

# ภาคผนวก



ภาคผนวก ก ผลการตรวจวิเคราะห์คุณภาพน้ำ



ผลการติดตามตรวจสอบคุณภาพน้ำเสีย และน้ำทิ้ง  
ระหว่างเดือนมกราคม ถึงมิถุนายน พ.ศ. 2566



กลุ่มอาคาร ออลซีซั่น พรีเมียมเพอร์ตี

(M-Thai, CRC, Capital)



## ANALYSIS REPORT

**CUSTOMER NAME** : ALL SEASON PROPERTY COMPANY LIMITED  
**ADDRESS** : 19TH FLOOR, M THAI TOWER ALL SEASON PLACE, 87 LUMPHINI PATHUM WAN BANGKOK 10330  
**CONTACT INFORMATION** : TEL : 08 1709 9056 e-mail : Kittigornk@asp.th.com  
**SAMPLING SOURCE** : WASTEWATER TREATMENT PLANT OF M-THAI BUILDING  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : APRIL 29, 2023  
**SAMPLING TIME** : 1/  
**SAMPLING METHOD °** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY °** : MR KASEMKIAT NAMARYA  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : APRIL 29, 2023  
**ANALYTICAL DATE** : APRIL 29-MAY 11, 2023  
**REPORT NO.** : 2023-U035604  
**WORK NO.** : 2023-000304  
**ANALYSIS NO.** : T23AH673-0001 - T23AH673-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 10:35 HOUR 1/ T23AH673-0001	2 10:30 HOUR 1/ T23AH673-0002		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.3 (32°C)	6.9 (33°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	382	12.0	≤ 30	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	150	ND	≤ 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: PART 2540 C	272	233	500*	25
SETTLEABLE SOLIDS °	mL/L	IMHOFF CONE (SM: PART 2540 F)	10.0	< 0.1	≤ 0.5	0.1
AMMONIA-NITROGEN <sup>b</sup>	mg/L NH <sub>3</sub> -N	KJELDAHL METHOD (SM: PART 4500-NH <sub>3</sub> B AND PART 4500-NH <sub>3</sub> C)	44.3	15.5	-	1.5
PHOSPHATE °	mg/L PO <sub>4</sub> <sup>3-</sup>	ASCORBIC ACID METHOD (SM: PART 4500-P E)	15.8	4.22	-	0.03
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	68.2	20.9	≤ 35	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 10:35 HOUR 1/ T23AH673-0001	2 10:30 HOUR 1/ T23AH673-0002		
MICROBIOLOGY						
FAECAL COLIFORM BACTERIA b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 E)	13,000	2,400	-	1.8
SAMPLE CONDITION						
WATER'S COLOUR/TURBID			YELLOW/TURBID	YELLOW/CLEAR		
SEDIMENT			BROWN	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 : EQUALIZATION TANK

RESULT 2 : EFFLUENT

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 AND VOL 139 SPECIAL PART 171 D, DATED JULY 21, 2022.

500\* : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED.

ND : NON-DETECTABLE.

COMMENT : ALL TESTED PARAMETERS OF THE EFFLUENT ARE COMPLIED WITH REGULATORY STANDARD. FOR FAECAL COLIFORM BACTERIA, IT SHOULD BE DISINFECTED BEFORE DISCHARGING INTO THE PUBLIC WATERWAY ALTHOUGH REGULATORY STANDARD IS NOT NOTIFIED.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MAY 16, 2023

