



PREVENTIVE MAINTENANCE

AIA Sathorn Tower

รายงานประจำเดือน	เดือน กรกฎาคม 2565
วันที่ปฏิบัติงาน	วัน อังคาร ที่ 19 กรกฎาคม 2565
ผู้ปฏิบัติงาน	01.นาย นาย ชาตรี อนันต์ , นาย กฤษณะ อารมย์ดี
รายงานโดย	นาย กฤษณะ อารมย์ดี
รายงานPM 1	ตรวจเช็คระบบ Wastewater Treatment Period ( M )

ภาพประกอบรายงาน



รายละเอียดงาน

ช่างอาคารได้ทำการตรวจเช็ค PM ประจำเดือน กรกฎาคม 2565 ของระบบ Wastewater Treatment WWTP โดยการตรวจสอบสภาพทั่วไป , บันทึกค่าน้ำใช้ประจำเดือน , ตรวจสอบกลิ่นโดยรวมของระบบ , ตรวจสอบลักษณะน้ำทิ้งจากบ่อ

\*หมายเหตุ\* จากการตรวจเช็ค ระบบ Wastewater Treatment WWTP ไม่พบสิ่งผิดปกติ





## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : JULY 8, 2022  
**SAMPLING TIME** : 14:30 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : JULY 8, 2022  
**ANALYTICAL DATE** : JULY 8-15, 2022  
**REPORT NO.** : 2022-U055595  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AN597-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ข้อพิพาทสุดท้าย พร้อมมติแพ่งคดีหมายเลข T22AN597-0001		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.2 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	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 2540 C	706	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ข้อพิพาทห้ามพร้อมด้วยเอกสาร T22AN597-0001		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	790	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	790	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR  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)

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 A, 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.

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

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JULY 18, 2022

## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN-TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : JULY 8, 2022  
**SAMPLING TIME** : 14:25 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : JULY 8, 2022  
**ANALYTICAL DATE** : JULY 8-15, 2022  
**REPORT NO.** : 2022-U055596  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AN597-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			พอปรับปรุงภาพ T22AN597-0002	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.5 (30°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	15.2	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	13.1	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	564	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	8.2	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	3
MICROBIOLOGY				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	>160,000	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	1.8
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.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JULY 18, 2022





## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext. 130 e-mail : Waipoj.thongngam@ap.jil.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : JULY 8, 2022  
**SAMPLING TIME** : 14:20 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : JULY 8, 2022  
**ANALYTICAL DATE** : JULY 8-15, 2022  
**REPORT NO.** : 2022-U055597  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AN597-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			มอก ๒๒-๒๕๕๓ T22AN597-0003		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.0 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	2.8	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	5.6	≤ 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 2540 C	569	500*	25
SETTLEABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอพักน้ำใส T22AN597-0003		
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	790	-	1.8
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	790	-	1.8
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

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.

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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.

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

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

JULY 18, 2022



## PREVENTIVE MAINTENANCE

AIA Sathorn Tower

รายงานประจำเดือน

เดือน สิงหาคม 2565

วันที่ปฏิบัติงาน

วันศุกร์ ที่ 5 สิงหาคม 2565

ผู้ปฏิบัติงาน

01.นาย นาย วรุตม์ ปวนคำมา , นาย กฤษณะ อารมย์ดี

รายงานโดย

นาย กฤษณะ อารมย์ดี

รายงาน PM 1

ตรวจเช็คระบบ Wastewater Treatment Period ( M )

## ภาพประกอบรายงาน



รายละเอียดงาน

ช่างอาคารได้ทำการตรวจเช็ค PM ประจำเดือน สิงหาคม 2565 ของระบบ Wastewater Treatment WWTP โดยการตรวจสอบทั่วไป , บันทึกค่าน้ำใช้ประจำเดือน , ตรวจสอบกลิ่นโดยรวมของระบบ , ตรวจสอบลักษณะน้ำทิ้งจากบ่อ

