

# ผลวิเคราะห์คุณภาพน้ำทิ้ง HHA1 ของโครงการ CAPE NIDHRA HOTEL



**United Analyst and Engineering Consultant Co., Ltd.**

3 So Udomsak 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10250

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



NSC-TISI-TIS 17625  
TESTING 0207



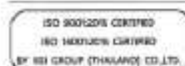
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No. 0063

## ANALYSIS REPORT

**CUSTOMER NAME** : KASEMJI COMPANY LIMITED (CAPE NIDHRA HOTEL)  
**ADDRESS** : 97/2 PETCHKASEM ROAD HUA HIN HUA HIN PRACHUAP KHIRI KHAN 77110  
**CONTACT INFORMATION** : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemji.com  
**SAMPLING SOURCE** : WASTEWATER TREATMENT PLANT OF CAPE NIDHRA HOTEL  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : JULY 15, 2021  
**SAMPLING TIME** : -  
**SAMPLING METHOD** : -  
**SAMPLING BY** : CUSTOMER  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : JULY 16, 2021  
**ANALYTICAL DATE** : JULY 16-22, 2021  
**REPORT NO.** : 2021-US2509  
**WORK NO.** : 2021-004933  
**ANALYSIS NO.** : T21AN116-0001 - T21AN116-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T21AN116-0001	2 T21AN116-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (SM 4500-H <sup>+</sup> B)	7.6 (25°C)	6.8 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>b</sup>	mg/L	AZIDE MODIFICATION METHOD (SM 4500-O <sub>2</sub> C AND 5210 B)	40.4	5.8	≤ 30	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM 2540 D)	18.2	7.9	≤ 40	5.0
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAQ.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105°C). SM 2540 C	443	490	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM 2540 F)	< 0.1	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>d</sup>	mg/L	IODOMETRIC METHOD (SM 4500-S <sup>2-</sup> F)	0.94	ND	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>e</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD). SM 4500-Norg C	50.1	17.4	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM 5520 B)	ND	ND	≤ 20	3
RESIDUAL CHLORINE <sup>g</sup>	mg/L Cl <sub>2</sub>	DPD FERROUS TITRIMETRIC METHOD (SM 4500-Cl F)	ND	ND	-	0.1



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 • REPORTED ANALYSIS REFERS TO SUBMITTED SAMPLE ONLY.

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T21AH116-0001	2 T21AH116-0002		
MICROBIOLOGY						
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221E)	>160,000	< 1.8	-	18
SAMPLE CONDITION						
WATER'S COLOUR/TURBID			YELLOW/TURBID	YELLOW/CLEAR		
SEDIMENT			GREY	YELLOW		

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

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

° : 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, 23<sup>RD</sup> EDITION, 2017.

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


RESULT 1 : INFLUENT (HHA 1)

RESULT 2 : EFFLUENT (HHA 1)

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° : 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



(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JULY 30, 2021

## ANALYSIS REPORT

**CUSTOMER NAME** : KASEMKIJ COMPANY LIMITED (CAPE NIDHRA HOTEL)  
**ADDRESS** : 97/2 PETCHKASEM ROAD HUA HIN HUA HIN PRACHUAP KHIRI KHAN 77110  
**CONTACT INFORMATION** : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com  
**SAMPLING SOURCE** : WASTEWATER TREATMENT PLANT OF CAPE NIDHRA HOTEL  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : OCTOBER 21, 2021  
**SAMPLING TIME** : -  
**SAMPLING METHOD** : -  
**SAMPLING BY** : CUSTOMER  
**ANALYZED BY** : MISS PORNPIJOL WAENTHONG

**RECEIVED DATE** : OCTOBER 23, 2021  
**ANALYTICAL DATE** : OCTOBER 23 - NOVEMBER 1, 2021  
**REPORT NO.** : 2021-U80804  
**WORK NO.** : 2021-006713  
**ANALYSIS NO.** : T21AU321-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT (HHA 1) T21AU321-0001		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (SM: 4500-H <sup>+</sup> B)	6.7 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O <sub>2</sub> C AND 5210 B)	16.5	≤ 30	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	15.2	≤ 40	5.0
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE/TP.WAO.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105°C); SM: 2540 C	384	500*	25
SETTLABLE SOLIDS <sup>c</sup>	ml/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>a</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	ND	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE/TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	12.4	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	DPD FERROUS TITRIMETRIC METHOD (SM: 4500-Cl F)	ND	-	0.1



