11 of 11

Reference Number 2513733-9
Sampling Date Feb 09, 2025 3:06 AM
Sample Description Seawater
Location SRWB-3CP2-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	WL25/03627	Feb 14, 2025	Feb 14, 2025	APHA (2023), 2540 D	U

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P/O :

Project Name : T779.30

Project Location :

Lot ID: 2513733

Date Received : Feb 13, 2025

Date Reported : Feb 19, 2025

Report Number : 3233853-1

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 : WL25/03626 : Total Suspended Solids												
Blank		ND	0.3	1	mg/L							U
Duplicate	2513719-7	ND	0.3	1	mg/L	ND				n/a	5	U
LCS		98.8	0.3	1	mg/L		100	98.8	90 - 110			
Water Testing : WL25/03627 : Total Suspended Solids												
Blank		ND	0.3	1	mg/L							U
LCS		101	0.3	1	mg/L		100	101.0	90 - 110			
Duplicate	2513733-9	ND	0.3	1	mg/L	ND				n/a	5	U

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77 Soi Udomsuk 39/1, Sukhumvit 103, Bangchak, Prakanong, Bangkok Thailand 10260

P/O :

Project Name : T779.30

Project Location :

Lot ID: 2519933

Date Received : Feb 27, 2025

Date Reported : Mar 03, 2025

Report Number : 3246167-1

Page 1 of 6

Summary Samples

Sample Location	ALS Sample ID	Sample Description	Sampling Date / Time	Received Date / Time
G4/43REF-A-SW-1	2519933-1	Seawater	Feb 10, 2025 01:01 AM	Feb 27, 2025 01:00 PM
G4/43REF-A-SW-20	2519933-2	Seawater	Feb 10, 2025 01:07 AM	Feb 27, 2025 01:00 PM
G4/43REF-A-SW-40	2519933-3	Seawater	Feb 10, 2025 01:15 AM	Feb 27, 2025 01:00 PM
G4/43REF-A-SW-B	2519933-4	Seawater	Feb 10, 2025 01:26 AM	Feb 27, 2025 01:00 PM

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P/O :

Project Name : T779.30

Project Location :

Lot ID: 2519933

Date Received : Feb 27, 2025

Date Reported : Mar 03, 2025

Report Number : 3246167-1

Page 2 of 6

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 1 sealed cooler at

Cooler 1 : Temperature 1.4 degree C

Sample Preparation and Analysis

Total suspended solids

A well-mixed sample is filtered through a weighed 1.2 μ m 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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P/O :

Project Name : T779.30

Project Location :

Lot ID: 2519933

Date Received : Feb 27, 2025

Date Reported : Mar 03, 2025

Report Number : 3246167-1

Page 3 of 6

Reference Number 2519933-1
Sampling Date Feb 10, 2025 1:01 AM
Sample Description Seawater
Location G4/43REF-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	WL25/04836	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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Project Name : T779.30

Project Location :

Lot ID: 2519933

Date Received : Feb 27, 2025

Date Reported : Mar 03, 2025

Report Number : 3246167-1

Page 4 of 6

Reference Number 2519933-2
Sampling Date Feb 10, 2025 1:07 AM
Sample Description Seawater
Location G4/43REF-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	WL25/04836	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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P/O :

Project Name : T779.30

Project Location :

Lot ID: 2519933

Date Received : Feb 27, 2025

Date Reported : Mar 03, 2025

Report Number : 3246167-1

Page 5 of 6

Reference Number 2519933-3
Sampling Date Feb 10, 2025 1:15 AM
Sample Description Seawater
Location G4/43REF-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	WL25/04836	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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P/O :

Project Name : T779.30

Project Location :

Lot ID: 2519933

Date Received : Feb 27, 2025

Date Reported : Mar 03, 2025

Report Number : 3246167-1

Page 6 of 6

Reference Number 2519933-4
Sampling Date Feb 10, 2025 1:26 AM
Sample Description Seawater
Location G4/43REF-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	ND	0.3	1	mg/L	1	WL25/04836	Feb 28, 2025	Feb 28, 2025	APHA (2023), 2540 D	U

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P/O :

Project Name : T779.30

Project Location :

Lot ID: 2519933

Date Received : Feb 27, 2025

Date Reported : Mar 10, 2025

Report Number : 3246167-1

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 : WL25/04836 : Total Suspended Solids												
Blank		ND	0.3	1	mg/L							U
Duplicate	2519933-4	ND	0.3	1	mg/L	ND				n/a	5	U
LCS		100	0.3	1	mg/L		100	100.0	90 - 110			

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APPENDIX C
ANALYTICAL LABORATORY REPORTS:
BENTHIC COMMUNITY



Marine Ecosearch Management Co., Ltd.

4/31 Moo 1, Tambon Namnoi, Hat Yai, Songkla 90110

Tel / Fax -66-74-213 421

email: marine_ecosearch@hotmail.com

August 28th, 2025

Ted Donn,

Tetra Tech, Inc. Lafayette

3746 Mt. Diablo Blvd., Suite 300 Lafayette, CA 94549

RE: Environmental Studies for Chevron Thailand, February 2025 **(T779.30)**

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 Ecosearch 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.

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List of Samples received T779.30 (Surin)

Benthos

No.	Date	Sample ID	Location	Time	No. of Bottle		
					100 ml.	500 ml.	1,000 ml.
1	10/2/2025	G4/43REF-A	G4/43 Reference	2.08	1S	1 (A+B)	0
2	10/2/2025	G4/43REF-B	G4/43 Reference	2.33	0	1 (A+B)	0
3	10/2/2025	G4/43REF-C	G4/43 Reference	2.51	1S	1 (A+B)	0
4	8/2/2025	SRWA-1B2X-A	Surin A	19.36	1S	1B	1A
5	8/2/2025	SRWA-1B2X-B	Surin A	19.43	1S	1B	1A
6	8/2/2025	SRWA-1B2X-C	Surin A	20.02	1S	1B	1A
7	8/2/2025	SRWA-2B2X-A	Surin A	20.18	1S	1B	1A
8	8/2/2025	SRWA-2B2X-B	Surin A	20.25	1S	1B	1A
9	8/2/2025	SRWA-2B2X-C	Surin A	20.33	1S	1 (A+B)	0
10	8/2/2025	SRWA-3B2X-A	Surin A	20.50	1S	1B	1A
11	8/2/2025	SRWA-3B2X-B	Surin A	20.58	1S	1B	1A
12	8/2/2025	SRWA-3B2X-C	Surin A	21.05	1S	1B	1A
13	8/2/2025	SRWA-4B2X-A	Surin A	21.21	1S	1B	1A
14	8/2/2025	SRWA-4B2X-B	Surin A	21.29	1S	1B	1A
15	8/2/2025	SRWA-4B2X-C	Surin A	21.35	1S	1B	1A
16	9/2/2025	SRWB-1B2-A	Surin B	17.30	1S	1 (A+B)	0
17	9/2/2025	SRWB-1B2-B	Surin B	17.43	1S	1 (A+B)	0
18	9/2/2025	SRWB-1B2-C	Surin B	17.49	1S	1 (A+B)	0
19	9/2/2025	SRWB-1CP2-A	Surin B	16.55	1S	1 (A+B)	0
20	9/2/2025	SRWB-1CP2-B	Surin B	17.05	1S	1 (A+B)	0
21	9/2/2025	SRWB-1CP2-C	Surin B	17.11	1S	1 (A+B)	0
22	9/2/2025	SRWB-1D2-A	Surin B	16.08	1S	1 (A+B)	0
23	9/2/2025	SRWB-1D2-B	Surin B	16.17	1S	1 (A+B)	0
24	9/2/2025	SRWB-1D2-C	Surin B	16.24	1S	1 (A+B)	0
25	9/2/2025	SRWB-2B2-A	Surin B	18.03	0	1 (A+B)	0
26	9/2/2025	SRWB-2B2-B	Surin B	18.10	1S	1 (A+B)	0
27	9/2/2025	SRWB-2B2-C	Surin B	18.18	0	1 (A+B)	0
28	9/2/2025	SRWB-3B2-A	Surin B	6.33	0	1B	1A
29	9/2/2025	SRWB-3B2-B	Surin B	6.43	1S	1B	1A
30	9/2/2025	SRWB-3B2-C	Surin B	6.55	0	1 (A+B)	0
31	9/2/2025	SRWB-3CP2-A	Surin B	4.15	0	1 (A+B)	0
32	9/2/2025	SRWB-3CP2-B	Surin B	4.25	0	1 (A+B)	0
33	9/2/2025	SRWB-3CP2-C	Surin B	4.33	1S	1 (A+B)	0
34	9/2/2025	SRWB-3D2-A	Surin B	5.02	1S	1 (A+B)	0
35	9/2/2025	SRWB-3D2-B	Surin B	5.11	1S	1 (A+B)	0
36	9/2/2025	SRWB-3D2-C	Surin B	5.19	1S	1 (A+B)	0
37	9/2/2025	SRWB-4B2-A	Surin B	5.47	1S	1B	1A
38	9/2/2025	SRWB-4B2-B	Surin B	5.56	0	1B	1A
39	9/2/2025	SRWB-4B2-C	Surin B	6.04	0	1 (A+B)	0

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Phytoplankton

No	Date	Sample ID	Location	Time	100 ml.
1	9/2/2025	SRWB-1CP2-PS-1	Surin B	12.43-12.49	1
2	9/2/2025	SRWB-1CP2-PS-2	Surin B	12.49-12.55	1
3	9/2/2025	SRWB-1CP2-PB-1	Surin B	10.49-11.18	1
4	9/2/2025	SRWB-1CP2-PB-2	Surin B	11.18-11.52	1
5	9/2/2025	SRWB-3CP2-PS-1	Surin B	8.20-8.53	1
6	9/2/2025	SRWB-3CP2-PS-2	Surin B	8.53-9.00	1
7	9/2/2025	SRWB-3CP2-PB-1	Surin B	9.06-9.36	1
8	9/2/2025	SRWB-3CP2-PB-2	Surin B	9.36-10.06	1
9	10/2/2025	G4/43REF-PS-1	G4/43 Reference	7.48-8.14	1
10	10/2/2025	G4/43REF-PS-2	G4/43 Reference	8.14-8.41	1
11	10/2/2025	G4/43REF-PB-1	G4/43 Reference	8.46-8.51	1
12	10/2/2025	G4/43REF-PB-2	G4/43 Reference	8.51-8.57	1

Zooplankton

No.	Date	Sample ID	Location	Time	No. of bottle
					1,000 ml.
1	9/2/2025	SRWB-1CP2	Surin B	13.27-14.00	1
2	9/2/2025	SRWB-3CP2	Surin B	14.31-15.05	1
3	10/2/2025	G4/43REF	G4/43 Reference	6.42-7.15	1

Meroploankton

No.	Date	Sample ID	Location	Time	No. of bottle
					1,000 ml.
1	9/2/2025	SRWB-1CP2	Surin B	13.27-14.00	1
2	9/2/2025	SRWB-3CP2	Surin B	14.31-15.05	1
3	10/2/2025	G4/43REF	G4/43 Reference	6.42-7.15	1

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CASE NARRATIVE

Environmental Studies for Chevron Thailand, 2025 February T779.30 Surin

SAMPLE RECEIPTT

Thirty-nine (39) 0.04 m² benthic community samples, twelve (12) phytoplankton samples, three (3) zooplankton and three (3) meroplankton 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 T779.30 project

No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
1	G4/43REF-A	0.0817	0.0605	0.0008	0.0038	0.0011
2	G4/43REF-B	0.1443	0.0491	-	-	0.0027
3	G4/43REF-C	0.1871	0.0523	-	0.0016	0.0018
4	SRWA-1B2X-A	0.0988	0.0558	0.0010	-	0.0074
5	SRWA-1B2X-B	0.4280	0.0012	-	0.0011	0.0012
6	SRWA-1B2X-C	0.3093	0.0061	0.0983	-	0.0039
7	SRWA-2B2X-A	0.1624	0.0344	0.0009	-	0.0015
8	SRWA-2B2X-B	0.1479	0.0071	0.0008	-	0.0031
9	SRWA-2B2X-C	0.3304	0.0964	0.0004	-	0.0019
10	SRWA-3B2X-A	0.2368	0.0141	0.0043	0.0009	0.6779
11	SRWA-3B2X-B	0.0824	0.1288	-	-	0.0244
12	SRWA-3B2X-C	0.5169	0.0370	0.0036	-	0.0032
13	SRWA-4B2X-A	0.0687	0.0163	-	-	0.0122
14	SRWA-4B2X-B	0.3323	0.0425	0.0009	0.0011	0.0066
15	SRWA-4B2X-C	0.0282	0.0142	-	0.0074	0.0022
16	SRWB-1B2-A	0.2590	0.0676	3.7367	-	-
17	SRWB-1B2-B	0.0452	-	7.5926	-	-
18	SRWB-1B2-C	0.2018	-	10.6321	-	0.0006
19	SRWB-1CP2-A	0.0113	0.0177	-	-	0.0386

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No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
20	SRWB-1CP2-B	0.0585	0.0183	-	0.0496	0.0024
21	SRWB-1CP2-C	0.0398	0.0128	-	-	0.0009
22	SRWB-1D2-A	0.0725	0.0288	-	-	0.0021
23	SRWB-1D2-B	0.0377	0.0791	-	-	0.0043
24	SRWB-1D2-C	0.0588	0.0065	-	-	0.0026
25	SRWB-2B2-A	0.0040	0.0010	-	-	0.0009
26	SRWB-2B2-B	0.0048	0.0142	0.0015	-	0.0008
27	SRWB-2B2-C	0.0105	-	-	-	-
28	SRWB-3B2-A	0.0227	0.0011	0.0048	-	-
29	SRWB-3B2-B	0.1863	-	0.1717	-	-
30	SRWB-3B2-C	0.0035	0.0032	0.0012	-	0.0006
31	SRWB-3CP2-A	0.0133	0.0026	-	-	-
32	SRWB-3CP2-B	0.0332	0.0486	-	0.0012	0.0008
33	SRWB-3CP2-C	0.0245	0.1287	-	-	0.0007
34	SRWB-3D2-A	0.0099	0.0974	0.0006	-	-
35	SRWB-3D2-B	0.0684	0.0378	0.0007	-	0.0020
36	SRWB-3D2-C	0.0246	0.0104	-	-	-
37	SRWB-4B2-A	0.0270	0.0234	-	-	0.0009
38	SRWB-4B2-B	0.0318	0.0147	-	-	0.0008
39	SRWB-4B2-C	0.0930	0.0061	-	-	0.0007

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Result

Environmental Studies for Chevron Thailand, 2025 February

T779.30 Surin

Benthic fauna was identified at the lowest practical taxa and differentiated between species. Two hundred and fifty-six (256) species of benthos were identified from this project. There were, 1 species of Cnidarian, 1 species of Nematode worm, 3 species of Nemertean, 1 species of flat worm, 4 species of Sipunculid worms, 141 species of Annelid worms, 90 species of Crustacean, 3 species of Echinoderms, and 12 species of Mollusk.

Sixty-nine (69) species of benthos were identified to species level. One hundred and sixty-three (163) benthos species were identified to genus level. Twenty-one (21) benthos species were identified to family level. One species was identified to Order 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	0	1	0	0
Nematoda	1	0	0	0	0	0	1
Nemertea	3	0	3	0	0	0	0
Platyhelminthes	1	0	0	0	0	1	0
Sipuncula	4	0	4	0	0	0	0
Annelida	141	36	105	0	0	0	0
Arthropoda	90	27	44	19	0	0	0
Echinodermata	3	1	1	1	0	0	0
Mollusca	12	5	6	1	0	0	0
Total	256	69	163	21	1	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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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.

MEROPLANKTON (Marine 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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Benthos density (individuals per 0.04 square m)	0	0	0	0	0
	G4/43RE	G4/43RE	G4/43RE	SRWA-	SRWA-
TAXA	F-A	F-B	F-C	1B2X-A	1B2X-B
Cnidaria	0	0	0	0	0
Anthozoa	0	0	0	0	0
Actiniaria	0	0	0	0	0
Actiniaria	0	0	0	0	0
Nematoda	0	0	0	0	0
Nematoda sp.1	0	0	0	0	0
Nemertea	0	0	0	0	0
Anopla	0	0	0	0	0
Heteronemertea	0	0	0	0	0
Lineidae	0	0	0	0	0
<i>Lineus</i> sp.1	0	0	0	0	0
<i>Micrura</i> sp.1	0	0	0	0	0
Palaeonemertea	0	0	0	0	0
Tubulanidae	0	0	0	0	0
<i>Callinera</i> sp.1	0	1	1	1	0
Platyhelminthes	0	0	0	0	0
Turbellaria	0	0	0	0	0
Turbellaria	0	0	0	0	0
Sipuncula	0	0	0	0	0
Phascolosomatidea	0	0	0	0	0
Aspidosiphoniformes	0	0	0	0	0
Aspidosiphonidae	0	0	0	0	0
<i>Aspidosiphon</i> sp.3	0	0	0	0	0
Phascolosomatiformes	0	0	0	0	0
Phascolosomatidae	0	0	0	0	0
<i>Apionsoma</i> sp.2	2	4	2	1	3
Sipunculidea	0	0	0	0	0
Golfingiformes	0	0	0	0	0
Phascolionidae	0	0	0	0	0
<i>Phascolion</i> sp.1	0	1	0	0	0
<i>Phascolion</i> sp.2	0	0	0	0	0
Annelida	0	0	0	0	0
Polychaeta	0	0	0	0	0
Aciculata	0	0	0	0	0
Amphinomidae	0	0	0	0	0
<i>Chloeia violacea</i>	0	0	0	0	0
Dorvilleidae	0	0	0	0	0
<i>Ophryotrocha</i> sp.1	0	0	0	0	0
<i>Schistomeringos</i> sp.1	0	0	0	0	0
<i>Schistomeringos</i> sp.4	0	0	0	0	0
<i>Schistomeringos</i> sp.5	0	0	0	0	0
Eunicidae	0	0	0	0	0
<i>Eunice</i> sp.3	0	0	1	0	0
<i>Lysidice</i> sp.6	0	0	0	0	0
<i>Marphysa</i> sp.2	0	0	0	0	0
Glyceridae	0	0	0	0	0
<i>Glycera alba</i>	0	1	0	0	0
<i>Glycera lapidum</i>	0	0	0	0	0
<i>Glycera</i> sp.	0	0	0	0	0
Hartmaniellidae	0	0	0	0	0
<i>Hartmaniella</i> sp.1	0	0	0	1	0
Hesionidae	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
	G4/43RE	G4/43RE	G4/43RE	SRWA-	SRWA-
TAXA	F-A	F-B	F-C	1B2X-A	1B2X-B
<i>Hesiospina</i> sp.	0	0	0	0	0
<i>Oxydromus</i> sp.1	0	0	0	0	0
<i>Podarkeopsis</i> sp.1	0	0	0	0	0
Lumbrineridae	0	0	0	0	0
<i>Gallardoneris thailandensis</i>	1	1	0	0	0
<i>Gesaneris</i> sp.1	0	0	0	0	2
<i>Lumbrinerides</i> sp.1	0	0	0	0	2
<i>Lumbrineriopsis paradoxa</i>	0	0	0	0	0
<i>Lumbrineris latreilli</i>	0	0	0	0	0
<i>Ninoe</i> nr. <i>bruuni</i>	0	0	0	0	0
<i>Scoletoma</i> sp.1	0	1	0	1	1
Nephtyidae	0	0	0	0	0
<i>Aglaophamus</i> cf. <i>diciroides</i>	1	1	1	0	1
<i>Aglaophamus orientalis</i>	1	2	0	0	0
<i>Aglaophamus tepens</i>	0	0	1	0	0
<i>Micronephthys oligobranchia</i>	0	0	0	0	0
<i>Micronephthys</i> sp.2	0	0	0	1	1
Nereididae	0	0	0	0	0
<i>Neanthes arenaceodentata</i>	0	0	0	0	0
<i>Nereis</i> sp.	0	0	0	0	0
<i>Nereis</i> sp.1	0	0	0	0	0
<i>Tambalagamia fauveli</i>	0	2	0	0	0
Onuphidae	0	0	0	0	0
<i>Onuphis</i> sp.1	1	2	0	0	0
Paralacydoniidae	0	0	0	0	0
<i>Paralacydonia</i> sp.1	0	0	0	0	1
Phyllodocidae	0	0	0	0	0
<i>Phyllodoce</i> sp.10	0	0	0	0	0
<i>Phyllodoce</i> sp.11	0	0	1	0	0
<i>Protomystides</i> sp.1	0	0	1	0	0
Pilargidae	0	0	0	0	0
<i>Litocorsa</i> nr. <i>antennata</i>	0	0	0	1	0
<i>Sigambra</i> sp.1	0	1	0	0	1
<i>Synelmis albin</i>	1	0	0	0	0
<i>Synelmis rigida</i>	0	0	0	0	0
Polynoidae	0	0	0	0	0
<i>Harmothoe</i> sp.	0	0	0	0	0
<i>Harmothoe</i> sp.1	0	0	0	0	0
<i>Harmothoe</i> sp.8	0	0	0	1	0
<i>Lepidasthenia</i> sp.1	0	0	0	0	0
Sigalionidae	0	0	0	0	0
<i>Leanira</i> sp.1	0	0	0	1	0
<i>Sthenelanelia ehlersi</i>	0	1	0	0	0
<i>Sthenolepis japonica</i>	1	1	0	0	1
<i>Sthenolepis</i> sp.2	0	0	1	0	0
Syllidae	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.	0	2	0	0	0
<i>Exogone</i> (Exogone) sp.2	0	0	0	0	0
<i>Perkinsyllis</i> sp.2	0	0	0	0	0
<i>Sphaerosyllis</i> sp.1	0	0	0	0	1
<i>Syllis</i> sp.1	0	0	0	0	0
Canalipalpata	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
	G4/43RE	G4/43RE	G4/43RE	SRWA-	SRWA-
TAXA	F-A	F-B	F-C	1B2X-A	1B2X-B
Ampharetidae	0	0	0	0	0
<i>Ampharete</i> sp.1	0	0	0	0	0
<i>Anobothrus</i> sp.1	0	0	0	0	3
<i>Auchenoplax crinita</i>	0	0	0	1	2
<i>Sosane</i> sp.2	0	0	0	0	0
Chaetopteridae	0	0	0	0	0
<i>Spiochaetopterus</i> sp.1	0	2	1	1	1
Cirratulidae	0	0	0	0	0
<i>Aphelochaeta</i> sp.1	0	1	0	0	0
<i>Aphelochaeta</i> sp.2	0	0	0	0	0
<i>Chaetozone</i> sp.1	0	0	0	0	0
<i>Chaetozone</i> sp.5	0	0	0	0	0
<i>Cirratulus</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.1	0	0	0	0	1
<i>Kirkegaardia</i> sp.5	0	1	1	0	1
<i>Kirkegaardia</i> sp.6	0	1	0	1	1
<i>Timarete</i> sp.1	0	0	0	0	0
Fabriciidae	0	0	0	0	0
<i>Fabricinuda</i> sp.1	0	0	0	0	0
Fauveliopsidae	0	0	0	0	0
<i>Riseriopsis</i> sp.1	0	0	0	0	1
Flabelligeridae	0	0	0	0	0
<i>Diplocirrus</i> sp.	0	1	0	0	0
<i>Diplocirrus</i> sp.1	1	0	0	0	0
Magelonidae	0	0	0	0	0
<i>Magelona</i> sp.13	0	0	0	0	0
Oweniidae	0	0	0	0	0
<i>Galathowenia</i> sp.1	0	1	0	0	0
Poecilochaetidae	0	0	0	0	0
<i>Poecilochaetus bifurcatus</i>	0	0	0	0	0
<i>Poecilochaetus koshikiensis</i>	0	0	0	0	0
<i>Poecilochaetus</i> sp.	0	0	0	0	0
<i>Poecilochaetus</i> sp.3	0	0	0	0	0
<i>Poecilochaetus</i> sp.4	0	0	0	0	0
<i>Poecilochaetus tricirratus</i>	0	0	0	0	0
Sabellidae	0	0	0	0	0
<i>Chone</i> sp.1	0	0	0	0	0
<i>Euchone</i> sp.	0	1	0	0	0
<i>Euchone</i> sp.1	0	0	1	0	0
Spionidae	0	0	0	0	0
<i>Laonice</i> sp.1	1	0	0	0	0
<i>Laonice</i> sp.3	0	0	0	0	0
<i>Malacoceros indicus</i>	0	2	0	0	0
<i>Paraprionospio</i> sp.1	0	1	0	0	0
<i>Prionospio ehlersi</i>	0	2	0	1	2
<i>Prionospio elegantula</i>	0	1	1	0	0
<i>Prionospio elongata</i>	0	0	0	0	0
<i>Prionospio</i> sp.	0	0	0	0	0
<i>Prionospio</i> sp.10	0	0	0	1	1
<i>Prionospio</i> sp.13	0	0	0	0	2
<i>Prionospio</i> sp.6	0	0	0	0	0
<i>Prionospio</i> sp.7	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
	G4/43RE	G4/43RE	G4/43RE	SRWA-1B2X-A	SRWA-1B2X-B
TAXA	F-A	F-B	F-C		
<i>Pseudopolydora</i> sp.1	0	0	0	0	0
<i>Scolecipis</i> sp.2	0	0	0	0	0
<i>Spio</i> sp.1	0	0	0	0	0
<i>Spio</i> sp.2	0	1	0	0	0
<i>Spiophanes afer</i>	0	0	1	0	0
<i>Spiophanes kroeyeri</i>	1	0	0	0	1
<i>Spiophanes malayensis</i>	3	0	0	0	0
Sternaspidae	0	0	0	0	0
<i>Caulleryaspis</i> sp.1	0	0	0	0	0
<i>Sternaspis</i> sp.1	0	0	0	0	0
Terebellidae	0	0	0	0	0
<i>Amaeana occidentalis</i>	0	1	0	0	0
<i>Loimia</i> sp.	0	0	0	0	0
<i>Pista</i> sp.2	0	0	0	0	0
<i>Pista</i> sp.4	0	0	0	0	0
Trichobranchidae	0	0	0	0	0
<i>Terebellides</i> sp.1	0	5	1	2	0
<i>Terebellides</i> sp.2	0	2	0	0	0
<i>Trichobranchus roseus</i>	0	1	0	1	0
(blank)	0	0	0	0	0
Capitellidae	0	0	0	0	0
<i>Capitella</i> sp.1	0	0	0	0	0
<i>Capitella</i> sp.4	0	0	0	0	0
<i>Capitella</i> sp.7	0	0	0	0	0
<i>Capitellethus</i> sp.1	0	0	0	2	1
<i>Capitellethus</i> sp.2	0	0	0	1	0
<i>Capitellethus</i> sp.3	0	0	0	0	0
<i>Mediomastus</i> sp.1	0	0	0	0	0
<i>Mediomastus</i> sp.2	0	1	0	0	0
<i>Neomediomastus</i> sp.1	0	0	0	1	0
<i>Neomediomastus</i> sp.2	0	0	0	0	1
<i>Notomastus latericeus</i>	0	0	0	0	0
<i>Notomastus lineatus</i>	0	0	0	0	2
<i>Promastobranchus huloti</i>	0	1	0	0	0
<i>Rashgua lobatus</i>	0	0	0	0	0
<i>Scyphoproctus</i> sp.1	0	0	0	0	0
Cossuridae	0	0	0	0	0
<i>Cossura</i> sp.2	0	1	0	0	0
Maldanidae	0	0	0	0	0
<i>Axiiothella</i> sp.1	0	1	0	0	0
<i>Clymenella</i> sp.1	0	0	1	0	0
<i>Euclymene</i> sp.2	0	1	0	0	0
<i>Praxillella</i> nr. <i>gracilis</i>	0	0	0	0	0
<i>Praxillella</i> sp.3	0	0	0	0	0
Opheliidae	0	0	0	0	0
<i>Armandia</i> sp.	0	0	0	0	0
<i>Ophelia</i> sp.1	0	0	0	0	0
Orbiniidae	0	0	0	0	0
<i>Leitoscoloplos</i> sp.1	0	0	0	0	0
<i>Leodamas</i> sp.1	0	0	0	0	0
Paraonidae	0	0	0	0	0
<i>Aricidea</i> (<i>Acmira</i>) sp.3	0	0	0	0	1



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
	G4/43RE	G4/43RE	G4/43RE	SRWA-	SRWA-
TAXA	F-A	F-B	F-C	1B2X-A	1B2X-B
<i>Aricidea</i> (<i>Acmira</i>) sp.7	0	0	0	1	0
<i>Aricidea</i> (<i>Aricidea</i>) sp.7	0	0	0	0	0
<i>Levinsenia</i> sp.1	0	0	0	0	1
<i>Levinsenia</i> sp.2	1	0	0	0	0
<i>Levinsenia</i> sp.5	0	0	0	0	1
Arthropoda	0	0	0	0	0
Crustacea	0	0	0	0	0
Amphipoda	0	0	0	0	0
Ampeliscidae	0	0	0	0	0
<i>Ampelisca bocki</i>	0	1	0	0	1
<i>Ampelisca chinensis</i>	0	0	0	0	0
<i>Ampelisca cyclops</i>	1	0	0	0	0
<i>Ampelisca maia</i>	1	0	0	0	0
<i>Ampelisca misakiensis</i>	0	0	0	0	0
<i>Ampelisca</i> sp.	0	0	0	1	0
<i>Byblis calisto</i>	0	0	1	0	0
<i>Byblis febris</i>	0	0	1	0	0
<i>Byblis io</i>	0	0	0	2	2
<i>Byblis</i> sp.	0	0	0	2	0
Amphilochidae	0	0	0	0	0
<i>Amphilochus</i> sp.1	0	0	0	0	0
Aoridae	0	0	0	0	0
<i>Grandidierella gilesi</i>	1	0	1	0	0
Caprellidae	0	0	0	0	0
<i>Caprella</i> sp.1	1	0	0	2	0
Colomastigidae	0	0	0	0	0
<i>Colomastix</i> sp.1	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae sp.2	0	2	0	0	0
Dexaminidae sp.3	0	0	0	0	0
Eriopisidae	0	0	0	0	0
Eriopisidae	0	0	0	0	1
<i>Victoriopisa</i> sp.1	0	1	0	0	2
Oedicerotidae	0	0	0	0	0
<i>Eochelidium nonmiraculum</i>	0	0	0	0	0
<i>Perioculodes</i> sp.1	0	0	0	1	0
Photidae	0	0	0	0	0
Photidae	0	0	0	0	0
Synopiidae	0	0	0	0	0
<i>Synopia</i> sp.2	0	0	0	0	0
Synopiidae sp.3	0	0	0	0	0
Tryphosidae	0	0	0	0	0
<i>Orchomenella</i> sp.1	0	0	0	0	0
Tryphosidae sp.1	0	0	0	0	0
Cumacea	0	0	0	0	0
Bodotriidae	0	0	0	0	0
<i>Pseudosympodomma</i> sp.2	0	0	0	0	0
Diastylidae	0	0	0	0	0
<i>Diastylis</i> sp.1	1	0	0	1	0
Leuconidae	0	0	0	0	0
<i>Eudorella</i> sp.1	0	1	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
	G4/43RE	G4/43RE	G4/43RE	SRWA-	SRWA-
TAXA	F-A	F-B	F-C	1B2X-A	1B2X-B
<i>Eudorella</i> sp.2	0	0	0	0	0
Nannastacidae	0	0	0	0	0
<i>Campylaspis</i> sp.12	0	0	0	0	0
<i>Campylaspis</i> sp.2	0	0	0	0	0
<i>Campylaspis</i> sp.4	0	0	0	0	0
<i>Campylaspis</i> sp.5	0	0	0	0	0
Decapoda	0	0	0	0	0
Alpheidae	0	0	0	0	0
Alpheidae sp.4	0	0	0	2	0
<i>Alpheopsis</i> sp.1	0	0	0	0	0
<i>Alpheus acutocarinatus</i>	0	0	1	0	0
<i>Alpheus bisincisus</i>	0	0	0	0	0
<i>Alpheus rapacida</i>	0	1	0	0	0
<i>Alpheus</i> sp.	0	0	2	3	0
<i>Bermudacaris</i> sp.	0	0	1	0	0
<i>Bermudacaris</i> sp.1	0	0	0	0	0
<i>Bermudacaris</i> sp.2	0	0	0	0	0
<i>Salmoneus</i> sp.	0	0	0	0	0
<i>Salmoneus</i> sp.2	0	0	0	0	0
Callianassidae	0	0	0	0	0
Callianassidae	0	0	0	0	0
<i>Jocullianassa matzi</i>	0	0	0	0	0
<i>Lipkecallianassa</i> sp.1	0	0	0	0	0
<i>Scallasis contipes</i>	0	0	1	0	0
Crangonidae	0	0	0	0	0
<i>Philocheiras</i> sp.2	0	0	0	0	0
Diogenidae	0	0	0	0	0
Diogenidae	0	1	0	0	0
Leucosiidae	0	0	0	0	0
Arcania sp.3	0	0	0	0	0
<i>Myra brevimana</i>	1	0	0	0	0
<i>Nuciops modestus</i>	0	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Palaemon</i> sp.1	0	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Periclimenes</i> sp.1	0	0	0	0	0
Pasiphaeidae	0	0	0	0	0
<i>Leptochela pugnax</i>	0	0	0	0	0
Pilumnidae	0	0	0	0	0
<i>Camatopsis</i> sp.1	1	1	0	0	0
<i>Ceratoplax fulgida</i>	0	1	0	0	0
<i>Rhizopa gracilipes</i>	0	0	0	0	0
Portunidae	0	0	0	0	0
<i>Libystes edwardsi</i>	0	0	0	0	0
<i>Podophthalmus</i> sp.1	0	0	0	0	0
<i>Thalamita admete</i>	0	0	0	0	0
Processidae	0	0	0	0	0
<i>Processa</i> sp.1	0	1	0	0	0
Scalopidae	0	0	0	0	0
<i>Scalopidia spinosipes</i>	0	0	0	0	0
Upogebiidae	0	0	0	0	0
<i>Gebiakantha</i> sp.	0	0	0	0	0



Benthos density (individuals per 0.04 square m	0	0	0	0	0
	G4/43RE	G4/43RE	G4/43RE	SRWA-	SRWA-
TAXA	F-A	F-B	F-C	1B2X-A	1B2X-B
<i>Gebiacantha</i> sp.1	0	0	0	0	0
<i>Gebicula</i> sp.3	0	0	0	0	0
<i>Upogebia</i> sp.1	0	0	0	0	0
Upogebiidae	0	0	0	0	0
Isopoda	0	0	0	0	0
Anthuridae	0	0	0	0	0
<i>Amakusanthura</i> sp.1	0	0	0	0	0
Gnathiidae	0	0	0	0	0
<i>Caecognathia andamanensis</i>	0	1	0	0	0
Gnathiidae (L.)	0	0	0	0	0
Hyssuridae	0	0	0	0	0
Hyssuridae sp.1	0	0	1	0	0
Leptostraca	0	0	0	0	0
Nebaliidae	0	0	0	0	0
<i>Nebalia</i> sp.1	1	1	0	0	0
<i>Nebalia</i> sp.3	0	0	0	0	0
Mysidacea	0	0	0	0	0
Mysidae	0	0	0	0	0
<i>Anchialina</i> sp.1	0	0	0	0	0
<i>Haplostylus bengalensis</i>	0	0	0	0	0
Mysidae	0	0	0	0	0
Mysidae sp.1	0	0	0	0	0
<i>Siriella</i> sp.3	0	0	0	0	0
Stomatopoda	0	0	0	0	0
Squillidae	0	0	0	0	0
<i>Clorida gaillardii</i>	0	0	0	0	0
<i>Cloridina verrucosa</i>	0	0	0	0	0
Tanaidacea	0	0	0	0	0
Apseudidae	0	0	0	0	0
<i>Apseudes</i> sp.1	0	0	0	2	0
<i>Apseudes</i> sp.2	0	0	0	0	0
Apseudidae sp.4	0	0	0	0	0
Leptocheliidae	0	0	0	0	0
<i>Leptochelia</i> sp.2	0	0	0	0	0
Pagurapseudidae	0	0	0	0	0
Pagurapseudidae sp.2	0	0	0	0	0
Pycnogonida	0	0	0	0	0
Pantopoda	0	0	0	0	0
Ascorhynchidae	0	0	0	0	0
Ascorhynchidae sp.1	0	0	0	0	0
Echinodermata	0	0	0	0	0
Ophiuroidea	0	0	0	0	0
Ophiurida	0	0	0	0	0
Amphiuridae	0	0	0	0	0
<i>Amphioplus (Lymanella) andreae</i>	1	0	1	0	0
<i>Amphiura</i> sp.6	0	0	0	0	0
Amphiuridae sp.3	0	0	0	0	1
Mollusca	0	0	0	0	0
Aplacophora	0	0	0	0	0
Cavibelonia	0	0	0	0	0
Simrothiellidae	0	0	0	0	0
<i>Helicoradomenia</i> sp.1	1	0	0	1	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
	G4/43RE	G4/43RE	G4/43RE	SRWA-1B2X-A	SRWA-1B2X-B
TAXA	F-A	F-B	F-C		
<i>Helicoradomenia</i> sp.2	0	0	0	0	0
Chaetodermatida	0	0	0	0	0
Chaetodermatidae	0	0	0	0	0
<i>Chaetoderma</i> sp.1	0	0	0	0	0
Bivalvia	0	0	0	0	0
Arcida	0	0	0	0	0
Arcidae	0	0	0	0	0
<i>Verilarca mortenseni</i>	0	0	0	0	0
Cardiida	0	0	0	0	0
Psammobiidae	0	0	0	0	0
<i>Gari truncata</i>	0	0	0	0	0
Lucinida	0	0	0	0	0
Lucinidae	0	0	0	0	0
<i>Anodontia edentula</i>	0	0	0	0	0
<i>Cavatidens imajimai</i>	0	0	0	0	0
Pholadomyoida	0	0	0	0	0
Cuspidariidae	0	0	0	0	0
<i>Cardiomya singaporensis</i>	0	0	0	0	0
Gastropoda	0	0	0	0	0
Archaeogastropoda	0	0	0	0	0
Orbitestellidae	0	0	0	0	0
<i>Microdiscula</i> sp.1	0	0	0	0	0
Heterostrophia	0	0	0	0	0
Pyramidellidae	0	0	0	0	0
<i>Odostomia</i> sp.1	0	0	0	0	0
Neogastropoda	0	0	0	0	0
Muricidae	0	0	0	0	0
Muricidae	0	0	0	0	0
Pteropoda	0	0	0	0	0
Hyalocylidae	0	0	0	0	0
<i>Hyalocylis</i> sp.1	0	0	0	0	0
Grand Total	25	62	26	38	44
No. of Taxa	395	395	395	395	395



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA- 1B2X-C	SRWA- 2B2X-A	SRWA- 2B2X-B	SRWA- 2B2X-C	SRWA- 3B2X-A
Cnidaria	0	0	0	0	0
Anthozoa	0	0	0	0	0
Actiniaria	0	0	0	0	0
Actiniaria	0	0	0	0	0
Nematoda	0	0	0	0	0
Nematoda sp.1	0	0	0	0	0
Nemertea	0	0	0	0	0
Anopla	0	0	0	0	0
Heteronemertea	0	0	0	0	0
Lineidae	0	0	0	0	0
<i>Lineus</i> sp.1	0	0	0	0	1
<i>Micrura</i> sp.1	0	1	0	1	0
Palaeonemertea	0	0	0	0	0
Tubulanidae	0	0	0	0	0
<i>Callinera</i> sp.1	1	0	1	1	1
Platyhelminthes	0	0	0	0	0
Turbellaria	0	0	0	0	0
Turbellaria	0	0	0	0	0
Sipuncula	0	0	0	0	0
Phascolosomatidea	0	0	0	0	0
Aspidosiphoniformes	0	0	0	0	0
Aspidosiphonidae	0	0	0	0	0
<i>Aspidosiphon</i> sp.3	0	0	0	0	0
Phascolosomatiformes	0	0	0	0	0
Phascolosomatidae	0	0	0	0	0
<i>Apionsoma</i> sp.2	1	0	5	2	2
Sipunculidea	0	0	0	0	0
Golfingiformes	0	0	0	0	0
Phascolionidae	0	0	0	0	0
<i>Phascolion</i> sp.1	0	1	0	0	0
<i>Phascolion</i> sp.2	0	0	0	0	0
Annelida	0	0	0	0	0
Polychaeta	0	0	0	0	0
Aciculata	0	0	0	0	0
Amphinomidae	0	0	0	0	0
<i>Chloeia violacea</i>	0	0	0	1	0
Dorvilleidae	0	0	0	0	0
<i>Ophryotrocha</i> sp.1	0	0	0	0	0
<i>Schistomeringos</i> sp.1	0	0	0	0	0
<i>Schistomeringos</i> sp.4	0	0	0	0	0
<i>Schistomeringos</i> sp.5	0	0	0	0	0
Eunicidae	0	0	0	0	0
<i>Eunice</i> sp.3	0	0	0	0	0
<i>Lysidice</i> sp.6	0	0	1	0	0
<i>Marphysa</i> sp.2	0	0	0	0	0
Glyceridae	0	0	0	0	0
<i>Glycera alba</i>	0	0	0	2	0
<i>Glycera lapidum</i>	0	0	0	0	0
<i>Glycera</i> sp.	0	0	0	0	0
Hartmaniellidae	0	0	0	0	0
<i>Hartmaniella</i> sp.1	1	0	0	1	0
Hesionidae	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA-1B2X-C	SRWA-2B2X-A	SRWA-2B2X-B	SRWA-2B2X-C	SRWA-3B2X-A
<i>Hesiospina</i> sp.	0	0	0	0	0
<i>Oxydromus</i> sp.1	0	0	0	0	0
<i>Podarkeopsis</i> sp.1	0	0	0	1	0
Lumbrineridae	0	0	0	0	0
<i>Gallardoneris thailandensis</i>	0	1	0	0	0
<i>Gesaneris</i> sp.1	0	0	0	0	1
<i>Lumbrinerides</i> sp.1	0	0	1	0	0
<i>Lumbrineriopsis paradoxa</i>	0	0	0	0	0
<i>Lumbrineris latreilli</i>	0	0	1	0	0
<i>Ninoe</i> nr. <i>bruuni</i>	0	0	0	0	0
<i>Scoletoma</i> sp.1	0	0	0	0	0
Nephtyidae	0	0	0	0	0
<i>Aglaophamus</i> cf. <i>diciroides</i>	0	0	1	2	0
<i>Aglaophamus orientalis</i>	1	0	0	0	0
<i>Aglaophamus tepens</i>	0	0	0	2	1
<i>Micronephthys oligobranchia</i>	0	0	0	0	0
<i>Micronephthys</i> sp.2	0	0	0	0	0
Nereididae	0	0	0	0	0
<i>Neanthes arenaceodentata</i>	0	0	0	0	8
<i>Nereis</i> sp.	0	0	0	0	0
<i>Nereis</i> sp.1	0	0	0	0	0
<i>Tambalagamia fauveli</i>	1	0	0	2	2
Onuphidae	0	0	0	0	0
<i>Onuphis</i> sp.1	0	0	1	0	1
Paralacydoniidae	0	0	0	0	0
<i>Paralacydonia</i> sp.1	0	1	1	0	1
Phyllodocidae	0	0	0	0	0
<i>Phyllodoce</i> sp.10	0	0	0	0	0
<i>Phyllodoce</i> sp.11	0	0	0	0	0
<i>Protomystides</i> sp.1	0	0	0	0	0
Pilargidae	0	0	0	0	0
<i>Litocorsa</i> nr. <i>antennata</i>	1	0	0	0	9
<i>Sigambra</i> sp.1	0	0	1	0	1
<i>Synelmis albinii</i>	0	1	0	2	1
<i>Synelmis rigida</i>	0	0	1	1	0
Polynoidae	0	0	0	0	0
<i>Harmothoe</i> sp.	0	0	0	0	0
<i>Harmothoe</i> sp.1	0	0	0	0	0
<i>Harmothoe</i> sp.8	0	0	0	0	0
<i>Lepidasthenia</i> sp.1	0	0	0	0	0
Sigalionidae	0	0	0	0	0
<i>Leanira</i> sp.1	0	0	0	0	0
<i>Sthenelanelia ehlersi</i>	0	0	0	0	0
<i>Sthenolepis japonica</i>	1	2	2	0	0
<i>Sthenolepis</i> sp.2	0	0	0	0	0
Syllidae	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.	0	2	0	2	0
<i>Exogone</i> (Exogone) sp.2	0	0	1	0	2
<i>Perkinsyllis</i> sp.2	0	0	0	0	0
<i>Sphaerosyllis</i> sp.1	0	0	1	0	0
<i>Syllis</i> sp.1	1	0	0	0	0
Canalipalpata	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA-1B2X-C	SRWA-2B2X-A	SRWA-2B2X-B	SRWA-2B2X-C	SRWA-3B2X-A
Ampharetidae	0	0	0	0	0
<i>Ampharete</i> sp.1	0	0	1	0	0
<i>Anobothrus</i> sp.1	0	1	0	1	1
<i>Auchenoplax crinita</i>	0	0	0	0	3
<i>Sosane</i> sp.2	0	0	0	0	1
Chaetopteridae	0	0	0	0	0
<i>Spiochaetopterus</i> sp.1	2	1	1	0	2
Cirratulidae	0	0	0	0	0
<i>Aphelochaeta</i> sp.1	0	2	0	0	0
<i>Aphelochaeta</i> sp.2	0	0	0	0	0
<i>Chaetozone</i> sp.1	0	0	1	0	0
<i>Chaetozone</i> sp.5	0	0	0	0	0
<i>Cirratulus</i> sp.1	0	0	1	0	0
<i>Kirkegaardia</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.5	2	0	0	0	0
<i>Kirkegaardia</i> sp.6	1	0	1	0	0
<i>Timarete</i> sp.1	0	0	0	0	0
Fabriciidae	0	0	0	0	0
<i>Fabricinuda</i> sp.1	0	0	5	0	0
Fauveliopsidae	0	0	0	0	0
<i>Riseriopsis</i> sp.1	0	0	0	0	0
Flabelligeridae	0	0	0	0	0
<i>Diplocirrus</i> sp.	0	0	0	0	0
<i>Diplocirrus</i> sp.1	0	0	0	0	0
Magelonidae	0	0	0	0	0
<i>Magelona</i> sp.13	0	0	0	1	0
Oweniidae	0	0	0	0	0
<i>Galathowenia</i> sp.1	0	0	1	0	0
Poecilochaetidae	0	0	0	0	0
<i>Poecilochaetus bifurcatus</i>	0	0	0	0	0
<i>Poecilochaetus koshikiensis</i>	0	0	1	0	0
<i>Poecilochaetus</i> sp.	0	0	0	0	1
<i>Poecilochaetus</i> sp.3	0	0	0	0	0
<i>Poecilochaetus</i> sp.4	0	0	0	0	0
<i>Poecilochaetus tricirratus</i>	0	0	0	0	0
Sabellidae	0	0	0	0	0
<i>Chone</i> sp.1	0	0	0	0	0
<i>Euchone</i> sp.	0	0	0	0	0
<i>Euchone</i> sp.1	1	0	0	0	0
Spionidae	0	0	0	0	0
<i>Laonice</i> sp.1	0	2	0	0	0
<i>Laonice</i> sp.3	0	0	0	1	0
<i>Malacoceros indicus</i>	1	0	0	0	0
<i>Paraprionospio</i> sp.1	0	0	0	0	0
<i>Prionospio ehlersi</i>	2	1	0	5	1
<i>Prionospio elegantula</i>	1	1	3	1	3
<i>Prionospio elongata</i>	0	0	1	0	0
<i>Prionospio</i> sp.	0	1	2	2	2
<i>Prionospio</i> sp.10	0	0	0	0	0
<i>Prionospio</i> sp.13	0	0	0	0	4
<i>Prionospio</i> sp.6	0	0	0	0	0
<i>Prionospio</i> sp.7	0	0	1	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA-1B2X-C	SRWA-2B2X-A	SRWA-2B2X-B	SRWA-2B2X-C	SRWA-3B2X-A
<i>Pseudopolydora</i> sp.1	0	0	0	0	1
<i>Scolecipis</i> sp.2	0	0	0	0	0
<i>Spio</i> sp.1	0	0	0	0	1
<i>Spio</i> sp.2	0	0	2	0	0
<i>Spiophanes afer</i>	0	0	0	0	0
<i>Spiophanes kroeyeri</i>	0	0	1	0	3
<i>Spiophanes malayensis</i>	0	0	0	0	0
Sternaspidae	0	0	0	0	0
<i>Caulleryaspis</i> sp.1	0	0	1	0	0
<i>Sternaspis</i> sp.1	0	0	0	0	0
Terebellidae	0	0	0	0	0
<i>Amaeana occidentalis</i>	0	0	0	0	0
<i>Loimia</i> sp.	0	0	0	0	0
<i>Pista</i> sp.2	0	0	0	0	0
<i>Pista</i> sp.4	0	0	0	1	0
Trichobranchidae	0	0	0	0	0
<i>Terebellides</i> sp.1	1	1	1	1	0
<i>Terebellides</i> sp.2	0	0	1	1	0
<i>Trichobranchus roseus</i>	0	0	0	0	0
(blank)	0	0	0	0	0
Capitellidae	0	0	0	0	0
<i>Capitella</i> sp.1	0	0	0	0	0
<i>Capitella</i> sp.4	0	0	0	0	0
<i>Capitella</i> sp.7	0	0	0	0	0
<i>Capitellethus</i> sp.1	0	0	0	0	0
<i>Capitellethus</i> sp.2	1	2	1	0	0
<i>Capitellethus</i> sp.3	0	0	0	2	0
<i>Mediomastus</i> sp.1	1	0	0	0	0
<i>Mediomastus</i> sp.2	0	0	0	1	0
<i>Neomediomastus</i> sp.1	0	0	0	1	0
<i>Neomediomastus</i> sp.2	0	0	0	0	0
<i>Notomastus latericeus</i>	0	0	0	0	0
<i>Notomastus lineatus</i>	0	0	0	0	1
<i>Promastobranchus huloti</i>	0	0	0	0	0
<i>Rashgua lobatus</i>	1	0	0	0	0
<i>Scyphoproctus</i> sp.1	0	0	0	0	0
Cossuridae	0	0	0	0	0
<i>Cossura</i> sp.2	0	1	0	0	0
Maldanidae	0	0	0	0	0
<i>Axiiothella</i> sp.1	0	0	0	0	0
<i>Clymenella</i> sp.1	0	0	0	0	0
<i>Euclymene</i> sp.2	0	0	1	0	0
<i>Praxillella</i> nr. <i>gracilis</i>	0	0	0	0	0
<i>Praxillella</i> sp.3	0	0	0	0	0
Opheliidae	0	0	0	0	0
<i>Armandia</i> sp.	0	0	0	0	0
<i>Ophelia</i> sp.1	0	0	0	0	1
Orbiniidae	0	0	0	0	0
<i>Leitoscoloplos</i> sp.1	0	0	0	0	0
<i>Leodamas</i> sp.1	0	0	0	0	0
Paraonidae	0	0	0	0	0
<i>Aricidea</i> (<i>Acmira</i>) sp.3	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA-1B2X-C	SRWA-2B2X-A	SRWA-2B2X-B	SRWA-2B2X-C	SRWA-3B2X-A
<i>Aricidea</i> (<i>Acmira</i>) sp.7	0	0	0	0	0
<i>Aricidea</i> (<i>Aricidea</i>) sp.7	0	0	0	0	0
<i>Levinsenia</i> sp.1	0	1	1	0	0
<i>Levinsenia</i> sp.2	1	0	0	0	1
<i>Levinsenia</i> sp.5	0	0	0	0	0
Arthropoda	0	0	0	0	0
Crustacea	0	0	0	0	0
Amphipoda	0	0	0	0	0
Ampeliscidae	0	0	0	0	0
<i>Ampelisca bocki</i>	0	0	0	0	0
<i>Ampelisca chinensis</i>	1	0	0	1	0
<i>Ampelisca cyclops</i>	0	0	0	0	0
<i>Ampelisca maia</i>	0	0	0	0	0
<i>Ampelisca misakiensis</i>	0	0	0	0	0
<i>Ampelisca</i> sp.	0	0	0	0	0
<i>Byblis calisto</i>	0	0	0	0	0
<i>Byblis febris</i>	0	1	0	1	0
<i>Byblis io</i>	1	0	0	0	0
<i>Byblis</i> sp.	0	0	1	0	0
Amphilocheidae	0	0	0	0	0
<i>Amphilocheus</i> sp.1	0	0	0	0	0
Aoridae	0	0	0	0	0
<i>Grandidierella gilesi</i>	0	0	0	1	0
Caprellidae	0	0	0	0	0
<i>Caprella</i> sp.1	0	0	0	2	0
Colomastigidae	0	0	0	0	0
<i>Colomastix</i> sp.1	0	0	0	0	3
Dexaminidae	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae sp.2	0	0	1	0	0
Dexaminidae sp.3	0	0	0	0	0
Eriopisidae	0	0	0	0	0
Eriopisidae	0	0	0	0	0
<i>Victoriopsis</i> sp.1	0	0	0	0	0
Oedicerotidae	0	0	0	0	0
<i>Eochelidium nonmiraculum</i>	0	0	0	0	0
<i>Periculodes</i> sp.1	0	0	0	0	0
Photidae	0	0	0	0	0
Photidae	0	0	0	0	0
Synopiidae	0	0	0	0	0
<i>Synopia</i> sp.2	0	0	0	0	0
Synopiidae sp.3	0	0	0	0	0
Tryphosidae	0	0	0	0	0
<i>Orchomenella</i> sp.1	0	0	0	0	0
Tryphosidae sp.1	0	0	0	0	1
Cumacea	0	0	0	0	0
Bodotriidae	0	0	0	0	0
<i>Pseudosympodoma</i> sp.2	0	0	0	0	0
Diastylidae	0	0	0	0	0
<i>Diastylis</i> sp.1	0	1	0	0	0
Leuconidae	0	0	0	0	0
<i>Eudorella</i> sp.1	0	1	0	1	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA-1B2X-C	SRWA-2B2X-A	SRWA-2B2X-B	SRWA-2B2X-C	SRWA-3B2X-A
<i>Eudorella</i> sp.2	0	0	0	0	0
Nannastacidae	0	0	0	0	0
<i>Campylaspis</i> sp.12	0	0	0	0	0
<i>Campylaspis</i> sp.2	0	1	0	0	0
<i>Campylaspis</i> sp.4	0	0	1	0	0
<i>Campylaspis</i> sp.5	0	0	0	0	0
Decapoda	0	0	0	0	0
Alpheidae	0	0	0	0	0
Alpheidae sp.4	0	0	0	0	0
<i>Alpheopsis</i> sp.1	0	0	0	0	0
<i>Alpheus acutocarinatus</i>	0	1	0	0	0
<i>Alpheus bisincisus</i>	0	0	0	0	0
<i>Alpheus rapacida</i>	0	0	0	0	1
<i>Alpheus</i> sp.	1	2	0	0	0
<i>Bermudacaris</i> sp.	0	0	0	0	0
<i>Bermudacaris</i> sp.1	0	0	0	0	0
<i>Bermudacaris</i> sp.2	0	0	0	0	0
<i>Salmonus</i> sp.	0	0	0	0	0
<i>Salmonus</i> sp.2	0	0	0	0	0
Callianassidae	0	0	0	0	0
Callianassidae	0	0	0	0	0
<i>Jocullianassa matzi</i>	0	0	0	0	0
<i>Lipkecallianassa</i> sp.1	0	0	0	0	0
<i>Scallasis contipes</i>	0	0	0	0	0
Crangonidae	0	0	0	0	0
<i>Philocheas</i> sp.2	0	0	0	0	0
Diogenidae	0	0	0	0	0
Diogenidae	0	0	0	0	0
Leucosiidae	0	0	0	0	0
Arcania sp.3	0	0	0	0	1
<i>Myra brevimana</i>	0	0	0	0	0
<i>Nuciops modestus</i>	0	1	0	0	0
Palaemonidae	0	0	0	0	0
<i>Palaemon</i> sp.1	0	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Periclimenes</i> sp.1	0	0	0	0	0
Pasiphaeidae	0	0	0	0	0
<i>Leptochela pugnax</i>	0	1	0	0	0
Pilumnidae	0	0	0	0	0
<i>Camatopsis</i> sp.1	0	0	0	0	0
<i>Ceratoplax fulgida</i>	0	0	0	0	0
<i>Rhizopa gracilipes</i>	0	0	0	0	0
Portunidae	0	0	0	0	0
<i>Libystes edwardsi</i>	0	0	0	1	0
<i>Podophthalmus</i> sp.1	0	0	0	0	0
<i>Thalamita admete</i>	0	0	0	0	0
Processidae	0	0	0	0	0
<i>Processa</i> sp.1	0	0	0	0	0
Scalopidae	0	0	0	0	0
<i>Scalopidia spinosipes</i>	0	0	0	0	0
Upogebiidae	0	0	0	0	0
<i>Gebiacantha</i> sp.	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA- 1B2X-C	SRWA- 2B2X-A	SRWA- 2B2X-B	SRWA- 2B2X-C	SRWA- 3B2X-A
<i>Gebiakantha</i> sp.1	0	0	0	0	0
<i>Gebicula</i> sp.3	0	0	1	0	0
<i>Upogebia</i> sp.1	0	0	0	0	0
Upogebiidae	0	0	0	0	1
Isopoda	0	0	0	0	0
Anthuridae	0	0	0	0	0
<i>Amakusanthura</i> sp.1	0	0	0	0	0
Gnathiidae	0	0	0	0	0
<i>Caecognathia andamanensis</i>	0	0	0	0	0
Gnathiidae (L.)	0	0	1	0	0
Hyssuridae	0	0	0	0	0
Hyssuridae sp.1	0	0	0	0	0
Leptostraca	0	0	0	0	0
Nebaliidae	0	0	0	0	0
<i>Nebalia</i> sp.1	0	0	0	0	0
<i>Nebalia</i> sp.3	0	0	0	0	5
Mysidacea	0	0	0	0	0
Mysidae	0	0	0	0	0
<i>Anchialina</i> sp.1	0	0	0	0	0
<i>Haplostylus bengalensis</i>	0	0	0	0	0
Mysidae	0	0	0	0	0
Mysidae sp.1	0	0	0	1	0
<i>Siriella</i> sp.3	0	0	0	0	0
Stomatopoda	0	0	0	0	0
Squillidae	0	0	0	0	0
<i>Clorida gaillardi</i>	0	0	0	0	0
<i>Cloridina verrucosa</i>	0	0	0	0	0
Tanaidacea	0	0	0	0	0
Apseudidae	0	0	0	0	0
<i>Apseudes</i> sp.1	0	0	1	0	0
<i>Apseudes</i> sp.2	1	0	0	0	0
Apseudidae sp.4	0	0	0	0	1
Leptocheliidae	0	0	0	0	0
<i>Leptochelia</i> sp.2	0	0	1	0	0
Pagurapseudidae	0	0	0	0	0
Pagurapseudidae sp.2	0	0	0	0	0
Pycnogonida	0	0	0	0	0
Pantopoda	0	0	0	0	0
Ascorhynchidae	0	0	0	0	0
Ascorhynchidae sp.1	0	0	0	0	0
Echinodermata	0	0	0	0	0
Ophiuroidea	0	0	0	0	0
Ophiurida	0	0	0	0	0
Amphiuridae	0	0	0	0	0
<i>Amphioplus (Lymanella) andreae</i>	0	0	0	0	0
<i>Amphiura</i> sp.6	0	0	0	0	0
Amphiuridae sp.3	0	0	0	0	1
Mollusca	0	0	0	0	0
Aplacophora	0	0	0	0	0
Cavibelonia	0	0	0	0	0
Simrothiellidae	0	0	0	0	0
<i>Helicoradomenia</i> sp.1	0	0	0	1	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA- 1B2X-C	SRWA- 2B2X-A	SRWA- 2B2X-B	SRWA- 2B2X-C	SRWA- 3B2X-A
<i>Helicoradomenia</i> sp.2	0	1	1	0	0
Chaetodermatida	0	0	0	0	0
Chaetodermatidae	0	0	0	0	0
<i>Chaetoderma</i> sp.1	0	0	0	1	0
Bivalvia	0	0	0	0	0
Arcida	0	0	0	0	0
Arcidae	0	0	0	0	0
<i>Verilarca mortenseni</i>	1	0	0	0	0
Cardiida	0	0	0	0	0
Psammobiidae	0	0	0	0	0
<i>Gari truncata</i>	0	0	0	0	0
Lucinida	0	0	0	0	0
Lucinidae	0	0	0	0	0
<i>Anodontia edentula</i>	0	0	0	0	0
<i>Cavatidens imajimai</i>	0	0	0	0	0
Pholadomyoida	0	0	0	0	0
Cuspidariidae	0	0	0	0	0
<i>Cardiomya singaporensis</i>	0	0	0	0	1
Gastropoda	0	0	0	0	0
Archaeogastropoda	0	0	0	0	0
Orbitestellidae	0	0	0	0	0
<i>Microdiscula</i> sp.1	0	0	0	0	0
Heterostropho	0	0	0	0	0
Pyramidellidae	0	0	0	0	0
<i>Odostomia</i> sp.1	0	0	0	0	0
Neogastropoda	0	0	0	0	0
Muricidae	0	0	0	0	0
Muricidae	0	0	0	0	0
Pteropoda	0	0	0	0	0
Hyalocylidae	0	0	0	0	0
<i>Hyalocylis</i> sp.1	0	0	0	0	0
Grand Total	28	33	54	48	72
No. of Taxa	395	395	395	395	395



