

ภาคผนวก ข
ใบรายงานผลการติดตามตรวจสอบผลกระทบสิ่งแวดล้อม





ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE : [REDACTED]

SAMPLE TYPE : EFFLUENT

SAMPLING DATE : JULY 4, 2024

SAMPLING TIME : 09:15 HOUR

SAMPLING METHOD : [REDACTED]

SAMPLING BY : [REDACTED]

ANALYZED BY : [REDACTED]

RECEIVED DATE : JULY 5, 2024

ANALYTICAL DATE : JULY 5-15, 2024

ISSUE DATE : JULY 16, 2024

REPORT NO. : 2024-U064669

WORK NO. : 2019-002022

ANALYSIS NO. : T24AP139-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW005 : REFINERY MIX T24AP139-0006	DETECTION LIMIT
pH °	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.6 (25°C)	-
TEMPERATURE °	°C	THERMOMETER (AT SITE) SM: PART 2550 B	33	-
SALINITY °	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	28.8	0.1
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	< 2.0	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	95.4	25.0
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	8.7	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	36.840	25
SULPHIDE °	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S ²⁻ D)	0.02	0.02
NITRATE °	mg/L NO ₃ ⁻	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ ⁻ E)	16.0	0.09
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	1.4	3



METHOD OF ANALYSIS

LBW005 : REFINERY MIX
T24AP139-0006

UNIT : mg/L Pb

DETECTION
LIMIT : 0.020

RESULT : YELLOW/CLEAR
GREEN

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-04-07-002

a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

WATER'S COLOUR/TURBID
SEDIMENT

UNIT : mg/L Pb

DETECTION
LIMIT : 0.020

RESULT : YELLOW/CLEAR
GREEN

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

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c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

WATER'S COLOUR/TURBID
SEDIMENT

UNIT : mg/L Pb

DETECTION
LIMIT : 0.020

RESULT : YELLOW/CLEAR
GREEN

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

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c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

WATER'S COLOUR/TURBID
SEDIMENT

UNIT : mg/L Pb

DETECTION
LIMIT : 0.020

RESULT : YELLOW/CLEAR
GREEN

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

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c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

WATER'S COLOUR/TURBID
SEDIMENT

UNIT : mg/L Pb

DETECTION
LIMIT : 0.020

RESULT : YELLOW/CLEAR
GREEN

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

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c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

WATER'S COLOUR/TURBID
SEDIMENT

UNIT : mg/L Pb

DETECTION
LIMIT : 0.020

RESULT : YELLOW/CLEAR
GREEN

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

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c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

WATER'S COLOUR/TURBID
SEDIMENT

UNIT : mg/L Pb

DETECTION
LIMIT : 0.020

RESULT : YELLOW/CLEAR
GREEN

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-04-07-002

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c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

WATER'S COLOUR/TURBID
SEDIMENT

UNIT : mg/L Pb

DETECTION
LIMIT : 0.020

RESULT : YELLOW/CLEAR
GREEN

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO. : EV-04-07-002



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS			LBW006 : 500 M OFFSHORE (JETTY) T24AP140-0001	
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	1.30	0.100
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24TH EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-04-07-002

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHUA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING METHOD : SEAWATER
SAMPLING DATE : JULY 12, 2024
SAMPLING TIME : 09:20 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : JULY 13, 2024
ANALYTICAL DATE : JULY 13-17, 2024
ISSUE DATE : JULY 23, 2024
REPORT NO. : 2024-U067107
WORK NO. : 2019-002022
ANALYSIS NO. : T24AP937-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	LBW006: 500 M OFFSHORE (JETTY) T24AP937-0006 8.0 (25°C)	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	30	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	34,520	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.8	3
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR WHITE	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24TH EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-12-07-004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS			LBW006 : 500 M OFFSHORE (JETTY) T24AP140-0001	
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	1.30	0.100
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24TH EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-04-07-002



United Analyst and Engineering Consultant Co., Ltd.

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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : SEAWATER
SAMPLING DATE : JULY 4, 2024
SAMPLING TIME : 09:45 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : JULY 5, 2024
ANALYTICAL DATE : JULY 5-11, 2024
ISSUE DATE : JULY 24, 2024
REPORT NO. : 2024-U064979
WORK NO. : 2019-002022
ANALYSIS NO. : T24AP140-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW007 : BERTH ISLAND T24AP140-0002	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	8.1 (25°C)	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	28	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1600 B	27.8	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O G	5.1	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	16	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	85.6	25.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	33,720	25
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II(6))	5.66	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	1.3	3



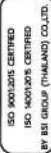
United Analyst and Engineering Consultant Co., Ltd.

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Tel.0 2763 2828 Fax 0 2763 2800 www.uaiconsultant.com E-mail: uae@uaiconsultant.com

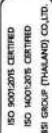
ANALYSIS REPORT

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW007 : BERTH ISLAND T24AP140-0002	DETECTION LIMIT
METALS				
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.200	0.100
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE: THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO.: EV-04-07-002



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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUANG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION : [REDACTED]
SAMPLING SOURCE : [REDACTED]
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : AUGUST 1, 2024
SAMPLING TIME : 10:15 HOUR
SAMPLING METHOD : GBAB
SAMPLING BY : [REDACTED]
ANALYZED BY : [REDACTED]
RECEIVED DATE : AUGUST 2, 2024
ANALYTICAL DATE : AUGUST 2-8, 2024
ISSUE DATE : AUGUST 13, 2024
REPORT NO. : 2024-U073574
WORK NO. : 2019-002022
ANALYSIS NO. : T244R292-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW005 : REFINERY MIX T24AR292-0006	
pH ^c	-	ELECTROMETRIC METHOD (SM: PART 4500-H B)	7.8 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER (AT SITE) SM: PART 2550 B	34	-
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	29.3	0.1
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2.4	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	87.1	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	7.2	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	37,300	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S ² D)	< 0.02	0.02
NITRATE ^c	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	23.6	0.09
FAT, OIL AND GREASE ^c	mg/L	LIQUID/LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	13	3

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW005 : REFINERY MIX T24AR292-0006	
METALS				
LEAD ^c	mg/L Pb	UAETP-HEM 004 BASED ON SM: PART 3030 E AND PART 3111 B	< 0.020	0.020
SAMPLE CONDITION				
WATERS COLOUR/TURBID			YELLOW/CLEAR	
SEDIMENT			BROWN	

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)
^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-01-08-001





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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230

CONTACT INFORMATION

SAMPLING SOURCE : -

SAMPLE TYPE : EFFLUENT

SAMPLING DATE : AUGUST 8, 2024

SAMPLING TIME : 10:20 HOUR

SAMPLING METHOD : GRAB

SAMPLING BY : [REDACTED]

ANALYZED BY : [REDACTED]

RECEIVED DATE : AUGUST 9, 2024

ANALYTICAL DATE : AUGUST 9-15, 2024

ISSUE DATE : AUGUST 21, 2024

REPORT NO. : 2024-U076940

WORK NO. : 2019-002022

ANALYSIS NO. : T24AR971-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	LBW005 : REFINERY MIX T24AR971-0005 7.8 (25°C)	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	36	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	30,300	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.8	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION, ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-08-08-003