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT (HHA 1) T21AU321-0001		
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA <sup>1</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221 E)	< 18	-	18
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
SEDIMENT			YELLOW		

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

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

<sup>c</sup> : 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, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> 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<sup>c</sup> : 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

NOVEMBER 4, 2021

## ผลวิเคราะห์คุณภาพน้ำทิ้ง HHA2 ของโครงการ CAPE NIDHRA HOTEL



**United Analyst and Engineering Consultant Co., Ltd.**

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

Tel. 0 2763 2826 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com



NSC-TISI-TIS 17025  
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TESTING  
No. 0063

### ANALYSIS REPORT

<b>CUSTOMER NAME</b>	: KASEMKIJ COMPANY LIMITED (CAPE NIDHRA HOTEL)	<b>RECEIVED DATE</b>	: JULY 16, 2021
<b>ADDRESS</b>	: 97/2 PETCHKASEM ROAD HUA HIN HUA HIN PRACHUAP KHORI KHAN 77110	<b>ANALYTICAL DATE</b>	: JULY 16-22, 2021
<b>CONTACT INFORMATION</b>	: TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com	<b>REPORT NO.</b>	: 2021-062932
<b>SAMPLING SOURCE</b>	: WASTEWATER TREATMENT PLANT OF CAPE NIDHRA HOTEL	<b>WORK NO.</b>	: 2021-004933
<b>SAMPLE TYPE</b>	: WASTEWATER	<b>ANALYSIS NO.</b>	: T21AN116-0003 - T21AN116-0004
<b>SAMPLING DATE</b>	: JULY 15, 2021		
<b>SAMPLING TIME</b>	: -		
<b>SAMPLING METHOD</b>	: -		
<b>SAMPLING BY</b>	: CUSTOMER		
<b>ANALYZED BY</b>	: MISS PORNPIMOL WAENTHONG		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T21AN116-0003	2 T21AN116-0004		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (SM 4500-H <sup>+</sup> B)	7.2 (25°C)	5.7 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM 4500-O <sub>2</sub> C AND 5210 B)	57.2	ND	≤ 30	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM 2540 D)	27.8	ND	≤ 40	5.0
TOTAL DISSOLVED SOLIDS <sup>a, b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAO.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105°C); SM 2540 C	270	216	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM 2540 F)	< 0.1	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>c</sup>	mg/L	IODOMETRIC METHOD (SM 4500-S <sup>2-</sup> F)	1.23	ND	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM 4500-Norg C	37.9	< LOQ	≤ 35	15
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM 5520 B)	ND	ND	≤ 20	3
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	DPD FERROUS TITRIMETRIC METHOD (SM 4500-Cl F)	ND	ND	-	0.1

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T21AN116-0003	2 T21AN116-0004		
MICROBIOLOGY						
FAECAL COLIFORM BACTERIA <sup>a</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221E)	160,000	< 1.8	-	1.8
SAMPLE CONDITION						
WATER'S COLOUR/TURBID			YELLOW/TURBID	YELLOW/CLEAR		
SEDIMENT			YELLOW	YELLOW		

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

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

<sup>c</sup> : 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, 23<sup>RD</sup> EDITION, 2017.

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

RESULT 1 : INFLUENT (HHA 2)

RESULT 2 : EFFLUENT (HHA 2)

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<sup>c</sup> : 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).

