

ภาคผนวก ก-16

แบบบันทึกการสำรวจการเจริญเติบโตของต้นไม้
บริเวณรอบโครงการโรงไฟฟ้า

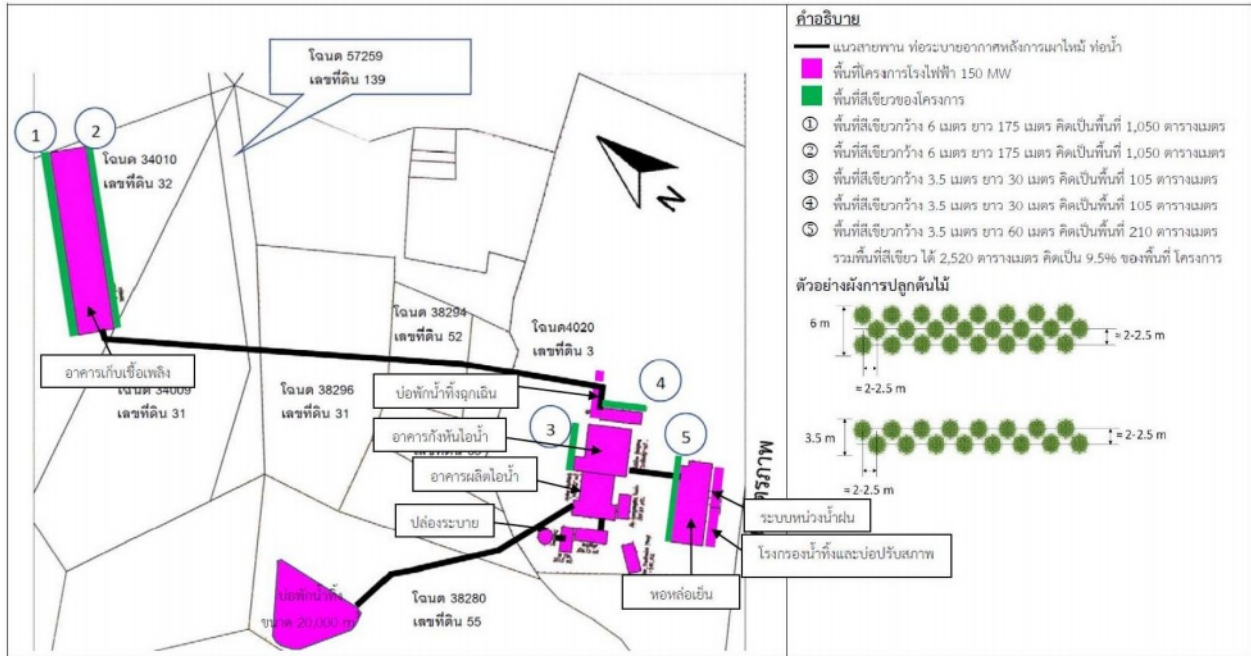


บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน)

TPI POLENE POWER PUBLIC COMPANY LIMITED

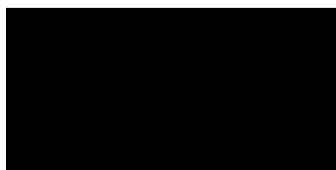
แบบบันทึกการสำรวจการเจริญเติบโตของต้นไม้บริเวณรอบโครงการโรงไฟฟ้า 40 MW

เดือนกรกฎาคม - ธันวาคม ปี พ.ศ. 2566



ที่มา: บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน), 2560

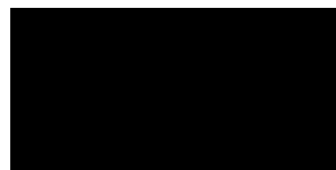
พื้นที่	จำนวนของต้นไม้ (ต้น)			ผลการติดตาม (ต้น)						หมายเหตุ
	ไม้ยืนต้น	ไม้พุ่ม	ไม้ดอก-ไม้ประดับ	ไม้ยืนต้น		ไม้พุ่ม		ไม้ดอก-ไม้ประดับ		
				ปกติ	ตาย	ปกติ	ตาย	ปกติ	ตาย	
โซนที่ 1	20	0	0	20	0	0	0	0	0	-
โซนที่ 2	20	0	0	20	0	0	0	0	0	-
โซนที่ 3	10	10	5	10	0	10	0	5	0	-
โซนที่ 4	10	10	5	10	0	10	0	5	0	-
โซนที่ 5	10	15	0	15	0	15	0	0	0	-



วิศวกรสิ่งแวดล้อม

ผู้บันทึก

25/12/66



ผู้ช่วยผู้จัดการแผนกสิ่งแวดล้อม

ผู้ตรวจสอบ

25/12/66

ภาคผนวก ข

เอกสารประกอบการปฏิบัติตามมาตรการ

ภาคผนวก ข-1

รายงานการติดตามตรวจสอบคุณภาพอากาศจากปล่องระบาย
แบบต่อเนื่อง (CEMs)

รายงานการวัดค่า CEMs BOILER B6A เดือน กรกฎาคม 2566						
DATE	CEMs#B6A					
	so2	NOX	CO	Dust	Flow	Oxygen
	(ppm)	(ppm)	(ppm)	(mg/m3)	(m3/S)	%Vol
8/1/2566	33.96	1.05	113.06	16.69	88447.6	15.16
8/2/2566	29.83	4.87	60.31	13.43	100463.0	13.90
8/3/2566	29.33	10.94	52.84	11.38	75614.9	17.88
8/4/2566	28.81	7.73	9.20	1.67	36899.6	16.99
8/5/2566	29.75	12.66	97.33	4.35	73943.9	17.84
8/6/2566	28.57	17.41	57.79	13.25	104362.0	13.67
8/7/2566	27.54	11.30	28.51	22.24	101815.7	13.65
8/8/2566	29.27	6.51	162.24	21.32	90711.8	12.96
8/9/2566	28.26	1.43	71.65	16.15	94147.9	12.93
8/10/2566	29.37	1.40	48.57	16.84	100332.8	13.25
8/11/2566	29.86	0.11	58.35	10.82	101041.7	13.62
8/12/2566	29.89	0.52	6.67	6.38	95623.6	14.31
8/13/2566	30.12	2.30	42.60	7.64	90878.2	13.81
8/14/2566	30.07	4.05	34.55	7.99	91210.9	13.94
8/15/2566	31.33	6.21	55.72	9.48	89677.4	13.61
8/16/2566	34.96	9.13	121.55	11.47	92223.7	12.96
8/17/2566	35.87	9.65	105.88	12.82	89156.5	13.33
8/18/2566	34.61	10.80	114.37	12.42	90285.0	12.81
8/19/2566	36.91	13.54	139.79	9.47	89417.0	12.65
8/20/2566	29.97	6.53	126.45	12.97	90010.1	13.06
8/21/2566	20.10	7.85	160.02	13.39	93236.4	12.49
8/22/2566	25.32	8.99	243.02	14.79	91239.9	12.52
8/23/2566	23.81	10.84	167.72	16.55	90993.9	12.80
8/24/2566	22.91	13.09	134.71	8.97	90538.2	13.36
8/25/2566	21.67	12.39	88.87	8.79	92621.5	13.20
8/26/2566	20.98	9.15	121.96	8.22	98712.4	12.54
8/27/2566	23.62	7.37	175.70	9.32	99160.9	13.18
8/28/2566	25.56	4.27	147.62	9.12	97583.9	13.37
8/29/2566	23.51	2.93	204.80	7.67	98206.0	13.12
8/30/2566	21.10	3.51	103.29	8.71	100535.3	14.14
8/31/2566	20.00	3.04	90.68	7.74	102213.55	14.14
Average	27.96	7.15	101.48	11.36	91655.0	13.78
ค่ามาตรฐานที่ ระบบออกที่ปล่อย	≤360	≤200		≤80		

หมายเหตุ

รายงานการวัดค่า CEMs BOILER B6A เดือน สิงหาคม 2566						
DATE	CEMs#B6A					
	so2	NOX	CO	Dust	Flow	Oxygen
	(ppm)	(ppm)	(ppm)	(mg/m3)	(m3/S)	%Vol
8/1/2566	21.79	0.45	78.17	6.78	99551.5	14.37
8/2/2566	22.69	1.52	172.79	7.23	95348.7	14.53
8/3/2566	20.41	1.88	202.35	7.87	92057.3	16.70
8/4/2566	20.54	1.82	90.10	6.88	95478.9	14.82
8/5/2566	24.60	4.12	205.73	7.20	97366.9	14.38
8/6/2566	18.61	10.49	4.79	4.48	65531.0	18.15
8/7/2566	0.00	0.00	0.00	0.00	0.00	21.04
8/8/2566	0.00	0.00	0.00	0.00	0.00	21.05
8/9/2566	0.00	0.00	0.00	0.00	0.00	21.04
8/10/2566	0.00	0.00	0.00	0.00	0.00	21.04
8/11/2566	0.00	0.00	0.00	0.00	0.00	21.04
8/12/2566	0.00	0.00	0.00	0.00	0.00	21.04
8/13/2566	0.00	0.00	0.00	0.00	0.00	21.05
8/14/2566	7.67	48.39	46.73	5.68	7212.09	18.93
8/15/2566	21.47	11.80	141.48	5.07	72583.92	16.14
8/16/2566	19.15	17.90	78.45	6.39	94719.33	14.21
8/17/2566	19.30	15.22	155.32	4.51	100231.49	13.50
8/18/2566	20.62	16.71	85.78	4.28	100491.90	13.69
8/19/2566	19.59	11.86	108.72	4.70	98907.70	12.92
8/20/2566	17.38	13.41	72.70	4.24	101634.84	13.75
8/21/2566	17.23	14.42	36.47	4.32	98596.65	13.75
8/22/2566	17.05	14.37	58.03	4.01	99725.12	13.06
8/23/2566	17.43	13.20	80.72	4.88	98292.83	13.06
8/24/2566	16.92	12.80	47.04	4.44	97171.59	13.25
8/25/2566	19.91	12.04	102.50	4.50	95855.04	12.98
8/26/2566	18.13	11.06	97.48	5.88	96911.17	13.01
8/27/2566	18.13	11.06	97.48	5.88	96911.17	13.01
8/28/2566	16.46	9.69	40.15	5.98	99493.64	13.64
8/29/2566	17.06	8.16	52.06	7.34	93894.68	13.90
8/30/2566	17.90	7.13	52.05	5.69	93822.34	13.47
8/31/2566	19.69	4.59	105.93	5.30	295410.15	14.01
Average	14.51	8.84	71.39	4.31	77006.4	15.82
ค่ามาตรฐานที่ ระบบออกที่ปล่อย	≤360	≤200		≤80		

หมายเหตุ



ช่วงวันที่ 7 - 13 สิงหาคม 2566 Shut Down Plant หยุดซ่อมเครื่องจักร

รายงานการวัดค่า CEMs BOILER B6 เดือน กันยายน 2566						
DATE	CEMs#B6A					
	SO2	NOX	CO	Dust	Flow	Oxygen
	(ppm)	(ppm)	(ppm)	(mg/m3)	(m3/S)	%Vol
9/1/2566	19.12	5.23	94.08	4.27	93713.8	13.18
9/2/2566	20.76	4.39	78.72	4.33	95399.3	13.67
9/3/2566	21.68	4.30	58.14	4.54	95261.9	14.26
9/4/2566	17.89	4.09	35.06	4.35	72034.1	17.13
9/5/2566	0.00	0.00	0.00	0.00	0.00	21.07
9/6/2566	0.00	0.00	0.00	0.00	0.00	21.07
9/7/2566	0.00	0.00	0.00	0.00	0.00	21.07
9/8/2566	0.00	0.00	0.00	0.00	0.00	21.07
9/9/2566	0.00	0.00	0.00	0.00	0.00	21.06
9/10/2566	0.00	0.00	0.00	0.00	0.00	21.05
9/11/2566	0.00	0.00	0.00	0.00	0.00	21.06
9/12/2566	0.00	0.00	0.00	0.00	0.00	21.06
9/13/2566	0.00	0.00	0.00	0.00	0.00	19.12
9/14/2566	22.08	7.05	76.87	18.51	92730.0	13.74
9/15/2566	17.05	7.44	65.19	3.55	89590.6	13.49
9/16/2566	33.34	1.89	332.49	4.38	84476.3	12.02
9/17/2566	15.85	4.87	117.68	4.61	83543.1	12.44
9/18/2566	19.97	3.51	241.74	4.29	86747.7	12.31
9/19/2566	21.30	5.10	223.74	4.15	88447.6	12.85
9/20/2566	18.63	3.11	120.07	5.73	89995.7	13.99
9/21/2566	15.56	2.30	115.67	5.12	92035.6	13.71
9/22/2566	17.75	4.05	140.41	4.18	91710.1	13.24
9/23/2566	18.59	6.21	166.04	4.68	84085.7	12.76
9/24/2566	18.83	9.13	234.51	5.46	79116.0	13.04
9/25/2566	20.89	7.13	304.58	6.20	83752.9	12.55
9/26/2566	20.41	4.59	217.83	7.12	81373.0	13.23
9/27/2566	17.45	7.52	117.10	4.79	85395.0	13.28
9/28/2566	15.96	2.31	83.95	4.09	84599.3	14.16
9/29/2566	15.85	3.47	94.05	1.43	86386.0	14.07
9/30/2566	16.65	4.75	135.48	1.35	87131.1	12.59
Average	13.52	3.42	101.78	3.57	60917.5	15.64
ค่ามาตรฐานที่ ระบบออกที่ปล่อย	≤360	≤200		≤80		

