

# ภาคผนวก

ผลการตรวจวิเคราะห์คุณภาพน้ำทิ้ง



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : JANUARY 23, 2024  
**SAMPLING TIME** : 11:00 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR. APISIT SRIKONGKAEW  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : JANUARY 23, 2024  
**ANALYTICAL DATE** : JANUARY 23-29, 2024  
**REPORT NO.** : 2024-U008358  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AB387-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ปณิธาน T24AB387-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	7.8 (29°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	163	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	92.2	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	449	25
SETTLEABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: PART 2540 F)	2.5	0.1
SULPHIDE <sup>c</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2</sup> F)	4.4	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	78.1	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	17	3
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1
<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.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

FEBRUARY 1, 2024



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : JANUARY 23, 2024  
**SAMPLING TIME** : 10:40 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR APISIT SRIKONGKAEW  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : JANUARY 23, 2024  
**ANALYTICAL DATE** : JANUARY 23-29, 2024  
**REPORT NO.** : 2024-U008359  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AB387-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			แปลผลค่าได้ T24AB387-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H <sup>+</sup> B AND 1060 B	8.0 (28°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	ND	≤ 30	2.0
SUSPENDED SOLIDS <sup>c</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	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	270	500*	25
SETTLEABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: PART 2540 F)	< 0.1	≤ 0.5	0.1
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	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอผลภายใน ๒ ชั่วโมง T24AB387-0002		
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
<b>SAMPLE CONDITION</b> 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 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.

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

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

FEBRUARY 1, 2024

## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WATER SUPPLY  
**SAMPLING DATE** : JANUARY 23, 2024  
**SAMPLING TIME** : 11:20 HOUR  
**SAMPLING METHOD <sup>a</sup>** : GRAB  
**SAMPLING BY <sup>c</sup>** : MR APISIT SRIKONGKAEW  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : JANUARY 23, 2024  
**ANALYTICAL DATE** : JANUARY 23-25, 2024  
**REPORT NO.** : 2024-U008360  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AB387-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ผลการตรวจ T24AB387-0003	
pH <sup>c</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H <sup>+</sup> B AND 1060 B	7.7 (28°C)	-
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	295	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

FEBRUARY 1, 2024



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : FEBRUARY 20, 2024  
**SAMPLING TIME** : 10:50 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR PHATSAWUT THOSAKOON  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : FEBRUARY 20, 2024  
**ANALYTICAL DATE** : FEBRUARY 20-28, 2024  
**ISSUE DATE** : MARCH 1, 2024  
**REPORT NO.** : 2024-U017262  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AD466-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ข้อมูลวิเคราะห์ T24AD466-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	7.1 (31°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	155	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	41.0	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: PART 2540 C	470	25
SETTLEABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: PART 2540 F)	0.3	0.1
SULPHIDE <sup>c</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	3.4	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	76.2	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	8	3
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1
<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.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MARCH 4, 2024



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : FEBRUARY 20, 2024  
**SAMPLING TIME** : 10:40 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR PHATSAWUT THOSAKOON  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : FEBRUARY 20, 2024  
**ANALYTICAL DATE** : FEBRUARY 20-28, 2024  
**ISSUE DATE** : MARCH 1, 2024  
**REPORT NO.** : 2024-U017263  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AD466-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			นํ้าพักน้ำใส T24AD466-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H <sup>+</sup> B AND 1060 B	7.1 (30°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>c</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	ND	≤ 30	2.0
SUSPENDED SOLIDS <sup>c</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	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	248	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: PART 2540 F)	< 0.1	≤ 0.5	0.1
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>c</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	ND	≤ 35	1.5
FAT, OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ข้อพิพาท T24AD466-0002		
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
<b>SAMPLE CONDITION</b> 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 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.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MARCH 4, 2024