\*หมายเหตุ\* จากการตรวจเช็ค ระบบ Wastewater Treatment WWTP ไม่พบสิ่งผิดปกติ



**BUILDING :** AIA Sathorn Tower

Ref No: JLL-PM-SN-007/01

**PREVENTIVE MAINTENANCE CHECKLIST FOR WASTEWATER TREATMENT**

Rev. Date: 31/01/2015

EQUIPMENT NUMBER : WWTP

TYPE OF MAINTENANCE

(M) 2M Q H Y

LOCATION : Waste Water Treatment Plant

NO.	TASK DESCRIPTION	PM Code	Measurement	Status (N/AB/F)	Remarks
1	Check & clean the equipment/ ตรวจสอบสภาพทั่วไปและทำความสะอาด	M	-	N	
2	Record the monthly water consumption/ บันทึกค่าน้ำใช้ประจำเดือน	M	41186 cu.m.	N	ไม่คืดน้ำ make up
3	Check selector switch status & replace indicating lamps (if required) of the control panel/ ตรวจสอบสถานะของ selector switch และเปลี่ยนหลอดไฟแสดงสถานะ (ถ้าจำเป็น) ของตู้ควบคุม	M	-	N	

**System Inspection Procedure / ขั้นตอนในการตรวจสอบระบบ**

Check the smell from the system/ ตรวจสอบกลิ่นโดยรวมของระบบบำบัดน้ำเสีย

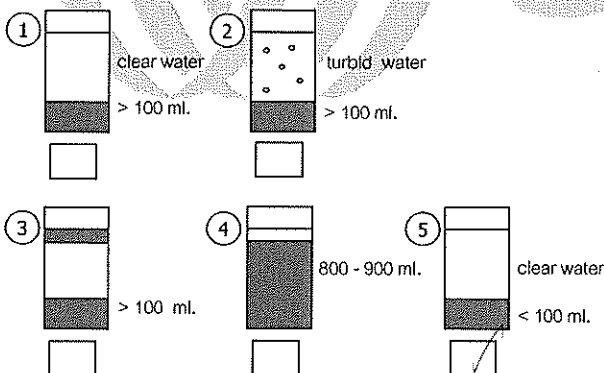
Sampling the waste water from aeration tank approx. 1,000 ml. cylinder & settle down for 30 minutes/ ดักน้ำตัวอย่างจากถังเติมอากาศปริมาตร 1,000 มล. และตั้งทิ้งไว้ 30 นาที

4	Check the smell from the system/ ตรวจสอบกลิ่นโดยรวมของระบบ	M	-	N	กลิ่นไม่ฉุนขึ้น ไม่มีไฮดรเจนซัลไฟด์
5	Record the sludge volume from aeration tank/ บันทึกค่า SV 30	M	200 ml.	N	ค่า SV30 ควรอยู่ในช่วง 200 - 800 ml.
6	Check the sludge color from aeration tank/ บันทึกสีของตะกอน	M	-	N	ปกติควรมีสีน้ำตาล
7	Check the effluent water from effluent tank/ ตรวจสอบลักษณะน้ำทิ้งจากบ่อ effluent	M	-	N	ปกติควรมีสีใสไม่มีตะกอน

Comment :

Note: 1.) N = Normal ; AB = Abnormal ; F = Fail

2.) Settle Sludge characteristic



- 1 - น้ำใส / ตะกอนมากกว่า 100 มล.
- 2 - น้ำขุ่น / ตะกอนมากกว่า 100 มล.
- 3 - ตะกอนแบ่งเป็นสองชั้น เนื่องจาก Sludge rising
- 4 - ตะกอนมากกว่า 800 มล. เนื่องจาก Sludge bulking
- 5 - น้ำใส / ตะกอนน้อยกว่า 100 มล.

**Effluent Condition (ถ้ามี) :**

BOD<sub>5</sub> 15.7 มก./ล.  
SS 6.2 มก./ล.  
pH 8.2  
FOG มก./ล.

**Influent Condition (ถ้ามี) :**

BOD<sub>5</sub> มก./ล.  
SS มก./ล.  
pH

**Aeration tank condition (ถ้ามี) :**

DO มก./ล.  
MLSS มก./ล.  
pH

PM by :

Signature

Date :

## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jil.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : AUGUST 5, 2022  
**SAMPLING TIME** : 11:00 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG  
**RECEIVED DATE** : AUGUST 5, 2022  
**ANALYTICAL DATE** : AUGUST 5-17, 2022  
**REPORT NO.** : 2022-U063920  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AP429-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ปล่อยน้ำสุดท้าย พร้อมตะแกรงดักขยะ T22AP429-0001		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H* B)	7.8 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	11.6	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	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 2540 C	486	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	7.2	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำสุดท้าย พร้อมตะแกรงคัดขยะ T22AP429-0001		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	5,400	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	5,400	-	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

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MINISTRY OF RESOURCES AND ENVIRONMENT, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL. 122,  
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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 1,000 mg/L).