หมายเหตุ



ช่วงวันที่ 5 - 13 กันยายน 2566 Shut Down Plant หยุดซ่อมเครื่องจักร

รายงานการวัดค่า CEMs BOILER B6A เดือน ตุลาคม 2566						
DATE	CEMs#B6A					
	SO2	NOX	CO	Dust	Flow	Oxygen
	(ppm)	(ppm)	(ppm)	(mg/m3)	(m3/S)	%Vol
10/1/2566	14.47	4.34	5.21	9.26	55273.4	15.85
10/2/2566	21.27	1.45	5.79	6.94	92730.0	11.15
10/3/2566	15.19	6.37	316.84	8.16	89590.6	12.07
10/4/2566	14.18	6.94	6.66	6.02	84476.3	14.30
10/5/2566	14.32	4.92	44.27	5.84	83543.1	13.68
10/6/2566	14.47	16.49	7.81	6.60	86747.7	14.27
10/7/2566	26.04	11.57	600.41	5.73	88447.6	9.12
10/8/2566	14.18	6.66	14.18	5.79	89995.7	12.08
10/9/2566	15.91	2.60	10.13	7.00	92035.6	11.06
10/10/2566	14.18	8.68	19.68	7.18	91710.1	13.40
10/11/2566	14.47	6.94	7.52	8.91	84085.7	11.57
10/12/2566	16.35	6.66	451.39	5.61	79116.0	12.33
10/13/2566	16.64	11.57	5.79	5.56	83752.9	15.31
10/14/2566	15.91	10.42	18.52	8.10	81373.0	12.51
10/15/2566	13.89	5.50	382.23	7.47	85395.0	10.74
10/16/2566	13.74	10.71	11.28	7.35	84599.3	10.68
10/17/2566	13.89	15.34	7.52	7.81	86386.0	11.28
10/18/2566	16.35	7.52	506.08	7.52	87131.1	13.05
10/19/2566	19.39	2.31	274.02	5.21	95833.3	15.65
10/20/2566	13.60	3.47	373.84	5.38	91493.1	14.68
10/21/2566	29.95	9.26	157.12	4.34	84201.4	9.97
10/22/2566	14.18	7.52	463.25	8.28	93923.6	13.88
10/23/2566	15.19	15.34	665.51	14.81	98958.3	10.47
10/24/2566	14.32	17.65	594.04	3.36	89583.3	13.76
10/25/2566	14.61	11.57	5.50	8.33	95833.3	15.29
10/26/2566	22.14	7.52	4.63	34.61	87326.4	10.67
10/27/2566	23.73	16.78	54.69	7.52	80729.2	10.45
10/28/2566	14.90	9.26	36.46	6.66	82812.5	16.28
10/29/2566	15.63	11.57	651.91	5.79	72916.7	15.43
10/30/2566	14.90	17.94	39.35	9.32	91840.3	9.19
10/31/2566	15.05	9.26	4.92	7.41	111797.3	15.23
Average	16.55	9.17	185.37	8.00	87214.12	12.75
ค่ามาตรฐานที่ ระบบออกที่ปล่อย	≤360	≤200		≤80		

หมายเหตุ

รายงานการวัดค่า CEMs BOILER B6A เดือน พฤศจิกายน 2566						
DATE	CEMs#B6A					
	SO2	NOX	CO	Dust	Flow	Oxygen
	(ppm)	(ppm)	(ppm)	(mg/m3)	(m3/S)	%Vol
11/1/2566	19.76	5.21	237.75	5.11	105389.2	11.42
11/2/2566	18.62	2.69	188.37	4.56	105338.5	13.35
11/3/2566	22.06	2.35	212.23	4.69	104173.9	11.80
11/4/2566	17.13	2.50	139.62	4.37	101446.8	12.08
11/5/2566	22.55	2.83	258.46	4.82	99551.5	11.45
11/6/2566	22.30	2.69	333.98	5.07	101808.5	11.40
11/7/2566	20.91	1.18	269.27	5.44	99877.0	13.08
11/8/2566	18.96	10.92	227.20	6.95	96433.7	12.38
11/9/2566	18.55	5.67	174.82	4.86	82392.9	14.44
11/10/2566	0.00	0.00	0.00	0.00	0.00	20.89
11/11/2566	0.00	0.00	0.00	0.00	0.00	20.91
11/12/2566	0.00	0.00	0.00	0.00	0.00	20.93
11/13/2566	0.00	0.00	0.00	0.00	0.00	20.92
11/14/2566	0.00	0.00	0.00	0.00	0.00	20.93
11/15/2566	0.00	0.00	0.00	0.00	0.00	20.95
11/16/2566	0.00	0.00	0.00	0.00	0.00	20.96
11/17/2566	7.81	47.55	12.88	8.52	13375.3	17.47
11/18/2566	23.04	22.85	170.09	4.28	92180.3	11.96
11/19/2566	19.29	21.22	128.10	3.63	94350.4	11.85
11/20/2566	23.24	19.75	253.91	5.07	91594.3	11.46
11/21/2566	20.37	22.28	159.17	4.49	91985.0	12.23
11/22/2566	23.26	22.49	234.59	4.94	94444.4	11.92
11/23/2566	16.75	21.54	137.48	4.73	94437.2	12.86
11/24/2566	19.15	19.43	188.75	4.75	95753.8	13.40
11/25/2566	17.17	20.74	167.81	4.70	94929.1	12.88
11/26/2566	17.46	19.51	176.99	5.78	96050.4	12.63
11/27/2566	14.01	18.72	171.71	4.23	94618.1	12.75
11/28/2566	15.41	15.94	218.73	4.71	95703.1	12.91
11/29/2566	13.71	11.97	117.07	5.10	94538.5	15.14
11/30/2566	5.97	13.25	69.65	3.33	95818.9	14.37
Average	13.92	11.11	141.62	3.80	71206.36	14.72
ค่ามาตรฐานที่ ระบบออกซิเจน	≤360	≤200		≤80		

หมายเหตุ



ช่วงวันที่ 10 - 17 พฤศจิกายน 2566 Shut Down Plant หยุดซ่อมเครื่องจักร

รายงานการวัดค่า CEMs BOILER B6A เดือน ธันวาคม 2566						
DATE	CEMs#B6A					
	SO2	NOX	CO	Dust	Flow	Oxygen
	(ppm)	(ppm)	(ppm)	(mg/m3)	(m3/S)	%Vol
12/1/2566	14.39	11.87	191.20	10.51	96018.5	14.27
12/2/2566	13.82	10.38	215.96	12.08	95700.2	14.70
12/3/2566	13.00	10.08	223.51	17.44	94603.6	14.66
12/4/2566	11.56	10.02	161.69	19.57	94189.8	14.78
12/5/2566	10.85	9.52	154.42	14.70	94447.3	15.10
12/6/2566	9.85	8.32	164.41	9.86	94985.5	15.36
12/7/2566	11.50	7.81	247.70	6.40	94953.7	15.02
12/8/2566	10.52	5.95	227.26	6.49	94820.6	15.42
12/9/2566	10.19	4.82	235.23	6.97	92080.4	15.71
12/10/2566	10.20	3.96	235.75	8.07	93683.5	15.89
12/11/2566	9.72	2.24	225.79	7.38	95460.1	16.26
12/12/2566	9.04	2.96	220.25	6.88	97841.4	15.91
12/13/2566	8.06	2.25	201.35	6.63	96021.4	16.37
12/14/2566	8.36	2.56	235.56	6.83	95115.7	16.24
12/15/2566	5.42	0.01	166.62	6.87	96539.4	17.91
12/16/2566	0.00	0.00	0.00	0.00	0.00	20.89
12/17/2566	0.00	0.00	0.00	0.00	0.00	20.90
12/18/2566	0.00	0.00	0.00	0.00	0.00	20.91
12/19/2566	0.00	0.00	0.00	0.00	0.00	20.92
12/20/2566	0.00	0.00	0.00	0.00	0.00	20.93
12/21/2566	0.00	0.00	0.00	0.00	0.00	20.94
12/22/2566	0.00	0.00	0.00	0.00	0.00	20.96
12/23/2566	1.27	1.79	27.43	3.38	97228.0	19.40
12/24/2566	6.77	9.60	26.37	4.65	96507.5	16.35
12/25/2566	14.75	4.75	7.81	7.16	95765.2	15.91
12/26/2566	14.40	0.18	60.45	7.68	97922.5	14.71
12/27/2566	6.44	2.09	169.45	8.31	95645.3	13.31
12/28/2566	0.00	0.00	0.00	0.00	0.00	20.62
12/29/2566	4.64	2.28	132.17	3.88	95170.7	15.28
12/30/2566	1.06	21.69	169.44	7.13	95801.5	12.14
12/31/2566	0.50	16.56	165.02	7.38	95772.6	11.78
Average	6.66	4.89	124.67	6.33	70847.6	16.76
ค่ามาตรฐานที่ ระบบออกซิเจน	≤360	≤200		≤80		

หมายเหตุ



ช่วงวันที่ 16 ถึง 22 ,28 ธันวาคม 2566 Break down plant หยุดซ่อมเครื่องจักร

ภาคผนวก ข-2

ผลการติดตามตรวจสอบคุณภาพอากาศจากปล่องระบายอากาศ

ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE POWER PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPHAP ROAD TABKWANG KAENGKOI SARABURI 18260
CONTACT INFORMATION : TEL : 081 398 5957 e-mail : chod.padmuk@gmail.com
SAMPLING SOURCE : TPI POLENE POWER PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK
SAMPLING DATE : AUGUST 22, 2023
SAMPLING TIME : 10:20-11:57 HOUR
SAMPLING BY : MR NOPPASIN THANUTHAMMARAT จ-145-จ-0036
ANALYZED BY : MISS SUWAN KONGTHONG จ-145-ค-0025

RECEIVED DATE : AUGUST 26, 2023
ANALYTICAL DATE : AUGUST 26-SEPTEMBER 8, 2023
REPORT NO. : 2023-U076297
WORK NO. : 2022-010091
ANALYSIS NO. : T23AQ642-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			ปล่องโรงไฟฟ้า (B6) T23AQ642-0003	
			ACTUAL OXYGEN	7% OXYGEN
TOTAL SUSPENDED PARTICULATE	mg/m ³	ISOKINETIC, GRAVIMETRIC METHOD (US EPA METHOD 5)	2.55	2.70
HYDROGEN CHLORIDE	ppm	ABSORPTION, ION CHROMATOGRAPHIC METHOD (US EPA METHOD 26A)	0.012	0.013
CADMIUM	mg/m ³	ISOKINETIC, DIRECT AIR-ACETYLENE FLAME METHOD (US EPA METHOD 29)	< 0.001	< 0.001
LEAD	mg/m ³	ISOKINETIC, DIRECT AIR-ACETYLENE FLAME METHOD (US EPA METHOD 29)	< 0.004	< 0.004
MERCURY	mg/m ³	ISOKINETIC, DIGESTION, COLD-VAPOR ATOMIC ABSORPTION SPECTROMETRIC METHOD (US EPA METHOD 29)	< 0.001	< 0.001
SAMPLE CONDITION			COMPLETE	

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

Budsakorn ✓

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR
จ-145-ค-0011
SEPTEMBER 14, 2023



ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE POWER PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPHAP ROAD TABKWANG KAENGKOI SARABURI 18260
CONTACT INFORMATION : TEL : 081 398 5957 e-mail : chod.padmuk@gmail.com
SAMPLING SOURCE : TPI POLENE POWER PUBLIC COMPANY LIMITED
SAMPLE TYPE : STACK **RECEIVED DATE** : AUGUST 26, 2023
SAMPLING DATE : AUGUST 22, 2023 **ANALYTICAL DATE** : AUGUST 26-SEPTEMBER 8, 2023
SAMPLING TIME : 12:10-12:52 HOUR **REPORT NO.** : 2023-U076298
SAMPLING BY : MR NOPPASIN THANUTHAMMARAT **WORK NO.** : 2022-010091
ANALYZED BY : MISS SUWAN KONGTHONG **ANALYSIS NO.** : T23AQ642-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			ปล่อยโรงไฟฟ้า (B6) T23AQ642-0003	
			ACTUAL OXYGEN	7% OXYGEN
PARTICULATE MATTER (PM10)	mg/m ³	GRAVIMETRIC METHOD (US EPA METHOD 201A)	0.91	0.96
SAMPLE CONDITION			COMPLETE	

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.

Budsakorn ✓

(MISS BUDSAKORN LERDPANUMAS)
LABORATORY SUPERVISOR

SEPTEMBER 14, 2023



ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE POWER PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPHAP ROAD TABKWANG KAENGKOI SARABURI 18260
CONTACT INFORMATION : TEL : 081 398 5957 e-mail : chod.padmuk@gmail.com
MEASURING SOURCE : TPI POLENE POWER PUBLIC COMPANY LIMITED
MEASURING TYPE : STACK
MEASURING DATE : AUGUST 22, 2023
MEASURING TIME : 10:35-10:45 HOUR
MEASURING METHOD : U.S. EPA METHOD 6C, 7E, 10
MEASURED BY : MR NOPPASIN THANUTHAMMARAT ว-145-จ-0036

RECEIVED DATE : AUGUST 22, 2023
ANALYTICAL DATE : AUGUST 22, 2023
REPORT NO. : 2023-U076299
WORK NO. : 2022-010091
ANALYSIS NO. : T23AQ642-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	
			ปล่องโรงไฟฟ้า (B6) T23AQ642-0003	
			ACTUAL OXYGEN	7% OXYGEN
SULPHUR DIOXIDE	ppm	PORTABLE ANALYZER, ELECTROCHEMICAL METHOD AT SITE (US EPA METHOD 6C)	< 1	< 1
NITROGEN DIOXIDE	ppm	PORTABLE ANALYZER, ELECTROCHEMICAL METHOD AT SITE (US EPA METHOD 7E)	83	88
CARBON MONOXIDE	ppm	PORTABLE ANALYZER, ELECTROCHEMICAL METHOD AT SITE (US EPA METHOD 10)	3	3
SAMPLE CONDITION			COMPLETE	

REMARK

RESULT : REFERENCE CONDITION IS 25 DEGREE CELSIUS AT 1 ATMOSPHERE AND DRY BASIS.