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA-3B2X-B	SRWA-3B2X-C	SRWA-4B2X-A	SRWA-4B2X-B	SRWA-4B2X-C
Cnidaria	0	0	0	0	0
Anthozoa	0	0	0	0	0
Actiniaria	0	0	0	0	0
Actiniaria	0	1	0	0	0
Nematoda	0	0	0	0	0
Nematoda sp.1	0	1	0	0	0
Nemertea	0	0	0	0	0
Anopla	0	0	0	0	0
Heteronemertea	0	0	0	0	0
Lineidae	0	0	0	0	0
Lineus sp.1	0	0	0	0	0
Micrura sp.1	0	0	0	0	0
Palaeonemertea	0	0	0	0	0
Tubulanidae	0	0	0	0	0
Callinera sp.1	1	1	1	1	1
Platyhelminthes	0	0	0	0	0
Turbellaria	0	0	0	0	0
Turbellaria	0	0	1	0	0
Sipuncula	0	0	0	0	0
Phascolosomatidea	0	0	0	0	0
Aspidosiphoniformes	0	0	0	0	0
Aspidosiphonidae	0	0	0	0	0
Aspidosiphon sp.3	0	0	0	1	1
Phascolosomatiformes	0	0	0	0	0
Phascolosomatidae	0	0	0	0	0
Apionsoma sp.2	1	1	2	2	0
Sipunculidea	0	0	0	0	0
Golfingiformes	0	0	0	0	0
Phascolionidae	0	0	0	0	0
Phascolion sp.1	0	1	0	0	0
Phascolion sp.2	0	0	0	0	0
Annelida	0	0	0	0	0
Polychaeta	0	0	0	0	0
Aciculata	0	0	0	0	0
Amphinomidae	0	0	0	0	0
Chloeia violacea	0	0	0	0	0
Dorvilleidae	0	0	0	0	0
Ophryotrocha sp.1	0	0	0	0	0
Schistomeringos sp.1	0	0	0	0	0
Schistomeringos sp.4	0	0	0	0	0
Schistomeringos sp.5	0	0	0	0	0
Eunicidae	0	0	0	0	0
Eunice sp.3	0	0	1	0	0
Lysidice sp.6	0	0	0	0	0
Marphysa sp.2	0	0	0	0	0
Glyceridae	0	0	0	0	0
Glycera alba	0	0	0	0	0
Glycera lapidum	0	0	0	1	0
Glycera sp.	0	1	0	0	0
Hartmaniellidae	0	0	0	0	0
Hartmaniella sp.1	0	0	0	0	0
Hesionidae	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA- 3B2X-B	SRWA- 3B2X-C	SRWA- 4B2X-A	SRWA- 4B2X-B	SRWA- 4B2X-C
<i>Hesiospina</i> sp.	0	0	0	0	0
<i>Oxydromus</i> sp.1	0	0	0	0	0
<i>Podarkeopsis</i> sp.1	0	0	0	1	0
Lumbrineridae	0	0	0	0	0
<i>Gallardoneris thailandensis</i>	0	0	1	0	0
<i>Gesaneris</i> sp.1	0	0	0	0	0
<i>Lumbrinerides</i> sp.1	0	1	2	0	0
<i>Lumbrineriopsis paradoxa</i>	0	1	0	0	1
<i>Lumbrineris latreilli</i>	0	0	1	1	0
<i>Ninoe</i> nr. <i>bruuni</i>	1	0	0	0	0
<i>Scoletoma</i> sp.1	0	0	0	0	0
Nephtyidae	0	0	0	0	0
<i>Aglaophamus</i> cf. <i>dicirroides</i>	0	1	0	1	0
<i>Aglaophamus orientalis</i>	1	0	0	1	0
<i>Aglaophamus tepens</i>	0	0	0	0	0
<i>Micronephthys oligobranchia</i>	1	0	0	0	0
<i>Micronephthys</i> sp.2	0	0	0	0	0
Nereididae	0	0	0	0	0
<i>Neanthes arenaceodentata</i>	0	0	1	0	0
<i>Nereis</i> sp.	0	0	0	0	0
<i>Nereis</i> sp.1	0	0	0	0	0
<i>Tambalagamia fauveli</i>	0	2	0	0	0
Onuphidae	0	0	0	0	0
<i>Onuphis</i> sp.1	1	0	1	0	0
Paralacydoniidae	0	0	0	0	0
<i>Paralacydonia</i> sp.1	0	0	1	0	0
Phyllodocidae	0	0	0	0	0
<i>Phyllodoce</i> sp.10	0	0	0	0	0
<i>Phyllodoce</i> sp.11	0	1	0	0	0
<i>Protomystides</i> sp.1	0	0	0	0	0
Pilargidae	0	0	0	0	0
<i>Litocorsa</i> nr. <i>antennata</i>	0	3	3	0	0
<i>Sigambra</i> sp.1	0	0	0	0	1
<i>Synelmis albinii</i>	0	1	1	0	1
<i>Synelmis rigida</i>	0	1	1	1	0
Polynoidae	0	0	0	0	0
<i>Harmothoe</i> sp.	0	0	0	0	0
<i>Harmothoe</i> sp.1	0	0	0	0	0
<i>Harmothoe</i> sp.8	0	0	0	0	0
<i>Lepidasthenia</i> sp.1	0	0	1	0	0
Sigalionidae	0	0	0	0	0
<i>Leanira</i> sp.1	0	0	0	0	0
<i>Sthenelanelia ehlersi</i>	0	0	0	0	0
<i>Sthenolepis japonica</i>	0	0	0	3	0
<i>Sthenolepis</i> sp.2	0	0	0	0	0
Syllidae	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.2	0	0	0	0	0
<i>Perkinsyllis</i> sp.2	0	0	0	0	0
<i>Sphaerosyllis</i> sp.1	0	0	0	0	0
<i>Syllis</i> sp.1	0	0	0	0	0
Canalipalpata	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA-3B2X-B	SRWA-3B2X-C	SRWA-4B2X-A	SRWA-4B2X-B	SRWA-4B2X-C
Ampharetidae	0	0	0	0	0
<i>Ampharete</i> sp.1	0	0	0	0	1
<i>Anobothrus</i> sp.1	3	1	0	0	0
<i>Auchenoplax crinita</i>	0	1	1	0	0
<i>Sosane</i> sp.2	0	0	0	0	0
Chaetopteridae	0	0	0	0	0
<i>Spiochaetopterus</i> sp.1	3	3	0	2	1
Cirratulidae	0	0	0	0	0
<i>Aphelochaeta</i> sp.1	0	0	0	2	0
<i>Aphelochaeta</i> sp.2	0	0	1	0	0
<i>Chaetozone</i> sp.1	0	0	1	0	0
<i>Chaetozone</i> sp.5	0	1	0	0	0
<i>Cirratulus</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.5	1	0	0	0	0
<i>Kirkegaardia</i> sp.6	1	1	0	0	0
<i>Timarete</i> sp.1	0	0	0	0	0
Fabriciidae	0	0	0	0	0
<i>Fabricinuda</i> sp.1	0	0	0	0	0
Fauveliopsidae	0	0	0	0	0
<i>Riseriopsis</i> sp.1	0	0	0	0	0
Flabelligeridae	0	0	0	0	0
<i>Diplocirrus</i> sp.	0	0	0	0	0
<i>Diplocirrus</i> sp.1	0	0	0	0	3
Magelonidae	0	0	0	0	0
<i>Magelona</i> sp.13	1	0	0	0	0
Oweniidae	0	0	0	0	0
<i>Galathowenia</i> sp.1	0	1	0	0	0
Poecilochaetidae	0	0	0	0	0
<i>Poecilochaetus bifurcatus</i>	0	0	0	0	0
<i>Poecilochaetus koshikiensis</i>	0	0	0	0	0
<i>Poecilochaetus</i> sp.	0	0	0	0	0
<i>Poecilochaetus</i> sp.3	0	0	0	1	0
<i>Poecilochaetus</i> sp.4	0	1	1	0	0
<i>Poecilochaetus tricirratus</i>	0	0	0	0	0
Sabellidae	0	0	0	0	0
<i>Chone</i> sp.1	0	0	0	0	0
<i>Euchone</i> sp.	0	0	0	0	0
<i>Euchone</i> sp.1	0	0	0	0	0
Spionidae	0	0	0	0	0
<i>Laonice</i> sp.1	2	1	1	1	0
<i>Laonice</i> sp.3	0	0	0	0	0
<i>Malacoceros indicus</i>	0	0	0	0	0
<i>Paraprionospio</i> sp.1	1	0	0	0	0
<i>Prionospio ehlersi</i>	2	2	0	0	0
<i>Prionospio elegantula</i>	1	2	3	0	0
<i>Prionospio elongata</i>	0	0	0	0	3
<i>Prionospio</i> sp.	1	2	1	0	0
<i>Prionospio</i> sp.10	0	4	0	2	0
<i>Prionospio</i> sp.13	0	0	1	0	0
<i>Prionospio</i> sp.6	1	0	0	0	0
<i>Prionospio</i> sp.7	0	0	3	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA- 3B2X-B	SRWA- 3B2X-C	SRWA- 4B2X-A	SRWA- 4B2X-B	SRWA- 4B2X-C
<i>Pseudopolydora</i> sp.1	0	0	0	0	0
<i>Scolecipis</i> sp.2	0	0	1	0	0
<i>Spio</i> sp.1	1	0	0	0	0
<i>Spio</i> sp.2	0	0	0	0	0
<i>Spiophanes afer</i>	0	0	0	0	0
<i>Spiophanes kroeyeri</i>	0	0	0	0	0
<i>Spiophanes malayensis</i>	0	2	0	0	0
Sternaspidae	0	0	0	0	0
<i>Caulleryaspis</i> sp.1	0	0	0	0	0
<i>Sternaspis</i> sp.1	0	0	0	0	0
Terebellidae	0	0	0	0	0
<i>Amaeana occidentalis</i>	0	0	0	2	0
<i>Loimia</i> sp.	0	0	0	0	0
<i>Pista</i> sp.2	0	2	0	0	0
<i>Pista</i> sp.4	0	0	0	0	0
Trichobranchidae	0	0	0	0	0
<i>Terebellides</i> sp.1	0	0	0	1	0
<i>Terebellides</i> sp.2	1	0	0	0	0
<i>Trichobranchus roseus</i>	0	1	0	0	0
(blank)	0	0	0	0	0
Capitellidae	0	0	0	0	0
<i>Capitella</i> sp.1	0	0	0	0	0
<i>Capitella</i> sp.4	0	0	0	0	0
<i>Capitella</i> sp.7	0	0	0	0	0
<i>Capitellethus</i> sp.1	0	1	1	1	0
<i>Capitellethus</i> sp.2	0	1	0	1	0
<i>Capitellethus</i> sp.3	0	0	0	0	0
<i>Mediomastus</i> sp.1	0	0	0	1	0
<i>Mediomastus</i> sp.2	0	0	0	0	0
<i>Neomediomastus</i> sp.1	0	0	1	0	0
<i>Neomediomastus</i> sp.2	0	0	0	0	0
<i>Notomastus latericeus</i>	0	1	0	0	0
<i>Notomastus lineatus</i>	0	0	0	0	0
<i>Promastobranchus huloti</i>	0	0	0	1	0
<i>Rashgua lobatus</i>	0	0	0	0	0
<i>Scyphoproctus</i> sp.1	0	0	0	0	0
Cossuridae	0	0	0	0	0
<i>Cossura</i> sp.2	0	0	0	0	0
Maldanidae	0	0	0	0	0
<i>Axiiothella</i> sp.1	0	0	0	1	0
<i>Clymenella</i> sp.1	0	0	1	0	0
<i>Euclymene</i> sp.2	0	0	0	0	0
<i>Praxillella nr. gracilis</i>	0	0	0	0	0
<i>Praxillella</i> sp.3	0	0	0	0	0
Opheliidae	0	0	0	0	0
<i>Armandia</i> sp.	0	0	0	0	0
<i>Ophelia</i> sp.1	0	0	0	0	0
Orbiniidae	0	0	0	0	0
<i>Leitoscoloplos</i> sp.1	1	0	0	0	0
<i>Leodamas</i> sp.1	0	0	0	0	0
Paraonidae	0	0	0	0	0
<i>Aricidea</i> (<i>Acmira</i>) sp.3	0	0	2	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA-3B2X-B	SRWA-3B2X-C	SRWA-4B2X-A	SRWA-4B2X-B	SRWA-4B2X-C
<i>Aricidea</i> (<i>Acmira</i>) sp.7	0	2	1	0	0
<i>Aricidea</i> (<i>Aricidea</i>) sp.7	0	1	0	0	0
<i>Levinsenia</i> sp.1	0	1	0	0	0
<i>Levinsenia</i> sp.2	1	0	0	0	0
<i>Levinsenia</i> sp.5	1	0	0	1	0
Arthropoda	0	0	0	0	0
Crustacea	0	0	0	0	0
Amphipoda	0	0	0	0	0
Ampeliscidae	0	0	0	0	0
<i>Ampelisca bocki</i>	1	0	0	0	0
<i>Ampelisca chinensis</i>	0	0	0	0	0
<i>Ampelisca cyclops</i>	0	0	0	0	0
<i>Ampelisca maia</i>	0	0	0	0	0
<i>Ampelisca misakiensis</i>	0	0	0	0	3
<i>Ampelisca</i> sp.	0	0	0	0	0
<i>Byblis calisto</i>	0	0	0	0	0
<i>Byblis febris</i>	0	0	0	0	0
<i>Byblis io</i>	0	0	0	0	0
<i>Byblis</i> sp.	0	0	0	0	0
Amphilocheidae	0	0	0	0	0
<i>Amphilocheus</i> sp.1	0	0	0	0	0
Aoridae	0	0	0	0	0
<i>Grandidierella gilesi</i>	0	0	0	0	0
Caprellidae	0	0	0	0	0
<i>Caprella</i> sp.1	1	0	0	0	0
Colomastigidae	0	0	0	0	0
<i>Colomastix</i> sp.1	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae sp.2	0	0	0	0	0
Dexaminidae sp.3	0	0	0	0	0
Eriopisidae	0	0	0	0	0
Eriopisidae	0	0	0	0	0
<i>Victoriopsis</i> sp.1	0	0	0	0	0
Oedicerotidae	0	0	0	0	0
<i>Eochelidium nonmiraculum</i>	0	1	0	0	0
<i>Periculodes</i> sp.1	0	0	0	0	0
Photidae	0	0	0	0	0
Photidae	0	0	0	0	0
Synopiidae	0	0	0	0	0
<i>Synopia</i> sp.2	0	0	0	0	0
Synopiidae sp.3	0	0	0	0	0
Tryphosidae	0	0	0	0	0
<i>Orchomenella</i> sp.1	0	0	0	0	0
Tryphosidae sp.1	0	0	0	0	0
Cumacea	0	0	0	0	0
Bodotriidae	0	0	0	0	0
<i>Pseudosympodomma</i> sp.2	0	0	1	0	0
Diastylidae	0	0	0	0	0
<i>Diastylis</i> sp.1	0	0	0	0	0
Leuconidae	0	0	0	0	0
<i>Eudorella</i> sp.1	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA-3B2X-B	SRWA-3B2X-C	SRWA-4B2X-A	SRWA-4B2X-B	SRWA-4B2X-C
<i>Eudorella</i> sp.2	0	0	0	0	0
Nannastacidae	0	0	0	0	0
<i>Campylaspis</i> sp.12	0	0	0	0	0
<i>Campylaspis</i> sp.2	0	0	0	1	0
<i>Campylaspis</i> sp.4	0	0	0	0	0
<i>Campylaspis</i> sp.5	0	0	0	1	0
Decapoda	0	0	0	0	0
Alpheidae	0	0	0	0	0
Alpheidae sp.4	0	0	0	0	0
<i>Alpheopsis</i> sp.1	0	0	0	0	0
<i>Alpheus acutocarinatus</i>	1	0	0	0	0
<i>Alpheus bisincisus</i>	0	0	0	1	0
<i>Alpheus rapacida</i>	1	0	0	0	0
<i>Alpheus</i> sp.	1	0	0	0	0
<i>Bermudacaris</i> sp.	1	1	0	0	0
<i>Bermudacaris</i> sp.1	0	0	0	0	0
<i>Bermudacaris</i> sp.2	0	0	0	0	0
<i>Salmonus</i> sp.	0	0	0	0	0
<i>Salmonus</i> sp.2	0	1	0	0	0
Callianassidae	0	0	0	0	0
Callianassidae	0	0	0	1	0
<i>Jocullianassa matzi</i>	3	2	0	0	2
<i>Lipkecallianassa</i> sp.1	4	0	1	0	0
<i>Scallasis contipes</i>	0	0	0	0	0
Crangonidae	0	0	0	0	0
<i>Philocheles</i> sp.2	0	0	0	0	1
Diogenidae	0	0	0	0	0
Diogenidae	0	0	0	0	0
Leucosiidae	0	0	0	0	0
Arcania sp.3	0	0	0	0	0
<i>Myra brevimana</i>	0	0	0	0	0
<i>Nuciops modestus</i>	0	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Palaemon</i> sp.1	0	0	0	1	0
Palaemonidae	0	0	0	0	1
<i>Periclimenes</i> sp.1	0	1	0	0	0
Pasiphaeidae	0	0	0	0	0
<i>Leptochela pugnax</i>	0	0	1	0	0
Pilumnidae	0	0	0	0	0
<i>Camatopsis</i> sp.1	0	0	0	0	0
<i>Ceratoplax fulgida</i>	0	0	0	0	0
<i>Rhizopa gracilipes</i>	0	0	0	0	0
Portunidae	0	0	0	0	0
<i>Libystes edwardsi</i>	0	0	0	0	0
<i>Podophthalmus</i> sp.1	0	0	0	0	0
<i>Thalamita admete</i>	1	0	0	0	0
Processidae	0	0	0	0	0
<i>Processa</i> sp.1	0	0	0	0	0
Scalopidae	0	0	0	0	0
<i>Scalopidia spinosipes</i>	0	0	0	0	0
Upogebiidae	0	0	0	0	0
<i>Gebiactantha</i> sp.	0	1	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA-3B2X-B	SRWA-3B2X-C	SRWA-4B2X-A	SRWA-4B2X-B	SRWA-4B2X-C
<i>Gebiacantha</i> sp.1	0	0	0	0	0
<i>Gebicula</i> sp.3	0	0	0	0	0
<i>Upogebia</i> sp.1	0	0	0	0	0
Upogebiidae	0	0	0	0	0
Isopoda	0	0	0	0	0
Anthuridae	0	0	0	0	0
<i>Amakusanthura</i> sp.1	0	0	0	0	0
Gnathiidae	0	0	0	0	0
<i>Caecognathia andamanensis</i>	0	0	3	2	2
Gnathiidae (L.)	0	0	0	0	0
Hyssuridae	0	0	0	0	0
Hyssuridae sp.1	0	0	0	0	0
Leptostraca	0	0	0	0	0
Nebaliidae	0	0	0	0	0
<i>Nebalia</i> sp.1	0	0	0	0	0
<i>Nebalia</i> sp.3	0	0	0	0	0
Mysidacea	0	0	0	0	0
Mysidae	0	0	0	0	0
<i>Anchialina</i> sp.1	0	0	0	0	0
<i>Haplostylus bengalensis</i>	0	0	0	0	0
Mysidae	0	0	0	1	0
Mysidae sp.1	0	0	0	0	0
<i>Siriella</i> sp.3	0	0	0	0	0
Stomatopoda	0	0	0	0	0
Squillidae	0	0	0	0	0
<i>Clorida gaillardi</i>	0	0	0	0	0
<i>Cloridina verrucosa</i>	0	0	0	1	0
Tanaidacea	0	0	0	0	0
Apseudidae	0	0	0	0	0
<i>Apseudes</i> sp.1	2	4	1	0	1
<i>Apseudes</i> sp.2	0	2	0	0	0
Apseudidae sp.4	0	0	0	0	0
Leptocheliidae	0	0	0	0	0
<i>Leptochelia</i> sp.2	0	0	0	0	0
Pagurapseudidae	0	0	0	0	0
Pagurapseudidae sp.2	0	2	0	0	0
Pycnogonida	0	0	0	0	0
Pantopoda	0	0	0	0	0
Ascorhynchidae	0	0	0	0	0
Ascorhynchidae sp.1	0	0	0	0	0
Echinodermata	0	0	0	0	0
Ophiuroidea	0	0	0	0	0
Ophiurida	0	0	0	0	0
Amphiuridae	0	0	0	0	0
<i>Amphioplus (Lymanella) andreae</i>	0	0	0	0	1
<i>Amphiura</i> sp.6	0	0	0	0	0
Amphiuridae sp.3	0	0	0	1	0
Mollusca	0	0	0	0	0
Aplacophora	0	0	0	0	0
Cavibelonia	0	0	0	0	0
Simrothiellidae	0	0	0	0	0
<i>Helicoradomenia</i> sp.1	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWA- 3B2X-B	SRWA- 3B2X-C	SRWA- 4B2X-A	SRWA- 4B2X-B	SRWA- 4B2X-C
<i>Helicoradomenia</i> sp.2	0	0	0	0	0
Chaetodermatida	0	0	0	0	0
Chaetodermatidae	0	0	0	0	0
<i>Chaetoderma</i> sp.1	0	0	0	0	0
Bivalvia	0	0	0	0	0
Arcida	0	0	0	0	0
Arcidae	0	0	0	0	0
<i>Verilarca mortenseni</i>	0	0	0	0	0
Cardiida	0	0	0	0	0
Psammobiidae	0	0	0	0	0
<i>Gari truncata</i>	0	1	0	0	0
Lucinida	0	0	0	0	0
Lucinidae	0	0	0	0	0
<i>Anodontia edentula</i>	0	0	0	0	0
<i>Cavatidens imajimai</i>	0	0	0	0	0
Pholadomyoida	0	0	0	0	0
Cuspidariidae	0	0	0	0	0
<i>Cardiomya singaporensis</i>	0	0	0	0	0
Gastropoda	0	0	0	0	0
Archaeogastropoda	0	0	0	0	0
Orbitestellidae	0	0	0	0	0
<i>Microdiscula</i> sp.1	0	0	0	0	0
Heterostropho	0	0	0	0	0
Pyramidellidae	0	0	0	0	0
<i>Odostomia</i> sp.1	0	0	0	0	0
Neogastropoda	0	0	0	0	0
Muricidae	0	0	0	0	0
Muricidae	0	0	0	0	0
Pteropoda	0	0	0	0	0
Hyalocylidae	0	0	0	0	0
<i>Hyalocylis</i> sp.1	0	0	0	1	0
Grand Total	44	65	45	41	24
No. of Taxa	395	395	395	395	395



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1B2-A	SRWB-1B2-B	SRWB-1B2-C	SRWB-1CP2-A	SRWB-1CP2-B
Cnidaria	0	0	0	0	0
Anthozoa	0	0	0	0	0
Actiniaria	0	0	0	0	0
Actiniaria	0	0	0	0	0
Nematoda	0	0	0	0	0
Nematoda sp.1	0	0	0	0	0
Nemertea	0	0	0	0	0
Anopla	0	0	0	0	0
Heteronemertea	0	0	0	0	0
Lineidae	0	0	0	0	0
Lineus sp.1	0	0	0	0	0
Micrura sp.1	0	0	0	0	0
Palaeonemertea	0	0	0	0	0
Tubulanidae	0	0	0	0	0
Callinera sp.1	0	0	1	1	1
Platyhelminthes	0	0	0	0	0
Turbellaria	0	0	0	0	0
Turbellaria	0	0	0	0	0
Sipuncula	0	0	0	0	0
Phascolosomatidea	0	0	0	0	0
Aspidosiphoniformes	0	0	0	0	0
Aspidosiphonidae	0	0	0	0	0
Aspidosiphon sp.3	0	0	0	0	0
Phascolosomatiformes	0	0	0	0	0
Phascolosomatidae	0	0	0	0	0
Apionsoma sp.2	0	0	0	0	1
Sipunculidea	0	0	0	0	0
Golfingiformes	0	0	0	0	0
Phascolionidae	0	0	0	0	0
Phascolion sp.1	0	0	0	0	0
Phascolion sp.2	0	0	0	0	0
Annelida	0	0	0	0	0
Polychaeta	0	0	0	0	0
Aciculata	0	0	0	0	0
Amphinomidae	0	0	0	0	0
Chloeia violacea	0	0	0	0	0
Dorvilleidae	0	0	0	0	0
Ophryotrocha sp.1	0	0	0	0	0
Schistomeringos sp.1	15	3	1	0	0
Schistomeringos sp.4	0	3	1	0	0
Schistomeringos sp.5	7	0	0	0	0
Eunicidae	0	0	0	0	0
Eunice sp.3	0	0	0	0	0
Lysidice sp.6	0	0	0	0	0
Marphysa sp.2	0	0	0	0	0
Glyceridae	0	0	0	0	0
Glycera alba	0	0	0	0	0
Glycera lapidum	0	0	0	0	0
Glycera sp.	0	0	0	0	0
Hartmaniellidae	0	0	0	0	0
Hartmaniella sp.1	0	0	0	0	0
Hesionidae	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1B2-A	SRWB-1B2-B	SRWB-1B2-C	SRWB-1CP2-A	SRWB-1CP2-B
<i>Hesiospina</i> sp.	0	0	1	0	0
<i>Oxydromus</i> sp.1	0	0	0	0	0
<i>Podarkeopsis</i> sp.1	0	0	0	0	0
Lumbrineridae	0	0	0	0	0
<i>Gallardoneris thailandensis</i>	0	0	0	0	1
<i>Gesaneris</i> sp.1	0	0	0	0	0
<i>Lumbrinerides</i> sp.1	0	0	0	0	0
<i>Lumbrineriopsis paradoxa</i>	0	0	0	0	0
<i>Lumbrineris latreilli</i>	0	0	0	0	0
<i>Ninoe</i> nr. <i>bruuni</i>	0	0	0	0	0
<i>Scoletoma</i> sp.1	0	0	0	0	0
Nephtyidae	0	0	0	0	0
<i>Aglaophamus</i> cf. <i>dicirroides</i>	0	0	0	0	1
<i>Aglaophamus orientalis</i>	0	0	0	0	0
<i>Aglaophamus tepens</i>	0	0	0	1	0
<i>Micronephthys oligobranchia</i>	0	0	0	0	0
<i>Micronephthys</i> sp.2	0	0	0	0	0
Nereididae	0	0	0	0	0
<i>Neanthes arenaceodentata</i>	0	0	0	0	0
<i>Nereis</i> sp.	1	0	2	0	0
<i>Nereis</i> sp.1	1	0	0	0	0
<i>Tambalagamia fauveli</i>	1	0	0	0	0
Onuphidae	0	0	0	0	0
<i>Onuphis</i> sp.1	0	0	0	1	2
Paralacydoniidae	0	0	0	0	0
<i>Paralacydonia</i> sp.1	0	0	0	0	0
Phyllodocidae	0	0	0	0	0
<i>Phyllodoce</i> sp.10	0	0	1	0	0
<i>Phyllodoce</i> sp.11	0	0	0	0	0
<i>Protomystides</i> sp.1	0	0	0	0	0
Pilargidae	0	0	0	0	0
<i>Litocorsa</i> nr. <i>antennata</i>	0	0	0	0	0
<i>Sigambra</i> sp.1	0	0	0	0	0
<i>Synelmis albin</i>	0	0	0	1	1
<i>Synelmis rigida</i>	0	0	0	0	3
Polynoidae	0	0	0	0	0
<i>Harmothoe</i> sp.	1	0	0	0	0
<i>Harmothoe</i> sp.1	0	0	0	0	0
<i>Harmothoe</i> sp.8	0	0	0	0	0
<i>Lepidasthenia</i> sp.1	0	0	0	0	0
Sigalionidae	0	0	0	0	0
<i>Leanira</i> sp.1	0	0	0	0	0
<i>Sthenelanelia ehlersi</i>	0	0	0	0	0
<i>Sthenolepis japonica</i>	0	0	0	0	0
<i>Sthenolepis</i> sp.2	0	0	0	0	0
Syllidae	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.2	0	0	0	0	0
<i>Perkinsyllis</i> sp.2	0	0	0	0	0
<i>Sphaerosyllis</i> sp.1	0	0	0	0	0
<i>Syllis</i> sp.1	0	0	0	0	0
Canalipalpata	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1B2-A	SRWB-1B2-B	SRWB-1B2-C	SRWB-1CP2-A	SRWB-1CP2-B
Ampharetidae	0	0	0	0	0
<i>Ampharete</i> sp.1	0	0	0	0	0
<i>Anobothrus</i> sp.1	0	0	0	0	0
<i>Auchenoplax crinita</i>	0	0	0	0	0
<i>Sosane</i> sp.2	0	0	0	0	0
Chaetopteridae	0	0	0	0	0
<i>Spiochaetopterus</i> sp.1	0	0	0	0	0
Cirratulidae	0	0	0	0	0
<i>Aphelochaeta</i> sp.1	0	0	0	0	0
<i>Aphelochaeta</i> sp.2	0	0	0	0	0
<i>Chaetozone</i> sp.1	0	0	0	0	0
<i>Chaetozone</i> sp.5	0	0	0	0	0
<i>Cirratulus</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.5	0	0	0	0	0
<i>Kirkegaardia</i> sp.6	0	0	0	0	0
<i>Timarete</i> sp.1	0	0	0	0	0
Fabriciidae	0	0	0	0	0
<i>Fabricinuda</i> sp.1	0	0	0	0	0
Fauveliopsidae	0	0	0	0	0
<i>Riseriopsis</i> sp.1	0	0	0	0	0
Flabelligeridae	0	0	0	0	0
<i>Diplocirrus</i> sp.	0	0	0	0	0
<i>Diplocirrus</i> sp.1	0	0	0	0	0
Magelonidae	0	0	0	0	0
<i>Magelona</i> sp.13	0	0	0	0	0
Oweniidae	0	0	0	0	0
<i>Galathowenia</i> sp.1	0	0	0	0	1
Poecilochaetidae	0	0	0	0	0
<i>Poecilochaetus bifurcatus</i>	0	0	0	0	1
<i>Poecilochaetus koshikiensis</i>	0	0	0	0	0
<i>Poecilochaetus</i> sp.	0	0	0	0	0
<i>Poecilochaetus</i> sp.3	0	0	0	0	0
<i>Poecilochaetus</i> sp.4	0	0	0	0	0
<i>Poecilochaetus tricirratus</i>	0	0	0	0	0
Sabellidae	0	0	0	0	0
<i>Chone</i> sp.1	0	0	0	0	0
<i>Euchone</i> sp.	0	0	0	0	0
<i>Euchone</i> sp.1	0	0	0	0	0
Spionidae	0	0	0	0	0
<i>Laonice</i> sp.1	0	0	0	0	0
<i>Laonice</i> sp.3	0	0	0	0	0
<i>Malacoceros indicus</i>	0	0	0	0	0
<i>Paraprionospio</i> sp.1	0	0	0	0	0
<i>Prionospio ehlersi</i>	0	0	0	1	0
<i>Prionospio elegantula</i>	0	0	0	0	0
<i>Prionospio elongata</i>	0	0	0	0	0
<i>Prionospio</i> sp.	0	0	0	0	0
<i>Prionospio</i> sp.10	0	0	0	0	0
<i>Prionospio</i> sp.13	0	0	0	0	0
<i>Prionospio</i> sp.6	0	0	0	0	0
<i>Prionospio</i> sp.7	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1B2-A	SRWB-1B2-B	SRWB-1B2-C	SRWB-1CP2-A	SRWB-1CP2-B
<i>Pseudopolydora</i> sp.1	0	0	0	0	0
<i>Scolecipis</i> sp.2	0	0	0	0	0
<i>Spio</i> sp.1	0	0	0	0	0
<i>Spio</i> sp.2	0	0	0	0	0
<i>Spiophanes afer</i>	0	0	0	0	0
<i>Spiophanes kroeyeri</i>	0	0	0	0	0
<i>Spiophanes malayensis</i>	0	0	0	0	0
Sternaspidae	0	0	0	0	0
<i>Caulleryaspis</i> sp.1	0	0	0	0	0
<i>Sternaspis</i> sp.1	0	0	0	0	0
Terebellidae	0	0	0	0	0
<i>Amaeana occidentalis</i>	0	0	0	0	0
<i>Loimia</i> sp.	0	0	0	0	0
<i>Pista</i> sp.2	0	0	0	0	0
<i>Pista</i> sp.4	0	0	0	0	0
Trichobranchidae	0	0	0	0	0
<i>Terebellides</i> sp.1	0	0	0	0	1
<i>Terebellides</i> sp.2	0	0	0	0	1
<i>Trichobranchus roseus</i>	0	0	0	0	0
(blank)	0	0	0	0	0
Capitellidae	0	0	0	0	0
<i>Capitella</i> sp.1	1	2	0	0	0
<i>Capitella</i> sp.4	0	61	5	0	0
<i>Capitella</i> sp.7	1	2	0	0	0
<i>Capitellethus</i> sp.1	0	0	0	0	0
<i>Capitellethus</i> sp.2	0	0	0	0	0
<i>Capitellethus</i> sp.3	0	0	0	0	0
<i>Mediomastus</i> sp.1	0	0	0	0	0
<i>Mediomastus</i> sp.2	0	0	0	0	0
<i>Neomediomastus</i> sp.1	0	0	0	0	0
<i>Neomediomastus</i> sp.2	0	0	0	0	0
<i>Notomastus latericeus</i>	0	0	0	0	0
<i>Notomastus lineatus</i>	0	0	0	0	0
<i>Promastobranchus huloti</i>	0	0	0	1	1
<i>Rashgua lobatus</i>	0	0	0	0	0
<i>Scyphoproctus</i> sp.1	0	0	0	0	0
Cossuridae	0	0	0	0	0
<i>Cossura</i> sp.2	0	0	0	0	0
Maldanidae	0	0	0	0	0
<i>Axiiothella</i> sp.1	0	0	0	0	0
<i>Clymenella</i> sp.1	0	0	0	0	0
<i>Euclymene</i> sp.2	0	0	0	0	0
<i>Praxillella nr. gracilis</i>	0	0	0	0	0
<i>Praxillella</i> sp.3	0	0	0	0	0
Opheliidae	0	0	0	0	0
<i>Armandia</i> sp.	0	0	0	0	0
<i>Ophelia</i> sp.1	0	0	0	0	0
Orbiniidae	0	0	0	0	0
<i>Leitoscoloplos</i> sp.1	0	0	0	0	0
<i>Leodamas</i> sp.1	0	0	0	0	0
Paraonidae	0	0	0	0	0
<i>Aricidea (Acmira)</i> sp.3	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1B2-A	SRWB-1B2-B	SRWB-1B2-C	SRWB-1CP2-A	SRWB-1CP2-B
<i>Aricidea</i> (<i>Acmira</i>) sp.7	0	0	0	0	0
<i>Aricidea</i> (<i>Aricidea</i>) sp.7	0	0	0	0	0
<i>Levinsenia</i> sp.1	0	0	0	0	0
<i>Levinsenia</i> sp.2	0	0	0	0	0
<i>Levinsenia</i> sp.5	0	0	0	0	0
Arthropoda	0	0	0	0	0
Crustacea	0	0	0	0	0
Amphipoda	0	0	0	0	0
Ampeliscidae	0	0	0	0	0
<i>Ampelisca bocki</i>	0	0	0	0	0
<i>Ampelisca chinensis</i>	0	0	0	0	0
<i>Ampelisca cyclops</i>	0	0	0	0	1
<i>Ampelisca maia</i>	0	0	0	0	0
<i>Ampelisca misakiensis</i>	0	0	0	0	0
<i>Ampelisca</i> sp.	0	0	0	0	0
<i>Byblis calisto</i>	0	0	0	0	1
<i>Byblis febris</i>	0	0	0	1	0
<i>Byblis io</i>	0	0	0	0	0
<i>Byblis</i> sp.	0	0	0	0	0
Amphilocheidae	0	0	0	0	0
<i>Amphilocheus</i> sp.1	0	0	0	0	0
Aoridae	0	0	0	0	0
<i>Grandidierella gilesi</i>	0	0	0	0	0
Caprellidae	0	0	0	0	0
<i>Caprella</i> sp.1	0	0	0	0	1
Colomastigidae	0	0	0	0	0
<i>Colomastix</i> sp.1	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae sp.2	0	0	0	0	0
Dexaminidae sp.3	0	0	0	0	0
Eriopisidae	0	0	0	0	0
Eriopisidae	0	0	0	0	0
<i>Victoriopsis</i> sp.1	0	0	0	0	0
Oedicerotidae	0	0	0	0	0
<i>Eochelidium nonmiraculum</i>	0	0	0	0	0
<i>Periculodes</i> sp.1	1	0	0	0	0
Photidae	0	0	0	0	0
Photidae	0	0	0	0	0
Synopiidae	0	0	0	0	0
<i>Synopia</i> sp.2	0	0	0	0	0
Synopiidae sp.3	0	0	0	0	0
Tryphosidae	0	0	0	0	0
<i>Orchomenella</i> sp.1	0	0	0	0	0
Tryphosidae sp.1	0	0	0	0	0
Cumacea	0	0	0	0	0
Bodotriidae	0	0	0	0	0
<i>Pseudosympodoma</i> sp.2	0	0	0	0	0
Diastylidae	0	0	0	0	0
<i>Diastylis</i> sp.1	0	0	0	0	1
Leuconidae	0	0	0	0	0
<i>Eudorella</i> sp.1	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1B2-A	SRWB-1B2-B	SRWB-1B2-C	SRWB-1CP2-A	SRWB-1CP2-B
<i>Eudorella</i> sp.2	0	0	0	0	0
Nannastacidae	0	0	0	0	0
<i>Campylaspis</i> sp.12	0	0	0	0	0
<i>Campylaspis</i> sp.2	0	0	0	0	0
<i>Campylaspis</i> sp.4	0	0	0	0	0
<i>Campylaspis</i> sp.5	0	0	0	0	1
Decapoda	0	0	0	0	0
Alpheidae	0	0	0	0	0
Alpheidae sp.4	1	0	0	0	0
<i>Alpheopsis</i> sp.1	0	0	0	0	1
<i>Alpheus acutocarinatus</i>	0	0	0	0	0
<i>Alpheus bisincisus</i>	0	0	0	0	0
<i>Alpheus rapacida</i>	0	0	0	0	0
<i>Alpheus</i> sp.	0	0	0	0	0
<i>Bermudacaris</i> sp.	0	0	0	0	0
<i>Bermudacaris</i> sp.1	0	0	0	0	0
<i>Bermudacaris</i> sp.2	0	0	0	0	0
<i>Salmonus</i> sp.	0	0	0	0	0
<i>Salmonus</i> sp.2	0	0	0	0	0
Callianassidae	0	0	0	0	0
Callianassidae	0	0	0	0	0
<i>Jocullianassa matzi</i>	0	0	0	0	1
<i>Lipkecallianassa</i> sp.1	0	0	0	0	2
<i>Scallasis contipes</i>	0	0	0	0	0
Crangonidae	0	0	0	0	0
<i>Philocheira</i> sp.2	0	0	0	0	0
Diogenidae	0	0	0	0	0
Diogenidae	0	0	0	0	0
Leucosiidae	0	0	0	0	0
Arcania sp.3	0	0	0	0	0
<i>Myra brevimana</i>	0	0	0	0	0
<i>Nuciops modestus</i>	0	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Palaemon</i> sp.1	0	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Periclimenes</i> sp.1	0	0	0	0	0
Pasiphaeidae	0	0	0	0	0
<i>Leptochela pugnax</i>	0	0	0	0	1
Pilumnidae	0	0	0	0	0
<i>Camatopsis</i> sp.1	0	0	0	0	0
<i>Ceratoplax fulgida</i>	0	0	0	0	1
<i>Rhizopa gracilipes</i>	0	0	0	0	0
Portunidae	0	0	0	0	0
<i>Libystes edwardsi</i>	0	0	0	0	0
<i>Podophthalmus</i> sp.1	1	0	0	0	0
<i>Thalamita admete</i>	0	0	0	0	0
Processidae	0	0	0	0	0
<i>Processa</i> sp.1	0	0	0	0	0
Scalopidae	0	0	0	0	0
<i>Scalopidia spinosipes</i>	0	0	0	0	0
Upogebiidae	0	0	0	0	0
<i>Gebiactantha</i> sp.	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1B2-A	SRWB-1B2-B	SRWB-1B2-C	SRWB-1CP2-A	SRWB-1CP2-B
<i>Gebiakantha</i> sp.1	0	0	0	1	0
<i>Gebicula</i> sp.3	0	0	0	0	0
<i>Upogebia</i> sp.1	0	0	0	0	0
Upogebiidae	0	0	0	0	0
Isopoda	0	0	0	0	0
Anthuridae	0	0	0	0	0
<i>Amakusanthura</i> sp.1	0	0	0	0	0
Gnathiidae	0	0	0	0	0
<i>Caecognathia andamanensis</i>	0	0	0	1	0
Gnathiidae (L.)	0	0	0	0	0
Hyssuridae	0	0	0	0	0
Hyssuridae sp.1	0	0	0	0	0
Leptostraca	0	0	0	0	0
Nebaliidae	0	0	0	0	0
<i>Nebalia</i> sp.1	0	0	0	0	0
<i>Nebalia</i> sp.3	0	0	0	0	0
Mysidacea	0	0	0	0	0
Mysidae	0	0	0	0	0
<i>Anchialina</i> sp.1	0	0	0	0	1
<i>Haplostylus bengalensis</i>	0	0	0	0	1
Mysidae	0	0	0	0	0
Mysidae sp.1	0	0	0	0	0
<i>Siriella</i> sp.3	0	0	0	0	0
Stomatopoda	0	0	0	0	0
Squillidae	0	0	0	0	0
<i>Clorida gaillardi</i>	0	0	0	0	0
<i>Cloridina verrucosa</i>	0	0	0	0	0
Tanaidacea	0	0	0	0	0
Apseudidae	0	0	0	0	0
<i>Apseudes</i> sp.1	0	0	0	0	0
<i>Apseudes</i> sp.2	0	0	0	0	0
Apseudidae sp.4	0	0	0	0	0
Leptocheliidae	0	0	0	0	0
<i>Leptochelia</i> sp.2	0	0	0	0	0
Pagurapseudidae	0	0	0	0	0
Pagurapseudidae sp.2	0	0	0	0	0
Pycnogonida	0	0	0	0	0
Pantopoda	0	0	0	0	0
Ascorhynchidae	0	0	0	0	0
Ascorhynchidae sp.1	0	0	0	0	1
Echinodermata	0	0	0	0	0
Ophiuroidea	0	0	0	0	0
Ophiurida	0	0	0	0	0
Amphiuridae	0	0	0	0	0
<i>Amphioplus (Lymanella) andreae</i>	0	0	0	0	0
<i>Amphiura</i> sp.6	0	0	0	0	1
Amphiuridae sp.3	0	0	0	0	0
Mollusca	0	0	0	0	0
Aplacophora	0	0	0	0	0
Cavibelonia	0	0	0	0	0
Simrothiellidae	0	0	0	0	0
<i>Helicoradomenia</i> sp.1	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1B2-A	SRWB-1B2-B	SRWB-1B2-C	SRWB-1CP2-A	SRWB-1CP2-B
<i>Helicoradomenia</i> sp.2	0	0	0	0	0
Chaetodermatida	0	0	0	0	0
Chaetodermatidae	0	0	0	0	0
<i>Chaetoderma</i> sp.1	0	0	0	0	0
Bivalvia	0	0	0	0	0
Arcida	0	0	0	0	0
Arcidae	0	0	0	0	0
<i>Verilarca mortenseni</i>	0	0	0	0	0
Cardiida	0	0	0	0	0
Psammobiidae	0	0	0	0	0
<i>Gari truncata</i>	0	0	0	0	0
Lucinida	0	0	0	0	0
Lucinidae	0	0	0	0	0
<i>Anodontia edentula</i>	4	4	10	0	0
<i>Cavatidens imajimai</i>	23	182	73	0	0
Pholadomyoida	0	0	0	0	0
Cuspidariidae	0	0	0	0	0
<i>Cardiomya singaporensis</i>	0	0	0	0	0
Gastropoda	0	0	0	0	0
Archaeogastropoda	0	0	0	0	0
Orbitestellidae	0	0	0	0	0
<i>Microdiscula</i> sp.1	0	2	0	0	0
Heterostrophia	0	0	0	0	0
Pyramidellidae	0	0	0	0	0
<i>Odostomia</i> sp.1	0	1	0	0	0
Neogastropoda	0	0	0	0	0
Muricidae	0	0	0	0	0
Muricidae	0	0	0	0	0
Pteropoda	0	0	0	0	0
Hyalocylidae	0	0	0	0	0
<i>Hyalocylis</i> sp.1	0	0	0	0	0
Grand Total	58	260	95	9	30
No. of Taxa	395	395	395	395	395



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1CP2-C	SRWB-1D2-A	SRWB-1D2-B	SRWB-1D2-C	SRWB-2B2-A
Cnidaria	0	0	0	0	0
Anthozoa	0	0	0	0	0
Actiniaria	0	0	0	0	0
Actiniaria	0	0	1	0	0
Nematoda	0	0	0	0	0
Nematoda sp.1	0	0	0	0	0
Nemertea	0	0	0	0	0
Anopla	0	0	0	0	0
Heteronemertea	0	0	0	0	0
Lineidae	0	0	0	0	0
Lineus sp.1	0	0	0	0	0
Micrura sp.1	0	0	0	1	0
Palaeonemertea	0	0	0	0	0
Tubulanidae	0	0	0	0	0
Callinera sp.1	0	0	0	1	0
Platyhelminthes	0	0	0	0	0
Turbellaria	0	0	0	0	0
Turbellaria	0	0	0	0	0
Sipuncula	0	0	0	0	0
Phascolosomatidea	0	0	0	0	0
Aspidosiphoniformes	0	0	0	0	0
Aspidosiphonidae	0	0	0	0	0
Aspidosiphon sp.3	0	0	0	0	0
Phascolosomatiformes	0	0	0	0	0
Phascolosomatidae	0	0	0	0	0
Apionsoma sp.2	1	1	2	2	2
Sipunculidea	0	0	0	0	0
Golfingiformes	0	0	0	0	0
Phascolionidae	0	0	0	0	0
Phascolion sp.1	0	0	0	0	0
Phascolion sp.2	1	0	0	0	0
Annelida	0	0	0	0	0
Polychaeta	0	0	0	0	0
Aciculata	0	0	0	0	0
Amphinomidae	0	0	0	0	0
Chloeia violacea	0	0	0	0	0
Dorvilleidae	0	0	0	0	0
Ophryotrocha sp.1	0	0	0	0	0
Schistomeringos sp.1	0	0	0	0	0
Schistomeringos sp.4	0	0	0	0	0
Schistomeringos sp.5	0	0	0	0	0
Eunicidae	0	0	0	0	0
Eunice sp.3	0	0	0	0	0
Lysidice sp.6	0	0	0	0	0
Marphysa sp.2	0	0	0	1	0
Glyceridae	0	0	0	0	0
Glycera alba	0	0	0	0	0
Glycera lapidum	0	0	0	1	0
Glycera sp.	0	0	0	0	0
Hartmaniellidae	0	0	0	0	0
Hartmaniella sp.1	0	0	0	0	0
Hesionidae	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1CP2-C	SRWB-1D2-A	SRWB-1D2-B	SRWB-1D2-C	SRWB-2B2-A
<i>Hesiospina</i> sp.	0	0	0	0	0
<i>Oxydromus</i> sp.1	0	0	0	0	0
<i>Podarkeopsis</i> sp.1	0	0	0	0	0
Lumbrineridae	0	0	0	0	0
<i>Gallardoneris thailandensis</i>	0	0	0	0	0
<i>Gesaneris</i> sp.1	0	0	0	0	0
<i>Lumbrinerides</i> sp.1	0	0	0	0	0
<i>Lumbrineriopsis paradoxa</i>	0	0	0	0	0
<i>Lumbrineris latreilli</i>	0	0	0	0	0
<i>Ninoe</i> nr. <i>bruuni</i>	0	0	0	0	0
<i>Scoletoma</i> sp.1	0	0	0	0	0
Nephtyidae	0	0	0	0	0
<i>Aglaophamus</i> cf. <i>dicirroides</i>	1	0	0	1	0
<i>Aglaophamus orientalis</i>	0	0	2	2	0
<i>Aglaophamus tepens</i>	0	0	0	0	0
<i>Micronephthys oligobranchia</i>	0	0	0	0	0
<i>Micronephthys</i> sp.2	0	0	0	0	0
Nereididae	0	0	0	0	0
<i>Neanthes arenaceodentata</i>	0	0	0	0	0
<i>Nereis</i> sp.	0	0	0	0	0
<i>Nereis</i> sp.1	0	0	0	0	0
<i>Tambalagamia fauveli</i>	0	0	1	0	0
Onuphidae	0	0	0	0	0
<i>Onuphis</i> sp.1	0	0	0	0	0
Paralacydoniidae	0	0	0	0	0
<i>Paralacydonia</i> sp.1	1	0	0	0	0
Phyllodocidae	0	0	0	0	0
<i>Phyllodoce</i> sp.10	0	0	0	0	0
<i>Phyllodoce</i> sp.11	0	0	0	0	0
<i>Protomystides</i> sp.1	0	0	0	0	0
Pilargidae	0	0	0	0	0
<i>Litocorsa</i> nr. <i>antennata</i>	0	0	0	0	0
<i>Sigambra</i> sp.1	0	0	0	0	0
<i>Synelmis albin</i>	0	2	0	0	0
<i>Synelmis rigida</i>	1	1	0	0	0
Polynoidae	0	0	0	0	0
<i>Harmothoe</i> sp.	0	0	0	0	0
<i>Harmothoe</i> sp.1	0	1	0	0	0
<i>Harmothoe</i> sp.8	0	0	0	0	0
<i>Lepidasthenia</i> sp.1	0	0	0	0	0
Sigalionidae	0	0	0	0	0
<i>Leanira</i> sp.1	0	0	0	0	0
<i>Sthenelanelia ehlersi</i>	0	0	0	0	0
<i>Sthenolepis japonica</i>	0	0	0	0	0
<i>Sthenolepis</i> sp.2	0	0	0	0	0
Syllidae	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.2	0	0	0	0	0
<i>Perkinsyllis</i> sp.2	0	0	0	0	0
<i>Sphaerosyllis</i> sp.1	0	0	0	0	0
<i>Syllis</i> sp.1	0	0	0	0	0
Canalipalpata	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1CP2-C	SRWB-1D2-A	SRWB-1D2-B	SRWB-1D2-C	SRWB-2B2-A
Ampharetidae	0	0	0	0	0
<i>Ampharete</i> sp.1	0	0	0	0	0
<i>Anobothrus</i> sp.1	0	0	0	1	0
<i>Auchenoplax crinita</i>	0	0	0	0	0
<i>Sosane</i> sp.2	0	0	0	0	0
Chaetopteridae	0	0	0	0	0
<i>Spiochaetopterus</i> sp.1	0	0	1	0	1
Cirratulidae	0	0	0	0	0
<i>Aphelochaeta</i> sp.1	1	0	1	0	0
<i>Aphelochaeta</i> sp.2	0	0	0	0	0
<i>Chaetozone</i> sp.1	0	0	0	0	0
<i>Chaetozone</i> sp.5	0	0	0	0	0
<i>Cirratulus</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.5	0	0	0	0	0
<i>Kirkegaardia</i> sp.6	0	0	0	0	0
<i>Timarete</i> sp.1	0	0	0	0	0
Fabriciidae	0	0	0	0	0
<i>Fabricinuda</i> sp.1	0	0	0	0	0
Fauveliopsidae	0	0	0	0	0
<i>Riseriopsis</i> sp.1	0	0	0	0	0
Flabelligeridae	0	0	0	0	0
<i>Diplocirrus</i> sp.	0	0	0	0	0
<i>Diplocirrus</i> sp.1	0	0	0	0	0
Magelonidae	0	0	0	0	0
<i>Magelona</i> sp.13	0	0	0	1	0
Oweniidae	0	0	0	0	0
<i>Galathowenia</i> sp.1	0	0	0	0	0
Poecilochaetidae	0	0	0	0	0
<i>Poecilochaetus bifurcatus</i>	0	0	0	0	0
<i>Poecilochaetus koshikiensis</i>	0	0	0	0	0
<i>Poecilochaetus</i> sp.	0	0	0	0	0
<i>Poecilochaetus</i> sp.3	0	0	0	0	0
<i>Poecilochaetus</i> sp.4	0	0	0	0	0
<i>Poecilochaetus tricirratus</i>	1	0	0	0	0
Sabellidae	0	0	0	0	0
<i>Chone</i> sp.1	1	0	0	0	0
<i>Euchone</i> sp.	0	0	0	0	0
<i>Euchone</i> sp.1	0	0	0	0	0
Spionidae	0	0	0	0	0
<i>Laonice</i> sp.1	0	0	0	0	0
<i>Laonice</i> sp.3	0	0	0	0	0
<i>Malacoceros indicus</i>	0	0	0	0	0
<i>Paraprionospio</i> sp.1	0	0	0	0	0
<i>Prionospio ehlersi</i>	0	0	0	0	0
<i>Prionospio elegantula</i>	0	0	0	0	0
<i>Prionospio elongata</i>	0	0	0	0	0
<i>Prionospio</i> sp.	0	1	1	1	0
<i>Prionospio</i> sp.10	0	0	0	0	0
<i>Prionospio</i> sp.13	0	0	0	0	0
<i>Prionospio</i> sp.6	0	0	0	0	0
<i>Prionospio</i> sp.7	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1CP2-C	SRWB-1D2-A	SRWB-1D2-B	SRWB-1D2-C	SRWB-2B2-A
<i>Pseudopolydora</i> sp.1	0	0	0	0	0
<i>Scolelepis</i> sp.2	0	0	0	0	0
<i>Spio</i> sp.1	0	0	0	0	0
<i>Spio</i> sp.2	0	0	0	0	0
<i>Spiophanes afer</i>	0	0	0	0	0
<i>Spiophanes kroeyeri</i>	0	0	0	0	0
<i>Spiophanes malayensis</i>	0	0	0	0	0
Sternaspidae	0	0	0	0	0
<i>Caulleryaspis</i> sp.1	0	0	0	1	0
<i>Sternaspis</i> sp.1	0	0	0	0	0
Terebellidae	0	0	0	0	0
<i>Amaeana occidentalis</i>	0	0	0	0	0
<i>Loimia</i> sp.	0	0	0	0	0
<i>Pista</i> sp.2	0	0	0	0	0
<i>Pista</i> sp.4	0	0	0	0	0
Trichobranchidae	0	0	0	0	0
<i>Terebellides</i> sp.1	0	9	2	0	0
<i>Terebellides</i> sp.2	0	1	1	1	0
<i>Trichobranchus roseus</i>	0	0	0	0	0
(blank)	0	0	0	0	0
Capitellidae	0	0	0	0	0
<i>Capitella</i> sp.1	0	0	0	0	0
<i>Capitella</i> sp.4	0	0	0	0	0
<i>Capitella</i> sp.7	0	0	0	0	0
<i>Capitellethus</i> sp.1	0	0	0	0	0
<i>Capitellethus</i> sp.2	0	0	0	0	0
<i>Capitellethus</i> sp.3	0	0	0	0	0
<i>Mediomastus</i> sp.1	0	0	0	0	0
<i>Mediomastus</i> sp.2	0	0	0	0	0
<i>Neomediomastus</i> sp.1	0	0	0	0	0
<i>Neomediomastus</i> sp.2	0	0	0	0	0
<i>Notomastus latericeus</i>	0	0	0	0	0
<i>Notomastus lineatus</i>	0	0	0	0	0
<i>Promastobranchus huloti</i>	1	0	1	0	0
<i>Rashgua lobatus</i>	0	0	0	0	0
<i>Scyphoproctus</i> sp.1	0	0	0	0	1
Cossuridae	0	0	0	0	0
<i>Cossura</i> sp.2	0	0	0	0	0
Maldanidae	0	0	0	0	0
<i>Axiiothella</i> sp.1	0	0	0	0	0
<i>Clymenella</i> sp.1	0	0	0	0	0
<i>Euclymene</i> sp.2	0	0	0	0	0
<i>Praxillella</i> nr. <i>gracilis</i>	1	0	0	0	0
<i>Praxillella</i> sp.3	1	0	0	0	0
Opheliidae	0	0	0	0	0
<i>Armandia</i> sp.	0	0	0	0	0
<i>Ophelia</i> sp.1	0	0	0	0	0
Orbiniidae	0	0	0	0	0
<i>Leitoscoloplos</i> sp.1	0	0	0	0	0
<i>Leodamas</i> sp.1	1	0	0	0	0
Paraonidae	0	0	0	0	0
<i>Aricidea</i> (<i>Acmira</i>) sp.3	0	0	0	1	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1CP2-C	SRWB-1D2-A	SRWB-1D2-B	SRWB-1D2-C	SRWB-2B2-A
<i>Aricidea</i> (<i>Acmira</i>) sp.7	0	0	0	0	0
<i>Aricidea</i> (<i>Aricidea</i>) sp.7	0	0	0	0	0
<i>Levinsenia</i> sp.1	0	0	0	0	0
<i>Levinsenia</i> sp.2	0	1	0	0	0
<i>Levinsenia</i> sp.5	0	0	0	0	0
Arthropoda	0	0	0	0	0
Crustacea	0	0	0	0	0
Amphipoda	0	0	0	0	0
Ampeliscidae	0	0	0	0	0
<i>Ampelisca bocki</i>	0	0	0	0	0
<i>Ampelisca chinensis</i>	0	0	0	0	0
<i>Ampelisca cyclops</i>	0	0	0	0	0
<i>Ampelisca maia</i>	0	0	0	0	0
<i>Ampelisca misakiensis</i>	0	0	0	0	0
<i>Ampelisca</i> sp.	0	0	0	0	0
<i>Byblis calisto</i>	0	0	0	0	0
<i>Byblis febris</i>	0	0	0	1	0
<i>Byblis io</i>	0	0	0	0	0
<i>Byblis</i> sp.	0	0	0	0	0
Amphilocheidae	0	0	0	0	0
<i>Amphilocheus</i> sp.1	0	0	0	0	0
Aoridae	0	0	0	0	0
<i>Grandidierella gilesi</i>	0	0	0	0	0
Caprellidae	0	0	0	0	0
<i>Caprella</i> sp.1	0	1	1	1	0
Colomastigidae	0	0	0	0	0
<i>Colomastix</i> sp.1	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae sp.2	0	0	0	0	0
Dexaminidae sp.3	0	0	0	0	0
Eriopisidae	0	0	0	0	0
Eriopisidae	0	0	0	0	0
<i>Victoriopsis</i> sp.1	0	0	0	0	0
Oedicerotidae	0	0	0	0	0
<i>Eochelidium nonmiraculum</i>	0	0	0	0	0
<i>Periculodes</i> sp.1	0	0	0	0	0
Photidae	0	0	0	0	0
Photidae	1	0	0	0	0
Synopiidae	0	0	0	0	0
<i>Synopia</i> sp.2	0	0	0	0	0
Synopiidae sp.3	0	0	0	0	0
Tryphosidae	0	0	0	0	0
<i>Orchomenella</i> sp.1	1	0	0	0	0
Tryphosidae sp.1	0	0	0	0	0
Cumacea	0	0	0	0	0
Bodotriidae	0	0	0	0	0
<i>Pseudosympodomma</i> sp.2	0	0	0	0	0
Diastylidae	0	0	0	0	0
<i>Diastylis</i> sp.1	0	0	0	0	0
Leuconidae	0	0	0	0	0
<i>Eudorella</i> sp.1	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1CP2-C	SRWB-1D2-A	SRWB-1D2-B	SRWB-1D2-C	SRWB-2B2-A
<i>Eudorella</i> sp.2	0	0	0	0	1
Nannastacidae	0	0	0	0	0
<i>Campylaspis</i> sp.12	0	0	1	0	0
<i>Campylaspis</i> sp.2	0	0	0	0	0
<i>Campylaspis</i> sp.4	0	0	0	0	0
<i>Campylaspis</i> sp.5	0	0	0	0	0
Decapoda	0	0	0	0	0
Alpheidae	0	0	0	0	0
Alpheidae sp.4	0	0	0	0	0
<i>Alpheopsis</i> sp.1	0	0	0	0	0
<i>Alpheus acutocarinatus</i>	0	0	0	0	0
<i>Alpheus bisincisus</i>	0	0	0	0	0
<i>Alpheus rapacida</i>	0	0	0	0	0
<i>Alpheus</i> sp.	0	0	0	0	0
<i>Bermudacaris</i> sp.	1	1	0	0	0
<i>Bermudacaris</i> sp.1	0	0	0	1	0
<i>Bermudacaris</i> sp.2	0	0	0	0	0
<i>Salmonus</i> sp.	0	0	0	0	0
<i>Salmonus</i> sp.2	0	0	0	0	0
Callianassidae	0	0	0	0	0
Callianassidae	0	0	0	0	0
<i>Jocullianassa matzi</i>	0	0	0	1	0
<i>Lipkecallianassa</i> sp.1	0	4	0	0	0
<i>Scallasis contipes</i>	0	0	0	0	0
Crangonidae	0	0	0	0	0
<i>Philocheles</i> sp.2	0	0	0	0	0
Diogenidae	0	0	0	0	0
Diogenidae	0	0	0	0	0
Leucosiidae	0	0	0	0	0
Arcania sp.3	0	0	0	0	0
<i>Myra brevimana</i>	0	0	0	0	0
<i>Nuciops modestus</i>	0	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Palaemon</i> sp.1	0	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Periclimenes</i> sp.1	0	0	0	0	0
Pasiphaeidae	0	0	0	0	0
<i>Leptochela pugnax</i>	0	0	0	0	0
Pilumnidae	0	0	0	0	0
<i>Camatopsis</i> sp.1	0	0	0	0	0
<i>Ceratoplax fulgida</i>	0	0	1	0	0
<i>Rhizopa gracilipes</i>	0	0	0	0	0
Portunidae	0	0	0	0	0
<i>Libystes edwardsi</i>	0	0	0	0	0
<i>Podophthalmus</i> sp.1	0	0	0	0	0
<i>Thalamita admete</i>	0	0	0	0	0
Processidae	0	0	0	0	0
<i>Processa</i> sp.1	0	0	0	0	0
Scalopidae	0	0	0	0	0
<i>Scalopidia spinosipes</i>	0	0	0	0	0
Upogebiidae	0	0	0	0	0
<i>Gebiactantha</i> sp.	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1CP2-C	SRWB-1D2-A	SRWB-1D2-B	SRWB-1D2-C	SRWB-2B2-A
<i>Gebiactantha</i> sp.1	0	0	0	0	0
<i>Gebicula</i> sp.3	0	0	0	0	0
<i>Upogebia</i> sp.1	0	0	1	0	0
Upogebiidae	0	0	0	0	0
Isopoda	0	0	0	0	0
Anthuridae	0	0	0	0	0
<i>Amakusanthura</i> sp.1	0	1	0	0	0
Gnathiidae	0	0	0	0	0
<i>Caecognathia andamanensis</i>	5	1	2	1	0
Gnathiidae (L.)	0	0	0	0	0
Hyssuridae	0	0	0	0	0
Hyssuridae sp.1	0	0	0	0	0
Leptostraca	0	0	0	0	0
Nebaliidae	0	0	0	0	0
<i>Nebalia</i> sp.1	0	0	0	0	0
<i>Nebalia</i> sp.3	0	0	0	0	0
Mysidacea	0	0	0	0	0
Mysidae	0	0	0	0	0
<i>Anchialina</i> sp.1	0	0	1	0	0
<i>Haplostylus bengalensis</i>	0	0	0	0	0
Mysidae	0	0	0	1	0
Mysidae sp.1	0	0	0	0	0
<i>Siriella</i> sp.3	0	0	0	0	0
Stomatopoda	0	0	0	0	0
Squillidae	0	0	0	0	0
<i>Clorida gaillardi</i>	0	0	0	0	0
<i>Cloridina verrucosa</i>	0	0	1	0	0
Tanaidacea	0	0	0	0	0
Apseudidae	0	0	0	0	0
<i>Apseudes</i> sp.1	0	0	0	0	0
<i>Apseudes</i> sp.2	0	0	0	0	0
Apseudidae sp.4	0	0	0	0	0
Leptocheliidae	0	0	0	0	0
<i>Leptochelia</i> sp.2	0	0	0	1	0
Pagurapseudidae	0	0	0	0	0
Pagurapseudidae sp.2	0	0	0	0	0
Pycnogonida	0	0	0	0	0
Pantopoda	0	0	0	0	0
Ascorhynchidae	0	0	0	0	0
Ascorhynchidae sp.1	0	0	0	0	0
Echinodermata	0	0	0	0	0
Ophiuroidea	0	0	0	0	0
Ophiurida	0	0	0	0	0
Amphiuridae	0	0	0	0	0
<i>Amphioplus (Lymanella) andreae</i>	0	0	0	0	0
<i>Amphiura</i> sp.6	0	0	0	0	0
Amphiuridae sp.3	0	0	0	0	0
Mollusca	0	0	0	0	0
Aplacophora	0	0	0	0	0
Cavibelonia	0	0	0	0	0
Simrothiellidae	0	0	0	0	0
<i>Helicoradomenia</i> sp.1	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-1CP2-C	SRWB-1D2-A	SRWB-1D2-B	SRWB-1D2-C	SRWB-2B2-A
<i>Helicoradomenia</i> sp.2	0	0	0	0	0
Chaetodermatida	0	0	0	0	0
Chaetodermatidae	0	0	0	0	0
<i>Chaetoderma</i> sp.1	0	0	0	0	0
Bivalvia	0	0	0	0	0
Arcida	0	0	0	0	0
Arcidae	0	0	0	0	0
<i>Verilarca mortenseni</i>	0	0	0	0	0
Cardiida	0	0	0	0	0
Psammobiidae	0	0	0	0	0
<i>Gari truncata</i>	0	0	0	0	0
Lucinida	0	0	0	0	0
Lucinidae	0	0	0	0	0
<i>Anodontia edentula</i>	0	0	0	0	0
<i>Cavatidens imajimai</i>	0	0	0	0	0
Pholadomyoida	0	0	0	0	0
Cuspidariidae	0	0	0	0	0
<i>Cardiomya singaporensis</i>	0	0	0	0	0
Gastropoda	0	0	0	0	0
Archaeogastropoda	0	0	0	0	0
Orbitestellidae	0	0	0	0	0
<i>Microdiscula</i> sp.1	0	0	0	0	0
Heterostrophia	0	0	0	0	0
Pyramidellidae	0	0	0	0	0
<i>Odostomia</i> sp.1	0	0	0	0	0
Neogastropoda	0	0	0	0	0
Muricidae	0	0	0	0	0
Muricidae	0	0	0	0	0
Pteropoda	0	0	0	0	0
Hyalocylidae	0	0	0	0	0
<i>Hyalocylis</i> sp.1	0	0	0	0	0
Grand Total	20	25	21	22	5
No. of Taxa	395	395	395	395	395



