

ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 0 2815 6980 e-mail : Chamaiporn_J@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : JULY 21, 2023
SAMPLING TIME : 13:10 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ว-145-ค-0027
ANALYZED BY : MISS AKSARIN BUNKONG ว-145-จ-0014

RECEIVED DATE : JULY 21, 2023
ANALYTICAL DATE : JULY 21-AUGUST 3, 2023
REPORT NO. : 2023-U064144
WORK NO. : 2022-010427
ANALYSIS NO. : T23AO072-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกเก็บตัวอย่าง ด้านหน้าโครงการ (ผ่านการบำบัด) T23AO072-0001		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.0 (33°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	3.0	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	31.7	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	14.5	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	4,000	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
ว-145-ค-0004
AUGUST 4, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 0 2815 6980 e-mail : Chamaiporn_J@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : JULY 21, 2023
SAMPLING TIME : 13:20 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ว-145-ค-0027
ANALYZED BY : MISS AKSARIN BUNKONG ว-145-จ-0014

RECEIVED DATE : JULY 21, 2023
ANALYTICAL DATE : JULY 21-AUGUST 3, 2023
REPORT NO. : 2023-U064145
WORK NO. : 2022-010427
ANALYSIS NO. : T23AO072-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกรักเก็บน้ำหลังโรง ผลิตกรดกำมะถันเก่า T23AO072-0002		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.1 (31°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	ND	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	ND	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	7.6	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	3,358	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
ว-145-ค-0004
AUGUST 4, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 0 2815 6980 e-mail : Chamaiporn_J@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : JULY 21, 2023
SAMPLING TIME : 13:30 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ว-145-ค-0027
ANALYZED BY : MISS AKSARIN BUNKONG ว-145-จ-0014

RECEIVED DATE : JULY 21, 2023
ANALYTICAL DATE : JULY 21-AUGUST 3, 2023
REPORT NO. : 2023-U064146
WORK NO. : 2022-010427
ANALYSIS NO. : T23AO072-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกเก็บน้ำด้านหน้า ท่าเทียบเรือ T23AO072-0003		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.3 (30°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	26.9	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	58.6	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	19.3	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	3,200	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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

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SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
ว-145-ค-0004
AUGUST 4, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : AUGUST 22, 2023
SAMPLING TIME : 09:00 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ๖-145-๓-0027
ANALYZED BY : MISS AKSARIN BUNKONG ๖-145-๖-0014

RECEIVED DATE : AUGUST 22, 2023
ANALYTICAL DATE : AUGUST 22-30, 2023
REPORT NO. : 2023-U072583
WORK NO. : 2022-010427
ANALYSIS NO. : T23AQ222-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกรักเก็บตัวอย่าง ด้านหน้าโครงการ (ผ่านการบำบัด) T23AQ222-0001		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	6.7 (31°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	3.3	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	28.8	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	6.7	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	3,038	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
๖-145-๓-0004
SEPTEMBER 4, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : AUGUST 22, 2023
SAMPLING TIME : 09:10 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ๖-145-ค-0027
ANALYZED BY : MISS AKSARIN BUNKONG ๖-145-จ-0014

RECEIVED DATE : AUGUST 22, 2023
ANALYTICAL DATE : AUGUST 22-30, 2023
REPORT NO. : 2023-U072584
WORK NO. : 2022-010427
ANALYSIS NO. : T23AQ222-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ไม่กักเก็บน้ำหลังโรง ผลิตกรดกำมะถันเก่า T23AQ222-0002		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	6.5 (31°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2.1	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	38.4	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	20.2	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	6,700	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/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

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PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
๖-145-ค-0004
SEPTEMBER 4, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : AUGUST 22, 2023
SAMPLING TIME : 09:20 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ๖-145-๓-0027
ANALYZED BY : MISS AKSARIN BUNKONG ๖-145-๖-0014

RECEIVED DATE : AUGUST 22, 2023
ANALYTICAL DATE : AUGUST 22-30, 2023
REPORT NO. : 2023-U072585
WORK NO. : 2022-010427
ANALYSIS NO. : T23AQ222-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ไม่กักเก็บน้ำด้านหน้า ทำเทียบเรือ T23AQ222-0003		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.0 (30°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	4.3	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	46.4	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	9.8	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	5,000	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

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

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SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
๖-145-๓-0004
SEPTEMBER 4, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : SEPTEMBER 11, 2023
SAMPLING TIME : 09:35 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ว-145-ค-0027
ANALYZED BY : MISS AKSARIN BUNKONG ว-145-จ-0014