<sup>a</sup> : PARAMETER ANALYSED OF THE EFFLUENT IS SAMPLING ON AUGUST 25, 2021, ANALYSIS NO. T21AP798-0001 (ANALYTICAL DATE : AUGUST 28-31, 2021)

ND : NON-DETECTABLE

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

SUBSTITUTED REPORT FOR REPORT NO. 2021-U52512, DATED JULY 30, 2021.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

SEPTEMBER 6, 2021

**United Analyst and Engineering Consultant Co., Ltd.**

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

Tel. 0 2763 2826 Fax 0 2763 2806 www.uaeconsultant.com E-mail: uae@uaeconsultant.com

NSC-TISI-TIS 17025  
TESTING 0207TESTING  
No. 0063**ANALYSIS REPORT**

**CUSTOMER NAME** : KASEMKI COMPANY LIMITED (CAPE NIDHRA HOTEL)  
**ADDRESS** : 97/2 PETCHKASEM ROAD HUA HIN HUA HIN PRACHUAP KHITRI KHIAN 77110  
**CONTACT INFORMATION** : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemki.com  
**SAMPLING SOURCE** : WASTEWATER TREATMENT PLANT OF CAPE NIDHRA HOTEL  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : OCTOBER 21, 2021  
**SAMPLING TIME** : -  
**SAMPLING METHOD** : -  
**SAMPLING BY** : CUSTOMER  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : OCTOBER 23, 2021  
**ANALYTICAL DATE** : OCTOBER 23 - NOVEMBER 1, 2021  
**REPORT NO.** : 2021-U80806  
**WORK NO.** : 2021-006713  
**ANALYSIS NO.** : T21AU821-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT (HHA 2) T21AU321-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (SM 4500-H <sup>+</sup> B)	7.4 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM 4500-O C AND 5210 B)	3.5	≤ 30	2.0
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAO.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105°C); SM 2540 C	168	500*	25
SETTLABLE SOLIDS <sup>c</sup>	ml/L	IMHOFF CONE (SM 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>d</sup>	mg/L	IODOMETRIC METHOD (SM 4500-S <sup>2-</sup> F)	ND	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>e</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM 4500-Norg C	34.7	≤ 35	1.5
FAT, OIL AND GREASE <sup>g</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRVIMETRIC METHOD (SM 5520 B)	ND	≤ 20	3
SUSPENDED SOLIDS <sup>h</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM 2540 D)	ND	≤ 40	5.0
RESIDUAL CHLORINE <sup>i</sup>	mg/L Cl <sub>2</sub>	DPO FERROUS TITRIMETRIC METHOD (SM 4500-Cl F)	ND	-	0.1

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT (HHA 2) T21AU321-0002		
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA <sup>h</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	< 18	-	18
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
SEDIMENT			YELLOW		

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

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

<sup>c</sup> : 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, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> 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<sup>°</sup> : 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

NOVEMBER 4, 2021

# ผลวิเคราะห์คุณภาพน้ำทิ้ง HHA3 ของโครงการ CAPE NIDHRA HOTEL



United Analyst and Engineering Consultant Co., Ltd.

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

Tel. 0 2763 2826 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com



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No. 0063

## ANALYSIS REPORT

**CUSTOMER NAME** : KASEMKI COMPANY LIMITED (CAPE NIDHRA HOTEL)  
**ADDRESS** : 97/2 PETCHKASEM ROAD HUA HIN HUA HIN PRACHUAP KHIRI KHAN 77110  
**CONTACT INFORMATION** : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemki.com  
**SAMPLING SOURCE** : WASTEWATER TREATMENT PLANT OF CAPE NIDHRA HOTEL  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : JULY 15, 2021  
**SAMPLING TIME** : -  
**SAMPLING METHOD** : -  
**SAMPLING BY** : CUSTOMER  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : JULY 16, 2021  
**ANALYTICAL DATE** : JULY 16-22, 2021  
**REPORT NO.** : 2021-052516  
**WORK NO.** : 2021-004933  
**ANALYSIS NO.** : T21AN116-0005 - T21AN116-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T21AN116-0005	2 T21AN116-0006		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (SM: 4500-H <sup>+</sup> B)	6.9 (25°C)	7.1 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>b</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O <sub>2</sub> C AND 5210 B)	42.2	26.8	≤ 30	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	30.4	28.8	≤ 40	5.0
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAO.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105 °C); SM: 2540 C	254	292	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	< 0.1	≤ 0.5	0.1
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	20.7	23.9	≤ 35	1.5
SULPHIDE <sup>d</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	ND	ND	≤ 1.0	0.50
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	ND	≤ 20	3
RESIDUAL CHLORINE <sup>e</sup>	mg/L Cl <sub>2</sub>	DPD FERROUS TITRIMETRIC METHOD (SM: 4500-Cl F)	ND	ND	-	0.1

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 \* REPORTED ANALYSIS REFERS TO SUBMITTED SAMPLE ONLY.