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

AUGUST 17, 2022

## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : AUGUST 5, 2022  
**SAMPLING TIME** : 11:10 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : AUGUST 5, 2022  
**ANALYTICAL DATE** : AUGUST 5-17, 2022  
**REPORT NO.** : 2022-U063921  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AP429-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ปอปปจกภาพ T22AP429-0002	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.9 (30°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	68.0	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	25.9	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	486	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	0.1	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	47.8	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	3
MICROBIOLOGY				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	>160,000	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	>160,000	1.8
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID 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.

ND : NON-DETECTABLE.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

AUGUST 17, 2022





## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : AUGUST 5, 2022  
**SAMPLING TIME** : 11:05 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : AUGUST 5, 2022  
**ANALYTICAL DATE** : AUGUST 5-17, 2022  
**REPORT NO.** : 2022-U063922  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AP429-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			แปลผลใน T22AP429-0003		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	8.2 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	15.1	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	6.2	≤ 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 2540 C	426	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	35.4	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			แปลผลภาษาไทย T22AP429-0003		
MICROBIOLOGY					
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	5,400	-	1.8
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	9,200	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR  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 A, 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

AUGUST 17, 2022



## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : WATER SUPPLY  
**SAMPLING DATE** : AUGUST 5, 2022  
**SAMPLING TIME** : 11:15 HOUR  
**SAMPLING METHOD °** : GRAB  
**SAMPLING BY °** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : AUGUST 5, 2022  
**ANALYTICAL DATE** : AUGUST 5-10, 2022  
**REPORT NO.** : 2022-U062220  
**WORK NO.** : 2021-004258  
**ANALYSIS NO.** : T22AP430-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			WATER SUPPLY T22AP430-0001	
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C)	197	25
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR	

<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.

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

AUGUST 15, 2022





## PREVENTIVE MAINTENANCE

AIA Sathorn Tower

รายงานประจำเดือน	เดือน กันยายน 2565
วันที่ปฏิบัติงาน	วัน อังคาร ที่ 13 กันยายน 2565
ผู้ปฏิบัติงาน	01.นาย นาย สุวิกรม นาคเกิด , นาย กฤษณะ อารมย์ดี
รายงานโดย	นาย กฤษณะ อารมย์ดี
รายงานPM 1	ตรวจเช็คระบบ Wastewater Treatment      Period ( M )

### ภาพประกอบรายงาน



### รายละเอียดงาน

ช่างอาคารได้ทำการตรวจเช็ค PM ประจำเดือน กันยายน 2565 ของระบบ Wastewater Treatment WWTP โดยการตรวจสอบสภาพทั่วไป , บันทึกค่าน้ำใช้ประจำเดือน , ตรวจสอบกลิ่นโดยรวมของระบบ , ตรวจสอบลักษณะน้ำทิ้งจากบ่อ

\*หมายเหตุ\* จากการตรวจเช็ค ระบบ Wastewater Treatment WWTP ไม่พบสิ่งผิดปกติ

[illegible]

## ANALYSIS REPORT

<b>CUSTOMER NAME</b>	: AIA SATHORN TOWER	<b>RECEIVED DATE</b>	: SEPTEMBER 14, 2022
<b>ADDRESS</b>	: 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120	<b>ANALYTICAL DATE</b>	: SEPTEMBER 14-20, 2022
<b>CONTACT INFORMATION</b>	: TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com	<b>REPORT NO.</b>	: 2022-U073496
<b>SAMPLING SOURCE</b>	: AIA SATHORN TOWER	<b>WORK NO.</b>	: 2020-003066
<b>SAMPLE TYPE</b>	: EFFLUENT	<b>ANALYSIS NO.</b>	: T22AS101-0001
<b>SAMPLING DATE</b>	: SEPTEMBER 13, 2022		
<b>SAMPLING TIME</b>	: 16:10 HOUR		
<b>SAMPLING METHOD</b>	: GRAB, GRAB AND STERILE TECHNIQUE		
<b>SAMPLING BY</b>	: MR WEERAYUT MOKKAEW		
<b>ANALYZED BY</b>	: MISS PORNPIMOL WAENTHONG		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำสุดท้าย พร้อมตะแกรงดักขยะ T22AS101-0001		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.3 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	5.7	≤ 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 2540 C	348	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	5.0	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			มื่อพักน้ำสุดท้ายพร้อมตะแกรงดักขยะ T22AS101-0001		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	11,000	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	2,200	-	1.8
SAMPLE CONDITION			YELLOW/CLEAR  BROWN		
WATER'S COLOUR/TURBID					
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

