

## 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 นกนาคายน้ำอยู่ จำกัด จังหวัดหนองคาย  
**SAMPLE TYPE** : WASTEWATER  
**SAMPLING DATE** : JANUARY 30, 2024  
**SAMPLING TIME** : 09:30 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR PRACHCHAPOL SOPHA  
**ANALYZED BY** : MISS AKSARIN BUNKONG  
**RECEIVED DATE** : JANUARY 31, 2024  
**ANALYTICAL DATE** : JANUARY 31 - FEBRUARY 8, 2024  
**ISSUE DATE** : FEBRUARY 13, 2024  
**REPORT NO.** : 2024-U011386  
**WORK NO.** : 2023-008979  
**ANALYSIS NO.** : T24AB921-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			น้ำเสียก่อนเข้าระบบ บำบัดน้ำเสีย T24AB921-0001	
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	8.4 (30°C)	-
TEMPERATURE <sup>c</sup>	°C	LABORATORY AND FIELD METHODS (SM: PART 2550 B)	30	-
FLOW RATE <sup>c</sup>	m <sup>3</sup> /hr	CURRENT METER AND CALCULATION	0	-
DISSOLVED OXYGEN <sup>c</sup>	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)	ND	0.5
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	2,169	2.0
CHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	8,387	25.0
TOTAL SUSPENDED SOLIDS <sup>a</sup>	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	640	5.0
TOTAL DISSOLVED SOLIDS <sup>c</sup>	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	9,600	25
OIL AND GREASE <sup>a</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	37	3
<b>METALS</b>				
CADMIUM <sup>c</sup>	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	0.002
LEAD <sup>c</sup>	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	0.015
MANGANESE <sup>c</sup>	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.374	0.004
MERCURY <sup>c</sup>	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	0.0006	0.0005
ZINC <sup>c</sup>	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.489	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	DETECTION LIMIT
			น้ำเสียก่อนเข้าระบบ บำบัดน้ำเสีย T24AB921-0001	
MICROBIOLOGY				
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	< 1.8	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	< 1.8	1.8
SAMPLE CONDITION				
WATER'S COLOUR/TURBID			BROWN/TURBID	
SEDIMENT			GREY	

<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.

ND : NON-DETECTABLE.

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

*Bhuchonk p.*

(MR BHUCHONK PANICHLERTUMPI)  
LABORATORY SUPERVISOR

FEBRUARY 13, 2024

## ANALYSIS REPORT

<b>CUSTOMER NAME</b>	: NONGKHAINAYU CO., LTD.	<b>RECEIVED DATE</b>	: JANUARY 31, 2024
<b>ADDRESS</b>	: 223/61 14TH FLOOR, COUNTRY COMPLEX TOWER A, SANPAWUT RD, BANG NA BANG NA BANGKOK 10260	<b>ANALYTICAL DATE</b>	: JANUARY 31 - FEBRUARY 8, 2024
<b>CONTACT INFORMATION</b>	: TEL : 086-8216191 e-mail : jetchan.c@supercorp.co.th	<b>ISSUE DATE</b>	: FEBRUARY 13, 2024
<b>SAMPLING SOURCE</b>	: บริษัท หนงคายน้อย จำกัด จังหวัดหนองคาย	<b>REPORT NO.</b>	: 2024-U011387
<b>SAMPLE TYPE</b>	: EFFLUENT	<b>WORK NO.</b>	: 2023-008979
<b>SAMPLING DATE</b>	: JANUARY 30, 2024	<b>ANALYSIS NO.</b>	: T24AB921-0002
<b>SAMPLING TIME</b>	: 09:15 HOUR		
<b>SAMPLING METHOD</b>	: GRAB, GRAB AND STERILE TECHNIQUE		
<b>SAMPLING BY</b>	: MR PRACHCHAPOL SOPHA		
<b>ANALYZED BY</b>	: MISS AKSARIN BUNKONG		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 300 ลูกบาศก์เมตร T24AB921-0002		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	7.1 (22°C)	5.5-9.0	-
TEMPERATURE <sup>c</sup>	°C	LABORATORY AND FIELD METHODS (SM: PART 2550 B)	22	≤ 40	-
FLOW RATE <sup>c</sup>	m <sup>3</sup> /hr	CURRENT METER AND CALCULATION	0	-	-
DISSOLVED OXYGEN <sup>c</sup>	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)	3.0	-	0.5
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	31.5	≤ 20	2.0
CHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	119	≤ 120	25.0
TOTAL SUSPENDED SOLIDS <sup>a</sup>	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	16.0	≤ 50	5.0
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	3,688	≤ 3,000	25
OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
<b>METALS</b>					
CADMIUM <sup>c</sup>	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.03	0.002
LEAD <sup>c</sup>	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	≤ 0.2	0.015
MANGANESE <sup>c</sup>	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	≤ 5.0	0.004
MERCURY <sup>c</sup>	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	ND	≤ 0.005	0.0005
ZINC <sup>c</sup>	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.291	≤ 5.0	0.003





PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 300 ลูกบาศก์เมตร T24AB921-0002		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	130	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	79	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID  GREEN		

<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.