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 2B2-B	SRWB- 2B2-C	SRWB- 3B2-A	SRWB- 3B2-B	SRWB- 3B2-C
Cnidaria	0	0	0	0	0
Anthozoa	0	0	0	0	0
Actiniaria	0	0	0	0	0
Actiniaria	0	0	0	0	0
Nematoda	0	0	0	0	0
Nematoda sp.1	0	0	0	0	0
Nemertea	0	0	0	0	0
Anopla	0	0	0	0	0
Heteronemertea	0	0	0	0	0
Lineidae	0	0	0	0	0
<i>Lineus</i> sp.1	0	0	0	0	0
<i>Micrura</i> sp.1	0	0	0	0	0
Palaeonemertea	0	0	0	0	0
Tubulanidae	0	0	0	0	0
<i>Callinera</i> sp.1	0	0	0	0	0
Platyhelminthes	0	0	0	0	0
Turbellaria	0	0	0	0	0
Turbellaria	0	0	0	0	0
Sipuncula	0	0	0	0	0
Phascolosomatidea	0	0	0	0	0
Aspidosiphoniformes	0	0	0	0	0
Aspidosiphonidae	0	0	0	0	0
<i>Aspidosiphon</i> sp.3	0	0	0	0	0
Phascolosomatiformes	0	0	0	0	0
Phascolosomatidae	0	0	0	0	0
<i>Apionsoma</i> sp.2	1	0	0	0	1
Sipunculidea	0	0	0	0	0
Golfingiformes	0	0	0	0	0
Phascolionidae	0	0	0	0	0
<i>Phascolion</i> sp.1	0	0	0	0	0
<i>Phascolion</i> sp.2	0	0	0	0	0
Annelida	0	0	0	0	0
Polychaeta	0	0	0	0	0
Aciculata	0	0	0	0	0
Amphinomidae	0	0	0	0	0
<i>Chloeia violacea</i>	0	0	0	0	0
Dorvilleidae	0	0	0	0	0
<i>Ophryotrocha</i> sp.1	0	0	11	12	5
<i>Schistomeringos</i> sp.1	1	1	0	2	0
<i>Schistomeringos</i> sp.4	0	0	0	0	0
<i>Schistomeringos</i> sp.5	0	0	0	0	0
Eunicidae	0	0	0	0	0
<i>Eunice</i> sp.3	0	0	0	0	0
<i>Lysidice</i> sp.6	0	0	0	0	0
<i>Marphysa</i> sp.2	0	0	0	0	0
Glyceridae	0	0	0	0	0
<i>Glycera alba</i>	0	0	0	0	0
<i>Glycera lapidum</i>	0	0	0	0	0
<i>Glycera</i> sp.	0	0	0	0	0
Hartmaniellidae	0	0	0	0	0
<i>Hartmaniella</i> sp.1	0	0	0	0	0
Hesionidae	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 2B2-B	SRWB- 2B2-C	SRWB- 3B2-A	SRWB- 3B2-B	SRWB- 3B2-C
<i>Hesiospina</i> sp.	0	0	0	0	0
<i>Oxydromus</i> sp.1	0	0	0	0	0
<i>Podarkeopsis</i> sp.1	0	0	0	0	0
Lumbrineridae	0	0	0	0	0
<i>Gallardoneris thailandensis</i>	0	0	0	0	0
<i>Gesaneris</i> sp.1	0	0	0	0	0
<i>Lumbrinerides</i> sp.1	0	0	0	0	0
<i>Lumbrineriopsis paradoxa</i>	0	0	0	0	0
<i>Lumbrineris latreilli</i>	0	0	0	0	0
<i>Ninoe</i> nr. <i>bruuni</i>	0	0	0	0	0
<i>Scoletoma</i> sp.1	0	0	0	0	0
Nephtyidae	0	0	0	0	0
<i>Aglaophamus</i> cf. <i>dicirroides</i>	0	0	0	0	0
<i>Aglaophamus orientalis</i>	0	0	0	0	0
<i>Aglaophamus tepens</i>	0	0	0	0	0
<i>Micronephthys oligobranchia</i>	0	0	0	0	0
<i>Micronephthys</i> sp.2	0	0	0	0	0
Nereididae	0	0	0	0	0
<i>Neanthes arenaceodentata</i>	0	0	0	6	0
<i>Nereis</i> sp.	0	0	0	0	0
<i>Nereis</i> sp.1	0	0	0	0	0
<i>Tambalagamia fauveli</i>	0	0	0	0	0
Onuphidae	0	0	0	0	0
<i>Onuphis</i> sp.1	0	0	0	0	0
Paralacydoniidae	0	0	0	0	0
<i>Paralacydonia</i> sp.1	0	0	0	0	0
Phyllodocidae	0	0	0	0	0
<i>Phyllodoce</i> sp.10	0	0	0	0	0
<i>Phyllodoce</i> sp.11	0	0	0	0	0
<i>Protomystides</i> sp.1	0	0	0	0	0
Pilargidae	0	0	0	0	0
<i>Litocorsa</i> nr. <i>antennata</i>	0	0	0	0	0
<i>Sigambra</i> sp.1	0	0	0	0	0
<i>Synelmis albin</i>	0	2	0	0	0
<i>Synelmis rigida</i>	0	0	0	0	0
Polynoidae	0	0	0	0	0
<i>Harmothoe</i> sp.	0	0	0	0	0
<i>Harmothoe</i> sp.1	0	0	0	0	0
<i>Harmothoe</i> sp.8	0	0	0	0	0
<i>Lepidasthenia</i> sp.1	0	0	0	0	0
Sigalionidae	0	0	0	0	0
<i>Leanira</i> sp.1	0	0	0	0	0
<i>Sthenelanelia ehlersi</i>	0	0	0	0	0
<i>Sthenolepis japonica</i>	0	0	0	0	0
<i>Sthenolepis</i> sp.2	0	0	0	0	0
Syllidae	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.2	0	0	0	0	0
<i>Perkinsyllis</i> sp.2	0	0	0	0	0
<i>Sphaerosyllis</i> sp.1	0	0	0	0	0
<i>Syllis</i> sp.1	0	0	0	0	0
Canalipalpata	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 2B2-B	SRWB- 2B2-C	SRWB- 3B2-A	SRWB- 3B2-B	SRWB- 3B2-C
Ampharetidae	0	0	0	0	0
<i>Ampharete</i> sp.1	0	0	0	0	0
<i>Anobothrus</i> sp.1	0	0	0	0	0
<i>Auchenoplax crinita</i>	0	0	0	0	0
<i>Sosane</i> sp.2	0	0	0	0	0
Chaetopteridae	0	0	0	0	0
<i>Spiochaetopterus</i> sp.1	0	0	0	0	0
Cirratulidae	0	0	0	0	0
<i>Aphelochaeta</i> sp.1	0	0	0	0	0
<i>Aphelochaeta</i> sp.2	0	0	0	0	0
<i>Chaetozone</i> sp.1	0	0	0	0	0
<i>Chaetozone</i> sp.5	0	0	0	0	0
<i>Cirratulus</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.5	0	0	0	0	0
<i>Kirkegaardia</i> sp.6	0	0	0	0	0
<i>Timarete</i> sp.1	1	0	0	0	0
Fabriciidae	0	0	0	0	0
<i>Fabricinuda</i> sp.1	0	0	0	0	0
Fauveliopsidae	0	0	0	0	0
<i>Riseriopsis</i> sp.1	0	0	0	0	0
Flabelligeridae	0	0	0	0	0
<i>Diplocirrus</i> sp.	0	0	0	0	0
<i>Diplocirrus</i> sp.1	0	0	0	0	0
Magelonidae	0	0	0	0	0
<i>Magelona</i> sp.13	0	0	0	0	0
Oweniidae	0	0	0	0	0
<i>Galathowenia</i> sp.1	0	0	0	0	0
Poecilochaetidae	0	0	0	0	0
<i>Poecilochaetus bifurcatus</i>	0	0	0	0	0
<i>Poecilochaetus koshikiensis</i>	0	0	0	0	0
<i>Poecilochaetus</i> sp.	0	0	0	0	0
<i>Poecilochaetus</i> sp.3	0	0	0	0	0
<i>Poecilochaetus</i> sp.4	0	0	0	0	0
<i>Poecilochaetus tricirratus</i>	0	0	0	0	0
Sabellidae	0	0	0	0	0
<i>Chone</i> sp.1	0	0	0	0	0
<i>Euchone</i> sp.	0	0	0	0	0
<i>Euchone</i> sp.1	0	0	0	0	0
Spionidae	0	0	0	0	0
<i>Laonice</i> sp.1	0	0	0	0	0
<i>Laonice</i> sp.3	0	0	0	0	0
<i>Malacoceros indicus</i>	0	0	0	0	0
<i>Paraprionospio</i> sp.1	0	0	0	0	0
<i>Prionospio ehlersi</i>	0	0	0	0	0
<i>Prionospio elegantula</i>	0	0	0	0	0
<i>Prionospio elongata</i>	0	0	0	0	0
<i>Prionospio</i> sp.	0	0	0	0	1
<i>Prionospio</i> sp.10	0	0	0	0	0
<i>Prionospio</i> sp.13	0	0	0	0	0
<i>Prionospio</i> sp.6	0	0	0	0	0
<i>Prionospio</i> sp.7	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 2B2-B	SRWB- 2B2-C	SRWB- 3B2-A	SRWB- 3B2-B	SRWB- 3B2-C
<i>Pseudopolydora</i> sp.1	0	0	0	0	0
<i>Scolelepis</i> sp.2	0	0	0	0	0
<i>Spio</i> sp.1	0	0	0	0	0
<i>Spio</i> sp.2	0	0	0	0	0
<i>Spiophanes afer</i>	0	0	0	0	0
<i>Spiophanes kroeyeri</i>	0	0	0	0	0
<i>Spiophanes malayensis</i>	0	0	0	0	0
Sternaspidae	0	0	0	0	0
<i>Caulleryaspis</i> sp.1	0	0	0	0	0
<i>Sternaspis</i> sp.1	0	0	0	0	0
Terebellidae	0	0	0	0	0
<i>Amaeana occidentalis</i>	0	0	0	0	0
<i>Loimia</i> sp.	0	0	0	0	0
<i>Pista</i> sp.2	0	0	0	0	0
<i>Pista</i> sp.4	0	0	0	0	0
Trichobranchidae	0	0	0	0	0
<i>Terebellides</i> sp.1	0	0	0	0	0
<i>Terebellides</i> sp.2	0	0	0	0	0
<i>Trichobranchus roseus</i>	0	0	0	0	0
(blank)	0	0	0	0	0
Capitellidae	0	0	0	0	0
<i>Capitella</i> sp.1	0	0	0	0	0
<i>Capitella</i> sp.4	0	0	5	9	0
<i>Capitella</i> sp.7	0	0	6	1	3
<i>Capitellethus</i> sp.1	0	0	0	0	0
<i>Capitellethus</i> sp.2	0	0	0	0	0
<i>Capitellethus</i> sp.3	0	0	0	0	0
<i>Mediomastus</i> sp.1	0	0	0	0	0
<i>Mediomastus</i> sp.2	0	0	0	0	0
<i>Neomediomastus</i> sp.1	0	0	0	0	0
<i>Neomediomastus</i> sp.2	0	0	0	0	0
<i>Notomastus latericeus</i>	0	0	0	0	0
<i>Notomastus lineatus</i>	0	0	0	0	0
<i>Promastobranchus huloti</i>	0	0	0	0	0
<i>Rashgua lobatus</i>	0	0	0	0	0
<i>Scyphoproctus</i> sp.1	0	0	0	0	0
Cossuridae	0	0	0	0	0
<i>Cossura</i> sp.2	0	0	0	0	0
Maldanidae	0	0	0	0	0
<i>Axiiothella</i> sp.1	0	0	0	0	0
<i>Clymenella</i> sp.1	0	0	0	0	0
<i>Euclymene</i> sp.2	0	0	0	0	0
<i>Praxillella nr. gracilis</i>	0	0	0	0	0
<i>Praxillella</i> sp.3	0	0	0	0	0
Opheliidae	0	0	0	0	0
<i>Armandia</i> sp.	0	0	0	0	0
<i>Ophelia</i> sp.1	0	0	0	0	0
Orbiniidae	0	0	0	0	0
<i>Leitoscoloplos</i> sp.1	0	0	0	0	0
<i>Leodamas</i> sp.1	0	0	0	0	0
Paraonidae	0	0	0	0	0
<i>Aricidea (Acmira)</i> sp.3	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 2B2-B	SRWB- 2B2-C	SRWB- 3B2-A	SRWB- 3B2-B	SRWB- 3B2-C
<i>Aricidea</i> (<i>Acmira</i>) sp.7	0	0	0	0	0
<i>Aricidea</i> (<i>Aricidea</i>) sp.7	0	0	0	0	0
<i>Levinsenia</i> sp.1	0	0	0	0	0
<i>Levinsenia</i> sp.2	0	0	0	0	0
<i>Levinsenia</i> sp.5	0	0	0	0	0
Arthropoda	0	0	0	0	0
Crustacea	0	0	0	0	0
Amphipoda	0	0	0	0	0
Ampeliscidae	0	0	0	0	0
<i>Ampelisca bocki</i>	0	0	0	0	0
<i>Ampelisca chinensis</i>	0	0	0	0	0
<i>Ampelisca cyclops</i>	0	0	0	0	1
<i>Ampelisca maia</i>	0	0	0	0	0
<i>Ampelisca misakiensis</i>	0	0	0	0	0
<i>Ampelisca</i> sp.	0	0	0	0	1
<i>Byblis calisto</i>	0	0	0	0	0
<i>Byblis febris</i>	0	0	0	0	0
<i>Byblis io</i>	0	0	0	0	0
<i>Byblis</i> sp.	0	0	0	0	0
Amphilocheidae	0	0	0	0	0
<i>Amphilocheus</i> sp.1	0	0	1	0	0
Aoridae	0	0	0	0	0
<i>Grandidierella gilesi</i>	0	0	0	0	0
Caprellidae	0	0	0	0	0
<i>Caprella</i> sp.1	0	0	0	0	2
Colomastigidae	0	0	0	0	0
<i>Colomastix</i> sp.1	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae sp.2	0	0	0	0	1
Dexaminidae sp.3	0	0	0	0	0
Eriopisidae	0	0	0	0	0
Eriopisidae	0	0	0	0	0
<i>Victoriopsis</i> sp.1	0	0	0	0	0
Oedicerotidae	0	0	0	0	0
<i>Eochelidium nonmiraculum</i>	0	0	0	0	0
<i>Periculodes</i> sp.1	0	0	0	0	0
Photidae	0	0	0	0	0
Photidae	0	0	0	0	0
Synopiidae	0	0	0	0	0
<i>Synopia</i> sp.2	0	0	0	0	0
Synopiidae sp.3	0	0	0	0	0
Tryphosidae	0	0	0	0	0
<i>Orchomenella</i> sp.1	0	0	0	0	0
Tryphosidae sp.1	0	0	0	0	0
Cumacea	0	0	0	0	0
Bodotriidae	0	0	0	0	0
<i>Pseudosympodoma</i> sp.2	0	0	0	0	0
Diastylidae	0	0	0	0	0
<i>Diastylis</i> sp.1	0	0	0	0	0
Leuconidae	0	0	0	0	0
<i>Eudorella</i> sp.1	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 2B2-B	SRWB- 2B2-C	SRWB- 3B2-A	SRWB- 3B2-B	SRWB- 3B2-C
<i>Eudorella</i> sp.2	0	0	0	0	0
Nannastacidae	0	0	0	0	0
<i>Campylaspis</i> sp.12	0	0	0	0	0
<i>Campylaspis</i> sp.2	0	0	0	0	0
<i>Campylaspis</i> sp.4	0	0	0	0	0
<i>Campylaspis</i> sp.5	0	0	0	0	0
Decapoda	0	0	0	0	0
Alpheidae	0	0	0	0	0
Alpheidae sp.4	0	0	0	0	0
<i>Alpheopsis</i> sp.1	0	0	0	0	0
<i>Alpheus acutocarinatus</i>	0	0	0	0	0
<i>Alpheus bisincisus</i>	0	0	0	0	0
<i>Alpheus rapacida</i>	0	0	0	0	0
<i>Alpheus</i> sp.	0	0	0	0	0
<i>Bermudacaris</i> sp.	0	0	0	0	0
<i>Bermudacaris</i> sp.1	0	0	0	0	0
<i>Bermudacaris</i> sp.2	0	0	0	0	0
<i>Salmonus</i> sp.	0	0	0	0	0
<i>Salmonus</i> sp.2	0	0	0	0	0
Callianassidae	0	0	0	0	0
Callianassidae	0	0	0	0	0
<i>Jocullianassa matzi</i>	0	0	0	0	0
<i>Lipkecallianassa</i> sp.1	0	0	0	0	0
<i>Scallasis contipes</i>	0	0	0	0	0
Crangonidae	0	0	0	0	0
<i>Philocheas</i> sp.2	0	0	0	0	0
Diogenidae	0	0	0	0	0
Diogenidae	0	0	0	0	0
Leucosiidae	0	0	0	0	0
Arcania sp.3	0	0	0	0	0
<i>Myra brevimana</i>	0	0	0	0	0
<i>Nuciops modestus</i>	0	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Palaemon</i> sp.1	1	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Periclimenes</i> sp.1	0	0	0	0	0
Pasiphaeidae	0	0	0	0	0
<i>Leptochela pugnax</i>	0	0	0	0	0
Pilumnidae	0	0	0	0	0
<i>Camatopsis</i> sp.1	0	0	0	0	0
<i>Ceratoplax fulgida</i>	0	0	0	0	0
<i>Rhizopa gracilipes</i>	1	0	0	0	0
Portunidae	0	0	0	0	0
<i>Libystes edwardsi</i>	0	0	0	0	0
<i>Podophthalmus</i> sp.1	0	0	0	0	0
<i>Thalamita admete</i>	0	0	0	0	0
Processidae	0	0	0	0	0
<i>Processa</i> sp.1	0	0	0	0	0
Scalopidae	0	0	0	0	0
<i>Scalopidia spinosipes</i>	0	0	0	0	0
Upogebiidae	0	0	0	0	0
<i>Gebiacantha</i> sp.	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 2B2-B	SRWB- 2B2-C	SRWB- 3B2-A	SRWB- 3B2-B	SRWB- 3B2-C
<i>Gebiactantha</i> sp.1	0	0	0	0	0
<i>Gebicula</i> sp.3	0	0	0	0	0
<i>Upogebia</i> sp.1	0	0	0	0	0
Upogebiidae	0	0	0	0	0
Isopoda	0	0	0	0	0
Anthuridae	0	0	0	0	0
<i>Amakusanthura</i> sp.1	0	0	0	0	0
Gnathiidae	0	0	0	0	0
<i>Caecognathia andamanensis</i>	0	0	0	0	0
Gnathiidae (L.)	0	0	0	0	0
Hyssuridae	0	0	0	0	0
Hyssuridae sp.1	0	0	0	0	0
Leptostraca	0	0	0	0	0
Nebaliidae	0	0	0	0	0
<i>Nebalia</i> sp.1	0	0	0	0	0
<i>Nebalia</i> sp.3	0	0	0	0	0
Mysidacea	0	0	0	0	0
Mysidae	0	0	0	0	0
<i>Anchialina</i> sp.1	0	0	0	0	0
<i>Haplostylus bengalensis</i>	0	0	0	0	0
Mysidae	0	0	0	0	0
Mysidae sp.1	0	0	0	0	0
<i>Siriella</i> sp.3	0	0	0	0	0
Stomatopoda	0	0	0	0	0
Squillidae	0	0	0	0	0
<i>Clorida gaillardi</i>	0	0	0	0	0
<i>Cloridina verrucosa</i>	0	0	0	0	0
Tanaidacea	0	0	0	0	0
Apseudidae	0	0	0	0	0
<i>Apseudes</i> sp.1	0	0	0	0	0
<i>Apseudes</i> sp.2	0	0	0	0	0
Apseudidae sp.4	0	0	0	0	0
Leptocheliidae	0	0	0	0	0
<i>Leptochelia</i> sp.2	0	0	0	0	0
Pagurapseudidae	0	0	0	0	0
Pagurapseudidae sp.2	0	0	0	0	0
Pycnogonida	0	0	0	0	0
Pantopoda	0	0	0	0	0
Ascorhynchidae	0	0	0	0	0
Ascorhynchidae sp.1	0	0	0	0	0
Echinodermata	0	0	0	0	0
Ophiuroidea	0	0	0	0	0
Ophiurida	0	0	0	0	0
Amphiuridae	0	0	0	0	0
<i>Amphioplus (Lymanella) andreae</i>	0	0	0	0	0
<i>Amphiura</i> sp.6	0	0	0	0	0
Amphiuridae sp.3	0	0	0	0	0
Mollusca	0	0	0	0	0
Aplacophora	0	0	0	0	0
Cavibelonia	0	0	0	0	0
Simrothiellidae	0	0	0	0	0
<i>Helicoradomenia</i> sp.1	0	0	0	0	1



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 2B2-B	SRWB- 2B2-C	SRWB- 3B2-A	SRWB- 3B2-B	SRWB- 3B2-C
<i>Helicoradomenia</i> sp.2	0	0	0	0	0
Chaetodermatida	0	0	0	0	0
Chaetodermatidae	0	0	0	0	0
<i>Chaetoderma</i> sp.1	0	0	0	0	0
Bivalvia	0	0	0	0	0
Arcida	0	0	0	0	0
Arcidae	0	0	0	0	0
<i>Verilarca mortenseni</i>	0	0	0	0	0
Cardiida	0	0	0	0	0
Psammobiidae	0	0	0	0	0
<i>Gari truncata</i>	0	0	0	0	0
Lucinida	0	0	0	0	0
Lucinidae	0	0	0	0	0
<i>Anodontia edentula</i>	0	0	0	0	0
<i>Cavatidens imajimai</i>	1	0	1	8	0
Pholadomyoida	0	0	0	0	0
Cuspidariidae	0	0	0	0	0
<i>Cardiomya singaporensis</i>	0	0	0	0	0
Gastropoda	0	0	0	0	0
Archaeogastropoda	0	0	0	0	0
Orbitestellidae	0	0	0	0	0
<i>Microdiscula</i> sp.1	0	0	0	0	0
Heterostropho	0	0	0	0	0
Pyramidellidae	0	0	0	0	0
<i>Odostomia</i> sp.1	0	0	0	0	0
Neogastropoda	0	0	0	0	0
Muricidae	0	0	0	0	0
Muricidae	0	0	0	0	0
Pteropoda	0	0	0	0	0
Hyalocylidae	0	0	0	0	0
<i>Hyalocylis</i> sp.1	0	0	0	0	0
Grand Total	6	3	24	38	16
No. of Taxa	395	395	395	395	395



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 3CP2-A	SRWB- 3CP2-B	SRWB- 3CP2-C	SRWB- 3D2-A	SRWB- 3D2-B
Cnidaria	0	0	0	0	0
Anthozoa	0	0	0	0	0
Actiniaria	0	0	0	0	0
Actiniaria	0	0	0	0	0
Nematoda	0	0	0	0	0
Nematoda sp.1	0	0	0	0	0
Nemertea	0	0	0	0	0
Anopla	0	0	0	0	0
Heteronemertea	0	0	0	0	0
Lineidae	0	0	0	0	0
<i>Lineus</i> sp.1	0	0	0	0	0
<i>Micrura</i> sp.1	0	0	0	0	0
Palaeonemertea	0	0	0	0	0
Tubulanidae	0	0	0	0	0
<i>Callinera</i> sp.1	0	0	0	0	0
Platyhelminthes	0	0	0	0	0
Turbellaria	0	0	0	0	0
Turbellaria	0	0	0	0	0
Sipuncula	0	0	0	0	0
Phascolosomatidea	0	0	0	0	0
Aspidosiphoniformes	0	0	0	0	0
Aspidosiphonidae	0	0	0	0	0
<i>Aspidosiphon</i> sp.3	0	0	0	0	0
Phascolosomatiformes	0	0	0	0	0
Phascolosomatidae	0	0	0	0	0
<i>Apionsoma</i> sp.2	0	1	1	0	1
Sipunculidea	0	0	0	0	0
Golfingiformes	0	0	0	0	0
Phascolionidae	0	0	0	0	0
<i>Phascolion</i> sp.1	0	0	0	0	0
<i>Phascolion</i> sp.2	0	0	0	0	0
Annelida	0	0	0	0	0
Polychaeta	0	0	0	0	0
Aciculata	0	0	0	0	0
Amphinomidae	0	0	0	0	0
<i>Chloeia violacea</i>	0	0	0	1	0
Dorvilleidae	0	0	0	0	0
<i>Ophryotrocha</i> sp.1	0	0	0	0	0
<i>Schistomeringos</i> sp.1	0	0	0	0	0
<i>Schistomeringos</i> sp.4	0	0	0	0	0
<i>Schistomeringos</i> sp.5	0	0	0	0	0
Eunicidae	0	0	0	0	0
<i>Eunice</i> sp.3	0	0	0	0	1
<i>Lysidice</i> sp.6	0	0	0	0	0
<i>Marphysa</i> sp.2	0	0	0	0	0
Glyceridae	0	0	0	0	0
<i>Glycera alba</i>	0	0	0	0	0
<i>Glycera lapidum</i>	0	0	0	0	0
<i>Glycera</i> sp.	0	0	0	0	1
Hartmaniellidae	0	0	0	0	0
<i>Hartmaniella</i> sp.1	1	0	0	0	0
Hesionidae	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-3CP2-A	SRWB-3CP2-B	SRWB-3CP2-C	SRWB-3D2-A	SRWB-3D2-B
<i>Hesiospina</i> sp.	0	0	0	0	0
<i>Oxydromus</i> sp.1	0	1	0	0	0
<i>Podarkeopsis</i> sp.1	0	0	0	0	0
Lumbrineridae	0	0	0	0	0
<i>Gallardoneris thailandensis</i>	0	0	0	0	0
<i>Gesaneris</i> sp.1	0	0	0	0	0
<i>Lumbrinerides</i> sp.1	0	0	0	0	0
<i>Lumbrineriopsis paradoxa</i>	0	0	0	0	0
<i>Lumbrineris latreilli</i>	0	0	0	0	0
<i>Ninoe</i> nr. <i>bruuni</i>	0	0	0	0	0
<i>Scoletoma</i> sp.1	0	0	0	0	0
Nephtyidae	0	0	0	0	0
<i>Aglaophamus</i> cf. <i>dicirroides</i>	0	1	0	0	1
<i>Aglaophamus orientalis</i>	0	1	0	1	1
<i>Aglaophamus tepens</i>	0	0	0	0	0
<i>Micronephthys oligobranchia</i>	0	0	0	0	0
<i>Micronephthys</i> sp.2	0	0	0	0	0
Nereididae	0	0	0	0	0
<i>Neanthes arenaceodentata</i>	0	0	0	0	0
<i>Nereis</i> sp.	0	0	0	0	0
<i>Nereis</i> sp.1	0	0	0	0	0
<i>Tambalagamia fauveli</i>	0	0	0	0	0
Onuphidae	0	0	0	0	0
<i>Onuphis</i> sp.1	0	0	0	0	2
Paralacydoniidae	0	0	0	0	0
<i>Paralacydonia</i> sp.1	0	0	1	0	0
Phyllodocidae	0	0	0	0	0
<i>Phyllodoce</i> sp.10	0	0	0	0	0
<i>Phyllodoce</i> sp.11	0	0	0	0	0
<i>Protomystides</i> sp.1	0	0	0	0	0
Pilargidae	0	0	0	0	0
<i>Litocorsa</i> nr. <i>antennata</i>	1	0	1	0	0
<i>Sigambra</i> sp.1	1	0	0	0	0
<i>Synelmis albinii</i>	0	3	1	2	3
<i>Synelmis rigida</i>	1	0	0	0	0
Polynoidae	0	0	0	0	0
<i>Harmothoe</i> sp.	0	0	0	0	0
<i>Harmothoe</i> sp.1	0	0	0	0	0
<i>Harmothoe</i> sp.8	0	0	0	0	0
<i>Lepidasthenia</i> sp.1	0	0	0	0	0
Sigalionidae	0	0	0	0	0
<i>Leanira</i> sp.1	0	0	0	0	0
<i>Sthenelanelia ehlersi</i>	0	0	0	0	0
<i>Sthenolepis japonica</i>	0	0	0	0	1
<i>Sthenolepis</i> sp.2	0	0	0	0	0
Syllidae	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.	0	0	0	0	0
<i>Exogone</i> (Exogone) sp.2	0	0	0	0	0
<i>Perkinsyllis</i> sp.2	0	0	0	0	0
<i>Sphaerosyllis</i> sp.1	0	0	0	0	0
<i>Syllis</i> sp.1	0	0	0	0	0
Canalipalpata	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 3CP2-A	SRWB- 3CP2-B	SRWB- 3CP2-C	SRWB- 3D2-A	SRWB- 3D2-B
Ampharetidae	0	0	0	0	0
<i>Ampharete</i> sp.1	0	0	0	0	0
<i>Anobothrus</i> sp.1	0	0	0	0	1
<i>Auchenoplax crinita</i>	0	0	0	0	0
<i>Sosane</i> sp.2	0	0	0	0	0
Chaetopteridae	0	0	0	0	0
<i>Spiochaetopterus</i> sp.1	0	0	0	0	0
Cirratulidae	0	0	0	0	0
<i>Aphelochaeta</i> sp.1	0	0	0	0	0
<i>Aphelochaeta</i> sp.2	0	0	0	0	0
<i>Chaetozone</i> sp.1	0	0	0	0	0
<i>Chaetozone</i> sp.5	0	0	0	0	0
<i>Cirratulus</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.1	0	0	0	0	0
<i>Kirkegaardia</i> sp.5	0	0	0	0	0
<i>Kirkegaardia</i> sp.6	0	0	0	0	0
<i>Timarete</i> sp.1	0	0	0	0	0
Fabriciidae	0	0	0	0	0
<i>Fabricinuda</i> sp.1	0	0	0	0	0
Fauveliopsidae	0	0	0	0	0
<i>Riseriopsis</i> sp.1	0	0	0	0	0
Flabelligeridae	0	0	0	0	0
<i>Diplocirrus</i> sp.	0	0	0	0	0
<i>Diplocirrus</i> sp.1	1	0	0	0	0
Magelonidae	0	0	0	0	0
<i>Magelona</i> sp.13	0	0	0	0	0
Oweniidae	0	0	0	0	0
<i>Galathowenia</i> sp.1	0	0	0	0	0
Poecilochaetidae	0	0	0	0	0
<i>Poecilochaetus bifurcatus</i>	0	0	0	0	0
<i>Poecilochaetus koshikiensis</i>	0	0	0	0	0
<i>Poecilochaetus</i> sp.	0	0	0	0	0
<i>Poecilochaetus</i> sp.3	0	0	0	0	0
<i>Poecilochaetus</i> sp.4	0	1	0	0	0
<i>Poecilochaetus tricirratus</i>	0	0	0	0	0
Sabellidae	0	0	0	0	0
<i>Chone</i> sp.1	0	0	0	0	0
<i>Euchone</i> sp.	0	0	0	0	0
<i>Euchone</i> sp.1	0	0	0	0	0
Spionidae	0	0	0	0	0
<i>Laonice</i> sp.1	0	0	0	0	0
<i>Laonice</i> sp.3	0	0	0	0	0
<i>Malacoceros indicus</i>	0	0	0	0	0
<i>Paraprionospio</i> sp.1	0	0	0	0	0
<i>Prionospio ehlersi</i>	0	0	0	0	0
<i>Prionospio elegantula</i>	0	0	0	0	0
<i>Prionospio elongata</i>	0	0	0	0	0
<i>Prionospio</i> sp.	0	0	3	0	0
<i>Prionospio</i> sp.10	0	0	0	0	0
<i>Prionospio</i> sp.13	0	0	0	0	0
<i>Prionospio</i> sp.6	0	0	0	0	0
<i>Prionospio</i> sp.7	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
	SRWB- 3CP2-A	SRWB- 3CP2-B	SRWB- 3CP2-C	SRWB- 3D2-A	SRWB- 3D2-B
TAXA					
<i>Pseudopolydora</i> sp.1	0	0	0	0	0
<i>Scolecipis</i> sp.2	0	0	0	0	0
<i>Spio</i> sp.1	0	0	0	0	0
<i>Spio</i> sp.2	0	0	0	0	0
<i>Spiophanes afer</i>	0	0	0	0	0
<i>Spiophanes kroeyeri</i>	0	0	0	0	0
<i>Spiophanes malayensis</i>	0	0	0	0	0
Sternaspidae	0	0	0	0	0
<i>Caulleryaspis</i> sp.1	0	0	0	0	0
<i>Sternaspis</i> sp.1	0	0	1	0	0
Terebellidae	0	0	0	0	0
<i>Amaeana occidentalis</i>	0	0	0	0	0
<i>Loimia</i> sp.	0	0	0	0	0
<i>Pista</i> sp.2	0	0	0	0	0
<i>Pista</i> sp.4	0	0	0	0	0
Trichobranchidae	0	0	0	0	0
<i>Terebellides</i> sp.1	0	0	0	0	0
<i>Terebellides</i> sp.2	0	0	0	0	0
<i>Trichobranchus roseus</i>	0	0	0	0	0
(blank)	0	0	0	0	0
Capitellidae	0	0	0	0	0
<i>Capitella</i> sp.1	0	0	0	0	0
<i>Capitella</i> sp.4	0	0	0	0	0
<i>Capitella</i> sp.7	0	0	0	0	0
<i>Capitellethus</i> sp.1	0	0	0	0	0
<i>Capitellethus</i> sp.2	0	0	0	0	0
<i>Capitellethus</i> sp.3	0	0	0	0	0
<i>Mediomastus</i> sp.1	0	0	0	0	0
<i>Mediomastus</i> sp.2	0	0	0	0	0
<i>Neomediomastus</i> sp.1	0	0	0	0	0
<i>Neomediomastus</i> sp.2	0	0	0	0	0
<i>Notomastus latericeus</i>	0	0	0	0	0
<i>Notomastus lineatus</i>	0	0	0	0	0
<i>Promastobranchus huloti</i>	0	0	0	0	0
<i>Rashgua lobatus</i>	0	0	0	0	0
<i>Scyphoproctus</i> sp.1	0	0	0	0	0
Cossuridae	0	0	0	0	0
<i>Cossura</i> sp.2	0	0	0	0	0
Maldanidae	0	0	0	0	0
<i>Axiiothella</i> sp.1	0	0	0	0	0
<i>Clymenella</i> sp.1	0	0	0	0	0
<i>Euclymene</i> sp.2	0	0	0	0	0
<i>Praxillella</i> nr. <i>gracilis</i>	0	0	0	0	1
<i>Praxillella</i> sp.3	0	0	0	0	0
Opheliidae	0	0	0	0	0
<i>Armandia</i> sp.	0	1	0	0	0
<i>Ophelia</i> sp.1	0	0	0	0	0
Orbiniidae	0	0	0	0	0
<i>Leitoscoloplos</i> sp.1	0	0	0	0	0
<i>Leodamas</i> sp.1	0	0	0	0	0
Paraonidae	0	0	0	0	0
<i>Aricidea</i> (<i>Acmira</i>) sp.3	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 3CP2-A	SRWB- 3CP2-B	SRWB- 3CP2-C	SRWB- 3D2-A	SRWB- 3D2-B
<i>Aricidea</i> (<i>Acmira</i>) sp.7	0	0	0	0	0
<i>Aricidea</i> (<i>Aricidea</i>) sp.7	0	0	0	0	0
<i>Levinsenia</i> sp.1	0	0	0	0	0
<i>Levinsenia</i> sp.2	0	0	0	0	0
<i>Levinsenia</i> sp.5	0	0	0	0	0
Arthropoda	0	0	0	0	0
Crustacea	0	0	0	0	0
Amphipoda	0	0	0	0	0
Ampeliscidae	0	0	0	0	0
<i>Ampelisca bocki</i>	0	0	0	0	0
<i>Ampelisca chinensis</i>	0	0	0	0	0
<i>Ampelisca cyclops</i>	0	0	0	0	1
<i>Ampelisca maia</i>	0	0	0	0	0
<i>Ampelisca misakiensis</i>	0	0	0	0	0
<i>Ampelisca</i> sp.	0	0	0	0	0
<i>Byblis calisto</i>	0	0	0	0	0
<i>Byblis febris</i>	0	2	0	0	0
<i>Byblis io</i>	0	0	0	0	0
<i>Byblis</i> sp.	0	0	0	0	0
Amphilochoidea	0	0	0	0	0
<i>Amphilocheus</i> sp.1	0	0	0	0	0
Aoridae	0	0	0	0	0
<i>Grandidierella gilesi</i>	0	0	0	0	0
Caprellidae	0	0	0	0	0
<i>Caprella</i> sp.1	0	0	0	0	1
Colomastigidae	0	0	0	0	0
<i>Colomastix</i> sp.1	0	0	0	0	0
Dexaminidae	0	0	0	0	0
Dexaminidae	1	0	0	0	0
Dexaminidae sp.2	0	0	0	0	0
Dexaminidae sp.3	0	0	1	0	0
Eriopisidae	0	0	0	0	0
Eriopisidae	0	0	0	0	0
<i>Victoriopsis</i> sp.1	0	0	0	0	0
Oedicerotidae	0	0	0	0	0
<i>Eochelidium nonmiraculum</i>	0	0	0	0	0
<i>Periculodes</i> sp.1	0	0	0	0	0
Photidae	0	0	0	0	0
Photidae	0	0	0	0	0
Synopiidae	0	0	0	0	0
<i>Synopia</i> sp.2	0	0	0	0	0
Synopiidae sp.3	0	0	0	0	0
Tryphosidae	0	0	0	0	0
<i>Orchomenella</i> sp.1	0	0	0	0	0
Tryphosidae sp.1	0	0	0	0	0
Cumacea	0	0	0	0	0
Bodotriidae	0	0	0	0	0
<i>Pseudosympodoma</i> sp.2	0	0	0	0	0
Diastylidae	0	0	0	0	0
<i>Diastylis</i> sp.1	0	0	0	0	0
Leuconidae	0	0	0	0	0
<i>Eudorella</i> sp.1	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 3CP2-A	SRWB- 3CP2-B	SRWB- 3CP2-C	SRWB- 3D2-A	SRWB- 3D2-B
<i>Eudorella</i> sp.2	0	0	0	0	0
Nannastacidae	0	0	0	0	0
<i>Campylaspis</i> sp.12	0	0	0	0	1
<i>Campylaspis</i> sp.2	0	0	0	0	0
<i>Campylaspis</i> sp.4	0	0	0	0	0
<i>Campylaspis</i> sp.5	0	0	0	0	0
Decapoda	0	0	0	0	0
Alpheidae	0	0	0	0	0
Alpheidae sp.4	0	0	0	0	0
<i>Alpheopsis</i> sp.1	0	0	0	0	1
<i>Alpheus acutocarinatus</i>	0	0	0	0	0
<i>Alpheus bisincisus</i>	0	0	0	0	0
<i>Alpheus rapacida</i>	0	0	0	0	0
<i>Alpheus</i> sp.	0	0	0	0	0
<i>Bermudacaris</i> sp.	1	0	0	0	0
<i>Bermudacaris</i> sp.1	0	0	0	1	0
<i>Bermudacaris</i> sp.2	0	0	0	0	0
<i>Salmonus</i> sp.	0	0	0	0	0
<i>Salmonus</i> sp.2	0	0	0	0	0
Callianassidae	0	0	0	0	0
Callianassidae	0	0	0	0	0
<i>Jocullianassa matzi</i>	0	0	0	2	0
<i>Lipkecallianassa</i> sp.1	0	0	2	0	0
<i>Scallasis contipes</i>	0	0	0	0	0
Crangonidae	0	0	0	0	0
<i>Philocheles</i> sp.2	0	0	0	0	0
Diogenidae	0	0	0	0	0
Diogenidae	0	0	0	0	0
Leucosiidae	0	0	0	0	0
Arcania sp.3	0	0	0	0	1
<i>Myra brevimana</i>	0	1	0	0	0
<i>Nuciops modestus</i>	0	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Palaemon</i> sp.1	0	0	0	0	0
Palaemonidae	0	0	0	0	0
<i>Periclimenes</i> sp.1	0	0	0	0	0
Pasiphaeidae	0	0	0	0	0
<i>Leptochela pugnax</i>	0	1	0	0	0
Pilumnidae	0	0	0	0	0
<i>Camatopsis</i> sp.1	0	0	0	0	0
<i>Ceratoplax fulgida</i>	0	1	0	0	0
<i>Rhizopa gracilipes</i>	0	0	0	0	0
Portunidae	0	0	0	0	0
<i>Libystes edwardsi</i>	0	0	0	0	0
<i>Podophthalmus</i> sp.1	0	0	0	0	0
<i>Thalamita admete</i>	0	0	0	0	0
Processidae	0	0	0	0	0
<i>Processa</i> sp.1	0	0	0	0	0
Scalopidae	0	0	0	0	0
<i>Scalopidia spinosipes</i>	0	0	0	1	0
Upogebiidae	0	0	0	0	0
<i>Gebiacantha</i> sp.	0	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB-3CP2-A	SRWB-3CP2-B	SRWB-3CP2-C	SRWB-3D2-A	SRWB-3D2-B
<i>Gebiakantha</i> sp.1	0	0	0	0	0
<i>Gebicula</i> sp.3	0	0	0	0	0
<i>Upogebia</i> sp.1	0	0	0	0	1
Upogebiidae	0	0	0	0	0
Isopoda	0	0	0	0	0
Anthuridae	0	0	0	0	0
<i>Amakusanthura</i> sp.1	0	0	0	0	0
Gnathiidae	0	0	0	0	0
<i>Caecognathia andamanensis</i>	0	0	1	0	1
Gnathiidae (L.)	0	0	0	0	0
Hyssuridae	0	0	0	0	0
Hyssuridae sp.1	0	0	0	0	0
Leptostraca	0	0	0	0	0
Nebaliidae	0	0	0	0	0
<i>Nebalia</i> sp.1	0	0	0	0	0
<i>Nebalia</i> sp.3	0	0	0	0	0
Mysidacea	0	0	0	0	0
Mysidae	0	0	0	0	0
<i>Anchialina</i> sp.1	0	0	0	1	0
<i>Haplostylus bengalensis</i>	0	0	0	0	0
Mysidae	0	0	0	0	0
Mysidae sp.1	0	0	0	0	0
<i>Siriella</i> sp.3	0	0	0	0	1
Stomatopoda	0	0	0	0	0
Squillidae	0	0	0	0	0
<i>Clorida gaillardi</i>	0	0	1	0	0
<i>Cloridina verrucosa</i>	0	0	0	0	0
Tanaidacea	0	0	0	0	0
Apseudidae	0	0	0	0	0
<i>Apseudes</i> sp.1	0	0	0	0	0
<i>Apseudes</i> sp.2	0	0	0	0	0
Apseudidae sp.4	0	0	0	0	0
Leptocheliidae	0	0	0	0	0
<i>Leptochelia</i> sp.2	0	0	0	0	0
Pagurapseudidae	0	0	0	0	0
Pagurapseudidae sp.2	0	0	0	0	0
Pycnogonida	0	0	0	0	0
Pantopoda	0	0	0	0	0
Ascorhynchidae	0	0	0	0	0
Ascorhynchidae sp.1	0	0	0	0	0
Echinodermata	0	0	0	0	0
Ophiuroidea	0	0	0	0	0
Ophiurida	0	0	0	0	0
Amphiuridae	0	0	0	0	0
<i>Amphioplus (Lymanella) andreae</i>	0	0	0	0	0
<i>Amphiura</i> sp.6	0	0	0	0	0
Amphiuridae sp.3	0	1	0	0	0
Mollusca	0	0	0	0	0
Aplacophora	0	0	0	0	0
Cavibelonia	0	0	0	0	0
Simrothiellidae	0	0	0	0	0
<i>Helicoradomenia</i> sp.1	0	0	0	0	2



Benthos density (individuals per 0.04 square m)	0	0	0	0	0
TAXA	SRWB- 3CP2-A	SRWB- 3CP2-B	SRWB- 3CP2-C	SRWB- 3D2-A	SRWB- 3D2-B
<i>Helicoradomenia</i> sp.2	0	0	0	0	0
Chaetodermatida	0	0	0	0	0
Chaetodermatidae	0	0	0	0	0
<i>Chaetoderma</i> sp.1	0	0	0	0	0
Bivalvia	0	0	0	0	0
Arcida	0	0	0	0	0
Arcidae	0	0	0	0	0
<i>Verilarca mortenseni</i>	0	0	0	0	0
Cardiida	0	0	0	0	0
Psammobiidae	0	0	0	0	0
<i>Gari truncata</i>	0	0	0	0	0
Lucinida	0	0	0	0	0
Lucinidae	0	0	0	0	0
<i>Anodontia edentula</i>	0	0	0	0	0
<i>Cavatidens imajimai</i>	0	0	0	0	0
Pholadomyoida	0	0	0	0	0
Cuspidariidae	0	0	0	0	0
<i>Cardiomya singaporensis</i>	0	0	0	0	0
Gastropoda	0	0	0	0	0
Archaeogastropoda	0	0	0	0	0
Orbitestellidae	0	0	0	0	0
<i>Microdiscula</i> sp.1	0	0	0	0	0
Heterostrophoda	0	0	0	0	0
Pyramidellidae	0	0	0	0	0
<i>Odostomia</i> sp.1	0	0	0	0	0
Neogastropoda	0	0	0	0	0
Muricidae	0	0	0	0	0
Muricidae	0	0	0	1	0
Pteropoda	0	0	0	0	0
Hyalocylidae	0	0	0	0	0
<i>Hyalocylis</i> sp.1	0	0	0	0	0
Grand Total	7	15	13	10	23
No. of Taxa	395	395	395	395	395