(MR NATTAWAT DANGAWAT)
LABORATORY SUPERVISOR
ว-145-ค-0021
SEPTEMBER 14, 2023



ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE POWER PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPHAP ROAD TABKWANG KAENGKOI SARABURI 18260
CONTACT INFORMATION : TEL : 081 398 5957 e-mail : chod.padmuk@gmail.com
MEASURING SOURCE : TPI POLENE POWER PUBLIC COMPANY LIMITED
MEASURING TYPE : STACK RECEIVED DATE : AUGUST 22, 2023
MEASURING DATE : AUGUST 22, 2023 ANALYTICAL DATE : AUGUST 22, 2023
MEASURING TIME : 12:30-13:00 HOUR REPORT NO. : 2023-U076300
MEASURING METHOD : RINGELMANN'S METHOD WORK NO. : 2022-010091
MEASURED BY : MR SETTHAWUT EMKLINBUA ๖-145-๖-0106 ANALYSIS NO. : T23AQ642-0003
MR KITIPONG SONCHAIYAPHUM ๖-145-๖-0069

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT
			ปล่องโรงไฟฟ้า (B6) T23AQ642-0003
OPACITY	%	RINGELMANN 'S METHOD	5

Nattawat

(MR NATTAWAT DANGSAWAT)
LABORATORY SUPERVISOR
๖-145-๓-0021
SEPTEMBER 14, 2023



ภาคผนวก ข-3

ผลการติดตามตรวจสอบคุณภาพอากาศในบรรยากาศถาวร

บริษัท ทีพีไอ โพลีน เพาเวอร์ จำกัด (มหาชน)

Time (hr)	19/08/66				20/08/66				21/08/66				22/08/66			
	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10
00:00	0.0191	0.0024	0.0520	0.0360	0.0191	0.0023	0.1350	0.0900	0.0176	0.0018	0.1160	0.0700	0.0165	0.0016	0.0700	0.0490
01:00	0.0141	0.0022	0.0340	0.0260	0.0166	0.0020	0.0560	0.0410	0.0173	0.0017	0.0930	0.0560	0.0145	0.0017	0.0290	0.0280
02:00	0.0152	0.0019	0.0330	0.0170	0.0159	0.0019	0.0580	0.0470	0.0165	0.0016	0.0340	0.0230	0.0133	0.0015	0.0470	0.0340
03:00	0.0155	0.0021	0.0570	0.0380	0.0168	0.0020	0.0900	0.0530	0.0175	0.0014	0.0390	0.0240	0.0119	0.0014	0.0450	0.0290
04:00	0.0150	0.0022	0.0460	0.0360	0.0168	0.0022	0.1750	0.0950	0.0173	0.0016	0.0220	0.0110	0.0113	0.0014	0.0390	0.0270
05:00	0.0142	0.0022	0.0560	0.0420	0.0163	0.0022	0.1970	0.1090	0.0162	0.0018	0.0460	0.0230	0.0091	0.0013	0.0310	0.0210
06:00	0.0137	0.0021	0.0570	0.0420	0.0151	0.0021	0.1130	0.0750	0.0153	0.0020	0.0810	0.0520	0.0109	0.0011	0.0370	0.0230
07:00	0.0126	0.0021	0.0510	0.0380	0.0144	0.0019	0.1680	0.1140	0.0164	0.0020	0.0960	0.0620	0.0109	0.0012	0.0390	0.0260
08:00	0.0145	0.0020	0.0900	0.0600	0.0133	0.0017	0.1740	0.1070	0.0161	0.0022	0.1640	0.0910	0.0122	0.0012	0.0640	0.0490
09:00	0.0152	0.0019	0.0990	0.0560	0.0145	0.0017	0.1130	0.0740	0.0156	0.0019	0.1440	0.0840	0.0121	0.0013	0.1130	0.0510
10:00	0.0150	0.0016	0.0360	0.0230	0.0154	0.0018	0.0830	0.0630	0.0160	0.0016	0.1370	0.0640	0.0119	0.0017	0.0340	0.0220
11:00	0.0225	0.0015	0.0350	0.0260	0.0160	0.0012	0.0890	0.0570	0.0142	0.0015	0.0670	0.0420	0.0146	0.0351_	0.0840	0.0480
12:00	0.0264	0.0015	0.0760	0.0560	0.0194	0.0013	0.1140	0.0710	0.0170	0.0013	0.0430	0.0290	0.0148	0.0023	0.0440	0.0320
13:00	0.0322_	0.0030_	0.0680	0.0530	0.0180	0.0014	0.0690	0.0510	0.0217	0.0015	0.0400	0.0310	0.0165	0.0019	0.0580	0.0410
14:00	0.0302	0.0016	0.0900	0.0600	0.0182_	0.0033_	0.0890	0.0630	0.0174	0.0016	0.0690	0.0430	0.0192	0.0015	0.0430	0.0230
15:00	0.0275	0.0011	0.1000	0.0640	0.0191	0.0017	0.0630	0.0410	0.0176_	0.0039_	0.0450	0.0340	0.0231	0.0016	0.0520	0.0350
16:00	0.0312	0.0011	0.0950	0.0550	0.0201	0.0020	0.0920	0.0590	0.0115	0.0021	0.0550	0.0390	0.0148_	0.0041_	0.0500	0.0330
17:00	0.0229	0.0011	0.0870	0.0570	0.0219	0.0021	0.1150	0.0760	0.0160	0.0020	0.0560	0.0390	0.0193	0.0027	0.0560	0.0330
18:00	0.0164	0.0015	0.1040	0.0660	0.0194	0.0022	0.0960	0.0640	0.0162	0.0019	0.0530	0.0370	0.0203	0.0022	0.0880	0.0540
19:00	0.0165	0.0017	0.0960	0.0680	0.0174	0.0022	0.0500	0.0360	0.0170	0.0018	0.0450	0.0320	0.0164	0.0021	0.2860	0.1090
20:00	0.0176	0.0017	0.1310	0.1040	0.0190	0.0024	0.0630	0.0470	0.0153	0.0016	0.0240	0.0210	0.0198	0.0020	0.3290	0.1090
21:00	0.0311	0.0020	0.1020	0.0840	0.0126	0.0021	0.0770	0.0500	0.0157	0.0015	0.0240	0.0190	0.0210	0.0019	0.2250	0.1090
22:00	0.0305	0.0023	0.1520	0.1030	0.0146	0.0020	0.0840	0.0560	0.0178	0.0016	0.0340	0.0280	0.0207	0.0019	0.2580	0.1090
23:00	0.0283	0.0024	0.2280	0.1090	0.0145	0.0018	0.0700	0.0430	0.0185	0.0019	0.0490	0.0320	0.0206	0.0019	0.1100	0.0660
AVG	0.0202	0.0018	0.0823	0.0550	0.0168	0.0019	0.1014	0.0659	0.0165	0.0017	0.0657	0.0411	0.0157	0.0017	0.0930	0.0483
MAX	0.0312	0.0024	0.2280	0.1090	0.0219	0.0024	0.1970	0.1140	0.0217	0.0022	0.1640	0.0910	0.0231	0.0027	0.3290	0.1090
MIN	0.0126	0.0011	0.0330	0.0170	0.0126	0.0012	0.0500	0.0360	0.0115	0.0013	0.0220	0.0110	0.0091	0.0011	0.0290	0.0210

ผู้จัดทำ

ผู้ตรวจสอบ

ผู้อนุมัติ

วันที่ 26/12/66

วันที่ 26/12/66

วันที่ 26/12/66

บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน)

Time (hr)	19/08/66				20/08/66				21/08/66				22/08/66			
	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10
00:00	0.0176	0.0045	0.1130	0.0830	0.0318	0.0039	0.3290	0.1090	0.0122_	0.0049_	0.2100	0.1090	0.0193	0.0045	0.0810	0.0470
01:00	0.0174	0.0047	0.0540	0.0410	0.0232_	0.0043_	0.2600	0.1090	0.0279	0.0046	0.1080	0.0620	0.0185	0.0046	0.0930	0.0510
02:00	0.0147_	0.0048_	0.0380	0.0220	0.0229	0.0041	0.1670	0.0960	0.0281	0.0047	0.0880	0.0520	0.0186	0.0047	0.0960	0.0560
03:00	0.0148	0.0046	0.0400	0.0290	0.0177	0.0041	0.1380	0.0880	0.0233	0.0048	0.0740	0.0500	0.0167	0.0047	0.0720	0.0430
04:00	0.0156	0.0045	0.0430	0.0260	0.0192	0.0040	0.2010	0.1170	0.0229	0.0050	0.2940	0.1090	0.0154	0.0047	0.0820	0.0650
05:00	0.0150	0.0046	0.0510	0.0360	0.0204	0.0040	0.1030	0.0620	0.0188	0.0050	0.1610	0.0860	0.0163	0.0048	0.1080	0.0540
06:00	0.0160	0.0042	0.0410	0.0330	0.0204	0.0036	0.2140	0.1090	0.0124	0.0044	0.1640	0.0950	0.0173	0.0044	0.1150	0.0690
07:00	0.0158	0.0042	0.0420	0.0330	0.0200	0.0036	0.1740	0.1150	0.0129	0.0045	0.0440	0.0350	0.0184	0.0046	0.1940	0.1130
08:00	0.0161	0.0043	0.0480	0.0380	0.0179	0.0036	0.1220	0.0770	0.0123	0.0044	0.0250	0.0150	0.0179	0.0045	0.0790	0.0490
09:00	0.0158	0.0043	0.0570	0.0370	0.0120	0.0037	0.0860	0.0630	0.0120	0.0047	0.0290	0.0280	0.0138	0.0044	0.0300	0.0180
10:00	0.0191	0.0042	0.0460	0.0260	0.0115	0.0037	0.0890	0.0690	0.0180	0.0046	0.0430	0.0270	0.0120	0.0043	0.0250	0.0160
11:00	0.0138	0.0039	0.0940	0.0620	0.0151	0.0037	0.0570	0.0370	0.0139	0.0046	0.0400	0.0290	0.0122	0.0044	0.0350	0.0210
12:00	0.0101	0.0040	0.0520	0.0280	0.0186	0.0036	0.0510	0.0390	0.0126	0.0043	0.0380	0.0230	0.0138	0.0043	0.0470	0.0270
13:00	0.0047	0.0047	0.0410	0.0300	0.0149	0.0028	0.0480	0.0400	0.0090	0.0046	0.0370	0.0180	0.0107	0.0039	0.0410	0.0280
14:00	0.0030	0.0032	0.0460	0.0270	0.0176	0.0023	0.0510	0.0440	0.0066	0.0048	0.0360	0.0170	0.0078	0.0040	0.0410	0.0280
15:00	0.0081	0.0053	0.0420	0.0290	0.0144	0.0037	0.0650	0.0500	0.0058	0.0050	0.0310	0.0210	0.0090	0.0044	0.0530	0.0260
16:00	0.0093	0.0032	0.0790	0.0490	0.0075	0.0041	0.2500	0.1090	0.0079	0.0050	0.0290	0.0260	0.0094	0.0049	0.0650	0.0390
17:00	0.0133	0.0032	0.0540	0.0350	0.0056	0.0039	0.0710	0.0550	0.0086	0.0051	0.0880	0.0420	0.0086	0.0048	0.0450	0.0290
18:00	0.0084	0.0044	0.0730	0.0540	0.0080	0.0036	0.0260	0.0210	0.0233	0.0048	0.0690	0.0400	0.0116	0.0046	0.0610	0.0320
19:00	0.0122	0.0043	0.0480	0.0400	0.0124	0.0034	0.0180	0.0150	0.0188	0.0047	0.1310	0.0640	0.0138	0.0044	0.0520	0.0330
20:00	0.0118	0.0042	0.1000	0.0620	0.0136	0.0036	0.0180	0.0160	0.0143	0.0046	0.1730	0.1000	0.0174	0.0044	0.0610	0.0420
21:00	0.0173	0.0042	0.1130	0.0680	0.0159	0.0035	0.0280	0.0220	0.0227	0.0046	0.1930	0.1010	0.0172	0.0043	0.0480	0.0410
22:00	0.0256	0.0039	0.3290	0.1090	0.0248	0.0040	0.0470	0.0240	0.0263	0.0046	0.1850	0.1010	0.0156_	0.0047_	0.0520	0.0390
23:00	0.0326	0.0035	0.3290	0.1090	0.0283	0.0044	0.0950	0.0680	0.0244_	0.0046_	0.1150	0.0590	0.0178	0.0047	0.0450	0.0370
AVG	0.0145	0.0042	0.0822	0.0461	0.0170	0.0037	0.1128	0.0648	0.0163	0.0047	0.1002	0.0545	0.0145	0.0045	0.0675	0.0418
MAX	0.0326	0.0053	0.3290	0.1090	0.0318	0.0044	0.3290	0.1170	0.0281	0.0051	0.2940	0.1090	0.0193	0.0049	0.1940	0.1130
MIN	0.0030	0.0032	0.0380	0.0220	0.0056	0.0023	0.0180	0.0150	0.0058	0.0043	0.0250	0.0150	0.0078	0.0039	0.0250	0.0160

ผู้จัดทำ

ผู้ตรวจสอบ

ผู้อนุมัติ

วันที่ 26/12/66

วันที่ 26/12/66

วันที่ 26/12/66

บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน)

Time (hr)	23/08/66				24/08/66				25/08/66							
	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10				
00:00	0.0227	0.0049	0.0410	0.0240	0.0147	0.0048	0.0350	0.0250	0.0128	0.0043	0.0210	0.0100				
01:00	0.0160	0.0049	0.0310	0.0230	0.0115	0.0050	0.0240	0.0130	0.0111	0.0045	0.0200	0.0140				
02:00	0.0137	0.0048	0.0180	0.0110	0.0120	0.0049	0.0340	0.0140	0.0112	0.0043	0.0190	0.0120				
03:00	0.0133	0.0048	0.0230	0.0140	0.0109	0.0049	0.0240	0.0190	0.0093	0.0042	0.0290	0.0160				
04:00	0.0135	0.0049	0.0290	0.0120	0.0114	0.0050	0.0220	0.0160	0.0103	0.0043	0.0190	0.0090				
05:00	0.0113	0.0049	0.0240	0.0150	0.0112	0.0049	0.0200	0.0170	0.0092	0.0043	0.0110	0.0130				
06:00	0.0128	0.0044	0.0170	0.0090	0.0122	0.0046	0.0260	0.0140	0.0130	0.0040	0.0190	0.0130				
07:00	0.0130	0.0046	0.0260	0.0170	0.0134	0.0048	0.0200	0.0130	0.0114	0.0039	0.0430	0.0250				
08:00	0.0149	0.0044	0.0170	0.0130	0.0118	0.0048	0.0330	0.0160	0.0098	0.0038	0.0340	0.0270				
09:00	0.0125	0.0045	0.0270	0.0210	0.0103	0.0048	0.0470	0.0310	0.0071	0.0040	0.0230	0.0210				
10:00	0.0102	0.0044	0.0320	0.0210	0.0092	0.0046	0.0300	0.0220	0.0083	0.0038	0.0240	0.0190				
11:00	0.0113	0.0045	0.0460	0.0250	0.0080	0.0048	0.0570	0.0430	0.0113	0.0039	0.0320	0.0250				
12:00	0.0133	0.0046	0.0330	0.0240	0.0082	0.0044	0.0430	0.0270	0.0153	0.0040	0.0380	0.0170				
13:00	0.0113	0.0039	0.0550	0.0360	0.0078	0.0043	0.0370	0.0240	0.0095	0.0035	0.0480	0.0280				
14:00	0.0060	0.0040	0.0560	0.0350	0.0069	0.0050	0.0520	0.0270	0.0078	0.0037	0.0420	0.0270				
15:00	0.0052	0.0048	0.0490	0.0390	0.0080	0.0050	0.0410	0.0240	0.0089	0.0030	0.0380	0.0320				
16:00	0.0065	0.0043	0.0590	0.0370	0.0093	0.0051	0.0420	0.0250	0.0077	0.0039	0.0580	0.0400				
17:00	0.0126	0.0049	0.0680	0.0390	0.0127	0.0051	0.0520	0.0300	0.0138	0.0047	0.0540	0.0410				
18:00	0.0275	0.0044	0.0840	0.0520	0.0150	0.0048	0.0710	0.0370	0.0179	0.0042	0.0680	0.0430				
19:00	0.0399	0.0045	0.0840	0.0610	0.0218	0.0048	0.1660	0.1100	0.0144	0.0043	0.2080	0.1090				
20:00	0.0332	0.0046	0.2510	0.1090	0.0115	0.0048	0.0890	0.0520	0.0161	0.0042	0.3290	0.1090				
21:00	0.0236	0.0048	0.1300	0.0800	0.0139	0.0047	0.0390	0.0210	0.0152	0.0043	0.2250	0.1090				
22:00	0.0250	0.0045	0.0700	0.0340	0.0149	0.0043	0.1010	0.0630	0.0103	0.0045	0.0700	0.0470				
23:00	0.0188	0.0047	0.0270	0.0210	0.0131	0.0041	0.0400	0.0300	0.0118	0.0045	0.0310	0.0230				
AVG	0.0158	0.0046	0.0540	0.0322	0.0117	0.0048	0.0477	0.0297	0.0113	0.0041	0.0626	0.0345				
MAX	0.0399	0.0049	0.2510	0.1090	0.0218	0.0051	0.1660	0.1100	0.0179	0.0047	0.3290	0.1090				
MIN	0.0052	0.0039	0.0170	0.0090	0.0069	0.0041	0.0200	0.0130	0.0071	0.0030	0.0110	0.0090				

ผู้จัดทำ

ผู้ตรวจสอบ

ผู้อนุมัติ...

