

## ANALYSIS REPORT

<b>CUSTOMER NAME</b>	: AIA SATHORN TOWER	<b>RECEIVED DATE</b>	: OCTOBER 7, 2022
<b>ADDRESS</b>	: 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120	<b>ANALYTICAL DATE</b>	: OCTOBER 7-18, 2022
<b>CONTACT INFORMATION</b>	: TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com	<b>REPORT NO.</b>	: 2022-U081585
<b>SAMPLING SOURCE</b>	: AIA SATHORN TOWER	<b>WORK NO.</b>	: 2020-003066
<b>SAMPLE TYPE</b>	: EFFLUENT	<b>ANALYSIS NO.</b>	: T22AT994-0001
<b>SAMPLING DATE</b>	: OCTOBER 7, 2022		
<b>SAMPLING TIME</b>	: 13:25 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
			ข้อพิพาทสุดท้าย พร้อมมติกรรมการ 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
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
			บ่อพักน้ำสุดท้ายพร้อมตะแกรงดักขยะ 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

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).

*Benjawan V.*

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

OCTOBER 18, 2022

## ANALYSIS REPORT

<b>CUSTOMER NAME</b>	: AIA SATHORN TOWER	<b>RECEIVED DATE</b>	: OCTOBER 7, 2022
<b>ADDRESS</b>	: 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120	<b>ANALYTICAL DATE</b>	: OCTOBER 7-18, 2022
<b>CONTACT INFORMATION</b>	: TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com	<b>REPORT NO.</b>	: 2022-U081586
<b>SAMPLING SOURCE</b>	: AIA SATHORN TOWER	<b>WORK NO.</b>	: 2020-003066
<b>SAMPLE TYPE</b>	: WASTEWATER	<b>ANALYSIS NO.</b>	: T22AT994-0002
<b>SAMPLING DATE</b>	: OCTOBER 7, 2022		
<b>SAMPLING TIME</b>	: 13:15 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	DETECTION LIMIT
			บอประสิทธิภาพ 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.

*Benjawan V.*

(MISS BENJAWAN VIRIYOTHAI)  
LABORATORY SUPERVISOR

OCTOBER 18, 2022





## ANALYSIS REPORT

<b>CUSTOMER NAME</b>	: AIA SATHORN TOWER	<b>RECEIVED DATE</b>	: OCTOBER 7, 2022
<b>ADDRESS</b>	: 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120	<b>ANALYTICAL DATE</b>	: OCTOBER 7-18, 2022
<b>CONTACT INFORMATION</b>	: TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com	<b>REPORT NO.</b>	: 2022-U085655
<b>SAMPLING SOURCE</b>	: AIA SATHORN TOWER	<b>WORK NO.</b>	: 2020-003066
<b>SAMPLE TYPE</b>	: EFFLUENT	<b>ANALYSIS NO.</b>	: T22AT994-0003
<b>SAMPLING DATE</b>	: OCTOBER 7, 2022		
<b>SAMPLING TIME</b>	: 13:20 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
			บอผลน้ำใน 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>a c</sup>	mg/L	AZIDE MODIFICATION METHOD (SM: 4500-O C AND 5210 B)	10.8	≤ 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
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	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
			บ่อพักน้ำใส T22AT994-0003		
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)	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.

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.

<sup>^</sup> : SAMPLING AT 16:30 HOUR ON OCTOBER 20, 2022, ANALYSIS NO. T22AU919-0001 (ANALYTICAL DATE : OCTOBER 21-26, 2022)

THE REASON FOR ISSUING THE NEW REPORT IS SUBSTITUTE RESULT.

SUBSTITUTED REPORT FOR REPORT NO. 2022-U081587, DATED OCTOBER 18, 2022.

*Benjawan V.*

(MISS BENJAWAN VIRIYOTHAJ)  
LABORATORY SUPERVISOR

NOVEMBER 1, 2022

## ANALYSIS REPORT

<b>CUSTOMER NAME</b>	: AIA SATHORN TOWER	<b>RECEIVED DATE</b>	: OCTOBER 7, 2022
<b>ADDRESS</b>	: 11/1 SOUTH SATHORN ROAD YAN NAWA SATHON BANGKOK 10120	<b>ANALYTICAL DATE</b>	: OCTOBER 7-11, 2022
<b>CONTACT INFORMATION</b>	: TEL : 0 2286 5929 Ext.130 e-mail : Waipoj.thongngam@ap.jll.com	<b>REPORT NO.</b>	: 2022-U081013
<b>SAMPLING SOURCE</b>	: AIA SATHORN TOWER	<b>WORK NO.</b>	: 2021-004258
<b>SAMPLE TYPE</b>	: WATER SUPPLY	<b>ANALYSIS NO.</b>	: T22AT993-0001
<b>SAMPLING DATE</b>	: OCTOBER 7, 2022		
<b>SAMPLING TIME</b>	: 13:30 HOUR		
<b>SAMPLING METHOD <sup>c</sup></b>	: GRAB		
<b>SAMPLING BY <sup>c</sup></b>	: MR WEERAYUT MOKKAEW		
<b>ANALYZED BY</b>	: MISS PORNPIMOL WAENTHONG		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			WATER SUPPLY T22AT993-0001	
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: 2540 C)	144	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.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

OCTOBER 20, 2022