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- End of Analysis Report -

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY

CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230

CONTACT INFORMATION

SAMPLING SOURCE : -

SAMPLE TYPE : SEAWATER

SAMPLING DATE : AUGUST 1, 2024

SAMPLING TIME : 10:30 HOUR

SAMPLING METHOD : COMPOSITE

SAMPLING BY : [REDACTED]

ANALYZED BY : [REDACTED]

RECEIVED DATE : AUGUST 2, 2024

ANALYTICAL DATE : AUGUST 2-9, 2024

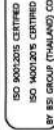
ISSUE DATE : AUGUST 16, 2024

REPORT NO. : 2024-U075269

WORK NO. : 2019-002022

ANALYSIS NO. : T24AR294-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.9 (25°C)	-
PHENOLS	mg/L	DISTILLATION, 4-AMINOCANTHOPYRINE METHOD (SM: PART 5530 B AND PART 5530 C)	< 0.005	0.005
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	30	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	26.9	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-LO G	4.8	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-LO G)	1.1	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	84.0	25.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	7.1	10
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	34,600	25
CYANIDE	µg/L CN ⁻	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 5	5
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II.6))	6.79	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.7	3



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PARAMETER		UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS				LBW006 : 500 M OFFSHORE (JETTY) T24AR294-0001	
LEAD		µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.190	0.100
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT				COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-01-08-001

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : SEAWATER
SAMPLING DATE : AUGUST 8, 2024
SAMPLING TIME : 09:30 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : AUGUST 9, 2024
ANALYTICAL DATE : AUGUST 9-15, 2024
ISSUE DATE : AUGUST 21, 2024
REPORT NO. : 2024-U076041
WORK NO. : 2019-002022
ANALYSIS NO. : T24AR971-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LBW006 : 500 M OFFSHORE (JETTY) T24AR971-0006	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	8.0 (25°C)	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2560 B	32	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	30,700	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.7	3
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-08-08-003



United Analyst and Engineering Consultant Co., Ltd.
3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260
Tel.0 2763 2828 Fax 0 2763 2800 www.uaiconsultant.com E-mail: uae@uaiconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : SEAWATER
SAMPLING DATE : AUGUST 1, 2024
SAMPLING TIME : 11:25 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : AUGUST 2, 2024
ANALYTICAL DATE : AUGUST 2-9, 2024
ISSUE DATE : AUGUST 16, 2024
REPORT NO. : 2024-U075270
WORK NO. : 2019-002022
ANALYSIS NO. : T24AR294-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW007 : BERTH ISLAND T24AR294-0002		
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	8.0 (25°C)		-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	30		-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	27.5		0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O G	5.1		0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	0.6		0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	85.5		25.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	34,260		25
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, IL6))	6.26		0.50
SULPHIDE	µg/L	METHYLENEBLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10		10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.8		3



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3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260
Tel.0 2763 2828 Fax 0 2763 2800 www.uaiconsultant.com E-mail: uae@uaiconsultant.com

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW007 : BERTH ISLAND T24AR294-0002		
METALS					
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	0.200		0.100
SAMPLE CONDITION				COLOURLESS/CLEAR YELLOW	
WATER'S COLOUR/TURBID SEDIMENT					

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-0188-001



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3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260
Tel.0 2763 2828 Fax 0 2763 2800 www.laeconsultant.com E-mail: lae@laeconsultant.com



NSG-TISI-TIS 17025
TESTING 0237

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION

SAMPLING SOURCE : WASTEWATER

SAMPLE TYPE : WASTEWATER

SAMPLING DATE : SEPTEMBER 12, 2024

SAMPLING TIME : 09:00 HOUR

SAMPLING METHOD : GRAB

SAMPLING BY : [REDACTED]

ANALYZED BY : [REDACTED]

RECEIVED DATE : SEPTEMBER 13, 2024

ANALYTICAL DATE : SEPTEMBER 13-19, 2024

ISSUE DATE : SEPTEMBER 23, 2024

REPORT NO. : 2024-U088166

WORK NO. : 2019-002022

ANALYSIS NO. : T24AV173-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH ^a	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	6.9 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER (AT SITE) SM: PART 2550 B	37.4	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	179	2.0
CHEMICAL OXYGEN DEMAND ^a	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	308	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	140	5.0
TOTAL DISSOLVED SOLIDS ^a	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	7,882	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ²⁻ D)	0.06	0.02
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	50	3
CYANIDE ^c	mg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN ⁻ C AND PART 4500-CN ⁻ E)	< 0.005	0.005
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			GREY/TURBID BLACK	

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)

^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)

^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

RELEASE ORDER NO. : EV-12-09-004

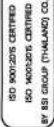
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Tel.0 2763 2828 Fax 0 2763 2800 www.laeconsultant.com E-mail: lae@laeconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION

SAMPLING SOURCE : WASTEWATER

SAMPLE TYPE : WASTEWATER

SAMPLING DATE : SEPTEMBER 12, 2024

SAMPLING TIME : 09:00 HOUR

SAMPLING METHOD : GRAB

SAMPLING BY : [REDACTED]

ANALYZED BY : [REDACTED]

RECEIVED DATE : SEPTEMBER 13, 2024

ANALYTICAL DATE : SEPTEMBER 13-17, 2024

ISSUE DATE : SEPTEMBER 23, 2024

REPORT NO. : 2024-U087811

WORK NO. : 2019-002022

ANALYSIS NO. : T24AV177-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
TOTAL SOLIDS	mg/L	TOTAL SOLIDS DRIED AT 103-105 °C (SM: PART 2540 B)	8,316	25
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			GREY/TURBID BLACK	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

RELEASE ORDER NO. : EV-12-09-004

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MSC-TISI-TIS 17025
TESTING 0207

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKULA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : SEPTEMBER 12, 2024
SAMPLING TIME : 09:40 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY :
ANALYZED BY :

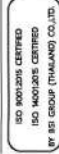
RECEIVED DATE : SEPTEMBER 13, 2024
ANALYTICAL DATE : SEPTEMBER 13-19, 2024
ISSUE DATE : SEPTEMBER 23, 2024
REPORT NO. : 2024-U088172
WORK NO. : 2019-002022
ANALYSIS NO. : T24AV173-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW004 : OP OUTLET T24AV173-0005	
pH ^c	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.6 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER (AT SITE) SM: PART 2550 B	34.4	-
BIO-CHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ⁻ G)	2.9	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX TITRIMETRIC METHOD (SM: PART 5220 C)	75.2	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	10.6	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	29.600	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S ²⁻ D)	< 0.02	0.02
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.5	3

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- End of Analysis Report -



MSC-TISI-TIS 17025
TESTING 0207

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW004 : OP OUTLET T24AV173-0005	
CYANIDE ^c	mg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 0.005	0.005
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)
^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE: THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-12-09-004

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2024-U088172

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHIA ST RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE :
SAMPLING DATE : SEPTEMBER 13, 2024
SAMPLING TIME : SEPTEMBER 23, 2024
SAMPLING METHOD : 09:40 HOUR
SAMPLING BY : GRAB
SAMPLING NO. : 2024-U087812
ANALYZED BY : 2019-002022
RECEIVED DATE : SEPTEMBER 13, 2024
ANALYTICAL DATE : SEPTEMBER 23, 2024
ISSUE DATE :
REPORT NO. : 2024-U087812
WORK NO. : 2019-002022
ANALYSIS NO. : T24AV177-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
TOTAL SOLIDS	mg/L	TOTAL SOLIDS DRIED AT 103-105 °C (SM: PART 2540 B)	32,820	25
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24TH EDITION, 2023.
RELEASE ORDER NO. : EV-12-09-004