วันที่ 26/12/66

วันที่ 26/12/66

วันที่ 26/12/66

บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน)

Time (hr)	19/08/66				20/08/66				21/08/66				22/08/66			
	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10
00:00	0.0078	0.0003	0.0420	0.0320	0.0106	0.0008	0.1230	0.0910	0.0219	0.0004	0.0220	0.0150	0.0193_	0.0030_	0.0420	0.0330
01:00	0.0097	0.0008	0.0270	0.0220	0.0077	0.0006	0.0550	0.0430	0.0257_	0.0029_	0.0370	0.0210	0.0168	0.0022	0.0530	0.0320
02:00	0.0115	0.0010	0.0380	0.0210	0.0114_	0.0030_	0.0480	0.0350	0.0161	0.0016	0.0340	0.0220	0.0195	0.0012	0.0430	0.0290
03:00	0.0149_	0.0034_	0.0390	0.0250	0.0128	0.0017	0.0390	0.0310	0.0081	0.0011	0.0180	0.0130	0.0156	0.0006	0.0280	0.0170
04:00	0.0170	0.0018	0.0360	0.0320	0.0198	0.0008	0.0380	0.0300	0.0101	0.0008	0.0880	0.0450	0.0140	0.0009	0.0300	0.0210
05:00	0.0163	0.0017	0.0520	0.0370	0.0164	0.0006	0.0540	0.0410	0.0116	0.0007	0.0210	0.0130	0.0131	0.0008	0.0550	0.0340
06:00	0.0151	0.0014	0.0540	0.0440	0.0148	0.0004	0.0490	0.0450	0.0090	0.0003	0.0830	0.0540	0.0104	0.0007	0.0410	0.0260
07:00	0.0136	0.0015	0.0790	0.0580	0.0166	0.0006	0.0550	0.0450	0.0074	0.0004	0.0610	0.0420	0.0071	0.0009	0.0320	0.0240
08:00	0.0134	0.0012	0.0820	0.0590	0.0143	0.0004	0.0840	0.0680	0.0094	0.0004	0.0780	0.0560	0.0043	0.0008	0.0280	0.0150
09:00	0.0044	0.0010	0.0550	0.0450	0.0079	0.0005	0.0540	0.0440	0.0130	0.0002	0.0720	0.0430	0.0041	0.0009	0.0290	0.0110
10:00	0.0120	0.0009	0.0330	0.0290	0.0066	0.0004	0.0420	0.0340	0.0104	0.0000	0.0510	0.0340	0.0034	0.0007	0.0260	0.0090
11:00	0.0216	0.0011	0.0540	0.0380	0.0067	0.0004	0.0320	0.0300	0.0050	0.0000	0.0360	0.0290	0.0041	0.0006	0.0250	0.0090
12:00	0.0269	0.0015	0.0470	0.0400	0.0078	0.0004	0.0420	0.0380	0.0045	0.0003	0.0180	0.0200	0.0043	0.0008	0.0260	0.0100
13:00	0.0304	0.0025	0.0640	0.0500	0.0065	0.0006	0.0410	0.0330	0.0055	0.0003	0.0220	0.0160	0.0043	0.0009	0.0210	0.0080
14:00	0.0215	0.0025	0.0830	0.0640	0.0048	0.0019	0.0440	0.0340	0.0042	0.0001	0.0250	0.0210	0.0047	0.0013	0.0280	0.0150
15:00	0.0137	0.0023	0.0820	0.0590	0.0061	0.0009	0.0390	0.0370	0.0046	0.0000	0.0240	0.0140	0.0047	0.0013	0.0340	0.0220
16:00	0.0084	0.0025	0.0730	0.0450	0.0139	0.0004	0.0660	0.0470	0.0066	0.0000	0.0210	0.0160	0.0058	0.0008	0.0340	0.0230
17:00	0.0061	0.0026	0.0630	0.0510	0.0194	0.0004	0.0760	0.0570	0.0051	0.0001	0.0230	0.0210	0.0058	0.0007	0.0430	0.0220
18:00	0.0071	0.0020	0.0520	0.0420	0.0171	0.0003	0.0610	0.0510	0.0068	0.0000	0.0350	0.0210	0.0055	0.0008	0.0410	0.0270
19:00	0.0212	0.0014	0.0510	0.0460	0.0166	0.0004	0.0430	0.0370	0.0057	0.0000	0.0390	0.0250	0.0060	0.0007	0.0320	0.0260
20:00	0.0354	0.0011	0.0850	0.0750	0.0193	0.0003	0.0490	0.0340	0.0081	0.0000	0.0200	0.0170	0.0110	0.0006	0.0390	0.0290
21:00	0.0201	0.0009	0.1560	0.1150	0.0148	0.0005	0.0470	0.0400	0.0158	0.0000	0.0260	0.0190	0.0085	0.0006	0.0460	0.0350
22:00	0.0178	0.0009	0.2910	0.1090	0.0091	0.0004	0.0480	0.0420	0.0240	0.0001	0.0230	0.0220	0.0076	0.0005	0.0450	0.0330
23:00	0.0149	0.0008	0.2400	0.1090	0.0154	0.0002	0.0330	0.0220	0.0206	0.0001	0.0350	0.0260	0.0219_	0.0033_	0.0370	0.0230
AVG	0.0159	0.0015	0.0783	0.0520	0.0124	0.0006	0.0526	0.0420	0.0102	0.0003	0.0380	0.0260	0.0082	0.0009	0.0358	0.0222
MAX	0.0354	0.0026	0.2910	0.1150	0.0198	0.0019	0.1230	0.0910	0.0240	0.0016	0.0880	0.0560	0.0195	0.0022	0.0550	0.0350
MIN	0.0044	0.0003	0.0270	0.0210	0.0048	0.0002	0.0320	0.0220	0.0042	0.0000	0.0180	0.0130	0.0034	0.0005	0.0210	0.0080

ผู้จัดทำ.

วันที่ 26/12/66

ผู้ตรวจสอบ.

วันที่ 26/12/66

ผู้อนุมัติ.

วันที่ 26/12/66

บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน)

Time (hr)	23/08/66				24/08/66				25/08/66							
	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10				
00:00	0.0183	0.0018	0.0320	0.0180	0.0051	0.0005	0.0220	0.0130	0.0076	0.0020	0.0160	0.0160				
01:00	0.0250	0.0007	0.0310	0.0190	0.0047	0.0017	0.0280	0.0060	0.0076	0.0015	0.0110	0.0090				
02:00	0.0273	0.0006	0.0320	0.0190	0.0051	0.0022	0.0210	0.0070	0.0076	0.0011	0.0100	0.0060				
03:00	0.0240	0.0007	0.0480	0.0370	0.0059	0.0021	0.0260	0.0050	0.0070	0.0012	0.0080	0.0040				
04:00	0.0138	0.0006	0.0750	0.0410	0.0067	0.0021	0.0240	0.0100	0.0063	0.0011	0.0050	0.0020				
05:00	0.0049	0.0004	0.0390	0.0240	0.0087	0.0021	0.0210	0.0070	0.0066	0.0011	0.0080	0.0030				
06:00	0.0046	0.0004	0.0270	0.0050	0.0082	0.0021	0.0240	0.0120	0.0077	0.0012	0.0090	0.0090				
07:00	0.0059	0.0004	0.0260	0.0060	0.0089	0.0020	0.0310	0.0160	0.0069	0.0024	0.0440	0.0220				
08:00	0.0077	0.0003	0.0250	0.0170	0.0065	0.0021	0.0250	0.0180	0.0046	0.0024	0.0180	0.0110				
09:00	0.0061	0.0004	0.0250	0.0180	0.0060	0.0019	0.0210	0.0080	0.0032	0.0023	0.0140	0.0070				
10:00	0.0057	0.0004	0.0250	0.0130	0.0046	0.0020	0.0280	0.0150	0.0035	0.0023	0.0100	0.0050				
11:00	0.0058	0.0006	0.0230	0.0170	0.0042	0.0023	0.0290	0.0220	0.0055	0.0024	0.0150	0.0110				
12:00	0.0063	0.0006	0.0330	0.0280	0.0040	0.0024	0.0290	0.0100	0.0057	0.0025	0.0210	0.0160				
13:00	0.0069	0.0007	0.0300	0.0230	0.0048	0.0024	0.0240	0.0160	0.0047	0.0026	0.0180	0.0150				
14:00	0.0053	0.0009	0.0390	0.0290	0.0053	0.0024	0.0200	0.0160	0.0034	0.0028	0.0250	0.0140				
15:00	0.0051	0.0008	0.0400	0.0330	0.0043	0.0028	0.0330	0.0210	0.0035	0.0028	0.0250	0.0210				
16:00	0.0048	0.0011	0.0330	0.0270	0.0041	0.0027	0.0330	0.0200	0.0046	0.0026	0.0290	0.0210				
17:00	0.0047	0.0008	0.0440	0.0310	0.0049	0.0025	0.0340	0.0200	0.0053	0.0028	0.0450	0.0360				
18:00	0.0058	0.0006	0.0340	0.0300	0.0054	0.0021	0.0410	0.0240	0.0064	0.0028	0.0430	0.0320				
19:00	0.0067	0.0004	0.0410	0.0320	0.0057	0.0022	0.0350	0.0130	0.0058	0.0023	0.0580	0.0440				
20:00	0.0069	0.0004	0.0400	0.0340	0.0081	0.0020	0.0220	0.0100	0.0092_	0.0051_	0.0550	0.0470				
21:00	0.0084	0.0006	0.0490	0.0290	0.0182_	0.0046_	0.0280	0.0120	0.0072	0.0025	0.0430	0.0350				
22:00	0.0173_	0.0030_	0.0310	0.0200	0.0188	0.0029	0.0530	0.0340	0.0073	0.0024	0.0220	0.0160				
23:00	0.0061	0.0017	0.0410	0.0280	0.0077	0.0021	0.0700	0.0440	0.0111	0.0024	0.0110	0.0130				
AVG	0.0094	0.0007	0.0360	0.0241	0.0064	0.0022	0.0301	0.0158	0.0060	0.0022	0.0235	0.0173				
MAX	0.0273	0.0018	0.0750	0.0410	0.0188	0.0029	0.0700	0.0440	0.0111	0.0028	0.0580	0.0470				
MIN	0.0046	0.0003	0.0230	0.0050	0.0040	0.0005	0.0200	0.0050	0.0032	0.0011	0.0050	0.0020				

ผู้จัดทำ

ผู้ตรวจสอบ

ผู้อนุมัติ...

วันที่ 26/12/66

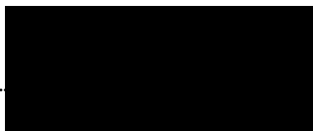
วันที่ 26/12/66

วันที่ 26/12/66

บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน)

Time (hr)	23/08/66				24/08/66				25/08/66							
	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10				
00:00	0.0230	0.0016	0.0940	0.0570	0.0164	0.0014	0.0600	0.0410	0.0131	0.0017	0.0560	0.0350				
01:00	0.0202	0.0014	0.0570	0.0360	0.0128	0.0014	0.0910	0.0540	0.0133	0.0016	0.0450	0.0200				
02:00	0.0154	0.0013	0.0500	0.0320	0.0118	0.0012	0.0450	0.0250	0.0114	0.0016	0.0230	0.0200				
03:00	0.0160	0.0014	0.0420	0.0290	0.0115	0.0013	0.0580	0.0400	0.0113	0.0015	0.0160	0.0110				
04:00	0.0149	0.0015	0.0490	0.0320	0.0112	0.0014	0.0520	0.0330	0.0110	0.0015	0.0500	0.0340				
05:00	0.0129	0.0014	0.1460	0.0930	0.0120	0.0014	0.0410	0.0220	0.0117	0.0016	0.0170	0.0080				
06:00	0.0132	0.0013	0.0570	0.0370	0.0117	0.0016	0.0250	0.0060	0.0102	0.0016	0.0240	0.0170				
07:00	0.0116	0.0013	0.1770	0.1090	0.0119	0.0015	0.0180	0.0050	0.0112	0.0016	0.0290	0.0180				
08:00	0.0133	0.0014	0.1150	0.0570	0.0123	0.0016	0.0520	0.0320	0.0131	0.0018	0.0450	0.0220				
09:00	0.0131	0.0015	0.2280	0.1180	0.0118	0.0020	0.0320	0.0250	0.0107	0.0021	0.0920	0.0570				
10:00	0.0121	0.0016	0.0450	0.0310	0.0108	0.0020	0.0320	0.0210	0.0120	0.0023	0.0690	0.0440				
11:00	0.0133	0.0017	0.0740	0.0490	0.0125	0.0016	0.0470	0.0300	0.0155	0.0022	0.0570	0.0340				
12:00	0.0157	0.0015	0.0400	0.0280	0.0145	0.0016	0.0270	0.0170	0.0173	0.0018	0.0600	0.0400				
13:00	0.0202	0.0015	0.0390	0.0280	0.0191	0.0017	0.0380	0.0260	0.0186	0.0018	0.0690	0.0380				
14:00	0.0206	0.0016	0.0550	0.0390	0.0230	0.0017	0.0530	0.0350	0.0188	0.0018	0.1320	0.0800				
15:00	0.0216	0.0016	0.0520	0.0330	0.0239	0.0017	0.0630	0.0420	0.0207	0.0018	0.0620	0.0410				
16:00	0.0209	0.0017	0.0590	0.0400	0.0244	0.0017	0.0710	0.0450	0.0234	0.0018	0.0790	0.0520				
17:00	0.0259_	0.0043_	0.0520	0.0390	0.0183	0.0018	0.0480	0.0290	0.0271	0.0020	0.1130	0.0690				
18:00	0.0275	0.0026	0.0540	0.0350	0.0195_	0.0045_	0.0560	0.0290	0.0252	0.0022	0.0790	0.0550				
19:00	0.0271	0.0022	0.0550	0.0430	0.0148	0.0026	0.0400	0.0280	0.0282_	0.0046_	0.0840	0.0590				
20:00	0.0210	0.0020	0.0560	0.0410	0.0147	0.0022	0.0260	0.0140	0.0258	0.0029	0.0960	0.0660				
21:00	0.0196	0.0017	0.0440	0.0270	0.0142	0.0021	0.0900	0.0630	0.0161	0.0026	0.0910	0.0600				
22:00	0.0220	0.0018	0.0360	0.0260	0.0142	0.0021	0.1720	0.1080	0.0153	0.0021	0.0380	0.0270				
23:00	0.0190	0.0016	0.0510	0.0290	0.0121	0.0019	0.2740	0.1090	0.0155	0.0019	0.0650	0.0350				
AVG	0.0180	0.0016	0.0720	0.0453	0.0148	0.0017	0.0630	0.0366	0.0160	0.0019	0.0621	0.0393				
MAX	0.0275	0.0026	0.2280	0.1180	0.0244	0.0026	0.2740	0.1090	0.0271	0.0029	0.1320	0.0800				
MIN	0.0116	0.0013	0.0360	0.0260	0.0108	0.0012	0.0180	0.0050	0.0102	0.0015	0.0160	0.0080				

ผู้จัดทำ...



