

## ANALYSIS REPORT

**CUSTOMER NAME** : NONGKHAINAYU CO., LTD.  
**ADDRESS** : 223/61 14TH FLOOR, COUNTRY COMPLEX TOWER A, SANPHAWUT RD, BANG NA BANG NA BANGKOK 10260  
**CONTACT INFORMATION** : TEL : 086-8216191 e-mail : jetchan.c@supercorp.co.th  
**SAMPLING SOURCE** : บริษัท นองคายน้ำอู่ จำกัด จังหวัดนongคาย  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : MAY 30, 2024  
**SAMPLING TIME** : 10:35 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR. CHOKCHAI PHUMSAWAI  
**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : MAY 31, 2024  
**ANALYTICAL DATE** : MAY 31 - JUNE 11, 2024  
**ISSUE DATE** : JUNE 17, 2024  
**REPORT NO.** : 2024-U052678  
**WORK NO.** : 2023-008979  
**ANALYSIS NO.** : T24AL833-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			น้ำเสียก่อนเข้าระบบ บำบัดน้ำเสีย T24AL833-0001	
pH	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	8.1 (32°C)	-
TEMPERATURE	°C	LABORATORY AND FIELD METHODS (SM: PART 2550 B)	32	-
FLOW RATE	m <sup>3</sup> /hr	CURRENT METER AND CALCULATION	0	-
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)	ND	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	6,945	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	14,323	25.0
TOTAL SUSPENDED SOLIDS	mg/L	DRIED FROM 103 TO 105 °C (SM: PART 2540 D)	716	5.0
TOTAL DISSOLVED SOLIDS	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	22,340	25
OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	44	3
<b>METALS</b>				
CADMIUM	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	0.002
LEAD	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	0.015
MANGANESE	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.848	0.004
MERCURY	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	ND	0.0005
ZINC	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.628	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			น้ำเสียก่อนเข้าระบบ บำบัดน้ำเสีย T24AL833-0001	
MICROBIOLOGY				
COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B AND C)	< 1.8	1.8
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B, C AND E)	< 1.8	1.8
SAMPLE CONDITION				
WATER'S COLOUR/TURBID			BROWN/TURBID	
SEDIMENT			GREY	

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

ND : NON-DETECTABLE.

< LOQ : < LIMIT OF QUANTITATION (LEAD  $\geq$  0.015 AND < 0.200 mg/L).



(MR. BHUCHONK PANICHLERTUMPI)  
LABORATORY SUPERVISOR

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**ADDRESS** : 223/61 14TH FLOOR, COUNTRY COMPLEX TOWER A, SANPHAWUT RD, BANG NA BANG NA BANGKOK 10260  
**CONTACT INFORMATION** : TEL : 086-8216191 e-mail : jetchan.c@supercorp.co.th  
**SAMPLING SOURCE** : บริษัท นองคายนาอยู่ จำกัด จังหวัดนongคาย  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : MAY 30, 2024  
**SAMPLING TIME** : 10:30 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR CHOKCHAI PHUMSAWAI  
**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : MAY 31, 2024  
**ANALYTICAL DATE** : MAY 31 - JUNE 11, 2024  
**ISSUE DATE** : JUNE 17, 2024  
**REPORT NO.** : 2024-U052679  
**WORK NO.** : 2023-008979  
**ANALYSIS NO.** : T24AL833-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ปล่อยน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 300 ลูกบาศก์เมตร T24AL833-0002		
pH	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.0 (32°C)	5.5-9.0	-
TEMPERATURE	°C	LABORATORY AND FIELD METHODS (SM: PART 2550 B)	32	≤ 40	-
FLOW RATE	m³/hr	CURRENT METER AND CALCULATION	0	-	-
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)	3.9	-	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	63.0	≤ 20	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	163	≤ 120	25.0
TOTAL SUSPENDED SOLIDS	mg/L	DRIED FROM 103 TO 105 °C (SM: PART 2540 D)	15.0	≤ 50	5.0
TOTAL DISSOLVED SOLIDS	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	1,444	≤ 3,000	25
OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
METALS					
CADMIUM	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.03	0.002
LEAD	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	≤ 0.2	0.015
MANGANESE	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.084	≤ 5.0	0.004
MERCURY	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	ND	≤ 0.005	0.0005
ZINC	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.666	≤ 5.0	0.003





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ปล่อยพักน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 300 ลูกบาศก์เมตร T24AL833-0002		
MICROBIOLOGY					
COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B AND C)	170	-	1.8
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B, C AND E)	23	-	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,  
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

< LOQ : < LIMIT OF QUANTITATION (LEAD  $\geq$  0.015 AND < 0.200 mg/L).