## ANALYSIS REPORT

**CUSTOMER NAME** : ALL SEASON PROPERTY COMPANY LIMITED  
**ADDRESS** : 19TH FLOOR, M THAI TOWER ALL SEASON PLACE, 87 LUMPHINI PATHUM WAN BANGKOK 10330  
**CONTACT INFORMATION** : TEL : 08 1709 9056 e-mail : Kittigornk@asp.th.com  
**SAMPLING SOURCE** : WASTEWATER TREATMENT PLANT OF CAPITAL TOWER  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : APRIL 29, 2023  
**SAMPLING TIME** : 1/  
**SAMPLING METHOD °** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY °** : MR KASEMKIAT NAMARYA  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : APRIL 29, 2023  
**ANALYTICAL DATE** : APRIL 29-MAY 11, 2023  
**REPORT NO.** : 2023-U035605  
**WORK NO.** : 2023-000304  
**ANALYSIS NO.** : T23AH673-0003 - T23AH673-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 10:45 HOUR 1/ T23AH673-0003	2 10:40 HOUR 1/ T23AH673-0004		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H+ B)	7.2 (31°C)	7.5 (32°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	46.6	13.6	≤ 30	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	18.9	ND	≤ 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: PART 2540 C	274	245	500*	25
SETTLEABLE SOLIDS °	mL/L	IMHOFF CONE (SM: PART 2540 F)	< 0.1	< 0.1	≤ 0.5	0.1
AMMONIA-NITROGEN <sup>b</sup>	mg/L NH <sub>3</sub> -N	KJELDAHL METHOD (SM: PART 4500-NH <sub>3</sub> B AND PART 4500-NH <sub>3</sub> C)	45.0	15.6	-	1.5
PHOSPHATE °	mg/L PO <sub>4</sub> <sup>3-</sup>	ASCORBIC ACID METHOD (SM: PART 4500-P E)	9.49	4.10	-	0.03
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	2.7	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	50.7	20.0	≤ 35	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	ND	≤ 20	3





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1	2		
			10:45 HOUR 1/ T23AH673-0003	10:40 HOUR 1/ T23AH673-0004		
MICROBIOLOGY						
FAECAL COLIFORM BACTERIA b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 E)	>160,000	3,300	-	1.8
SAMPLE CONDITION						
WATER'S COLOUR/TURBID			YELLOW/TURBID	YELLOW/CLEAR		
SEDIMENT			GREY	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 : EQUALIZATION TANK

RESULT 2 : EFFLUENT

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 AND VOL 139 SPECIAL PART 171 D, DATED JULY 21, 2022.

500\* : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED.

ND : NON-DETECTABLE.

COMMENT : ALL TESTED PARAMETERS OF THE EFFLUENT ARE COMPLIED WITH REGULATORY STANDARD. FOR FAECAL COLIFORM BACTERIA, IT SHOULD BE DISINFECTED BEFORE DISCHARGING INTO THE PUBLIC WATERWAY ALTHOUGH REGULATORY STANDARD IS NOT NOTIFIED.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MAY 16, 2023



## ANALYSIS REPORT

**CUSTOMER NAME** : ALL SEASON PROPERTY COMPANY LIMITED  
**ADDRESS** : 19TH FLOOR, M THAI TOWER ALL SEASON PLACE, 87 LUMPHINI PATHUM WAN BANGKOK 10330  
**CONTACT INFORMATION** : TEL : 08 1709 9056 e-mail : Kittigornk@asp.th.com  
**SAMPLING SOURCE** : WASTEWATER TREATMENT PLANT OF CRC TOWER  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : APRIL 29, 2023  
**SAMPLING TIME** : 1/  
**SAMPLING METHOD °** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY °** : MR KASEMKIAT NAMARYA  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : APRIL 29, 2023  
**ANALYTICAL DATE** : APRIL 29-MAY 11, 2023  
**REPORT NO.** : 2023-U035606  
**WORK NO.** : 2023-000304  
**ANALYSIS NO.** : T23AH673-0005 - T23AH673-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 10:55 HOUR 1/ T23AH673-0005	2 10:50 HOUR 1/ T23AH673-0006		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	6.9 (31°C)	7.5 (32°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	273	19.8	≤ 20	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	77.8	ND	≤ 30	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: PART 2540 C	438	239	500*	25
SETTLEABLE SOLIDS °	mL/L	IMHOFF CONE (SM: PART 2540 F)	0.1	< 0.1	≤ 0.5	0.1
AMMONIA-NITROGEN <sup>b</sup>	mg/L NH <sub>3</sub> -N	KJELDAHL METHOD (SM: PART 4500-NH <sub>3</sub> B AND PART 4500-NH <sub>3</sub> C)	51.7	17.8	-	1.5
PHOSPHATE °	mg/L PO <sub>4</sub> <sup>3-</sup>	ASCORBIC ACID METHOD (SM: PART 4500-P E)	11.7	3.70	-	0.03
SULPHIDE °	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	5.2	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	66.1	21.1	≤ 35	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	14	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		REGULATORY STANDARD	DETECTION LIMIT
			1 10:55 HOUR 1/ T23AH673-0005	2 10:50 HOUR 1/ T23AH673-0006		
MICROBIOLOGY						
FAECAL COLIFORM BACTERIA b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 E)	>160,000	1,700	-	1.8
SAMPLE CONDITION						
WATER'S COLOUR/TURBID			YELLOW/TURBID	YELLOW/CLEAR		
SEDIMENT			GREY	BROWN		