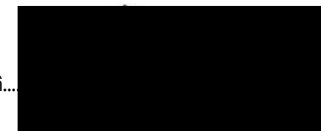
วันที่ 26/12/66

ผู้ตรวจสอบ...



วันที่ 26/12/66

ผู้อนุมัติ...



วันที่ 26/12/66

บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน)

Time (hr)	19/08/66				20/08/66				21/08/66				22/08/66			
	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10
00:00	0.0191	0.0076	0.0570	0.0400	0.0121	0.0048	0.0510	0.0370	0.0050	0.0043	0.0260	0.0210	0.0087	0.0095	0.0330	0.0230
01:00	0.0151	0.0070	0.0520	0.0320	0.0065	0.0039	0.0530	0.0410	0.0037	0.0051	0.0270	0.0210	0.0061	0.0085	0.0140	0.0150
02:00	0.0093	0.0053	0.0520	0.0350	0.0068	0.0046	0.0410	0.0330	0.0036	0.0051	0.0270	0.0180	0.0061	0.0081	0.0150	0.0160
03:00	0.0079	0.0065	0.0250	0.0210	0.0051	0.0046	0.0400	0.0290	0.0058	0.0051	0.0260	0.0160	0.0072	0.0081	0.0190	0.0140
04:00	0.0108	0.0066	0.0280	0.0220	0.0046	0.0041	0.0370	0.0280	0.0040	0.0047	0.0310	0.0180	0.0055	0.0079	0.0170	0.0130
05:00	0.0086	0.0054	0.0290	0.0220	0.0050	0.0043	0.0320	0.0250	0.0035	0.0047	0.0220	0.0150	0.0062	0.0078	0.0230	0.0130
06:00	0.0060	0.0054	0.0290	0.0190	0.0047	0.0045	0.0270	0.0240	0.0030	0.0049	0.0340	0.0170	0.0092	0.0077	0.0160	0.0130
07:00	0.0065	0.0056	0.0220	0.0180	0.0056	0.0045	0.0320	0.0220	0.0048	0.0052	0.0340	0.0130	0.0085	0.0078	0.0270	0.0180
08:00	0.0074	0.0062	0.0300	0.0210	0.0064	0.0051	0.0420	0.0290	0.0066	0.0051	0.0390	0.0190	0.0070	0.0076	0.0180	0.0160
09:00	0.0076	0.0073	0.0300	0.0190	0.0088	0.0061	0.0440	0.0350	0.0037_	0.0058	0.0360	0.0190	0.0051	0.0079	0.0240	0.0130
10:00	0.0144	0.0074	0.0300	0.0180	0.0072	0.0059	0.0530	0.0300	0.0051_	0.0064	0.0360	0.0190	0.0049	0.0082	0.0210	0.0140
11:00	0.0242	0.0073	0.0600	0.0380	0.0082	0.0052	0.0470	0.0320	0.0063	0.0071	0.0360	0.0190	0.0069	0.0086	0.0170	0.0110
12:00	0.0203	0.0066	0.0800	0.0480	0.0083	0.0047	0.0530	0.0360	0.0064	0.0056	0.0300	0.0170	0.0074	0.0093	0.0200	0.0130
13:00	0.0263	0.0069	0.1030	0.0600	0.0061	0.0045	0.0640	0.0390	0.0101	0.0074	0.0290	0.0200	0.0084	0.0098	0.0240	0.0150
14:00	0.0211	0.0066	0.1200	0.0690	0.0067	0.0051	0.0540	0.0360	0.0119	0.0052	0.0340	0.0210	0.0095	0.0110	0.0280	0.0180
15:00	0.0205	0.0071	0.1300	0.0680	0.0097	0.0048	0.0550	0.0380	0.0098	0.0052	0.0350	0.0260	0.0092_	0.0076_	0.0370	0.0230
16:00	0.0164	0.0079	0.0940	0.0560	0.0051	0.0046	0.0480	0.0380	0.0091_	0.0052	0.0370	0.0240	0.0118	0.0092	0.0320	0.0220
17:00	0.0121	0.0061	0.0760	0.0510	0.0043_	0.0047	0.0340	0.0260	0.0078	0.0050	0.0330	0.0200	0.0096	0.0096	0.0520	0.0310
18:00	0.0074_	0.0058	0.0710	0.0450	0.0054	0.0046	0.0360	0.0300	0.0091_	0.0055	0.0300	0.0190	0.0165	0.0094	0.0430	0.0280
19:00	0.0060	0.0058	0.0430	0.0380	0.0034	0.0047	0.0320	0.0290	0.0106	0.0055	0.0300	0.0190	0.0221	0.0095	0.0410	0.0270
20:00	0.0050	0.0051	0.0570	0.0380	0.0032	0.0048	0.0270	0.0260	0.0068	0.0079	0.0290	0.0190	0.0280	0.0083	0.0550	0.0340
21:00	0.0041	0.0042	0.0590	0.0440	0.0031	0.0049	0.0320	0.0320	0.0108	0.0092	0.0290	0.0190	0.0246	0.0083	0.0560	0.0360
22:00	0.0044	0.0044	0.0360	0.0320	0.0090	0.0061	0.0320	0.0310	0.0100	0.0096	0.0300	0.0200	0.0206	0.0084	0.0480	0.0330
23:00	0.0094	0.0047	0.0480	0.0330	0.0064	0.0057	0.0510	0.0320	0.0171	0.0096	0.0290	0.0210	0.0201	0.0084	0.0650	0.0310
AVG	0.0123	0.0062	0.0567	0.0370	0.0064	0.0049	0.0424	0.0316	0.0074	0.0060	0.0312	0.0192	0.0113	0.0086	0.0310	0.0204
MAX	0.0263	0.0079	0.1300	0.0690	0.0121	0.0061	0.0640	0.0410	0.0171	0.0096	0.0390	0.0260	0.0280	0.0110	0.0650	0.0360
MIN	0.0041	0.0042	0.0220	0.0180	0.0031	0.0039	0.0270	0.0220	0.0030	0.0043	0.0220	0.0130	0.0049	0.0076	0.0140	0.0110

ผู้จัดทำ

ผู้ตรวจสอบ

ผู้อนุมัติ...

วันที่ 26/12/66

วันที่ 26/12/66

วันที่ 26/12/66

บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน)

Time (hr)	23/08/66				24/08/66				25/08/66							
	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10				
00:00	0.0201	0.0092	0.0240	0.0150	0.0149	0.0092	0.0290	0.0150	0.0115	0.0103	0.0240	0.0130				
01:00	0.0167	0.0083	0.0290	0.0190	0.0110	0.0091	0.0430	0.0170	0.0108	0.0132	0.0190	0.0100				
02:00	0.0125	0.0087	0.0180	0.0120	0.0094	0.0097	0.0210	0.0120	0.0096	0.0127	0.0160	0.0130				
03:00	0.0109	0.0087	0.0270	0.0130	0.0099	0.0093	0.0210	0.0130	0.0078	0.0127	0.0140	0.0100				
04:00	0.0106	0.0089	0.0250	0.0110	0.0106	0.0094	0.0400	0.0190	0.0072	0.0128	0.0110	0.0130				
05:00	0.0097	0.0086	0.0210	0.0090	0.0105	0.0094	0.0340	0.0190	0.0075	0.0132	0.0130	0.0130				
06:00	0.0106	0.0096	0.0140	0.0090	0.0111	0.0097	0.0290	0.0140	0.0083	0.0132	0.0170	0.0110				
07:00	0.0103	0.0093	0.0200	0.0130	0.0122	0.0106	0.0320	0.0160	0.0087	0.0136	0.0330	0.0190				
08:00	0.0105	0.0101	0.0190	0.0120	0.0096	0.0107	0.0470	0.0250	0.0075	0.0128	0.0240	0.0180				
09:00	0.0087	0.0097	0.0270	0.0190	0.0068	0.0097	0.0410	0.0250	0.0059	0.0122	0.0150	0.0130				
10:00	0.0075	0.0088	0.0310	0.0210	0.0055	0.0099	0.0350	0.0210	0.0061	0.0098	0.0170	0.0110				
11:00	0.0078	0.0088	0.0270	0.0140	0.0061	0.0109	0.0300	0.0170	0.0078	0.0106	0.0210	0.0140				
12:00	0.0084	0.0086	0.0260	0.0170	0.0073	0.0106	0.0320	0.0200	0.0107	0.0118	0.0230	0.0180				
13:00	0.0097	0.0091	0.0340	0.0190	0.0111	0.0092	0.0300	0.0180	0.0094	0.0107	0.0320	0.0200				
14:00	0.0094	0.0087	0.0390	0.0280	0.0115	0.0091	0.0360	0.0190	0.0080	0.0110	0.0290	0.0170				
15:00	0.0099	0.0098	0.0590	0.0320	0.0118	0.0099	0.0330	0.0210	0.0121	0.0109	0.0380	0.0230				
16:00	0.0116	0.0091	0.0500	0.0310	0.0108	0.0094	0.0350	0.0200	0.0133	0.0108	0.0470	0.0230				
17:00	0.0108	0.0098	0.0510	0.0330	0.0118	0.0102	0.0550	0.0280	0.0137	0.0108	0.0560	0.0290				
18:00	0.0186	0.0111	0.0500	0.0320	0.0116	0.0087	0.0830	0.0430	0.0184	0.0104	0.0500	0.0340				
19:00	0.0221	0.0105	0.0600	0.0360	0.0132	0.0089	0.0340	0.0280	0.0125	0.0100	0.0510	0.0350				
20:00	0.0201	0.0090	0.0740	0.0400	0.0102	0.0090	0.0370	0.0240	0.0139	0.0103	0.0350	0.0290				
21:00	0.0196	0.0094	0.0620	0.0360	0.0064	0.0091	0.0230	0.0160	0.0136	0.0109	0.0500	0.0330				
22:00	0.0225	0.0095	0.0490	0.0310	0.0076	0.0097	0.0200	0.0120	0.0125	0.0115	0.0370	0.0210				
23:00	0.0160	0.0092	0.0420	0.0220	0.0103	0.0103	0.0260	0.0200	0.0101	0.0116	0.0230	0.0140				
AVG	0.0133	0.0093	0.0366	0.0218	0.0100	0.0097	0.0353	0.0201	0.0103	0.0116	0.0290	0.0189				
MAX	0.0225	0.0111	0.0740	0.0400	0.0149	0.0109	0.0830	0.0430	0.0184	0.0136	0.0560	0.0350				
MIN	0.0075	0.0083	0.0140	0.0090	0.0055	0.0087	0.0200	0.0120	0.0059	0.0098	0.0110	0.0100				

ผู้จัดทำ

ผู้ตรวจสอบ

ผู้อนุมัติ

วันที่ 26/12/66

วันที่ 26/12/66

วันที่ 26/12/66

บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน)