*Bhuchonk p.*

(MR BHUCHONK PANICHLERTUMPI)  
LABORATORY SUPERVISOR

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**CONTACT INFORMATION** : TEL : 086-8216191 e-mail : jetchan.c@supercorp.co.th  
**SAMPLING SOURCE** : บริษัท นองคายน้ำอยู่ จำกัด จังหวัดนongคาย  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : MAY 30, 2024  
**SAMPLING TIME** : 09:30 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR CHOKCHAI PHUMSAWAI  
**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : MAY 31, 2024  
**ANALYTICAL DATE** : MAY 31 - JUNE 11, 2024  
**ISSUE DATE** : JUNE 17, 2024  
**REPORT NO.** : 2024-U052680  
**WORK NO.** : 2023-008979  
**ANALYSIS NO.** : T24AL833-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 2,500 ลูกบาศก์เมตร T24AL833-0003		
pH	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	8.8 (29°C)	5.5-9.0	-
TEMPERATURE	°C	LABORATORY AND FIELD METHODS (SM: PART 2550 B)	29	≤ 40	-
FLOW RATE	m <sup>3</sup> /hr	CURRENT METER AND CALCULATION	0	-	-
DISSOLVED OXYGEN	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)	4.4	-	0.5
BIOCHEMICAL OXYGEN DEMAND	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2.6	≤ 20	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	37.4	≤ 120	25.0
TOTAL SUSPENDED SOLIDS	mg/L	DRIED FROM 103 TO 105 °C (SM: PART 2540 D)	5.9	≤ 50	5.0
TOTAL DISSOLVED SOLIDS	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	837	≤ 3,000	25
OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
METALS					
CADMIUM	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.03	0.002
LEAD	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	≤ 0.2	0.015
MANGANESE	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	≤ 5.0	0.004
MERCURY	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	ND	≤ 0.005	0.0005
ZINC	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.573	≤ 5.0	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			ป๊อพักบ้านหมุนเวียน กลับมาใช้ใหม่ ความจุ 2,500 ลูกบาศก์เมตร T24AL833-0003		
MICROBIOLOGY					
COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B AND C)	< 18	-	18
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B, C AND E)	< 18	-	18
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR  GREEN		

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

REGULATORY STANDARD : INDUSTRIAL EFFLUENT STANDARDS, NOTIFICATION OF THE MINISTRY OF INDUSTRY, B.E. 2560,  
PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL 134, PART 153 D, DATED JUNE 7, 2017.

ND : NON-DETECTABLE.

< LOQ : < LIMIT OF QUANTITATION (LEAD  $\geq 0.015$  AND < 0.200 mg/L, MANGANESE  $\geq 0.004$  AND < 0.050 mg/L).

*Bhuchonk p.*

(MR BHUCHONK PANICHLERTUMPI)  
LABORATORY SUPERVISOR



## ANALYSIS REPORT

**CUSTOMER NAME** : NONGKHAINAYU CO., LTD.  
**ADDRESS** : 223/61 14TH FLOOR, COUNTRY COMPLEX TOWER A, SANPHAWUT RD, BANG NA BANG NA BANGKOK 10260  
**CONTACT INFORMATION** : TEL : 086-8216191 e-mail : jetchan.c@supercorp.co.th  
**SAMPLING SOURCE** : -  
**SAMPLE TYPE** : BLANK (WASTEWATER)  
**SAMPLING DATE** : -  
**SAMPLING TIME** : -  
**SAMPLING METHOD** : -  
**SAMPLING BY** : -  
**ANALYZED BY** : MISS AKSARIN BUNKONG

**RECEIVED DATE** : MAY 31, 2024  
**ANALYTICAL DATE** : MAY 31 - JUNE 11, 2024  
**ISSUE DATE** : JUNE 17, 2024  
**REPORT NO.** : 2024-U052681  
**WORK NO.** : 2023-008979  
**ANALYSIS NO.** : 2024-FB0513, 2024-TB0502

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			1 2024-FB0513	2 2024-TB0502	
BIOCHEMICAL OXYGEN DEMAND	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	< 2.0	< 2.0	2.0
CHEMICAL OXYGEN DEMAND	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	ND	ND	25.0
TOTAL SUSPENDED SOLIDS	mg/L	DRIED FROM 103 TO 105 °C (SM: PART 2540 D)	ND	ND	5.0
TOTAL DISSOLVED SOLIDS	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	ND	ND	25
OIL AND GREASE	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	ND	3
<b>METALS</b>					
CADMIUM	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	ND	0.002
LEAD	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	ND	0.015
MANGANESE	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	ND	0.004
MERCURY	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	ND	ND	0.0005
ZINC	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	ND	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			1 2024-FB0513	2 2024-TB0502	
MICROBIOLOGY					
COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B AND C)	< 1.8	< 1.8	1.8
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221B, C AND E)	< 1.8	< 1.8	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR	COLOURLESS/CLEAR	
SEDIMENT			-	-	

RESULT 1 : FIELD BLANK

RESULT 2 : TRIP BLANK

ND : NON-DETECTABLE

*Bhuchonk P.*

(MR. BHUCHONK PANICHLERTUMPI)  
LABORATORY SUPERVISOR