RECEIVED DATE : SEPTEMBER 11, 2023
ANALYTICAL DATE : SEPTEMBER 11-20, 2023
REPORT NO. : 2023-U080037
WORK NO. : 2022-010427
ANALYSIS NO. : T23AR855-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกรักเก็บตัวอย่าง ด้านหน้าโครงการ (ผ่านการบำบัด) T23AR855-0001		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.1 (29°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	6.8	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	46.8	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	16.0	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	5,233	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
METALS					
ARSENIC ^c	mg/L As	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3114 C)	0.0025	≤ 0.25	0.0003
HEXAVALENT CHROMIUM ^c	mg/L Cr ⁶⁺	FILTRATION, COLOURIMETRIC METHOD (SM: 3500-Cr B)	ND	≤ 0.25	0.006
CADMIUM ^c	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.03	0.002
LEAD ^c	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.2	0.015
MANGANESE ^c	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.369	≤ 5.0	0.004
NICKEL ^c	mg/L Ni	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 1.0	0.005
ZINC ^c	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 5.0	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอ ก ก ใ ก ใ บ ใ ด ใ ว ใ ย ใ ง ใ ด ใ น ใ น ใ น ใ ค ใ ร ใ ก ใ ร ใ ก ใ ร (ใ น ใ ก ใ ร ใ น ใ ป ใ บ ใ ด) T23AR855-0001		
MERCURY ^c	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	0.0006	≤ 0.005	0.0005
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID 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

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PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Bhuchonk p.

(MR BHUCHONK PANICHLERTUMPI)

LABORATORY SUPERVISOR

ว-145-ค-0020

SEPTEMBER 25, 2023

ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : SEPTEMBER 11, 2023
SAMPLING TIME : 09:15 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW จ-145-ค-0027
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM จ-145-จ-0114

RECEIVED DATE : SEPTEMBER 11, 2023
ANALYTICAL DATE : SEPTEMBER 11-20, 2023
REPORT NO. : 2023-U080038
WORK NO. : 2022-010427
ANALYSIS NO. : T23AR855-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ปอ กักเก็บน้ำหลังโรง ผลิตกรดกำมะถันเก่า T23AR855-0002		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	6.9 (30°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	ND	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	42.0	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	6.4	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	3,580	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
จ-145-ค-0004
SEPTEMBER 25, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : SEPTEMBER 11, 2023
SAMPLING TIME : 09:25 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW จ-145-ค-0027
ANALYZED BY : MISS AKSARIN BUNKONG จ-145-จ-0014

RECEIVED DATE : SEPTEMBER 11, 2023
ANALYTICAL DATE : SEPTEMBER 11-20, 2023
REPORT NO. : 2023-U080039
WORK NO. : 2022-010427
ANALYSIS NO. : T23AR855-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ไม่กักเก็บน้ำด้านหน้า ท่าเทียบเรือ T23AR855-0003		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.4 (29°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2.0	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	50.1	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	5.7	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	4,906	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
จ-145-ค-0004
SEPTEMBER 25, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : OCTOBER 11, 2023
SAMPLING TIME : 13:20 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ว-145-ค-0027
ANALYZED BY : MISS AKSARIN BUNKONG ว-145-จ-0014

RECEIVED DATE : OCTOBER 11, 2023
ANALYTICAL DATE : OCTOBER 11-24, 2023
REPORT NO. : 2023-U090248
WORK NO. : 2022-010427
ANALYSIS NO. : T23AU248-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกเก็บตัวอย่าง ด้านหน้าโครงการ (ผ่านการบำบัด) T23AU248-0001		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.4 (30°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	4.0	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	ND	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	12.5	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	613	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
ว-145-ค-0004
OCTOBER 27, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : OCTOBER 11, 2023
SAMPLING TIME : 13:30 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ๖-145-๓-0027
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM ๖-145-๓-0114

RECEIVED DATE : OCTOBER 11, 2023
ANALYTICAL DATE : OCTOBER 11-24, 2023
REPORT NO. : 2023-U090249
WORK NO. : 2022-010427
ANALYSIS NO. : T23AU248-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ไม่กักเก็บน้ำหลังโรง ผลิตกรดกำมะถันเก่า T23AU248-0002		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	6.6 (31°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	ND	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	ND	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	8.9	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	356	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
๖-145-๓-0004
OCTOBER 27, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : OCTOBER 11, 2023
SAMPLING TIME : 13:40 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ว-145-ค-0027
ANALYZED BY : MISS AKSARIN BUNKONG ว-145-จ-0014

RECEIVED DATE : OCTOBER 11, 2023
ANALYTICAL DATE : OCTOBER 11-24, 2023
REPORT NO. : 2023-U090250
WORK NO. : 2022-010427
ANALYSIS NO. : T23AU248-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			มอกกเก็บน้ำด้านหน้า ทำเทียบเรือ T23AU248-0003		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.3 (30°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	3.7	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	ND	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	8.9	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	408	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)

LABORATORY SUPERVISOR

ว-145-ค-0004

OCTOBER 27, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : NOVEMBER 10, 2023
SAMPLING TIME : 10:10 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ว-145-ค-0027
ANALYZED BY : MISS AKSARIN BUNKONG ว-145-จ-0014

RECEIVED DATE : NOVEMBER 10, 2023
ANALYTICAL DATE : NOVEMBER 10-16, 2023
REPORT NO. : 2023-U099334
WORK NO. : 2022-010427
ANALYSIS NO. : T23AW432-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกเก็บตัวอย่าง ด้านหน้าโครงการ (ผ่านการบำบัด) T23AW432-0001		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.2 (32°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	3.4	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	ND	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	6.5	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	795	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)