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 A, 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.

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

SEPTEMBER 21, 2022

## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : SEPTEMBER 13, 2022  
**SAMPLING TIME** : 16:20 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : SEPTEMBER 14, 2022  
**ANALYTICAL DATE** : SEPTEMBER 14-20, 2022  
**REPORT NO.** : 2022-U073497  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AS101-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			บอกรับผลการ T22AS101-0002	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.3 (30°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	13.9	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	17.0	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	428	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	0.3	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	23.2	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	3
<b>MICROBIOLOGY</b>				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	>160,000	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	92,000	1.8
<b>SAMPLE CONDITION</b>				
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID 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.

ND : NON-DETECTABLE.

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

SEPTEMBER 21, 2022



## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : SEPTEMBER 13, 2022  
**SAMPLING TIME** : 16:15 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : SEPTEMBER 14, 2022  
**ANALYTICAL DATE** : SEPTEMBER 14-20, 2022  
**REPORT NO.** : 2022-U073498  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AS101-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ไม่พบค่าใน T22AS101-0003		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.0 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	5.9	≤ 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 2540 C	448	500*	25
SETTLEABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	17.3	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			น้ำดื่ม T22AS101-0003		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	24,000	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	7,900	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR 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 A, 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.

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

SEPTEMBER 21, 2022



## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : WATER SUPPLY  
**SAMPLING DATE** : SEPTEMBER 13, 2022  
**SAMPLING TIME** : 16:25 HOUR  
**SAMPLING METHOD <sup>c</sup>** : GRAB  
**SAMPLING BY <sup>c</sup>** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : SEPTEMBER 14, 2022  
**ANALYTICAL DATE** : SEPTEMBER 14-19, 2022  
**REPORT NO.** : 2022-U073478  
**WORK NO.** : 2021-004258  
**ANALYSIS NO.** : T22AS102-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			WATER SUPPLY T22AS102-0001	
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C)	155	25
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR	

<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.

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

SEPTEMBER 21, 2022





## PREVENTIVE MAINTENANCE

AIA Sathorn Tower

รายงานประจำเดือน	เดือน ตุลาคม 2565
วันที่ปฏิบัติงาน	วัน สุกร์ ที่ 7 ตุลาคม 2565
ผู้ปฏิบัติงาน	01.นาย วรุตม์ ปวนคำมา , นาย กฤษณะ อารมย์ดี
รายงานโดย	นาย กฤษณะ อารมย์ดี
รายงานPM 1	ตรวจเช็คระบบ Wastewater Treatment Period ( M )
ภาพประกอบรายงาน	
รายละเอียดงาน	<p>ช่างอาคารได้ทำการตรวจเช็ค PM ประจำเดือน ตุลาคม 2565 ของระบบ Wastewater Treatment WWTP โดยการตรวจสภาพทั่วไป , บันทึกค่าน้ำใช้ประจำเดือน , ตรวจสอบกลิ่นโดยรวมของระบบ , ตรวจสอบลักษณะน้ำทิ้งจากบ่อ</p> <p>*หมายเหตุ* จากการตรวจเช็ค ระบบ Wastewater Treatment WWTP ไม่พบสิ่งผิดปกติ</p>



## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : OCTOBER 7, 2022  
**SAMPLING TIME** : 13:25 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : OCTOBER 7, 2022  
**ANALYTICAL DATE** : OCTOBER 7-18, 2022  
**REPORT NO.** : 2022-U081585  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AT994-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ปอพักน้ำสุดท้าย พร้อมตะแกรงดักขยะ T22AT994-0001		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	6.6 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	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 2540 C	340	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ปลอดภัยสุดห้าม พร้อมตะแกรงดักขยะ T22AT994-0001		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	4,900	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	1,300	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR  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

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 A, 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.