<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 : EQUALIZATION TANK

RESULT 2 : EFFLUENT

REGULATORY STANDARD : RANGE OR MAXIMUM PERMITTED VALUE FOR BUILDING EFFLUENT STANDARDS CLASS A, NOTIFICATION OF THE MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 122, PART 125 D, DATED DECEMBER 29, 2005 AND VOL 139 SPECIAL PART 171 D, DATED JULY 21, 2022.

500\* : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED.

ND : NON-DETECTABLE.

COMMENT : ALL TESTED PARAMETERS OF THE EFFLUENT ARE COMPLIED WITH REGULATORY STANDARD. FOR FAECAL COLIFORM BACTERIA, IT SHOULD BE DISINFECTED BEFORE DISCHARGING INTO THE PUBLIC WATERWAY ALTHOUGH REGULATORY STANDARD IS NOT NOTIFIED.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MAY 16, 2023



## อาคาร ออลซีซั่น แมนชั่น





บริษัท ศูนย์วิเคราะห์น้ำ จำกัด  
WATER ANALYSIS CENTER COMPANY LIMITED

1/94 หมู่ 5 ต. คานาม อ. อุทัย จ. พระนครศรีอยุธยา 13210  
1/94 Moo 5, T.Kanham, A.U-Thai, Ayutthaya 13210, Thailand  
Tel : 035-226-383 , 035-800-593 Fax : 035-800-594



TESTING  
No.0029

## ANALYSIS REPORT

Page 1 of 1

**Customer Name** : นิติบุคคลอาคารชุด ALL SEASONS MANSION  
**Address** : 87/210 ถนนวิภาวดี แขวงจตุจักร เขตปทุมวัน กรุงเทพมหานคร 10330  
**Contact** : K. Monton **Phone** : 02-654-1078, 084-439-9337 **E.mail** : Monton.Phattano@ap.jll.com  
**Sample Type** : Waste water **Sample Site#** : โครงการ ALL SEASONS MANSION **Sampling Method#** : Grab  
**Sampling Date#** : 28/04/2023 **Sampling By#** : TANAKIT (ว-190-จ-0020) **Receive Date** : 29/04/2023  
**Analysis Date** : 29/04/2023-09/05/2023 **Report Date** : 09/05/2023 **Report No.** : R 02769/66

Parameter	Unit	Method	WC 03435/66 น้ำเสีย EQ	WC 03436/66 น้ำเสีย Effluent	Standard *
pH	-	In-house method: TM 001	7.6 (25°C)	6.9 (25°C)	5.0-9.0
BOD	mg/L	In-house method : TM 013	34 #	8	≤ 30
Total Suspended Solid	mg/L	APHA, AWWA, WEF Edition 23 <sup>rd</sup> 2017, part 2540 D	< 10	< 10	≤ 40
Total Dissolved Solid	mg/L	Dried at 103-105 °C	358 #	312 #	≤ 500
Settleable Solids	mL/L	Volumetric	< 0.1 #	0.1 #	≤ 0.5
Oil & Grease	mg/L	APHA, AWWA, WEF Edition 23 <sup>rd</sup> 2017, part 5520 D	< 2	< 2	≤ 20
Total Kjeldahl Nitrogen	mg/L as N	APHA, AWWA, WEF Edition 23 <sup>rd</sup> 2017, part 4500-NorgB, NH <sub>3</sub> C	35	5	≤ 35
Total Phosphorus	mg/L as P	Ascorbic acid	1.6 #	1.7 #	-
Ammonia Nitrogen	mg/L as NH <sub>3</sub> -N	Titrimetric	30 #	< 0.10 #	-
Sulfide	mg/L as S <sup>2-</sup>	Iodometric	< 0.10 #	< 0.10 #	≤ 1.0
Fecal Coliform Bacteria	MPN/100 mL	Thermotolerant (Fecal) Coliform Procedure	3.5 x 10 <sup>6</sup> #	2.0 x 10 <sup>3</sup> #	-
Sample Characterization		Observation	ขุ่นมีตะกอน	เขียวขุ่น	