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHIA ST RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE :
SAMPLING DATE : SEPTEMBER 12, 2024
SAMPLING TIME : 10:10 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : SEPTEMBER 13, 2024
ANALYTICAL DATE : SEPTEMBER 13-19, 2024
ISSUE DATE : SEPTEMBER 23, 2024
REPORT NO. : 2024-U088175
WORK NO. : 2019-002022
ANALYSIS NO. : T24AV173-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH [°]	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.8 (25°C)	-
TEMPERATURE [°]	°C	THERMOMETER (AT SITE) SM: PART 2550 B	33.8	-
SALINITY [°]	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	24.2	0.1
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	2.7	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	52.8	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	8.8	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	30.080	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ²⁻ D)	< 0.02	0.02
NITRATE ^c	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	33.7	0.09
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.4	3

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS				
LEAD #	mg/L Pb	LJAE/TP-HBM-004 BASED ON SM- PART 3030 E AND PART 3111 B	< LOQ	0.020
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)
c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
<LOQ : < LIMIT OF QUANTITATION (LEAD > 0.020 AND < 0.200 mg/L)
FAT OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-12-09-004

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230

CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE : [REDACTED]

SAMPLE TYPE : [REDACTED] RECEIVED DATE : [REDACTED]

MEASURING DATE : SEPTEMBER 12, 2024 ANALYTICAL DATE : [REDACTED]

MEASURING TIME : 10:10 HOUR ISSUE DATE : SEPTEMBER 24, 2024

SAMPLING METHOD : GRAB REPORT NO. : 2024-U087810

MEASURED BY : [REDACTED] WORK NO. : 2019-002022

ANALYSIS NO. : TZ4V177-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			LHW05 : REFINERY MIX	DETECTION LIMIT
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM- PART 4500-O G	TZ4V177-0002 4.0	0.5
SAMPLE CONDITION			YELLOW/CLEAR WHITE	
WATER'S COLOUR/TURBID SEDIMENT				

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
RELEASE ORDER NO. : EV-12-09-004

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : SEPTEMBER 20, 2024
SAMPLING TIME : 09:15 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : SEPTEMBER 20, 2024
ANALYTICAL DATE : SEPTEMBER 20-30, 2024
ISSUE DATE : OCTOBER 1, 2024
REPORT NO. : 2024-U091027
WORK NO. : 2019-002022
ANALYSIS NO. : T24AV948-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	LBW005 : REFINERY MIX T24AV948-0005 7.6 (25°C)	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	34.4	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	22,060	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	2.8	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24TH EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION
RELEASE ORDER NO. : EV-20-09-008

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : SEAWATER
SAMPLING DATE : SEPTEMBER 12, 2024
SAMPLING TIME : 10:25 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : SEPTEMBER 13, 2024
ANALYTICAL DATE : SEPTEMBER 13-19, 2024
ISSUE DATE : SEPTEMBER 19, 2024
REPORT NO. : 2024-U087429
WORK NO. : 2019-002022
ANALYSIS NO. : T24AV175-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	LBW006 : 500 M OFFSHORE (JETTY) T24AV175-0001 7.7 (25°C)	-
PHENOLS	mg/L	DISTILLATION, 4-AMINOANTIPYRINE METHOD (SM: PART 5530 B AND PART 5530 C)	< 0.005	0.005
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	30.8	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	24.2	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O ₂ G	4.5	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	0.8	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	46.4	25.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	5.2	1.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	30,800	25
CYANIDE	µg/L CN ⁻	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 5	5
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, IL6))	9.18	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.4	3

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS			LBW006 : 500 M OFFSHORE (JETTY) T24AV175-0001	
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	< 0.100	0.100
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-1209-004

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA, CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : SEAWATER
SAMPLING DATE : SEPTEMBER 20, 2024
SAMPLING TIME : 08:45 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : SEPTEMBER 20, 2024
ANALYTICAL DATE : SEPTEMBER 20-30, 2024
ISSUE DATE : OCTOBER 1, 2024
REPORT NO. : 2024-U091028
WORK NO. : 2019-002022
ANALYSIS NO. : T24AV948-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
pH	-	ELECTROMETRIC METHOD (SM PART 4500-H ⁺ B)	LBW006. 500 M OFFSHORE (JETTY) T24AV948-0006 7.9 (25°C)	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM PART 2550 B	30.7	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM PART 2540 C)	25.520	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	0.4	3
SAMPLE CONDITION			YELLOW/CLEAR YELLOW	
WATER'S COLOUR/TURBID SEDIMENT				

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-20-09-006



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS			LBW006 : 500 M OFFSHORE (JETTY) T24AV175-0001	
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	< 0.100	0.100
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-1209-004



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Tel.0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : OCTOBER 3, 2024
SAMPLING TIME : 10:50 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : OCTOBER 4, 2024
ANALYTICAL DATE : OCTOBER 4-15, 2024
ISSUE DATE : OCTOBER 16, 2024
REPORT NO. : 2024-U096481
WORK NO. : 2019-002022
ANALYSIS NO. : T24AX315-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW005 : RETINERY MIX T24AX315-0006	
pH ^c	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.5 (25°C)	-
TEMPERATURE ^c	°C	THERMOMETER (AT SITE) SM: PART 2560 B	35.3	-
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	29.5	0.1
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	< 2.0	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	52.8	40.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	5.3	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	33.961	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD(SM: PART 4500-S ²⁻ D)	< 0.02	0.02
NITRATE ^c	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	20.2	0.09
FAT, OIL AND GREASE ^c	mg/L	LIQUID LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	2.1	3

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Tel.0 2763 2828 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : SEAWATER
SAMPLING DATE : SEPTEMBER 12, 2024
SAMPLING TIME : 10:45 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : SEPTEMBER 13, 2024
ANALYTICAL DATE : SEPTEMBER 13, 2024
ISSUE DATE : SEPTEMBER 23, 2024
REPORT NO. : 2024-U087809
WORK NO. : 2019-002022
ANALYSIS NO. : T24AV177-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW007 : BERTH ISLAND T24AV177-0001	
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	4.3	1.0
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
RELEASE ORDER NO. : EV-12-09-004

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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 Moo 2 Thung Sukhla Si Racha Chon Buri 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLING TYPE : SEAWATER
SAMPLING DATE : OCTOBER 3, 2024
SAMPLING TIME : 09:00 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : OCTOBER 4, 2024
ANALYTICAL DATE : OCTOBER 4-18, 2024
ISSUE DATE : OCTOBER 24, 2024
REPORT NO. : 2024-U098683
WORK NO. : 2019-002022
ANALYSIS NO. : T24AX318-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			LBW006 : 500 M OFFSHORE (JETTY) T24AX318-0001	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.8 (25°C)	-
PHENOLS	mg/L	DISTILLATION, 4-AMINOANTIPYRINE METHOD (SM: PART 5530 B AND PART 5530 C)	< 0.005	0.005
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	30.8	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	25.9	0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O G	4.9	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	0.9	0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	64.0	40.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	16.6	1.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	31.830	25
CYANIDE	µg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 5	5
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, 116))	10.1	0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	1.7	3