Time (hr)	19/08/66				20/08/66				21/08/66				22/08/66			
	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10
00:00	0.0076	0.0069	0.1170	0.0690	0.0075	0.0050	0.1270	0.0740	0.0060	0.0023	0.1020	0.0590	0.0118	0.0046	0.0450	0.0220
01:00	0.0079	0.0061	0.0980	0.0630	0.0089	0.0053	0.0680	0.0480	0.0063	0.0035	0.0960	0.0500	0.0096	0.0046	0.0490	0.0350
02:00	0.0100	0.0064	0.0840	0.0570	0.0094	0.0062	0.1160	0.0800	0.0139	0.0050	0.1360	0.0670	0.0074	0.0045	0.0230	0.0090
03:00	0.0132	0.0061	0.1380	0.0810	0.0100	0.0064	0.0850	0.0520	0.0147	0.0049	0.1880	0.0940	0.0077	0.0043	0.0550	0.0280
04:00	0.0116	0.0057	0.1900	0.1140	0.0085	0.0057	0.0980	0.0550	0.0210	0.0045	0.1550	0.0830	0.0058	0.0042	0.0670	0.0320
05:00	0.0074	0.0050	0.1780	0.1120	0.0098	0.0041	0.1040	0.0580	0.0154	0.0048	0.1220	0.0650	0.0066	0.0044	0.0280	0.0140
06:00	0.0089	0.0053	0.1320	0.0820	0.0150	0.0039	0.1570	0.0990	0.0078	0.0049	0.0720	0.0420	0.0086	0.0044	0.0590	0.0260
07:00	0.0108	0.0041	0.1130	0.0680	0.0090	0.0037	0.2260	0.1090	0.0070	0.0047	0.0220	0.0130	0.0058	0.0042	0.0560	0.0240
08:00	0.0089	0.0040	0.1600	0.0860	0.0099	0.0037	0.1430	0.0850	0.0082	0.0051	0.0250	0.0140	0.0048	0.0047	0.0570	0.0310
09:00	0.0042	0.0041	0.1900	0.1110	0.0066	0.0039	0.0840	0.0540	0.0081	0.0064	0.0240	0.0120	0.0037	0.0059	0.0300	0.0110
10:00	0.0061	0.0044	0.0890	0.0330	0.0049	0.0051	0.0760	0.0570	0.0114	0.0071	0.1040	0.0530	0.0048	0.0069	0.0220	0.0110
11:00	0.0142	0.0041	0.0560	0.0300	0.0053	0.0044	0.0950	0.0570	0.0085	0.0071	0.0570	0.0340	0.0041	0.0076	0.0390	0.0300
12:00	0.0120	0.0043	0.0950	0.0520	0.0066	0.0043	0.0900	0.0540	0.0070	0.0072	0.0510	0.0330	0.0043	0.0072	0.0450	0.0220
13:00	0.0157	0.0042	0.1110	0.0590	0.0046	0.0046	0.0830	0.0580	0.0083	0.0072	0.0580	0.0370	0.0043	0.0072	0.0420	0.0220
14:00	0.0141	0.0041	0.1240	0.0690	0.0038	0.0046	0.0710	0.0450	0.0084	0.0077	0.0820	0.0460	0.0044	0.0073	0.0570	0.0320
15:00	0.0097	0.0040	0.1320	0.0770	0.0039	0.0045	0.1040	0.0660	0.0070	0.0073	0.0500	0.0230	0.0055	0.0073	0.0720	0.0420
16:00	0.0058	0.0043	0.1250	0.0700	0.0039	0.0056	0.0580	0.0400	0.0069	0.0071	0.0420	0.0240	0.0062	0.0072	0.1030	0.0660
17:00	0.0055	0.0042	0.1220	0.0660	0.0079	0.0056	0.0460	0.0350	0.0066	0.0063	0.0330	0.0220	0.0065_	0.0092_	0.0890	0.0550
18:00	0.0067	0.0045	0.1320	0.0860	0.0067	0.0049	0.0440	0.0370	0.0107_	0.0061_	0.0570	0.0290	0.0057	0.0066	0.0780	0.0440
19:00	0.0079	0.0043	0.2320	0.1090	0.0185_	0.0045_	0.0330	0.0320	0.0081	0.0054	0.0780	0.0490	0.0066	0.0078	0.1180	0.0640
20:00	0.0095_	0.0074_	0.3290	0.1090	0.0145	0.0033	0.0350	0.0300	0.0089	0.0047	0.0340	0.0180	0.0085	0.0073	0.1770	0.0860
21:00	0.0072	0.0066	0.3290	0.1090	0.0118	0.0031	0.0350	0.0310	0.0091	0.0045	0.0250	0.0130	0.0084	0.0063	0.1120	0.0640
22:00	0.0074	0.0065	0.1090	0.0680	0.0101	0.0032	0.0930	0.0530	0.0098	0.0047	0.0300	0.0150	0.0084	0.0063	0.1000	0.0540
23:00	0.0060	0.0061	0.1050	0.0630	0.0062	0.0027	0.0920	0.0650	0.0137	0.0048	0.0580	0.0310	0.0062	0.0057	0.1060	0.0610
AVG	0.0091	0.0050	0.1454	0.0768	0.0080	0.0045	0.0901	0.0573	0.0097	0.0055	0.0709	0.0386	0.0065	0.0059	0.0679	0.0369
MAX	0.0157	0.0069	0.3290	0.1140	0.0150	0.0064	0.2260	0.1090	0.0210	0.0077	0.1880	0.0940	0.0118	0.0078	0.1770	0.0860
MIN	0.0042	0.0040	0.0560	0.0300	0.0038	0.0027	0.0330	0.0300	0.0060	0.0023	0.0220	0.0120	0.0037	0.0042	0.0220	0.0090

ผู้จัดทำ

ผู้ตรวจสอบ

ผู้อนุมัติ

วันที่ 26/12/66

วันที่ 26/12/66

วันที่ 26/12/66

บริษัท ทีพีโอ โพลีน เพาเวอร์ จำกัด (มหาชน)

Time (hr)	23/08/66				24/08/66				25/08/66							
	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10	NO2	SO2	TSP	PM10				
00:00	0.0089	0.0048	0.0460	0.0210	0.0031	0.0032	0.0930	0.0420	0.0034	0.0032	0.0780	0.0420				
01:00	0.0066	0.0037	0.1080	0.0540	0.0029	0.0036	0.0790	0.0370	0.0060	0.0033	0.0420	0.0200				
02:00	0.0049	0.0025	0.0310	0.0120	0.0032	0.0036	0.0550	0.0250	0.0050	0.0033	0.0220	0.0190				
03:00	0.0046	0.0023	0.0400	0.0190	0.0044	0.0036	0.1060	0.0590	0.0006	0.0035	0.0300	0.0110				
04:00	0.0045	0.0024	0.0260	0.0150	0.0047	0.0032	0.1860	0.1040	0.0032	0.0035	0.0280	0.0150				
05:00	0.0037	0.0022	0.0310	0.0140	0.0053	0.0030	0.0950	0.0570	0.0119	0.0031	0.0460	0.0210				
06:00	0.0045	0.0022	0.0190	0.0130	0.0068	0.0031	0.0900	0.0550	0.0132	0.0031	0.0420	0.0240				
07:00	0.0059	0.0022	0.0280	0.0120	0.0075	0.0031	0.1430	0.0810	0.0140	0.0032	0.0760	0.0460				
08:00	0.0069	0.0023	0.0440	0.0260	0.0050	0.0034	0.1300	0.0750	0.0104	0.0033	0.0560	0.0580				
09:00	0.0050	0.0026	0.0460	0.0230	0.0031	0.0046	0.0890	0.0460	0.0096	0.0029	0.0360	0.0170				
10:00	0.0049	0.0032	0.0430	0.0290	0.0032	0.0055	0.0650	0.0340	0.0107	0.0027	0.0420	0.0170				
11:00	0.0051	0.0039	0.0720	0.0340	0.0120	0.0033	1.0000	1.0000	0.0090	0.0031	0.0390	0.0200				
12:00	0.0055	0.0052	0.0700	0.0330	0.0099	0.0035	0.1590	0.0800	0.0082	0.0032	0.0490	0.0240				
13:00	0.0064	0.0049	0.0770	0.0450	0.0093	0.0035	0.1710	0.0930	0.0080	0.0029	0.0460	0.0260				
14:00	0.0054	0.0052	0.1080	0.0630	0.0098	0.0035	0.2060	0.0830	0.0077	0.0030	0.0710	0.0350				
15:00	0.0054	0.0052	0.1190	0.0620	0.0101	0.0036	0.1530	0.0790	0.0080	0.0032	0.0840	0.0470				
16:00	0.0038	0.0063	0.1400	0.0920	0.0098	0.0035	0.0960	0.0510	0.0080	0.0029	0.0770	0.0400				
17:00	0.0041	0.0051	0.0810	0.0480	0.0118	0.0029	0.1850	0.0950	0.0089	0.0028	0.0700	0.0460				
18:00	0.0050	0.0048	0.0910	0.0580	0.0105	0.0031	0.0380	0.0200	0.0094	0.0027	0.0930	0.0550				
19:00	0.0045	0.0049	0.0920	0.0580	0.0099	0.0031	0.0500	0.0260	0.0094	0.0028	0.0730	0.0380				
20:00	0.0046	0.0047	0.1030	0.0620	0.0081	0.0032	0.0550	0.0310	0.0087	0.0026	0.1340	0.0710				
21:00	0.0075	0.0038	0.0970	0.0530	0.0052	0.0032	0.0960	0.0560	0.0069	0.0027	0.0620	0.0390				
22:00	0.0091	0.0043	0.1170	0.0620	0.0052	0.0031	0.0730	0.0430	0.0037	0.0028	0.0730	0.0400				
23:00	0.0053	0.0033	0.1060	0.0550	0.0052	0.0031	0.0600	0.0320	0.0030	0.0029	0.0900	0.0500				
AVG	0.0056	0.0037	0.0723	0.0401	0.0069	0.0034	0.1447	0.0960	0.0078	0.0030	0.0608	0.0342				
MAX	0.0091	0.0052	0.1400	0.0920	0.0120	0.0055	1.0000	1.0000	0.0140	0.0035	0.1340	0.0710				
MIN	0.0037	0.0022	0.0190	0.0120	0.0029	0.0029	0.0380	0.0200	0.0006	0.0026	0.0220	0.0110				

ผู้จัดทำ...

ผู้ตรวจสอบ...

ผู้อนุมัติ.....

วันที่ 26/12/66

วันที่ 26/12/66

วันที่ 26/12/66

TPI POLENE PUBLIC CO., LTD.
CEMENT QUALITY DEPARTMENT
PRODUCT CONTROL 3 SECTION (ENVIRONMENTAL)
 ความเร็วลมและทิศทางลมของสถานีตรวจวัดคุณภาพสิ่งแวดล้อมแบบถาวร (AQMS)

Location	Measuring Date	Remark	
		Wind Speed (m/s)	Wind Direction(From)
Ban Sab-Bon School	19/08/66	0.80	SW
Ban Sab-Bon School	20/08/66	0.80	S
Ban Sab-Bon School	21/08/66	0.60	SW
Ban Sab-Bon School	22/08/66	0.80	SW
Ban Sab-Bon School	23/08/66	1.20	SSW
Ban Sab-Bon School	24/08/66	1.00	SW
Ban Sab-Bon School	25/08/66	1.10	S
Sab-Bon Temple	19/08/66	0.60	SSW
Sab-Bon Temple	20/08/66	0.50	S
Sab-Bon Temple	21/08/66	0.50	SSW
Sab-Bon Temple	22/08/66	0.70	SW
Sab-Bon Temple	23/08/66	0.70	SW
Sab-Bon Temple	24/08/66	0.60	SW
Sab-Bon Temple	25/08/66	0.70	SW
Ban Hin-Lab	19/08/66	0.70	SSW
Ban Hin-Lab	20/08/66	0.80	S
Ban Hin-Lab	21/08/66	0.60	SSW
Ban Hin-Lab	22/08/66	0.80	SSW
Ban Hin-Lab	23/08/66	1.10	SSW
Ban Hin-Lab	24/08/66	1.10	SSW
Ban Hin-Lab	25/08/66	1.00	SSW
Ban Ang-Hin	19/08/66	0.70	ESE
Ban Ang-Hin	20/08/66	0.60	E
Ban Ang-Hin	21/08/66	0.60	E
Ban Ang-Hin	22/08/66	0.90	SSE
Ban Ang-Hin	23/08/66	1.10	SSW
Ban Ang-Hin	24/08/66	1.00	S
Ban Ang-Hin	25/08/66	1.00	S
Ban Sai-Ngam	19/08/66	0.70	SW
Ban Sai-Ngam	20/08/66	0.70	SSW
Ban Sai-Ngam	21/08/66	0.80	SSW
Ban Sai-Ngam	22/08/66	0.70	SW
Ban Sai-Ngam	23/08/66	1.00	SW
Ban Sai-Ngam	24/08/66	0.90	SSW
Ban Sai-Ngam	25/08/66	0.80	SSW

 Reported 31 / 08 / 66	 Checked 31 ส.ค. 2566	 Approved 31 ส.ค. 2566
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ภาคผนวก ข-4

ผลการติดตามตรวจสอบระดับเสียงทั่วไป

ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE POWER PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPARP ROAD MITTRAPHAP TABKWANG KAENGKOI SARABURI 18260
CONTACT INFORMATION : TEL : 081 398 5957 e-mail : chod.padmuk@gmail.com
MEASURING PLACE : BAN SAB-BON SCHOOL
MEASURING TYPE : AMBIENT (NOISE) **RECEIVED DATE** : SEPTEMBER 19-26, 2023
MEASURING DATE : SEPTEMBER 19-26, 2023 **ANALYTICAL DATE** : SEPTEMBER 19-26, 2023
MEASURING TIME : * **REPORT NO.** : 2023-U084166
MEASURING EQUIPMENT : INTEGRATED SOUND LEVEL METER **WORK NO.** : 2022-010723
MEASURED BY : MR SUPHAKORN SUANSRI **ANALYSIS NO.** : T23AT191-0008 - T23AT191-0014

RESULT BAN SAB-BON SCHOOL SEPTEMBER 19-20, 2023 T23AT191-0001

TIME*	L _{Aeq 1 hour}	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	60.2	75.6	57.3	-
08:00-09:00 HOUR	60.9	78.8	58.0	-
09:00-10:00 HOUR	60.4	82.2	57.8	-
10:00-11:00 HOUR	60.7	78.3	57.7	-
11:00-12:00 HOUR	61.3	79.8	57.9	-
12:00-13:00 HOUR	60.1	76.1	57.2	-
13:00-14:00 HOUR	59.9	77.2	57.2	-
14:00-15:00 HOUR	63.1	94.2	58.1	-
15:00-16:00 HOUR	62.6	83.3	59.2	-
16:00-17:00 HOUR	60.7	73.1	58.1	-
17:00-18:00 HOUR	60.7	77.3	57.7	-
18:00-19:00 HOUR	61.5	78.1	59.2	-
19:00-20:00 HOUR	60.8	71.4	58.6	-
20:00-21:00 HOUR	60.4	74.7	57.8	-
21:00-22:00 HOUR	59.9	71.2	57.4	-
22:00-23:00 HOUR	59.0	72.9	55.4	-
23:00-00:00 HOUR	59.1	76.1	55.2	-
00:00-01:00 HOUR	58.0	72.1	54.0	-
01:00-02:00 HOUR	59.2	80.8	52.7	-
02:00-03:00 HOUR	56.4	74.4	51.2	-
03:00-04:00 HOUR	57.2	81.2	51.9	-
04:00-05:00 HOUR	56.6	72.4	52.3	-
05:00-06:00 HOUR	57.2	69.8	53.3	-
06:00-07:00 HOUR	57.1	69.5	53.3	64.9
L _{Aeq 24 hours}			60.1	
UNIT			dB(A)	

RESULT

BAN SAB-BON SCHOOL

SEPTEMBER 20-21, 2023

T23AT191-0002

TIME*	L _{Aeq 1 hour}	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	60.1	75.5	57.2	64.9
08:00-09:00 HOUR	61.1	79.0	58.2	64.9
09:00-10:00 HOUR	59.4	81.2	56.8	64.9
10:00-11:00 HOUR	60.1	77.7	57.1	64.9
11:00-12:00 HOUR	61.4	79.9	58.0	64.9
12:00-13:00 HOUR	61.4	77.4	58.5	64.9
13:00-14:00 HOUR	60.5	77.8	57.8	64.9
14:00-15:00 HOUR	62.3	93.4	57.3	64.9
15:00-16:00 HOUR	61.8	82.5	58.4	64.9
16:00-17:00 HOUR	59.0	71.4	56.4	64.9
17:00-18:00 HOUR	60.1	76.7	57.1	64.8
18:00-19:00 HOUR	61.5	78.1	59.2	64.8
19:00-20:00 HOUR	61.0	71.6	58.8	64.8
20:00-21:00 HOUR	59.5	73.8	56.9	64.8
21:00-22:00 HOUR	59.0	70.3	56.5	64.8
22:00-23:00 HOUR	59.7	73.6	56.1	64.9
23:00-00:00 HOUR	59.2	76.2	55.3	64.9
00:00-01:00 HOUR	58.4	72.5	54.4	65.0
01:00-02:00 HOUR	58.1	79.7	51.6	64.8
02:00-03:00 HOUR	56.8	74.8	51.6	64.9
03:00-04:00 HOUR	57.8	81.8	52.5	64.9
04:00-05:00 HOUR	56.7	72.5	52.4	64.9
05:00-06:00 HOUR	58.6	71.2	54.7	65.0
06:00-07:00 HOUR	58.1	70.5	54.3	65.1
L _{Aeq 24 hours}			59.9	
UNIT			dB(A)	