**Remark** : In-house method : TM 013 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF 23<sup>rd</sup> 2017, part 5210B, 4500-O C  
In-house method : TM 001 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23<sup>rd</sup> 2017, part 4500-H<sup>+</sup> B  
Limit of Quantitation : LOQ (BOD=4 mg/L, SS=10 mg/L, Oil & Grease=2 mg/L, TKN=5 mg/L as N, )  
\* It is outside the scope of ISO/IEC 17025  
\* อ้างอิงประกาศกระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม เรื่อง กำหนดมาตรฐานควบคุมการระบายน้ำทิ้งจากอาคารบางประเภทและบางขนาด (อาคารประเภท ข)

-: End Of Report :-

Laboratory Staff

(Miss. Orawan Sritai)

Chemist

ว-190-จ-0007

Approved By

(Mrs. Neeramol Phadungsong)

General Manager

ว-190-ค-0001

The results relate only to the items tested. Test report shall not be reproduced except in full, without written approval of the laboratory



## โรงแรมคอนราด







บริษัท วิศวกรรมเคมี จำกัด

THAI CHEMICAL & ENGINEERING CO., LTD.

1048/2 ซ.สุขุมวิท 66/1 อ.สุขุมวิท แขวงพระโขนงใต้ เขตพระโขนง กรุงเทพฯ 10260 โทร. 0-2744-9911 แฟกซ์ 0-2393-0165

1048/2 Soi Sukhumvit 66/1, Sukhumvit Rd., Prakanong Tai, Prakanong, Bangkok 10260 TEL. 0-2744-9911 FAX 0-2393-0165

No. 0551/66

### WASTE WATER ANALYSIS REPORT

Date 14/3/66

Analysis Date : 7/3/66-13/3/66

Customer : บริษัท ออล ซีซั่นส์ พร็อพเพอร์ตี้ส์ จำกัด (โรงแรมคอนราด (สาขาที่ 00001)

Sampling Date : 7/3/66

Address : 87/3 ถนนวิทยุ แขวงลุมพินี เขตปทุมวัน กรุงเทพฯ 10330

Sampling Time : -

Received Date : 7/3/66

Tel 02-6909591

Reference Number	WP/NM 950/66			Method of Analysis
Parameter Unit	Influent			
Appearance	ขุ่นดำมีตะกอน			
pH	@ 23.7 °C = 6.6			Electrometric (SM 2017:4500-H <sup>+</sup> B.)
Biochemical Oxygen Demand (mg/l)	1372			5-Day BOD Test, Azide Modification (SM 2017:5210 B.)
Total Suspended Solids (mg/l)	3900			Dried at 103-105°C (SM 2017:2540 D.)
Oil & Grease (mg/l)	836.25			Soxhlet Extraction (SM 2017:5520 D.)
Faecal Coliform (MPN/100ml)	> 16000			Multiple Tube Technique
Sampling Time	10.30			

SM : Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23 rd Edition, 2017.

- ❖ The results relate only to the samples tested and apply to customer's self-drawn samples only.
- ❖ This analysis report may not be reproduced other than in full, except with the prior written approval of the technical manager.