LABORATORY SUPERVISOR

ว-145-ค-0004

NOVEMBER 21, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : NOVEMBER 10, 2023
SAMPLING TIME : 10:20 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ๖-145-๓-0027
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM ๖-145-๖-0114

RECEIVED DATE : NOVEMBER 10, 2023
ANALYTICAL DATE : NOVEMBER 10-16, 2023
REPORT NO. : 2023-U099335
WORK NO. : 2022-010427
ANALYSIS NO. : T23AW432-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกเก็บน้ำหลังโรง ผลิตกรดกำมะถันเก่า T23AW432-0002		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	6.2 (31°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	ND	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	ND	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	30.0	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	3,036	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
๖-145-๓-0004
NOVEMBER 21, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : NOVEMBER 10, 2023
SAMPLING TIME : 10:25 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ว-145-ค-0027
ANALYZED BY : MISS AKSARIN BUNKONG ว-145-จ-0014

RECEIVED DATE : NOVEMBER 10, 2023
ANALYTICAL DATE : NOVEMBER 10-16, 2023
REPORT NO. : 2023-U099336
WORK NO. : 2022-010427
ANALYSIS NO. : T23AW432-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกเก็บน้ำด้านหน้า ท่าเทียบเรือ T23AW432-0003		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.4 (30°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	17.2	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^a	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	52.8	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	15.6	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	1,155	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
ว-145-ค-0004
NOVEMBER 21, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : DECEMBER 13, 2023
SAMPLING TIME : 09:40 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ๖-145-๓-0027
ANALYZED BY : MISS AKSARIN BUNKONG ๖-145-๓-0014

RECEIVED DATE : DECEMBER 13, 2023
ANALYTICAL DATE : DECEMBER 13-22, 2023
REPORT NO. : 2023-U110970
WORK NO. : 2022-010427
ANALYSIS NO. : T23AY869-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกเก็บตัวอย่าง ด้านหน้าโครงการ (ผ่านการบำบัด) T23AY869-0001		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.4 (31°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	6.9	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	50.1	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	19.5	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	6,140	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
METALS					
ARSENIC ^c	mg/L As	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3114 C)	0.0020	≤ 0.25	0.0003
HEXAVALENT CHROMIUM ^c	mg/L Cr ⁶⁺	FILTRATION, COLOURIMETRIC METHOD (SM: 3500-Cr B)	ND	≤ 0.25	0.006
CADMIUM ^c	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.03	0.002
LEAD ^c	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.2	0.015
MANGANESE ^c	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.678	≤ 5.0	0.004
NICKEL ^c	mg/L Ni	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 1.0	0.005
ZINC ^c	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	≤ 5.0	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกกับตัวอย่าง ด้านหน้าโครงการ (ผ่านการบำบัด) T23AY869-0001		
MERCURY ^c	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	ND	≤ 0.005	0.0005
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

< LOQ : < LIMIT OF QUANTITATION (ZINC ≥ 0.003 AND < 0.050 mg/L).

Bhuchonk p.

(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR
ว-145-ค-0020
DECEMBER 26, 2023

ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : DECEMBER 13, 2023
SAMPLING TIME : 09:50 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ๖-145-๓-0027
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM ๖-145-๓-0114

RECEIVED DATE : DECEMBER 13, 2023
ANALYTICAL DATE : DECEMBER 13-20, 2023
REPORT NO. : 2023-U110971
WORK NO. : 2022-010427
ANALYSIS NO. : T23AY869-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกเก็บน้ำหลังโรง ผลิตกรดกำมะถันเก่า T23AY869-0002		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.3 (30°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	ND	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	67.9	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	29.3	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	15,000	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
๖-145-๓-0004
DECEMBER 26, 2023



ANALYSIS REPORT

CUSTOMER NAME : SIAM CHEMICALS PUBLIC COMPANY
ADDRESS : 196 MOO 1 SUK SAWAT ROAD PAK KHLONG BANG PLA KOT PHRA SAMUT CHEDI SAMUT PRAKAN 10290
CONTACT INFORMATION : TEL : 06 2374 2691 e-mail : safetyofficer@siamchemicals.co.th
SAMPLING SOURCE : SIAM CHEMICALS PUBLIC COMPANY
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : DECEMBER 13, 2023
SAMPLING TIME : 10:00 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR WEERAYUT MOKKAEW ๖-145-๓-0027
ANALYZED BY : MISS AKSARIN BUNKONG ๖-145-๓-0014

RECEIVED DATE : DECEMBER 13, 2023
ANALYTICAL DATE : DECEMBER 13-20, 2023
REPORT NO. : 2023-U110972
WORK NO. : 2022-010427
ANALYSIS NO. : T23AY869-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอกเก็บน้ำด้านหน้า ท่าเทียบเรือ T23AY869-0003		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.3 (30°C)	5.5-9.0	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	3.5	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLUX, TITRIMETRIC METHOD (SM: PART 5220 C)	63.0	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	15.1	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^c	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	11,580	≤ 3,000	25
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/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, 23rd EDITION, 2017.

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR
๖-145-๓-0004
DECEMBER 26, 2023