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

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

OCTOBER 18, 2022

## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : OCTOBER 7, 2022  
**SAMPLING TIME** : 13:15 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : OCTOBER 7, 2022  
**ANALYTICAL DATE** : OCTOBER 7-18, 2022  
**REPORT NO.** : 2022-U081586  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AT994-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			แปลผล T22AT994-0002	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.1 (30°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	94.0	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	19.1	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	428	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	0.3	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	34.6	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	3
<b>MICROBIOLOGY</b>				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	>160,000	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	160,000	1.8
<b>SAMPLE CONDITION</b>				
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.

ND : NON-DETECTABLE.

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

OCTOBER 18, 2022



## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : OCTOBER 7, 2022  
**SAMPLING TIME** : 13:20 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : OCTOBER 7, 2022  
**ANALYTICAL DATE** : OCTOBER 7-18, 2022  
**REPORT NO.** : 2022-U081587  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AT994-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			รพพทปจ. ๒๕๖๓ T22AT994-0003		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	6.8 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	54.3	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	7.1	≤ 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 2540 C	465	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	26.6	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ฉบับที่ 18 T22AT994-0003		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221B)	24,000	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221E)	24,000	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID  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.

STANDARD : 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 A, 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).

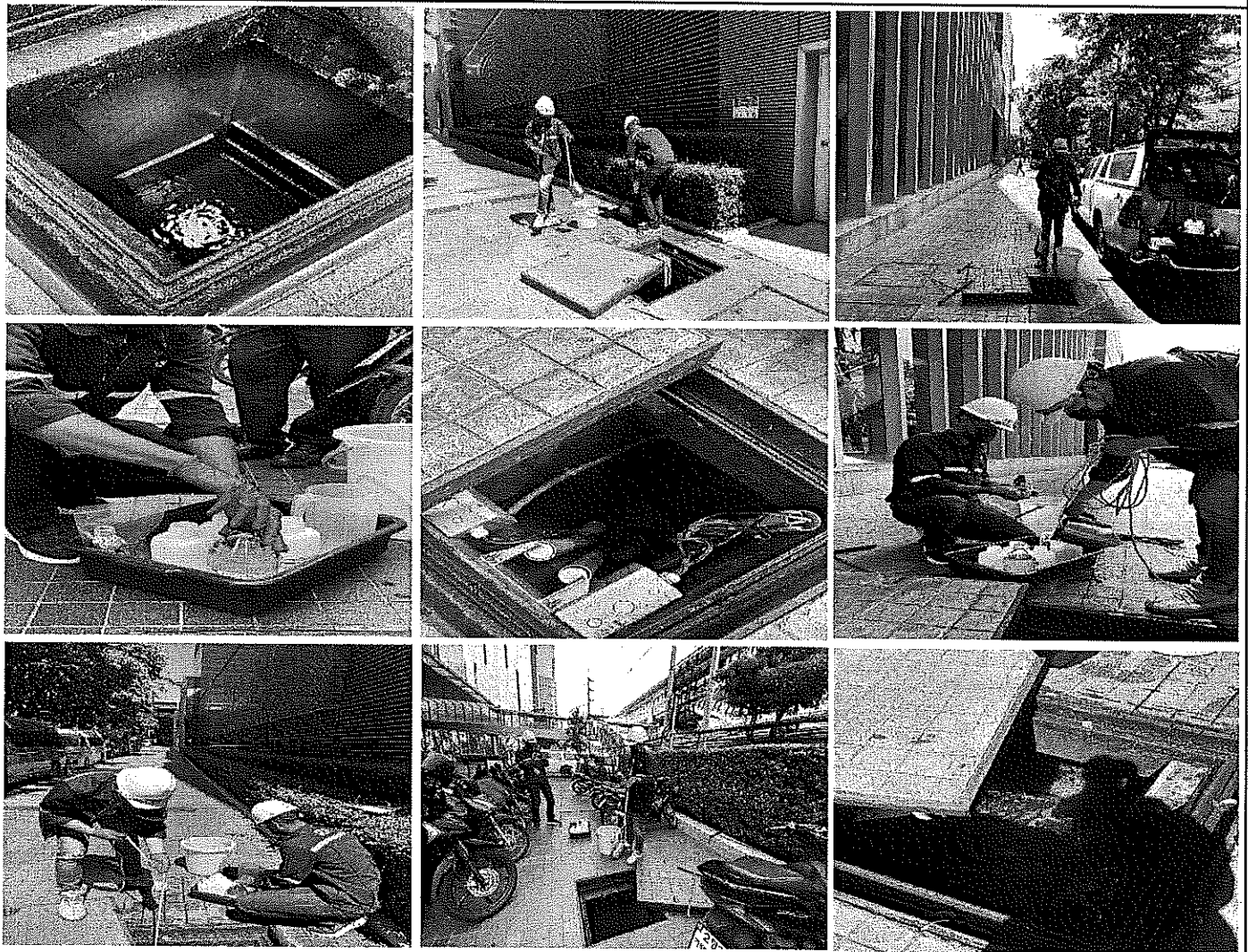
ND : NON-DETECTABLE.

