

ผลการตรวจวิเคราะห์คุณภาพน้ำทิ้งของระบบ Fixed Film Aeration



United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangchak, Phrakhanong, Bangkok 10260

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



NSC - TISI - TIS 17025
TESTING 0287



TESTING
No. 0063

ANALYSIS REPORT

CUSTOMER NAME : KASEMKI CO., LTD.
ADDRESS : 17/2, 17/3 JIRM JOMPOL ROAD SI RACHA SI RACHA CHON BURI 20110
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemki.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY BAY, SRIRACHA
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : MAY 4, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : MAY 6, 2022
ANALYTICAL DATE : MAY 6-17, 2022
REPORT NO. : 2022-U036185
WORK NO. : 2022-003086
ANALYSIS NO. : T22AI446-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			FIXED FILM AERATION (EFFLUENT) T22AI446-0001		
pH ^a	-	ELECTROMETRIC METHOD (SM 4500-H ⁺ B)	7.2 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^b	mg/L	AZIDE MODIFICATION METHOD (SM 4500-O ₂ C AND 5210 B)	2.8	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM 2540 D)	119	≤ 40	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAO.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105 °C); SM 2540 C	325	500 ^c	25
SETTLABLE SOLIDS ^c	mL/L	IMHOFF CONE (SM 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE ^c	mg/L	IODOMETRIC METHOD (SM 4500-S ₂ F)	ND	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM 4500-Norg C	29.8	≤ 35	15
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM 5520 B)	ND	≤ 20	3
SAMPLE CONDITION					
WATER'S 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

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23RD EDITION, 2017.

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

REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS B, NOTIFICATION OF THE MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL. 122, PART 125 D, DATED DECEMBER 29, 2005.

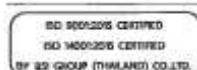
500^c : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED (TOTAL DISSOLVED SOLIDS STANDARD VALUE OF TAP WATER QUALITY IS 1,000 mg/L).

ND : NON-DETECTABLE

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

MAY 19, 2022



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MSC-TISI-TIS 17020
TESTING 0207



TESTING
No. 0063

ANALYSIS REPORT

CUSTOMER NAME : KASEMKIJ CO., LTD.
ADDRESS : 17/2, 17/3 JIRM JONGPOL ROAD SI RACHA SI RACHA CHON BURI 20110
CONTACT INFORMATION : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com
SAMPLING SOURCE : WASTEWATER TREATMENT PLANT OF KANTARY BAY, SRIRACHA
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : MAY 4, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : MAY 6, 2022
ANALYTICAL DATE : MAY 6-17, 2022
REPORT NO. : 2022-0036186
WORK NO. : 2022-003086
ANALYSIS NO. : T22AM46-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			MA 1126 (EFFLUENT) T22AM46-0002		
pH *	-	ELECTROMETRIC METHOD (SM: 4500 H ⁺ B)	6.4 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND *	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 30	2.0
SUSPENDED SOLIDS *	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C. (SM: 2540 D)	8.5	≤ 40	5.0
TOTAL DISSOLVED SOLIDS *	mg/L	IN-HOUSE METHOD: UAE.TP.WAO.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105 °C). SM 2540 C	294	500*	25
SETTLABLE SOLIDS *	mL/L	IMHOFF CONE (SM: 2540 F)	0.1	≤ 0.5	0.1
SULPHIDE *	mg/L	IODOMETRIC METHOD (SM: 4500-S ²⁻ F)	ND	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN *	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD): SM: 4500-Norg C	< LOQ	≤ 35	1.5

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

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			MA 1126 (EFFLUENT) T22AT446-0002		
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	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

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23RD EDITION, 2017.

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REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS B, NOTIFICATION OF THE MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL. 122, PART 125 D, DATED DECEMBER 29, 2005.

500^c : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED
(TOTAL DISSOLVED SOLIDS STANDARD VALUE OF TAP WATER QUALITY IS 1,000 mg/L.)

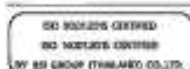
ND : NON-DETECTABLE

< LOQ : < LEVEL OF QUANTITATION (TOTAL KJELDAHL NITROGEN ≥ 1.5 AND < 5.0 mg/L.)

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

MAY 19, 2022



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2022-U036186

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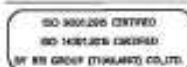
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No. 0063

ANALYSIS REPORT

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SAMPLE TYPE : EFFLUENT
SAMPLING DATE : MAY 4, 2022
SAMPLING TIME : -
SAMPLING METHOD : -
SAMPLING BY : CUSTOMER
ANALYZED BY : MISS AMONRAT PUTTALEE

RECEIVED DATE : MAY 6, 2022
ANALYTICAL DATE : MAY 6-17, 2022
REPORT NO. : 2022-U041539
WORK NO. : 2022-003086
ANALYSIS NO. : T22A446-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DEFLECTION LIMIT
			AT 100 (EFFLUENT) T22A446-0003		
pH ^a	-	ELECTROMETRIC METHOD (SM 4500-H ⁺ B)	7.2 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	AZIDE MODIFICATION METHOD (SM 4500-O C AND 5210 B)	4.2	≤ 30	2.0
SUSPENDED SOLIDS ^a	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM 2540 D)	ND	≤ 40	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	IN-HOUSE METHOD: UAE.TP.WAQ.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105 °C: SM 2540 C)	284	500*	25
SETTLABLE SOLIDS ^a	mL/L	IMHOFF CONE (SM 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE ^c	mg/L	IODOMETRIC METHOD (SM 4500-S ² F)	ND	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN ^{a, b}	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD): SM 4500-Norg C	< LOD	≤ 35	15



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NSC-TISI-TIS 17025
TESTING 0207

TESTING
No. 0063

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			AT 100 (EFFLUENT) T22A1646-0003		
FAT, OIL AND GREASE *	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

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

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

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500* : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED
(TOTAL DISSOLVED SOLIDS STANDARD VALUE OF TAP WATER QUALITY IS 1000 mg/L).

ND : NON-DETECTABLE.

< LOQ : < LEVEL OF QUANTITATION (TOTAL KJELDAHL NITROGEN ≥ 15 AND < 5.0 mg/L).

* : SAMPLING ON MAY 25, 2022, ANALYSIS NO. T22A1646-0001 (ANALYTICAL DATE : MAY 25-31, 2022)

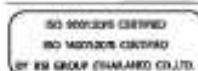
THE REASON FOR ISSUING THE NEW REPORT IS SUBSTITUTE RESULT.

SUBSTITUTED REPORT FOR REPORT NO. 2022-U036157, DATED MAY 19, 2022.

Piyapat S.

(MRS PIYAPAT SUTTAMANUTWONG)
LABORATORY SUPERVISOR

JUNE 7, 2022



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2022-U041539