Benthos density (individuals per 0.04 square m)	0	0	0	0
TAXA	SRWB- 3D2-C	SRWB- 4B2-A	SRWB- 4B2-B	SRWB- 4B2-C
Cnidaria	0	0	0	0
Anthozoa	0	0	0	0
Actiniaria	0	0	0	0
Actiniaria	0	0	0	0
Nematoda	0	0	0	0
Nematoda sp.1	0	0	0	0
Nemertea	0	0	0	0
Anopla	0	0	0	0
Heteronemertea	0	0	0	0
Lineidae	0	0	0	0
<i>Lineus</i> sp.1	0	0	0	0
<i>Micrura</i> sp.1	0	0	0	0
Palaeonemertea	0	0	0	0
Tubulanidae	0	0	0	0
<i>Callinera</i> sp.1	0	0	0	0
Platyhelminthes	0	0	0	0
Turbellaria	0	0	0	0
Turbellaria	0	0	0	0
Sipuncula	0	0	0	0
Phascolosomatidea	0	0	0	0
Aspidosiphoniformes	0	0	0	0
Aspidosiphonidae	0	0	0	0
<i>Aspidosiphon</i> sp.3	0	0	0	0
Phascolosomatiformes	0	0	0	0
Phascolosomatidae	0	0	0	0
<i>Apionsoma</i> sp.2	0	4	2	2
Sipunculidea	0	0	0	0
Golfingiformes	0	0	0	0
Phascolionidae	0	0	0	0
<i>Phascolion</i> sp.1	0	0	0	0
<i>Phascolion</i> sp.2	0	0	0	0
Annelida	0	0	0	0
Polychaeta	0	0	0	0
Aciculata	0	0	0	0
Amphinomidae	0	0	0	0
<i>Chloeia violacea</i>	0	0	0	0
Dorvilleidae	0	0	0	0
<i>Ophryotrocha</i> sp.1	0	0	0	0
<i>Schistomeringos</i> sp.1	0	0	0	0
<i>Schistomeringos</i> sp.4	0	0	0	0
<i>Schistomeringos</i> sp.5	0	0	0	0
Eunicidae	0	0	0	0
<i>Eunice</i> sp.3	0	0	0	1
<i>Lysidice</i> sp.6	0	0	0	0
<i>Marphysa</i> sp.2	0	0	1	0
Glyceridae	0	0	0	0
<i>Glycera alba</i>	0	0	0	0
<i>Glycera lapidum</i>	0	0	0	0
<i>Glycera</i> sp.	0	0	0	0
Hartmaniellidae	0	0	0	0
<i>Hartmaniella</i> sp.1	0	0	0	0
Hesionidae	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0
TAXA	SRWB- 3D2-C	SRWB- 4B2-A	SRWB- 4B2-B	SRWB- 4B2-C
<i>Hesiospina</i> sp.	0	0	0	0
<i>Oxydromus</i> sp.1	0	0	0	0
<i>Podarkeopsis</i> sp.1	0	0	0	0
Lumbrineridae	0	0	0	0
<i>Gallardoneris thailandensis</i>	0	0	0	0
<i>Gesaneris</i> sp.1	0	0	0	0
<i>Lumbrinerides</i> sp.1	0	0	0	1
<i>Lumbrineriopsis paradoxa</i>	0	0	0	0
<i>Lumbrineris latreilli</i>	0	0	0	0
<i>Ninoe</i> nr. <i>bruuni</i>	0	0	0	0
<i>Scoletoma</i> sp.1	0	0	0	0
Nephtyidae	0	0	0	0
<i>Aglaophamus</i> cf. <i>dicirroides</i>	0	0	0	1
<i>Aglaophamus orientalis</i>	0	0	2	1
<i>Aglaophamus tepens</i>	0	0	0	0
<i>Micronephthys oligobranchia</i>	0	0	0	0
<i>Micronephthys</i> sp.2	0	0	0	0
Nereididae	0	0	0	0
<i>Neanthes arenaceodentata</i>	0	0	0	0
<i>Nereis</i> sp.	0	0	0	0
<i>Nereis</i> sp.1	0	0	0	0
<i>Tambalagama fauveli</i>	0	0	0	0
Onuphidae	0	0	0	0
<i>Onuphis</i> sp.1	0	0	0	0
Paralacydoniidae	0	0	0	0
<i>Paralacydonia</i> sp.1	0	0	0	0
Phyllodocidae	0	0	0	0
<i>Phyllodoce</i> sp.10	0	0	0	0
<i>Phyllodoce</i> sp.11	0	0	0	0
<i>Protomystides</i> sp.1	0	0	0	0
Pilargidae	0	0	0	0
<i>Litocorsa</i> nr. <i>antennata</i>	0	2	0	0
<i>Sigambra</i> sp.1	1	0	0	2
<i>Synelmis albin</i>	1	5	0	2
<i>Synelmis rigida</i>	0	2	0	0
Polynoidae	0	0	0	0
<i>Harmothoe</i> sp.	0	0	0	0
<i>Harmothoe</i> sp.1	0	0	0	0
<i>Harmothoe</i> sp.8	0	0	0	0
<i>Lepidasthenia</i> sp.1	0	0	0	0
Sigalionidae	0	0	0	0
<i>Leanira</i> sp.1	0	0	0	0
<i>Sthenelanelia ehlersi</i>	0	0	0	0
<i>Sthenolepis japonica</i>	0	0	0	1
<i>Sthenolepis</i> sp.2	0	0	0	0
Syllidae	0	0	0	0
<i>Exogone</i> (Exogone) sp.	0	0	0	1
<i>Exogone</i> (Exogone) sp.2	0	0	0	0
<i>Perkinsyllis</i> sp.2	0	1	0	0
<i>Sphaerosyllis</i> sp.1	0	0	0	0
<i>Syllis</i> sp.1	0	0	0	0
Canalipalpata	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0
TAXA	SRWB- 3D2-C	SRWB- 4B2-A	SRWB- 4B2-B	SRWB- 4B2-C
Ampharetidae	0	0	0	0
<i>Ampharete</i> sp.1	0	0	0	0
<i>Anobothrus</i> sp.1	0	1	0	0
<i>Auchenoplax crinita</i>	0	0	0	0
<i>Sosane</i> sp.2	0	0	0	0
Chaetopteridae	0	0	0	0
<i>Spiochaetopterus</i> sp.1	0	1	0	0
Cirratulidae	0	0	0	0
<i>Aphelochaeta</i> sp.1	0	0	1	0
<i>Aphelochaeta</i> sp.2	0	0	0	0
<i>Chaetozone</i> sp.1	0	0	0	0
<i>Chaetozone</i> sp.5	0	0	0	0
<i>Cirratulus</i> sp.1	0	0	0	0
<i>Kirkegaardia</i> sp.1	0	0	0	0
<i>Kirkegaardia</i> sp.5	0	0	0	0
<i>Kirkegaardia</i> sp.6	0	0	0	3
<i>Timarete</i> sp.1	0	0	0	0
Fabriciidae	0	0	0	0
<i>Fabricinuda</i> sp.1	0	0	0	0
Fauveliopsidae	0	0	0	0
<i>Riseriopsis</i> sp.1	0	0	0	0
Flabelligeridae	0	0	0	0
<i>Diplocirrus</i> sp.	0	0	0	0
<i>Diplocirrus</i> sp.1	0	0	0	0
Magelonidae	0	0	0	0
<i>Magelona</i> sp.13	0	0	0	0
Oweniidae	0	0	0	0
<i>Galathowenia</i> sp.1	0	0	0	0
Poecilochaetidae	0	0	0	0
<i>Poecilochaetus bifurcatus</i>	0	0	0	0
<i>Poecilochaetus koshikiensis</i>	0	0	0	0
<i>Poecilochaetus</i> sp.	0	0	0	0
<i>Poecilochaetus</i> sp.3	0	0	0	0
<i>Poecilochaetus</i> sp.4	0	0	0	0
<i>Poecilochaetus tricirratus</i>	0	0	0	0
Sabellidae	0	0	0	0
<i>Chone</i> sp.1	0	0	0	0
<i>Euchone</i> sp.	0	0	0	0
<i>Euchone</i> sp.1	0	0	0	0
Spionidae	0	0	0	0
<i>Laonice</i> sp.1	0	0	0	1
<i>Laonice</i> sp.3	0	0	0	2
<i>Malacoceros indicus</i>	0	0	0	0
<i>Paraprionospio</i> sp.1	0	1	0	0
<i>Prionospio ehlersi</i>	0	0	0	0
<i>Prionospio elegantula</i>	1	2	0	0
<i>Prionospio elongata</i>	0	0	0	0
<i>Prionospio</i> sp.	0	0	0	1
<i>Prionospio</i> sp.10	0	0	0	0
<i>Prionospio</i> sp.13	0	0	0	0
<i>Prionospio</i> sp.6	0	0	0	0
<i>Prionospio</i> sp.7	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0
	SRWB- 3D2-C	SRWB- 4B2-A	SRWB- 4B2-B	SRWB- 4B2-C
<i>Pseudopolydora</i> sp.1	0	0	0	0
<i>Scolecipis</i> sp.2	0	0	0	0
<i>Spio</i> sp.1	0	1	0	0
<i>Spio</i> sp.2	0	0	0	0
<i>Spiophanes afer</i>	0	0	0	0
<i>Spiophanes kroeyeri</i>	0	0	0	0
<i>Spiophanes malayensis</i>	0	0	0	0
Sternaspidae	0	0	0	0
<i>Caulleryaspis</i> sp.1	0	0	0	0
<i>Sternaspis</i> sp.1	0	0	1	0
Terebellidae	0	0	0	0
<i>Amaeana occidentalis</i>	0	0	0	0
<i>Loimia</i> sp.	1	0	0	0
<i>Pista</i> sp.2	0	0	0	0
<i>Pista</i> sp.4	0	0	0	0
Trichobranchidae	0	0	0	0
<i>Terebellides</i> sp.1	0	0	0	0
<i>Terebellides</i> sp.2	0	0	0	0
<i>Trichobranchus roseus</i>	0	0	0	0
(blank)	0	0	0	0
Capitellidae	0	0	0	0
<i>Capitella</i> sp.1	0	0	0	0
<i>Capitella</i> sp.4	0	0	0	0
<i>Capitella</i> sp.7	0	0	0	0
<i>Capitellethus</i> sp.1	0	0	0	0
<i>Capitellethus</i> sp.2	0	0	0	1
<i>Capitellethus</i> sp.3	0	0	0	0
<i>Mediomastus</i> sp.1	0	0	0	0
<i>Mediomastus</i> sp.2	0	0	0	0
<i>Neomediomastus</i> sp.1	1	0	0	0
<i>Neomediomastus</i> sp.2	0	0	0	0
<i>Notomastus latericeus</i>	0	0	0	0
<i>Notomastus lineatus</i>	0	0	0	0
<i>Promastobranchus huloti</i>	1	0	0	1
<i>Rashgua lobatus</i>	0	0	0	0
<i>Scyphoproctus</i> sp.1	0	0	0	0
Cossuridae	0	0	0	0
<i>Cossura</i> sp.2	0	0	0	0
Maldanidae	0	0	0	0
<i>Axiiothella</i> sp.1	0	0	0	0
<i>Clymenella</i> sp.1	0	0	0	0
<i>Euclymene</i> sp.2	0	0	0	0
<i>Praxillella</i> nr. <i>gracilis</i>	0	0	0	0
<i>Praxillella</i> sp.3	0	0	0	0
Opheliidae	0	0	0	0
<i>Armandia</i> sp.	0	0	0	0
<i>Ophelia</i> sp.1	0	0	0	0
Orbiniidae	0	0	0	0
<i>Leitoscoloplos</i> sp.1	0	0	0	0
<i>Leodamas</i> sp.1	0	0	0	0
Paraonidae	0	0	0	0
<i>Aricidea</i> (<i>Acmira</i>) sp.3	0	1	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0
	SRWB-3D2-C	SRWB-4B2-A	SRWB-4B2-B	SRWB-4B2-C
<i>Aricidea</i> (<i>Acmira</i>) sp.7	0	0	0	0
<i>Aricidea</i> (<i>Aricidea</i>) sp.7	0	0	0	0
<i>Levinsenia</i> sp.1	0	0	0	0
<i>Levinsenia</i> sp.2	0	0	0	0
<i>Levinsenia</i> sp.5	0	0	0	1
Arthropoda	0	0	0	0
Crustacea	0	0	0	0
Amphipoda	0	0	0	0
Ampeliscidae	0	0	0	0
<i>Ampelisca bocki</i>	0	0	0	0
<i>Ampelisca chinensis</i>	0	0	0	0
<i>Ampelisca cyclops</i>	0	1	0	0
<i>Ampelisca maia</i>	0	0	0	0
<i>Ampelisca misakiensis</i>	0	0	0	0
<i>Ampelisca</i> sp.	0	0	0	0
<i>Byblis calisto</i>	0	0	0	0
<i>Byblis febris</i>	0	0	2	0
<i>Byblis io</i>	0	0	0	0
<i>Byblis</i> sp.	0	0	0	0
Amphilochidae	0	0	0	0
<i>Amphilochus</i> sp.1	0	0	0	0
Aoridae	0	0	0	0
<i>Grandidierella gilesi</i>	0	0	0	0
Caprellidae	0	0	0	0
<i>Caprella</i> sp.1	0	0	1	0
Colomastigidae	0	0	0	0
<i>Colomastix</i> sp.1	0	0	0	0
Dexaminidae	0	0	0	0
Dexaminidae	0	0	0	0
Dexaminidae sp.2	0	0	0	0
Dexaminidae sp.3	0	0	0	0
Eriopisidae	0	0	0	0
Eriopisidae	0	0	0	0
<i>Victoriopisa</i> sp.1	0	0	0	0
Oedicerotidae	0	0	0	0
<i>Eochelidium nonmiraculum</i>	0	0	0	0
<i>Periiculodes</i> sp.1	0	0	0	0
Photidae	0	0	0	0
Photidae	0	0	0	0
Synopiidae	0	0	0	0
<i>Synopia</i> sp.2	0	0	0	1
Synopiidae sp.3	0	0	0	1
Tryphosidae	0	0	0	0
<i>Orchomenella</i> sp.1	0	0	0	0
Tryphosidae sp.1	0	0	0	0
Cumacea	0	0	0	0
Bodotriidae	0	0	0	0
<i>Pseudosympodomma</i> sp.2	0	0	0	0
Diastylidae	0	0	0	0
<i>Diastylis</i> sp.1	1	1	0	0
Leuconidae	0	0	0	0
<i>Eudorella</i> sp.1	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0
	SRWB-3D2-C	SRWB-4B2-A	SRWB-4B2-B	SRWB-4B2-C
<i>Eudorella</i> sp.2	0	0	0	0
Nannastacidae	0	0	0	0
<i>Campylaspis</i> sp.12	0	0	0	0
<i>Campylaspis</i> sp.2	0	0	0	0
<i>Campylaspis</i> sp.4	0	0	0	0
<i>Campylaspis</i> sp.5	0	0	0	1
Decapoda	0	0	0	0
Alpheidae	0	0	0	0
Alpheidae sp.4	0	0	0	0
<i>Alpheopsis</i> sp.1	1	0	0	0
<i>Alpheus acutocarinatus</i>	0	0	0	0
<i>Alpheus bisincisus</i>	0	0	0	0
<i>Alpheus rapacida</i>	0	0	0	0
<i>Alpheus</i> sp.	0	0	0	0
<i>Bermudacaris</i> sp.	0	0	0	0
<i>Bermudacaris</i> sp.1	0	0	0	0
<i>Bermudacaris</i> sp.2	0	1	0	0
<i>Salmonus</i> sp.	0	1	0	0
<i>Salmonus</i> sp.2	0	0	0	0
Callianassidae	0	0	0	0
Callianassidae	0	0	0	0
<i>Jocullianassa matzi</i>	0	0	0	0
<i>Lipkecallianassa</i> sp.1	0	1	0	0
<i>Scallasis contipes</i>	0	0	0	0
Crangonidae	0	0	0	0
<i>Philocheas</i> sp.2	0	0	0	0
Diogenidae	0	0	0	0
Diogenidae	0	0	0	0
Leucosiidae	0	0	0	0
Arcania sp.3	0	0	0	0
<i>Myra brevimana</i>	0	0	0	0
<i>Nuciops modestus</i>	0	0	0	0
Palaemonidae	0	0	0	0
<i>Palaemon</i> sp.1	0	0	1	0
Palaemonidae	0	0	0	0
<i>Periclimenes</i> sp.1	0	0	0	0
Pasiphaeidae	0	0	0	0
<i>Leptochela pugnax</i>	0	0	0	0
Pilumnidae	0	0	0	0
<i>Camatopsis</i> sp.1	0	0	0	0
<i>Ceratoplax fulgida</i>	1	0	1	0
<i>Rhizopa gracilipes</i>	0	0	0	0
Portunidae	0	0	0	0
<i>Libystes edwardsi</i>	0	0	0	0
<i>Podophthalmus</i> sp.1	0	0	0	0
<i>Thalamita admete</i>	0	0	0	0
Processidae	0	0	0	0
<i>Processa</i> sp.1	0	0	0	0
Scalopidae	0	0	0	0
<i>Scalopidia spinosipes</i>	0	0	0	0
Upogebiidae	0	0	0	0
<i>Gebiactantha</i> sp.	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0
TAXA	SRWB- 3D2-C	SRWB- 4B2-A	SRWB- 4B2-B	SRWB- 4B2-C
<i>Gebiacantha</i> sp.1	0	0	0	0
<i>Gebicula</i> sp.3	0	0	0	0
<i>Upogebia</i> sp.1	0	0	0	0
Upogebiidae	0	0	0	0
Isopoda	0	0	0	0
Anthuridae	0	0	0	0
<i>Amakusanthura</i> sp.1	0	0	0	0
Gnathiidae	0	0	0	0
<i>Caecognathia andamanensis</i>	0	1	0	1
Gnathiidae (L.)	0	0	1	0
Hyssuridae	0	0	0	0
Hyssuridae sp.1	0	0	0	0
Leptostraca	0	0	0	0
Nebaliidae	0	0	0	0
<i>Nebalia</i> sp.1	0	0	0	0
<i>Nebalia</i> sp.3	0	0	0	0
Mysidacea	0	0	0	0
Mysidae	0	0	0	0
<i>Anchialina</i> sp.1	0	0	0	0
<i>Haplostylus bengalensis</i>	0	0	0	0
Mysidae	0	0	0	0
Mysidae sp.1	0	0	0	0
<i>Siriella</i> sp.3	0	0	1	0
Stomatopoda	0	0	0	0
Squillidae	0	0	0	0
<i>Clorida gaillardi</i>	0	0	0	0
<i>Cloridina verrucosa</i>	0	0	0	0
Tanaidacea	0	0	0	0
Apseudidae	0	0	0	0
<i>Apseudes</i> sp.1	0	0	0	0
<i>Apseudes</i> sp.2	0	0	0	0
Apseudidae sp.4	0	0	0	0
Leptocheliidae	0	0	0	0
<i>Leptochelia</i> sp.2	0	0	0	0
Pagurapseudidae	0	0	0	0
Pagurapseudidae sp.2	0	0	0	0
Pycnogonida	0	0	0	0
Pantopoda	0	0	0	0
Ascorhynchidae	0	0	0	0
Ascorhynchidae sp.1	0	0	0	0
Echinodermata	0	0	0	0
Ophiuroidea	0	0	0	0
Ophiurida	0	0	0	0
Amphiuridae	0	0	0	0
<i>Amphioplus (Lymanella) andreae</i>	0	0	0	0
<i>Amphiura</i> sp.6	0	0	0	0
Amphiuridae sp.3	0	0	0	0
Mollusca	0	0	0	0
Aplacophora	0	0	0	0
Cavibelonia	0	0	0	0
Simrothiellidae	0	0	0	0
<i>Helicoradomenia</i> sp.1	0	0	0	0



Benthos density (individuals per 0.04 square m)	0	0	0	0
	SRWB- 3D2-C	SRWB- 4B2-A	SRWB- 4B2-B	SRWB- 4B2-C
TAXA				
<i>Helicoradomenia</i> sp.2	0	0	0	0
Chaetodermatida	0	0	0	0
Chaetodermatidae	0	0	0	0
<i>Chaetoderma</i> sp.1	0	0	0	0
Bivalvia	0	0	0	0
Arcida	0	0	0	0
Arcidae	0	0	0	0
<i>Verilarca mortenseni</i>	0	0	0	0
Cardiida	0	0	0	0
Psammobiidae	0	0	0	0
<i>Gari truncata</i>	0	0	0	0
Lucinida	0	0	0	0
Lucinidae	0	0	0	0
<i>Anodontia edentula</i>	0	0	0	0
<i>Cavatidens imajimai</i>	0	0	0	0
Pholadomyoida	0	0	0	0
Cuspidariidae	0	0	0	0
<i>Cardiomya singaporensis</i>	0	0	0	0
Gastropoda	0	0	0	0
Archaeogastropoda	0	0	0	0
Orbitestellidae	0	0	0	0
<i>Microdiscula</i> sp.1	0	0	0	0
Heterostropha	0	0	0	0
Pyramidellidae	0	0	0	0
<i>Odostomia</i> sp.1	0	0	0	0
Neogastropoda	0	0	0	0
Muricidae	0	0	0	0
Muricidae	0	0	0	0
Pteropoda	0	0	0	0
Hyalocylidae	0	0	0	0
<i>Hyalocylis</i> sp.1	0	0	0	0
Grand Total	9	27	14	26
No. of Taxa	395	395	395	395



APPENDIX D
ANALYTICAL LABORATORY REPORTS:
PHYTOPLANKTON COMMUNITY



Marine Ecosearch Management Co., Ltd.

4/31 Moo 1, Tambon Namnoi, Hat Yai, Songkla 90110

Tel / Fax -66-74-213 421

email: marine_ecosearch@hotmail.com

August 28th, 2025

Ted Donn,

Tetra Tech, Inc. Lafayette

3746 Mt. Diablo Blvd., Suite 300 Lafayette, CA 94549

RE: Environmental Studies for Chevron Thailand, February 2025 **(T779.30)**

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 Ecosearch 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



Marine Ecosearch Management Co., Ltd.

4/31 Moo 1, Tambon Namnoi, Hat Yai, Songkla 90110

Tel / Fax -66-74-213 421

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List of Samples received T779.30 (Surin)

Benthos

No.	Date	Sample ID	Location	Time	No. of Bottle		
					100 ml.	500 ml.	1,000 ml.
1	10/2/2025	G4/43REF-A	G4/43 Reference	2.08	1S	1 (A+B)	0
2	10/2/2025	G4/43REF-B	G4/43 Reference	2.33	0	1 (A+B)	0
3	10/2/2025	G4/43REF-C	G4/43 Reference	2.51	1S	1 (A+B)	0
4	8/2/2025	SRWA-1B2X-A	Surin A	19.36	1S	1B	1A
5	8/2/2025	SRWA-1B2X-B	Surin A	19.43	1S	1B	1A
6	8/2/2025	SRWA-1B2X-C	Surin A	20.02	1S	1B	1A
7	8/2/2025	SRWA-2B2X-A	Surin A	20.18	1S	1B	1A
8	8/2/2025	SRWA-2B2X-B	Surin A	20.25	1S	1B	1A
9	8/2/2025	SRWA-2B2X-C	Surin A	20.33	1S	1 (A+B)	0
10	8/2/2025	SRWA-3B2X-A	Surin A	20.50	1S	1B	1A
11	8/2/2025	SRWA-3B2X-B	Surin A	20.58	1S	1B	1A
12	8/2/2025	SRWA-3B2X-C	Surin A	21.05	1S	1B	1A
13	8/2/2025	SRWA-4B2X-A	Surin A	21.21	1S	1B	1A
14	8/2/2025	SRWA-4B2X-B	Surin A	21.29	1S	1B	1A
15	8/2/2025	SRWA-4B2X-C	Surin A	21.35	1S	1B	1A
16	9/2/2025	SRWB-1B2-A	Surin B	17.30	1S	1 (A+B)	0
17	9/2/2025	SRWB-1B2-B	Surin B	17.43	1S	1 (A+B)	0
18	9/2/2025	SRWB-1B2-C	Surin B	17.49	1S	1 (A+B)	0
19	9/2/2025	SRWB-1CP2-A	Surin B	16.55	1S	1 (A+B)	0
20	9/2/2025	SRWB-1CP2-B	Surin B	17.05	1S	1 (A+B)	0
21	9/2/2025	SRWB-1CP2-C	Surin B	17.11	1S	1 (A+B)	0
22	9/2/2025	SRWB-1D2-A	Surin B	16.08	1S	1 (A+B)	0
23	9/2/2025	SRWB-1D2-B	Surin B	16.17	1S	1 (A+B)	0
24	9/2/2025	SRWB-1D2-C	Surin B	16.24	1S	1 (A+B)	0
25	9/2/2025	SRWB-2B2-A	Surin B	18.03	0	1 (A+B)	0
26	9/2/2025	SRWB-2B2-B	Surin B	18.10	1S	1 (A+B)	0
27	9/2/2025	SRWB-2B2-C	Surin B	18.18	0	1 (A+B)	0
28	9/2/2025	SRWB-3B2-A	Surin B	6.33	0	1B	1A
29	9/2/2025	SRWB-3B2-B	Surin B	6.43	1S	1B	1A
30	9/2/2025	SRWB-3B2-C	Surin B	6.55	0	1 (A+B)	0
31	9/2/2025	SRWB-3CP2-A	Surin B	4.15	0	1 (A+B)	0
32	9/2/2025	SRWB-3CP2-B	Surin B	4.25	0	1 (A+B)	0
33	9/2/2025	SRWB-3CP2-C	Surin B	4.33	1S	1 (A+B)	0
34	9/2/2025	SRWB-3D2-A	Surin B	5.02	1S	1 (A+B)	0
35	9/2/2025	SRWB-3D2-B	Surin B	5.11	1S	1 (A+B)	0
36	9/2/2025	SRWB-3D2-C	Surin B	5.19	1S	1 (A+B)	0
37	9/2/2025	SRWB-4B2-A	Surin B	5.47	1S	1B	1A
38	9/2/2025	SRWB-4B2-B	Surin B	5.56	0	1B	1A
39	9/2/2025	SRWB-4B2-C	Surin B	6.04	0	1 (A+B)	0

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Phytoplankton

No	Date	Sample ID	Location	Time	100 ml.
1	9/2/2025	SRWB-1CP2-PS-1	Surin B	12.43-12.49	1
2	9/2/2025	SRWB-1CP2-PS-2	Surin B	12.49-12.55	1
3	9/2/2025	SRWB-1CP2-PB-1	Surin B	10.49-11.18	1
4	9/2/2025	SRWB-1CP2-PB-2	Surin B	11.18-11.52	1
5	9/2/2025	SRWB-3CP2-PS-1	Surin B	8.20-8.53	1
6	9/2/2025	SRWB-3CP2-PS-2	Surin B	8.53-9.00	1
7	9/2/2025	SRWB-3CP2-PB-1	Surin B	9.06-9.36	1
8	9/2/2025	SRWB-3CP2-PB-2	Surin B	9.36-10.06	1
9	10/2/2025	G4/43REF-PS-1	G4/43 Reference	7.48-8.14	1
10	10/2/2025	G4/43REF-PS-2	G4/43 Reference	8.14-8.41	1
11	10/2/2025	G4/43REF-PB-1	G4/43 Reference	8.46-8.51	1
12	10/2/2025	G4/43REF-PB-2	G4/43 Reference	8.51-8.57	1

Zooplankton

No.	Date	Sample ID	Location	Time	No. of bottle
					1,000 ml.
1	9/2/2025	SRWB-1CP2	Surin B	13.27-14.00	1
2	9/2/2025	SRWB-3CP2	Surin B	14.31-15.05	1
3	10/2/2025	G4/43REF	G4/43 Reference	6.42-7.15	1

Meroploankton

No.	Date	Sample ID	Location	Time	No. of bottle
					1,000 ml.
1	9/2/2025	SRWB-1CP2	Surin B	13.27-14.00	1
2	9/2/2025	SRWB-3CP2	Surin B	14.31-15.05	1
3	10/2/2025	G4/43REF	G4/43 Reference	6.42-7.15	1

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CASE NARRATIVE

Environmental Studies for Chevron Thailand, 2025 February T779.30 Surin

SAMPLE RECEIPTT

Thirty-nine (39) 0.04 m² benthic community samples, twelve (12) phytoplankton samples, three (3) zooplankton and three (3) meroplankton 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 T779.30 project

No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
1	G4/43REF-A	0.0817	0.0605	0.0008	0.0038	0.0011
2	G4/43REF-B	0.1443	0.0491	-	-	0.0027
3	G4/43REF-C	0.1871	0.0523	-	0.0016	0.0018
4	SRWA-1B2X-A	0.0988	0.0558	0.0010	-	0.0074
5	SRWA-1B2X-B	0.4280	0.0012	-	0.0011	0.0012
6	SRWA-1B2X-C	0.3093	0.0061	0.0983	-	0.0039
7	SRWA-2B2X-A	0.1624	0.0344	0.0009	-	0.0015
8	SRWA-2B2X-B	0.1479	0.0071	0.0008	-	0.0031
9	SRWA-2B2X-C	0.3304	0.0964	0.0004	-	0.0019
10	SRWA-3B2X-A	0.2368	0.0141	0.0043	0.0009	0.6779
11	SRWA-3B2X-B	0.0824	0.1288	-	-	0.0244
12	SRWA-3B2X-C	0.5169	0.0370	0.0036	-	0.0032
13	SRWA-4B2X-A	0.0687	0.0163	-	-	0.0122
14	SRWA-4B2X-B	0.3323	0.0425	0.0009	0.0011	0.0066
15	SRWA-4B2X-C	0.0282	0.0142	-	0.0074	0.0022
16	SRWB-1B2-A	0.2590	0.0676	3.7367	-	-
17	SRWB-1B2-B	0.0452	-	7.5926	-	-
18	SRWB-1B2-C	0.2018	-	10.6321	-	0.0006
19	SRWB-1CP2-A	0.0113	0.0177	-	-	0.0386

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No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
20	SRWB-1CP2-B	0.0585	0.0183	-	0.0496	0.0024
21	SRWB-1CP2-C	0.0398	0.0128	-	-	0.0009
22	SRWB-1D2-A	0.0725	0.0288	-	-	0.0021
23	SRWB-1D2-B	0.0377	0.0791	-	-	0.0043
24	SRWB-1D2-C	0.0588	0.0065	-	-	0.0026
25	SRWB-2B2-A	0.0040	0.0010	-	-	0.0009
26	SRWB-2B2-B	0.0048	0.0142	0.0015	-	0.0008
27	SRWB-2B2-C	0.0105	-	-	-	-
28	SRWB-3B2-A	0.0227	0.0011	0.0048	-	-
29	SRWB-3B2-B	0.1863	-	0.1717	-	-
30	SRWB-3B2-C	0.0035	0.0032	0.0012	-	0.0006
31	SRWB-3CP2-A	0.0133	0.0026	-	-	-
32	SRWB-3CP2-B	0.0332	0.0486	-	0.0012	0.0008
33	SRWB-3CP2-C	0.0245	0.1287	-	-	0.0007
34	SRWB-3D2-A	0.0099	0.0974	0.0006	-	-
35	SRWB-3D2-B	0.0684	0.0378	0.0007	-	0.0020
36	SRWB-3D2-C	0.0246	0.0104	-	-	-
37	SRWB-4B2-A	0.0270	0.0234	-	-	0.0009
38	SRWB-4B2-B	0.0318	0.0147	-	-	0.0008
39	SRWB-4B2-C	0.0930	0.0061	-	-	0.0007

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Result

Environmental Studies for Chevron Thailand, 2025 February

T779.30 Surin

Benthic fauna was identified at the lowest practical taxa and differentiated between species. Two hundred and fifty-six (256) species of benthos were identified from this project. There were, 1 species of Cnidarian, 1 species of Nematode worm, 3 species of Nemertean, 1 species of flat worm, 4 species of Sipunculid worms, 141 species of Annelid worms, 90 species of Crustacean, 3 species of Echinoderms, and 12 species of Mollusk.

Sixty-nine (69) species of benthos were identified to species level. One hundred and sixty-three (163) benthos species were identified to genus level. Twenty-one (21) benthos species were identified to family level. One species was identified to Order 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	0	1	0	0
Nematoda	1	0	0	0	0	0	1
Nemertea	3	0	3	0	0	0	0
Platyhelminthes	1	0	0	0	0	1	0
Sipuncula	4	0	4	0	0	0	0
Annelida	141	36	105	0	0	0	0
Arthropoda	90	27	44	19	0	0	0
Echinodermata	3	1	1	1	0	0	0
Mollusca	12	5	6	1	0	0	0
Total	256	69	163	21	1	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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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.

MEROPLANKTON (Marine 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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Phytoplankton density (unit/bottle)

TAXA	G4/43REF- PS-1	G4/43REF- PS-2	G4/43REF- PB-1	G4/43REF- PB-2
Charophyta				
Conjugophyceae				
Desmiales				
Desmidiaceae				
Spondylosium				
<i>Spondylosium sp. 1</i>	240	240	420	300
Staurostrum				
<i>Staurostrum sp. 1</i>			60	60
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
Golenkinia				
<i>Golenkinia radiata</i>	120	120	120	120
Trebouxiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
<i>Ankistrodesmus sp. 1</i>	60	60	60	60
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
<i>Dictyocha fibula</i>	300	240	360	300
<i>Dictyocha speculum var. octonaris</i>				120
Cyanobacteria				
Cyanophyceae				
Nostocales				
Oscillatoriaceae				
Oscillatoria				
<i>Oscillatoria erythraea</i>	26040	24720	45360	45360
<i>Oscillatoria sp. 1</i>	13500	8160	12900	11580
Rivulariaceae				
Calothrix				
<i>Calothrix crustacea</i>	2160	2160	1860	1680
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				
<i>Asterolampra marylandica</i>	180	120	180	180
Asteromphalus				
<i>Asteromphalus cleveanus</i>	300	60	120	120
<i>Asteromphalus elegans</i>			60	



Phytoplankton density (unit/bottle)

TAXA	G4/43REF- PS-1	G4/43REF- PS-2	G4/43REF- PB-1	G4/43REF- PB-2
<i>Asteromphalus sp.1</i>	240	360		60
Bacillariales				
Bacillariaceae				
Bacillaria				
<i>Bacillaria paxillifer</i>	15780	12060	17400	13440
Cylindrotheca				
<i>Cylindrotheca closterium</i>	840	780	1200	1260
<i>Cylindrotheca sp.1</i>	420			
Nitzschia				
<i>Nitzschia longissima</i>	1140	780	600	660
<i>Nitzschia lorenziana</i>	720	780	780	780
<i>Nitzschia sp.3</i>	660	900	660	660
<i>Nitzschia sp.4</i>			840	660
<i>Nitzschia sp.5</i>			420	420
<i>Nitzschia sp.9</i>			660	780
<i>Nitzschia sp.10</i>	960	1140	780	
<i>Nitzschia sp.11</i>	540	1740	1200	
Pseudo-nitzschia				
<i>Pseudo-nitzschia sp.1</i>	1800	1740	3000	1740
Centrales				
Eupodiscaceae				
Odontella				
<i>Odontella mobiliensis</i>	180	180	240	300
<i>Odontella sinensis</i>	480	540	720	600
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrum				
<i>Bacteriastrum comosum</i>	10500	6360	9780	7800
<i>Bacteriastrum furcatum</i>	9000	5580	10800	7800
<i>Bacteriastrum hyalinum</i>	19500	8760	16140	19620
<i>Bacteriastrum minus</i>	12420	3960	8760	8580
Chaetoceros				
<i>Chaetoceros aequatorialis</i>	1440	1440	1800	1440
<i>Chaetoceros affinis</i>	6960	3600	7020	5160
<i>Chaetoceros atlanticus</i>	7320	3300	6000	7800
<i>Chaetoceros coarctatus</i>	9120	6840	8820	6900
<i>Chaetoceros compressus</i>	4740	6900	4020	5280
<i>Chaetoceros costatus</i>	6240	5520	5700	3780
<i>Chaetoceros didymus</i>	9780	7260	5880	10500
<i>Chaetoceros diversus</i>	11820	5460	5040	16140
<i>Chaetoceros lorenzianus</i>	5700	4680	7260	5280
<i>Chaetoceros messanensis</i>	4680	2700	4860	1860
<i>Chaetoceros peruvianus</i>	1740	1260	1620	1980
<i>Chaetoceros pseudocurvisetus</i>	8880	5640	6480	7200
<i>Chaetoceros sp.1</i>			2820	



Phytoplankton density (unit/bottle)

TAXA	G4/43REF- PS-1	G4/43REF- PS-2	G4/43REF- PB-1	G4/43REF- PB-2
<i>Chaetoceros sp.3</i>			2340	1980
Corethrales				
Corethraceae				
Corethron				
<i>Corethron criophilum</i>	240	240	240	180
Coscinodiscales				
Coscinodiscaceae				
Coscinodiscus				
<i>Coscinodiscus sp.1</i>	360	240	240	240
<i>Coscinodiscus sp.2</i>	60	60	240	120
<i>Coscinodiscus sp.3</i>				240
<i>Coscinodiscus sp.4</i>				120
<i>Coscinodiscus sp.5</i>	300	360	360	420
<i>Coscinodiscus sp.6</i>	360	480	360	540
<i>Coscinodiscus sp.7</i>	60	60	60	60
<i>Coscinodiscus sp.8</i>	240	120	240	240
<i>Coscinodiscus sp.9</i>	300	420	360	300
<i>Coscinodiscus sp.10</i>	240	240	360	360
<i>Coscinodiscus sp.11</i>	300	300	180	420
<i>Coscinodiscus sp.12</i>	120	120		
<i>Coscinodiscus sp.13</i>	120	60		
Gossleriella				
<i>Gossleriella tropica</i>	60	120	120	180
Palmeria				
<i>Palmeria hardmaniana</i>	60	120	300	300
Heliopeltaceae				
Actinoptychus				
<i>Actinoptychus sp.1</i>	1380	300	600	660
Hemidiscaceae				
Pseudoguinaridia				
<i>Pseudoguinaridia recta</i>	2220	1980	1320	3420
Fragilariales				
Fragilariaceae				
Asterionella				
<i>Asterionella formosa</i>				
Fragilaria				
<i>Fragilaria sp.1</i>				
Hemiaulales				
Hemiaulaceae				
Cerataulina				
<i>Cerataulina sp.1</i>	3300	3720		1980
Climacodium				
<i>Climacodium biconcavum</i>	2040	2040	1020	2100
<i>Climacodium frauenfeldianum</i>	2100	1380	1140	1740
Eucampia				



Phytoplankton density (unit/bottle)

TAXA	G4/43REF- PS-1	G4/43REF- PS-2	G4/43REF- PB-1	G4/43REF- PB-2
<i>Eucampia cornuta</i>	1740	1560	1980	1560
<i>Eucampia zodiacus</i>	1260	1980	1620	1380
Hemiaulus				
<i>Hemiaulus hauckii</i>	2160	1680	1500	1980
<i>Hemiaulus indicus</i>	1080	1500	1260	2340
<i>Hemiaulus membranaceus</i>	1980	1980	1440	2220
<i>Hemiaulus sinensis</i>	3180	1920	2400	2400
Leptocylindrales				
Leptocylindraceae				
Leptocylindrus				
<i>Leptocylindrus danicus</i>	1020	1140	1200	2100
Lithodesmiales				
Lithodesmaceae				
Ditylum				
<i>Ditylum brightwellii</i>	300	60	120	240
<i>Ditylum sol</i>	660	420	420	660
Naviculales				
Diploneidaceae				
Diploneis				
<i>Diploneis sp.1</i>	420	360	240	420
Naviculaceae				
Anomoeneis				
<i>Anomoeneis sp.1</i>			120	
Haslea				
<i>Haslea sp.1</i>	660	360	360	420
<i>Haslea wawriake</i>	240	180	180	360
Meuniera				
<i>Meuniera sp.1</i>	420	360	300	480
Navicula				
<i>Navicula sp.1</i>	900	480	360	840
<i>Navicula sp.2</i>	1440	780	1020	1020
<i>Navicula sp.3</i>	1260	420	600	1200
<i>Navicula sp.4</i>	1020	660	780	2100
<i>Navicula sp.5</i>	600	360	420	1740
<i>Navicula sp.6</i>	660	660	780	1560
<i>Navicula sp.7</i>	240	240	420	840
<i>Navicula sp.8</i>	360	360	540	720
Trachyneis				
<i>Trachyneis sp.1</i>	420	360	420	420
Pinnulariaceae				
Pinnularia				
<i>Pinnularia sp.2</i>		60	240	240
Pleurosigmataceae				
Gyrosigma				
<i>Gyrosigma sp.1</i>	780	300	660	600



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Phytoplankton density (unit/bottle)

TAXA	G4/43REF- PS-1	G4/43REF- PS-2	G4/43REF- PB-1	G4/43REF- PB-2
<i>Gyrosigma</i> sp.2	480	240	660	660
<i>Gyrosigma</i> sp.3	420	180	720	600
Pleurosigma				
<i>Pleurosigma</i> sp.1	660	420	360	1020
<i>Pleurosigma</i> sp.2	420	360	300	480
<i>Pleurosigma</i> sp.3	720	480	480	840
<i>Pleurosigma</i> sp.4	300	480	240	900
<i>Pleurosigma</i> sp.5	180	180	240	300
<i>Pleurosigma</i> sp.6	600	360	480	1200
Stauroneidaceae				
Stauroneis				
<i>Stauroneis salina</i>		120	360	
Rhizosoleniales				
Rhizosoleniaceae				
Dactyliosolen				
<i>Dactyliosolen blavyanus</i>	1140	2880	960	2880
<i>Dactyliosolen fragilissimus</i>	1260	1920	1440	2580
<i>Dactyliosolen phuketensis</i>	1320	2520	1800	5580
Guinardia				
<i>Guinardia cylindrus</i>	1260	1140	1320	1080
<i>Guinardia flaccida</i>	4200	2580	3540	4800
<i>Guinardia striata</i>	2100	1440	1380	3720
Proboscia				
<i>Proboscia alata</i>	2100	1620	1020	1320
Pseudosolenia				
<i>Pseudosolenia calcar avis</i>	1440	960	2580	2220
Rhizosolenia				
<i>Rhizosolenia acuminata</i>	240	240	180	360
<i>Rhizosolenia bergonii</i>	1200	1140	1560	1560
<i>Rhizosolenia clevei</i> var. <i>clevei</i>	1200	780	1440	2280
<i>Rhizosolenia formosa</i>	240	240	120	240
<i>Rhizosolenia hyalina</i>	780	1260	840	1680
<i>Rhizosolenia imbricata</i>	420	240	240	240
<i>Rhizosolenia pungens</i>	1920	1680	1200	1440
<i>Rhizosolenia robusta</i>	420	420	780	660
<i>Rhizosolenia striata</i>	240	420	240	300
<i>Rhizosolenia styliformis</i>	300	300	240	420
<i>Rhizosolenia</i> sp.1	240	360	420	360
Striatellales				
Striatellaceae				
Striatella				
<i>Striatella</i> sp.1			420	
Surirellales				
Entomoneidaceae				
Entomoneis				



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Phytoplankton density (unit/bottle)

TAXA	G4/43REF- PS-1	G4/43REF- PS-2	G4/43REF- PB-1	G4/43REF- PB-2
<i>Entomoneis sp.1</i>	300	360	360	480
<i>Entomoneis sp.2</i>	60	60	120	360
Surirellaceae				
Campylodiscus				
<i>Campylodiscus sp.1</i>	300	420	480	300
Surirella				
<i>Surirella sp.1</i>	240	60	750	240
Thalassionematales				
Thalassionemataceae				
Thalassionema				
<i>Thalassionema nitzschioides</i>	7860	10200	10140	14100
<i>Thalassionema sp.1</i>	4500	4380	5580	7860
Thalassiothrix				
<i>Thalassiothrix sp.1</i>	3840	4200	4680	8760
<i>Thalassiothrix sp.2</i>	540	660	480	720
Thalassioiophysales				
Catenulaceae				
Amphora				
<i>Amphora sp.1</i>	480	240	420	420
Thalassiosirales				
Lauderiaceae				
Lauderia				
<i>Lauderia annulata</i>	1200	1080	1020	1980
Stephanodiscaceae				
Cyclotella				
<i>Cyclotella sp.1</i>	1020	720	1200	1920
Thalassiosiraceae				
Planktoniella				
<i>Planktoniella blanda</i>	720	420	540	780
<i>Planktoniella sol</i>	240	240	300	360
Triceratiales				
Triceratiaceae				
Triceratium				
<i>Triceratium favus</i>	60	60	120	240
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
Amphisolenia				
<i>Amphisolenia bidentata</i>	120		240	180
Dinophysiaceae				
Histioneis				
<i>Histioneis hyalina</i>				
Ornithocercus				
<i>Ornithocercus thumii</i>			120	120



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Phytoplankton density (unit/bottle)

TAXA	G4/43REF- PS-1	G4/43REF- PS-2	G4/43REF- PB-1	G4/43REF- PB-2
Phalacroma				
<i>Phalacroma mitra</i>				
Gonyaulacales				
Ceratiaceae				
Ceratium				
<i>Ceratium deflexum</i>	60			
<i>Ceratium dens</i>	240		240	240
<i>Ceratium falcatum</i>	120	240	120	120
<i>Ceratium furca</i>	240	240	300	240
<i>Ceratium fusus</i>	180	180	180	300
<i>Ceratium gibberum</i>				60
<i>Ceratium kofoidii</i>	60	60	120	120
<i>Ceratium macroceros</i>				60
<i>Ceratium massiliense</i>				
<i>Ceratium porrectum</i>				120
<i>Ceratium schmidtii</i>				60
<i>Ceratium trichoceros</i>	240	240	300	240
<i>Ceratium tripos</i>	60	60	120	60
Gonyaulacaceae				
Lingulodinium				
<i>Lingulodinium sp.1</i>			120	
Oxytoxaceae				
Oxytoxum				
<i>Oxytoxum sp.1</i>			240	240
<i>Oxytoxum sp.3</i>			360	360
Pyrophacaceae				
Pyrophacus				
<i>Pyrophacus steinii</i>	60		60	
Gymnodiniales				
Gymnodiniaceae				
Gymnodinium				
<i>Gymnodinium sp.2</i>	120	120		60
Peridinales				
Podolampadaceae				
Podolampas				
<i>Podolampas bipes</i>			120	120
<i>Podolampas palmipes</i>			240	180
Protoberidiniaceae				
Protoberidinium				
<i>Protoberidinium abei</i>	120	240	360	
<i>Protoberidinium asymmetricum</i>	60	60	120	180
<i>Protoberidinium conicum</i>	60	60	60	120
<i>Protoberidinium depressum</i>	240	240	360	420
<i>Protoberidinium diabolum</i>	60	120	60	120
<i>Protoberidinium divergens</i>	240	240	240	360



Phytoplankton density (unit/bottle)

TAXA	G4/43REF- PS-1	G4/43REF- PS-2	G4/43REF- PB-1	G4/43REF- PB-2
<i>Protoperdinium elegans</i>			120	60
<i>Protoperdinium latispinum</i>			120	240
<i>Protoperdinium oceanicum</i>				60
<i>Protoperdinium pallidum</i>			60	60
Prorocentrales				
Prorocentraceae				
Prorocentrum				
<i>Prorocentrum mexicanum</i>				120
<i>Prorocentrum micans</i>	180	120	120	180
TOTAL	282780	216960	287910	324840
Number of Taxa	138	135	151	153

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



Phytoplankton density (unit/bottle)				
TAXA	SRWB- 1CP2-PS-1	SRWB- 1CP2-PS-2	SRWB- 1CP2-PB-1	SRWB- 1CP2-PB-2
Charophyta				
Conjugophyceae				
Desmiales				
Desmidiaceae				
Spondylosium				
<i>Spondylosium sp. 1</i>	300	300	240	300
Staurostrum				
<i>Staurostrum sp. 1</i>		60	120	120
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
Golenkinia				
<i>Golenkinia radiata</i>	60	60	60	60
Trebouxiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
<i>Ankistrodesmus sp. 1</i>	120		120	180
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
<i>Dictyocha fibula</i>	420	1200	120	420
<i>Dictyocha speculum var. octonaris</i>			60	
Cyanobacteria				
Cyanophyceae				
Nostocales				
Oscillatoriaceae				
Oscillatoria				
<i>Oscillatoria erythraea</i>	29160	44880	58080	49920
<i>Oscillatoria sp. 1</i>	6660	9720	27600	10200
Rivulariaceae				
Calothrix				
<i>Calothrix crustacea</i>	2520	720	2280	3720
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				
<i>Asterolampra marylandica</i>	180	60	180	120
Asteromphalus				
<i>Asteromphalus cleveanus</i>	60	60	120	180
<i>Asteromphalus elegans</i>			120	



Phytoplankton density (unit/bottle)

TAXA	SRWB- 1CP2-PS-1	SRWB- 1CP2-PS-2	SRWB- 1CP2-PB-1	SRWB- 1CP2-PB-2
<i>Asteromphalus sp.1</i>	60	480	240	
Bacillariales				
Bacillariaceae				
Bacillaria				
<i>Bacillaria paxillifer</i>	7080	7320	19980	20220
Cylindrotheca				
<i>Cylindrotheca closterium</i>	1020			1320
<i>Cylindrotheca sp.1</i>				
Nitzschia				
<i>Nitzschia longissima</i>	600	240	480	480
<i>Nitzschia lorenziana</i>	900	900	720	960
<i>Nitzschia sp.3</i>	1080	480	480	480
<i>Nitzschia sp.4</i>	660	780	420	420
<i>Nitzschia sp.5</i>	420	600	840	540
<i>Nitzschia sp.9</i>	360	600	600	420
<i>Nitzschia sp.10</i>	1680	1680	960	840
<i>Nitzschia sp.11</i>	1740	600	1020	600
Pseudo-nitzschia				
<i>Pseudo-nitzschia sp.1</i>	3420	1320	1380	2700
Centrales				
Eupodiscaceae				
Odontella				
<i>Odontella mobiliensis</i>	60	240	180	120
<i>Odontella sinensis</i>	360	660	780	660
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrum				
<i>Bacteriastrum comosum</i>	5940	5580	7440	9720
<i>Bacteriastrum furcatum</i>	5700	3960	6600	7620
<i>Bacteriastrum hyalinum</i>	6540	6480	14340	15780
<i>Bacteriastrum minus</i>	5760	4080	6240	4980
Chaetoceros				
<i>Chaetoceros aequatorialis</i>	720	1260	2040	1500
<i>Chaetoceros affinis</i>	4680	3720	5760	4800
<i>Chaetoceros atlanticus</i>	2520	3540	6540	7200
<i>Chaetoceros coarctatus</i>	6600	3780	6060	10080
<i>Chaetoceros compressus</i>	4500	3600	4380	8640
<i>Chaetoceros costatus</i>	5280	3420	6360	5520
<i>Chaetoceros didymus</i>	5940	5340	9900	10680
<i>Chaetoceros diversus</i>	7380	3240	11520	13140
<i>Chaetoceros lorenzianus</i>	6720	4080	6960	12900
<i>Chaetoceros messanensis</i>	5160	3480	4260	6180
<i>Chaetoceros peruvianus</i>	2220	1260	1800	1320
<i>Chaetoceros pseudocurvisetus</i>	4980	3900	5340	7080
<i>Chaetoceros sp.1</i>				



Phytoplankton density (unit/bottle)

TAXA	SRWB- 1CP2-PS-1	SRWB- 1CP2-PS-2	SRWB- 1CP2-PB-1	SRWB- 1CP2-PB-2
<i>Chaetoceros sp.3</i>				
Corethrales				
Corethraceae				
Corethron				
<i>Corethron criophilum</i>	180	180	180	300
Coscinodiscales				
Coscinodiscaceae				
Coscinodiscus				
<i>Coscinodiscus sp.1</i>	420	420	360	900
<i>Coscinodiscus sp.2</i>	120	60	120	180
<i>Coscinodiscus sp.3</i>				240
<i>Coscinodiscus sp.4</i>	240	60	120	240
<i>Coscinodiscus sp.5</i>	360	360	360	540
<i>Coscinodiscus sp.6</i>	300	240	420	720
<i>Coscinodiscus sp.7</i>	60	60	60	120
<i>Coscinodiscus sp.8</i>	300	240	300	420
<i>Coscinodiscus sp.9</i>	300	360	240	300
<i>Coscinodiscus sp.10</i>	420	300	240	480
<i>Coscinodiscus sp.11</i>	300	360	240	420
<i>Coscinodiscus sp.12</i>	240	240	60	240
<i>Coscinodiscus sp.13</i>	360	180	120	240
Gossleriella				
<i>Gossleriella tropica</i>	60	180	300	120
Palmeria				
<i>Palmeria hardmaniana</i>	60	300	240	300
Heliopeltaceae				
Actinoptychus				
<i>Actinoptychus sp.1</i>	780	960	600	660
Hemidiscaceae				
Pseudoguinaridia				
<i>Pseudoguinaridia recta</i>		1200	2040	3480
Fragilariales				
Fragilariaceae				
Asterionella				
<i>Asterionella formosa</i>	60			
Fragilaria				
<i>Fragilaria sp.1</i>	1560			
Hemiaulales				
Hemiaulaceae				
Cerataulina				
<i>Cerataulina sp.1</i>				1260
Climacodium				
<i>Climacodium biconcavum</i>	2460	2580	2100	2520
<i>Climacodium frauenfeldianum</i>	1500	1740	2280	3300
Eucampia				



Phytoplankton density (unit/bottle)

TAXA	SRWB- 1CP2-PS-1	SRWB- 1CP2-PS-2	SRWB- 1CP2-PB-1	SRWB- 1CP2-PB-2
<i>Eucampia cornuta</i>	2040	1020	2160	1740
<i>Eucampia zodiacus</i>	1440	1860	1380	1320
Hemiaulus				
<i>Hemiaulus hauckii</i>	3180	1740	1980	2160
<i>Hemiaulus indicus</i>	1200	1560	2280	1920
<i>Hemiaulus membranaceus</i>	1740	1260	1740	3180
<i>Hemiaulus sinensis</i>	1440	1740	2280	4620
Leptocylindrales				
Leptocylindraceae				
Leptocylindrus				
<i>Leptocylindrus danicus</i>			1320	
Lithodesmiales				
Lithodesmaceae				
Ditylum				
<i>Ditylum brightwellii</i>	240	120	180	240
<i>Ditylum sol</i>	720	480	420	1020
Naviculales				
Diploneidaceae				
Diploneis				
<i>Diploneis sp.1</i>	300	360	300	360
Naviculaceae				
Anomoeneis				
<i>Anomoeneis sp.1</i>		240	300	300
Haslea				
<i>Haslea sp.1</i>	420	420	420	420
<i>Haslea wawriake</i>	240	240	180	240
Meuniera				
<i>Meuniera sp.1</i>	540	360	420	420
Navicula				
<i>Navicula sp.1</i>	600	960	660	660
<i>Navicula sp.2</i>	960	1800	720	1740
<i>Navicula sp.3</i>	660	960	480	480
<i>Navicula sp.4</i>	1380	1020	900	660
<i>Navicula sp.5</i>	780	900	960	480
<i>Navicula sp.6</i>	480	420	660	480
<i>Navicula sp.7</i>	360	360	540	360
<i>Navicula sp.8</i>	360	360	660	540
Trachyneis				
<i>Trachyneis sp.1</i>	360	420	360	480
Pinnulariaceae				
Pinnularia				
<i>Pinnularia sp.2</i>				
Pleurosigmataceae				
Gyrosigma				
<i>Gyrosigma sp.1</i>	540	360	360	480



Phytoplankton density (unit/bottle)

TAXA	SRWB- 1CP2-PS-1	SRWB- 1CP2-PS-2	SRWB- 1CP2-PB-1	SRWB- 1CP2-PB-2
<i>Gyrosigma</i> sp.2	660	300	420	660
<i>Gyrosigma</i> sp.3	420	300	420	420
Pleurosigma				
<i>Pleurosigma</i> sp.1	600	420	480	420
<i>Pleurosigma</i> sp.2	660	360	420	480
<i>Pleurosigma</i> sp.3	360	420	540	480
<i>Pleurosigma</i> sp.4	300	420	480	360
<i>Pleurosigma</i> sp.5	180	180	180	240
<i>Pleurosigma</i> sp.6	480	420	420	840
Stauroneidaceae				
Stauroneis				
<i>Stauroneis salina</i>				
Rhizosoleniales				
Rhizosoleniaceae				
Dactyliosolen				
<i>Dactyliosolen blavyanus</i>	1020	1320	2460	2880
<i>Dactyliosolen fragilissimus</i>	1440	1260	1860	3240
<i>Dactyliosolen phuketensis</i>	2520	1680	2760	1800
Guinardia				
<i>Guinardia cylindrus</i>	840	900	1680	1260
<i>Guinardia flaccida</i>	2400	2760	6600	6300
<i>Guinardia striata</i>	1440	1200	2700	2880
Proboscia				
<i>Proboscia alata</i>	2280	660	1500	3180
Pseudosolenia				
<i>Pseudosolenia calcar avis</i>	2880	660	2280	1560
Rhizosolenia				
<i>Rhizosolenia acuminata</i>	60	240	360	300
<i>Rhizosolenia bergonii</i>	960	780	1320	1560
<i>Rhizosolenia clevei</i> var. <i>clevei</i>	600	840	1800	1200
<i>Rhizosolenia formosa</i>	300	240	300	300
<i>Rhizosolenia hyalina</i>	840	960	1380	1440
<i>Rhizosolenia imbricata</i>	120	360	300	240
<i>Rhizosolenia pungens</i>	960	1320	1500	1200
<i>Rhizosolenia robusta</i>	660	480	660	660
<i>Rhizosolenia striata</i>	300	360	360	360
<i>Rhizosolenia styliformis</i>	360	480	300	420
<i>Rhizosolenia</i> sp.1	420	360	300	420
Striatellales				
Striatellaceae				
Striatella				
<i>Striatella</i> sp.1				
Surirellales				
Entomoneidaceae				
Entomoneis				



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Phytoplankton density (unit/bottle)

TAXA	SRWB- 1CP2-PS-1	SRWB- 1CP2-PS-2	SRWB- 1CP2-PB-1	SRWB- 1CP2-PB-2
<i>Entomoneis</i> sp.1	420	360	420	600
<i>Entomoneis</i> sp.2		60	240	360
Surirellaceae				
<i>Campylodiscus</i>				
<i>Campylodiscus</i> sp.1	240	300	420	360
<i>Surirella</i>				
<i>Surirella</i> sp.1	60	300	180	300
Thalassionematales				
Thalassionemataceae				
<i>Thalassionema</i>				
<i>Thalassionema nitzschioides</i>	11160	13380	22980	17760
<i>Thalassionema</i> sp.1	6360	6720	12240	8280
<i>Thalassiothrix</i>				
<i>Thalassiothrix</i> sp.1	7440	7740	7440	8640
<i>Thalassiothrix</i> sp.2	1020	600	780	900
Thalassioiophysales				
Catenulaceae				
<i>Amphora</i>				
<i>Amphora</i> sp.1	360	660	360	480
Thalassiosirales				
Lauderiaceae				
<i>Lauderia</i>				
<i>Lauderia annulata</i>	1440	1200	1620	1560
Stephanodiscaceae				
<i>Cyclotella</i>				
<i>Cyclotella</i> sp.1	900	1680	900	1380
Thalassiosiraceae				
<i>Planktoniella</i>				
<i>Planktoniella blanda</i>	480	420	480	600
<i>Planktoniella sol</i>	240	240	300	240
Triceratiales				
Triceratiaceae				
<i>Triceratium</i>				
<i>Triceratium favus</i>				
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
<i>Amphisolenia</i>				
<i>Amphisolenia bidentata</i>	180	60	120	120
Dinophysiaceae				
<i>Histioneis</i>				
<i>Histioneis hyalina</i>			120	
<i>Ornithocercus</i>				
<i>Ornithocercus thumii</i>	60		120	



Phytoplankton density (unit/bottle)

TAXA	SRWB- 1CP2-PS-1	SRWB- 1CP2-PS-2	SRWB- 1CP2-PB-1	SRWB- 1CP2-PB-2
Phalacroma				
<i>Phalacroma mitra</i>		60		
Gonyaulacales				
Ceratiaceae				
Ceratium				
<i>Ceratium deflexum</i>				
<i>Ceratium dens</i>				300
<i>Ceratium falcatum</i>	60			120
<i>Ceratium furca</i>	300	240	300	240
<i>Ceratium fusus</i>	300	300	300	360
<i>Ceratium gibberum</i>				
<i>Ceratium kofoidii</i>				
<i>Ceratium macroceros</i>				180
<i>Ceratium massiliense</i>				60
<i>Ceratium porrectum</i>	240			180
<i>Ceratium schmidtii</i>				
<i>Ceratium trichoceros</i>	240	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>			240	
Pyrophacaceae				
Pyrophacus				
<i>Pyrophacus steinii</i>				
Gymnodiniales				
Gymnodiniaceae				
Gymnodinium				
<i>Gymnodinium sp.2</i>				120
Peridinales				
Podolampadaceae				
Podolampas				
<i>Podolampas bipes</i>		60		
<i>Podolampas palmipes</i>	60	120	120	
Protoberidiniaceae				
Protoberidinium				
<i>Protoberidinium abei</i>				120
<i>Protoberidinium asymmetricum</i>	120	240	180	240
<i>Protoberidinium conicum</i>	60		120	120
<i>Protoberidinium depressum</i>	240	300	300	360
<i>Protoberidinium diabolum</i>		120	120	
<i>Protoberidinium divergens</i>	240	240	300	300



Phytoplankton density (unit/bottle)

TAXA	SRWB- 1CP2-PS-1	SRWB- 1CP2-PS-2	SRWB- 1CP2-PB-1	SRWB- 1CP2-PB-2
<i>Protoperdinium elegans</i>				
<i>Protoperdinium latispinum</i>	240	180	420	240
<i>Protoperdinium oceanicum</i>				
<i>Protoperdinium pallidum</i>				
Prorocentrales				
Prorocentraceae				
Prorocentrum				
<i>Prorocentrum mexicanum</i>				
<i>Prorocentrum micans</i>			120	240
TOTAL	226140	218160	339960	343500
Number of Taxa	133	132	139	140

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



Sakman Phong

Phytoplankton density (unit/bottle)				
TAXA	SRWB- 3CP2-PS-1	SRWB- 3CP2-PS-2	SRWB- 3CP2-PB-1	SRWB- 3CP2-PB-2
Charophyta				
Conjugophyceae				
Desmiales				
Desmidiaceae				
Spondylosium				
<i>Spondylosium sp. 1</i>	240	240	240	240
Staurostrum				
<i>Staurostrum sp. 1</i>			120	120
Chlorophyta				
Chlorophyceae				
Chlamydomonadales				
Micractiniaceae				
Golenkinia				
<i>Golenkinia radiata</i>	60	60	120	60
Trebouxiophyceae				
Oocystales				
Oocystaceae				
Ankistrodesmus				
<i>Ankistrodesmus sp. 1</i>	60	60	60	120
Chrysophyta				
Chrysophyceae				
Dictyochales				
Dictyochaceae				
Dictyocha				
<i>Dictyocha fibula</i>	180	360	300	420
<i>Dictyocha speculum var. octonaris</i>				120
Cyanobacteria				
Cyanophyceae				
Nostocales				
Oscillatoriaceae				
Oscillatoria				
<i>Oscillatoria erythraea</i>	30480	27540	59520	39000
<i>Oscillatoria sp. 1</i>	10680	8760	15600	13080
Rivulariaceae				
Calothrix				
<i>Calothrix crustacea</i>	2040	1980	2580	2580
Ochrophyta				
Bacillariophyceae				
Asterolamprales				
Asterolampraceae				
Asterolampra				
<i>Asterolampra marylandica</i>	60	60	60	180
Asteromphalus				
<i>Asteromphalus cleveanus</i>	120	120	240	120
<i>Asteromphalus elegans</i>			60	



Phytoplankton density (unit/bottle)

TAXA	SRWB- 3CP2-PS-1	SRWB- 3CP2-PS-2	SRWB- 3CP2-PB-1	SRWB- 3CP2-PB-2
<i>Asteromphalus sp.1</i>	240	60		120
Bacillariales				
Bacillariaceae				
Bacillaria				
<i>Bacillaria paxillifer</i>	6660	6600	16680	21000
Cylindrotheca				
<i>Cylindrotheca closterium</i>	960	600	1020	1020
<i>Cylindrotheca sp.1</i>	360			
Nitzschia				
<i>Nitzschia longissima</i>	660	660	600	600
<i>Nitzschia lorenziana</i>	1320	960	840	780
<i>Nitzschia sp.3</i>	840	1500	600	540
<i>Nitzschia sp.4</i>			840	660
<i>Nitzschia sp.5</i>			600	840
<i>Nitzschia sp.9</i>			660	960
<i>Nitzschia sp.10</i>	900	960	720	
<i>Nitzschia sp.11</i>	840	1200	900	
Pseudo-nitzschia				
<i>Pseudo-nitzschia sp.1</i>	1920	1200	3420	4560
Centrales				
Eupodiscaceae				
Odontella				
<i>Odontella mobiliensis</i>	300	120	180	120
<i>Odontella sinensis</i>	720	600	660	660
Chaetocerotales				
Chaetocerotaceae				
Bacteriastrum				
<i>Bacteriastrum comosum</i>	4080	6420	8520	9480
<i>Bacteriastrum furcatum</i>	5040	6120	9960	12180
<i>Bacteriastrum hyalinum</i>	7080	6360	7800	17100
<i>Bacteriastrum minus</i>	5580	5280	7260	7620
Chaetoceros				
<i>Chaetoceros aequatorialis</i>	1440	1020	1260	1680
<i>Chaetoceros affinis</i>	6780	6540	6180	7260
<i>Chaetoceros atlanticus</i>	6600	4860	5040	9780
<i>Chaetoceros coarctatus</i>	7980	5640	7260	12900
<i>Chaetoceros compressus</i>	9300	6420	5700	8700
<i>Chaetoceros costatus</i>	4860	4380	4380	7080
<i>Chaetoceros didymus</i>	8820	7080	4920	10860
<i>Chaetoceros diversus</i>	10440	5280	5340	14160
<i>Chaetoceros lorenzianus</i>	4980	4140	7260	7080
<i>Chaetoceros messanensis</i>	4200	2940	2100	5400
<i>Chaetoceros peruvianus</i>	1920	1080	1140	1680
<i>Chaetoceros pseudocurvisetus</i>	7080	4980	4680	7320
<i>Chaetoceros sp.1</i>			2820	



Phytoplankton density (unit/bottle)