RESULT

BAN SAB-BON SCHOOL

SEPTEMBER 21-22, 2023

T23AT191-0003

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	62.0	77.4	59.1	65.1
08:00-09:00 HOUR	62.1	80.0	59.2	65.2
09:00-10:00 HOUR	60.0	81.8	57.4	65.2
10:00-11:00 HOUR	62.0	79.6	59.0	65.2
11:00-12:00 HOUR	60.7	79.2	57.3	65.2
12:00-13:00 HOUR	60.3	76.3	57.4	65.2
13:00-14:00 HOUR	60.0	77.3	57.3	65.2
14:00-15:00 HOUR	63.5	94.6	58.5	65.2
15:00-16:00 HOUR	64.3	85.0	60.9	65.3
16:00-17:00 HOUR	61.8	74.2	59.2	65.3
17:00-18:00 HOUR	60.1	76.7	57.1	65.3
18:00-19:00 HOUR	61.8	78.4	59.5	65.3
19:00-20:00 HOUR	61.3	71.9	59.1	65.3
20:00-21:00 HOUR	62.3	76.6	59.7	65.3
21:00-22:00 HOUR	60.0	71.3	57.5	65.4
22:00-23:00 HOUR	58.9	72.8	55.3	65.3
23:00-00:00 HOUR	57.8	74.8	53.9	65.2
00:00-01:00 HOUR	58.1	72.2	54.1	65.1
01:00-02:00 HOUR	60.4	82.0	53.9	65.4
02:00-03:00 HOUR	55.5	73.5	50.3	65.3
03:00-04:00 HOUR	56.6	80.6	51.3	65.2
04:00-05:00 HOUR	56.2	72.0	51.9	65.2
05:00-06:00 HOUR	57.0	69.6	53.1	65.1
06:00-07:00 HOUR	56.7	69.1	52.9	65.0
L _{Aeq} 24 hours		60.6		
UNIT		dB(A)		

RESULT

BAN SAB-BON SCHOOL

SEPTEMBER 22-23, 2023

T23AT191-0004

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	60.0	75.4	57.1	64.9
08:00-09:00 HOUR	61.6	79.5	58.7	64.9
09:00-10:00 HOUR	60.2	82.0	57.6	64.9
10:00-11:00 HOUR	61.4	79.0	58.4	64.9
11:00-12:00 HOUR	62.2	80.7	58.8	64.9
12:00-13:00 HOUR	61.0	77.0	58.1	65.0
13:00-14:00 HOUR	60.2	77.5	57.5	65.0
14:00-15:00 HOUR	63.0	94.1	58.0	64.9
15:00-16:00 HOUR	61.9	82.6	58.5	64.9
16:00-17:00 HOUR	60.4	72.8	57.8	64.9
17:00-18:00 HOUR	61.6	78.2	58.6	64.9
18:00-19:00 HOUR	61.5	78.1	59.2	64.9
19:00-20:00 HOUR	61.6	72.2	59.4	64.9
20:00-21:00 HOUR	59.6	73.9	57.0	64.8
21:00-22:00 HOUR	59.3	70.6	56.8	64.8
22:00-23:00 HOUR	59.1	73.0	55.5	64.8
23:00-00:00 HOUR	59.9	76.9	56.0	65.1
00:00-01:00 HOUR	59.2	73.3	55.2	65.2
01:00-02:00 HOUR	59.4	81.0	52.9	65.0
02:00-03:00 HOUR	56.4	74.4	51.2	65.1
03:00-04:00 HOUR	56.7	80.7	51.4	65.1
04:00-05:00 HOUR	56.5	72.3	52.2	65.1
05:00-06:00 HOUR	56.9	69.5	53.0	65.1
06:00-07:00 HOUR	56.0	68.4	52.2	65.1
L _{Aeq} 24 hours		60.2		
UNIT		dB(A)		

RESULT

BAN SAB-BON SCHOOL

SEPTEMBER 23-24, 2023

T23AT191-0005

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	60.3	75.7	57.4	65.1
08:00-09:00 HOUR	61.8	79.7	58.9	65.1
09:00-10:00 HOUR	60.5	82.3	57.9	65.1
10:00-11:00 HOUR	62.0	79.6	59.0	65.1
11:00-12:00 HOUR	62.6	81.1	59.2	65.1
12:00-13:00 HOUR	60.7	76.7	57.8	65.1
13:00-14:00 HOUR	59.7	77.0	57.0	65.1
14:00-15:00 HOUR	63.5	94.6	58.5	65.1
15:00-16:00 HOUR	62.6	83.3	59.2	65.1
16:00-17:00 HOUR	60.2	72.6	57.6	65.1
17:00-18:00 HOUR	61.7	78.3	58.7	65.1
18:00-19:00 HOUR	62.3	78.9	60.0	65.1
19:00-20:00 HOUR	60.4	71.0	58.2	65.1
20:00-21:00 HOUR	59.9	74.2	57.3	65.1
21:00-22:00 HOUR	60.2	71.5	57.7	65.1
22:00-23:00 HOUR	58.8	72.7	55.2	65.1
23:00-00:00 HOUR	59.0	76.0	55.1	65.0
00:00-01:00 HOUR	58.2	72.3	54.2	64.9
01:00-02:00 HOUR	59.0	80.6	52.5	64.8
02:00-03:00 HOUR	55.0	73.0	49.8	64.8
03:00-04:00 HOUR	55.9	79.9	50.6	64.7
04:00-05:00 HOUR	57.3	73.1	53.0	64.8
05:00-06:00 HOUR	58.5	71.1	54.6	64.9
06:00-07:00 HOUR	56.5	68.9	52.7	64.9
L _{Aeq} 24 hours		60.4		
UNIT		dB(A)		

RESULT

BAN SAB-BON SCHOOL

SEPTEMBER 24-25, 2023

T23AT191-0006

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	59.7	75.1	56.8	64.9
08:00-09:00 HOUR	60.8	78.7	57.9	64.9
09:00-10:00 HOUR	61.2	83.0	58.6	64.9
10:00-11:00 HOUR	61.0	78.6	58.0	64.9
11:00-12:00 HOUR	63.2	81.7	59.8	64.9
12:00-13:00 HOUR	59.4	75.4	56.5	64.9
13:00-14:00 HOUR	60.5	77.8	57.8	64.9
14:00-15:00 HOUR	62.6	93.7	57.6	64.9
15:00-16:00 HOUR	62.8	83.5	59.4	64.9
16:00-17:00 HOUR	61.5	73.9	58.9	64.9
17:00-18:00 HOUR	61.3	77.9	58.3	64.9
18:00-19:00 HOUR	62.7	79.3	60.4	64.9
19:00-20:00 HOUR	61.2	71.8	59.0	64.9
20:00-21:00 HOUR	59.6	73.9	57.0	64.9
21:00-22:00 HOUR	60.3	71.6	57.8	64.9
22:00-23:00 HOUR	59.8	73.7	56.2	65.0
23:00-00:00 HOUR	60.8	77.8	56.9	65.3
00:00-01:00 HOUR	58.8	72.9	54.8	65.3
01:00-02:00 HOUR	60.4	82.0	53.9	65.5
02:00-03:00 HOUR	56.1	74.1	50.9	65.5
03:00-04:00 HOUR	58.6	82.6	53.3	65.7
04:00-05:00 HOUR	56.5	72.3	52.2	65.6
05:00-06:00 HOUR	57.5	70.1	53.6	65.6
06:00-07:00 HOUR	57.1	69.5	53.3	65.6
L _{Aeq} 24 hours		60.5		
UNIT		dB(A)		

RESULT

BAN SAB-BON SCHOOL

SEPTEMBER 25-26, 2023

T23AT191-0007

TIME*	L _{Aeq 1 hour}	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	60.0	75.4	57.1	65.6
08:00-09:00 HOUR	62.3	80.2	59.4	65.6
09:00-10:00 HOUR	61.1	82.9	58.5	65.6
10:00-11:00 HOUR	62.0	79.6	59.0	65.6
11:00-12:00 HOUR	62.0	80.5	58.6	65.6
12:00-13:00 HOUR	60.9	76.9	58.0	65.6
13:00-14:00 HOUR	59.8	77.1	57.1	65.6
14:00-15:00 HOUR	62.6	93.7	57.6	65.6
15:00-16:00 HOUR	62.8	83.5	59.4	65.6
16:00-17:00 HOUR	61.9	74.3	59.3	65.6
17:00-18:00 HOUR	61.5	78.1	58.5	65.6
18:00-19:00 HOUR	60.8	77.4	58.5	65.6
19:00-20:00 HOUR	60.4	71.0	58.2	65.6
20:00-21:00 HOUR	60.6	74.9	58.0	65.6
21:00-22:00 HOUR	61.6	72.9	59.1	65.6
22:00-23:00 HOUR	59.0	72.9	55.4	65.5
23:00-00:00 HOUR	58.5	75.5	54.6	65.3
00:00-01:00 HOUR	57.6	71.7	53.6	65.2
01:00-02:00 HOUR	59.4	81.0	52.9	65.1
02:00-03:00 HOUR	56.0	74.0	50.8	65.1
03:00-04:00 HOUR	57.6	81.6	52.3	65.0
04:00-05:00 HOUR	55.6	71.4	51.3	64.9
05:00-06:00 HOUR	58.4	71.0	54.5	65.0
06:00-07:00 HOUR	56.9	69.3	53.1	65.0
L _{Aeq 24 hours}		60.4		
UNIT		dB(A)		

ตำแหน่งพิกัดของสถานีตรวจวัด : 14.636444, 101.112537

ตำแหน่งพิกัด UTM ของสถานี : 727538E, 1619176N



MR SILA BANJONGJAIKUK
LABORATORY SUPERVISOR

OCTOBER 3, 2023

ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE POWER PUBLIC COMPANY LIMITED

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

CONTACT INFORMATION : TEL : 081 398 5957 e-mail : chod.padmuk@gmail.com

MEASURING PLACE : SAB-BON TEMPLE

MEASURING TYPE : AMBIENT (NOISE)

MEASURING DATE : SEPTEMBER 19-26, 2023

MEASURING TIME : *

MEASURING EQUIPMENT : INTEGRATED SOUND LEVEL METER

MEASURED BY : MR SUPHAKORN SUANSRI

RECEIVED DATE : SEPTEMBER 19-26, 2023

ANALYTICAL DATE : SEPTEMBER 19-26, 2023

REPORT NO. : 2023-U084167

WORK NO. : 2022-010723

ANALYSIS NO. : T23AT191-0015 - T23AT191-0021

RESULT

SAB-BON TEMPLE

SEPTEMBER 19-20, 2023

T23AT191-0001

TIME*	L _{Aeq 1 hour}	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	63.9	92.3	57.1	-
08:00-09:00 HOUR	63.1	83.4	57.2	-
09:00-10:00 HOUR	66.2	86.2	57.5	-
10:00-11:00 HOUR	63.3	79.6	57.4	-
11:00-12:00 HOUR	63.2	78.0	57.6	-
12:00-13:00 HOUR	60.2	76.2	58.0	-
13:00-14:00 HOUR	64.4	86.0	58.1	-
14:00-15:00 HOUR	63.2	93.0	58.1	-
15:00-16:00 HOUR	62.7	89.3	58.4	-
16:00-17:00 HOUR	61.0	85.8	58.6	-
17:00-18:00 HOUR	60.4	80.6	58.5	-
18:00-19:00 HOUR	59.9	73.9	57.8	-
19:00-20:00 HOUR	59.0	75.8	56.8	-
20:00-21:00 HOUR	59.3	74.6	56.8	-
21:00-22:00 HOUR	58.7	70.8	56.5	-
22:00-23:00 HOUR	58.3	68.6	56.1	-
23:00-00:00 HOUR	58.0	72.4	55.5	-
00:00-01:00 HOUR	58.2	79.3	55.8	-
01:00-02:00 HOUR	57.4	71.8	54.9	-
02:00-03:00 HOUR	57.3	74.4	54.9	-
03:00-04:00 HOUR	58.0	74.3	55.0	-
04:00-05:00 HOUR	58.6	74.4	55.2	-
05:00-06:00 HOUR	61.5	87.5	56.6	-
06:00-07:00 HOUR	65.2	92.8	56.5	66.9
L _{Aeq 24 hours}		61.7		
UNIT		dB(A)		



RESULT

SAB-BON TEMPLE

SEPTEMBER 20-21, 2023

T23AT191-0002

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	59.6	83.6	56.5	66.9
08:00-09:00 HOUR	63.9	86.7	57.1	66.9
09:00-10:00 HOUR	66.2	89.1	58.6	66.9
10:00-11:00 HOUR	66.4	85.8	59.5	67.0
11:00-12:00 HOUR	60.4	71.6	58.6	66.9
12:00-13:00 HOUR	60.4	74.9	58.3	66.9
13:00-14:00 HOUR	64.9	75.2	57.7	66.9
14:00-15:00 HOUR	64.8	83.7	57.8	67.0
15:00-16:00 HOUR	64.2	87.5	58.4	67.0
16:00-17:00 HOUR	65.9	88.2	58.4	67.1
17:00-18:00 HOUR	62.0	84.8	58.7	67.1
18:00-19:00 HOUR	60.9	84.2	57.9	67.1
19:00-20:00 HOUR	59.2	79.0	56.7	67.1
20:00-21:00 HOUR	59.3	74.5	57.0	67.1
21:00-22:00 HOUR	58.6	71.9	56.2	67.1
22:00-23:00 HOUR	58.1	80.1	55.5	67.1
23:00-00:00 HOUR	58.5	85.1	55.3	67.1
00:00-01:00 HOUR	58.8	77.5	55.3	67.2
01:00-02:00 HOUR	57.2	70.9	54.1	67.2
02:00-03:00 HOUR	59.2	74.8	56.7	67.3
03:00-04:00 HOUR	59.7	81.8	56.7	67.4
04:00-05:00 HOUR	67.3	94.0	54.5	68.7
05:00-06:00 HOUR	62.5	82.9	56.8	68.8
06:00-07:00 HOUR	60.8	85.8	57.1	68.2
L _{Aeq} 24 hours	62.7			
UNIT	dB(A)			