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

OCTOBER 18, 2022

รายงานประจำเดือน	เดือน พฤศจิกายน 2565
วันที่ปฏิบัติงาน	วันศุกร์ ที่ 4 พฤศจิกายน 2565
ผู้ปฏิบัติงาน	01.นาย วรุตม์ ปวนคำมา , นาย กฤษณะ อารมย์ดี
รายงานโดย	นาย กฤษณะ อารมย์ดี
รายงานPM 1	ตรวจเช็คระบบ Wastewater Treatment Period ( M )

ภาพประกอบรายงาน



รายละเอียดงาน

ช่างอาคารได้ทำการตรวจเช็ค PM ประจำเดือน พฤศจิกายน 2565 ของระบบ Wastewater Treatment WWTP โดยการตรวจสอบภาพทั่วไป , บันทึกค่าน้ำใช้ประจำเดือน , ตรวจสอบกลิ่นโดยรวมของระบบ , ตรวจสอบลักษณะน้ำทิ้งจากบ่อ

\*หมายเหตุ\* จากการตรวจเช็ค ระบบ Wastewater Treatment WWTP ไม่พบสิ่งผิดปกติ





## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : NOVEMBER 4, 2022  
**SAMPLING TIME** : 10:45 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : NOVEMBER 4, 2022  
**ANALYTICAL DATE** : NOVEMBER 4-11, 2022  
**REPORT NO.** : 2022-U089893  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AV996-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ค่าพิกัดน้ำเสียดำ พร้อมตะกอนแขวนลอย T22AV996-0001		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	6.9 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	2.1	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	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 2540 C	424	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3



## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : NOVEMBER 4, 2022  
**SAMPLING TIME** : 10:55 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : NOVEMBER 4, 2022  
**ANALYTICAL DATE** : NOVEMBER 4-11, 2022  
**REPORT NO.** : 2022-U089894  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AV996-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			มอกประสกรพ T22AV996-0002	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	6.8 (32°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	27.4	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	13.5	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	410	25
SETTLEABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	26.4	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	3



## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jit.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : NOVEMBER 4, 2022  
**SAMPLING TIME** : 10:50 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS PORNPIMOL WAENTHONG

**RECEIVED DATE** : NOVEMBER 4, 2022  
**ANALYTICAL DATE** : NOVEMBER 4-11, 2022  
**REPORT NO.** : 2022-U089895  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AV996-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			มอดพัค 1718 T22AV996-0003		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.2 (32°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	19.4	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	6.2	≤ 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 2540 C	412	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	15.7	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3





## PREVENTIVE MAINTENANCE

AIA Sathorn Tower

รายงานประจำเดือน	เดือน ธันวาคม 2565
วันที่ปฏิบัติงาน	วัน พุธ ที่ 7 ธันวาคม 2565
ผู้ปฏิบัติงาน	01.นาย พรเทพ บุญสูง , นาย กฤษณะ อารมย์ดี
รายงานโดย	นาย กฤษณะ อารมย์ดี
รายงานPM 1	ตรวจเช็คระบบ Wastewater Treatment Period ( M )