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

FEBRUARY 13, 2024

## 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 นนงคายนายู จำกัด จังหวัดนนทบุรี  
**SAMPLE TYPE** : EFFLUENT  
**SAMPLING DATE** : JANUARY 30, 2024  
**SAMPLING TIME** : 09:05 HOUR  
**SAMPLING METHOD** : GRAB, GRAB AND STERILE TECHNIQUE  
**SAMPLING BY** : MR PRACHCHAPOL SOPHA  
**ANALYZED BY** : MISS AKSARIN BUNKONG  
**RECEIVED DATE** : JANUARY 31, 2024  
**ANALYTICAL DATE** : JANUARY 31 - FEBRUARY 8, 2024  
**ISSUE DATE** : FEBRUARY 13, 2024  
**REPORT NO.** : 2024-U011388  
**WORK NO.** : 2023-008979  
**ANALYSIS NO.** : T24AB921-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 2,500 ลูกบาศก์เมตร T24AB921-0003		
pH <sup>a</sup>	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H <sup>+</sup> B)	6.4 (23°C)	5.5-9.0	-
TEMPERATURE <sup>c</sup>	°C	LABORATORY AND FIELD METHODS (SM: PART 2550 B)	23	≤ 40	-
FLOW RATE <sup>c</sup>	m <sup>3</sup> /hr	CURRENT METER AND CALCULATION	0	-	-
DISSOLVED OXYGEN <sup>c</sup>	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM: PART 4500-O G)	3.4	-	0.5
BIOCHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	6.9	≤ 20	2.0
CHEMICAL OXYGEN DEMAND <sup>a</sup>	mg/L	CLOSED REFLUX, COLOURIMETRIC METHOD (SM: PART 5220 D)	123	≤ 120	25.0
TOTAL SUSPENDED SOLIDS <sup>a</sup>	mg/L	DRIED AT 103-105 °C (SM: PART 2540 D)	7.5	≤ 50	5.0
TOTAL DISSOLVED SOLIDS <sup>b</sup>	mg/L	DRIED AT 180 °C (SM: PART 2540 C)	2,390	≤ 3,000	25
OIL AND GREASE <sup>c</sup>	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM: PART 5520 B)	ND	≤ 5	3
<b>METALS</b>					
CADMIUM <sup>c</sup>	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.03	0.002
LEAD <sup>c</sup>	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	ND	≤ 0.2	0.015
MANGANESE <sup>c</sup>	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	0.058	≤ 5.0	0.004
MERCURY <sup>c</sup>	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM: PART 3112 B)	0.0008	≤ 0.005	0.0005
ZINC <sup>c</sup>	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM: PART 3030 E AND PART 3111 B)	< LOQ	≤ 5.0	0.003



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			บ่อพักน้ำหมุนเวียน กลับมาใช้ใหม่ ความจุ 2,500 ลูกบาศก์เมตร T24AB921-0003		
MICROBIOLOGY					
COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	170	-	1.8
FAECAL COLIFORM BACTERIA <sup>b</sup>	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	79	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID  GREEN		

<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.

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 (ZINC  $\geq$  0.003 AND < 0.050 mg/L).

*Bhuchonk p.*

(MR BHUCHONK PANICHLERTUMPI)  
LABORATORY SUPERVISOR

FEBRUARY 13, 2024



## 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) **RECEIVED DATE** : JANUARY 31, 2024  
**SAMPLING DATE** : - **ANALYTICAL DATE** : JANUARY 31 - FEBRUARY 8, 2024  
**SAMPLING TIME** : - **ISSUE DATE** : FEBRUARY 13, 2024  
**SAMPLING METHOD** : - **REPORT NO.** : 2024-U011389  
**SAMPLING BY** : - **WORK NO.** : 2023-008979  
**ANALYZED BY** : MISS AKSARIN BUNKONG **ANALYSIS NO.** : 2024-FB0080, 2024-TB0080

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT		DETECTION LIMIT
			1 2024-FB0080	2 2024-TB0080	
BIOCHEMICAL OXYGEN DEMAND	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM: PART 5210 B AND PART 4500-O G)	ND	ND	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 AT 103-105 °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-FB0080	2 2024-TB0080	
MICROBIOLOGY					
COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: PART 9221 B)	< 1.8	< 1.8	1.8
FAECAL COLIFORM BACTERIA	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM: 9221 E)	< 1.8	< 1.8	1.8
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR	COLOURLESS/CLEAR	
SEDIMENT			-	-	

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

RESULT 1 : FIELD BLANK

RESULT 2 : TRIP BLANK

ND : NON-DETECTABLE.

*Bhuchonk p.*

(MR BHUCHONK PANICHLERTUMPI)  
LABORATORY SUPERVISOR

FEBRUARY 13, 2024