TAXA	SRWB- 3CP2-PS-1	SRWB- 3CP2-PS-2	SRWB- 3CP2-PB-1	SRWB- 3CP2-PB-2
<i>Chaetoceros</i> sp.3			5100	5940
Corethrales				
Corethraceae				
Corethron				
<i>Corethron criophilum</i>	300	240	180	240
Coscinodiscales				
Coscinodiscaceae				
Coscinodiscus				
<i>Coscinodiscus</i> sp.1	240	240	480	420
<i>Coscinodiscus</i> sp.2	60	60	120	60
<i>Coscinodiscus</i> sp.3				240
<i>Coscinodiscus</i> sp.4				300
<i>Coscinodiscus</i> sp.5	300	300	300	360
<i>Coscinodiscus</i> sp.6	240	360	420	360
<i>Coscinodiscus</i> sp.7	120	120	60	60
<i>Coscinodiscus</i> sp.8	240	240	240	360
<i>Coscinodiscus</i> sp.9	300	360	240	420
<i>Coscinodiscus</i> sp.10	300	240	360	180
<i>Coscinodiscus</i> sp.11	240	360	360	360
<i>Coscinodiscus</i> sp.12	60	120		
<i>Coscinodiscus</i> sp.13	120	60		
Gossleriella				
<i>Gossleriella tropica</i>	300	240	120	240
Palmeria				
<i>Palmeria hardmaniana</i>	300	240	360	240
Heliopeltaceae				
Actinoptychus				
<i>Actinoptychus</i> sp.1	1080	360	360	960
Hemidiscaceae				
Pseudoguinaridia				
<i>Pseudoguinaridia recta</i>	1680	1260	2880	3240
Fragilariales				
Fragilariaceae				
Asterionella				
<i>Asterionella formosa</i>				
Fragilaria				
<i>Fragilaria</i> sp.1				
Hemiaulales				
Hemiaulaceae				
Cerataulina				
<i>Cerataulina</i> sp.1				
Climacodium				
<i>Climacodium biconcavum</i>	2040	1620	3300	2400
<i>Climacodium frauenfeldianum</i>	2100	2220	1860	2700
Eucampia				



Phytoplankton density (unit/bottle)

TAXA	SRWB- 3CP2-PS-1	SRWB- 3CP2-PS-2	SRWB- 3CP2-PB-1	SRWB- 3CP2-PB-2
<i>Eucampia cornuta</i>	1740	1560	2040	2160
<i>Eucampia zodiacus</i>	1980	1500	2160	1740
Hemiaulus				
<i>Hemiaulus hauckii</i>	1740	1860	3060	2460
<i>Hemiaulus indicus</i>	1680	1320	3420	1800
<i>Hemiaulus membranaceus</i>	1920	1500	2580	1800
<i>Hemiaulus sinensis</i>	2460	2280	2520	2040
Leptocylindrales				
Leptocylindraceae				
Leptocylindrus				
<i>Leptocylindrus danicus</i>				
Lithodesmiales				
Lithodesmaceae				
Ditylum				
<i>Ditylum brightwellii</i>	420	120	360	660
<i>Ditylum sol</i>	780	660	720	540
Naviculales				
Diploneidaceae				
Diploneis				
<i>Diploneis sp.1</i>	360	360	240	240
Naviculaceae				
Anomoeneis				
<i>Anomoeneis sp.1</i>				
Haslea				
<i>Haslea sp.1</i>	480	360	360	420
<i>Haslea wawriake</i>	360	180	180	180
Meuniera				
<i>Meuniera sp.1</i>	360	720	420	540
Navicula				
<i>Navicula sp.1</i>	420	540	720	780
<i>Navicula sp.2</i>	1440	720	540	900
<i>Navicula sp.3</i>	660	1080	360	840
<i>Navicula sp.4</i>	900	1500	780	660
<i>Navicula sp.5</i>	1260	840	540	600
<i>Navicula sp.6</i>	780	780	600	420
<i>Navicula sp.7</i>	780	360	360	300
<i>Navicula sp.8</i>	420	480	300	360
Trachyneis				
<i>Trachyneis sp.1</i>	360	420	420	360
Pinnulariaceae				
Pinnularia				
<i>Pinnularia sp.2</i>			60	120
Pleurosigmataceae				
Gyrosigma				
<i>Gyrosigma sp.1</i>	840	600	600	660



Sakman Phong

Phytoplankton density (unit/bottle)

TAXA	SRWB- 3CP2-PS-1	SRWB- 3CP2-PS-2	SRWB- 3CP2-PB-1	SRWB- 3CP2-PB-2
<i>Gyrosigma</i> sp.2	660	420	420	600
<i>Gyrosigma</i> sp.3	660	420	420	780
Pleurosigma				
<i>Pleurosigma</i> sp.1	420	540	420	480
<i>Pleurosigma</i> sp.2	600	480	240	600
<i>Pleurosigma</i> sp.3	540	600	540	660
<i>Pleurosigma</i> sp.4	480	420	360	420
<i>Pleurosigma</i> sp.5	120	180	180	240
<i>Pleurosigma</i> sp.6	540	480	300	660
Stauroneidaceae				
Stauroneis				
<i>Stauroneis salina</i>				
Rhizosoleniales				
Rhizosoleniaceae				
Dactyliosolen				
<i>Dactyliosolen blavyanus</i>	2100	1620	3120	1860
<i>Dactyliosolen fragilissimus</i>	1440	1680	3000	1920
<i>Dactyliosolen phuketensis</i>	1920	1500	4140	2640
Guinardia				
<i>Guinardia cylindrus</i>	1080	1500	2760	1200
<i>Guinardia flaccida</i>	3780	2640	4620	4740
<i>Guinardia striata</i>	1440	1980	3300	1320
Proboscia				
<i>Proboscia alata</i>	2880	1380	1020	2340
Pseudosolenia				
<i>Pseudosolenia calcar avis</i>	900	1800	1920	1920
Rhizosolenia				
<i>Rhizosolenia acuminata</i>	240	240	120	300
<i>Rhizosolenia bergonii</i>	840	1140	1440	1260
<i>Rhizosolenia clevei</i> var. <i>clevei</i>	660	600	1080	2160
<i>Rhizosolenia formosa</i>	360	240	120	240
<i>Rhizosolenia hyalina</i>	960	1080	1320	1320
<i>Rhizosolenia imbricata</i>	240	300	300	300
<i>Rhizosolenia pungens</i>	900	1200	1320	1680
<i>Rhizosolenia robusta</i>	480	360	600	360
<i>Rhizosolenia striata</i>	300	300	300	420
<i>Rhizosolenia styliformis</i>	240	480	360	360
<i>Rhizosolenia</i> sp.1	420	300	300	420
Striatellales				
Striatellaceae				
Striatella				
<i>Striatella</i> sp.1				
Surirellales				
Entomoneidaceae				
Entomoneis				



Phytoplankton density (unit/bottle)

TAXA	SRWB- 3CP2-PS-1	SRWB- 3CP2-PS-2	SRWB- 3CP2-PB-1	SRWB- 3CP2-PB-2
<i>Entomoneis sp.1</i>	540	420	660	480
<i>Entomoneis sp.2</i>	180	240	180	360
Surirellaceae				
Campylodiscus				
<i>Campylodiscus sp.1</i>	420	360	420	600
Surirella				
<i>Surirella sp.1</i>		240	660	360
Thalassionematales				
Thalassionemataceae				
Thalassionema				
<i>Thalassionema nitzschioides</i>	6840	8940	15000	20100
<i>Thalassionema sp.1</i>	5760	4080	4980	7860
Thalassiothrix				
<i>Thalassiothrix sp.1</i>	7020	4980	5460	5100
<i>Thalassiothrix sp.2</i>	600	660	780	720
Thalassioophysales				
Catenulaceae				
Amphora				
<i>Amphora sp.1</i>	600	300	420	420
Thalassiosirales				
Lauderiaceae				
Lauderia				
<i>Lauderia annulata</i>	1320	1320	1320	1440
Stephanodiscaceae				
Cyclotella				
<i>Cyclotella sp.1</i>	1020	900	1560	1680
Thalassiosiraceae				
Planktoniella				
<i>Planktoniella blanda</i>	600	480	600	420
<i>Planktoniella sol</i>	360	300	360	240
Triceratiales				
Triceratiaceae				
Triceratium				
<i>Triceratium favus</i>	60		120	60
Pyrrophytophyta				
Dinophyceae				
Dinophysiales				
Amphisoleniaceae				
Amphisolenia				
<i>Amphisolenia bidentata</i>	180		120	240
Dinophysiaceae				
Histioneis				
<i>Histioneis hyalina</i>				
Ornithocercus				
<i>Ornithocercus thumii</i>			120	120



Phytoplankton density (unit/bottle)

TAXA	SRWB- 3CP2-PS-1	SRWB- 3CP2-PS-2	SRWB- 3CP2-PB-1	SRWB- 3CP2-PB-2
Phalacroma				
<i>Phalacroma mitra</i>				
Gonyaulacales				
Ceratiaceae				
Ceratium				
<i>Ceratium deflexum</i>				
<i>Ceratium dens</i>			240	240
<i>Ceratium falcatum</i>		240		60
<i>Ceratium furca</i>	180	240	240	240
<i>Ceratium fusus</i>	180	300	300	360
<i>Ceratium gibberum</i>				60
<i>Ceratium kofoidii</i>	60	60	120	60
<i>Ceratium macroceros</i>				60
<i>Ceratium massiliense</i>				
<i>Ceratium porrectum</i>				120
<i>Ceratium schmidtii</i>				60
<i>Ceratium trichoceros</i>	240	240	300	240
<i>Ceratium tripos</i>	120	120	120	120
Gonyaulacaceae				
Lingulodinium				
<i>Lingulodinium sp.1</i>			120	
Oxytoxaceae				
Oxytoxum				
<i>Oxytoxum sp.1</i>			240	240
<i>Oxytoxum sp.3</i>			360	360
Pyrophacaceae				
Pyrophacus				
<i>Pyrophacus steinii</i>			120	
Gymnodiniales				
Gymnodiniaceae				
Gymnodinium				
<i>Gymnodinium sp.2</i>	120	60		120
Peridinales				
Podolampadaceae				
Podolampas				
<i>Podolampas bipes</i>			120	120
<i>Podolampas palmipes</i>			180	120
Protoberidiniaceae				
Protoberidinium				
<i>Protoberidinium abei</i>	240	180	300	
<i>Protoberidinium asymmetricum</i>	120	240	120	120
<i>Protoberidinium conicum</i>	60	60	60	60
<i>Protoberidinium depressum</i>	240	240	360	120
<i>Protoberidinium diabolum</i>	60	60	60	120
<i>Protoberidinium divergens</i>	300	300	240	240



Phytoplankton density (unit/bottle)

TAXA	SRWB- 3CP2-PS-1	SRWB- 3CP2-PS-2	SRWB- 3CP2-PB-1	SRWB- 3CP2-PB-2
<i>Protoperdinium elegans</i>			60	60
<i>Protoperdinium latispinum</i>			240	240
<i>Protoperdinium oceanicum</i>				60
<i>Protoperdinium pallidum</i>			60	60
Prorocentrales				
Prorocentraceae				
Prorocentrum				
<i>Prorocentrum mexicanum</i>				120
<i>Prorocentrum micans</i>	120	60	240	60
TOTAL	240720	210060	309300	343080
Number of Taxa	131	130	146	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



APPENDIX E
ANALYTICAL LABORATORY REPORTS:
ZOOPLANKTON COMMUNITY



Marine Ecosearch Management Co., Ltd.

4/31 Moo 1, Tambon Namnoi, Hat Yai, Songkla 90110

Tel / Fax -66-74-213 421

email: marine_ecosearch@hotmail.com

August 28th, 2025

Ted Donn,

Tetra Tech, Inc. Lafayette

3746 Mt. Diablo Blvd., Suite 300 Lafayette, CA 94549

RE: Environmental Studies for Chevron Thailand, February 2025 **(T779.30)**

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 Ecosearch 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



Marine Ecosearch Management Co., Ltd.

4/31 Moo 1, Tambon Namnoi, Hat Yai, Songkla 90110

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List of Samples received T779.30 (Surin)

Benthos

No.	Date	Sample ID	Location	Time	No. of Bottle		
					100 ml.	500 ml.	1,000 ml.
1	10/2/2025	G4/43REF-A	G4/43 Reference	2.08	1S	1 (A+B)	0
2	10/2/2025	G4/43REF-B	G4/43 Reference	2.33	0	1 (A+B)	0
3	10/2/2025	G4/43REF-C	G4/43 Reference	2.51	1S	1 (A+B)	0
4	8/2/2025	SRWA-1B2X-A	Surin A	19.36	1S	1B	1A
5	8/2/2025	SRWA-1B2X-B	Surin A	19.43	1S	1B	1A
6	8/2/2025	SRWA-1B2X-C	Surin A	20.02	1S	1B	1A
7	8/2/2025	SRWA-2B2X-A	Surin A	20.18	1S	1B	1A
8	8/2/2025	SRWA-2B2X-B	Surin A	20.25	1S	1B	1A
9	8/2/2025	SRWA-2B2X-C	Surin A	20.33	1S	1 (A+B)	0
10	8/2/2025	SRWA-3B2X-A	Surin A	20.50	1S	1B	1A
11	8/2/2025	SRWA-3B2X-B	Surin A	20.58	1S	1B	1A
12	8/2/2025	SRWA-3B2X-C	Surin A	21.05	1S	1B	1A
13	8/2/2025	SRWA-4B2X-A	Surin A	21.21	1S	1B	1A
14	8/2/2025	SRWA-4B2X-B	Surin A	21.29	1S	1B	1A
15	8/2/2025	SRWA-4B2X-C	Surin A	21.35	1S	1B	1A
16	9/2/2025	SRWB-1B2-A	Surin B	17.30	1S	1 (A+B)	0
17	9/2/2025	SRWB-1B2-B	Surin B	17.43	1S	1 (A+B)	0
18	9/2/2025	SRWB-1B2-C	Surin B	17.49	1S	1 (A+B)	0
19	9/2/2025	SRWB-1CP2-A	Surin B	16.55	1S	1 (A+B)	0
20	9/2/2025	SRWB-1CP2-B	Surin B	17.05	1S	1 (A+B)	0
21	9/2/2025	SRWB-1CP2-C	Surin B	17.11	1S	1 (A+B)	0
22	9/2/2025	SRWB-1D2-A	Surin B	16.08	1S	1 (A+B)	0
23	9/2/2025	SRWB-1D2-B	Surin B	16.17	1S	1 (A+B)	0
24	9/2/2025	SRWB-1D2-C	Surin B	16.24	1S	1 (A+B)	0
25	9/2/2025	SRWB-2B2-A	Surin B	18.03	0	1 (A+B)	0
26	9/2/2025	SRWB-2B2-B	Surin B	18.10	1S	1 (A+B)	0
27	9/2/2025	SRWB-2B2-C	Surin B	18.18	0	1 (A+B)	0
28	9/2/2025	SRWB-3B2-A	Surin B	6.33	0	1B	1A
29	9/2/2025	SRWB-3B2-B	Surin B	6.43	1S	1B	1A
30	9/2/2025	SRWB-3B2-C	Surin B	6.55	0	1 (A+B)	0
31	9/2/2025	SRWB-3CP2-A	Surin B	4.15	0	1 (A+B)	0
32	9/2/2025	SRWB-3CP2-B	Surin B	4.25	0	1 (A+B)	0
33	9/2/2025	SRWB-3CP2-C	Surin B	4.33	1S	1 (A+B)	0
34	9/2/2025	SRWB-3D2-A	Surin B	5.02	1S	1 (A+B)	0
35	9/2/2025	SRWB-3D2-B	Surin B	5.11	1S	1 (A+B)	0
36	9/2/2025	SRWB-3D2-C	Surin B	5.19	1S	1 (A+B)	0
37	9/2/2025	SRWB-4B2-A	Surin B	5.47	1S	1B	1A
38	9/2/2025	SRWB-4B2-B	Surin B	5.56	0	1B	1A
39	9/2/2025	SRWB-4B2-C	Surin B	6.04	0	1 (A+B)	0

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Phytoplankton

No	Date	Sample ID	Location	Time	100 ml.
1	9/2/2025	SRWB-1CP2-PS-1	Surin B	12.43-12.49	1
2	9/2/2025	SRWB-1CP2-PS-2	Surin B	12.49-12.55	1
3	9/2/2025	SRWB-1CP2-PB-1	Surin B	10.49-11.18	1
4	9/2/2025	SRWB-1CP2-PB-2	Surin B	11.18-11.52	1
5	9/2/2025	SRWB-3CP2-PS-1	Surin B	8.20-8.53	1
6	9/2/2025	SRWB-3CP2-PS-2	Surin B	8.53-9.00	1
7	9/2/2025	SRWB-3CP2-PB-1	Surin B	9.06-9.36	1
8	9/2/2025	SRWB-3CP2-PB-2	Surin B	9.36-10.06	1
9	10/2/2025	G4/43REF-PS-1	G4/43 Reference	7.48-8.14	1
10	10/2/2025	G4/43REF-PS-2	G4/43 Reference	8.14-8.41	1
11	10/2/2025	G4/43REF-PB-1	G4/43 Reference	8.46-8.51	1
12	10/2/2025	G4/43REF-PB-2	G4/43 Reference	8.51-8.57	1

Zooplankton

No.	Date	Sample ID	Location	Time	No. of bottle
					1,000 ml.
1	9/2/2025	SRWB-1CP2	Surin B	13.27-14.00	1
2	9/2/2025	SRWB-3CP2	Surin B	14.31-15.05	1
3	10/2/2025	G4/43REF	G4/43 Reference	6.42-7.15	1

Meroploankton

No.	Date	Sample ID	Location	Time	No. of bottle
					1,000 ml.
1	9/2/2025	SRWB-1CP2	Surin B	13.27-14.00	1
2	9/2/2025	SRWB-3CP2	Surin B	14.31-15.05	1
3	10/2/2025	G4/43REF	G4/43 Reference	6.42-7.15	1

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CASE NARRATIVE

Environmental Studies for Chevron Thailand, 2025 February T779.30 Surin

SAMPLE RECEIPTT

Thirty-nine (39) 0.04 m² benthic community samples, twelve (12) phytoplankton samples, three (3) zooplankton and three (3) meroplankton 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 T779.30 project

No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
1	G4/43REF-A	0.0817	0.0605	0.0008	0.0038	0.0011
2	G4/43REF-B	0.1443	0.0491	-	-	0.0027
3	G4/43REF-C	0.1871	0.0523	-	0.0016	0.0018
4	SRWA-1B2X-A	0.0988	0.0558	0.0010	-	0.0074
5	SRWA-1B2X-B	0.4280	0.0012	-	0.0011	0.0012
6	SRWA-1B2X-C	0.3093	0.0061	0.0983	-	0.0039
7	SRWA-2B2X-A	0.1624	0.0344	0.0009	-	0.0015
8	SRWA-2B2X-B	0.1479	0.0071	0.0008	-	0.0031
9	SRWA-2B2X-C	0.3304	0.0964	0.0004	-	0.0019
10	SRWA-3B2X-A	0.2368	0.0141	0.0043	0.0009	0.6779
11	SRWA-3B2X-B	0.0824	0.1288	-	-	0.0244
12	SRWA-3B2X-C	0.5169	0.0370	0.0036	-	0.0032
13	SRWA-4B2X-A	0.0687	0.0163	-	-	0.0122
14	SRWA-4B2X-B	0.3323	0.0425	0.0009	0.0011	0.0066
15	SRWA-4B2X-C	0.0282	0.0142	-	0.0074	0.0022
16	SRWB-1B2-A	0.2590	0.0676	3.7367	-	-
17	SRWB-1B2-B	0.0452	-	7.5926	-	-
18	SRWB-1B2-C	0.2018	-	10.6321	-	0.0006
19	SRWB-1CP2-A	0.0113	0.0177	-	-	0.0386

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No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
20	SRWB-1CP2-B	0.0585	0.0183	-	0.0496	0.0024
21	SRWB-1CP2-C	0.0398	0.0128	-	-	0.0009
22	SRWB-1D2-A	0.0725	0.0288	-	-	0.0021
23	SRWB-1D2-B	0.0377	0.0791	-	-	0.0043
24	SRWB-1D2-C	0.0588	0.0065	-	-	0.0026
25	SRWB-2B2-A	0.0040	0.0010	-	-	0.0009
26	SRWB-2B2-B	0.0048	0.0142	0.0015	-	0.0008
27	SRWB-2B2-C	0.0105	-	-	-	-
28	SRWB-3B2-A	0.0227	0.0011	0.0048	-	-
29	SRWB-3B2-B	0.1863	-	0.1717	-	-
30	SRWB-3B2-C	0.0035	0.0032	0.0012	-	0.0006
31	SRWB-3CP2-A	0.0133	0.0026	-	-	-
32	SRWB-3CP2-B	0.0332	0.0486	-	0.0012	0.0008
33	SRWB-3CP2-C	0.0245	0.1287	-	-	0.0007
34	SRWB-3D2-A	0.0099	0.0974	0.0006	-	-
35	SRWB-3D2-B	0.0684	0.0378	0.0007	-	0.0020
36	SRWB-3D2-C	0.0246	0.0104	-	-	-
37	SRWB-4B2-A	0.0270	0.0234	-	-	0.0009
38	SRWB-4B2-B	0.0318	0.0147	-	-	0.0008
39	SRWB-4B2-C	0.0930	0.0061	-	-	0.0007

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Result

Environmental Studies for Chevron Thailand, 2025 February

T779.30 Surin

Benthic fauna was identified at the lowest practical taxa and differentiated between species. Two hundred and fifty-six (256) species of benthos were identified from this project. There were, 1 species of Cnidarian, 1 species of Nematode worm, 3 species of Nemertean, 1 species of flat worm, 4 species of Sipunculid worms, 141 species of Annelid worms, 90 species of Crustacean, 3 species of Echinoderms, and 12 species of Mollusk.

Sixty-nine (69) species of benthos were identified to species level. One hundred and sixty-three (163) benthos species were identified to genus level. Twenty-one (21) benthos species were identified to family level. One species was identified to Order 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	0	1	0	0
Nematoda	1	0	0	0	0	0	1
Nemertea	3	0	3	0	0	0	0
Platyhelminthes	1	0	0	0	0	1	0
Sipuncula	4	0	4	0	0	0	0
Annelida	141	36	105	0	0	0	0
Arthropoda	90	27	44	19	0	0	0
Echinodermata	3	1	1	1	0	0	0
Mollusca	12	5	6	1	0	0	0
Total	256	69	163	21	1	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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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.

MEROPLANKTON (Marine 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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Zooplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	G4/43REF	SRWB-1CP2	SRWB-3CP2
Ctenophora			
Tenlaculata			
Cydippida			
Pleurobrachiidae			
Pleurobrachiidae spp.	42	28	39
Cnidaria			
Anthozoa			
Anthozoa.unid			
<i>Anthozoa</i> spp.	70	40	92
Hydrozoa			
Anthoathecata			
Corymorphidae			
Euphysa			
<i>Euphysa</i> sp.1	3	12	4
Proboscoidactylidae			
Proboscoidactylidae spp.	17	16	28
Anthoathecatae			
Bougainvilliidae			
Bougainvilliidae sp.1	8	16	11
Bougainvilliidae sp.3	12	12	9
Bougainvilliidae sp.4		2	
Porpitidae			
Porpitidae spp.	10	4	9
Tubulariidae			
Hybocodon			
<i>Hybocodon</i> sp.1	20	39	84
Tubulariidae.unid			
Tubulariidae sp.1	13	10	7
Tubulariidae sp.3	4	8	13
Hydrozoa.unid			
<i>Hydrozoa</i> spp.	70	26	38
Leptothecata			
Eutimidae			
Eutima			
<i>Eutima</i> sp. 1	25	9	14
Leptothecatae			
Eirenidae			
Eirene			
<i>Eirene</i> sp.1	10	12	15
<i>Eirene</i> sp.2	4	4	4
Lovenellidae			
Lovenellidae spp.	2		6
Mitrocomidae			
Mitrocomidae spp.	35	20	22
Siphonophora			



Zooplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	G4/43REF	SRWB-1CP2	SRWB-3CP2
Abylidae			
Abylidae spp.	70	56	45
Siphonophorae			
Diphyidae			
Diphyidae spp.	132	254	218
Trachymedusae			
Geryoniidae			
Liriope			
<i>Liriope sp.1</i>	26	20	30
<i>Liriope sp.2</i>	10		9
Rhopalonematidae			
Rhopalonematidae spp.	18	34	42
Scyphozoa			
Rhizostomeae			
Rhizostomatidae			
Rhizostomatidae spp.	7	8	12
Annelida			
Polychaeta.unid			
Polychaete larvae	33	22	66
Arthropoda			
Malacostraca			
Amphipoda			
Caprellidae			
Caprellidae spp.	30	16	26
Dexaminidae			
Dexaminidae spp.	8	6	10
Hyperiididae			
Hyperiididae sp.1	230	24	184
Hyperiididae sp.2	375	202	267
Hyperiididae sp.3	66	127	95
Hyperiididae sp.4	179	94	201
Hyperiididae sp.5	34	66	71
Oxycephalidae			
Rhabdosoma			
<i>Rhabdosoma spp.</i>	47	28	39
Tullbergella			
<i>Tullbergella spp.</i>	3	4	2
Decapoda			
Alpheidae			
Alpheidae spp.	40	36	78
Crangonidae			
Crangonidae sp.1		3	4
Decapoda.unid			
Crab zoea	13	16	61
Dendrobranchiata.unid			



Zooplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	G4/43REF	SRWB-1CP2	SRWB-3CP2
Shrimp larvae sp.C	16	26	16
Shrimp larvae sp.E	10	10	
Shrimp larvae sp.I	5		
Shrimp larvae sp.J	40	78	118
Shrimp larvae sp.R	55	54	75
Shrimp larvae sp.S	22		
Diogenidae			
Diogenidae sp.1	35	10	21
Diogenidae sp.2			2
Diogenidae sp.3	15	16	11
Hippolytidae			
Hippolytidae spp.	4	8	4
Laomediidae			
Laomediidae spp.	11	4	7
Luciferidae			
Lucifer			
<i>Lucifer spp.</i>	184	172	395
Paguridae			
Paguridae spp.	21	26	12
Palaemonidae			
Palaemonidae sp.1	13	8	6
Palaemonidae sp.3	7	11	14
Parapaguridae			
Parapaguridae spp.	16	12	13
Pasiphaeidae			
Leptochela			
<i>Leptochela sp.1</i>	11	19	9
Pleocyemata.unid			
<i>Brachyura Larvae</i>	193	212	344
<i>Crab Megalopa</i>	10	16	21
Scyllaridae			
Scyllaridae.unid			
<i>Phyllosoma larvae</i>	2	2	3
Sergestidae			
Sergestidae spp.	8	9	5
Solenoceridae			
Solenoceridae spp.	7	13	6
Upogebiidae			
Upogebiidae spp.	62	22	48
Malacostraca.unid			
<i>Mysid sp.</i>	14	32	19
Mysida			
Mysidae			
Siriella			
<i>Siriella sp.1</i>	4		



Zooplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	G4/43REF	SRWB-1CP2	SRWB-3CP2
Stomatopoda			
Squillidae			
Squilla			
<i>Alima larvae</i>	23	47	31
Stomatopoda.unid			
<i>Erichthus larvae</i>	5	5	5
Maxillopoda			
Calanoida			
Acartiidae			
Acartiidae spp.	154	316	195
Calanidae			
Calanidae spp.	2745	1402	2056
Centropagidae			
Centropagidae spp.	69	152	107
Eucalanidae			
Eucalanidae spp.	397	440	470
Euchaetidae			
Euchaetidae spp.	36		
Paracalanidae			
Paracalanidae spp.	162	133	183
Pontellidae			
Pontellidae spp.	105	109	72
Temoridae			
Temoridae spp.	75	63	121
Tortanidae			
Tortanidae spp.	170	114	78
Tortanus			
<i>Tortanus spp.</i>	25	36	40
Copepoda.unid			
Copepod Nauplii	180	136	145
Cyclopoida			
Oithonidae			
Oithona			
<i>Oithona spp.</i>	56	44	61
Harpacticoida			
Ectinosomatidae			
Microsetella			
<i>Microsetella spp.</i>	85	160	154
Poecilostomatoida			
Corycaeidae			
Corycaeus			
<i>Corycaeus spp.</i>	49	66	53
Oncaeidae			
Oncaea			
<i>Oncaea spp.</i>	55		



Zooplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	G4/43REF	SRWB-1CP2	SRWB-3CP2
Sapphirinidae			
Copilia			
<i>Copilia spp.</i>	16	30	24
Sappharina			
<i>Sapphirina spp.</i>	10	18	13
Ostracoda			
Halocyprida			
Halocyprididae			
Euconchoecia			
<i>Euconchoecia sp.1</i>	68	96	129
Myodocopida			
Cypridinidae			
Cypridinidae sp.1	365	252	303
Cypridinidae sp.2	130	104	108
Mollusca			
Bivalvia			
Bivalvia.unid			
<i>Bivalve larvae</i>	70	88	150
Cephalopoda			
Cephalopoda.unid			
<i>Squid larvae</i>	2	2	3
Gastropoda			
Gastropoda.unid			
<i>Gastropoda sp.</i>	23	36	63
Neotaenioglossa			
Atlantidae			
Atlanta			
<i>Atlanta sp.</i>	33	12	24
Pterotracheidae			
Pterotracheidae sp.	11	8	16
Thecosomata			
Cavoliniidae			
Cavolinia			
<i>Cavolinia sp.1</i>	60	86	120
<i>Cavolinia sp.2</i>	28		
Creseis			
<i>Creseis acicula</i>	30	52	168
Diacria			
<i>Diacria sp.1</i>	44	139	215
Echinodermata			
Echinodermata.unid			
<i>Echinoderm Larvae</i>	14	53	35
Chaetognatha			
Sagittoidea			
Aphragmophora			



Zooplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	G4/43REF	SRWB-1CP2	SRWB-3CP2
Sagittidae			
Sagitta			
<i>Sagitta sp .1</i>	760	521	496
<i>Sagitta sp .2</i>	325	273	275
Chordata			
Actinopterygii			
Actinopterygii.unid			
<i>Fish Egg</i>	220	48	260
<i>Fish larvae</i>	518	247	596
Appendicularia			
Copelata			
Oikopleuridae			
Oikopleura			
<i>Oikopleura spp.</i>	215	132	178
Thaliacea			
Doliolida			
Doliolidae			
Dolioletta			
<i>Dolioletta sp .1</i>	95	120	80
<i>Dolioletta sp .2</i>	55	86	26
Salpida			
Salpidae			
Salpa			
<i>Salpa sp .1</i>	175	44	93
<i>Salpa sp .2</i>	114	26	57
<i>Salpa sp .3</i>	75	36	22
Total	10278	7766	10229
Number of TAXA	100	94	95



APPENDIX F
ANALYTICAL LABORATORY REPORTS:
MEROPLANKTON COMMUNITY



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August 28th, 2025

Ted Donn,

Tetra Tech, Inc. Lafayette

3746 Mt. Diablo Blvd., Suite 300 Lafayette, CA 94549

RE: Environmental Studies for Chevron Thailand, February 2025 **(T779.30)**

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 Ecosearch 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.

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List of Samples received T779.30 (Surin)

Benthos

No.	Date	Sample ID	Location	Time	No. of Bottle		
					100 ml.	500 ml.	1,000 ml.
1	10/2/2025	G4/43REF-A	G4/43 Reference	2.08	1S	1 (A+B)	0
2	10/2/2025	G4/43REF-B	G4/43 Reference	2.33	0	1 (A+B)	0
3	10/2/2025	G4/43REF-C	G4/43 Reference	2.51	1S	1 (A+B)	0
4	8/2/2025	SRWA-1B2X-A	Surin A	19.36	1S	1B	1A
5	8/2/2025	SRWA-1B2X-B	Surin A	19.43	1S	1B	1A
6	8/2/2025	SRWA-1B2X-C	Surin A	20.02	1S	1B	1A
7	8/2/2025	SRWA-2B2X-A	Surin A	20.18	1S	1B	1A
8	8/2/2025	SRWA-2B2X-B	Surin A	20.25	1S	1B	1A
9	8/2/2025	SRWA-2B2X-C	Surin A	20.33	1S	1 (A+B)	0
10	8/2/2025	SRWA-3B2X-A	Surin A	20.50	1S	1B	1A
11	8/2/2025	SRWA-3B2X-B	Surin A	20.58	1S	1B	1A
12	8/2/2025	SRWA-3B2X-C	Surin A	21.05	1S	1B	1A
13	8/2/2025	SRWA-4B2X-A	Surin A	21.21	1S	1B	1A
14	8/2/2025	SRWA-4B2X-B	Surin A	21.29	1S	1B	1A
15	8/2/2025	SRWA-4B2X-C	Surin A	21.35	1S	1B	1A
16	9/2/2025	SRWB-1B2-A	Surin B	17.30	1S	1 (A+B)	0
17	9/2/2025	SRWB-1B2-B	Surin B	17.43	1S	1 (A+B)	0
18	9/2/2025	SRWB-1B2-C	Surin B	17.49	1S	1 (A+B)	0
19	9/2/2025	SRWB-1CP2-A	Surin B	16.55	1S	1 (A+B)	0
20	9/2/2025	SRWB-1CP2-B	Surin B	17.05	1S	1 (A+B)	0
21	9/2/2025	SRWB-1CP2-C	Surin B	17.11	1S	1 (A+B)	0
22	9/2/2025	SRWB-1D2-A	Surin B	16.08	1S	1 (A+B)	0
23	9/2/2025	SRWB-1D2-B	Surin B	16.17	1S	1 (A+B)	0
24	9/2/2025	SRWB-1D2-C	Surin B	16.24	1S	1 (A+B)	0
25	9/2/2025	SRWB-2B2-A	Surin B	18.03	0	1 (A+B)	0
26	9/2/2025	SRWB-2B2-B	Surin B	18.10	1S	1 (A+B)	0
27	9/2/2025	SRWB-2B2-C	Surin B	18.18	0	1 (A+B)	0
28	9/2/2025	SRWB-3B2-A	Surin B	6.33	0	1B	1A
29	9/2/2025	SRWB-3B2-B	Surin B	6.43	1S	1B	1A
30	9/2/2025	SRWB-3B2-C	Surin B	6.55	0	1 (A+B)	0
31	9/2/2025	SRWB-3CP2-A	Surin B	4.15	0	1 (A+B)	0
32	9/2/2025	SRWB-3CP2-B	Surin B	4.25	0	1 (A+B)	0
33	9/2/2025	SRWB-3CP2-C	Surin B	4.33	1S	1 (A+B)	0
34	9/2/2025	SRWB-3D2-A	Surin B	5.02	1S	1 (A+B)	0
35	9/2/2025	SRWB-3D2-B	Surin B	5.11	1S	1 (A+B)	0
36	9/2/2025	SRWB-3D2-C	Surin B	5.19	1S	1 (A+B)	0
37	9/2/2025	SRWB-4B2-A	Surin B	5.47	1S	1B	1A
38	9/2/2025	SRWB-4B2-B	Surin B	5.56	0	1B	1A
39	9/2/2025	SRWB-4B2-C	Surin B	6.04	0	1 (A+B)	0

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Phytoplankton

No	Date	Sample ID	Location	Time	100 ml.
1	9/2/2025	SRWB-1CP2-PS-1	Surin B	12.43-12.49	1
2	9/2/2025	SRWB-1CP2-PS-2	Surin B	12.49-12.55	1
3	9/2/2025	SRWB-1CP2-PB-1	Surin B	10.49-11.18	1
4	9/2/2025	SRWB-1CP2-PB-2	Surin B	11.18-11.52	1
5	9/2/2025	SRWB-3CP2-PS-1	Surin B	8.20-8.53	1
6	9/2/2025	SRWB-3CP2-PS-2	Surin B	8.53-9.00	1
7	9/2/2025	SRWB-3CP2-PB-1	Surin B	9.06-9.36	1
8	9/2/2025	SRWB-3CP2-PB-2	Surin B	9.36-10.06	1
9	10/2/2025	G4/43REF-PS-1	G4/43 Reference	7.48-8.14	1
10	10/2/2025	G4/43REF-PS-2	G4/43 Reference	8.14-8.41	1
11	10/2/2025	G4/43REF-PB-1	G4/43 Reference	8.46-8.51	1
12	10/2/2025	G4/43REF-PB-2	G4/43 Reference	8.51-8.57	1

Zooplankton

No.	Date	Sample ID	Location	Time	No. of bottle
					1,000 ml.
1	9/2/2025	SRWB-1CP2	Surin B	13.27-14.00	1
2	9/2/2025	SRWB-3CP2	Surin B	14.31-15.05	1
3	10/2/2025	G4/43REF	G4/43 Reference	6.42-7.15	1

Meroploankton

No.	Date	Sample ID	Location	Time	No. of bottle
					1,000 ml.
1	9/2/2025	SRWB-1CP2	Surin B	13.27-14.00	1
2	9/2/2025	SRWB-3CP2	Surin B	14.31-15.05	1
3	10/2/2025	G4/43REF	G4/43 Reference	6.42-7.15	1

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CASE NARRATIVE

Environmental Studies for Chevron Thailand, 2025 February T779.30 Surin

SAMPLE RECEIPTT

Thirty-nine (39) 0.04 m² benthic community samples, twelve (12) phytoplankton samples, three (3) zooplankton and three (3) meroplankton 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 T779.30 project

No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
1	G4/43REF-A	0.0817	0.0605	0.0008	0.0038	0.0011
2	G4/43REF-B	0.1443	0.0491	-	-	0.0027
3	G4/43REF-C	0.1871	0.0523	-	0.0016	0.0018
4	SRWA-1B2X-A	0.0988	0.0558	0.0010	-	0.0074
5	SRWA-1B2X-B	0.4280	0.0012	-	0.0011	0.0012
6	SRWA-1B2X-C	0.3093	0.0061	0.0983	-	0.0039
7	SRWA-2B2X-A	0.1624	0.0344	0.0009	-	0.0015
8	SRWA-2B2X-B	0.1479	0.0071	0.0008	-	0.0031
9	SRWA-2B2X-C	0.3304	0.0964	0.0004	-	0.0019
10	SRWA-3B2X-A	0.2368	0.0141	0.0043	0.0009	0.6779
11	SRWA-3B2X-B	0.0824	0.1288	-	-	0.0244
12	SRWA-3B2X-C	0.5169	0.0370	0.0036	-	0.0032
13	SRWA-4B2X-A	0.0687	0.0163	-	-	0.0122
14	SRWA-4B2X-B	0.3323	0.0425	0.0009	0.0011	0.0066
15	SRWA-4B2X-C	0.0282	0.0142	-	0.0074	0.0022
16	SRWB-1B2-A	0.2590	0.0676	3.7367	-	-
17	SRWB-1B2-B	0.0452	-	7.5926	-	-
18	SRWB-1B2-C	0.2018	-	10.6321	-	0.0006
19	SRWB-1CP2-A	0.0113	0.0177	-	-	0.0386

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No.	Sample ID	Biomass (g)				
		Polychaete	Crustacea	Mollusc	Echinoderm	Other
20	SRWB-1CP2-B	0.0585	0.0183	-	0.0496	0.0024
21	SRWB-1CP2-C	0.0398	0.0128	-	-	0.0009
22	SRWB-1D2-A	0.0725	0.0288	-	-	0.0021
23	SRWB-1D2-B	0.0377	0.0791	-	-	0.0043
24	SRWB-1D2-C	0.0588	0.0065	-	-	0.0026
25	SRWB-2B2-A	0.0040	0.0010	-	-	0.0009
26	SRWB-2B2-B	0.0048	0.0142	0.0015	-	0.0008
27	SRWB-2B2-C	0.0105	-	-	-	-
28	SRWB-3B2-A	0.0227	0.0011	0.0048	-	-
29	SRWB-3B2-B	0.1863	-	0.1717	-	-
30	SRWB-3B2-C	0.0035	0.0032	0.0012	-	0.0006
31	SRWB-3CP2-A	0.0133	0.0026	-	-	-
32	SRWB-3CP2-B	0.0332	0.0486	-	0.0012	0.0008
33	SRWB-3CP2-C	0.0245	0.1287	-	-	0.0007
34	SRWB-3D2-A	0.0099	0.0974	0.0006	-	-
35	SRWB-3D2-B	0.0684	0.0378	0.0007	-	0.0020
36	SRWB-3D2-C	0.0246	0.0104	-	-	-
37	SRWB-4B2-A	0.0270	0.0234	-	-	0.0009
38	SRWB-4B2-B	0.0318	0.0147	-	-	0.0008
39	SRWB-4B2-C	0.0930	0.0061	-	-	0.0007

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Result
Environmental Studies for Chevron Thailand, 2025 February
T779.30 Surin

Benthic fauna was identified at the lowest practical taxa and differentiated between species. Two hundred and fifty-six (256) species of benthos were identified from this project. There were, 1 species of Cnidarian, 1 species of Nematode worm, 3 species of Nemertean, 1 species of flat worm, 4 species of Sipunculid worms, 141 species of Annelid worms, 90 species of Crustacean, 3 species of Echinoderms, and 12 species of Mollusk.

Sixty-nine (69) species of benthos were identified to species level. One hundred and sixty-three (163) benthos species were identified to genus level. Twenty-one (21) benthos species were identified to family level. One species was identified to Order 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	0	1	0	0
Nematoda	1	0	0	0	0	0	1
Nemertea	3	0	3	0	0	0	0
Platyhelminthes	1	0	0	0	0	1	0
Sipuncula	4	0	4	0	0	0	0
Annelida	141	36	105	0	0	0	0
Arthropoda	90	27	44	19	0	0	0
Echinodermata	3	1	1	1	0	0	0
Mollusca	12	5	6	1	0	0	0
Total	256	69	163	21	1	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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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.

MEROPLANKTON (Marine 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

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Identification specialists

Mr. Sakanan Plathong	Leader
MSc. Tropical Marine Studies & Environmental Management, James Cook University, Australia (1998)	Principal Taxonomist
BSc. Marine Science, Chulalongkorn University (1991)	
Ms. Jintana Plathong	Senior Biologist
MSc. Environmental Management, Mahidol University (1997)	Benthos identification
BSc. Animal Science, Prince of Songkla University (1990)	Since 1999
Mr. Winai Pransuk	Field sampling chief,
BSc. Aquatic Science, Prince of Songkla University (2007)	Fish larvae and reef fish
	Since 2007
Ms. Siriluk Sutthinun	Mollusk & Echinoderm
BSc. Aquatic Science, Prince of Songkla University (2007)	Since 2008
Ms. Wijitra Sangsane	Polychaete identification
BSc. Aquatic Science, Prince of Songkla University (2011)	Since 2011
Ms. Oratai Kanjanaphrom	Crustacean identification
BSc. Aquatic Science, Prince of Songkla University (2011)	Since 2011
Ms. Nuenghathai Nakkarit	Phytoplankton
BSc. Biology, Prince of Songkla University (2010)	Since 2010
Ms. Penika Taprasitjit	Zooplankton identification
BSc. Aquatic Science, Prince of Songkla University (2011)	Since 2012

Principal Taxonomist

Meroplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	G4/43REF	SRWB-1CP2	SRWB-3CP2
Annelida			
Polychaeta			
Polychaete larvae	12	28	28
Arthropoda			
Crustacea			
Malacostraca			
Decapoda			
Alpheidae			
Alpheidae spp.	184	159	150
Crangonidae			
Crangonidae spp.	3	7	14
Crangonidae sp.1	4	2	8
Dendrobranchiata.unid			
Shrimp larvae sp.C	14	45	22
Shrimp larvae sp.E	3	11	5
Shrimp larvae sp.I	3		2
Shrimp larvae sp.J	61	101	70
Shrimp larvae sp.R	78	71	92
Shrimp larvae sp.S	28	22	6
Diogenidae			
Diogenidae sp.1	21	18	12
Diogenidae sp.2		3	1
Diogenidae sp.3	14	7	7
Hippolytidae			
Hippolytidae sp.1	5	12	10
Laomediidae			
Laomediidae spp.	9	17	27
Luciferidae			
Lucifer spp.	266	252	415
Paguridae			
Pagurid larvae	27	31	24
Palaemonidae			
Palaemonidae sp.1	8	14	9
Palaemonidae sp.3	4	6	17
Parapaguridae			
Parapaguridae spp.	23	20	20
Pasiphaeidae			
Leptochela sp.1	23	8	16
Porcellanidae			
Porcellanidae spp.	2		2
Scyllaridae			
Phyllosoma larvae	3		
Sergestidae			
Sergestidae sp.	5	4	11
Solenoceridae			



Sakamon Pothong

Meroplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	G4/43REF	SRWB-1CP2	SRWB-3CP2
Solenoceridae spp.	5	8	8
Upogebiidae			
Upogebiidae spp.	44	60	48
Pleocyemata.unid			
<i>Brachyura Larvae</i>	217	141	232
<i>Crab Megalopa</i>	16	20	36
<i>Protozoa</i>	11	22	13
Mysida			
Mysidae			
Siriella			
<i>Siriella sp .3</i>	3	2	2
Stomatopoda			
Squillidae			
Squilla			
<i>Alima larvae</i>	71	106	97
<i>Erichthus larvae</i>	7	3	8
Maxillopoda			
Cypris larvae	237	196	325
Mollusca			
Bivalvia			
Bivalvia.unid			
<i>Bivalve larvae</i>	152	144	286
Cephalopoda			
Cephalopoda.unid			
<i>Squid larvae</i>	3	3	4
Gastropoda			
Gastropoda.unid			
<i>Gastropod larvae</i>	14	51	172
Echinodermata			
Echinodermata.unid			
Echinoderm Larvae	8	26	18
Chordata			
Vertebrata			
Osteichthyes			
Actinopterygii			
Neopterygii			
Anguilliformes			
Anguilloidei			
Anguillidae			
Anguillidae			3
Muraenidae			
Muraenidae			1
Congroidei	2	9	10
Congridae			
Congridae		1	2



Sakamon P. Hong

Meroplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	G4/43REF	SRWB-1CP2	SRWB-3CP2
Muraenesocidae			
Muraenesocidae		4	
Nettastomatidae			
Nettastomatidae	2	2	
Ophichthidae			
Ophichthidae		2	8
Aulopiformes			
Synodontidae			
Synodontidae	1	6	11
Clupeiformes			
Engraulidae			
Engraulidae	43	37	48
Gadiformes			
Bregmacerotidae			
Bregmaceros			
<i>Bregmaceros sp.</i>	109	166	124
Perciformes			
Apogonidae			
Apogonidae	2	9	6
Callionymidae			
Callionymidae	5	5	3
Carangidae			
Caranx			
<i>Caranx sp.</i>		1	1
Selaroides			
<i>Selaroides leptolepis</i>		2	2
Champsodontidae			
Champsodon			
<i>Champsodon sp.</i>		7	3
Gobiidae			
Gobiidae	31	63	38
Leiognathidae			
Leiognathidae	6	19	10
Mullidae			
Mullidae		1	
Nemipteridae			
Nemipteridae	4	14	17
Pomacentridae			
Pomacentridae	1		
Priacanthidae			
Priacanthus			
<i>Priacanthus sp.</i>			3
Serranidae			
Epinephelus			
<i>Epinephelus sp.</i>		4	2



Sakamon Pothong

Meroplankton density (individuals in the bottle): 30 min tow

TAXA/STATION	G4/43REF	SRWB-1CP2	SRWB-3CP2
Sphyraenidae			
Sphyraena			
<i>Sphyraena sp.</i>	1		1
Teraponidae			
Terapon			
<i>Terapon jarbua</i>			1
Uranoscopidae			
Uranopus			
<i>Uranoscopus sp.</i>		1	
Pleuronectiformes			
Bothidae			
Grammatobothus			
<i>Grammatobothus sp.</i>		1	
Psettina			
Psettina sp.	7	14	7
Citharidae			
Brachypleura			
<i>Brachypleura sp.</i>	7	24	11
Cynoglossidae			
Cynoglossus			
<i>Cynoglossus sp.</i>	2	2	
Scorpaeniformes			
Platycephalidae			
Platycephalidae	1	3	4
Tetraodontiformes			
Monacanthidae			
Monacanthus			
<i>Monacanthus sp.</i>	1		
Tetraodontidae			
Tetraodontidae	1	5	3
Unidentified fish egg			
Fish egg	194	84	210
Total	2008	2106	2746
Number of TAXA	55	60	61



Sakamon Pothong

ภาคผนวก 27

บันทึกการประเมินการปฏิบัติงานของเรือที่ใช้ในโครงการฯ (SUPO)



Wire

SUPO/INTERMEDIATE INSPECTION

Marine Safety, Reliability and Efficiency (MSRE) Standardized OE Process – Chevron Marine Standard – Rev 2 – 24 May 2023

Requirement §2.0 Vessel Assurance

1	Inspection Details	
1001	Vessel Name	Miclyn Energy
1002	Inspection Date	07 June 2025
1003	Port of Inspection	Sattahip Port, Chonburi, Thailand
1004	Inspectors Name	Sompone Chinavong
1005	Last OVIQ Inspection date	20 June 2024
1006	Date OVPQ Last Updated	29 May 2025
1007	Master's Name	Capt. Pattarakrit Sarayothin
1008	Scope of Work	Accommodation, Geotechnical & Seismic survey, Supply
	Vessel Capability Variant Being Inspected	Comments
1009	Dynamic Positioning	N.A.
1010	Cargo Operations, Crane Operations or Bunkering	Yes
1011	Spread Moorings	N.A.
1012	Anchor Handling (AHTS) or Towing	N.A.
1013	Crew Boats (Alucats, Petro-Craft & Surfers)	N.A.
1014	Pipe Lay	N.A.
1015	Ship Assist or Escort Tug	N.A.
1016	Emergency Rescue or Response	N.A.
1017	SEWOP (Lift Boats)	N.A.
1018	Barge	N.A.
1019	ABU	N.A.
Inspection Instructions		
	<ul style="list-style-type: none"> • Prior to the inspection, an opening meeting is to be called to ensure that the vessel crew understand the purpose of this inspection. • Inspector to use this form to conduct the inspection. • Sections 1 through 7 shall be completed for all vessels. • The vessel capability variant will determine which parts of section 8 are to be completed. • Record all comments and dates as required. All information related to "No" responses above are to be noted in Observations section of inspection form. The inspector shall ensure that any applicable photographic evidence clearly captures the objective a "No" answer. • The inspection shall be conducted in an objective manner. • Capture any evidence as required – this may be done on any external device. • On completion of the inspection, the inspector is to advise the Master and the crew of all observations noted. This is to be done so verbally, do not leave a copy of the completed inspection on board. If required, the Master/Crew may make their own notes. • Once the inspector has access to the internet, follow the link provided on the original commissioning email and complete the inspection along with entering comments and uploading evidence as required. 	

2	General, Certification & Documentation	Yes	No	NA
2001	Does vessel have current certificates applicable for its size and registration?	X		
2002	Does the manning level meet or exceed that required by the local Port and Flag state and/or operations the vessel is engaged in?	X		
2003	Are crew certification originals and valid? Are crew Competency requirements as defined in section 3.2.2 of the Marine Standard met?		X	
2004	All crew have FFD (Fitness for Duty) / medical certificates?	X		
2005	Are project Specific Documents on board and understood including bridging documents?	X		
2006	Verify that the vessel holds ALL in-force BU Marine Notices, Guidelines, and latest Chevron Marine Standard.	X		
2007	Is the vessel equipped with the required navigational charts and publications for the area of operation?	X		
2008	Are the Master and Crew familiar with any local restrictions such as draft, no-go areas and reporting requirements?	X		
2009	Is there evidence of a risk assessment present for working the weather side of an offshore facility and is there evidence of this being communicated to the Designated MSRE Process Authority?	X		
2010	Are the Master and Crew familiar with Incident and NM reporting requirements?	X		
2011	Has the Master been briefed on the work-scope the vessel is being chartered for?	X		
2012	Cabotage / NIMASA Specific Requirements (NMA only)			
2013	Receipt for or carriage of Annual Waiver Certificate aboard for: - 1) Ownership - Required If Vessel Certificate of Registry does not state a Nigerian address. NB. Must hold an 'in-date' Annual Build Waiver.			X
2014	Receipt for or carriage of Annual Waiver Certificate aboard for: - 2) Manning – i.e. A waiver is required if any crew aboard (crewlist) are not Nigerian nationals NB. Vessel must hold an 'in-date' Waiver.			X
2015	Receipt for or carriage of Annual Waiver Certificate aboard for: - 1) Building – i.e., if vessel constructed outside Nigeria, then vessel must hold an 'in-date' Annual Building Waiver.			X
2016	Vessel Owning Company holds a valid NIMASA Registration Certificate & copy is carried aboard the vessel. This is an Annual Cert and is required to be carried aboard the vessel			X
General Comments: - Bridging document is available and implemented on board.				

3	Inspection Close outs / Standards of Management & Culture	Yes	No	NA
3001	Are Open Deficiencies from the latest OVIQ Inspection Closed? Include a list with the status of all deficiencies.	X		
3002	Are Open Deficiencies from the latest SUPO Inspection Closed? Include a list with the status of all deficiencies.	X		
3003	Are Open Deficiencies from the latest Internal Audit Closed? Include a list with the status of all deficiencies.	X		
3004	Are all Incident and Near Miss Reports Closed out? Include a list of all Incidents and Near Misses recorded within the last 12 months	X		
3005	Is the vessel's OVPQ up to date with the latest certification details?	X		
3006	Is a copy of the most recent Chevron Marine Standard onboard?	X		
General Comments:				

4	Hazard Identification / Standards of Management & Culture – Bridge, Deck, Galley & Hull	Yes	No	NA
4001	Is the gangway adequately secured on board the vessel? Does inboard end of the gangway rests on or is flush with the top of the bulkhead, is a bulwark ladder provided? (Gangway shall not rest on ship rails unless it has been reinforced for that purpose) Is the gangway in good condition and certified? Is a life ring with a self-activating light and buoyant safety line attached and available adjacent to the gangway location?	X		
4002	Are walkways clear of tripping hazards?	X		
4003	Are clearances, pinch points, slips, trips and fall hazards highlighted (including guards)?	X		
4004	Is all Bridge Equipment including communication equipment in good working order?	X		
4005	Are handrail and ladders in good condition, clean and free from obstruction?	X		
4006	Are decks nonslip in relevant areas?	X		
4007	Are the stuffing tubes, sealants and bulkhead penetrations in good condition?	X		

4008	Are the Hull / deck openings, freeing ports and windows/port holes in good condition?	X		
4009	Is shell plating and internal structure joints in good condition?	X		
4010	Are the remote operated valves and controls in good condition and functioning?	X		
4011	Does the galley have adequate fire protection devices including the fire blanket?	X		
4012	Are Galley spaces, storerooms, fridges clean, neat and tidy? (Standard of housekeeping)	X		
4013	Are Drinking water facilities in good and hygienic condition?	X		
4014	Are Toilet/WC facilities in a good and hygienic condition?	X		
4015	Are living accommodations in good and hygienic condition? Is the lighting within the accommodation adequate?	X		
4016	Are deck machinery, wires, dogs, cleats, and roller fairleads etc. well-greased?	X		
4017	Are mooring ropes, wires and equipment records of inspection and maintenance available?	X		
4018	Are the WT doors and access hatches on weather decks in good condition?	X		
General Comments: <ul style="list-style-type: none"> - Bottled Drinking Water is consumed on board. - Vessel discharged food waste via a macerator when vessel is within 500-meter safety zone at offshore - The transmission hour of Radar (Port) is 15,993 hours at the time of inspection while the manufacturer is recommended the life expectancy of magnetron at 3,000 Tx hours. 				

5	Hazard Identification / Standards of Management & Culture – Engine Spaces	Yes	No	NA
5001	Are walkways clear of tripping hazards?	X		
5002	Are clearances, pinch points, slips, trips and fall hazards highlighted (including guards)?	X		
5003	Is the main propulsive machinery fully operational with no reported defects?	X		
5004	Is the steering gear fully operational?	X		
5005	Specify date of last Emergency Steering test	15 Apr 2025		
5006	Are the generators fully operational with no reported defects?	X		
5007	Is the machinery and equipment reportedly free of intermittent faults?	X		
5008	Is Machinery Space pipe work in a satisfactory condition and free from temporary repairs?	X		
5009	Is the condition of the electrical wiring throughout the ship in a safe condition?	X		
5010	Is the lighting satisfactory?	X		
5011	Is machinery guarded where appropriate?	X		
5012	Are floor plates clean, properly secured and non-slip?	X		
5013	Are High Pressure Oil pipes secure and protectively sheathed?	X		
5014	Is exhaust pipe lagging satisfactory?	X		
5015	Are the bilges clean and bilge systems in good condition?	X		
5016	Is the emergency escape route well signed / unobstructed?	X		
5017	Are Stern Seals in good condition and free from any leaks?	X		
5018	Test the Emergency Fire Pump for satisfactory operation	X		
5019	Test the Emergency Generator for satisfactory operation	X		
General Comments:				

6	Safety Management / Crew Involvement / Personal Protective Equipment/PMS	Yes	No	NA
6001	When was the last date Stop Work Authority used and re-enforced by Supervisors? Specify Date:	26 Mar 2025		
6002	When was the last JSA completed? Specify Date:	07 June 2025		
6003	Are Start Work Checks in Place?	X		
6004	Are proper & adequate Personal Protective Equipment provided (reserves for replacement & visitors)?	X		
6005	Are safety drills regularly carried out and recorded? Is there a drill schedule on board? Provide a copy.	X		
6006	Is LSA in survey and good visual condition? (liferafts, lifebuoys, PFD's, life jackets)	X		
6007	Is FFE in survey and good visual condition? (portable and fixed firefighting equipment)	X		
6008	Are there adequate medical facilities and supplies on board?	X		
6009	Is there a PMS on board? If yes, then provide latest weekly printout indicating all overdue and deferred work orders.	07 June 2025		
6010	If vessel utilizes stand-by or back-down buoys, is a procedure, Risk Assessment, JSA in place?	X		

6011	Are weather parameters including maximum limits for operation defined and known on board for the vessels work scope?	X		
General Comments: - Vessel implements a computer base PMS.				

7	Safe Deck & Personnel Transfer	Yes	No	N/A
7001	Is an effective stern protection system in place?	X		
7002	If AHTS is used for cargo operations, has a Risk Assessment been conducted to mitigate crew & cargo exposure to elements, particularly working stern-to-weather?	X		
7003	Is a 'Safe Deck' Procedure implemented and understood?	X		
7004	Is a vessel specific MOPO implemented and understood?	X		
7005	Is there is evidence of personnel transfer at sea? If so, does the vessel have a safe loading/landing zone clearly marked?	X		
7006	Confirm that the Crew & Passengers as applicable have received training in the method/mod of personnel transfer.	X		
7007	Are adequate PFDs for all personnel to be transferred provided?	X		
7008	Is a JSA conducted before any personnel transfer?	X		
7009	If Swing Rope Transfer is utilised, does the vessel have a suitable RA and Procedure	X		
7010	Is weather limit defined for various types of personnel transfer operations (Basket / FROG/Swing Rope)?	X		
General Comments:				

8	Vessel Capability - Dynamic Positioning	Yes	No	NA
8001	Does the vessel have a copy of most recent Annual DP trials details (within 1 year +/- 3 months of anniversary date)?			X
8002	Are all Category A recommendations closed?			X
8003	Does vessel have any pending Category B or C recommendations?			X
8004	Is Activity Specific Operating Guidelines (ASOG) or WSOG (MODU) limit setting agreement in place for current or intended operations?			X
8005	Verify that the DPO's are familiar with the ASOG / WSOG			X
8006	Verify that DP footprints are regularly recorded and compared against previous footprints and the DP Capability Plots?			X
8007	Is the crew familiar with the DP manual, FMEA & Proving Trials?			X
8008	Confirm that the vessel operates with OPEN Bus Tie. If not, then inform and seek guidance from the Designated MSRE Process Authority.			X
8009	Is there an Electronic Technician or Engineer on board with approved training on the DP system?			X
8010	Does the vessel have a Blackout Recovery procedure?			X
8011	State date of last Blackout Recovery desktop drill?			X
8012	Are vessel specific DP Field Arrival, Bridge 500m and E/R set up Checklists available and completed?		NA	
8013	Verify that the Field Arrival Trial has been completed? This is to be verified prior to first use of the vessel or at the discretion of the designated MSRE Process Authority.			X
8014	Verify the availability of the Independent Joystick			X
8015	Verify DP computers and Operating Stations are in good order.			X
8016	Verify that the DP controller was reset within the last 30 days			X
8017	Verify all Alarm and Warning Lights on the DP console for correct operation and indication			X
8018	Verify Heading limits and circle watch limits are not excessive. (3-5 degrees & 3 -5 m)			X
8019	Verify all Position Reference Systems are in good working order			X
8020	Verify that the DP Printer is operational.			X
8021	Verify settings on Gyro are correct – speed and latitude correction set to manual during DP ops?			X
8022	Verify all gyros are aligned and that the gyro error has been confirmed within the previous 6 months.			X
8023	Verify that the wind sensors functional and providing an online input into the DP system.			X
General Comments:				

8	Vessel Capability - Cargo Operations / Crane Operations / Bunkering	Yes	No	NA
8024	Is the lifting gear used in cargo handling colour coded in accordance with local or BU guidelines for the current year?	X		
8025	Confirm that the vessel only utilizes ratchet type chain binders for securing of cargo?	X		
8026	Are the Master & Crew aware that selective unloading (cherry picking) is not permitted?	X		
8027	Verify if Cargo Handling is as per the OCIMF "Deck Cargo Handling on board Offshore Vessels" Information paper	X		
8028	Are MSDS available for any liquid products back loaded from offshore?	X		
8029	If carried confirm that hoses used for hazardous liquid transfers have a valid test certificate? F.O. Last test <u>06 June 2025</u>	X		
8030	If carried, are all hoses fitted with sufficient floatation collars as per GOMO?	X		
8031	Confirm that the vessel has quick dry disconnect fittings (i.e., TODO, Avery Hardall, Klaw fittings) at the manifold for use in hazardous liquid transfers?	X		
8032	Confirm that the vessel has the correct WECO connections and adapters at the manifold.	X		
8033	Do cranes and other lifting equipment on board the vessel have current certification?	X		
8034	Check condition of the crane is in good order. Verify operation to check for seal leakages on crane rams.	X		
8035	Confirm Electronic Fuel monitoring system (EFMS) is in place, is non-by-passable, and operational?	X		
8036	If no EFMS in place, an operational and calibrated totalizer meter in fuel load and discharge system?			X
General Comments: - The floating collars is available on board 10 pcs.				