Approved by

( ธีฎณารัตน์ พลอยกระจำจ )





บริษัท วิศวกรรมเคมี จำกัด

THAI CHEMICAL & ENGINEERING CO., LTD.

1048/2 ซ.สุขุมวิท 66/1 อ.สุขุมวิท แขวงพระโขนงใต้ เขตพระโขนง กรุงเทพฯ 10260 โทร. 0-2744-9911 แฟกซ์ 0-2393-0165

1048/2 Soi Sukhumvit 66/1, Sukhumvit Rd., Prakanong Tai, Prakanong, Bangkok 10260 TEL. 0-2744-9911 FAX 0-2393-0165

No. 0552/66

### WASTE WATER ANALYSIS REPORT

Date 14/3/66

Analysis Date : 7/3/66-13/3/66

Customer : บริษัท ออล ซีซั่นส์ พร็อพเพอร์ตี้ส์ จำกัด (โรงแรมคอนราด (สาขาที่ 00001)

Sampling Date : 7/3/66

Address : 87/3 ถนนวิทยุ แขวงลุมพินี เขตปทุมวัน กรุงเทพฯ 10330

Sampling Time : -

Received Date : 7/3/66

Tel 02-6909591

Reference Number	WP/NM 951/66			
Parameter	Unit	Effluent	Standard	Method of Analysis
Appearance		เหลืองค่อนข้างใสมีตะกอน		
pH		@ 24.1 °C = 6.9	5-9	Electrometric (SM 2017:4500-H <sup>+</sup> B.)
Biochemical Oxygen Demand	(mg/l)	10	< 20	5-Day BOD Test, Azide Modification (SM 2017:5210 B.)
Total Suspended Solids	(mg/l)	10	< 30	Dried at 103-105°C (SM 2017:2540 D.)
Total Dissolved Solids		370	< 500	Dried at 180°C (SM 2017:2540 C.)
Oil & Grease	(mg/l)	< 5.00	< 20	Soxhlet Extraction (SM 2017:5520 D.)
Total Kjeldahl Nitrogen	(mg/l)	1.78	< 35	Macro-Kjeldahl, Titrimetric (SM 2017:4500-N(org) B.)
Sulfide	(mg/l)	Not detected	< 1.0	ZnS Precipitation, Iodometric (SM 2017:4500-S <sup>2-</sup> F.)
Settleable Solids	(ml/l)	< 0.5	< 0.5	Imhoff Cone, Volumetric (SM 2017:2540 F.)
Faecal Coliform	(MPN/100 ml)	3300	-	Multiple Tube Technique
Ammonia	(mg/l)	Not detected	-	Distillation and Titrimetric
Phosphate	(mg/l)	6.99	-	Colorimetric Method
Sampling Time		10.40		

SM : Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23 rd Edition, 2017.

- ❖ The results relate only to the samples tested and apply to customer's self-drawn samples only.
- ❖ This analysis report may not be reproduced other than in full, except with the prior written approval of the technical manager.

Approved by

( ธีฎญารัตน พลอยกระจำจ )

คุณภาพน้ำทิ้ง  
ที่ระบายออกนอกพื้นที่โครงการ (Manhole)



## ANALYSIS REPORT

**CUSTOMER NAME** : ALL SEASON PROPERTY COMPANY LIMITED  
**ADDRESS** : 19TH FLOOR, M THAI TOWER ALL SEASON PLACE, 87 LUMPHINI PATHUM WAN BANGKOK 10330  
**CONTACT INFORMATION** : TEL : 08 1709 9056 e-mail : Kittigornk@asp.th.com  
**SAMPLING SOURCE** : EXIT GATE  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : APRIL 29, 2023  
**SAMPLING TIME** : 11:00 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR APISIT SRIKONGKAEW  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : APRIL 29, 2023  
**ANALYTICAL DATE** : APRIL 29-MAY 11, 2023  
**REPORT NO.** : 2023-U035607  
**WORK NO.** : 2023-000304  
**ANALYSIS NO.** : T23AH673-0007