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 T21AN116-0005	2 T21AN116-0006		
MICROBIOLOGY						
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221 E)	>160,000	< 1.8	-	1.8
SAMPLE CONDITION						
WATER'S COLOUR/TURBID			YELLOW/TURBID	YELLOW/TURBID		
SEDIMENT			YELLOW	YELLOW		

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

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

<sup>c</sup> : 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, 23<sup>RD</sup> EDITION, 2017.

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

RESULT 1 : INFLUENT (HHA 3)

RESULT 2 : EFFLUENT (HHA 3)

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.

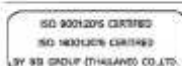
500\* : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED  
(TOTAL DISSOLVED SOLIDS STANDARD VALUE OF TAP WATER QUALITY IS 1,000 mg/L).

ND : NON-DETECTABLE

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JULY 30, 2021



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2/2

2021-US2516

### ANALYSIS REPORT

**CUSTOMER NAME** : KASEMKIJ COMPANY LIMITED (CAPE NIDHRA HOTEL)  
**ADDRESS** : 97/2 PETCHKASEM ROAD HUA HIN HUA HIN PRACHUAP KHERI KHAN 77110  
**CONTACT INFORMATION** : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com  
**SAMPLING SOURCE** : WASTEWATER TREATMENT PLANT OF CAPE NIDHRA HOTEL  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : OCTOBER 21, 2021  
**SAMPLING TIME** : -  
**SAMPLING METHOD** : -  
**SAMPLING BY** : CUSTOMER  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : OCTOBER 23, 2021  
**ANALYTICAL DATE** : OCTOBER 23 - NOVEMBER 1, 2021  
**REPORT NO.** : 2021-U89406  
**WORK NO.** : 2021-006713  
**ANALYSIS NO.** : T21AU321-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT (HHA 3) T21AU321-0003		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (SM: 4500-H <sup>+</sup> B)	7.1 (25°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a, c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O <sub>2</sub> C AND 5210 B)	ND	≤ 30	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	35.4	≤ 40	5.0
TOTAL DISSOLVED SOLIDS <sup>d</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAO.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105°C); SM 2540 C	258	500*	25
SETTLABLE SOLIDS <sup>e</sup>	ml/L	IMHOFF CONE (SM: 2540 F)	0.2	≤ 0.5	0.1
SULPHIDE <sup>f</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	ND	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>h</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	20.0	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE <sup>g</sup>	mg/L Cl <sub>2</sub>	DPD FERROUS TITRIMETRIC METHOD (SM: 4500-Cl F)	ND	-	0.1





United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsuk 41, Sukhumvit Road, Bangkok, Phra Khanong, Bangkok 10260

Tel. 0 2763 2826 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com



NSC-TISI-TIS 17025  
TESTING 0207



TESTING  
No. 0063

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT (MHA 3) T21AU321-0003		
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA <sup>12</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221 E)	< 18	-	18
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			GREY/TURBID GREY		

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

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

<sup>c</sup> : 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, 23<sup>rd</sup> EDITION, 2017.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> 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<sup>c</sup> : 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

<sup>a</sup> : SAMPLING ON NOVEMBER 18, 2021, ANALYSIS NO. T21AW478-0001 (ANALYTICAL DATE : NOVEMBER 19-25, 2021).

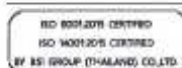
THE REASON FOR ISSUING THE NEW REPORT IS SUBSTITUTE RESULT.