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Tel.0 2763 2828 Fax 0 2763 2800 www.ljaeconsultant.com E-mail: uae@ljaeconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE : SEAWATER
SAMPLE TYPE : SEAWATER
SAMPLING DATE : OCTOBER 10, 2024
SAMPLING TIME : 09:00 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : OCTOBER 10, 2024
ANALYTICAL DATE : OCTOBER 10-17, 2024
ISSUE DATE : OCTOBER 22, 2024
REPORT NO. : OCT24-U098536
WORK NO. : 2019-002022
ANALYSIS NO. : T24AX884-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW006. 500 M OFFSHORE (JETTY) T24AX884-0006		
pH	-	ELECTROMETRIC METHOD (SM. PART 4500-H+ B)	7.8 (25°C)		-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM. PART 2550 B	30.4		-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM. PART 2540 C)	34.220		25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM. PART 5520 B)	2.0		3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-10-10-004



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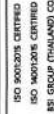
- End of Analysis Report -



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE : SEAWATER
SAMPLE TYPE : SEAWATER
SAMPLING DATE : OCTOBER 3, 2024
SAMPLING TIME : 10:02 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : OCTOBER 4, 2024
ANALYTICAL DATE : OCTOBER 4-18, 2024
ISSUE DATE : OCTOBER 24, 2024
REPORT NO. : 2024-U098684
WORK NO. : 2019-002022
ANALYSIS NO. : T24AX318-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW007 : BERTH ISLAND T24AX318-0002		
pH	-	ELECTROMETRIC METHOD (SM. PART 4500-H+ B)	7.9 (25°C)		-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM. PART 2550 B	30.8		-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM. PART 2520 B AND 1060 B	26.7		0.1
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM. PART 4500-O G	5.0		0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM. PART 5210 B AND PART 4500-O G)	0.9		0.5
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM. PART 5220 C)	52.8		40.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM. PART 2540 C)	32.180		25
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, 116))	10.8		0.50
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10		10
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM. PART 5520 B)	1.3		3



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PARAMETER	UNIT	METHOD OF ANALYSIS	DETECTION LIMIT	
			RESULT	
LBW007 : BERTH ISLAND T24AX318-0002				
METALS				
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	< 0.100	0.100
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-03-10-002

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION : -
SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : NOVEMBER 7, 2024
SAMPLING TIME : 10:55 HOUR
SAMPLING METHOD : CS-18
SAMPLING BY : -
ANALYZED BY : -

RECEIVED DATE : NOVEMBER 8, 2024
ANALYTICAL DATE : NOVEMBER 8-14, 2024
ISSUE DATE : NOVEMBER 20, 2024
REPORT NO. : 2024-UJ08248
WORK NO. : 2019-00202
ANALYSIS NO. : T24BA216-0009

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW005 : REFINERY MIX T24BA216-0009	DETECTION LIMIT	LIMIT OF QUANTITATION (LOQ)
pH ^c	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.7 (25°C)	-	-
TEMPERATURE ^c	°C	THERMOMETER (AT SITE) SM: PART 2550 B	34.5	-	-
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	318	0.1	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5270 B AND PART 4500-O G)	< 2.0	-	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	62.4	-	40.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	8.1	-	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	36,800	-	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ²⁻ D)	< 0.02	-	0.02
NITRATE ^c	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	18.8	0.09	-
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	-	3

PARAMETER		UNIT	METHOD OF ANALYSIS	RESULT LBW005 : REFINERY MIX T248A216-0009	DETECTION LIMIT	LIMIT OF QUANTITATION (LOQ)
METALS						
LEAD c		mg/L Pb	UAETPHEM.004 BASED ON SM. PART 3030 E AND PART 3111 B	< 0.020	0.020	0.200
SAMPLE CONDITION						
WATER'S COLOUR/TURBID SEDIMENT				YELLOW/CLEAR BROWN		

a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)
c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-07-14002

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION

SAMPLE SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : NOVEMBER 21, 2024
SAMPLING TIME : 10:25 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY :
ANALYZED BY :

RECEIVED DATE : NOVEMBER 22, 2024
ANALYTICAL DATE : NOVEMBER 22-26, 2024
ISSUE DATE : DECEMBER 4, 2024
REPORT NO. : 2024-U112451
WORK NO. : 2019-002022
ANALYSIS NO. : T248B514-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		LIMIT OF QUANTITATION (LOQ)
			LBW005 : REFINERY MIX T248B514-0005		
pH	-	ELECTROMETRIC METHOD (SM. PART 4500-H+ B)	7.7 (25°C)		-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM. PART 2550 B	34.4		-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM. PART 2540 C)	32,440		25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM. PART 5520 B)	0.8		3
SAMPLE CONDITION			WATER'S COLOUR/TURBID SEDIMENT		
			YELLOW/CLEAR YELLOW		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-21-11-006



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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY

CUSTOMER NAME : BANGCHAK KRIRACHA PUBLIC COMPANY LIMITED

ADDRESS : 118 MOO 2 THUNG SUKHUA SI BACHA CHON BURI 20230

CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE

SAMPLE TYPE : SEAWATER

SAMPLING TIME : NOVEMBER 7, 2024

SAMPLING METHOD : COMPOSITE

SAMPLING BY : [REDACTED]

ANALYZED BY : [REDACTED]

RECEIVED DATE : NOVEMBER 8, 2024

ANALYTICAL DATE : NOVEMBER 8-23, 2024

ISSUE DATE : NOVEMBER 27, 2024

REPORT NO. : 2024-U111065

WORK NO. : 2019-002022

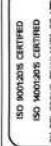
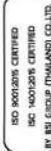
ANALYSIS NO. : T248A218-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		LIMIT OF QUANTITATION (LOQ)
			LBW006 : 500 M OFFSHORE (JETTY) T248A218-0001	DETECTION LIMIT	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.8 (25°C)	-	-
PHENOLS	mg/L	DISTILLATION, 4-AMINOANTHRACENE METHOD (SM: PART 5530 B AND PART 5530 C)	< 0.005	0.005	0.020
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2560 B	29.4	-	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	28.9	0.1	-
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O G	4.8	0.5	-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	< 0.5	0.5	-
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	49.6	-	40.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	7.3	1.0	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	34.540	-	25
CYANIDE	µg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 5	5	20
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, 115))	12.2	0.50	-
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10	-
FAT, OIL AND GREASE	mg/L	LIQUID LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	-	3

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2024-U111065



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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : SEAWATER
SAMPLING DATE : NOVEMBER 7, 2024
SAMPLING TIME : 09:10 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : NOVEMBER 8, 2024
ANALYTICAL DATE : NOVEMBER 8-23, 2024
ISSUE DATE : NOVEMBER 27, 2024
REPORT NO. : 2024-U111066
WORK NO. : 2019-002022
ANALYSIS NO. : T24BA218-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
METALS			LBW006 : 500 M OFFSHORE (JETTY) T24BA218-0002	
MERCURY	µg/L Hg	US EPA 2005: 246.7, REVISION 2.0, FEBRUARY 2005	< 0.020	0.020
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR WHITE	