### ภาพประกอบรายงาน



### รายละเอียดงาน

ช่างอาคารได้ทำการตรวจเช็ค PM ประจำเดือน ธันวาคม 2565 ของระบบ Wastewater Treatment WWTP โดยการตรวจสอบภาพทั่วไป , บันทึกค่าน้ำใช้ประจำเดือน , ตรวจสอบกลิ่นโดยรวมของระบบ , ตรวจสอบลักษณะน้ำทิ้งจากบ่อ

\*หมายเหตุ\* จากการตรวจเช็ค ระบบ Wastewater Treatment WWTP ไม่พบสิ่งผิดปกติ



## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : DECEMBER 2, 2022  
**SAMPLING TIME** : 13:30 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : DECEMBER 2, 2022  
**ANALYTICAL DATE** : DECEMBER 2-9, 2022  
**REPORT NO.** : 2022-U098160  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AY137-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำสุดท้าย พร้อมตะแกรงดักขยะ T22AY137-0001		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.4 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	ND	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	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 2540 C	376	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำสุดท้าย พร้อมตะแกรงดักขยะ T22AY137-0001		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	1,300	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	790	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR  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 A, 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.

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

[REDACTED]

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

DECEMBER 14, 2022

## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER

**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120

**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jil.com

**SAMPLING SOURCE** : AIA SATHORN TOWER

**SAMPLE TYPE** : WASTEWATER

**SAMPLING DATE** : DECEMBER 2, 2022

**SAMPLING TIME** : 13:40 HOUR

**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE

**SAMPLING BY** : MR WEERAYUT MOKKAEW

**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : DECEMBER 2, 2022

**ANALYTICAL DATE** : DECEMBER 2-9, 2022

**REPORT NO.** : 2022-U098161

**WORK NO.** : 2020-003066

**ANALYSIS NO.** : T22AY137-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			นอปรบสภา T22AY137-0002	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.5 (32°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	18.4	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	21.4	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	448	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 4500-S <sup>2-</sup> F)	< 0.50	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: 4500-Norg C	28.9	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	3
MICROBIOLOGY				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	>160,000	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	160,000	1.8
SAMPLE CONDITION			YELLOW/TURBID	
WATER'S COLOUR/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.

ND : NON-DETECTABLE.

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

DECEMBER 14, 2022



## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : DECEMBER 2, 2022  
**SAMPLING TIME** : 13:35 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS AMONRAT PUTTALEE

**RECEIVED DATE** : DECEMBER 2, 2022  
**ANALYTICAL DATE** : DECEMBER 2-9, 2022  
**REPORT NO.** : 2022-U098162  
**WORK NO.** : 2020-003066  
**ANALYSIS NO.** : T22AY137-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอผลวิเคราะห์ T22AY137-0003		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM:4500-H <sup>+</sup> B)	7.2 (32°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	12.2	≤ 20	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: 2540 D)	7.4	≤ 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 2540 C	447	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: 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: 4500-Norg C	18.0	≤ 35	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: 5520 B)	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำใส T22AY137-0003		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 B)	13,000	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	7,900	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID  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

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 A, 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.

(MISS BENJAWAN VIRIYOTHAJ)  
LABORATORY SUPERVISOR

DECEMBER 14, 2022

## ANALYSIS REPORT

**CUSTOMER NAME** : AIA SATHORN TOWER  
**ADDRESS** : 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120  
**CONTACT INFORMATION** : TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com  
**SAMPLING SOURCE** : AIA SATHORN TOWER  
**SAMPLE TYPE** : WATER SUPPLY  
**SAMPLING DATE** : DECEMBER 2, 2022  
**SAMPLING TIME** : 13:45 HOUR  
**SAMPLING METHOD<sup>c</sup>** : GRAB  
**SAMPLING BY<sup>c</sup>** : MR WEERAYUT MOKKAEW  
**ANALYZED BY** : MISS ARIYA THARAROM

**RECEIVED DATE** : DECEMBER 2, 2022  
**ANALYTICAL DATE** : DECEMBER 2-7, 2022  
**REPORT NO.** : 2022-U098356  
**WORK NO.** : 2021-004258  
**ANALYSIS NO.** : T22AY138-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			WATER SUPPLY T22AY138-0001	
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C)	182	25
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR	

<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.



(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

DECEMBER 14, 2022