8	Vessel Capability - Anchoring & Mooring System Design, Review & Safety Reinforcement (Vessels with Spread Moorings)	Yes	No	NA
8037	Are pre-move meetings conducted prior any anchor handling operations (weather, SWA, risk assessment...)?			X
8038	Are comprehensive JSA's implemented prior to any mooring activity?			X
8039	Minimum anchor and mooring clearances from sub-sea structures are known (set by BU) and accounted in the plan?			X
8040	Are special mitigation procedures available when anchor patterns call for crossing pipelines or cables?			X
8041	Are Marine Notices relating to offshore Mooring and Anchor handling located on board and contents known to crew?			X
8042	Verify if Wire Management plan is in place and date of last maintenance /Inspection/Last NDT or Destructive test			X
General Comments:				

8	Vessel Capability - Anchor Handling (AHTS) & Towing Vessels only	Yes	No	NA
8043	In date, test certificates shall be held on board for all Tow Spread equipment in use.			X
8044	Tow log and tow spread maintenance program in place.			X
8045	Valid Bollard Pull Certificate of less than 5 years old issued /endorsed by an IACS Classification society.			X
8046	Winches have a quick release mechanism, and all have a documented functional testing regime.			X
8047	Are bridge team members fully familiar with the location and operation of the winch emergency release mechanism, its operation and controls? Instructions are to be clearly posted nearby to the release controls.			X
8048	Is Tow and work winch tension meter installed with a method of continuous recording and calibrated?			X
8049	All watertight doors, hatch openings and emergency escape entrances are marked 'close at sea' and all seals and locking dogs are in satisfactory condition.			X
8050	Confirm that the vessel has and operates with a clear deck policy during towing/anchor handling operations.			X
8051	Confirm that the vessel ensures all watertight openings requiring to be closed/sealed during towing/anchor handling operations are done so.			X
8052	Are work-wire / tow-wire terminations in good condition, properly terminated, steel ferrules, with swivels and associated jewellery? NB: Aluminium ferrules are not acceptable.			X
8053	Check that spooling gear is fitted and in good condition.			X
8054	Check the operability of mechanical stoppers. Ensure that the correct size of inserts is available for the intended work-scope.			X

8055	Check that the vessel has the correct size of chain handling gypsies (wildcats) fitted, suitable for the proposed scope of work			X
8056	Are there sufficient shackles, split pins and lead plugs on-board for the intended work scope?			X
8057	Is there welding and burning equipment available and are crew qualified to use it?			X
8058	Check condition of J-Hook and grapnel, type and SWL?			X
8059	The master understands the principles and the consequences of 'Girting'			X
8060	Vessel 'Gobbing' equipment is certified and MBL/SWL is the same as the tow wire and associated rigging			X
8061	Are tow and work wire terminations fitted with snub-nosed, pee-wee, type sockets (long bow spelter sockets not permitted)			X
8062	Verify if Wire Management plan is in place and date of last maintenance /Inspection/Last NDT or Destructive test			X
8063	List the date of last maintenance /Inspection/Last NDT or Destructive test			X
8064	Verify if Tow Assembly Management plan is in place and date of last maintenance /Inspection/Last NDT or Destructive test	NA		
8065	List the date of last maintenance / Inspection / Last NDT or Destructive test of the Tow Assembly			X
8066	Is the length of work wire adequate for operating depth?	NA		
8067	Confirm that no towing from hook (if fitted) is allowed			X
8068	Confirm tow bars, aft bulwarks, stern rail, stern roller are free of sharp edges / obstructions which could damage a tow wire or prevent it from free movement.			X
8069	Confirm that the use of polypropylene ropes for towing is not allowed			X
8070	Conduct brake slip test for towing and work winches			X
8071	On Terminal Export and Line Handling Tugs only, confirm the vessel is equipped with bow winch and associated equipment to safely tow from the bow.			X
General Comments:				

8	Vessel Capability - Crew boats (Alucats, Petro-Craft & Surfers)	Yes	No	NA
8072	Are passenger briefings carried out (safe boarding, disembarkation, and general safety)?			X
8073	Are adequate PFDs for all personnel to be transferred provided?			X
8074	Are fenders in a satisfactory condition?			X
8075	Is there a 30cm gap between the bow fender and boat landing ladder?			X
8076	Are searchlight/s available and in working order?			X
8077	Is a night vision camera available and in working order?			X
8078	Is air conditioning available and in working order?			X
8079	Are toilet facilities available and in working order?			X
8080	Are noise levels within the passenger cabin at an acceptable level?			X
8081	Are Crew boat Pilots aware of any local requirements for safe speed during hours of darkness?			X
8082	Are crew boat Pilots aware of the rules for entering 500m Exclusion/Safety Zones?			X
General Comments:				

8	Vessel Capability - Pipe Lay	Yes	No	NA
8083	Is there evidence that effective risk assessments are carried out for pipelay operations?			X
8084	Is the firing line hazard marking and restricted access managed effectively?			X
8085	Are firing line ventilation arrangements sufficient?			X
General Comments:				

8	Vessel Capability - Ship Assist/Escort Tug	Yes	No	NA
8086	Is there evidence that effective risk assessments are carried out for ship assist/escort tug operations?			X
8087	Is the length of tow line adequate for planned operation?			X
8088	Is the MBL of tow line and associated equipment adequate for rated Bollard Pull or expected tensions for the planned operation?			X
8089	Do short bow/snub nose type end fittings make up the tow wire terminations?			X
8090	Have Tow wires been re-terminated in the last 2 years?			X
8091	Are 'snap back' zones and hazards understood by crew?			X
8092	The master understands the principles and the consequences of 'Girting'			X
8093	Are in date test certificates held on board for all Tow Spread equipment in use?			X
8094	Valid Bollard Pull Certificate of less than 5 years old issued /endorsed by an IACS Classification society.			X
General Comments:				

8	Vessel Capability - Emergency Rescue & Response Vessel	Yes	No	NA
8095	Is there evidence that effective risk assessments are carried out for ERRV/Stand-By operations			X
8096	Are adequate PFDs provided and in satisfactory condition for all personnel to be transferred?			X
8097	Are qualified personnel onboard for FRC operations and has a drill been conducted in the preceding 3 months?			X
8098	Is the recovery time of a MOB during the last drill in accordance with the performance standards in the Safety Case if applicable?			X
8099	Is the Dacon scoop available and has a drill been conducted in the preceding 3 months?			X
General Comments:				

8	Vessel Capability - SEWOP (Lift Boats)	Yes	No	NA
8100	Is there documented evidence of NDT of the legs and racks, including lower terminus?			X
8101	Is there documented evidence of annual visual inspections of the legs, racks and pinions?			X
8102	Is their evidence that the vessel is following the content of any BU Marine Guidance Notes on SEWOP inspection guidelines?			X
8103	If non IACS Classed, are the NDT being conducted by an IACS Class approved company?			X
8104	If <300 GT, does inspection protocol meet ABS or USCG standards as outlined in Marine Standard and are these inspections being carried out by IACS Class surveyor			X
8105	Are intermediate welded sections visible on the leg pinion support brackets?			X
8106	Is their visual evidence of any dents or cracks to the leg structure, teeth, pinion tower?			X
8107	Confirm the Jacking assemblies/planetaries are in good order			X
8108	Are the legs and pinions sufficiently greased?			X
8109	Is an Original Equipment Manufacturer jacking system inspection report onboard that meets all of the minimum criteria as per the Chevron Marine Standard Non-Tankers and was it conducted within the last 12 months?			X
General Comments:				

8	Vessel Capability - Barge			
8110	Load line and draught marks clearly visible			X
8111	Verify Hull condition, must be intact, minor indentations acceptable			X
8112	Tow bridle adequate, in good condition and spread fully certified with a functional retrieval winch.			X
8113	Manholes fully sealed and watertight			X
8114	Tank vents are self-sealing (float type with mesh). Floats to be tested as free			X
8115	Verify condition of specific build design access ladder on either side of the barge is in good condition			X
8116	Verify - fully functional port, starboard and aft navigation lights with adequate power source (Battery/Solar Power)			X
8117	Verify - navigational day shapes, mast and lanyard on board			X
8118	Check condition of mooring ropes/wires as acceptable			X
8119	Check that the barge's side rubbing band is in good condition without jagged edges and adequate fendering in place as applicable			X
8120	Is the barge equipped with a fit for purpose anchor and spread with a dedicated winch and means of emergency release?			X
8121	On barges without handrails is the edge highlighted with a contrasting colour to the rest of the deck?			X
8122	Is the working deck painted with non-slip paint?			X
8123	Check the cleanliness of the deck, (no remnants of previous cargoes)			X
8124	Internal Compartments are to be dry and free of hydrocarbons. Do NOT enter any compartment,			X
General Comments:				

8	Vessel Capability - ABU Specific Environmental	Yes	No	NA
8125	Does the vessel have asset (WHS / GOR / JANSZ) subsea infrastructure and pipelines included on vessel marine charts?			X
8126	Is the vessel working under the Gorgon DomGas operational area?			X
8127	If yes, has the vessel been provided with Bombora location data?			X
8128	If required, do crane operators meet the training and competency requirements of Unit of Competency – MASUP305A?			X
8129	Has the vessel completed pre-arrival reporting in accordance with the Australian Biosecurity Act 2015? i.e. Biosecurity Status Document from Department of Agriculture and Water Resources			X
8130	Spill kits adequately stocked, in good condition and available in proximity to where hazardous materials /chemicals are being stored/used?			X
8131	If the vessel will be discharging via the Oily Water Separator - Is the OWS IMO compliant and maintenance is up to date.			X
8132	If the vessel be discharging via the Sewage Treatment Plant- Is the STP IMO compliant and maintenance is up to date.			X
8133	If the vessel will be discharging food waste via a macerator- Is the macerator certified and maintenance of the macerator up to date?			X
8134	Is IAPP certification in place and IAPP record book and PMS maintenance for Engines and Incinerators up to date?			X
8135	Does the vessel have a Waste / Garbage Management Plan and is it within its review date?			X
8136	Are lidded bins provided in open areas of the vessel where waste has a risk of being blown to the ocean (e.g. general waste, loose plastic)?			X
8137	Are Waste receptacles labelled to identify waste stream, securely stored and contained?			X
8138	Are hazardous wastes stored in designated waste storage areas with secondary containment for liquid waste?"			X
8139	Vessel light spill reduced at night including lights 'off' when not required.			X
8140	Internal and external lighting managed to reduce light spill and include, where practicable: <ul style="list-style-type: none"> • Manage bridge lighting • Close curtains and blinds at night • Remove unnecessary lighting • No decorative lighting • Shielded or mounted lighting as low as practicable • Direct lighting away from the coastline and beaches. 			X
8141	Is the type of lighting least disruptive to marine turtles used on the vessel?			X
8142	Does the intended positioning/work scope of the vessel ensure that it will not be moored with lighting on within 1.5 km of turtle nesting beaches during the turtle nesting season from October to April each year at Wheatstone.			X
General Comments:				

OBSERVATIONS

Observation Number	Details	Action/ Due Date / Close out Remarks
2003	Chief Engineer, ETO, Bosun, three (3) deck ratings, and the Cook do not have evidence of holding a Certificate of Endorsement (COE) issued by the Panama flag.	Click here to enter a date.
6009	The starboard generator's running hours were 30,375 at the time of inspection, which is overdue for a complete overhaul as per PMS schedule.	Click here to enter a date.
		Click here to enter a date.
		Click here to enter a date.
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		Click here to enter a date.

UNITHAI OFFSHORE LIMITED

“UNITHAI SAMUI”

OVID AND SUPO INTERMEDIATE INSPECTION EXECUTIVE SUMMARY REPORT

08 MAY 2025

Report No. : TSMS-INSP-064/2025
Survey Date : 08 MAY 2025

CLIENT: UNITHAI OFFSHORE LIMITED

Rev. No.	Date of report sent to client	Issued	Initials of Attending Surveyor	Initials of Second Checker	Initials of Final Checker
00	15/05/2025	OVID Executive Report	CA	SK	PP



TRIPLE SEA MARINE SERVICE CO., LTD.

บริษัท ทริเพิล ซี มารีน เซอร์วิส จำกัด

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APPENDIX A: GENERAL PHOTOGRAPH**APPENDIX B: SURVEYOR LOG****APPENDIX C: PRELIMINARY DEFECTS LIST****APPENDIX D: SUPO INTERMEDIATE INSPECTION DOCUMENT**

1. INTRODUCTION

This Executive Summary Report is produced to present a summary of the OVID inspection and the findings raised during the inspection based on the OVID questionnaires in the OVID database.

This Executive Summary Report does not represent part of the OVID Inspection Report submission via the OVID Database system and shall not be read as such.

Any difference between the two is to be considered to be unintentional, whereby the submitted OVID Inspection Report shall be considered to be taken as the actual findings.

When carrying out an OVID inspection on behalf of an OCIMF member, the following guidelines need to be taken into consideration:

- Inspectors are reminded that OVID inspection reports are confidential and cannot be used or distributed outside the rules of the OCIMF-OVID Protocol.
- Upon arrival on board the inspector will introduce himself/herself and show his/her OVID accreditation card to the Master of the vessel.
- Upon completion of the inspection the inspector will in writing or verbally (Dependent on commissioning members instructions) debrief the vessel staff and owners/operator's representatives at the time of inspection only.
- The Inspector shall not enter into communication with the vessel or the owners/operators on the subject of the OVID inspection findings, except during closing meetings as described above. All such discussion concerning the inspection after the fact is for the Commissioning member and the vessel operator only.
- The inspector shall not issue any tracking register, suggested corrective action, and/or recommendations list to the vessel or the owners/operator's representative either during or at any time after the inspection has been completed.
- The inspector may take photographs which can be sent separately by e-mail to the commissioning entity but cannot be uploaded to the OVID report.
- The inspector will do fact findings and answer the questions by Y – N – N/A. Only objective evidence should be provided supporting this response.
- The inspector will refrain from putting his personal opinion in additional comments or comments on the suitability of the vessel.
- By accepting the nomination to inspect on behalf of a member company the accredited OVID inspector is stating that no other relationship exists that could influence the inspection. If the inspector believes that an existing personal or industry relationship may create an Industry Relationship the OCIMF Compliance Manager shall be contacted prior to commencing the OVID inspection.

Triple Sea Marine Service Co., Ltd. was instructed by **UNITHAI OFFSHORE LIMITED.** to conduct an OVID inspection on the Vessel "**UNITHAI SAMUI**" which is an Anchor Handling, Towing and Supply Vessel.

2. PROPOSED

2.1. The proposed use of the Vessel "Unithai Samui" is supported to **Chevron Thailand**.

2.2. The proposed of working area: Gulf of Thailand

3. EXECUTIVE SUMMARY

INSTRUCTIONS FOR SURVEY:

<i>Ref</i>	<i>Item</i>	<i>Remarks</i>
3.1.	Vessel name:	"UNITHAI SAMUI"
3.2.	Vessel type:	"Utility Vessel"
3.3.	Intended for: Operation/Procedure: Time / season: Location:	Supply, Towing and Anchor Handling. May 2025. Gulf of Thailand.
3.4.	Instructions received from:	████████████████████ – Operation Manager. thianchai.d@uniwise.co.th

CIRCUMSTANCES OF THE SURVEY:

3.5.	Date:	08 May 2025
3.6.	Place:	Sattahip Port, Thailand.
3.7.	Surveyor:	Chatchai Arunrat
3.8.	Operational condition of vessel:	Vessel in port for maintenance.
3.9.	Drafts:	Forward: 4.50 metres Aft = 4.80 metres.
3.10.	Areas unavailable for survey or not inspected:	Fuel Oil Tank, Fresh Water Tank, enclosed void spaces and underwater hull area.
3.11.	Client & key personnel in attendance:	Master, Chief Officer and Chief Engineer of "Unithai Samui".
3.12.	Preliminary Defects List	Please refer to Appendix "C" – OVID preliminary defect list.

<p>3.13.</p>	<p>General remarks:</p> <p>Triple Sea Marine Service was instructed by UNITHAI OFFSHORE LIMITED. To conduct an OVID inspection on the Utility Vessel "Unithai Samui" for the platforms transfer personal, anchor handling and another floating asset support in the Gulf of Thailand.</p> <p>"Unithai Samui" is a Utility vessel in Thailand, built by Unithai Shipyard and Engineering, Thailand delivered to owner on 29 October 2018. The vessel is owned by UNITHAI OFFSHORE LIMITED. The vessel is classed by DNV and operated in Southeast Asia region.</p> <p>Class notation</p> <p>1A Fire Fighter(I) Offshore service vessel (AHTS) BIS OILREC</p> <p>Principle Dimensions</p> <p>Length Overall : 49.98 metres</p> <p>Moulded Breadth : 15.00 metres</p> <p>Moulded Depth : 6.00 metres</p> <p>Summer Draft : 5.00 metres</p> <p>Gross Tonnage : 1,340</p> <p>Net Tonnage : 402</p> <p>Deadweight : 1,044.5 Tons</p> <p>Accommodation : 22 (crew) + Passenger.</p> <p>Bollard Pull Capacity : Astern Pull Max: 79.00 tons</p> <p style="padding-left: 150px;">Ahead Pull Max: 85.70 tons</p> <p>Deck Area : 220 m2</p> <p>Deck Cargo : 220 tons</p> <p>Certification and Documentation</p> <p>During the attendance, it was verified that all Trading Certificates and Insurance policies were in good order. All Officers' & Crew's Certificate of Competency together with Medical Check Up Reports have been verified and found in good order. Insurance policies were verified and remained valid. Shipboard Oil Pollution Emergency Plans and International Energy Efficiency Certificate (IEEC) were available at the time of the survey.</p>
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The Master, Chief Officer and Second Officer hold General Operator Certificate for GMDSS.

Navigation and GMDSS equipment

All navigation and radio equipment were in good condition, no defects reported by Master. Where possible the equipment was tested and found to be operating satisfactorily.

All electronic charts, charts and nautical publications were corrected up to date. All the other required publications listed were updated.

Logbook was up to date.

There were 3 certified GMDSS radio operators at the time of inspection. GMDSS radio logbook was checked and found in satisfactory order. Shore based maintenance agreement.

Propulsion and Machinery

"Unithai Samui" is propelled by two (2) x Niigata 8L28HX, 8 cyl, 750 rpm, Turbocharger type - TPS61D01 2353 kW each, (4,706 kW /6321.71 HP).

2 x Niigata Azimuth, Propeller fixed pitch, 4 Blade, Skewed, Diam 2700 mm, Z-Peller MODEL HLP85Y, 750 rpm.

Generators 3 x Baudouin Model: 8 M26.2-C225, 473 KW each @ 1500.

Emergency Generator 1 x SCANIA Model: DI09 074M (04-21) @ 199 KW @ 1500 rpm

Three Diesel Generators were physically tested and found in operational condition. Blackout restart procedures were displayed in the engine control room. During survey in the engine room, Bilge High Level Alarms, 15ppm Oily Water Separator, Fuel Oil Quick Closing Valve, Emergency Fire Pump, Emergency Steering, Emergency Generator and Fire Dampers were physically tested and found in operational condition. Manual operated watertight doors at engine room with indicator were randomly checked and found in operational condition.

Computerized Plan Maintenance System was implemented on board. No major maintenance or machinery defects were reported by the Chief Engineer. Bilge High Level Alarm, Emergency Steering Gear, emergency fire pump and Fuel oil quick closing valve had been tested and found in good order. The Engine Room was noted maintained in

clean and tidy condition. No sign of an oil leak was found in the Engine Room.

LSA & FFA onboard

Fire alarm panel was working satisfactorily. The smoke detector had been tested and found in good working conditions. The manual cover of the Vent Flaps was tested and found in satisfactory condition. The Oil Spill locker was inspected, items and quantity verified with the inventory list.

Watertight doors were found in satisfactory condition. The watertight door indicator had been randomly tested and found in satisfactory condition.

There were 4 x 20-man liferafts installed onboard. 1 x Rescue boat with launching davit fitted. Lifejackets and 8 Lifebuoys are available onboard.

A few Lifejackets were randomly selected to check for any signs of damage, and all were found in satisfactory condition. Lifejacket donning instructions were also posted.

Towing and anchor handling equipment

The Bollard Pull Capacity test was conducted on 17/09/2023, and certificate issued by DNV indicates 85.70 Tones Static Ahead Pull Capacity at 100% MCR. Astern 79.00 Tones Static Ahead Pull Capacity at 100% MCR.

There is an electro-hydraulic operated twin de-clutch able Water Fall type drums AHTW 150T Towing and Anchor Handling Winch installed on main deck aft of accommodation. Brake Holding Capacity at first layer was rated as 220 Tones.

FWD Tow wire original certificate original certificate issued date 27/12/2017 MBL 221 T (54 mm) x 320 mtrs (Gold nose socket) Installed 05/04/2025. Breaking test - 27/12/2023 (215 MT) FWD Tow wire original certificate original certificate issued date 27/12/2017 MBL 221 T (54 mm) x 320 mtrs (Gold nose socket) Installed 05/04/2025. Breaking test - 27/12/2023 (215 MT)

Tow wire original certificate AFT Tow wire Mil Cert. date: 28/09/2017 Breaking load 215 T (54 mm) x 970 mtrs. (Aft tow wire last test on 12/06/2024 Breaking load 198.0 T)

Towing and Anchor Handling Winches, Winch Hydraulic Brake, Remote Emergency Release and Emergency Stop Buttons on the winch control station were tested at the time of survey and found in operational condition.

There are two (2) x 10T Tugger Winches available on the main deck with 15T brake

holding capacity. 200 MT SWL retractable Shark Jaw and Towing Pins at aft main deck were physically tested and found in satisfactory condition. Emergency release was tested and found in operational condition.

Accommodation

There is crew accommodation 22 – man Total number persons vessel/unit can accommodate (max POB) as stated in safety certification.

There is a laundry room at main deck floor, equipped with 2 washers and 2 driers. TV room is available. The hospital was maintained in good condition.

The accommodation was noted in satisfactory condition. The air-conditioning system was also noted working satisfactorily. The mess room & common toilet room were in satisfactory condition.

Overall "Unithai Samui" was found in satisfactory operational condition. All the defects had been discussed with Master, Chief Engineer, and Chief Officer. We enjoyed very good co-operation during the course of the inspection.

4. GENERAL PARTICULARS

<i>Ref</i>	<i>Item</i>	<i>Remarks</i>
4.1.	Name of vessel:	"UNITHAI SAMUI"
4.2.	Type of vessel:	"Utility Vessel"
4.3.	Principal special equipment:	Anchor Handling, Fire Fighting Ship 1, Oil recovery Ship
4.4.	Flag / Port of registry:	Thailand/Bangkok.
4.5.	IMO No.:	9836311
4.6.	Year/place of construction:	Keel Laying 29 Mar 17/Delivered 29 Oct 18, Unithai Shipyard
4.7.	Year/place conversion:	NA.
4.8.	Registered owners:	Unithai Offshore Limited
4.9.	Operators:	Uniwise Offshore Limited.
4.10.	Dimensions:	LOA 49.98 m, LPP 42.35m, Breadth 15.0 m, Depth 5.0 m, Draught mod 6.2 m.
4.11.	Classification Society:	DNV
4.12.	Class notation:	1A Fire fighter(I) Offshore service vessel (AHTS) BIS OILREC
4.13.	Gross Registered Tonnage:	1,340
4.14.	Summer drafts:	5.00 Meters.
4.15.	Vessel Contact details:	
	Satcom telephone & fax:	IP phone: +66-(02)107 1769
	E-mail:	samui.unithai@gmail.com

5. CERTIFICATION & DOCUMENTATION

<i>Ref</i>	<i>Certificate</i>	<i>Date & Place issued</i>	<i>Expiry date</i>
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Flag State Certification/Classification Certification:

5.1.	Registry:	18/09/2018, Bangkok	Permanent
5.2.	International Tonnage (1969):	18/10/2018, Bangkok	Permanent
5.3.	Minimum Safe Manning Document:	23/07/2019, Bangkok	Permanent
5.4.	Port State Inspection:	NA.	-
5.5.	Document of Compliance (ISM): Annual / intermediate audit: Issued by:	17/07/2024, Songkhla NA DNV.	17/07/2029
5.6.	Safety Management Certificate: Intermediate audit: Issued by:	12/03/2024, Sattahip - DNV.	05/04/2029
5.7.	International Ship and Port Security: Intermediate audit:	12/03/2024, Sattahip -	05/04/2029
5.8.	Continuous Synopsis Report: Document No: Issued By:	NO. 2 (09/10/2019) Thai Government	
5.9.	Safety Construction, issued: Annual survey:	17/09/2023, Laem Chabang -	28/10/2028
5.10.	Safety Equipment, issued: Annual survey:	17/09/2023, Laem Chabang 14/11/2024 Sattahip	28/10/2028
5.11.	Radio Equipment, issued: Annual survey:	17/09/2023, Laem Chabang 14/11/2024 Sattahip	28/10/2028
5.12.	Cargo Ship Safety, Issued Annual survey:	NA. -	
5.13.	MODU Safety: Annual survey:	NA. -	-

Ref	Certificate	Date & Place issued	Expiry date
5.14.	International Load-line, issued: Annual survey:	17/09/2023, Laem Chabang 14/11/2024 Sattahip	28/10/2028
5.15.	IOPP, issued: Annual survey:	17/09/2023, Laem Chabang 14/11/2024 Sattahip	28/10/2028
5.16.	IAPP, issued: Annual survey:	17/09/2023, Laem Chabang 14/11/2024 Sattahip	28/10/2028
5.17.	Sewage Treatment:	17/09/2023, Laem Chabang	28/10/2028
5.18.	INLS Certificate: Annual Survey:	NA.	
5.19.	International Energy Efficiency Certificate (IEEC)	17/09/2023, Laem Chabang	-
5.20.	ILO Maritime Labour Certificate (MLC)	05/09/2023, Bangkok	04/09/2028
5.21.	International Anti-Fouling Certificate	17/09/2023, Bangkok	-
5.22.	Ship Sanitation Certificate	18/12/2024, Sattahip	6 Months
5.23.	Certificate of Class:	17/09/2023, Songkhla	28/10/2028
5.24.	Hull Special Survey: Annual survey:	14/11/2024 Sattahip	-
5.25.	Machinery Special Survey (or CSM): Annual survey:	14/11/2024 Sattahip	-
5.26.	Dry-dock Survey:	17/08/2023, Unithai Shipyard	-
5.27.	Class recommendations:	None.	-
5.28.	Vessel's certified trading area:	Near Coastal.	-

Safety Equipment:

5.29.	Liferafts:	20 x 4, 29/07/2024	28/07/2025
5.30.	Fire-Fighting Equipment:		
	Portable extinguishers:	29/05/2024	1 year
	CO ₂ system:	29/05/2024	1 year

<i>Ref</i>	<i>Certificate</i>	<i>Date & Place issued</i>	<i>Expiry date</i>
	FFA/LSA Plan approve:	Approved by class	-

Other Certification:

5.31.	Lifting Appliances, Quadrennial: Crane Annual:	11/04/2025	1 year
5.32.	Insurance: Hull & Machinery: P&I: Civil Liability Certificate for Bunker Oil Pollution:	20/02/2025, OneGobal 20/02/2025, Shipowner 20/02/2025, Shipowner	19/02/2026 20/02/2026 20/02/2026

Documentation:

5.33.	Stability Booklet / Damage Control Plans Approval letter: Stability Computer Approval:	Yes, Approved by DNV 06/08/2018 BV	-
5.34.	Ship Security Plan:	Available on board, approved by DNV	-
5.35.	Cargo securing manual:	Available on board, approved by Flag	-
5.36.	SOPEP Manual:	Available on board, approved by DNV	-
5.37.	SMPEP Manual:	NA.	-
5.38.	Oil Record Book – Part I:	Available on board.	-
5.39.	Garbage Logbook:	Available on board.	-
5.40.	Garbage management plan:	Company procedure.	-
5.41.	Ballast water management plan & log: D-1 standard - The D-1 standard requires ships to conduct an exchange of ballast water such that at least 95% of water by volume is exchanged far away from the coast.	NA.	-

Ref	Certificate	Date & Place issued	Expiry date
5.42.	Ballast water management plan & log: D-2 standard - The D-2 standard specifies that ships can only discharge ballast water that meets the following SOLAS requirement criteria.	NA	-
5.43.	Medical Locker Certificate:	31/07/2024	1 year
5.44.	International Ship Energy Efficiency Management Plan (SEEMP)	Available on board.	-
5.45.	ILO Maritime Labour Convention – Declaration of Compliance:	05/10/2023, Thai government	04/10/2028
5.46.	Ozone depleting substances in compliance with MARPOL or local requirements.	NA.	-

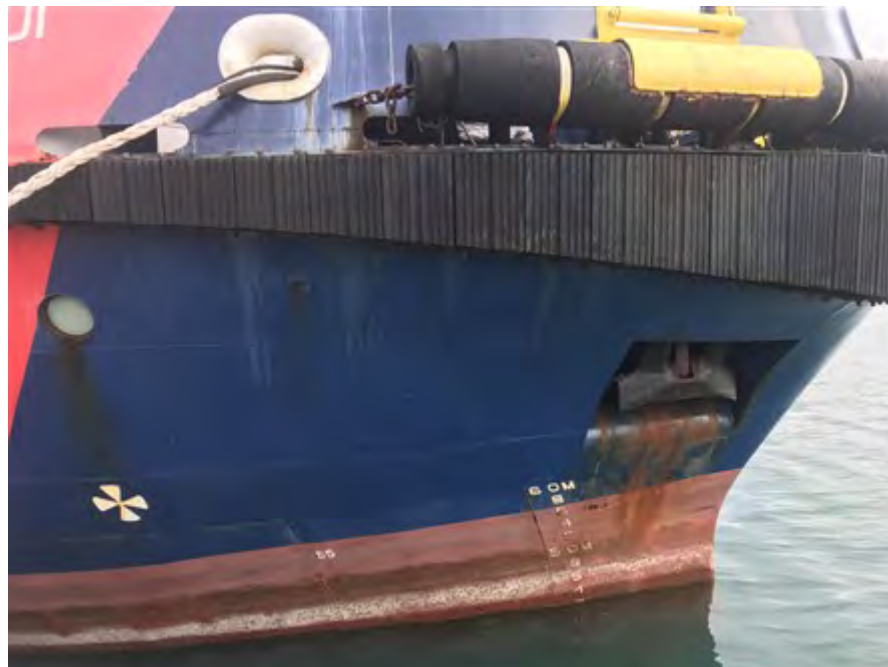
APPENDIX "A"

PHOTOGRAPHS



PHOTOGRAPH 1

Vessel on Starboard Bow View.



PHOTOGRAPH 2

Vessel on Starboard Side bow view



PHOTOGRAPH 3

Starboard quarter View.



PHOTOGRAPH 4

Main deck looking forward



PHOTOGRAPH 5

Main deck looking Aft



PHOTOGRAPH 6

Forward Mooring Arrangement and Windlass condition



PHOTOGRAPH 7

Forward Main tow wire condition



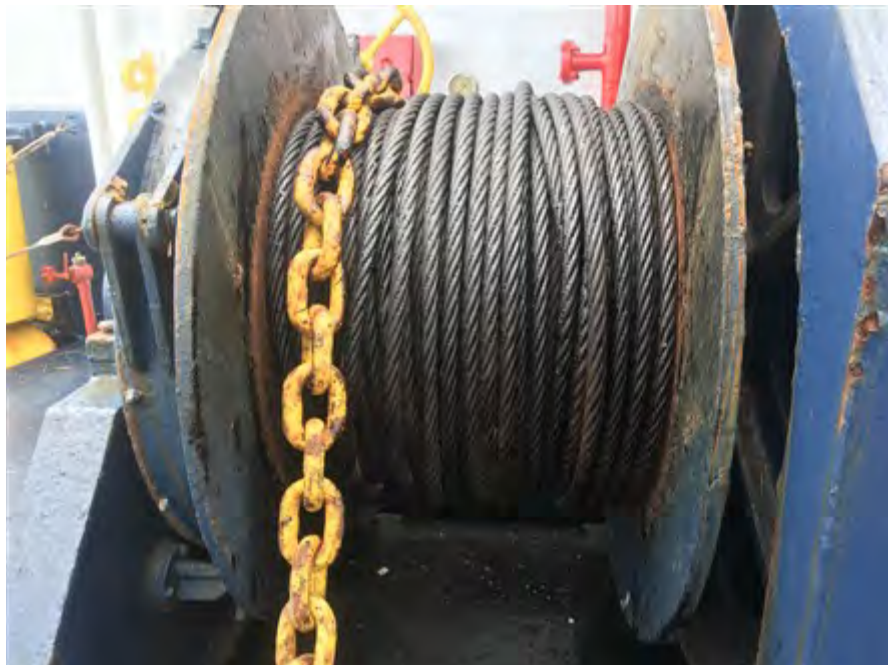
PHOTOGRAPH 8

Stern tow wire condition



PHOTOGRAPH 9

Work wire condition



PHOTOGRAPH 10

Tugger wire condition



PHOTOGRAPH 11

Tow wire end socket



PHOTOGRAPH 12

Work wire end socket



PHOTOGRAPH 13

Stern Roller condition



PHOTOGRAPH 14

Shark Jaw and Tow Pin testing



PHOTOGRAPH 15

Mooring Bollard condition



PHOTOGRAPH 16

Deck Capstan condition



PHOTOGRAPH 17

Forward Searching Light testing



PHOTOGRAPH 18

Aft Search light testing



PHOTOGRAPH 19

Bunker manifold



PHOTOGRAPH 20

Deck crane condition



PHOTOGRAPH 21

Forward Bridge Control



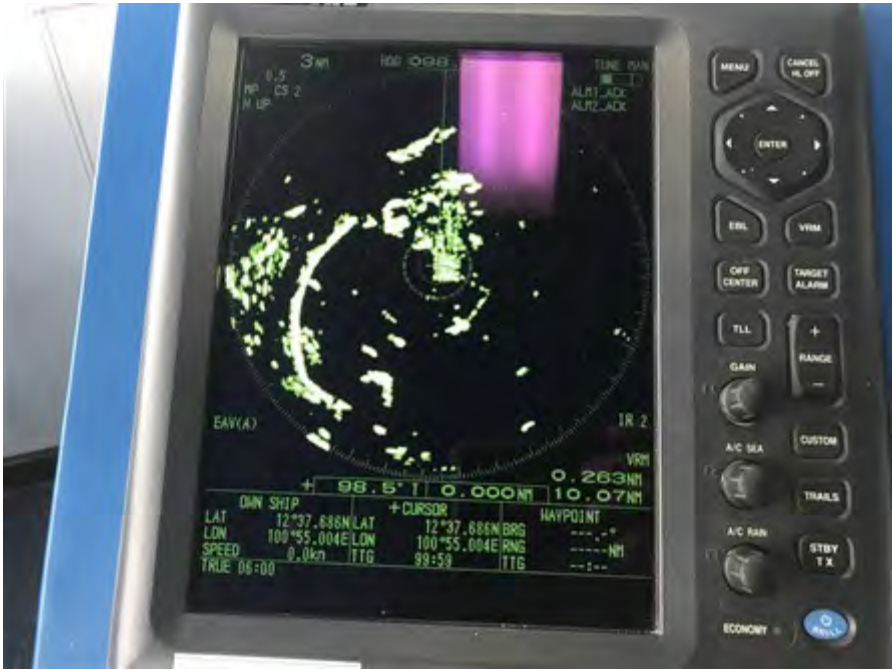
PHOTOGRAPH 22

Aft Bridge control



PHOTOGRAPH 23

Echo sounder



PHOTOGRAPH 24

Radar



PHOTOGRAPH 25

Bridge watch alarm system



PHOTOGRAPH 26

CCTV monitor

**PHOTOGRAPH 27**

Doppler speed log

**PHOTOGRAPH 28**

Shark Jaw & Tow pin control panel



PHOTOGRAPH 29

Winch tension meter



PHOTOGRAPH 30

Tow winch and work winch control panel



PHOTOGRAPH 31

GPS equipment



PHOTOGRAPH 32

Fire detector alarm panel



PHOTOGRAPH 33

Navigation Light control panel



PHOTOGRAPH 34

Navtex receiver



PHOTOGRAPH 35

Watertight door indicator panel



PHOTOGRAPH 36

Main Engine



PHOTOGRAPH 37
Engine Control Room



PHOTOGRAPH 38
Oily water separator - testing



PHOTOGRAPH 39
Overboard Discharge valve

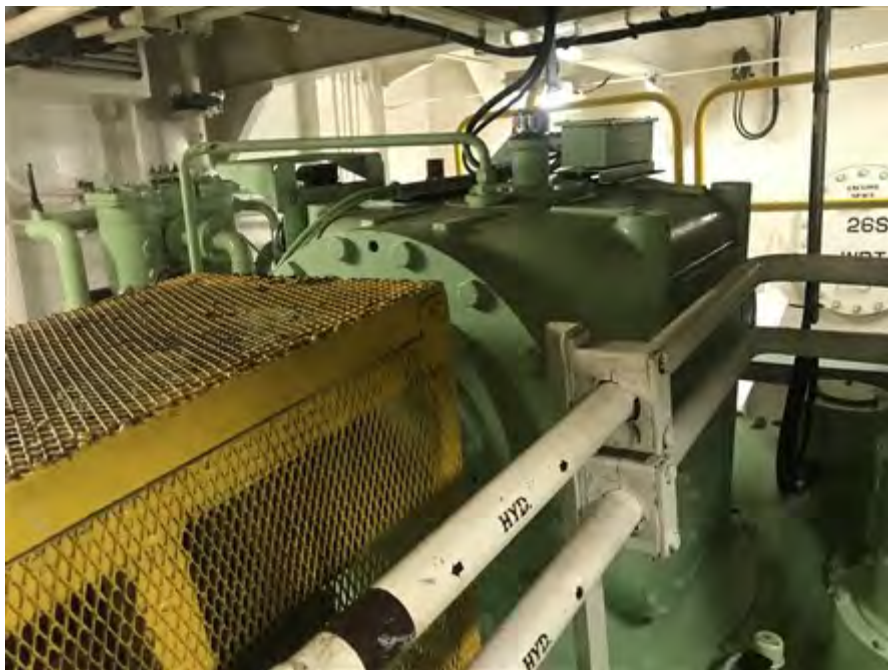


PHOTOGRAPH 40
Real time flow meter



PHOTOGRAPH 41

Generator condition



PHOTOGRAPH 42

Azimuth Thruster condition



PHOTOGRAPH 43

Main Fire Pump



PHOTOGRAPH 44

Hydraulic Power Pack



PHOTOGRAPH 45

Life Rafts condition



PHOTOGRAPH 46

Life Rafts condition



PHOTOGRAPH 47

Emergency Fire pump testing



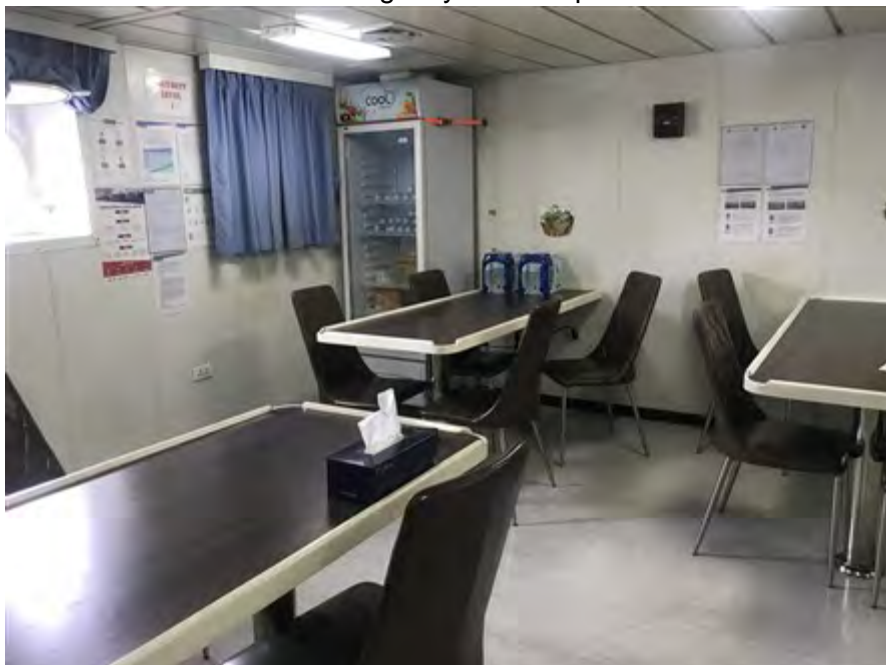
PHOTOGRAPH 48

CO2 room



PHOTOGRAPH 49

Emergency fire Pump



PHOTOGRAPH 50

Mess Room Condition

APPENDIX “B” SURVEYOR LOG






TRIPLE SEA MARINE SERVICE CO., LTD.
บริษัท ทริเพิล ซี มารีน เซอร์วิส จำกัด

Time Sheet

Attending Vessel Inspection Survey

[illegible]

Signed by the attending Marine Advisor:	Signed by the Client's Advisor:
	
 Surveyor of Triple Sea	 Uniwise Offshore Limited



APPENDIX "C"

PRELIMINARY DEFECTS LIST

OVID number	UNITHAI SAMUI - OVID and SUPO Intermediate Inspection Preliminary defect list- 08 May 2025	Remark
2.3.2	Class memoranda - 27-09-2019 - " There is no dedicated saltwater tank on board. ". BWM is not applicable.	
2.4.1	SOLAS consolidate 2024 edition was not available on board.	
5.9.3	There was no banksman with OPITO stage 3 certificate available on board.	
8.8.19	Last incident had occurred on 13/07/2024 - vessel main tow wire was entangled with rig spud can. All incident investigation had closed out.	
11.1.10	Last lube oil analysis was conducted on 21/02/2025. There were some warnings on Z Peller Port and Z Peller Stbd - found high copper in oil sample.	
12.1.1	There was some marine growth that existed on vessel hull area.	
	SUPO - Preliminary defect list	
8053.00	The work winch was not fitted with spooling gear.	
8058.00	Grapnel was not available on board.	
	Inspection focus area	
	1. Anchor Handling, Towing Equipment and Certification	
1	FWD Tow wire original certificate original certificate issued date 27/12/2017 MBL 221 T (54 mm) x 320 mtrs (Gold nose socket) Installed 05/04/2025. Breaking test - 27/12/2023 (215 MT) Tow wire original certificate AFT Tow wire Mil Cert. date: 28/09/2017 Breaking load 215 T (54 mm) x 970 mtrs. (Aft tow wire last test on 12/06/2024 Breaking load 198.0 T)	Information
2	Tow wires and a work wire were fitted with Gold Nose socket type.	Information
3	The last MPI test of tow wire and work wire socket and towing shackle was conducted on - 29/11/2024.	Information
4	Work wire original certificate issued date 08/08/2022. Breaking load 221.0 T and install on 09/09/2023 (Size 54 mm x 310 m). Breaking test - 184.0 T (14/09/2023)	Information

5	Maximum horizontal and vertical transverse tow line forces diagrams posted on stern control panel.	Information
6	Last Emergency release for tow and work wires test on 08/05/2025.	Information
7	Spare forward tow wire certificate issued date 29/04/2024. 54 mm x 320. MBL - 228 T. Breaking test - 17/04/2025 (207 T)	Information
8	The Main and Spare tow wire was fitted with gold nose socket.	Information
9	Last bollards pull test was conducted on 17/09/2023 (Approved by DNV) Astern Pull Max: 79.00 tons Ahead Pull Max: 85.70 tons	Information
10	Last tension/counting meter calibrated on 10/04/2025	Information
11	Emergency release for tow pin and Shark jaw was conducted during attendance. Satisfactory condition.	Information
12	Insert of Shark Jaw 2 sets were available on board.	Information
13	FWD Stretcher, 12" Circ x 20mtr, 8 STRAND mixed rope stretcher c/w both end thimble eye, MBL 226MT, Certificate issued date 20/08/2024. Installation 05/04/2025	Information
14	No Grapnel available on board	
15	J-hook 110 MT available on board	Information
16	Break holding test of Tow & Work winches was carried out during attendance. Satisfactory working conditions.	Information
	2. Lifting Equipment	
17	Lifting equipment inspection & maintenance plan was update.	Information
18	Last rescue boat David annual service on 14/11/2024.	Information
19	The last Provision crane annual inspection was conducted on 11/04/2025. Last load test 08/09/2023.	Information
	3. Fuel hose & Fuel management	
20	The last hose test was conducted on 13/03/2025. The last supplied was in Aug 2022.	Information

21	Last Real time flow meter calibration was conducted on 03/05/2023	Information
22	Last calibration of flow meter for diesel transfer was conducted on 03/05/2023	Information
	4. Power Management Systems and Engines	
23	Black Out Recovery Procedures were available on board. Last Black Out Recovery drill on 05/05/2025.	Information
24	A/E 3 running hours 6178 hrs., A/E 1 running hours - 7976 hrs. AE/2 running hours - 7275 hrs.	Information
25	M/E P running hour 12794 hrs. M/E S running hours - 12583 hrs.	Information
	5. Cargo Securing Equipment, Mooring and Supply Operations	
26	Cargo lashing register and certificate were available on board.	Information
27	Areas on the deck which are not to be used for cargo stowage clearly marked.	Information
28	Sufficient cargo Securing Gear available on board.	Information
29	Certificate of Fitness or Document of Compliance for the carriage of dangerous Goods on deck is available on board.	Information

APPENDIX "D"

SUPO INTERMEDIATE INSPECTION DOCUMENT



SUPO/INTERMEDIATE INSPECTION

Marine Safety, Reliability and Efficiency (MSRE) Standardized OE Process – Chevron Marine Standard – Rev 2 – 24 May 2023

Requirement 2.0 Vessel Assurance

1	Inspection Details	
1001	Vessel Name	Unithai Samui
1002	Inspection Date	08 May 2025
1003	Port of Inspection	Sattahip port
1004	Inspectors Name	Chatchai Arunrat
1005	Last OVIQ Inspection date	29 May 2024
1006	Date OVPQ Last Updated	02 May 2025
1007	Master's Name	Capt. Chakart Nudchana
1008	Scope of Work	Anchor Handling, Tug, Supply vessel
	Vessel Capability Variant Being Inspected	Comments
1009	Dynamic Positioning	NA
1010	Cargo Operations, Crane Operations or Bunkering	Yes
1011	Spread Moorings	NA
1012	Anchor Handling (AHTS) or Towing	Yes
1013	Crew Boats (Alucats, Petro-Craft & Surfers)	NA
1014	Pipe Lay	NA
1015	Ship Assist or Escort Tug	Yes
1016	Emergency Rescue or Response	Yes
1017	SEWOP (Lift Boats)	NA
1018	Barge	NA
1019	ABU	NA
Inspection Instructions		
	<ul style="list-style-type: none"> Prior to the inspection, an opening meeting is to be called to ensure that the vessel crew understand the purpose of this inspection. Inspector to use this form to conduct the inspection. Sections 1 through 7 shall be completed for all vessels. The vessel capability variant will determine which parts of section 8 are to be completed. Record all comments and dates as required. All information related to "No" responses above are to be noted in Observations section of inspection form. The inspector shall ensure that any applicable photographic evidence clearly captures the objective a "No" answer. The inspection shall be conducted in an objective manner. Capture any evidence as required – this may be done on any external device. On completion of the inspection, the inspector is to advise the Master and the crew of all observations noted. This is to be done so verbally, do not leave a copy of the completed inspection on board. If required, the Master/Crew may make their own notes. Once the inspector has access to the internet, follow the link provided on the original commissioning email and complete the inspection along with entering comments and uploading evidence as required. 	

One Upstream Marine Standard | One risk management process | Zero incidents



2	General, Certification & Documentation	Yes	No	NA
2001	Does vessel have current certificates applicable for its size and registration?	x		
2002	Does the manning level meet or exceed that required by the local Port and Flag state and/or operations the vessel is engaged in?	x		
2003	Are crew certification originals and valid? Are crew Competency requirements as defined in section 3.2.2 of the Marine Standard met?	x		
2004	All crew have FFD (Fitness for Duty) / medical certificates?	x		
2005	Are project Specific Documents on board and understood including bridging documents?	x		
2006	Verify that the vessel holds ALL in-force BU Marine Notices, Guidelines, and latest Chevron Marine Standard.	x		
2007	Is the vessel equipped with the required navigational charts and publications for the area of operation?	x		
2008	Are the Master and Crew familiar with any local restrictions such as draft, no-go areas and reporting requirements?	x		
2009	Is there evidence of a risk assessment present for working the weather side of an offshore facility and is there evidence of this being communicated to the Designated MSRE Process Authority?	x		
2010	Are the Master and Crew familiar with Incident and NM reporting requirements?	x		
2011	Has the Master been briefed on the work-scope the vessel is being chartered for?	x		
2012	Cabotage / NIMASA Specific Requirements (NMA only)			
2013	Receipt for or carriage of Annual Waiver Certificate aboard for: - 1) Ownership - Required If Vessel Certificate of Registry does not state a Nigerian address. NB. Must hold an 'in-date' Annual Build Waiver.			x
2014	Receipt for or carriage of Annual Waiver Certificate aboard for: - 2) Manning – i.e. A waiver is required if any crew aboard (crewlist) are not Nigerian nationals NB. Vessel must hold an 'in-date' Waiver.			x
2015	Receipt for or carriage of Annual Waiver Certificate aboard for: - 1) Building – i.e., if vessel constructed outside Nigeria, then vessel must hold an 'in-date' Annual Building Waiver.			x
2016	Vessel Owning Company holds a valid NIMASA Registration Certificate & copy is carried aboard the vessel. This is an Annual Cert and is required to be carried aboard the vessel			x
General Comments:				

3	Inspection Close outs / Standards of Management & Culture	Yes	No	NA
3001	Are Open Deficiencies from the latest OVIQ Inspection Closed? Include a list with the status of all deficiencies.	x		
3002	Are Open Deficiencies from the latest SUPO Inspection Closed? Include a list with the status of all deficiencies.	x		
3003	Are Open Deficiencies from the latest Internal Audit Closed? Include a list with the status of all deficiencies.	x		
3004	Are all Incident and Near Miss Reports Closed out? Include a list of all Incidents and Near Misses recorded within the last 12 months	x		
3005	Is the vessel's OVPQ up to date with the latest certification details?	x		
3006	Is a copy of the most recent Chevron Marine Standard onboard?	x		
General Comments:				
Bridging document was available and implemented on board.				

4	Hazard Identification / Standards of Management & Culture – Bridge, Deck, Galley & Hull	Yes	No	NA
4001	Is the gangway adequately secured on board the vessel? Does inboard end of the gangway rests on or is flush with the top of the bulkhead, is a bulwark ladder provided? (Gangway shall not rest on ship rails unless it has been reinforced for that purpose) Is the gangway in good condition and certified? Is a life ring with a self-activating light and buoyant safety line attached and available adjacent to the gangway location?	x		
4002	Are walkways clear of tripping hazards?	x		
4003	Are clearances, pinch points, slips, trips and fall hazards highlighted (including guards)?	x		
4004	Is all Bridge Equipment including communication equipment in good working order?	x		
4005	Are handrail and ladders in good condition, clean and free from obstruction?	x		

4006	Are decks nonslip in relevant areas?	X		
4007	Are the stuffing tubes, sealants and bulkhead penetrations in good condition?	X		
4008	Are the Hull / deck openings, freeing ports and windows/port holes in good condition?	X		
4009	Is shell plating and internal structure joints in good condition?	X		
4010	Are the remote operated valves and controls in good condition and functioning?	X		
4011	Does the galley have adequate fire protection devices including the fire blanket?	X		
4012	Are Galley spaces, storerooms, fridges clean, neat and tidy? (Standard of housekeeping)	X		
4013	Are Drinking water facilities in good and hygienic condition?			X
4014	Are Toilet/WC facilities in a good and hygienic condition?	X		
4015	Are living accommodations in good and hygienic condition? Is the lighting within the accommodation adequate?	X		
4016	Are deck machinery, wires, dogs, cleats, and roller fairleads etc. well-greased?	X		
4017	Are mooring ropes, wires and equipment records of inspection and maintenance available?	X		
4018	Are the WT doors and access hatches on weather decks in good condition?	X		
General Comments: 4013 – Bottled water supplied on board.				

5	Hazard Identification / Standards of Management & Culture – Engine Spaces	Yes	No	NA
5001	Are walkways clear of tripping hazards?	X		
5002	Are clearances, pinch points, slips, trips and fall hazards highlighted (including guards)?	X		
5003	Is the main propulsive machinery fully operational with no reported defects?	X		
5004	Is the steering gear fully operational?	X		
5005	Specify date of last Emergency Steering test	08 May 2025		
5006	Are the generators fully operational with no reported defects?	X		
5007	Is the machinery and equipment reportedly free of intermittent faults?	X		
5008	Is Machinery Space pipe work in a satisfactory condition and free from temporary repairs?	X		
5009	Is the condition of the electrical wiring throughout the ship in a safe condition?	X		
5010	Is the lighting satisfactory?	X		
5011	Is machinery guarded where appropriate?	X		
5012	Are floor plates clean, properly secured and non-slip?	X		
5013	Are High Pressure Oil pipes secure and protectively sheathed?	X		
5014	Is exhaust pipe lagging satisfactory?	X		
5015	Are the bilges clean and bilge systems in good condition?	X		
5016	Is the emergency escape route well signed / unobstructed?	X		
5017	Are Stern Seals in good condition and free from any leaks?	X		
5018	Test the Emergency Fire Pump for satisfactory operation	X		
5019	Test the Emergency Generator for satisfactory operation	X		
General Comments: 5018;5019 – Emergency fire pump and emergency generator had tested during attendance. Satisfactory condition.				

6	Safety Management / Crew Involvement / Personal Protective Equipment/PMS	Yes	No	NA
6001	When was the last date Stop Work Authority used and re-enforced by Supervisors? Specify Date:	03/05/2025		
6002	When was the last JSA completed? Specify Date:	08/05/2025		
6003	Are Start Work Checks in Place?	X		
6004	Are proper & adequate Personal Protective Equipment provided (reserves for replacement & visitors)?	X		
6005	Are safety drills regularly carried out and recorded? Is there a drill schedule on board? Provide a copy.	X		
6006	Is LSA in survey and good visual condition? (liferrafts, lifebuoys, PFD's, life jackets)	X		
6007	Is FFE in survey and good visual condition? (portable and fixed firefighting equipment)	X		
6008	Are there adequate medical facilities and supplies on board?	X		

6009	Is there a PMS on board? If yes, then provide latest weekly printout indicating all overdue and deferred work orders.	08/05/2025		
6010	If vessel utilizes stand-by or back-down buoys, is a procedure, Risk Assessment, JSA in place?	x		
6011	Are weather parameters including maximum limits for operation defined and known on board for the vessels work scope?	x		
General Comments: 6009 – Vessel used computer base PMS system.				

7	Safe Deck & Personnel Transfer	Yes	No	N/A
7001	Is an effective stern protection system in place?	x		
7002	If AHTS is used for cargo operations, has a Risk Assessment been conducted to mitigate crew & cargo exposure to elements, particularly working stern-to-weather?	x		
7003	Is a 'Safe Deck' Procedure implemented and understood?	x		
7004	Is a vessel specific MOPO implemented and understood?	x		
7005	Is there is evidence of personnel transfer at sea? If so, does the vessel have a safe loading/landing zone clearly marked?	x		
7006	Confirm that the Crew & Passengers as applicable have received training in the method/mod of personnel transfer.	x		
7007	Are adequate PFDs for all personnel to be transferred provided?	x		
7008	Is a JSA conducted before any personnel transfer?	x		
7009	If Swing Rope Transfer is utilised, does the vessel have a suitable RA and Procedure			x
7010	Is weather limit defined for various types of personnel transfer operations (Basket / FROG/Swing Rope)?	x		
General Comments: 7009 – Swing rope transfer was not utilised on board.				

8	Vessel Capability - Dynamic Positioning	Yes	No	NA
8001	Does the vessel have a copy of most recent Annual DP trials details (within 1 year +/- 3 months of anniversary date)?			
8002	Are all Category A recommendations closed?			
8003	Does vessel have any pending Category B or C recommendations?			
8004	Is Activity Specific Operating Guidelines (ASOG) or WSOG (MODU) limit setting agreement in place for current or intended operations?			
8005	Verify that the DPO's are familiar with the ASOG / WSOG			
8006	Verify that DP footprints are regularly recorded and compared against previous footprints and the DP Capability Plots?			
8007	Is the crew familiar with the DP manual, FMEA & Proving Trials?			
8008	Confirm that the vessel operates with OPEN Bus Tie. If not, then inform and seek guidance from the Designated MSRE Process Authority.			
8009	Is there an Electronic Technician or Engineer on board with approved training on the DP system?			
8010	Does the vessel have a Blackout Recovery procedure?			
8011	State date of last Blackout Recovery desktop drill? (Last drill was conducted on 20/01/2024)			
8012	Are vessel specific DP Field Arrival, Bridge 500m and E/R set up Checklists available and completed?			
8013	Verify that the Field Arrival Trial has been completed? This is to be verified prior to first use of the vessel or at the discretion of the designated MSRE Process Authority.			
8014	Verify the availability of the Independent Joystick			
8015	Verify DP computers and Operating Stations are in good order.			
8016	Verify that the DP controller was reset within the last 30 days			
8017	Verify all Alarm and Warning Lights on the DP console for correct operation and indication			
8018	Verify Heading limits and circle watch limits are not excessive. (3-5 degrees & 3 -5 m)			
8019	Verify all Position Reference Systems are in good working order			
8020	Verify that the DP Printer is operational.			
8021	Verify settings on Gyro are correct – speed and latitude correction set to manual during DP ops?			
8022	Verify all gyros are aligned and that the gyro error has been confirmed within the previous 6 months.			
8023	Verify that the wind sensors functional and providing an online input into the DP system.			
General Comments:				

8	Vessel Capability - Cargo Operations / Crane Operations / Bunkering	Yes	No	NA
8024	Is the lifting gear used in cargo handling colour coded in accordance with local or BU guidelines for the current year?	x		
8025	Confirm that the vessel only utilizes ratchet type chain binders for securing of cargo?	x		
8026	Are the Master & Crew aware that selective unloading (cherry picking) is not permitted?	x		
8027	Verify if Cargo Handling is as per the OCIMF "Deck Cargo Handling on board Offshore Vessels" Information paper	x		
8028	Are MSDS available for any liquid products back loaded from offshore?	x		
8029	If carried confirm that hoses used for hazardous liquid transfers have a valid test certificate?	x		
8030	If carried, are all hoses fitted with sufficient floatation collars as per GOMO?	x		
8031	Confirm that the vessel has quick dry disconnect fittings (i.e., TODO, Avery Hardall, Klaw fittings) at the manifold for use in hazardous liquid transfers?	x		
8032	Confirm that the vessel has the correct WECO connections and adapters at the manifold.	x		
8033	Do cranes and other lifting equipment on board the vessel have current certification?	x		
8034	Check condition of the crane is in good order. Verify operation to check for seal leakages on crane rams.	X		
8035	Confirm Electronic Fuel monitoring system (EFMS) is in place, is non-by-passable, and operational?	x		
8036	If no EFMS in place, an operational and calibrated totalizer meter in fuel load and discharge system?			x
General Comments:				
8036 – EFMS was fitted on board.				