RELEASE ORDER NO. : EV-07-11-002



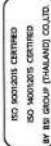
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Tel.0 2763 2828 Fax.0 2763 2800 www.uaeconsultant.com E-mail: uaec@uaeconsultant.com

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : SEAWATER
SAMPLING DATE : NOVEMBER 21, 2024
SAMPLING TIME : 10:45 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : NOVEMBER 22, 2024
ANALYTICAL DATE : NOVEMBER 22-26, 2024
ISSUE DATE : DECEMBER 4, 2024
REPORT NO. : 2024-U112452
WORK NO. : 2019-002022
ANALYSIS NO. : T24BB514-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	LIMIT OF QUANTITATION (LOQ)
pH	-	ELECTROMETRIC METHOD (SM PART 4500-H B)	7.8 (25°C)	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM PART 2550 B	29.6	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM PART 2540 C)	35.240	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	0.5	3
SAMPLE CONDITION				
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24TH EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-21-11-008



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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION
SAMPLING SOURCE : SEAWATER
SAMPLE TYPE : NOVEMBER 7, 2024
SAMPLING DATE : NOVEMBER 8-23, 2024
SAMPLING TIME : 10:10 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY : 2024-U111067
ANALYZED BY : 2019-002022
RECEIVED DATE : NOVEMBER 8, 2024
ANALYTICAL DATE : NOVEMBER 8-23, 2024
ISSUE DATE : NOVEMBER 27, 2024
REPORT NO. : 2024-U111067
WORK NO. : 2019-002022
ANALYSIS NO. : T24BA218-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT	LIMIT OF QUANTITATION (LOQ)
			LBW007 : BERTH ISLAND	T24BA218-0003		
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	8.0 (25°C)	-	-	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	30.1	-	-	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1060 B	29.0	0.1	-	-
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O ₂ G	5.0	0.5	-	-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5270 B AND PART 4500-O ₂ G)	< 0.5	0.5	-	-
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	48.0	-	40.0	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	33,980	-	25	-
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, 116))	11.5	0.50	-	-
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10	-	-
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.8	-	-	3.0

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2024-U111067



ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION : [REDACTED]

SAMPLING SOURCE : WASTEWATER
SAMPLE TYPE : [REDACTED]
SAMPLING DATE : DECEMBER 6, 2024
SAMPLING TIME : 09:55 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : [REDACTED]
ANALYZED BY : [REDACTED]

RECEIVED DATE : DECEMBER 7, 2024
ANALYTICAL DATE : DECEMBER 7-13, 2024
ISSUE DATE : DECEMBER 18, 2024
REPORT NO. : 2024-U118473
WORK NO. : 2019-002022
ANALYSIS NO. : TZ48C845-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LW001 : INLET API TZ48C845-0001	DETECTION LIMIT	LIMIT OF QUANTITATION (LOQ)
pH ^c	-	ELECTROMETRIC METHOD (SM PART 4500 -H ⁺ B)	7.1 (25°C)	-	-
TEMPERATURE ^e	°C	THERMOMETER (AT SITE) SM PART 2550 B	38.1	-	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM PART 5210 B AND PART 4500-O G)	110	-	2.0
CHEMICAL OXYGEN DEMAND ^e	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM PART 5220 C)	231	-	40.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103- 105 °C (SM PART 2540 D)	83.5	-	5.0
TOTAL DISSOLVED SOLIDS ^e	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM PART 2540 C)	12,360	-	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD(SM PART 4500 -S ²⁻ D)	0.08	-	0.02
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	23	-	3

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LW001 : INLET API TZ48C845-0001	DETECTION LIMIT	LIMIT OF QUANTITATION (LOQ)
CYANIDE ^e	mg/L CN ⁻	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM PART 4500-CN ⁻ C AND PART 4500-CN ⁻ E)	< LOQ	0.005	0.020
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT					
BROWN/TURBID BROWN					

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)
^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24TH EDITION, 2023.

RELEASE ORDER NO. : EV-08-02.002

< LOQ : < LIMIT OF QUANTITATION (CYANIDE ≥ 0.005 AND < 0.020 mg/L).

ANALYSIS REPORT

PROJECT NAME	: ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME	: BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS	: 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION	
SAMPLING SOURCE	: -
SAMPLING TYPE	: WASTEWATER
SAMPLING DATE	: DECEMBER 6, 2024
SAMPLING TIME	: 09:55 HOUR
SAMPLING METHOD	: GRAB
SAMPLING BY	
ANALYZED BY	
RECEIVED DATE	: DECEMBER 6, 2024
ANALYTICAL DATE	: DECEMBER 6, 2024
ISSUE DATE	: DECEMBER 6, 2024
REPORT NO.	: 2024
WORK NO.	: 2024
ANALYSIS NO.	: T24

RECEIVED DATE	: DECEMBER 7, 2024
ANALYTICAL DATE	: DECEMBER 7-11, 2024
ISSUE DATE	: DECEMBER 18, 2024
REPORT NO.	: 2024-U118475
WORK NO.	: 2019-002022
ANALYSIS NO.	: T24BC845-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW001 - INLET API T248C845-0002		
TOTAL SOLIDS	mg/L	TOTAL SOLIDS DRIED AT 103-105 °C (SM; PART 2540 B)	13,640		25
SAMPLE CONDITION				YELLOW/CLEAR BROWN	
WATER'S COLOUR/TURBID					
SEDIMENT					

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

RELEASE ORDER NO.: EV-06-12-002

ANALYSIS REPORT

PROJECT NAME	: ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME	: BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS	: 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI, 20230
CONTACT INFORMATION	
SAMPLING SOURCE	
SAMPLE TYPE	: EFFLUENT
SAMPLING DATE	: DECEMBER 6, 2024
SAMPLING TIME	: 10:50 HOUR
SAMPLING METHOD °	: GRAB
SAMPLING BY °	
ANALYZED BY	
RECIPIENT	
ANALYST	
ISSUED	
REPLY	
WORK	
ANALYST	

RECEIVED DATE	: DECEMBER 7, 2024
ANALYTICAL DATE	: DECEMBER 7-13, 2024
ISSUE DATE	: DECEMBER 19, 2024
REPORT NO.	: 2024-U118488
WORK NO.	: 2019-002022
ANALYSIS NO.	: T24BC945-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT	LIMIT OF QUANTIFICATION (LOQ)
			LBW064 : OP OUTLET 174BC845-0006		
pH ^c	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.8 (25°C)	-	-
TEMPERATURE ^c	°C	THERMOMETER (AT SITE) (SM: PART 2550 B)	29.0	-	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	<2.0	-	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	51.2	-	40.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	8.3	-	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	38,940	-	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ²⁻ D)	< 0.02	-	0.02
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.7	-	3

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW004 : OP OUTLET T24BC845-0007	DETECTION LIMIT	LIMIT OF QUANTITATION (LOQ)
CYANIDE ^c	mg/L ON	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM-PART 4500-CN C AND PART 4500-CN E)	<0.005	0.005	0.020
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

^a : ISO/IEC 17025 ACCREDITED BY THAI INDUSTRIAL STANDARDS INSTITUTE (TISI)
^b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)
^c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE: THIS REPORTED VALUE IS BELOW LIMIT OF QUANTITATION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO : EV-06-12-002