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EXIT GATE T23AH673-0007		
pH <sup>c</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.4 (33°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	47.8	≤ 30	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	17.0	≤ 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: PART 2540 C	287	500*	25
SETTLEABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: PART 2540 F)	< 0.1	≤ 0.5	0.1
AMMONIA-NITROGEN <sup>b</sup>	mg/L NH <sub>3</sub> -N	KJELDAHL METHOD (SM: PART 4500-NH <sub>3</sub> B AND PART 4500-NH <sub>3</sub> C)	20.7	-	1.5
PHOSPHATE <sup>c</sup>	mg/L PO <sub>4</sub> <sup>3-</sup>	ASCORBIC ACID METHOD (SM: PART 4500-P E)	6.12	-	0.03
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	34.2	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	5	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EXIT GATE T23AH673-0007		
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221E)	160,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/TURBID		
SEDIMENT			BROWN		

<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\* : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED.

COMMENT : ALL TESTED PARAMETERS ARE COMPLIED WITH REGULATORY STANDARD EXCEPT BIOCHEMICAL OXYGEN DEMAND.  
FOR FAECAL COLIFORM BACTERIA, IT SHOULD BE DISINFECTED BEFORE DISCHARGING INTO THE PUBLIC WATERWAY  
ALTHOUGH REGULATORY STANDARD IS NOT NOTIFIED.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MAY 16, 2023



## ANALYSIS REPORT

**CUSTOMER NAME** : ALL SEASON PROPERTY COMPANY LIMITED  
**ADDRESS** : 19TH FLOOR, M THAI TOWER ALL SEASON PLACE, 87 LUMPHINI PATHUM WAN BANGKOK 10330  
**CONTACT INFORMATION** : TEL : 08 1709 9056 e-mail : Kittigornk@asp.th.com  
**SAMPLING SOURCE** : ENTRANCE GATE  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : APRIL 29, 2023  
**SAMPLING TIME** : 11:10 HOUR  
**SAMPLING METHOD °** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY °** : MR KASEMKIAT NAMARYA  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : APRIL 29, 2023  
**ANALYTICAL DATE** : APRIL 29-MAY 11, 2023  
**REPORT NO.** : 2023-U035608  
**WORK NO.** : 2023-000304  
**ANALYSIS NO.** : T23AH673-0008

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ENTRANCE GATE T23AH673-0008		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.7 (34°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND °	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	ND	≤ 30	2.0
SUSPENDED SOLIDS °	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	ND	≤ 40	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	IN-HOUSE METHOD: UAE.TP.WAO.007 (TOTAL DISSOLVED SOLIDS DRIED AT 103-105 °C); SM: PART 2540 C	361	500*	25
SETTLEABLE SOLIDS °	mL/L	IMHOFF CONE (SM: PART 2540 F)	< 0.1	≤ 0.5	0.1
AMMONIA-NITROGEN °	mg/L NH <sub>3</sub> -N	KJELDAHL METHOD (SM: PART 4500-NH <sub>3</sub> B AND PART 4500-NH <sub>3</sub> C)	4.4	-	1.5
PHOSPHATE °	mg/L PO <sub>4</sub> <sup>3-</sup>	ASCORBIC ACID METHOD (SM: PART 4500-P E)	2.45	-	0.03
SULPHIDE °	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	< 0.50	≤ 1.0	0.50
TOTAL KJELDAHL NITROGEN °	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	7.8	≤ 35	1.5
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ENTRANCE GATE T23AH673-0008		
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 E)	49	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			YELLOW/CLEAR		
SEDIMENT			BROWN		

<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\* : PERMITTED EXCESS VALUE TO TOTAL DISSOLVED SOLIDS OF ACTUAL TAP WATER USED.

ND : NON-DETECTABLE.

COMMENT : ALL TESTED PARAMETERS ARE COMPLIED WITH REGULATORY STANDARD. FOR FAECAL COLIFORM BACTERIA,  
IT SHOULD BE DISINFECTED BEFORE DISCHARGING INTO THE PUBLIC WATERWAY ALTHOUGH REGULATORY  
STANDARD IS NOT NOTIFIED.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MAY 16, 2023