8	Vessel Capability - Anchoring & Mooring System Design, Review & Safety Reinforcement (Vessels with Spread Moorings)	Yes	No	NA
8037	Are pre-move meetings conducted prior any anchor handling operations (weather, SWA, risk assessment...)?			
8038	Are comprehensive JSA's implemented prior to any mooring activity?			
8039	Minimum anchor and mooring clearances from sub-sea structures are known (set by BU) and accounted in the plan?			
8040	Are special mitigation procedures available when anchor patterns call for crossing pipelines or cables?			
8041	Are Marine Notices relating to offshore Mooring and Anchor handling located on board and contents known to crew?			
8042	Verify if Wire Management plan is in place and date of last maintenance /Inspection/Last NDT or Destructive test			
General Comments:				

8	Vessel Capability - Anchor Handling (AHTS) & Towing Vessels only	Yes	No	NA
8043	In date, test certificates shall be held on board for all Tow Spread equipment in use.	x		
8044	Tow log and tow spread maintenance program in place.	x		
8045	Valid Bollard Pull Certificate of less than 5 years old issued /endorsed by an IACS Classification society.	x		
8046	Winches have a quick release mechanism, and all have a documented functional testing regime.	x		
8047	Are bridge team members fully familiar with the location and operation of the winch emergency release mechanism, its operation and controls? Instructions are to be clearly posted nearby to the release controls.	x		
8048	Is Tow and work winch tension meter installed with a method of continuous recording and calibrated?	x		
8049	All watertight doors, hatch openings and emergency escape entrances are marked 'close at sea' and all seals and locking dogs are in satisfactory condition.	x		
8050	Confirm that the vessel has and operates with a clear deck policy during towing/anchor handling operations.	x		
8051	Confirm that the vessel ensures all watertight openings requiring to be closed/sealed during towing/anchor handling operations are done so.	x		

8052	Are work-wire / tow-wire terminations in good condition, properly terminated, steel ferrules, with swivels and associated jewellery? NB: Aluminium ferrules are not acceptable.	X		
8053	Check that spooling gear is fitted and in good condition.		X	
8054	Check the operability of mechanical stoppers. Ensure that the correct size of inserts is available for the intended work-scope.	X		
8055	Check that the vessel has the correct size of chain handling gypsies (wildcats) fitted, suitable for the proposed scope of work			X
8056	Are there sufficient shackles, split pins and lead plugs on-board for the intended work scope?	X		
8057	Is there welding and burning equipment available and are crew qualified to use it?	X		
8058	Check condition of J-Hook and grapnel, type and SWL? J Hook - SWL – 110 T		X	
8059	The master understands the principles and the consequences of 'Girting'	X		
8060	Vessel 'Gobbing' equipment is certified and MBL/SWL is the same as the tow wire and associated rigging	X		
8061	Are tow and work wire terminations fitted with snub-nosed, pee-wee, type sockets (long bow spelter sockets not permitted)	X		
8062	Verify if Wire Management plan is in place and date of last maintenance /Inspection/Last NDT or Destructive test	X		
8063	List the date of last maintenance /Inspection/Last NDT or Destructive test (Last MPI check was conducted on 29/11/2024)	X		
8064	Verify if Tow Assembly Management plan is in place and date of last maintenance /Inspection/Last NDT or Destructive test	X		
8065	List the date of last maintenance / Inspection / Last NDT or Destructive test of the Tow Assembly	X		
8066	Is the length of work wire adequate for operating depth?	54 mm x 250 m.		
8067	Confirm that no towing from hook (if fitted) is allowed	X		
8068	Confirm tow bars, aft bulwarks, stern rail, stern roller are free of sharp edges / obstructions which could damage a tow wire or prevent it from free movement.	X		
8069	Confirm that the use of polypropylene ropes for towing is not allowed	X		
8070	Conduct brake slip test for towing and work winches	X		
8071	On Terminal Export and Line Handling Tugs only, confirm the vessel is equipped with bow winch and associated equipment to safely tow from the bow.	X		
General Comments:				
8053 – Work winch was not fitted with spooling gear.				
8058 – Grapnel was not available on board.				
8055 - Chain handling gypsies was not fitted on board.				

8	Vessel Capability - Crew boats (Alucats, Petro-Craft & Surfers)	Yes	No	NA
8072	Are passenger briefings carried out (safe boarding, disembarkation, and general safety)?			
8073	Are adequate PFDs for all personnel to be transferred provided?			
8074	Are fenders in a satisfactory condition?			
8075	Is there a 30cm gap between the bow fender and boat landing ladder?			
8076	Are searchlight/s available and in working order?			
8077	Is a night vision camera available and in working order?			
8078	Is air conditioning available and in working order?			
8079	Are toilet facilities available and in working order?			
8080	Are noise levels within the passenger cabin at an acceptable level?			
8081	Are Crew boat Pilots aware of any local requirements for safe speed during hours of darkness?			
8082	Are crew boat Pilots aware of the rules for entering 500m Exclusion/Safety Zones?			
General Comments:				

8	Vessel Capability - Pipe Lay	Yes	No	NA
8083	Is there evidence that effective risk assessments are carried out for pipelay operations?			
8084	Is the firing line hazard marking and restricted access managed effectively?			
8085	Are firing line ventilation arrangements sufficient?			
General Comments:				

8	Vessel Capability - Ship Assist/Escort Tug	Yes	No	NA
8086	Is there evidence that effective risk assessments are carried out for ship assist/escort tug operations?	x		
8087	Is the length of tow line adequate for planned operation?	x		
8088	Is the MBL of tow line and associated equipment adequate for rated Bollard Pull or expected tensions for the planned operation?	x		
8089	Do short bow/snub nose type end fittings make up the tow wire terminations?	x		
8090	Have Tow wires been re-terminated in the last 2 years?	x		
8091	Are 'snap back' zones and hazards understood by crew?	x		
8092	The master understands the principles and the consequences of 'Girting'	x		
8093	Are in date test certificates held on board for all Tow Spread equipment in use?	x		
8094	Valid Bollard Pull Certificate of less than 5 years old issued /endorsed by an IACS Classification society.	x		
General Comments:				
8094 - Last bollard pull test was conducted on 17/09/2023. Ahead pull – 83.5 T, Stern pull – 77.7 T (Certificate was available on board)				

8	Vessel Capability - Emergency Rescue & Response Vessel	Yes	No	NA
8095	Is there evidence that effective risk assessments are carried out for ERRV/Stand-By operations	x		
8096	Are adequate PFDs provided and in satisfactory condition for all personnel to be transferred?	x		
8097	Are qualified personnel onboard for FRC operations and has a drill been conducted in the preceding 3 months?	x		
8098	Is the recovery time of a MOB during the last drill in accordance with the performance standards in the Safety Case if applicable?	x		
8099	Is the Dacon scoop available and has a drill been conducted in the preceding 3 months?	x		
General Comments:				
8098, 8099 – last man overboard drill was conducted on 21/04/2025.				

8	Vessel Capability - SEWOP (Lift Boats)	Yes	No	NA
8100	Is there documented evidence of NDT of the legs and racks, including lower terminus?			
8101	Is there documented evidence of annual visual inspections of the legs, racks and pinions?			
8102	Is their evidence that the vessel is following the content of any BU Marine Guidance Notes on SEWOP inspection guidelines?			
8103	If non IACS Classed, are the NDT being conducted by an IACS Class approved company?			
8104	If <300 GT, does inspection protocol meet ABS or USCG standards as outlined in Marine Standard and are these inspections being carried out by IACS Class surveyor			

8105	Are intermediate welded sections visible on the leg pinion support brackets?			
8106	Is their visual evidence of any dents or cracks to the leg structure, teeth, pinion tower?			
8107	Confirm the Jacking assemblies/planetaries are in good order			
8108	Are the legs and pinions sufficiently greased?			
8109	Is an Original Equipment Manufacturer jacking system inspection report onboard that meets all of the minimum criteria as per the Chevron Marine Standard Non-Tankers and was it conducted within the last 12 months?			
General Comments:				

8	Vessel Capability - Barge			
8110	Load line and draught marks clearly visible			
8111	Verify Hull condition, must be intact, minor indentations acceptable			
8112	Tow bridle adequate, in good condition and spread fully certified with a functional retrieval winch.			
8113	Manholes fully sealed and watertight			
8114	Tank vents are self-sealing (float type with mesh). Floats to be tested as free			
8115	Verify condition of specific build design access ladder on either side of the barge is in good condition			
8116	Verify - fully functional port, starboard and aft navigation lights with adequate power source (Battery/Solar Power)			
8117	Verify - navigational day shapes, mast and lanyard on board			
8118	Check condition of mooring ropes/wires as acceptable			
8119	Check that the barge's side rubbing band is in good condition without jagged edges and adequate fendering in place as applicable			
8120	Is the barge equipped with a fit for purpose anchor and spread with a dedicated winch and means of emergency release?			
8121	On barges without handrails is the edge highlighted with a contrasting colour to the rest of the deck?			
8122	Is the working deck painted with non-slip paint?			
8123	Check the cleanliness of the deck, (no remnants of previous cargoes)			
8124	Internal Compartments are to be dry and free of hydrocarbons. Do NOT enter any compartment,			
General Comments:				

8	Vessel Capability - ABU Specific Environmental	Yes	No	NA
8125	Does the vessel have asset (WHS / GOR / JANSZ) subsea infrastructure and pipelines included on vessel marine charts?			
8126	Is the vessel working under the Gorgon DomGas operational area?			
8127	If yes, has the vessel been provided with Bombora location data?			
8128	If required, do crane operators meet the training and competency requirements of Unit of Competency – MASUP305A?			
8129	Has the vessel completed pre-arrival reporting in accordance with the Australian Biosecurity Act 2015? i.e. Biosecurity Status Document from Department of Agriculture and Water Resources			
8130	Spill kits adequately stocked, in good condition and available in proximity to where hazardous materials /chemicals are being stored/used?			
8131	If the vessel will be discharging via the Oily Water Separator - Is the OWS IMO compliant and maintenance is up to date.			
8132	If the vessel be discharging via the Sewage Treatment Plant- Is the STP IMO compliant and maintenance is up to date.			
8133	If the vessel will be discharging food waste via a macerator- Is the macerator certified and maintenance of the macerator up to date?			
8134	Is IAPP certification in place and IAPP record book and PMS maintenance for Engines and Incinerators up to date?			
8135	Does the vessel have a Waste / Garbage Management Plan and is it within its review date?			

8136	Are lidded bins provided in open areas of the vessel where waste has a risk of being blown to the ocean (e.g. general waste, loose plastic)?			
8137	Are Waste receptacles labelled to identify waste stream, securely stored and contained?			
8138	Are hazardous wastes stored in designated waste storage areas with secondary containment for liquid waste?"			
8139	Vessel light spill reduced at night including lights 'off' when not required.			
8140	Internal and external lighting managed to reduce light spill and include, where practicable: • Manage bridge lighting • Close curtains and blinds at night • Remove unnecessary lighting • No decorative lighting • Shielded or mounted lighting as low as practicable • Direct lighting away from the coastline and beaches.			
8141	Is the type of lighting least disruptive to marine turtles used on the vessel?			
8142	Does the intended positioning/work scope of the vessel ensure that it will not be moored with lighting on within 1.5 km of turtle nesting beaches during the turtle nesting season from October to April each year at Wheatstone.			
General Comments:				

OBSERVATIONS		
Observation Number	Details	Action/ Due Date / Close out Remarks
8053	Work winch was not fitted with spooling gear.	08 June 2025
8058	Grapnel was not available on board.	08 June 2025

UNIWISE OFFSHORE LIMITED.

“UNIEXPRESS 18”

OVID EXECUTIVE SUMMARY REPORT

04 JULY 2025

Report No. : TSMS-INSP-086/2025

Survey Date : 04 July 2025

CLIENT: UNIWISE OFFSHORE LIMITED.

Rev. No.	Date of report sent to client	Issued	Initials of Attending Surveyor	Initials of Second Checker	Initials of Final Checker
00	04/07/2025	Executive Report	CK	SK	PP



Triple Sea Marine Service Co.,Ltd.
145/11 M.6 Soi. Paneadchang
Naklua Banglamung Chonburi 20150
Tel: 038-716038 Fax: 038-716039,
Email: pakorn.p@3seamarine.com

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3.	EXECUTIVE SUMMARY	4
4.	GENERAL PARTICULARS	8
5.	CERTIFICATION & DOCUMENTATION	9

APPENDIX A: GENERAL PHOTOGRAPH**APPENDIX B: SURVEYOR LOG****APPENDIX C: PRELIMINARY DEFECTS LIST****APPENDIX D: SUPO-INTERMEDIATE INSPECTION**

1. INTRODUCTION

This Executive Summary Report is produced to present a summary of the OVID inspection and the findings raised during the inspection based on the OVID questionnaires in the OVID database.

This Executive Summary Report does not represent part of the OVID Inspection Report submission via the OVID Database system and shall not be read as such.

Any difference between the two is to be unintentional, whereby the submitted OVID Inspection Report shall be taken as the actual findings.

When carrying out an OVID inspection on behalf of an OCIMF member, the following guidelines need to be taken into consideration:

- Inspectors are reminded that OVID inspection reports are confidential and cannot be used or distributed outside the rules of the OCIMF-OVID Protocol.
- Upon arrival on board the inspector will introduce himself/herself and show his/her OVID accreditation card to the Master of the vessel.
- Upon completion of the inspection the inspector will in writing or verbally (Dependent on commissioning members instructions) debrief the vessel staff and owners/operator's representatives at the time of inspection only.
- The Inspector shall not enter communication with the vessel or the owners/operators about the OVID inspection findings, except during closing meetings as described above. All such discussion concerning the inspection after the fact is for the Commissioning member and the vessel operator only.
- The inspector shall not issue any tracking register, suggested corrective action, and/or recommendations list to the vessel or the owners/operator's representative either during or at any time after the inspection has been completed.
- The inspector may take photographs which can be sent separately by e-mail to the commissioning entity; but cannot be uploaded to the OVID report.
- The inspector will do fact findings and answer the questions by Y – N – N/A. Only objective evidence should be provided supporting this response.
- The inspector will refrain from putting his opinion on additional comments or comments on the suitability of the vessel.
- By accepting the nomination to inspect on behalf of a member company the accredited OVID inspector is stating that no other relationship exists that could influence the inspection. If the inspector believes that an existing personal or industry relationship may create an Industry Relationship the OCIMF Compliance Manager shall be contacted prior to commencing the OVID inspection.

Triple Sea Marine Service Co., Ltd. was instructed by UNIWISSE OFFSHORE LIMITED. to conduct an OVID and SUPO inspection on the Vessel **"UNIEXPRESS 18"** is a Crew Boat.

2. PROPOSED

2.1. The proposed use of the Vessel “UNIEXPRESS 18” is supported to **Chevron Thailand**.

2.2. The proposed of working area: Gulf of Thailand

3. EXECUTIVE SUMMARY

INSTRUCTIONS FOR SURVEY:

<i>Ref</i>	<i>Item</i>	<i>Remarks</i>
3.1.	Vessel name:	“UNIEXPRESS 18”
3.2.	Vessel type:	Crew boat.
3.3.	Intended for:	
	Operation/Procedure:	Passenger transfer operation to / from offshore installations.
	Time / season:	July 2025.
	Location:	Gulf of Thailand.
3.4.	Instructions received from:	[REDACTED] – thianchai.d@uniwise.co.th Operation Manager – Uniwise Offshore Ltd "Sattahip Base"

CIRCUMSTANCES OF THE SURVEY:

3.5.	Date:	04 July 2025.
3.6.	Place:	Sattahip port, Thailand.
3.7.	Surveyor:	Cherdsak Kedwong.
3.8.	Operational condition of vessel:	Vessel in port for maintenance.
3.9.	Drafts:	Forward: 1.10 metres Aft = 1.30 metres.
3.10.	Areas unavailable for survey or not inspected:	Fuel Oil Tank, Fresh Water Tank, enclosed void spaces and underwater hull area.
3.11.	Client & key personnel in attendance:	Master, Chief Officer and Chief Engineer of “UNIEXPRESS 18”. Capt. Thianchai Dhankulchai., Mr. Panya Boonaneksub. – Supt.
3.12.	Preliminary Defects List	
		Please refer to Appendix “C” – Preliminary defect list.

3.13.	<p>General remarks:</p> <p>Triple Sea Marine Service was instructed by UNIWISE OFFSHORE LIMITED. to conduct an OVID and SUPO inspection on the Crew Boat "UNIEXPRESS 18" for the transportation of personnel to, from, and between offshore installations, platforms, and other floating support assets in the Gulf of Thailand.</p> <p>General remarks:</p> <p>"UNIEXPRESS 18" is a Thai flag aluminum boat delivered on 17 February 2011 by MARSUN Shipyard in Thailand and the vessel is owned by Uniwise Offshore Ltd. The vessel is classed by DNV and operated in Southeast Asia region.</p> <p>Class notation: 1A HSLC CREW R1.</p> <p>Principle Dimensions</p> <p>Length (overall): 40.00 meters.</p> <p>Mould Breadth : 7.60 metres.</p> <p>Moulded Depth: 3.60 metres.</p> <p>Gross Tonnage : 247.00 tons.</p> <p>Accommodation capacity: 90 Pax (Crew & Pax).</p> <p>Certification and Documentation</p> <p>During my attendance onboard, it was verified that all Trading Certificates and Insurance policies were in good order.</p> <p>Company approved SMS available on board. SMC Certificate - issued on 18/07/2024.</p> <p>The Stability program was not a class/flag approved. The vessel was provided with a "Stability Booklet" which was reviewed by Class on 08/02/2019 and "Damage Stability Calculation" available onboard.</p> <p>All Officers' & Crew's Certificate of Competency together with Medical Check Up Reports have been verified and found in good order.</p> <p>Last Nolie survey was done on 30/05/2025.</p> <p>The Cargo Securing Manual was approved by flag, cargo securing register was available on board and recorded were maintain.</p>
-------	--

Shipboard Education Training was maintained/recorded.

The Master and Chief officer holds the General Operator Certificate for GMDSS.

Navigation and GMDSS equipment

All navigation and radio equipment were in good condition, no defects reported by Master. The vessel was fitted with GPS Compass and certificate of installation was sight. Where possible the equipment was tested and found to be operating satisfactorily.

Checked and operation tested the BNWAS (Bridge navigational watch Alert System) on board and procedures/instructions available on board.

All charts and nautical publications were corrected and up to date. All other required publications were found to be valid, including the latest editions. The logbook was up to date.

Propulsion and Machinery

"UNIEXPRESS 18" is propelled by 3 x Cummins Diesel Engine. KTA38 – M2, 1950 rpm. 2 x main Generators. (80 KW each).

Black Out Recovery Procedures were available for review as listed below.

- Start -up procedures for Emergency battery Bank - available.
- Confirm there was no power supply to steer gear under EG battery mode.
- Generator Power configuration drawings for various operating modes.

Bilge High Level Alarm, Emergency Steering Gear, emergency fire pump and Fuel oil quick closing valve had been tested and found in good order.

The critical spare part was updated as per minimum stock requirement.

During the survey onboard, Vessel center Main engine swing is under renewal and in progress by the shore contractor. Steering gear fan blower out of order, under repair by shore contractor, Freezer Sea water pumps No.1 and 2 are under replacement of the mechanical seal by the shore contractor. After completing it, we were tested. All found satisfactory. Moreover, the overall housekeeping needs to be done. The overall housekeeping needs to be done.

LSA & FFA

The fire alarm panel was tested and found to be in good order.

The manual cover of the Vent Flaps was tested and found in satisfactory condition.

The Oil Spill kit box on deck was inspected, items and quantity verified with the inventory list. Watertight doors were found in satisfactory condition. The watertight door indicator had been randomly tested and found in satisfactory condition.

Life rafts 4 x 20 persons, 4 x 25 persons. The Liferrafts connections to the HRU were inspected as well as the Lifebuoy's self-igniting lights and found in satisfactory conditions. All Liferrafts inspection certificates were on date.

A few Lifejackets were randomly selected to check for any signs of damage, and all were found in satisfactory condition. Lifejacket donning instructions were also posted in Passenger Spaces.

Accommodation

Passenger space was noted to be in satisfactory condition. The air-conditioning system was also noted to work satisfactorily. Passenger seats were randomly inspected for any sign of damage/defects, and all were noted in satisfactory condition. Safety belts were fitted with the passenger seat. Mess rooms were in satisfactory condition. There were 92 passenger seats fitted on board.

The wooden sheath on deck observed in satisfactory condition. Work Vests were provided for all personnel to be worn. The vessel anchor was secured on the forward deck area.

The Personnel Transfer Area on the stern of the vessel is fitted with removable handrails and not gated bulkheads. The personnel boarding arrangements on the stern (stern fendering, boarding stage, removable handrails, openings, tripping hazards and condition of lifebuoy). All found satisfactory.

All searchlights, floodlights, accommodation lights and emergency lights were tested during the survey on board. All found satisfactory.

Overall "UNIEXPRESS 18" was found to be in satisfactory operational condition. All the defects were discussed with Master, Chief Engineer, and Chief Officer together with Uniwise superintendent. We enjoyed very good co-operation during the inspection.

4. GENERAL PARTICULARS

<i>Ref</i>	<i>Item</i>	<i>Remarks</i>
4.1.	Name of vessel:	"UNIEXPRESS 18"
4.2.	Type of vessel:	Crew Boat.
4.3.	Principal special equipment:	N/A.
4.4.	Flag / Port of registry:	THAI / Bangkok.
4.5.	IMO No.:	9610054
4.6.	Year/place of construction:	02/2011 – MARSUN CO., LTD. Bangkok.
4.7.	Year/place conversion:	N/A.
4.8.	Registered owners:	Uniwise Offshore Co., Ltd..
4.9.	Operators:	Uniwise Offshore Co., Ltd.
4.10.	Dimensions:	L = 40.00 m. Mould Breath = 7.60 Depth = 3.60 m.
4.11.	Classification Society:	DNV GL.
4.12.	Class notation:	1A HSLC CREW R1.
4.13.	Gross Registered Tonnage:	247.00 tons.
4.14.	Summer drafts:	1.70 m
4.15.	Vessel Contact details:	
	Satcom telephone & fax:	+6621071495
	E-mail:	uniwiseexpress18@gmail.com

5. CERTIFICATION & DOCUMENTATION

<i>Ref</i>	<i>Certificate</i>	<i>Date & Place issued</i>	<i>Expiry date</i>
------------	--------------------	--------------------------------	--------------------

Flag State Certification/Classification Certification:

5.1.	Registry:	29/04/2025, Bangkok	Permanent
5.2.	International Tonnage (1969):	19/01/2011, Bangkok	Permanent
5.3.	Minimum Safe Manning Document:	17/05/2019, Bangkok	Permanent
5.4.	Port State Inspection:	-	-
5.5.	Document of Compliance (ISM): Annual / intermediate audit: Issued by:	07/06/2024, Bangkok - DNV	17/07/2029
5.6.	Safety Management Certificate: Intermediate audit: Issued by:	18/07/2024, Bangkok - DNV	22/07/2029
5.7.	International Ship and Port Security: Intermediate audit:	NA.	
5.8.	Continuous Synopsis Report: Document No: Issued By:	NA.	
5.9.	Safety Construction, issued: Statement of Facts for Hull Construction and Structural Fire Protection Installation on board Annual survey:	04/04/2023, Thailand	-
5.10.	Safety Equipment, issued: Annual survey:	13/05/2024, Thailand 30/04/2025, Bangkok	16/02/2026



TTSV SEA MARINE SERVICE CO., LTD.
www.ttsv.com.tw

<i>Ref</i>	<i>Certificate</i>	<i>Date & Place issued</i>	<i>Expiry date</i>
5.25.	Machinery Special Survey (or CSM): Annual survey:	10/05/2024, DNV	-
5.26.	Dry-dock Survey:	08/05/2024, DNV	-
5.27.	Class recommendations:	See defect.	-
5.28.	Vessel's certified trading area:	A1, A2	-

Safety Equipment:

5.29.	Liferafts:	04/12/2024	1 year
5.30.	Fire-Fighting Equipment: Portable extinguishers: Fix CO ₂ system: FFA/LSA Plan approve:	04/12/2024 13/11/2023 Approved by TG	1 year 2 years -

Other Certification:

5.31.	Lifting Appliances, Quadrennial: Annual:	-	-
5.32.	Insurance: Hull & Machinery: P&I: Civil Liability Certificate for Bunker Oil Pollution:	20/02/2025, OneGlobal 20/02/2025, ShipOwner -	19/02/2026 20/02/2026 -

Documentation:

5.33.	Stability Booklet / Damage Control Plans Approval letter: Stability Computer Approval:	Yes, Approved by DNV. NA.	-
5.34.	Ship Security Plan:	Company procedure.	-
5.35.	Cargo securing manual:	Available on board and approved by TG.	-
5.36.	SOPEP Manual:	Company procedure.	-

<i>Ref</i>	<i>Certificate</i>	<i>Date & Place issued</i>	<i>Expiry date</i>
5.37.	SMPEP Manual:	NA.	-
5.38.	Oil Record Book – Part I:	Available on board.	-
5.39.	Garbage Logbook:	Available on board.	-
5.40.	Garbage management plan:	Company procedure.	-
5.41.	Ballast water management plan & log: D-1 standard - The D-1 standard requires ships to conduct an exchange of ballast water such that at least 95% of water by volume is exchanged far away from the coast.	NA.	-
5.42.	Ballast water management plan & log: <u>D-2 standard</u> - The D-2 standard specifies that ships can only discharge ballast water that meets the following SOLAS requirement criteria.	None. (No ballast tank Fitted)	-
5.43.	Medical Locker Certificate:	NA.	
5.44.	International Ship Energy Efficiency Management Plan (SEEMP)	NA	-
5.45.	ILO Maritime Labour Convention – Declaration of Compliance:	18/04/2023, TG	17/04/2028
5.46.	Ozone depleting substances in compliance with MARPOL or local requirements.	NA.	-

APPENDIX “A” PHOTOGRAPHS



PHOTOGRAPH 1
VESSEL PORT BOW VIEW.



PHOTOGRAPH 2
VESSEL PORT QUARTER VIEW.



PHOTOGRAPH 3
MAIN DECK LOOKING FORWARD.



PHOTOGRAPH 4
LIFT-RAFT STARBOARD SIDE AREA.



PHOTOGRAPH 5
SEARCH LIGHT AFT (TESTING).



PHOTOGRAPH 6
TOILET CONDITION.



PHOTOGRAPH 7
PAD EYES ON DECK AND MOORING BOLLARD.



PHOTOGRAPH 8
BRIDGE – FORWARD CONTROL STATION.



PHOTOGRAPH 9
BRIDGE – AFT CONTROL STATION.



PHOTOGRAPH 10
VHF RADIO.



PHOTOGRAPH 11
BILGE ALARM AND WATERTIGHT DOOR CONTROL PANEL
(TESTING).



PHOTOGRAPH 12
EHCO SOUNDER.



PHOTOGRAPH 13
BOAT LANDING AREA.



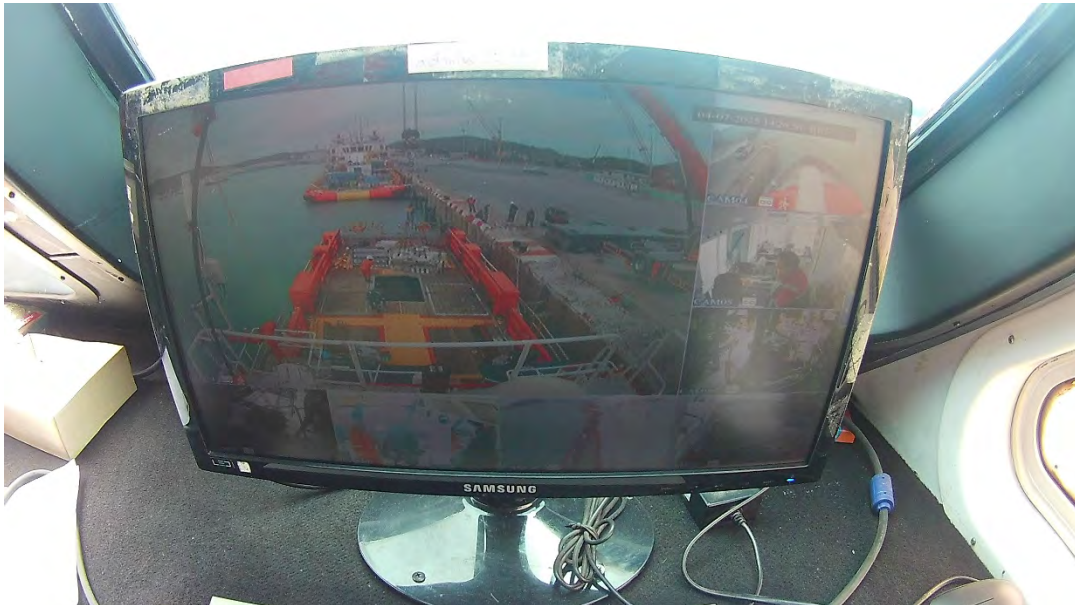
PHOTOGRAPH 14
FIRE MONITOR TESTED.



PHOTOGRAPH 15
EMERGENCY LIGHT TESTED.



PHOTOGRAPH 16
GPS.



PHOTOGRAPH 17
CCTV.



PHOTOGRAPH 18
FIRE ALARM CONTROL PANEL
(TESTED).



PHOTOGRAPH 19
ARPA AND RADAR.



PHOTOGRAPH 20
FIRE PUMP (TESTING).



PHOTOGRAPH 21
MAIN DECK LOOK AFT.



PHOTOGRAPH 22
MAIN MAST.



PHOTOGRAPH 23
INMARSAT C SYSTEM.



PHOTOGRAPH 24
BNWAS.



PHOTOGRAPH 25
MAIN ENGINE MONITOR.

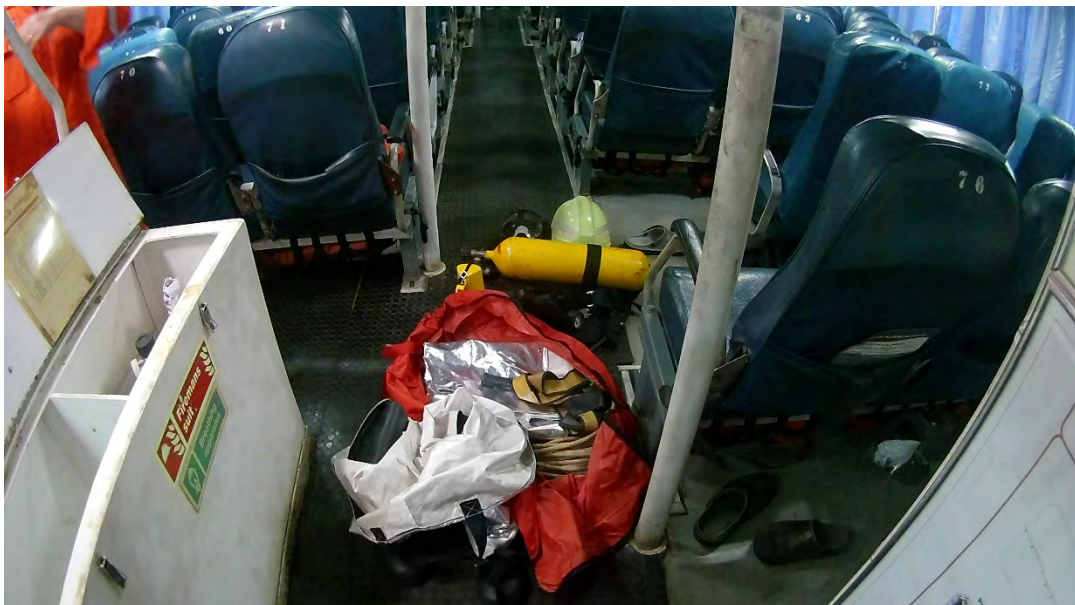


PHOTOGRAPH 26
GPS SYSTEM.



PHOTOGRAPH 27

SART.



PHOTOGRAPH 28

FIREMAN OUTFIT.



PHOTOGRAPH 29
SOPEP EQUIPMENT.



PHOTOGRAPH 30
ANCHOR CHAIN CONDITION.



PHOTOGRAPH 31
CARGO LASHING GEAR.



PHOTOGRAPH 32
FUEL TRANSFER HOSES.

8



PHOTOGRAPH 33
MARINE BREAKAWAY COUPLING.



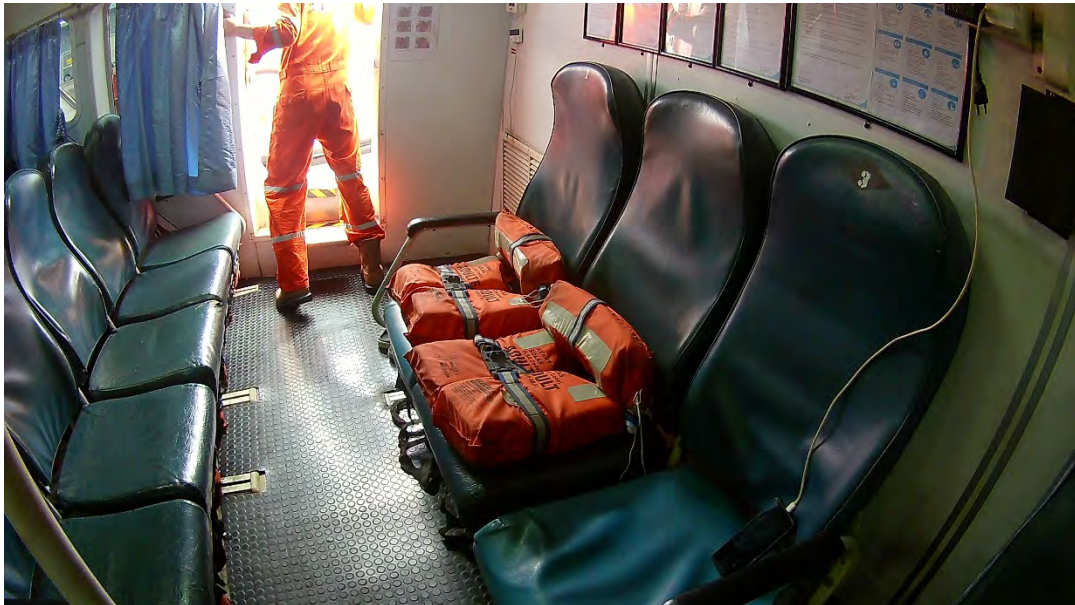
PHOTOGRAPH 34
PASSENGER SEAT.



PHOTOGRAPH 35
NAVIGATION LIGHT TESTED.



PHOTOGRAPH 36
SCAMBLE NET.



PHOTOGRAPH 37
LIFE JACKETS CHECK CONDITION.



PHOTOGRAPH 38
EMERGENCY EXIT.



PHOTOGRAPH 39
FIRE FLAPS



PHOTOGRAPH 40
CENTRE MAIN ENGINE SWING OUT.



PHOTOGRAPH 41
BATTERY CONDITION.



PHOTOGRAPH 42
BUNKER MANIFOLD CONDITION.



PHOTOGRAPH 43
EMERGENCY STEERING GEAR TESTED.



PHOTOGRAPH 44
FREEZER ALARM TESTED.



PHOTOGRAPH 45
CO2 ROOM.



PHOTOGRAPH 46
GALLEY ROOM.



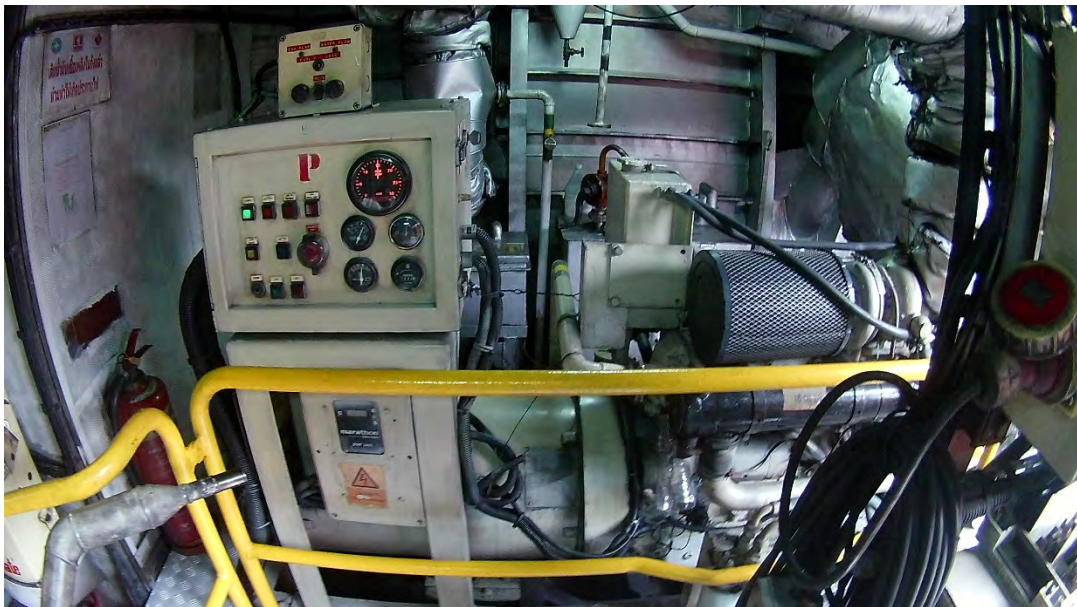
PHOTOGRAPH 47
LAUNDRY ROOM.



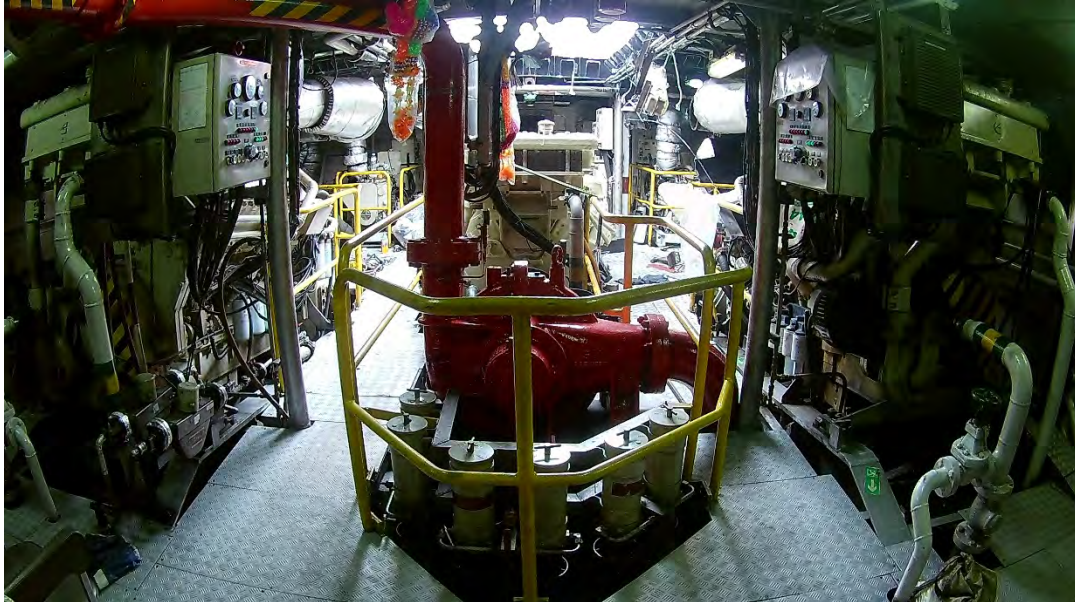
PHOTOGRAPH 48
MESS ROOM CONDITION.



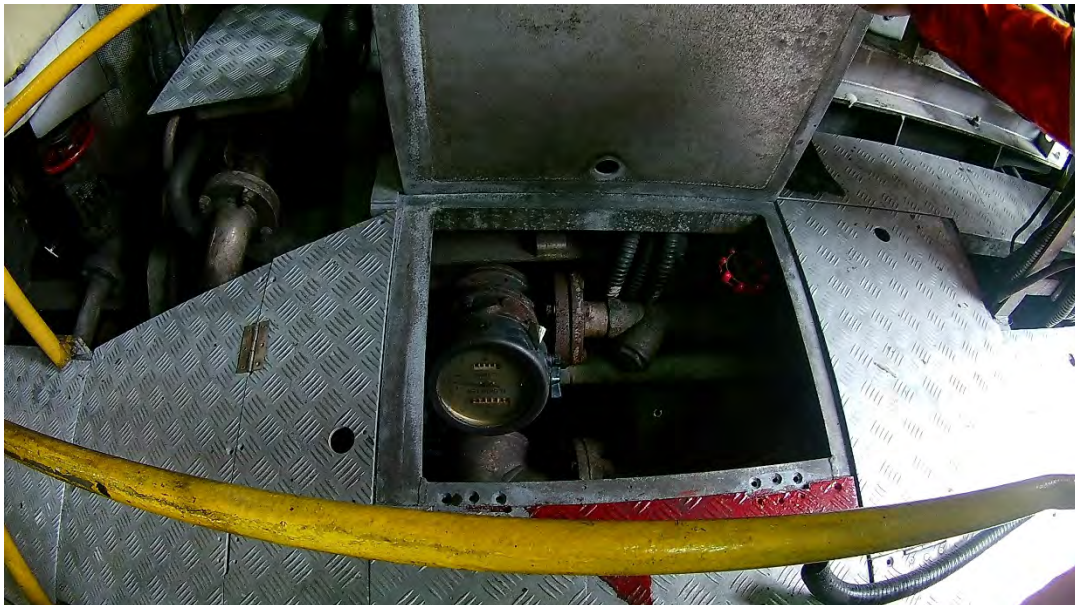
PHOTOGRAPH 49
MAIN ENGINE PORT SIDE.



PHOTOGRAPH 50
GENERATOR ENGINE STARBOARD SIDE.



PHOTOGRAPH 51
CENTER MAIN ENGINE FIRE DRIVE MONITOR PUMP.



PHOTOGRAPH 52
TRANSFER FLOW METER.



PHOTOGRAPH 53
SEWAGE TREATMENT



PHOTOGRAPH 54
FIRE PUMP.



PHOTOGRAPH 55
Generator panel control.



PHOTOGRAPH 56
FUEL TRANSFER MANIFOLD.



PHOTOGRAPH 57
REALTIME FLOW RATE METER.



PHOTOGRAPH 58
OILY WATER SEPARATOR TESTING.



PHOTOGRAPH 59
OVERBOARD DISCHARGE VALVE.



PHOTOGRAPH 60
STEERING GEAR.

APPENDIX “B” SURVEYOR LOG



Time Sheet

Attending OVID and SUPO Inspection survey

Client:	UNIWISE OFFSHORE LTD.		
Work Instruction No:	Capt. Thianchai Dhankulchai Operation Manager	Work Instruction Date:	26 th June 2025
Ref. SO Number:	TSMS-INSP-086-2025	Project Name:	OVID and SUPO Inspection "UNIEXPRESS 18"
Mission:	OVID and SUPO inspection	Surveyor Name:	[REDACTED]
Location:	Sattahip port, Thailand	Rig/Barge/Vessel:	"UNIEXPRESS 18"
Time(hrs)	Date / Events		
	Friday 4 July 2025		
0400	Depart from Base.		
0850	Arrived at Sattahip Port.		
0900 – 1600	OVID inspection "UNIEXPRESS18".		
1610	OVID inspection Demobilization from Sattahip Port.		

<p>Signed by the attending Marine Advisor:</p> <div style="background-color: black; width: 100px; height: 100px; margin: 0 auto;"></div> <div style="background-color: black; width: 150px; height: 15px; margin: 0 auto;"></div> <p>Surveyor of Triple Sea Date: 07 July 2025</p>	<p>Signed by the Client's Advisor:</p> <div style="background-color: black; width: 200px; height: 150px; margin: 0 auto;"></div> <p>Master "UNIEXPRESS18" Date: 07 July 2025</p>
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APPENDIX “C”

PRELIMINARY DEFECTS LIST

OVID number	UNIEXPRESS 18 - OVID and SUPO preliminary defect lists_04/07/2025	Remark
5.5.1	The vessel was under tonnage and did not have an approved SSP by flag and class.	
5.7.2	The last chain hoist was inspected on 08/2023.	
7.2.4	Approved stability software was not available on board.	
11.5.1	Centre Main engine swing is under renewal and in progress by the shore contractor.	
11.6.1	Steering gear fan blows out of order, under repair by shore contractor.	
12.4.10	Freezer sea water pumps No.1 and 2 are under replacement of the mechanical seal by the shore contractor.	
	SUPO preliminary defect & observation check list	
5003	Centre Main engine swing is under renewal and in progress by the shore contractor.	
5004	Steering gear fan blows out of order, under repair by shore contractor.	
5007	Freezer sea water pumps No.1 and 2 are under replacement of the mechanical seal by the shore contractor.	
8033	The last chain hoist was inspected on 08/2023.	
8077	The night-vision camera was not available onboard.	
8099	There was no Dacon scoop drill record.	
	Inspection focus area	
	1. Crew Boat Operations	
1	The class Annual survey was last conducted on 21/03/2025.	Information
2	SMC certificate valid up to 22/07/2029.	Information
3	Personnel boarding arrangements on the stern of the vessel were found to be in order.	Information
4	Cargo Securing Manual was approved by Thai Marine Department.	Information

	2. Lifting Equipment	
5	Webbing sling certificates were available on board.	Information
6	Chain block provided. Certificate on 08/2023.	
7	Deck strength allowance for crew boats is 2.0 MT / sqm.	Information
	3. Hose Management and Fuel Monitoring	
8	Bunker hoses were last supplied on 28/05/2025, 04/07/2025. The last hose test was conducted on 02/07/2025.	Information
9	Floataction collars 6 pcs were provided for fuel bunkers and freshwater hoses.	Information
10	MBC was fitted on board. The last annual test was conducted on 02/07/2025.	Information
11	Last transfer flow meter calibrates on 07/05/2024.	Information
12	Last online flow meter calibrates on 07/05/2024.	Information
	4. Power Management Systems and Testing of Black Out Recovery Procedure	
13	Black Out Recovery Procedures were available on board.	Information
14	The last Black out and Recovery Drill was carried out on 13/04/2025.	Information
	5. Navigational Equipment and Practices	
15	Confirmed that ARPA and radar were installed and functioning.	Information
16	Satellite Compass was fitted on board.	Information
17	Record passage planning available onboard and fix positions on charts.	Information
18	Echo Sounder was in working condition.	Information

	6. Personnel Transfer Operations	
19	Vessel specific JSAs were in place for personnel transfer operations.	Information
20	Personnel boarding arrangements on the stern of the vessel were found to be in order.	Information
21	Scrambling nets were provided and long enough to reach water.	Information
22	Searchlights/floodlights on stern deck and forward were in good condition.	Information
	7. Sewage Treatment and Oily Waste Disposal	
23	Sewage Treatment Plant was tested and found in good working condition.	Information
24	Oily Water Separator installed on board. Testing - satisfactory condition. Install 17/07/2018	Information
	8. Engine & control	
25	Spare part was updated as per minimum stock requirement	Information
26	Last “KOBELT” 5 years’ service on 02/10/2023.	
27	The KOBELT annual service was conducted on 04/07/2025 (by Uniwise team)	Information
28	M/E P running hours – 27,616 hrs.; M/E Centre running hours – 29,048 hrs., M/E S running hours – 4,689 hrs. (Recommend to overhaul at 30,000 hrs.)	Information
29	Gear Box PGB running hours - 14,992 hrs., CGB running hours - 7,677 hrs., SGB running hours - 2,996 hrs.	Information
30	A/E P running hours – 7,877 hrs., A/E S running hours – 7,849 hrs.	Information
31	15 PPM alarm was tested and found in good order. There was audible alarm indication fitted on board.	Information
32	Sludge tank capacity 0.40 m3. at fr 1-2.	Information

APPENDIX “D”

SUPO-INTERMEDIATE INSPECTION



SUPO/INTERMEDIATE INSPECTION

Marine Safety, Reliability and Efficiency (MSRE) Standardized OE Process – Chevron Marine Standard – Rev 2 – 24 May 2023

Requirement §2.0 Vessel Assurance

1	Inspection Details	
1001	Vessel Name	UNIEXPRESS 18
1002	Inspection Date	04 July 2025
1003	Port of Inspection	Sattahip Port, Thailand.
1004	Inspectors Name	Cherdsak Kedwong
1005	Last OVIQ Inspection date	18 July 2024
1006	Date OVPQ Last Updated	25 June 2025
1007	Master's Name	Capt. Nathakunt Sinto
1008	Scope of Work	Crew Boat
	Vessel Capability Variant Being Inspected	Comments
1009	Dynamic Positioning	NA.
1010	Cargo Operations, Crane Operations or Bunkering	Yes.
1011	Spread Moorings	NA.
1012	Anchor Handling (AHTS) or Towing	NA
1013	Crew Boats (Alucats, Petro-Craft & Surfers)	Yes
1014	Pipe Lay	NA
1015	Ship Assist or Escort Tug	NA
1016	Emergency Rescue or Response	Yes.
1017	SEWOP (Lift Boats)	NA
1018	Barge	NA
1019	ABU	NA
Inspection Instructions		
	<ul style="list-style-type: none"> Prior to the inspection, an opening meeting is to be called to ensure that the vessel crew understand the purpose of this inspection. Inspector to use this form to conduct the inspection. Sections 1 through 7 shall be completed for all vessels. The vessel capability variant will determine which parts of section 8 are to be completed. Record all comments and dates as required. All information related to "No" responses above are to be noted in Observations section of inspection form. The inspector shall ensure that any applicable photographic evidence clearly captures the objective a "No" answer. The inspection shall be conducted in an objective manner. Capture any evidence as required – this may be done on any external device. On completion of the inspection, the inspector is to advise the Master and the crew of all observations noted. This is to be done so verbally, do not leave a copy of the completed inspection on board. If required, the Master/Crew may make their own notes. Once the inspector has access to the internet, follow the link provided on the original commissioning email and complete the inspection along with entering comments and uploading evidence as required. 	

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2	General, Certification & Documentation	Yes	No	NA
2001	Does vessel have current certificates applicable for its size and registration?	X		
2002	Does the manning level meet or exceed that required by the local Port and Flag state and/or operations the vessel is engaged in?	X		
2003	Are crew certification originals and valid? Are crew Competency requirements as defined in section 3.2.2 of the Marine Standard met?	X		
2004	All crew have FFD (Fitness for Duty) / medical certificates?	X		
2005	Are project Specific Documents on board and understood including bridging documents?	X		
2006	Verify that the vessel holds ALL in-force BU Marine Notices, Guidelines, and latest Chevron Marine Standard.	X		
2007	Is the vessel equipped with the required navigational charts and publications for the area of operation?	X		
2008	Are the Master and Crew familiar with any local restrictions such as draft, no-go areas and reporting requirements?	X		
2009	Is there evidence of a risk assessment present for working the weather side of an offshore facility and is there evidence of this being communicated to the Designated MSRE Process Authority?	X		
2010	Are the Master and Crew familiar with Incident and NM reporting requirements?	X		
2011	Has the Master been briefed on the work-scope the vessel is being chartered for?	X		
2012	Cabotage / NIMASA Specific Requirements (NMA only)			
2013	Receipt for or carriage of Annual Waiver Certificate aboard for: - 1) Ownership - Required If Vessel Certificate of Registry does not state a Nigerian address. NB. Must hold an 'in-date' Annual Build Waiver.			X
2014	Receipt for or carriage of Annual Waiver Certificate aboard for: - 2) Manning – i.e. A waiver is required if any crew aboard (crewlist) are not Nigerian nationals NB. Vessel must hold an 'in-date' Waiver.			X
2015	Receipt for or carriage of Annual Waiver Certificate aboard for: - 1) Building – i.e., if vessel constructed outside Nigeria, then vessel must hold an 'in-date' Annual Building Waiver.			X
2016	Vessel Owning Company holds a valid NIMASA Registration Certificate & copy is carried aboard the vessel. This is an Annual Cert and is required to be carried aboard the vessel			X
General Comments: 1. Class Annual survey was last conducted on 21/03/2025. 2. SMC certificate valid up to 22/07/2029.				

3	Inspection Close outs / Standards of Management & Culture	Yes	No	NA
3001	Are Open Deficiencies from the latest OVIQ Inspection Closed? Include a list with the status of all deficiencies.	X		
3002	Are Open Deficiencies from the latest SUPO Inspection Closed? Include a list with the status of all deficiencies.	X		
3003	Are Open Deficiencies from the latest Internal Audit Closed? Include a list with the status of all deficiencies.	X		
3004	Are all Incident and Near Miss Reports Closed out? Include a list of all Incidents and Near Misses recorded within the last 12 months	X		
3005	Is the vessel's OVPQ up to date with the latest certification details?	X		
3006	Is a copy of the most recent Chevron Marine Standard onboard?	X		
General Comments: 1. OVPQ update on 25/06/2025. 2. Chevron Marine Standard onboard available on board. 3. An incident report with particularly root cause analysis available to inspection and reviewed. Last incident report 12/02/2025.				

4	Hazard Identification / Standards of Management & Culture – Bridge, Deck, Galley & Hull	Yes	No	NA
4001	Is the gangway adequately secured on board the vessel? Does inboard end of the gangway rests on or is flush with the top of the bulkhead, is a bulwark ladder provided? (Gangway shall not rest on ship rails unless it has been reinforced for that purpose) Is the gangway in good condition and certified? Is a life ring with a self-activating light and buoyant safety line attached and available adjacent to the gangway location?	X		
4002	Are walkways clear of tripping hazards?	X		
4003	Are clearances, pinch points, slips, trips and fall hazards highlighted (including guards)?	X		
4004	Is all Bridge Equipment including communication equipment in good working order?	X		

4005	Are handrail and ladders in good condition, clean and free from obstruction?	X		
4006	Are decks nonslip in relevant areas?	X		
4007	Are the stuffing tubes, sealants and bulkhead penetrations in good condition?	X		
4008	Are the Hull / deck openings, freeing ports and windows/port holes in good condition?	X		
4009	Is shell plating and internal structure joints in good condition?	X		
4010	Are the remote operated valves and controls in good condition and functioning?			X
4011	Does the galley have adequate fire protection devices including the fire blanket?	X		
4012	Are Galley spaces, storerooms, fridges clean, neat and tidy? (Standard of housekeeping)	X		
4013	Are Drinking water facilities in good and hygienic condition?	X		
4014	Are Toilet/WC facilities in a good and hygienic condition?	X		
4015	Are living accommodations in good and hygienic condition? Is the lighting within the accommodation adequate?	X		
4016	Are deck machinery, wires, dogs, cleats, and roller fairleads etc. well-greased?	X		
4017	Are mooring ropes, wires and equipment records of inspection and maintenance available?	X		
4018	Are the WT doors and access hatches on weather decks in good condition?	X		
General Comments:				
1. Bottled water for drinking and cooking supplied on board.				

5	Hazard Identification / Standards of Management & Culture – Engine Spaces	Yes	No	NA
5001	Are walkways clear of tripping hazards?	X		
5002	Are clearances, pinch points, slips, trips and fall hazards highlighted (including guards)?	X		
5003	Is the main propulsive machinery fully operational with no reported defects?		X	
5004	Is the steering gear fully operational?		X	
5005	Specify date of last Emergency Steering test	21/06/2025		
5006	Are the generators fully operational with no reported defects?	X		
5007	Is the machinery and equipment reportedly free of intermittent faults?		X	
5008	Is Machinery Space pipe work in a satisfactory condition and free from temporary repairs?	X		
5009	Is the condition of the electrical wiring throughout the ship in a safe condition?	X		
5010	Is the lighting satisfactory?	X		
5011	Is machinery guarded where appropriate?	X		
5012	Are floor plates clean, properly secured and non-slip?	X		
5013	Are High Pressure Oil pipes secure and protectively sheathed?	X		
5014	Is exhaust pipe lagging satisfactory?	X		
5015	Are the bilges clean and bilge systems in good condition?	X		
5016	Is the emergency escape route well signed / unobstructed?	X		
5017	Are Stern Seals in good condition and free from any leaks?	X		
5018	Test the Emergency Fire Pump for satisfactory operation	X		
5019	Test the Emergency Generator for satisfactory operation			X
General Comments:				
1. Centre Main engine swing is under renewal and in progress by the shore contractor.				
2. Freezer sea water pump No.1 and 2 are under replacement of the mechanical seal by the shore contractor.				
3. Steering gear fan blower out of order, under repair by shore contractor.				
4. Emergency Fire Pump tested. During attendance on board – Satisfactory condition.				

6	Safety Management / Crew Involvement / Personal Protective Equipment/PMS	Yes	No	NA
6001	When was the last date Stop Work Authority used and re-enforced by Supervisors? Specify Date:	02/06/2025		
6002	When was the last JSA completed? Specify Date:	04/07/2025		
6003	Are Start Work Checks in Place?	X		
6004	Are proper & adequate Personal Protective Equipment provided (reserves for replacement & visitors)?	X		
6005	Are safety drills regularly carried out and recorded? Is there a drill schedule on board? Provide a copy.	X		
6006	Is LSA in survey and good visual condition? (liferafts, lifebuoys, PFD's, life jackets)	X		

6007	Is FFE in survey and good visual condition? (portable and fixed firefighting equipment)	X		
6008	Are there adequate medical facilities and supplies on board?	X		
6009	Is there a PMS on board? If yes, then provide latest weekly printout indicating all overdue and deferred work orders.	03/07/2025		
6010	If vessel utilizes stand-by or back-down buoys, is a procedure, Risk Assessment, JSA in place?	X		
6011	Are weather parameters including maximum limits for operation defined and known on board for the vessels work scope?	X		
General Comments:				

7	Safe Deck & Personnel Transfer	Yes	No	N/A
7001	Is an effective stern protection system in place?	X		
7002	If AHTS is used for cargo operations, has a Risk Assessment been conducted to mitigate crew & cargo exposure to elements, particularly working stern-to-weather?			X
7003	Is a 'Safe Deck' Procedure implemented and understood?	X		
7004	Is a vessel specific MOPO implemented and understood?	X		
7005	Is there evidence of personnel transfer at sea? If so, does the vessel have a safe loading/landing zone clearly marked?	X		
7006	Confirm that the Crew & Passengers as applicable have received training in the method/mod of personnel transfer.	X		
7007	Are adequate PFDs for all personnel to be transferred provided?	X		
7008	Is a JSA conducted before any personnel transfer?	X		
7009	If Swing Rope Transfer is utilised, does the vessel have a suitable RA and Procedure	X		
7010	Is weather limit defined for various types of personnel transfer operations (Basket / FROG/Swing Rope)?	X		
General Comments:				

8	Vessel Capability - Dynamic Positioning	Yes	No	NA
8001	Does the vessel have a copy of most recent Annual DP trials details (within 1 year +/- 3 months of anniversary date)?			X
8002	Are all Category A recommendations closed?			X
8003	Does vessel have any pending Category B or C recommendations?			X
8004	Is Activity Specific Operating Guidelines (ASOG) or WSOG (MODU) limit setting agreement in place for current or intended operations?			X
8005	Verify that the DPO's are familiar with the ASOG / WSOG			X
8006	Verify that DP footprints are regularly recorded and compared against previous footprints and the DP Capability Plots?			X
8007	Is the crew familiar with the DP manual, FMEA & Proving Trials?			X
8008	Confirm that the vessel operates with OPEN Bus Tie. If not, then inform and seek guidance from the Designated MSRE Process Authority.			X
8009	Is there an Electronic Technician or Engineer on board with approved training on the DP system?			X
8010	Does the vessel have a Blackout Recovery procedure?			X
8011	State date of last Blackout Recovery desktop drill?			X
8012	Are vessel specific DP Field Arrival, Bridge 500m and E/R set up Checklists available and completed?	X		
8013	Verify that the Field Arrival Trial has been completed? This is to be verified prior to first use of the vessel or at the discretion of the designated MSRE Process Authority.			X
8014	Verify the availability of the Independent Joystick			X
8015	Verify DP computers and Operating Stations are in good order.			X
8016	Verify that the DP controller was reset within the last 30 days			X
8017	Verify all Alarm and Warning Lights on the DP console for correct operation and indication			X
8018	Verify Heading limits and circle watch limits are not excessive. (3-5 degrees & 3 -5 m)			X
8019	Verify all Position Reference Systems are in good working order			X
8020	Verify that the DP Printer is operational.			X
8021	Verify settings on Gyro are correct – speed and latitude correction set to manual during DP ops?			X
8022	Verify all gyros are aligned and that the gyro error has been confirmed within the previous 6 months.			X

8023	Verify that the wind sensors functional and providing an online input into the DP system.			X
General Comments:				

8	Vessel Capability - Cargo Operations / Crane Operations / Bunkering	Yes	No	NA
8024	Is the lifting gear used in cargo handling colour coded in accordance with local or BU guidelines for the current year?	X		
8025	Confirm that the vessel only utilizes ratchet type chain binders for securing of cargo?	X		
8026	Are the Master & Crew aware that selective unloading (cherry picking) is not permitted?	X		
8027	Verify if Cargo Handling is as per the OCIMF "Deck Cargo Handling on board Offshore Vessels" Information paper	X		
8028	Are MSDS available for any liquid products back loaded from offshore?	X		
8029	If carried confirm that hoses used for hazardous liquid transfers have a valid test certificate?	X		
8030	If carried, are all hoses fitted with sufficient floatation collars as per GOMO?	X		
8031	Confirm that the vessel has quick dry disconnect fittings (i.e., TODO, Avery Hardall, Klaw fittings) at the manifold for use in hazardous liquid transfers?	X		
8032	Confirm that the vessel has the correct WECO connections and adapters at the manifold.			X
8033	Do cranes and other lifting equipment on board the vessel have current certification?		X	
8034	Check condition of the crane is in good order. Verify operation to check for seal leakages on crane rams.			X
8035	Confirm Electronic Fuel monitoring system (EFMS) is in place, is non-by-passable, and operational?	X		
8036	If no EFMS in place, an operational and calibrated totalizer meter in fuel load and discharge system?			X
General Comments:				
1. The last chain hoist was inspected on 08/2023.				
2. Last transfer flow meter calibrated on 07/05/2024.				
3. Last online flow meter calibrated on 07/05/2024.				