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE :
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : DECEMBER 6, 2024
SAMPLING TIME : 10-50 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : DECEMBER 7, 2024
ANALYTICAL DATE : DECEMBER 7-11, 2024
ISSUE DATE : DECEMBER 18, 2024
REPORT NO. : 2024-U118488
WORK NO. : 2019-002022
ANALYSIS NO. : T24BC845-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW004 : OP OUTLET T24BC845-0007	DETECTION LIMIT
TOTAL SOLIDS	mg/L	TOTAL SOLIDS DRIED AT 103-105 °C (SM-PART 2540 B)	43,350	25
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
RELEASE ORDER NO : EV-06-12-002



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NSC -TISI -TIS 17025
TESTING 0207

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIDACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKULA SE RACHA CHON BURI 20230

CONTACT INFORMATION

SAMPLING SOURCE : -
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : DECEMBER 6, 2024
SAMPLING TIME : 11:15 HOUR
SAMPLING METHOD : -
SAMPLING BY : -
ANALYZED BY : -

RECEIVED DATE : DECEMBER 7, 2024
ANALYTICAL DATE : DECEMBER 7-16, 2024
ISSUE DATE : DECEMBER 19, 2024
REPORT NO. : 2024-U118492
WORK NO. : 2019-002022
ANALYSIS NO. : TZ4BC845-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW005 : REFINERY MIX TZ4BC845-0008	DETECTION LIMIT	LIMIT OF QUANTITATION (LOQ)
pH ^c	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	7.9 (25°C)	-	-
TEMPERATURE ^c	°C	THERMOMETER (AT SITE) (SM: PART 2550 B)	33.7	-	-
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) (SM: PART 2520 B AND 1060 B)	29.6	0.1	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	< 2.0	-	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	49.6	-	40.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	10.7	-	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	37.160	-	25
SULPHIDE ^c	mg/L	METHYLENE BLUE METHOD (SM: PART 4500-S ²⁻ D)	< 0.02	-	0.02
NITRATE ^c	mg/L NO ₃	CADMIUM REDUCTION METHOD (SM: PART 4500-NO ₃ E)	2.26	0.09	-
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	-	3

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NSC -TISI -TIS 17025
TESTING 0207

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW005 : REFINERY MIX TZ4BC845-0008	DETECTION LIMIT	LIMIT OF QUANTITATION (LOQ)
METALS					
LEAD ^c	mg/L Pb	LAUE-TP-HBA 004 BASED ON SM: PART 3030 E AND PART 3111 B	< 0.020	0.020	0.200
SAMPLE CONDITION					
WATER'S COLOUR/TURBID					
SEDIMENT			YELLOW/CLEAR BROWN		

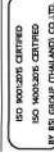
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b : ISO/IEC 17025 ACCREDITED BY DEPARTMENT OF SCIENCE SERVICE (DSS)
c : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF QUANTITATION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-06-12-002



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ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230
CONTACT INFORMATION :
SAMPLING SOURCE : SEAWATER
SAMPLE TYPE :
SAMPLING DATE : DECEMBER 6, 2024
SAMPLING TIME : 12:59 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : DECEMBER 7, 2024
ANALYTICAL DATE : DECEMBER 7-19, 2024
ISSUE DATE : DECEMBER 25, 2024
REPORT NO. : 2024-U119728
WORK NO. : 2019-00202
ANALYSIS NO. : T24BC346-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		LIMIT OF QUANTIFICATION (LOQ)
			LBW006 : 500 M OFFSHORE (JETTY) T24BC346-0001	DETECTION LIMIT	
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H+ B)	7.9 (25°C)	-	-
PHENOLS	mg/L	DISTILLATION, 4-AMINOANTHRACENE METHOD (SM: PART 5530 B AND PART 5530 C)	< 0.005	0.005	0.020
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	28.5	-	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2520 B AND 1660 B	27.2	0.1	-
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O G	4.8	0.5	-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5270 B AND PART 4500-O G)	1.1	0.5	-
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	48.0	-	40.0
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM: PART 2540 D)	5.3	1.0	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	33.060	-	25
CYANIDE	µg/L CN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM: PART 4500-CN C AND PART 4500-CN E)	< 5	5	20
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STROCKLAND AND PARSON, 1972, 11.6))	5.35	0.50	-
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10	-
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 F)	0.5	-	3

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT	LIMIT OF QUANTIFICATION (LOQ)
METALS					
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	< 0.100	0.100	-
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.

FAT, OIL AND GREASE: THIS REPORTED VALUE IS BELOW LIMIT OF QUANTIFICATION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.

RELEASE ORDER NO.: EY-06-12-002

• PROHIBITED TO PARTIALLY COPY ANALYSIS REPORT PRIOR TO WRITTEN PERMISSION BY THE LABORATORY.

• THIS ANALYSIS REPORT APPROVES ONLY FOR THE SAMPLES AS RECEIVED.

ISO 9001:2015 CERTIFIED
ISO 14001:2015 CERTIFIED
BY RS GROUP (THAILAND) CO., LTD.

2/2

- End of Analysis Report -

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION
SAMPLING SOURCE : -

SAMPLE TYPE : SEAWATER
SAMPLING DATE : DECEMBER 12, 2024
SAMPLING TIME : 09:50 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : DECEMBER 13, 2024
ANALYTICAL DATE : DECEMBER 13-21, 2024
ISSUE DATE : DECEMBER 24, 2024
REPORT NO. : 2024-UI20877
WORK NO. : 2019-002022
ANALYSIS NO. : T248D330-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW006.500 M OFFSHORE (JETTY) T248D330-0006	LIMIT OF QUANTITATION (LOQ)
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	8.0 (25°C)	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	28.7	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	32.260	25
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.6	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW	

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24TH EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF DETECTION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO.: EV-12-12-004

ANALYSIS REPORT

PROJECT NAME : ENVIRONMENTAL & SOCIOECONOMIC SURVEY
CUSTOMER NAME : BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED
ADDRESS : 118 MOO 2 THUNG SUKHLA SI RACHA CHON BURI 20230

CONTACT INFORMATION
SAMPLING SOURCE : -

SAMPLE TYPE : SEAWATER
SAMPLING DATE : DECEMBER 6, 2024
SAMPLING TIME : 12:30 HOUR
SAMPLING METHOD : COMPOSITE
SAMPLING BY :
ANALYZED BY :
RECEIVED DATE : DECEMBER 7, 2024
ANALYTICAL DATE : DECEMBER 7-19, 2024
ISSUE DATE : DECEMBER 25, 2024
REPORT NO. : 2024-UI19729
WORK NO. : 2019-002022
ANALYSIS NO. : T248C946-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW007 : BERTH T248C946-0002	DETECTION LIMIT	LIMIT OF QUANTITATION (LOQ)
pH	-	ELECTROMETRIC METHOD (SM: PART 4500-H ⁺ B)	8.0 (25°C)	-	-
TEMPERATURE	°C	THERMOMETER (AT SITE) SM: PART 2550 B	29.8	-	-
SALINITY	ppt	ELECTRICAL CONDUCTIVITY METHOD (AT SITE) SM: PART 2530 B AND 1060 B	27.3	0.1	-
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD (AT SITE) SM: PART 4500-O ₂ G	5.1	0.5	-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O ₂ G)	0.9	0.5	-
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLEX, TITRIMETRIC METHOD (SM: PART 5220 C)	56.0	-	40.0
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	34.120	-	25
NITRATE-NITROGEN	µg/L N	CADMIUM REDUCTION AND COLOURIMETRIC METHOD (BASED ON PRACTICAL HANDBOOK OF SEAWATER ANALYSIS (STRICKLAND AND PARSON, 1972, II.6))	5.79	0.50	-
SULPHIDE	µg/L	METHYLENE BLUE COLOURIMETRIC METHOD (METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 5)	< 10	10	-
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	0.4	-	3