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WATER SUPPLY  
**SAMPLING DATE** : FEBRUARY 20, 2024  
**SAMPLING TIME** : 10:55 HOUR  
**SAMPLING METHOD <sup>c</sup>** : GRAB  
**SAMPLING BY <sup>c</sup>** : MR PHATSAWUT THOSAKOON  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : FEBRUARY 20, 2024  
**ANALYTICAL DATE** : FEBRUARY 20-23, 2024  
**ISSUE DATE** : MARCH 1, 2024  
**REPORT NO.** : 2024-U017264  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AD466-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ค่าปรมาณ T24AD466-0003	
pH <sup>c</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	7.3 (28°C)	-
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	256	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

MARCH 4, 2024



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : MARCH 20, 2024  
**SAMPLING TIME** : 13:30 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR TEERAPONG SRIKAMHANG  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : MARCH 20, 2024  
**ANALYTICAL DATE** : MARCH 20-27, 2024  
**ISSUE DATE** : MARCH 28, 2024  
**REPORT NO.** : 2024-U026330  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AF853-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ผลการทดสอบ T24AF853-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	7.5 (29°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	150	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	216	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	334	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: PART 2540 F)	12.0	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2</sup> F)	3.0	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	193	15
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	52	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ผลการวิเคราะห์ T24AF853-0001	
RESIDUAL CHLORINE °	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	

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

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

° : VERIFIED BY OWN LABORATORY QUALITY SYSTEM, BUT STILL NOT ACCREDITED

IN-HOUSE : BASED ON STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23<sup>rd</sup> EDITION, 2017.

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

ND : NON-DETECTABLE.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MARCH 29, 2024

## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : MARCH 20, 2024  
**SAMPLING TIME** : 13:19 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR TEERAPONG SRIKAMHANG  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : MARCH 20, 2024  
**ANALYTICAL DATE** : MARCH 20-27, 2024  
**ISSUE DATE** : MARCH 28, 2024  
**REPORT NO.** : 2024-U026331  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AF853-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่งชี้ค่าวิเคราะห์ T24AF853-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H <sup>+</sup> B AND 1060 B	7.3 (29°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	3.2	≤ 30	2.0
SUSPENDED SOLIDS <sup>c</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	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	237	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: PART 2540 F)	< 0.1	≤ 0.5	0.1
SULPHIDE <sup>b</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500 -S <sub>2</sub> 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	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บอพักน้ำใส T24AF853-0002		
RESIDUAL CHLORINE °	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
<b>SAMPLE CONDITION</b> 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 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.

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

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

MARCH 29, 2024



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WATER SUPPLY  
**SAMPLING DATE** : MARCH 20, 2024  
**SAMPLING TIME** : 13:19 HOUR  
**SAMPLING METHOD <sup>c</sup>** : GRAB  
**SAMPLING BY <sup>c</sup>** : MR TEERAPONG SRIKAMHANG  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : MARCH 20, 2024  
**ANALYTICAL DATE** : MARCH 20-27, 2024  
**ISSUE DATE** : MARCH 28, 2024  
**REPORT NO.** : 2024-U026332  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AF853-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ค่าปรมาณ T24AF853-0003	
pH <sup>c</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	7.8 (28°C)	-
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	222	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

MARCH 29, 2024



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : APRIL 29, 2024  
**SAMPLING TIME** : 13:35 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR SITTHIPOL PROMPOCHENBOON  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : APRIL 29, 2024  
**ANALYTICAL DATE** : APRIL 29 - MAY 7, 2024  
**ISSUE DATE** : MAY 9, 2024  
**REPORT NO.** : 2024-U038501  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AI908-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			ผลการวิเคราะห์ T24AI908-0001	
pH	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	7.3 (33°C)	-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	194	2.0
SUSPENDED SOLIDS	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	58.3	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	460	25
SETTLABLE SOLIDS	mL/L	IMHOFF CONE (SM: PART 2540 F)	0.7	0.1
SULPHIDE	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2-</sup> F)	8.6	0.50
TOTAL KJELDAHL NITROGEN	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	70.4	1.5
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	24	3
RESIDUAL CHLORINE	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	