8	Vessel Capability - Anchoring & Mooring System Design, Review & Safety Reinforcement (Vessels with Spread Moorings)	Yes	No	NA
8037	Are pre-move meetings conducted prior any anchor handling operations (weather, SWA, risk assessment...)?			X
8038	Are comprehensive JSA's implemented prior to any mooring activity?			X
8039	Minimum anchor and mooring clearances from sub-sea structures are known (set by BU) and accounted in the plan?			X
8040	Are special mitigation procedures available when anchor patterns call for crossing pipelines or cables?			X
8041	Are Marine Notices relating to offshore Mooring and Anchor handling located on board and contents known to crew?			X
8042	Verify if Wire Management plan is in place and date of last maintenance /Inspection/Last NDT or Destructive test			X
General Comments:				

8	Vessel Capability - Anchor Handling (AHTS) & Towing Vessels only	Yes	No	NA
8043	In date, test certificates shall be held on board for all Tow Spread equipment in use.			X
8044	Tow log and tow spread maintenance program in place.			X
8045	Valid Bollard Pull Certificate of less than 5 years old issued /endorsed by an IACS Classification society.			X
8046	Winches have a quick release mechanism, and all have a documented functional testing regime.			X
8047	Are bridge team members fully familiar with the location and operation of the winch emergency release mechanism, its operation and controls? Instructions are to be clearly posted nearby to the release controls.			X
8048	Is Tow and work winch tension meter installed with a method of continuous recording and calibrated?			X
8049	All Towing doors, hatch openings and emergency escape entrances are marked 'close at sea' and all seals and locking dogs are in satisfactory condition.			X
8050	Confirm that the vessel has and operates with a clear deck policy during towing/anchor handling operations.			X
8051	Confirm that the vessel ensures all watertight openings requiring to be closed/sealed during towing/anchor handling operations are done so.			X
8052	Are work-wire / tow-wire terminations in good condition, properly terminated, steel ferrules, with swivels and associated jewellery? NB: Aluminium ferrules are not acceptable.			X

8053	Check that spooling gear is fitted and in good condition.			X
8054	Check the operability of mechanical stoppers. Ensure that the correct size of inserts is available for the intended work-scope.			X
8055	Check that the vessel has the correct size of chain handling gypsies (wildcats) fitted, suitable for the proposed scope of work			X
8056	Are there sufficient shackles, split pins and lead plugs on-board for the intended work scope?			X
8057	Is there welding and burning equipment available and are crew qualified to use it?			X
8058	Check condition of J-Hook and grapnel, type and SWL?			X
8059	The master understands the principles and the consequences of 'Girting'			X
8060	Vessel 'Gobbing' equipment is certified and MBL/SWL is the same as the tow wire and associated rigging			X
8061	Are tow and work wire terminations fitted with snub-nosed, pee-wee, type sockets (long bow spelter sockets not permitted)			X
8062	Verify if Wire Management plan is in place and date of last maintenance /Inspection/Last NDT or Destructive test			X
8063	List the date of last maintenance /Inspection/Last NDT or Destructive test			X
8064	Verify if Tow Assembly Management plan is in place and date of last maintenance /Inspection/Last NDT or Destructive test			
8065	List the date of last maintenance / Inspection / Last NDT or Destructive test of the Tow Assembly			X
8066	Is the length of work wire adequate for operating depth?	X		
8067	Confirm that no towing from hook (if fitted) is allowed			X
8068	Confirm tow bars, aft bulwarks, stern rail, stern roller are free of sharp edges / obstructions which could damage a tow wire or prevent it from free movement.			X
8069	Confirm that the use of polypropylene ropes for towing is not allowed			X
8070	Conduct brake slip test for towing and work winches			X
8071	On Terminal Export and Line Handling Tugs only, confirm the vessel is equipped with bow winch and associated equipment to safely tow from the bow.			X
General Comments:				

8	Vessel Capability - Crew boats (Alucats, Petro-Craft & Surfers)	Yes	No	NA
8072	Are passenger briefings carried out (safe boarding, disembarkation, and general safety)?	X		
8073	Are adequate PFDs for all personnel to be transferred provided?	X		
8074	Are fenders in a satisfactory condition?	X		
8075	Is there a 30cm gap between the bow fender and boat landing ladder?	X		
8076	Are searchlight/s available and in working order?	X		
8077	Is a night vision camera available and in working order?		X	
8078	Is air conditioning available and in working order?	X		
8079	Are toilet facilities available and in working order?	X		
8080	Are noise levels within the passenger cabin at an acceptable level?	X		
8081	Are Crew boat Pilots aware of any local requirements for safe speed during hours of darkness?	X		
8082	Are crew boat Pilots aware of the rules for entering 500m Exclusion/Safety Zones?	X		
General Comments:				
1. The night vision camera was not available onboard. 2. Last noise levels been conducted on 30/05/2025.				

8	Vessel Capability - Pipe Lay	Yes	No	NA
8083	Is there evidence that effective risk assessments are carried out for pipelay operations?			X

8084	Is the firing line hazard marking and restricted access managed effectively?			X
8085	Are firing line ventilation arrangements sufficient?			X
General Comments:				

8	Vessel Capability - Ship Assist/Escort Tug	Yes	No	NA
8086	Is there evidence that effective risk assessments are carried out for ship assist/escort tug operations?			X
8087	Is the length of tow line adequate for planned operation?			X
8088	Is the MBL of tow line and associated equipment adequate for rated Bollard Pull or expected tensions for the planned operation?			X
8089	Do short bow/snub nose type end fittings make up the tow wire terminations?			X
8090	Have Tow wires been re-terminated in the last 2 years?			X
8091	Are 'snap back' zones and hazards understood by crew?			X
8092	The master understands the principles and the consequences of 'Girting'			X
8093	Are in date test certificates held on board for all Tow Spread equipment in use?			X
8094	Valid Bollard Pull Certificate of less than 5 years old issued /endorsed by an IACS Classification society.			X
General Comments:				

8	Vessel Capability - Emergency Rescue & Response Vessel	Yes	No	NA
8095	Is there evidence that effective risk assessments are carried out for ERRV/Stand-By operations	X		
8096	Are adequate PFDs provided and in satisfactory condition for all personnel to be transferred?	X		
8097	Are qualified personnel onboard for FRC operations and has a drill been conducted in the preceding 3 months?			X
8098	Is the recovery time of a MOB during the last drill in accordance with the performance standards in the Safety Case if applicable?	X		
8099	Is the Dacon scoop available and has a drill been conducted in the preceding 3 months?		X	
General Comments: 1. FRC was not fitted on board. 2. There was no Dacon scoop drill record.				

8	Vessel Capability - SEWOP (Lift Boats)	Yes	No	NA
8100	Is there documented evidence of NDT of the legs and racks, including lower terminus?			X
8101	Is there documented evidence of annual visual inspections of the legs, racks and pinions?			X
8102	Is their evidence that the vessel is following the content of any BU Marine Guidance Notes on SEWOP inspection guidelines?			X
8103	If non IACS Classed, are the NDT being conducted by an IACS Class approved company?			X
8104	If <300 GT, does inspection protocol meet ABS or USCG standards as outlined in Marine Standard and are these inspections being carried out by IACS Class surveyor			X
8105	Are intermediate welded sections visible on the leg pinion support brackets?			X
8106	Is their visual evidence of any dents or cracks to the leg structure, teeth, pinion tower?			X

8107	Confirm the Jacking assemblies/planetaries are in good order			X
8108	Are the legs and pinions sufficiently greased?			X
8109	Is an Original Equipment Manufacturer jacking system inspection report onboard that meets all of the minimum criteria as per the Chevron Marine Standard Non-Tankers and was it conducted within the last 12 months?			X
General Comments:				

8	Vessel Capability - Barge			
8110	Load line and draught marks clearly visible			X
8111	Verify Hull condition, must be intact, minor indentations acceptable			X
8112	Tow bridle adequate, in good condition and spread fully certified with a functional retrieval winch.			X
8113	Manholes fully sealed and watertight			X
8114	Tank vents are self-sealing (float type with mesh). Floats to be tested as free			X
8115	Verify condition of specific build design access ladder on either side of the barge is in good condition			X
8116	Verify - fully functional port, starboard and aft navigation lights with adequate power source (Battery/Solar Power)			X
8117	Verify - navigational day shapes, mast and lanyard on board			X
8118	Check condition of mooring ropes/wires as acceptable			X
8119	Check that the barge's side rubbing band is in good condition without jagged edges and adequate fendering in place as applicable			X
8120	Is the barge equipped with a fit for purpose anchor and spread with a dedicated winch and means of emergency release?			X
8121	On barges without handrails is the edge highlighted with a contrasting colour to the rest of the deck?			X
8122	Is the working deck painted with non-slip paint?			X
8123	Check the cleanliness of the deck, (no remnants of previous cargoes)			X
8124	Internal Compartments are to be dry and free of hydrocarbons. Do NOT enter any compartment.			X
General Comments:				

8	Vessel Capability - ABU Specific Environmental	Yes	No	NA
8125	Does the vessel have asset (WHS / GOR / JANSZ) subsea infrastructure and pipelines included on vessel marine charts?			X
8126	Is the vessel working under the Gorgon DomGas operational area?			X
8127	If yes, has the vessel been provided with Bombora location data?			X
8128	If required, do crane operators meet the training and competency requirements of Unit of Competency – MASUP305A?			X
8129	Has the vessel completed pre-arrival reporting in accordance with the Australian Biosecurity Act 2015? i.e. Biosecurity Status Document from Department of Agriculture and Water Resources			X
8130	Spill kits adequately stocked, in good condition and available in proximity to where hazardous materials /chemicals are being stored/used?			X
8131	If the vessel will be discharging via the Oily Water Separator - Is the OWS IMO compliant and maintenance is up to date.			X
8132	If the vessel be discharging via the Sewage Treatment Plant- Is the STP IMO compliant and maintenance is up to date.			X
8133	If the vessel will be discharging food waste via a macerator- Is the macerator certified and maintenance of the macerator up to date?			X
8134	Is IAPP certification in place and IAPP record book and PMS maintenance for Engines and Incinerators up to date?			X
8135	Does the vessel have a Waste / Garbage Management Plan and is it within its review date?			X
8136	Are lidded bins provided in open areas of the vessel where waste has a risk of being blown to the ocean (e.g. general waste, loose plastic)?			X
8137	Are Waste receptacles labelled to identify waste stream, securely stored and contained?			X

8138	Are hazardous wastes stored in designated waste storage areas with secondary containment for liquid waste?"			X
8139	Vessel light spill reduced at night including lights 'off' when not required.			X
8140	Internal and external lighting managed to reduce light spill and include, where practicable: • Manage bridge lighting • Close curtains and blinds at night • Remove unnecessary lighting • No decorative lighting • Shielded or mounted lighting as low as practicable • Direct lighting away from the coastline and beaches.			X
8141	Is the type of lighting least disruptive to marine turtles used on the vessel?			X
8142	Does the intended positioning/work scope of the vessel ensure that it will not be moored with lighting on within 1.5 km of turtle nesting beaches during the turtle nesting season from October to April each year at Wheatstone.			X
General Comments:				

OBSERVATIONS		
Observation Number	Details	Action/ Due Date / Close out Remarks
1	Centre Main engine swing is under renewal and in progress by the shore contractor.	7/5/2025
2	Steering gear fan blower out of order, under repair by shore contractor.	7/5/2025
3	Freezer sea water pumps No.1 and 2 are under replacement of the mechanical seal by the shore contractor.	7/5/2025
4	The last chain hoist was inspected on 08/2023.	7/5/2025
5	The night vision camera was not available onboard.	7/31/2025
6	There was no Dacon scoop drill record.	7/31/2025
		Click here to enter a date.
		Click here to enter a date.
		Click here to enter a date.
		Click here to enter a date.
		Click here to enter a date.
		Click here to enter a date.

ภาคผนวก 28

ตัวอย่างรายงานการตรวจสอบท่อ (*Riser External Inspection*)

	<h2 style="margin: 0;">Inspection and Test Plan (ITP)</h2> <h3 style="margin: 0;">On Stream Riser Topside</h3>		ITP No. : BE-8BEPLE2-R-BEWC	
			Field : BENCHAMAS	
			Plant ID : BEWC	
			Page No. :	1 of 5

Equipment No. : BE-8BEPLE2-R-BEWC AT RECEIVER Tag No. ZAQ-C9120			
Equipment Name : I-RISER,8"PROD(C9120) AT BEWC			
	Design	Oper.	Material: <u>API 5LX52</u>
Pressure (psi)	<u>1350</u>	Required	Thk: <u>12.7</u> mm
Temperature (°F)	<u>200</u>	Required	Original Design Fluid: <u>3 Phase</u>
Riser Type :			Current Fluid: <u>3 Phase</u>
			Insulation : <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Type: _____

Inspection Techniques/Work Scope:

<input checked="" type="checkbox"/> Ext. VT	<input type="checkbox"/> Borescope
<input checked="" type="checkbox"/> UTM	<input type="checkbox"/> IRIS/RFT
<input type="checkbox"/> MT Ext.	<input type="checkbox"/> ET
<input type="checkbox"/> PT Ext.	<input type="checkbox"/> RT

Detail :

1) Visual inspection for External corrosion along riser from block valve of Launcher/Receiver down to Riser section above water.

Criteria	Action When Find External Depth
$T_{current} > T_{alert}$	Thickness Gauging + Defect Sizing
$T_{current} \leq T_{alert}$	Grid-UTM + Extend 2" from Defect

Note : $T_{alert} = T_{min} + 0.2(T_{nominal} - T_{min})$

1.1) Visual inspection for External corrosion at Pressure containment part.

1.2) Visual inspection for Type of Clamp and Clamp/Support Condition.

1.3) Visual inspection for Corrosion Under Clamp/Support.

1.4) Visual inspection for External corrosion at Bolts/Nuts of Valve/Flange/Clamp.

1.5) Visual inspection for Rubber Condition.

2) UT at Corrosion Monitoring Points for Internal Corrosion.

2.1) UT at Direction change location, i.e. End of Tee, 45degree Outer bend.

Special Requirement:

<input checked="" type="checkbox"/> Rope Access Required	REF: <u>Where Visual Inspection and UTM at high level</u>
<input type="checkbox"/> Scaffolding Required	REF: _____
<input type="checkbox"/> Insulation Removal	REF: _____
<input type="checkbox"/> Cleaning Standard	REF: _____

For VT :

Attachment:

<input type="checkbox"/> P&ID	<input checked="" type="checkbox"/> Inspection Checklist	<input type="checkbox"/> Previous Ins. Report
<input checked="" type="checkbox"/> DWG.	<input type="checkbox"/> Baseline Measurement	<input type="checkbox"/> Integrity Work Request
<input type="checkbox"/> Other _____		

Approval:

By Inspector:	Name: <u>Amkha S./ Kittisak B./Athiwat K.</u>	Date: <u>14-Jun-25</u>
By Authorized Inspector:	Name: _____	Date: _____
Acknowledged By:	Name: _____	Date: _____

ITP Revision No.: 00	Inspection and Test Plan (ITP)
ITP Issue Date : 6-Jan-25	Chevron Thailand Exploration and Production Ltd.



Inspection and Test Plan (ITP) Riser Topside

ITP No. : BE-8BEPLE2-R-BEWC

Field : BENCHAMAS

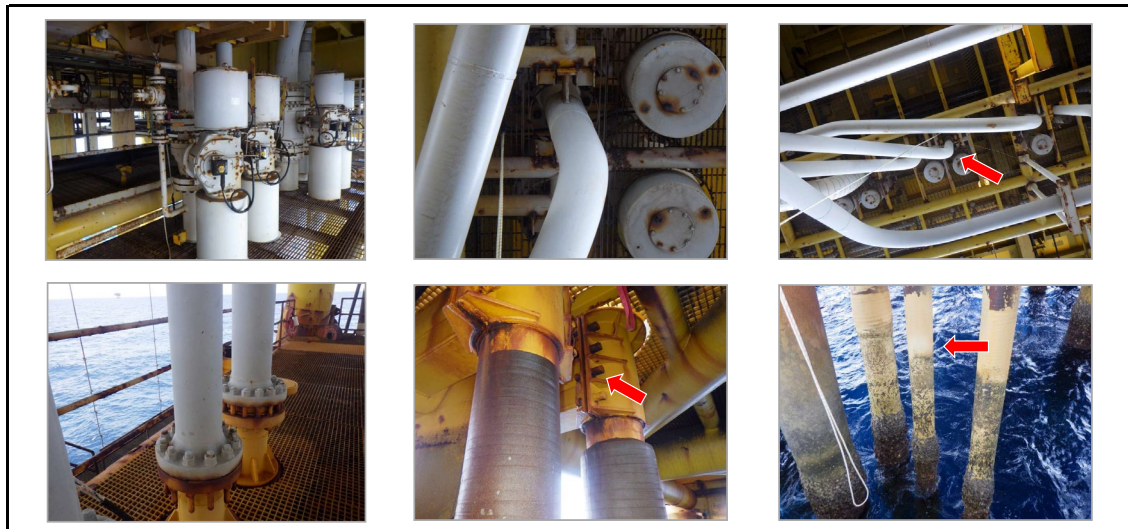
Plant ID : BEWC

Page No. : 2 of 5

Equipment No. : BE-8BEPLE2-R-BEWC AT RECEIVER Tag No. ZAQ-C9120

Equipment Name : I-RISER,8"PROD(C9120) AT BEWC

- 1) Visual inspection for External corrosion along riser from block valve of Launcher/Receiver down to Riser section above water.



- 2) Visual inspection for External corrosion at Pressure containment part.

2.1) Any Paint damage found?

☐ Yes ☒ No

2.2) Any Metal loss found at Paint damage area?

☐ Yes ☒ No

2.3) If Metal loss found at Paint damage area:

What is the Depth of Metal loss? (mm)

2.4) If Metal loss is greater than Corrosion allowance:

What is the Dimension of Metal loss (width x length)? (mm x mm)



Likelihood for External Corrosion at Pressure Containment part

☐

ITP Revision No.: 00

ITP Issue Date : 6-Jan-25

Inspection and Test Plan (ITP)

Chevron Thailand Exploration and Production Ltd.



Inspection and Test Plan (ITP) Riser Topside

ITP No. : BE-8BEPLE2-R-BEWC

Field : BENCHAMAS

Plant ID : BEWC

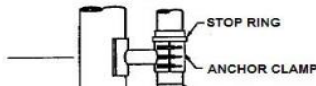
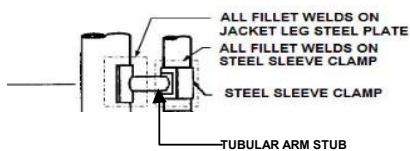
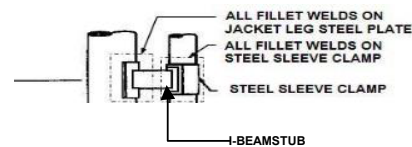
Page No. : 3 of 5

Equipment No. : BE-8BEPLE2-R-BEWC AT RECEIVER Tag No. ZAQ-C9120

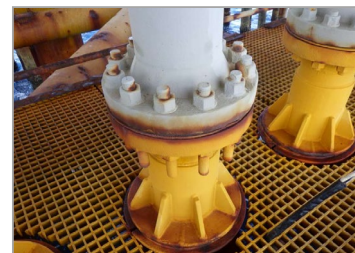
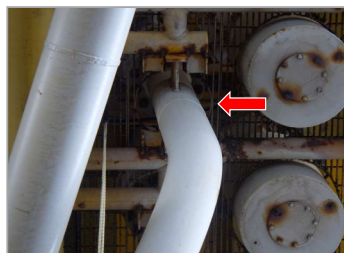
Equipment Name : I-RISER,8"PROD(C9120) AT BEWC

3) Visual inspection for Type of Clamp and Clamp/Support Condition.

3.1) Please select Riser Type

☒ **Type1: Anchor clamp**☐ **Type2: No clamp found above water**☐ **Type 3 : Steel sleeve clamp and Tubular arm**☐ **Type 4 : Steel sleeve clamp and I-Beam**

- | | | | |
|--|---|--|---|
| 3.2) Is the clamp firmly secured to the structure? (except Type2) | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 3.3) Does it have Steel Sleeve under Clamp? (except Type2) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> N/A |
| 3.4) Is the Steel Sleeve in good condition, including Weld condition? (except Type2) | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A |
| 3.5) Does it have Rubber liner under Clamp? (only Type1) | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 3.6) Is Rubber liner in good condition? (only Type1) | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 3.7) Is the Stop ring in good condition, including Weld condition? (only Type1) | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 3.8) Any Breakage / Extreme Corrosion / Deformation of Clamp / Support? (except Type2) | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> N/A |

Please describe condition: Rusty was found on riser clamp.

Likelihood for Clamp / Support condition

ITP Revision No.: 00

ITP Issue Date : 6-Jan-25

Inspection and Test Plan (ITP)
Chevron Thailand Exploration and Production Ltd.



Inspection and Test Plan (ITP) Riser Topside

ITP No. : BE-8BEPLE2-R-BEWC

Field : BENCHAMAS

Plant ID : BEWC

Page No. : 4 of 5

Equipment No. : BE-8BEPLE2-R-BEWC AT RECEIVER Tag No. ZAQ-C9120
Equipment Name : I-RISER,8"PROD(C9120) AT BEWC

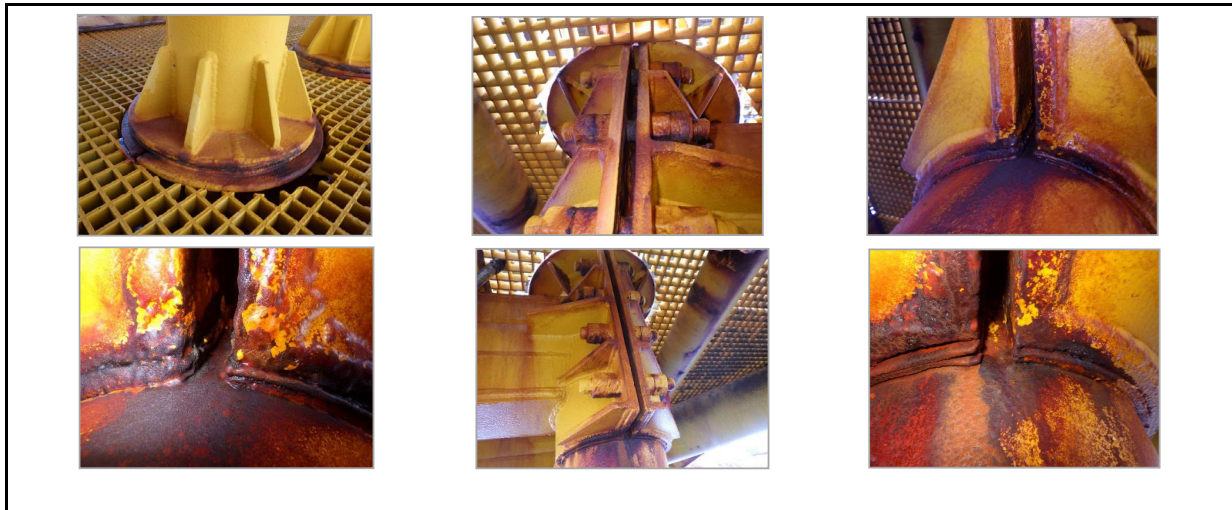
4) Visual inspection for Corrosion Under Clamp/Support.

- 4.1) Any Sign of Corrosion or Paint Damage on Pressure Containment (Riser surface) Under Clamp/Support found?
(Reddish water from under Clamp/Support with no Metal loss)
- 4.2) Any Suspected Metal loss or Significant Corrosion on Pressure Containment (Riser surface) Under Clamp/Support found?

☐ Yes ☒ No

☐ Yes ☒ No

Please describe condition: Pipe under riser clamp was found in good condition.



Likelihood for Corrosion Under Clamp / Support

5) Visual inspection for External corrosion at Bolts/Nuts of Valve/Flange/Clamp.

- 5.1) Any Breakage / Extreme Corrosion / Deformation of Bolts / Nuts?

☐ Yes ☒ No

Please describe condition: Slight corrosion was found on stud bolts/Nuts.





Inspection and Test Plan (ITP) Riser Topside

ITP No. : BE-8BEPLE2-R-BEWC

Field : BENCHAMAS

Plant ID : BEWC

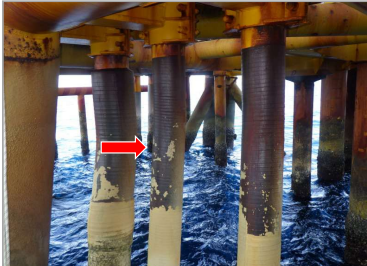
Page No. : 5 of 5

Equipment No. : BE-8BEPLE2-R-BEWC AT RECEIVER Tag No. ZAQ-C9120

Equipment Name : I-RISER,8"PROD(C9120) AT BEWC

6) Visual inspection for Rubber Condition.

- 6.1) Does it have Steel Sleeve under Rubber Sleeve? ☒ Yes ☐ No
- 6.2) Is the Steel Sleeve in good condition, including Weld condition? ☐ Yes ☐ No ☒ N/A
- 6.3) Does the Upper Edge of Rubber tightly seal to the Riser or Steel Sleeve? ☒ Yes ☐ No
- 6.4) Is the Upper Edge of Rubber properly Tapered? ☒ Yes ☐ No
- 6.5) Any Damage of Rubber found? ☐ Yes ☒ No
- 6.6) Does Damage of Rubber reach Pressure Containment or Steel Sleeve? ☐ Yes ☒ No
- If yes, does it reach Pressure Containment or Steel Sleeve? ☐ Pressure Containment ☐ Steel Sleeve

Please describe condition: Rubber was found in good condition.**Likelihood for Rubber Condition**

7) UT at Corrosion Monitoring Points for Internal Corrosion.

- 7.1) Any thickness is less than Minimum Required Thickness?
- At MAWP ☐ Yes ☐ No
- If yes: CML# or Point: _____ Dimension of Metal loss (W x L): _____
- At Operating Pressure or Structural Force ☐ Yes ☐ No
- If yes: CML# or Point: _____ Dimension of Metal loss (W x L): _____

Likelihood for External Corrosion at Bolts/Nuts of Valve/Flange/Clamp

8) Others

- 8.1) Any Temporary Repair registered? (e.g. Mechanical Clamp, Composite Wrap, Sleeve, Patching) ☐ Yes ☒ No
- 8.2) Any abnormal condition which is not specified in other items? ☐ Yes ☒ No
- If yes, please describe: None

Photos show Temporary Repair registered or Abnormal condition.
(If no Temporary Repair registered or Abnormal condition, no need to attach Photos.)



GENERAL VISUAL INSPECTION

ANNUAL TOPSIDE STRUCTURAL INSPECTION CHECKLIST

FIELD:	BENCHAMAS	INSPECTOR:	PORNCHAI L.
PLATFORM:	MAWF	DATE:	April 11, 2025
TYPE:	Wellhead (4-Pile)	TIME:	8:00 AM

		Not available	Intact condition	As-built difference	Bent member	Bolt tightness	Corrosion	Low CP reading	Visual crack	Dented member	Hole in member	Lack of access for inspection	Leak	Marine growth	Missing parts	Relative Movement	Weld defects	Reduced wall thickness
ITEM	COMPONENT/ LOCATION	N/A	INT	ABD	BEN	BOL	COR	CPR	CRK	DEN	HOL	LAC	LEK	MGR	MIS	MOV	WDF	WTH
1.0	Jacket Members in Splash Zone																	
1.1	Jacket leg						2											
1.2	Jacket transition piece						2											
1.3	Jacket crown shim plate						2											
1.4	Jacket horizontal member						2											
1.5	Jacket vertical diagonal member						2											
1.6	Marine growth preventer (See Note 1)	X																
1.7	Bolt connection between jacket leg and deck Leg (See Note 3)	X																
2.0	Emergency Evacuation Routes in Splash Zone																	
2.1	Walkway structural members and supports						2											
2.2	Non-slip surface coating														X			
2.3	Gratings/ Plating						2											
2.4	Handrail / Guardrail (See note 5)						2											
2.5	Ladders and stairways						2											
2.6	Boatlanding structural framing						2											
2.7	Boatlanding support connecting to jacket leg						2											
2.8	Boatlanding tie-back chain	X																
2.9	Boat Bumper: stub, king post, shock cell, rubber	X																
2.10	Swing rope						2											
3.0	Conductors/ Casings (Detailed Inspection is provided separately)																	
3.1	Conductor/casing above 1st level of jacket horizontal frame						3											X
3.2	Conductor/casing below 1st level of jacket horizontal frame						3											X
3.3	Conductor/casing guide						2											
3.4	Centralizer	X																
3.5	Marine growth preventer	X																
3.6	Helicoid repair (See Note 2)	X																
4.1	Risers																	
4.11	Riser body						2											
4.12	Riser stub						2											
4.13	Riser clamps and bolted connections						2											
4.14	Riser guard - bumper	X																
4.15	Riser guard - cage	X																
4.2	J-Tubes (at BELQ, PACPP, NPCPP)																	
4.21	Wire coating	X																
4.22	Dead weight support clamp - flanges and stiffeners	X																
4.23	Dead weight support clamp - stub	X																
4.24	Dead weight support clamp - bolted connection	X																
4.25	Hang off flange - overall	X																
4.26	Hang off flange - bolted connection	X																
4.27	Hang off flange - gasket	X																
4.28	Hang off vertical member - overall	X																
5.0	Caissons																	
5.1	Caisson body	X																
5.2	Caisson supports at cellar deck level	X																
6.0	Under-Deck Areas (Sub-Cellar Deck)																	
6.1	Deck legs						2											
6.2	Diagonal brace supporting cellar deck						2											
6.3	Framing joints						2											
6.4	Walkway framing and hangers						2											
6.5	Grating						2											
6.6	Handrail / Guardrail (See note 5)						2											
7.0	Deck Members and Module Frames																	
7.1	Cellar Deck																	



GENERAL VISUAL INSPECTION

ANNUAL TOPSIDE STRUCTURAL INSPECTION CHECKLIST

FIELD:	BENCHAMAS	INSPECTOR:	PORNCHAI L.
PLATFORM:	MAWF	DATE:	April 11, 2025
TYPE:	Wellhead (4-Pile)	TIME:	8:00 AM

		Not available	Intact condition	As-built difference	Bent member	Bolt tightness	Corrosion	Low CP reading	Visual crack	Dented member	Hole in member	Lack of access for inspection	Leak	Marine growth	Missing parts	Relative Movement	Weld defects	Reduced wall thickness
ITEM	COMPONENT/ LOCATION	N/A	INT	ABD	BEN	BOL	COR	CPR	CRK	DEN	HOL	LAC	LEK	MGR	MIS	MOV	WDF	WTH
7.11	Deck legs						2											
7.12	Main truss framing (vertical and diagonal members)						2											
7.13	Deck leg joints, main truss and/or critical framing joints						2											
7.14	Primary beams (chords & main cross members)						2											
7.15	Secondary beam and floor stringers						2											
7.16	Floor plate						2											
7.17	Grating						2											
7.18	Access platform, stair and walkways						2											
7.19	Handrail / Guardrail (See Note 5)						2											
7.2	Mezzanine Deck																	
7.21	Deck legs						2											
7.22	Main truss framing (vertical and diagonal members)						2											
7.23	Critical framing joints						2											
7.24	Floor beams and stringers						2											
7.25	Floor plate						2											
7.26	Grating						2											
7.27	Access platform, stair and walkways						2											
7.28	Handrail / Guardrail (See Note 5)						2											
7.3	Upper Deck																	
7.31	Deck leg joints, main truss and/or critical framing joints						2											
7.32	Primary beams (chords & main cross members)						2											
7.33	Skid beams						2											
7.34	Secondary beam and floor stringers						2											
7.35	Floor plate						2											
7.36	Grating						2											
7.37	Access platform, stair and walkways						2											
7.38	Handrail / Guardrail (See Note 5)						2											
8.0	Blast & Fire Walls																	
8.1	PFP cladding	X																
8.2	Wall sleeve for cable or pipe penetration	X																
8.3	Clearance behind fire wall	X																
9.0	Temporary Refuge																	
9.1	Sealant	X																
9.2	Structural supports	X																
10.0	Helideck																	
10.1	Structural framing	X																
10.2	Support connections to platform primary structures	X																
10.3	Safety Net	X																
11.0	Lifeboat Davits Supporting Structure																	
11.1	Connections between the davit and platform structure	X																
12.0	Crane Pedestals																	
12.1	Crane pedestal - overall condition						2											
12.2	Welded connections at base support						2											
13.0	Bridge Structures - Flare Bridge and Passenger Bridge																	
13.1	Top chords	X																
13.2	Bottom chords	X																
13.3	Expansion support including bearing pad, stiffener	X																
13.4	Diagonal members	X																
13.5	Fixed end support including bearing pad, stiffener	X																
13.6	Walkway	X																
13.7	Piping connection on the bridge	X																
14.0	Flare Booms																	
14.1	Top chords	X																
14.2	Bottom chords	X																



GENERAL VISUAL INSPECTION

ANNUAL TOPSIDE STRUCTURAL INSPECTION CHECKLIST

FIELD:	BENCHAMAS	INSPECTOR:	PORNCHAI L.
PLATFORM:	MAWF	DATE:	April 11, 2025
TYPE:	Wellhead (4-Pile)	TIME:	8:00 AM

		Not available	Intact condition	As-built difference	Bent member	Bolt tightness	Corrosion	Low CP reading	Visual crack	Dented member	Hole in member	Lack of access for inspection	Leak	Marine growth	Missing parts	Relative Movement	Weld defects	Reduced wall thickness
ITEM	COMPONENT/ LOCATION	N/A	INT	ABD	BEN	BOL	COR	CPR	CRK	DEN	HOL	LAC	LEK	MGR	MIS	MOV	WDF	WTH
14.3	Tie-back connections of top chord	X																
14.4	Tie-back connections of bottom chord	X																
14.5	Connections at flare piping to the boom	X																
14.6	Access walkway	X																
15.0	Vent Booms																	
15.1	Overall steel frame						2											
15.2	Tie-back connections to deck						2											
16.0	Communication Towers																	
16.1	Overall steel frame	X																
16.2	Connection of tower leg to platform deck	X																
16.3	Attachment points of fixtures such as dishes/ antennas	X																
16.4	Bolt condition and tightness on frame and fixtures	X																

Other findings:

ITEM 3.1 Found severe corroded and metal loss above 1st level of well conductor (Slot No. R) at area of splash zone.

ITEM 3.2 Found severe corroded and metal loss below 1st level of well conductor (Slot No. R) at area of splash zone.

- 1) Composite wrap at PAWE-04 (Slot#3) PAWH-13 (slot#2)
- 2) Hellicoids are installed at PAWB-08 (Slot#03) PAWC-09 (Slot#3), PAWE-13 (slot#09), PAWH-04 (slot#11) PAWH-08 (Slot#13), PAWP-04 (slot#W), NPWG-06 (slot#15), NPWG-30 (slot#19) NPWB-23 (Slot#6) NPWB-11 (Slot#13)
- 3) Bolt connection between jacket leg and deck leg: PAWA, PAWD, PAWE
- 4) Inspection of riser clamp is only for external surface of clamp, bolt & nut. Detailed inspection of riser condition under clamp is excluded and managed by RCI program. AI site supervisor shall consult with Structure and Topsides SME for CMWO of reported anomaly under this item.
- 5) Special attention of guardrail/handrail conditions.
 - 5.1 Visual inspection-confirm pins, drain holes, and brace bars/attachments to adjacent guardrail (for removal guardrails) are in good condition and in place.
 - 5.2 Detailed inspection-require removal of the guardrail (subject to visual inspection result).



2025 ROV Underwater Platform Inspection
BEWN Platform

Document no.:
ZQ-CVX-TH25-02-INS-RP-002
Revision: 0

Date: 16th March 2025

Chevron Thailand Exploration & Production Limited

2025 ROV Underwater Platform Inspection Campaign

Benchamas Field

BEWN Level II Routine Underwater Inspection

Document Revision History

Rev.	Date	Description	Prepared by	Checked by	Approved by	Client Approved
A	15 th March 2025	Issued for Comments	IS	SW	KN	PH
0	16 th March 2025	Issued for distribution	IS	AC	KN	PH

Acceptance Signatures

Inspection Coordinator
ZeaQuest Company Limited

Offshore Construction Manager
ZeaQuest Company Limited

Chevron Authorized Representative
Chevron Thailand Exploration and Production Ltd.

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RECORD OF AMENDMENTS

Rev.	Date	Page No.	Section / Paragraph	Description of change	By
0	16/03/2025	6	Page	Revised as per CAR request	IS
0	16/03/2025	10	Scour Survey	Revised wording as per CAR	IS
0	16/03/2025	16	4.5 / 2	Revised wording as per CAR	IS

ABBREVIATIONS

ABD	As-built difference (Variation to Spec)
ABR	Abrasion
ACF	ACFM indications
ACFM	Alternating Current Field Measurement
ADM	Anode Damage
ADP	Anode Depletion
BEN	Bent Member
BOL	Bolt Tightness
BUR	Burial
CAL	Calibrations
CAR	Client Authorised Representative
COD	Coating Damage
COR	Corrosion
CCP	Contact Cathodic Potential
CD	Chart Datum
CP	Cathodic Potential / Protection
CPS	Cathodic Potential Survey
CPR	Cathodic Potential Reading
CRK	Crack
CRP	Common Reference Point
CTDS	Conductivity, Temp, Density and Salinity
CVI	Close Visual Inspection
DAM	Damage
DBM	Debris - Metallic
DBN	Debris – Non-metallic
DCC	Distance Cross Course
DEN	Dent
DGPS	Differential Global Positioning System
DHSS	Dual Head Scanning Sonar
DMB	Dead Mans Basket
DP	Dynamic Positioning
DPR	Daily Progress Report
DSV	Dive Support Vessel
E	Easting
EDM	Electronic Distance Measurement
EL	Elevation
FJ	Field Joint
FMD	Flooded Member Detection
FOC	Fibre Optic Cable
FS	Free Span
GEL	Gas Export Line
GIE	Gas Import/Export
GPS	Global Positioning System
GVI	General Visual Inspection
HD	High Definition
HDM	Horizontal Diagonal Member
HDOP	Horizontal Dilution of Precision
HM	Horizontal Member
HOL	Hole
HPWJ	High Pressure Water Jet
HPR	Hydro-acoustic Position Reference
HiPAP	High Precision Acoustic Positioning
I/B	Inboard
ICCP	Impressed Current Cathodic Protection
ID	Identification Number
IRM	Inspection, Maintenance and Repair
Km	Kilometre
KP	Kilometre Post
LAC	Lack of Access for Inspection
LEK	Leak

LAT	Lowest Astronomical Tide
m	Metre
MBES	Multi Beam Echo Sounder
MDGPS	Multi-Differential Global Positioning System
MGR	Marine Growth
MIS	Missing Parts
mm	Millimetre
MOV	Movement or Vibration
MP4	MPEG-4 Part 14 Video/Audio file
MPEG	Moving Picture Experts Group
MPI	Magnetic Particle Inspection
MPSV	Multi-Purpose Support Vessel
MRU	Motion Reference Unit
MSL	Mean Sea Level
MSV	Multi-Support Vessel
mV	Millivolt
N	Nothing
O/B	Outboard
O/C	O'clock Cardinal Position
OTH	Other
OOS	Out Of Straightness
OROV	Observation Class Remotely Operated Vehicle
PDOP	Position Dilution of Precision
PLEM	Pipeline End Manifold
Ppm	Parts Per Million
QA	Quality Assurance
QC	Quality Control
R/A	Restricted Access
REM	Repair/Remediation
RFS	Riser Free Span
RMS	Root Mean Square
RO	Reference Object
ROV	Remotely Operated Vehicle
ROTV	Remotely Operated Towed Vehicle
RTG	Real Time Gypsy
SBES	Single Beam Echo Sounder
SSIV	Sub Sea Isolation Valve
SCR	Scour
SD	Standard Deviation
SOW	Scope of Work
TM	Transverse Mercator
UHS	Unsupported Horizontal Spool
USBL	Ultra Short Baseline
UT	Ultrasonic Wall Thickness Measurement
UTA	Umbilical Termination Assembly
UTC	Universal Time Co-ordinated
UTM	Universal Transverse Mercator
VIV	Vortex Induced Vibration
VDM	Vertical Diagonal Member
VM	Vertical Member
WDF	Weld Defect
WTH	Reduced Wall Thickness
WGS	World Geodetic System
WOC	Waiting on Tide/Current
WOW	Standby on Weather
WGS84	World Geodetic System 1984
WROV	Work Class Remotely Operated Vehicle
XG	Crossing
ZQ	ZeaQuest
CVX	Chevron Thailand Exploration & Production

1. INTRODUCTION

1.1 PROJECT OVERVIEW

ZeaQuest Limited was contracted by Chevron Thailand Exploration & Production Limited to provide ROV support operations for the 2025 ROV Underwater Platform Inspection work scope. Subcontractor Mermaid Offshore Limited supplied vessel logistics and personnel. ROVULA Ltd. provided survey and inspection services (equipment, Xspector Software system and personnel). Scansolution provided radiographic services as required.

This report was issued on completion of the BEWN Level II Routine Underwater Inspection operations 2025. All operational tasks were performed as per the requirements outlined within the client supplied documentation: *"2025 PF ROV WP_25_Rev. B_14 Feb 2025"* and on-site instruction by the on-board Client Authorised Representative (CAR).

The routine inspection video and anomaly video clips, recorded in mp4 Video file format, accompanying this report are contained on an external hard drive storage device which are accessible via the ROVULA Xspector software.

The Level II Routine Underwater Inspection operations commenced at 1641hrs on the 10th of March 2025 and were completed at 2023hrs on the 11th of March 2025. This includes hours (such as breakdown, weather and logistics standby).



2. SCOPE OF WORK AND COMPLETION SUMMARY

The BEWN Platform Level II Routine Underwater Inspection scope of work was performed as per Chevron requirements, as summarised within the table below.

Table 2.1 2025 Work Scope Completion

Task	Component	Completion	Comment
GVI	X 4 Legs	100%	
GVI	X 4 Vertical frames	100%	
GVI	X 4 Horizontal elevations	100%	
GVI	X 7 Risers	100%	Including spools to touchdown
GVI	X 18 Conductor guides	100%	
GVI	X 1 Boat landing	100%	
MG Survey	Legs and vertical framing members	100%	From MSL to EL(-)100 ft.
CP Readings	Leg B2 and risers	100%	At indicated locations, and riser clamps and flanges.
Debris Survey	Structure and risers	100%	
Scour Survey	Mud-Mats	100%	
Anode Survey	Structure and risers	100%	

3. INSPECTION SUMMARY

This report section contains a summary of inspection results of the BEWN Platform subsea inspection 2025. Detailed findings are contained within **Section 4**.

Platform GVI:	<p>No gross structural damage or defects were observed. All associated components appeared to be intact, and the platform was found to be in good general condition.</p> <p>The historical anomaly, BEWN/001, was confirmed with coating damage observed at MSL.</p>
Riser GVI	<p>The seven (7) installed risers appeared to be in good general condition with no gross damage or leakage observed.</p> <p>The riser tie-in flange of 8" BEPLN1 was confirmed to be in contact with the tube-turn of 8" BEPLN2. See anomaly BEWN/004.</p> <p>Fifty-seven (57) riser vertical support clamps were inspected, of which eight (8) were confirmed secure with no misalignment, lack of integrity or riser movement observed. The component details of forty-nine (49) of the riser support assemblies were reported as obscured by marine growth, however, no obvious indications of defects or misalignment were apparent.</p> <p>The unsupported status of the 8" BEPLN2 pipeline spool piece was confirmed with not apparent movement of the spool section or flange damage observed. See anomaly BEWN/003.</p> <p>The 8" BEPLN1 pipeline spool entered full burial approximately 3 m outboard of the riser tie-in flange. No misalignment, damage, movement or product leakage was observed.</p>
Conductor Guides GVI	<p>No damage or debris fouling was observed to the eighteen (18) conductor guides installed at EL(-)35ft and EL(-)95ft and EL(-)165ft.</p>
Marine Growth Assessments:	<p>Marine growth coverage on the assessed outboard structural members from MSL to EL(-)100ft. was classified as high coverage.</p> <p>Hard:</p> <ul style="list-style-type: none">• Average: 99.55% cover overall• Ranging: up to 50 mm in thickness• Average thickness: 27.09 mm <p>Soft:</p> <ul style="list-style-type: none">• Average: 99.29% cover overall• Ranging: up to 150 mm in thickness• Average thickness: 99.62 mm
CP Survey:	<p>All CP readings are referenced to a calibrated Ag/AgCl half-cell. No corrosion staining or pitting was observed during the GVI survey.</p> <p>Contact CP readings acquired on leg B2 predetermined sections ranged from -1008 mV to -1003 mV.</p> <p>Contact CP readings acquired on the riser clamps ranged from -1020 mV to -920 mV.</p> <p>Contact CP readings acquired on the riser tie-in flanges ranged from -1115 mV to -1014 mV, with readings more negative than -1050 were confirmed at the flanges of the 8" BEPLN1 and 8" BEPLN2 risers. See anomaly reports BEWN/007 and BEWN/008. The contact CP readings obtained at the blind flange of the 8" riser #5 were within the acceptable limits. See anomaly report BEWN/009.</p>

- Anode Survey:** One-hundred and thirty-one (131) structure anodes were assessed and recorded. Seventy-eight (78) were assessed as less than 25% depleted, eight (8) between 25% to 50% and two (2) between 50% to 75%. Forty-three (43) were obscured by marine growth.
- Seven (7) riser and pipeline spool anodes were assessed and recorded. Three (3) were assessed as less than 25% depleted and one (1) between 25% to 50%. One (1) was obscured by marine growth.
- The riser anode, at EL(-)159ft. of the 6" riser #7 was assessed at less than 50% depleted and not fully depleted as previously reported within anomaly report BEWN/006.
- The located reference anodes were observed to be fully obscured by marine growth and could not be assessed. See information anomaly report BEWN/002.
- Debris Survey:** Three (3) instances of non-metallic debris were recorded of which one (1) was assessed as a potential hazard. Refer to anomaly reports BEWN/010. The metallic debris reported within anomaly report BEWN/005 were not located.
- Scour Survey:** The mud mat members at the jacket legs were assessed for scour during the 2025 survey. No signs of anomalous scour were reported, with the mud mats observed to be fully or partially buried. No exposed leg piles were observed.



2025 WROV Pipeline Underwater Surveys
12"BEPLC2 Pipeline

Document no.:
ZQ-CVX-TH25-02-INS-RP-042
Revision: 0

Date: 7th May 2025

Chevron Thailand Exploration & Production Limited

2025 WROV Pipeline Underwater Surveys Campaign

Benchamas Field

12"BEPLC2 Pipeline External Survey

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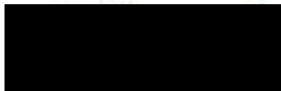
		
 Inspection Coordinator ZeaQuest Company Limited	 Project Manager ZeaQuest Company Limited	 Chevron Authorized Representative Chevron Thailand Exploration and Production Ltd.

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SSIV	Sub Sea Isolation Valve
SCR	Scour
SD	Standard Deviation
SOW	Scope of Work
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USBL	Ultra Short Baseline
UT	Ultrasonic Wall Thickness Measurement
UTA	Umbilical Termination Assembly
UTC	Universal Time Co-ordinated
UTM	Universal Transverse Mercator
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VM	Vertical Member
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WOC	Waiting on Tide/Current
WOW	Standby on Weather
WGS84	World Geodetic System 1984
WROV	Work Class Remotely Operated Vehicle
XG	Crossing
ZQ	ZeaQuest
CVX	Chevron Thailand Exploration & Production

1. INTRODUCTION

1.1 PROJECT OVERVIEW

ZeaQuest Limited was contracted by Chevron Thailand Exploration & Production Limited to provide ROV support operations for the 2025 WROV Pipeline Underwater Surveys work scope. Subcontractor Mermaid Offshore Limited supplied vessel logistics and personnel. ROVULA Ltd. provided survey and inspection services (equipment, Xspector Software system and personnel). STOPCORR Services Sdn. Bhd. provided cathodic potential equipment and personnel.

This report was issued on completion of the 12"BEPLC2 Pipeline External Survey operations 2025. All operational tasks were performed as per the requirements outlined within the client supplied documentation: "2025 PL ROV WP_Rev. B Review 14 Feb 25" and on-site instruction by the on-board Client Authorised Representative (CAR).

The routine inspection video and anomaly video clips, recorded in mp4 Video file format, accompanying this report, are contained on an external hard drive storage device which are accessible via the ROVULA Xspector software.

The KP system utilised for the survey was based on the pipeline as laid route supplied by CTEP.

All coordinates, unless otherwise stated, are referenced to Indian 1975 grid projection.

All times are Bangkok Local Time and are based on GMT +7.00.

The Pipeline External Survey subsea operations were performed in two phases the first commenced at 0400hrs on the 18th of April 2025 and concluded at 0731hrs on the 18^h of April 2025. The second phase commenced at 2139hrs on the 23rd of April 2025 and completed at 2035hrs on the 24th April 2025. This includes hours (such as breakdown, weather and logistics standby).

1.2 SCOPE OF WORK AND COMPLETION

The underwater WROV survey was required to determine the external condition of the pipeline and detect obvious damage or defects without prior cleaning, such as:

- Damaged, dented, buckled or bent pipeline sections/valves/appurtenances
- Evidence of deviation of the pipeline from the supplied pipeline laid route
- Pipeline leakage
- Corrosion
- Damaged or excessively depleted anodes
- Unsupported lengths of pipe
- Debris that
 - could pose a hazard to future operations
 - could adversely affect the pipelines cathodic protection system
 - has or could cause damage
- Lack of adequate cathodic protection

Table 1.2.1 Work scope completion summary

Asset ID	Task Details	Completion	KP	
12"BEPLC2	Pipeline GVI/CP/Profile survey	100%	0.001	11.048
BEPLC2-Y1/2	Pipework GVI/CP/Profile survey	100%	2.068	2.195

1.3 PIPELINE DETAILS

Figure 1.3.1 Pipeline Location

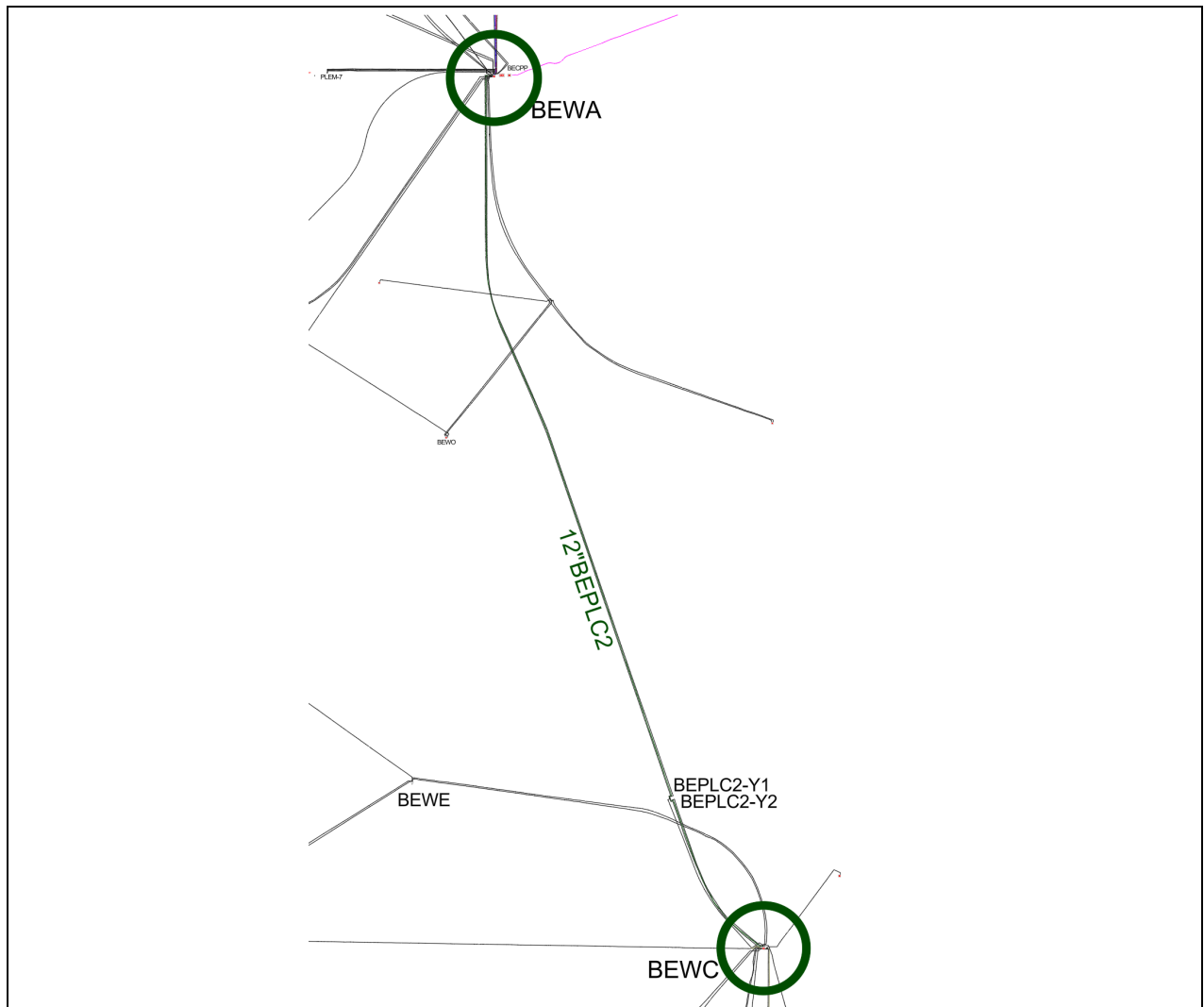


Table 1.3.2 Supplied Pipeline Technical Details

12"BEPLC2 Pipeline General Data	
Owner	Chevron Thailand Exploration & Production Ltd.
Name	12"BEPLC2
Installation Date	11 th June 1998
Design Life	20 Years
Originates From	BEWC
Terminates At	BEWA
Outside Diameter	12 Inch
Wall Thickness	0.563 Inch
Metal Grade	X52
Service	Wet gas
Anti-Corrosion Coating	
Material	FBE
Concrete Coating Thickness	None
Approximate Length	11.049 km
Allowable Free Span	<= 50 m

2. EXECUTIVE SUMMARY

This report section summarises the findings of the 12"BEPLC2 Pipeline External Survey. The survey was performed in ascending KP, from the riser tie-in flange at BEWB to the BEWA riser tie-in flange.

Table 2.1 Pipeline Survey details

12"BEPLC2 Pipeline			
Start Date	End Date	Survey Length	Survey Rate (km/h)
18 th April 2025	24 th April 2025	11,047 m	0.452
From	BEWC Platform Riser tie-in Flange		
KP	Easting (m)	Northing (m)	
0.001	752687.97	1153373.81	
To	BEWA Riser Tie-in Flange		
KP	Easting (m)	Northing (m)	
11.048	749544.20	1163542.02	

Coordinate system: Indian 1975

2.1 GENERAL CONDITION

The pipeline was found to be in good general condition, with no damage, lack of integrity, product leakage or indications of corrosion observed. No significant deviation of the pipeline was identified during the survey.

2.2 FREESPAN

A total of one-hundred and eighty-six (186) freespans were identified along the length of the pipeline, none (0) of which exceeded the supplied operational allowable freespan criterion of 50 m.

2.3 PIPELINE STRUCTURES AND APPURTENANCES

A total of twelve (12) flanges were inspected during the survey, all were found in good general condition with no product leakage, lack of integrity or corrosion observed.

2.4 ANODE CONDITION

Eighty-three (83) anodes were recorded during survey.

- Eighty-three (83) were assessed as 25% or less depleted

ภาคผนวก 29

ตัวอย่าง *Briding Document (Chevron and Shelf Drilling)*

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1.0 Introduction

1.1 Purpose

The purpose of the HES Bridging Document is to document agreements and clarify expectations between Chevron and Shelf Drilling regarding the primacy and implementation of the Chevron Operational Excellence Management System (OEMS) requirements with Shelf Drilling's Safety Management System (SMS) for the contracted scope of work (Table 1).

The HES Bridging Document is also used to demonstrate that interfaces between Chevron's OEMS and Shelf Drilling's SMS have been evaluated and reviewed by all affected parties. It is not intended to replace the HES related Attachment in the contract; rather, it is designed to supplement it.

The implementation of agreements determined within this document allows the management of workforce safety and health, process safety, reliability, and integrity, environmental efficiencies, security and stakeholder needs to ultimately deliver OE performance.

In the event of a conflict between the processes and procedures of Chevron and Shelf Drilling, the default position shall be that procedures which are more stringent take precedence.

These expectations are met by;

- Conducting a gap assessment between applicable Chevron's OEMS requirements and Shelf Drilling's SMS.
- Developing a mitigation plan to address identified gaps.
- Ensuring roles, responsibilities and competencies of key personnel are clearly defined and communicated.
- Defining assurance, verification and validation (V&V) activities to assure safeguards are in place and functioning.
- Ensuring local legislative and industry requirements are met or exceeded.

1.2 Scope

The scope of this document covers the contracted services between Chevron and Shelf Drilling as identified in Table 1.

Table 1: Contracted Services

Contracted Service Scope	Contract Number
Drilling Unit, Ancillary Equipment and Personnel	Rig "Chao Phraya" – 1235832 Rig "Krathong" – 1235834
Rig Rental Service Supporting Asset Retirement Activities	Rig "Scepter" - 1735026 Rig "Enterprise" – 1779186