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT LBW007 : BIRTH ISLAND T248C846-0002	DETECTION LIMIT	LIMIT OF QUANTITATION (LOQ)
METALS					
LEAD	µg/L Pb	PRE-CONCENTRATION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (BASED ON METHOD OF SEAWATER ANALYSIS, GRASSHOFF, 1999, CHAPTER 12)	< 0.100	0.100	-
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
FAT, OIL AND GREASE : THIS REPORTED VALUE IS BELOW LIMIT OF QUANTITATION. ITS USE IS SUBJECT TO CUSTOMER JUSTIFICATION.
RELEASE ORDER NO. : EV-06-12-002

ANALYSIS REPORT

PROJECT NAME

CUSTOMER NAME

ADDRESS

CONTACT INFORMATION

SAMPLE SOURCE

SAMPLE TYPE

SAMPLING DATE

SAMPLING TIME

SAMPLING METHOD

SAMPLING BY

ANALYZED BY

: ENVIRONMENTAL & SOCIOECONOMIC SURVEY

: BANGCHAK SRIRACHA PUBLIC COMPANY LIMITED

: 118 MOO 2 THUNG SUKHILA SI RACHA CHON BURI 20230

: -

: SEAWATER

: DECEMBER 6, 2024

: 12:30 HOUR

: GRAB

RECEIVED DATE

ANALYTICAL DATE

ISSUE DATE

REPORT NO.

WORK NO.

ANALYSIS NO.

: DECEMBER 7, 2024

: DECEMBER 7-9, 2024

: DECEMBER 24, 2024

: 2024-U119730

: 2019-002022

: T248C846-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			LBW007 : BIRTH ISLAND	T248C846-0003	
SUSPENDED SOLIDS	mg/L	GRAVIMETRIC METHOD (SM PART 2540 D)	2.7		10
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR YELLOW		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24th EDITION, 2023.
RELEASE ORDER NO. : EV-06-12-002



BANGCHAK SRIRACHA REFINING COMPANY
Client Project #: SRT-RF-2024-05
Your P.O. #: 4510178805

Your P.O. #: 4510178805
Your Project #: SRT-RF-2024-05

Report Date: 11/14/2024
Report #: R8404895
Version: 2 - Revision

BV LABS JOB #: C4Y6292

Sample Matrix: Passive Monitor
Samples Received: 4

Remarks:

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

Encryption Key

Wendy Lesniak, CS
Email: Wendy.Lesniak@bureauveritas.com
Phone# (248) 344-1770

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO 17025, signing the reports. This report is authorized by Jason Forbes, Director of Operations responsible for Michigan Industrial Hygiene laboratory operations.

Client ID: SRT-RF-2024-05-003		Matrix: Passive Monitor				
BV Labs ID: AHUU44		Sample Media: AT 566/3M3500+				
Date Sampled: 09/27/2024		Sampling Time (Minutes): 420				
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL	Test Method	Date Analyzed
Benzene	9.7	<0.50	<0.12	<0.038	NOV SOP-00005	11/06/2024
THCs as n-Hexane	9.9	<30	<7.2	<2.1	NIOSH 1550 / 1551	11/06/2024
Toluene	9.5	<3.0	<0.75	<0.20	NOV SOP-00005	11/06/2024
Xylenes	7.5	<6.0	<1.9	<0.44	NOV SOP-00005	11/06/2024
RL = Reporting Limit						



BV Labs Job #: C4YG292
Report Date: 11/14/2024

BANGCHAK SRIRACHA REFINING COMPANY
Client Project #: SRT-RF-2024-05
Your P.O. #: 4510178805



BV Labs Job #: C4YG292
Report Date: 11/14/2024

BANGCHAK SRIRACHA REFINING COMPANY
Client Project #: SRT-RF-2024-05
Your P.O. #: 4510178805

ANALYTICAL RESULTS

Client ID: SRT-RF-2024-05-BLANK		Matrix:		Passive Monitor	
BV Labs ID: AHUU45		Sample Media: AT 566/3M3500+			
Date Sampled:					
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL ug	Date Analyzed
Gasoline	9.2	39	N/A	30	11/06/2024
Benzene	9.7	<0.50	N/A	0.50	11/06/2024
THCs as n-Hexane	9.9	40	N/A	30	11/06/2024
Toluene	9.5	<3.0	N/A	3.0	11/06/2024
Xylenes	7.5	<6.0	N/A	6.0	11/06/2024
RL = Reporting Limit					

GENERAL COMMENTS

Unless otherwise noted below the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and /or do not adversely affect the reported results and 3) the industrial hygiene results have not been blank corrected.

The client provided their pertinent field sampling data on the analysis request paperwork submitted with the samples. Results apply to the sample as received.

REVISED REPORT:
As requested on November 13, 2024, the result for total hydrocarbons as n-hexane has been added to laboratory sample numbers AHUU44 and AHUU45. The results are in the attached revised report.

Sample AHUU45 [SRT-RF-2024-05-BLANK] : Actual value of the client gasoline and THCs as n-hexane blank; results have been blank corrected. This value includes background present in the solvent and does not necessarily indicate contamination of the media.

Results relate only to the items tested.



**Request for Laboratory
Analytical Services**

IMPORTANT: Date results required: _____
Rush charges authorized? Yes ☐ No ☐
Fax or ☐ E-mail results ☐
E-mail Address: _____

Page: _____
For Lab Use Only
Lab Project #: _____

Bureau Veritas North America, Inc.

Report results to: Client Project Number: SRT-RF-2024-05
Name: Tanaphorn Taweeyat
Company: Bangchak Sriracha Public Company Limited
Mailing Address: [Redacted]
City, State, Zip: 118 Moo 2, Sukhaphibhan 7 Road, Tungsukhla, Sriracha, Chonburi 20230
Telephone No. [Redacted] Fax No. -

Send invoice to: BV Thailand P.O. No. 4510178805
Name: Sathaporn Rungnaparoichai
Company: Bureau Veritas (Thailand) Co., Ltd.
Address: 2170 New Petchburi Road, 16th Floor, Bangkok Tower Bangkok, Huaykwang, Bangkok, Thailand
City, State, Zip: 10310

Special instructions and/or specific regulatory requirements:
(method, limit of detection, etc.)

Asbestos/Soil samples only: Which state are these from?