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

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : APRIL 29, 2024  
**SAMPLING TIME** : 13:10 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR SITTHIPOL PROMPOCHENBOON  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : APRIL 29, 2024  
**ANALYTICAL DATE** : APRIL 29 - MAY 7, 2024  
**ISSUE DATE** : MAY 9, 2024  
**REPORT NO.** : 2024-U038502  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AI908-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			มอก.ทกน้ำใช้ T24AI908-0002		
pH	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H <sup>+</sup> B AND 1060 B	7.2 (33°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2.3	≤ 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	398	500*	25
SETTLABLE SOLIDS	mL/L	IMHOFF CONE (SM: PART 2540 F)	< 0.1	≤ 0.5	0.1
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	ND	≤ 35	1.5
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR GREEN		

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 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.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WATER SUPPLY  
**SAMPLING DATE** : APRIL 29, 2024  
**SAMPLING TIME** : 13:00 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR SITTHIPOL PROMPOCHENBOON  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : APRIL 29, 2024  
**ANALYTICAL DATE** : APRIL 29 - MAY 7, 2024  
**ISSUE DATE** : MAY 9, 2024  
**REPORT NO.** : 2024-U038504  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AI908-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			WATER SUPPLY T24AI908-0003	
pH	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	7.3 (32°C)	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	248	25
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR -	

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



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : MAY 24, 2024  
**SAMPLING TIME** : 09:25 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR KRIDSANAPONG NAMTHIP  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : MAY 24, 2024  
**ANALYTICAL DATE** : MAY 24-30, 2024  
**ISSUE DATE** : JUNE 5, 2024  
**REPORT NO.** : 2024-U047776  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AL041-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			มอกจรลล T24AL041-0001	
pH	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H+ B AND 1060 B	8.1 (29°C)	-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	186	2.0
SUSPENDED SOLIDS	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	316	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	348	25
SETTLEABLE SOLIDS	mL/L	IMHOFF CONE (SM: PART 2540 F)	6.0	0.1
SULPHIDE	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2</sup> - F)	2.9	0.50
TOTAL KJELDAHL NITROGEN	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	104	1.5
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	120	3
RESIDUAL CHLORINE	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN	

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.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR





## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : MAY 24, 2024  
**SAMPLING TIME** : 09:40 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR KRIDSANAPONG NAMTHIP  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : MAY 24, 2024  
**ANALYTICAL DATE** : MAY 24-30, 2024  
**ISSUE DATE** : JUNE 5, 2024  
**REPORT NO.** : 2024-U047777  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AL041-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			นอตพักน้ำใส T24AL041-0002		
pH	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H <sup>+</sup> B AND 1060 B	7.8 (32°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	< 2.0	≤ 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	252	500*	25
SETTLABLE SOLIDS	mL/L	IMHOFF CONE (SM: PART 2540 F)	< 0.1	≤ 0.5	0.1
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	< LOQ	≤ 35	1.5
FAT, OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3
RESIDUAL CHLORINE	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

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 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.

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

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WATER SUPPLY  
**SAMPLING DATE** : MAY 24, 2024  
**SAMPLING TIME** : 09:30 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR KRIDSANAPONG NAMTHIP  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM

**RECEIVED DATE** : MAY 24, 2024  
**ANALYTICAL DATE** : MAY 24-30, 2024  
**ISSUE DATE** : JUNE 5, 2024  
**REPORT NO.** : 2024-U047778  
**WORK NO.** : 2023-000919  
**ANALYSIS NO.** : T24AL041-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			WATER SUPPLY T24AL041-0003	
pH	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	8.1 (29°C)	-
TOTAL DISSOLVED SOLIDS	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	254	25
<b>SAMPLE CONDITION</b> WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR	