SUBSTITUTED REPORT FOR REPORT NO. 2021-U80808, DATED NOVEMBER 4, 2021.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

DECEMBER 2, 2021



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2021-U89406

## ผลวิเคราะห์คุณภาพน้ำประปา ของโครงการ CAPE NIDHRA HOTEL



**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.uaeconsultant.com E-mail: uae@uaeconsultant.com



TESTING  
No.0063

### ANALYSIS REPORT

<b>CUSTOMER NAME</b>	: KASEMKIJ COMPANY LIMITED (CAPE NIDHRA HOTEL)	<b>RECEIVED DATE</b>	: JULY 16, 2021
<b>ADDRESS</b>	: 97/2 PETCHKASEM ROAD HUA HIN HUA HIN PRACHUAP KHIRI KHAN 77110	<b>ANALYTICAL DATE</b>	: JULY 16-20, 2021
<b>CONTACT INFORMATION</b>	: TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com	<b>REPORT NO.</b>	: 2021-US2517
<b>SAMPLING SOURCE</b>	: CAPE NIDHRA HOTEL	<b>WORK NO.</b>	: 2021-004933
<b>SAMPLE TYPE</b>	: WATER SUPPLY	<b>ANALYSIS NO.</b>	: T21AN116-0007
<b>SAMPLING DATE</b>	: JULY 15, 2021		
<b>SAMPLING TIME</b>	: -		
<b>SAMPLING METHOD</b>	: -		
<b>SAMPLING BY</b>	: CUSTOMER		
<b>ANALYZED BY</b>	: MISS PORNPISOL WAENTHONG		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			WATER SUPPLY T21AN116-0007		
TOTAL DISSOLVED SOLIDS <sup>a</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM 2540 C)	83	≤ 600	25
<b>SAMPLE CONDITION</b>					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR		
SEDIMENT					

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

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

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

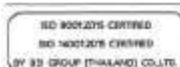
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

REGULATORY STANDARD : WATER SUPPLY STANDARDS, NOTIFICATION OF THE PROVINCIAL WATERWORKS AUTHORITY FOLLOW AS WORLD HEALTH ORGANIZATION (WHO) GUIDELINE VALUE, B.E. 2554 (2011).

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JULY 30, 2021



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United Analyst and Engineering Consultant Co., Ltd.

3 Soi Udomsak 41, Sukhumvit Road, Bangkok, Phrakhanong, Bangkok 10260

Tel. 0 2763 2826 Fax 0 2763 2800 www.uaeconsultant.com E-mail: uae@uaeconsultant.com



TESTING  
No.0063

## ANALYSIS REPORT

**CUSTOMER NAME** : KASEMKIJ COMPANY LIMITED (CAPE NIDHRA HOTEL)  
**ADDRESS** : 97/2 PETCHKASEM ROAD HUA HIN HUA HIN PRACHUAP KHIRI KHAN 77110  
**CONTACT INFORMATION** : TEL : 0 2233 8989-98 e-mail : kj-qc@kasemkij.com  
**SAMPLING SOURCE** : CAPE NIDHRA HOTEL  
**SAMPLE TYPE** : WATER SUPPLY  
**SAMPLING DATE** : OCTOBER 21, 2021  
**SAMPLING TIME** : -  
**SAMPLING METHOD** : -  
**SAMPLING BY** : CUSTOMER  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : OCTOBER 23, 2021  
**ANALYTICAL DATE** : OCTOBER 23-28, 2021  
**REPORT NO.** : 2021-U80610  
**WORK NO.** : 2021-006713  
**ANALYSIS NO.** : T21AU321-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			WATER SUPPLY T21AU321-0004		
TOTAL DISSOLVED SOLIDS <sup>a</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C)	138	≤ 600	25
<b>SAMPLE CONDITION</b>					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR		
SEDIMENT			-		

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

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

<sup>c</sup> : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

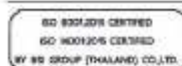
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>RD</sup> EDITION, 2017.

REGULATORY STANDARD : WATER SUPPLY STANDARDS, NOTIFICATION OF THE PROVINCIAL WATERWORKS AUTHORITY FOLLOW AS WORLD HEALTH ORGANIZATION (WHO) GUIDELINE VALUE, B.E. 2554 (2011).

*Piyapat S.*

(MRS PIYAPAT SUITAMANUTWONG)  
LABORATORY SUPERVISOR

NOVEMBER 4, 2021



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