Client Sample Identification	Date Sampled	Time Sampled	Matrix/Media	Air Volume (Liters)	# of Jars	ANALYSIS REQUESTED (List each analyte on the lines below, multiple analytes per line)
SRT-RF-2024-05-001	23-Sep-24	480 mins	AT 566	-	-	Bz, Toluene, Xylene & Gasoline
SRT-RF-2024-05-002	23-Sep-24	480 mins	AT 566	-	-	Bz, Toluene, Xylene & Gasoline
SRT-RF-2024-05-003	27-Sep-24	420 mins	AT 566	-	-	Bz, Toluene, Xylene & Gasoline
SRT-RF-2024-05-BLANK	-	-	AT 566	-	-	Bz & THC

Collected by: [Redacted] **Date/Time:** 1-Nov-24 **Collector's Signature:** [Redacted] **Date/Time:** _____
Relinquished by: [Redacted] **Date/Time:** _____ **Received by:** [Redacted] **Date/Time:** _____
Relinquished by: [Redacted] **Date/Time:** _____ **Received by:** [Redacted] **Date/Time:** 11-Nov-24
Method of Shipper: [Redacted] **Sample Condition on Receipt:** [Redacted] **Date/Time:** 11-Nov-24
Authorized by: [Redacted] **Signature MUST accompany request)** **Acceptable**

Ship to: **Detroit Lab** 22345 Roethel Drive, Novi, MI 48375, 248.344.2652, 800.806.5887
Atlanta Lab 3380 Chastain Meadows Pkwy., Ste 300, Kennesaw, GA 30144, 770.499.7701, 800.806.5887
Fax: 248.344.2655 Fax: 770.499.7511

Chicago Lab 95 Oakwood Road, Lake Zurich, IL 60047, 888.576.7522, 847.726.3320
Fax: 847.726.3323

Canadian Clients
1415 Janette Ave
Windsor, ON N8X 1Z1

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Attention: Tanaphorn Taweeyat
BANGCHAK SRIRACHA REFINING COMPANY
3195/17-29 Rama 4 Road
Klongton, Klongtoey
Bangkok, --
Thailand

Your P.O. #: 4510178805
Your Project #: SRT-RF-2024-07

Report Date: 12/04/2024
Report #: R8430919
Version: 1 - Final

ANALYTICAL REPORT

BV LABS JOB #: C4AM821

Received: 11/27/2024, 00:00

Sample Matrix: Passive Monitor
Samples Received: 2

Analyses	Quantity	Date Analyzed	Laboratory Method	Analytical Method
Naphthalen	2	12/02/2024	NOV4SOP-00001	NIOSH 1550 / 1551
Volatiles (VOC) - List 1 - GC/FID-Monitor	2	12/02/2024	NOV SOP-00005	NOV SOP-00005

Remarks:

Report Qualifier - Any general comments can be added to appear here.
This report shall not be reproduced except in full, without the written approval of the laboratory.
Results relate only to the items tested.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

Encryption Key

Please direct all questions regarding this Analytical Report to your Project Manager.
Wendy Lesniak, CS
Email: Wendy.Lesniak@bureauveritas.com
Phone# (248) 344-1770
=====

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
This report is authorized by Jason Forbes, Director of Operations responsible for Michigan Industrial Hygiene laboratory operations.



BV Labs Job #: C4AM821
Report Date: 12/04/2024

BANGCHAK SRIRACHA REFINING COMPANY
Client Project #: SRT-RF-2024-07
Your P.O. #: 4510178805

ANALYTICAL RESULTS

Client ID: SRT-RF-2024-07-001		Matrix: Passive Monitor				
BV Labs ID: AKAU64		Sample Media: AT 566/3M3500+				
Date Sampled: 11/21/2024		Sampling Time (Minutes): 340				
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL ug	Test Method	Date Analyzed
Benzene	9.7	<0.50	<0.15	<0.048	0.50 NOV SOP-00005	12/02/2024
THCs as n-Hexane	9.9	<30	<8.9	<2.5	30 NIOSH 1550 / 1551	12/02/2024
RL = Reporting Limit						

Client ID: SRT-RF-2024-07-BLANK		Matrix: Passive Monitor				
BV Labs ID: AKAU65		Sample Media: AT 566/3M3500+				
Date Sampled:						
ANALYTE	Samp Rate cc/min	Mass ug	Concentration mg/m3	RL ug	Test Method	Date Analyzed
Benzene	9.7	<0.50	N/A	0.50	NOV SOP-00005	12/02/2024
THCs as n-Hexane	9.9	37	N/A	30	NIOSH 1550 / 1551	12/02/2024
RL = Reporting Limit						



Request for Laboratory
Analytical Services

IMPORTANT: Date results required: ☐ Yes ☒ No ☐
Rush charges authorized? ☐ Fax or ☐ E-mail results ☐
E-mail Address: _____

Page: _____
For Lab Use Only
Lab Project #: _____

Bureau Veritas North America, Inc.

Report results to: Client Project Number: SRT-RF-2024-07 Send invoice to: BV Thailand P.O. No. 4510178805
Name Tanaphorn Taweeyat Name Sathaporn Runnaparoichai
Company Bangchak Sriracha Public Company Limited Company Bureau Veritas (Thailand) Co., Ltd.
Mailing Address 118 Moo 2 Sukhaphibhan 7 Road, Address 2170 New Petchburi Road, 16th Floor, Bangkok Tower
City, State, Zip Chonburi 20230 City, State, Zip 10310
Telephone No. Fax No. -

Special instructions and/or specific regulatory requirements:
(method, limit of detection, etc.)

Asbestos/Soil samples only: Which state are these from?

Client Sample Identification	Date Sampled	Time Sampled	Matrix/Media	Air Volume (Liters)	# of Jars	ANALYSIS REQUESTED (List each analyte on the lines below, multiple analytes per line)
SRT-RF-2024-07-001	21-Nov-24	340 mins	AT 566	-	-	Bz & THC
SRT-RF-2024-05-BLANK	-	-	AT 566	-	-	Bz & THC
07						

Collected by: Date/Time 23-Nov-24 Collector's Signature Date/Time
Relinquished by: Date/Time Received by: Date/Time
Relinquished by: Date/Time Received by: Date/Time 11/27/24/2024
Method of Shipme Date/Time Sample Condition or Date/Time
Authorized by: Date/Time Acceptable (Explain)

Ship to: Detroit Lab Atlanta Lab Chicago Lab Canadian Clients
22345 Roethel Drive 3380 Chastain Meadows Pkwy., Ste 300 95 Oakwood Road 1415 Janette Ave
Novi, MI 48375 Kennesaw, GA 30144 Lake Zurich, IL 60047 Windsor, ON N8X 1Z1
248.344.2652 770.499.7701 888.576.7522
800.806.5887 800.806.5887 847.726.3320
Fax: 248.344.2655 Fax: 770.499.7511 Fax: 847.726.3323



BANGCHAK SRIRACHA REFINING COMPANY
Client Project #: SRT-RF-2024-07
Your P.O. #: 4510178805

GENERAL COMMENTS

Unless otherwise noted below the following statements apply: 1) all samples were received in acceptable condition, 2) all quality control results associated with this sample set were within acceptable limits and /or do not adversely affect the reported results and 3) the industrial hygiene results have not been blank corrected.
The client provided their pertinent field sampling data on the analysis request paperwork submitted with the samples. Results apply to the sample as received.
Sample: AKAU65 [SRT-RF-2024-07-BLANK] : Actual value of the client THCs as n-Hexane blank; results have been blank corrected. This value includes background present in the solvent.
Results relate only to the items tested.