

ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE PUBLIC COMPANY LIMITED

ADDRESS : 299 MOO 5 MITRAPARP ROAD MITTRAPHAP TABKWANG KAENGKOI SARABURI 18260

CONTACT INFORMATION : TEL : 06 4294 9161 e-mail : chod.padmuk@gmail.com

SAMPLING SOURCE : ป้อมบาดาลสถานีวิจัยห้วยขวาง

SAMPLE TYPE : GROUNDWATER

SAMPLING DATE : MARCH 21, 2023

SAMPLING TIME : 11:30 HOUR

SAMPLING METHOD ° : GRAB

SAMPLING BY ° : MR MANIT PANCHOT

ANALYZED BY : MISS ARIYA THARAROM

RECEIVED DATE : MARCH 21, 2023

ANALYTICAL DATE : MARCH 21-29, 2023

REPORT NO. : 2023-U023592

WORK NO. : 2022-010806

ANALYSIS NO. : T23AF059-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			GROUNDWATER T23AF059-0003		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H+ B)	7.2 (28°C)	-	-
TURBIDITY °	NTU	NEPHELOMETRIC METHOD (SM: PART 2130 B)	1.4	-	0.1
TOTAL SUSPENDED SOLIDS °	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	ND	-	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	476	-	25
TOTAL HARDNESS °	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM: PART 2340 C)	381	-	4.0
SULPHATE °	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM: PART 4500 -SO ₄ ²⁻ E)	59.3	-	0.3
CHLORIDE °	mg/L Cl ⁻	ARGENTOMETRIC METHOD (SM: PART 4500-Cl ⁻ B)	9.2	-	2.0



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			GROUNDWATER T23AF059-0003		
METALS					
TOTAL IRON ^c	mg/L Fe	IN-HOUSE METHOD: UAE.TP.GW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< LOQ	-	0.005
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR		
SEDIMENT			YELLOW		

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

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

^c : 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, 23rd EDITION, 2017.

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

REGULATORY STANDARD : GROUNDWATER QUALITY STANDARDS, NOTIFICATION OF THE NATIONAL ENVIRONMENT BOARD NO.20 (B.E. 2543)
ISSUED UNDER THE ENHANCEMENT AND CONSERVATION OF NATIONAL ENVIRONMENTAL QUALITY ACT B.E. 2535.

ND : NON-DETECTABLE.

< LOQ : < LIMIT OF QUANTITATION (TOTAL IRON \geq 0.005 AND < 0.050 mg/L).

Bhuchonk P.

(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

APRIL 3, 2023

ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE PUBLIC COMPANY LIMITED

ADDRESS : 299 MOO 5 MITRAPARP ROAD MITTRAPHAP TABKWANG KAENGKOI SARABURI 18260

CONTACT INFORMATION : TEL : 06 4294 9161 e-mail : chod.padmuk@gmail.com

SAMPLING SOURCE : บ่อบาดาลวัดพระธาตุเจริญธรรม

SAMPLE TYPE : GROUNDWATER

SAMPLING DATE : MARCH 21, 2023

SAMPLING TIME : 11:00 HOUR

SAMPLING METHOD ^c : GRAB

SAMPLING BY ^c : MR MANIT PANCHOT

ANALYZED BY : MISS ARIYA THARAROM

RECEIVED DATE : MARCH 21, 2023

ANALYTICAL DATE : MARCH 21-29, 2023

REPORT NO. : 2023-U023593

WORK NO. : 2022-010806

ANALYSIS NO. : T23AF059-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			GROUNDWATER T23AF059-0004		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.0 (31°C)	-	-
TURBIDITY ^c	NTU	NEPHELOMETRIC METHOD (SM: PART 2130 B)	0.3	-	0.1
TOTAL SUSPENDED SOLIDS ^c	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	ND	-	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	596	-	25
TOTAL HARDNESS ^a	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM: PART 2340 C)	402	-	4.0
SULPHATE ^c	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM: PART 4500-SO ₄ ²⁻ E)	62.7	-	0.3
CHLORIDE ^a	mg/L Cl ⁻	ARGENTOMETRIC METHOD (SM: PART 4500-Cl ⁻ B)	51.1	-	2.0



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			GROUNDWATER T23AF059-0004		
METALS					
TOTAL IRON ^c	mg/L Fe	IN-HOUSE METHOD: UAE.TP.GW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< LOQ	-	0.005
SAMPLE CONDITION					
WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR		

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

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Bhuchonk p.

(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

APRIL 3, 2023

ANALYSIS REPORT

CUSTOMER NAME	: TPI POLENE PUBLIC COMPANY LIMITED	RECEIVED DATE	: MARCH 21, 2023
ADDRESS	: 299 MOO 5 MITRAPARP ROAD MITTRAPHAP TABKWANG KAENGKOI SARABURI 18260	ANALYTICAL DATE	: MARCH 21-29, 2023
CONTACT INFORMATION	: TEL : 06 4294 9161 e-mail : chod.padmuk@gmail.com	REPORT NO.	: 2023-U023595
SAMPLING SOURCE	: บ่อบาดาลชุมชนเกษตรสัมพันธ์	WORK NO.	: 2022-010806
SAMPLE TYPE	: GROUNDWATER	ANALYSIS NO.	: T23AF059-0005
SAMPLING DATE	: MARCH 21, 2023		
SAMPLING TIME	: 11:20 HOUR		
SAMPLING METHOD ^c	: GRAB		
SAMPLING BY ^c	: MR MANIT PANCHOT		
ANALYZED BY	: MISS ARIYA THARAROM		

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			GROUNDWATER T23AF059-0005		
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM: PART 4500-H ⁺ B)	7.2 (35°C)	-	-
TURBIDITY ^c	NTU	NEPHELOMETRIC METHOD (SM: PART 2130 B)	0.4	-	0.1
TOTAL SUSPENDED SOLIDS ^c	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM: PART 2540 D)	ND	-	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM: PART 2540 C)	640	-	25
TOTAL HARDNESS ^a	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM: PART 2340 C)	407	-	4.0
SULPHATE ^c	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM: PART 4500 -SO ₄ ²⁻ E)	82.5	-	0.3
CHLORIDE ^a	mg/L Cl ⁻	ARGENTOMETRIC METHOD (SM: PART 4500-Cl ⁻ B)	25.6	-	2.0



PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			GROUNDWATER T23AF059-0005		
METALS					
TOTAL IRON ^c	mg/L Fe	IN-HOUSE METHOD: UAE.TP.GW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM: PART 3030 E AND PART 3111 B	< LOQ	-	0.005
SAMPLE CONDITION					
WATER'S COLOUR/TURBID			COLOURLESS/CLEAR		
SEDIMENT					

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

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