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



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : JUNE 26, 2024  
**SAMPLING TIME** : 10:10 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR ACHITA SAENGJAN  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : JUNE 26, 2024  
**ANALYTICAL DATE** : JUNE 26 - JULY 2, 2024  
**ISSUE DATE** : JULY 8, 2024  
**REPORT NO.** : 2024-U061640  
**WORK NO.** : 2024-005752  
**ANALYSIS NO.** : T24AO259-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			มาตรฐาน T24AO259-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	7.2 (31°C)	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	182	2.0
SUSPENDED SOLIDS <sup>a</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	260	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	312	25
SETTLEABLE SOLIDS <sup>c</sup>	ml/L	IMHOFF CONE (SM: PART 2540 F)	6.0	0.1
SULPHIDE <sup>c</sup>	mg/L	IODOMETRIC METHOD (SM: PART 4500-S <sup>2</sup> -F)	3.3	0.50
TOTAL KJELDAHL NITROGEN <sup>b</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	52.0	1.5
FAT, OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	22	3
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	0.1
<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, 24<sup>th</sup> EDITION, 2023.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24<sup>th</sup> EDITION, 2023.

ND : NOT DETECTED.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : JUNE 26, 2024  
**SAMPLING TIME** : 10:03 HOUR  
**SAMPLING METHOD** : GRAB  
**SAMPLING BY** : MR ACHITA SAENGJAN  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : JUNE 26, 2024  
**ANALYTICAL DATE** : JUNE 26 - JULY 3, 2024  
**ISSUE DATE** : JULY 8, 2024  
**REPORT NO.** : 2024-U061641  
**WORK NO.** : 2024-005752  
**ANALYSIS NO.** : T24AO259-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ใบพิกัด T24AO259-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500-H <sup>+</sup> B AND 1060 B	7.3 (31°C)	5-9	-
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	< 2.0	≤ 30	2.0
SUSPENDED SOLIDS <sup>c</sup>	mg/L	SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	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	248	500*	25
SETTLABLE SOLIDS <sup>c</sup>	mL/L	IMHOFF CONE (SM: PART 2540 F)	< 0.1	≤ 0.5	0.1
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>c</sup>	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM: PART 4500-Norg C	ND	≤ 35	1.5
FAT, OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 20	3



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ข้อพิพาทใน T24A0259-0002		
RESIDUAL CHLORINE <sup>c</sup>	mg/L Cl <sub>2</sub>	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/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, 24<sup>th</sup> EDITION, 2023.

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 24<sup>th</sup> EDITION, 2023.

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 : NOT DETECTED.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR



## ANALYSIS REPORT

**CUSTOMER NAME** : PANO VILLE CONDOMINIUM  
**ADDRESS** : 21 VIBHAVADI RANGSIT ROAD 16/43 DIN DAENG DIN DAENG BANGKOK 10400  
**CONTACT INFORMATION** : TEL : 0 2481 5234, 065 291 6858 e-mail : nisanad.v@thelivingos.com  
**SAMPLING SOURCE** : PANO VILLE CONDOMINIUM  
**SAMPLE TYPE** : WATER SUPPLY  
**SAMPLING DATE** : JUNE 26, 2024  
**SAMPLING TIME** : 10:12 HOUR  
**SAMPLING METHOD <sup>c</sup>** : GRAB  
**SAMPLING BY <sup>c</sup>** : MR ACHITA SAENGJAN  
**ANALYZED BY** : MISS NAPAPORN KHUNNOKKHUM  
**RECEIVED DATE** : JUNE 26, 2024  
**ANALYTICAL DATE** : JUNE 26 - JULY 2, 2024  
**ISSUE DATE** : JULY 8, 2024  
**REPORT NO.** : 2024-U061642  
**WORK NO.** : 2024-005752  
**ANALYSIS NO.** : T24AO259-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			WATER SUPPLY T24AO259-0003	
pH <sup>c</sup>	-	ELECTROMETRIC METHOD (AT SITE) SM: PART 4500 -H <sup>+</sup> B AND 1060 B	7.4 (29°C)	-
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	251	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, 24<sup>th</sup> EDITION, 2023.

*Piyapat S.*

(MRS PIYAPAT SUTTAMANUTWONG)  
LABORATORY SUPERVISOR