RESULT

SAB-BON TEMPLE

SEPTEMBER 21-22, 2023

T23AT191-0003

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	61.8	85.2	56.9	68.2
08:00-09:00 HOUR	63.0	92.2	56.1	68.2
09:00-10:00 HOUR	60.6	85.3	56.8	68.2
10:00-11:00 HOUR	62.9	84.3	56.9	68.1
11:00-12:00 HOUR	59.8	81.4	57.2	68.1
12:00-13:00 HOUR	60.0	68.7	58.0	68.1
13:00-14:00 HOUR	60.2	85.6	57.5	68.0
14:00-15:00 HOUR	59.8	70.6	57.8	68.0
15:00-16:00 HOUR	60.3	73.9	58.3	67.9
16:00-17:00 HOUR	64.4	93.0	58.5	67.9
17:00-18:00 HOUR	60.4	69.3	58.5	67.9
18:00-19:00 HOUR	62.3	73.6	60.5	67.9
19:00-20:00 HOUR	61.3	73.9	59.7	67.9
20:00-21:00 HOUR	60.1	78.0	57.1	67.9
21:00-22:00 HOUR	59.4	84.5	56.6	67.9
22:00-23:00 HOUR	58.1	71.1	55.6	67.9
23:00-00:00 HOUR	60.5	75.2	58.8	68.0
00:00-01:00 HOUR	60.0	70.8	58.4	68.1
01:00-02:00 HOUR	57.7	79.1	54.9	68.1
02:00-03:00 HOUR	59.9	74.5	57.8	68.2
03:00-04:00 HOUR	61.0	75.7	58.5	68.2
04:00-05:00 HOUR	68.0	93.1	57.4	68.5
05:00-06:00 HOUR	63.9	92.2	56.5	68.7
06:00-07:00 HOUR	61.1	77.9	56.9	68.7
L _{Aeq} 24 hours	61.8			
UNIT	dB(A)			

RESULT

SAB-BON TEMPLE

SEPTEMBER 22-23, 2023

T23AT191-0004

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	60.7	80.4	57.3	68.7
08:00-09:00 HOUR	61.4	80.1	57.6	68.7
09:00-10:00 HOUR	62.9	88.3	57.9	68.7
10:00-11:00 HOUR	68.0	82.4	58.0	68.8
11:00-12:00 HOUR	64.7	83.7	58.4	68.8
12:00-13:00 HOUR	64.9	78.1	59.1	68.9
13:00-14:00 HOUR	64.2	87.8	59.0	68.9
14:00-15:00 HOUR	66.7	91.4	58.6	69.0
15:00-16:00 HOUR	63.0	83.7	59.7	69.0
16:00-17:00 HOUR	62.0	84.6	59.0	69.0
17:00-18:00 HOUR	61.5	79.4	58.7	69.0
18:00-19:00 HOUR	59.4	71.7	57.1	69.0
19:00-20:00 HOUR	58.8	78.3	56.0	69.0
20:00-21:00 HOUR	57.8	67.6	55.5	69.0
21:00-22:00 HOUR	58.1	72.6	55.3	69.0
22:00-23:00 HOUR	57.3	73.7	54.7	69.0
23:00-00:00 HOUR	56.7	71.3	54.1	68.8
00:00-01:00 HOUR	57.4	78.4	54.7	68.7
01:00-02:00 HOUR	58.5	77.9	55.2	68.7
02:00-03:00 HOUR	61.1	77.2	54.6	68.8
03:00-04:00 HOUR	61.0	82.6	55.5	68.8
04:00-05:00 HOUR	64.6	90.9	56.0	67.9
05:00-06:00 HOUR	60.9	81.4	56.5	67.5
06:00-07:00 HOUR	60.7	79.8	56.8	67.5
L _{Aeq} 24 hours		62.4		
UNIT		dB(A)		

RESULT

SAB-BON TEMPLE

SEPTEMBER 23-24, 2023

T23AT191-0005

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	63.3	81.4	58.7	67.5
08:00-09:00 HOUR	64.7	90.8	59.0	67.5
09:00-10:00 HOUR	60.1	82.2	57.9	67.5
10:00-11:00 HOUR	59.9	70.8	58.2	67.3
11:00-12:00 HOUR	61.8	84.2	58.4	67.3
12:00-13:00 HOUR	60.9	77.5	58.1	67.2
13:00-14:00 HOUR	62.4	83.4	58.4	67.2
14:00-15:00 HOUR	61.3	83.3	58.1	67.1
15:00-16:00 HOUR	60.5	82.7	57.7	67.0
16:00-17:00 HOUR	59.1	72.6	56.6	67.0
17:00-18:00 HOUR	59.7	67.9	56.6	67.0
18:00-19:00 HOUR	62.2	81.3	59.8	67.0
19:00-20:00 HOUR	64.1	79.7	57.2	67.1
20:00-21:00 HOUR	66.0	71.6	63.9	67.2
21:00-22:00 HOUR	65.9	76.0	63.2	67.3
22:00-23:00 HOUR	59.9	69.7	54.8	67.5
23:00-00:00 HOUR	57.4	81.0	54.2	67.5
00:00-01:00 HOUR	60.0	74.5	57.2	67.6
01:00-02:00 HOUR	59.8	73.4	56.9	67.7
02:00-03:00 HOUR	58.6	80.5	54.7	67.5
03:00-04:00 HOUR	64.6	87.3	56.2	68.0
04:00-05:00 HOUR	62.6	83.8	57.1	67.7
05:00-06:00 HOUR	60.5	84.5	57.3	67.7
06:00-07:00 HOUR	66.3	79.5	56.9	68.5
L _{Aeq} 24 hours		62.4		
UNIT		dB(A)		

RESULT

SAB-BON TEMPLE

SEPTEMBER 24-25, 2023

T23AT191-0006

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	63.5	85.6	57.9	68.5
08:00-09:00 HOUR	61.7	78.8	57.9	68.5
09:00-10:00 HOUR	60.3	83.8	57.9	68.5
10:00-11:00 HOUR	59.2	79.7	57.1	68.5
11:00-12:00 HOUR	61.3	86.4	57.7	68.5
12:00-13:00 HOUR	61.6	81.3	58.1	68.5
13:00-14:00 HOUR	64.9	84.3	58.4	68.5
14:00-15:00 HOUR	61.7	87.2	58.8	68.5
15:00-16:00 HOUR	61.0	79.8	59.0	68.5
16:00-17:00 HOUR	59.6	78.6	57.2	68.5
17:00-18:00 HOUR	59.4	73.8	57.2	68.5
18:00-19:00 HOUR	60.9	71.0	58.8	68.5
19:00-20:00 HOUR	60.1	73.9	58.2	68.5
20:00-21:00 HOUR	58.4	73.1	56.1	68.4
21:00-22:00 HOUR	58.0	76.3	55.5	68.3
22:00-23:00 HOUR	57.6	77.4	55.0	68.2
23:00-00:00 HOUR	57.3	79.4	54.7	68.2
00:00-01:00 HOUR	57.2	66.4	54.8	68.1
01:00-02:00 HOUR	57.5	75.5	54.5	68.0
02:00-03:00 HOUR	59.9	82.1	55.9	68.0
03:00-04:00 HOUR	61.1	86.1	56.9	67.5
04:00-05:00 HOUR	63.7	88.2	56.6	67.7
05:00-06:00 HOUR	63.7	92.1	56.9	68.1
06:00-07:00 HOUR	63.4	83.7	57.5	67.4
L _{Aeq} 24 hours	61.1			
UNIT	dB(A)			

RESULT

SAB-BON TEMPLE

SEPTEMBER 25-26, 2023

T23AT191-0007

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	66.0	86.0	57.3	67.5
08:00-09:00 HOUR	63.4	79.7	57.5	67.5
09:00-10:00 HOUR	63.6	78.4	58.0	67.6
10:00-11:00 HOUR	59.7	75.7	57.5	67.6
11:00-12:00 HOUR	64.0	85.6	57.7	67.6
12:00-13:00 HOUR	63.1	92.9	58.0	67.6
13:00-14:00 HOUR	63.1	89.7	58.8	67.6
14:00-15:00 HOUR	60.9	85.7	58.5	67.6
15:00-16:00 HOUR	60.0	80.2	58.1	67.6
16:00-17:00 HOUR	60.2	74.2	58.1	67.6
17:00-18:00 HOUR	59.5	76.3	57.3	67.6
18:00-19:00 HOUR	59.2	74.5	56.7	67.6
19:00-20:00 HOUR	59.0	71.1	56.8	67.5
20:00-21:00 HOUR	58.2	68.5	56.0	67.5
21:00-22:00 HOUR	58.4	72.8	55.9	67.5
22:00-23:00 HOUR	58.3	79.4	55.9	67.6
23:00-00:00 HOUR	57.8	72.2	55.3	67.6
00:00-01:00 HOUR	56.8	73.9	54.4	67.6
01:00-02:00 HOUR	59.8	69.2	56.0	67.7
02:00-03:00 HOUR	58.0	70.0	55.9	67.6
03:00-04:00 HOUR	59.2	72.8	55.3	67.5
04:00-05:00 HOUR	62.4	74.1	58.3	67.3
05:00-06:00 HOUR	65.2	80.8	60.6	67.6
06:00-07:00 HOUR	61.6	85.2	56.7	67.3
L _{Aeq} 24 hours	61.5			
UNIT	dB(A)			

ตำแหน่งพิกัดของสถานีตรวจวัด : 14.635760, 101.125087

ตำแหน่งพิกัด UTM ของสถานี : 728891E, 1619113N



MR. SILA BANJONGJAIKUK
LABORATORY SUPERVISOR
OCTOBER 3, 2023

ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE POWER PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPARP ROAD MITTRAPHAP TABKWANG KAENGKOI SARABURI 18260
CONTACT INFORMATION : TEL : 081 398 5957 e-mail : chod.padmuk@gmail.com
MEASURING PLACE : BAN ANG HIN
MEASURING TYPE : AMBIENT (NOISE)
MEASURING DATE : SEPTEMBER 19-26, 2023
MEASURING TIME : *
MEASURING EQUIPMENT : INTEGRATED SOUND LEVEL METER
MEASURED BY : MR SUPHAKORN SUANSRI

RECEIVED DATE : SEPTEMBER 19-26, 2023
ANALYTICAL DATE : SEPTEMBER 19-26, 2023
REPORT NO. : 2023-U084168
WORK NO. : 2022-010723
ANALYSIS NO. : T23AT191-0022 - T23AT191-0028

RESULT BAN ANG HIN SEPTEMBER 19-20, 2023 T23AT191-0001

TIME*	L _{Aeq 1 hour}	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	51.4	71.8	45.0	-
08:00-09:00 HOUR	55.3	80.6	45.0	-
09:00-10:00 HOUR	56.7	78.0	46.6	-
10:00-11:00 HOUR	61.0	85.0	49.8	-
11:00-12:00 HOUR	60.0	84.8	48.3	-
12:00-13:00 HOUR	60.8	87.5	49.2	-
13:00-14:00 HOUR	57.2	77.7	47.8	-
14:00-15:00 HOUR	58.8	79.0	47.1	-
15:00-16:00 HOUR	54.7	82.0	44.8	-
16:00-17:00 HOUR	53.6	75.7	46.8	-
17:00-18:00 HOUR	58.7	83.2	47.3	-
18:00-19:00 HOUR	58.4	77.0	49.8	-
19:00-20:00 HOUR	59.5	84.8	48.6	-
20:00-21:00 HOUR	59.9	80.8	50.7	-
21:00-22:00 HOUR	52.2	70.3	40.9	-
22:00-23:00 HOUR	55.6	74.6	51.7	-
23:00-00:00 HOUR	51.1	66.0	49.3	-
00:00-01:00 HOUR	53.1	72.2	51.2	-
01:00-02:00 HOUR	53.6	69.4	51.4	-
02:00-03:00 HOUR	52.4	65.4	50.8	-
03:00-04:00 HOUR	50.6	73.5	47.9	-
04:00-05:00 HOUR	50.8	68.2	48.9	-
05:00-06:00 HOUR	50.0	65.3	48.5	-
06:00-07:00 HOUR	51.5	76.4	46.9	60.3
L _{Aeq 24 hours}				
UNIT				
		56.7		
		dB(A)		

RESULT

BAN ANG HIN

SEPTEMBER 20-21, 2023

T23AT191-0002

TIME*	L _{Aeq 1 hour}	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	51.7	72.1	45.3	60.3
08:00-09:00 HOUR	54.4	79.7	44.1	60.2
09:00-10:00 HOUR	56.5	77.8	46.4	60.2
10:00-11:00 HOUR	59.6	83.6	48.4	60.2
11:00-12:00 HOUR	60.8	85.6	49.1	60.2
12:00-13:00 HOUR	60.8	87.5	49.2	60.2
13:00-14:00 HOUR	56.5	77.0	47.1	60.2
14:00-15:00 HOUR	59.2	79.4	47.5	60.2
15:00-16:00 HOUR	56.1	83.4	46.2	60.2
16:00-17:00 HOUR	54.2	76.3	47.4	60.2
17:00-18:00 HOUR	59.4	83.9	48.0	60.3
18:00-19:00 HOUR	56.9	75.5	48.3	60.2
19:00-20:00 HOUR	59.9	85.2	49.0	60.2
20:00-21:00 HOUR	60.1	81.0	50.9	60.3
21:00-22:00 HOUR	51.6	69.7	40.3	60.3
22:00-23:00 HOUR	56.2	75.2	52.3	60.3
23:00-00:00 HOUR	51.2	66.1	49.4	60.3
00:00-01:00 HOUR	54.0	73.1	52.1	60.4
01:00-02:00 HOUR	54.0	69.8	51.8	60.5
02:00-03:00 HOUR	53.2	66.2	51.6	60.5
03:00-04:00 HOUR	52.6	75.5	49.9	60.6
04:00-05:00 HOUR	50.8	68.2	48.9	60.6
05:00-06:00 HOUR	50.4	65.7	48.9	60.6
06:00-07:00 HOUR	51.6	76.5	47.0	60.6
L _{Aeq 24 hours}			56.8	
UNIT			dB(A)	



RESULT

BAN ANG HIN

SEPTEMBER 21-22, 2023

T23AT191-0003

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	52.1	72.5	45.7	60.6
08:00-09:00 HOUR	55.6	80.9	45.3	60.7
09:00-10:00 HOUR	58.6	79.9	48.5	60.7
10:00-11:00 HOUR	59.8	83.8	48.6	60.7
11:00-12:00 HOUR	59.4	84.2	47.7	60.7
12:00-13:00 HOUR	60.4	87.1	48.8	60.6
13:00-14:00 HOUR	58.3	78.8	48.9	60.7
14:00-15:00 HOUR	58.7	78.9	47.0	60.7
15:00-16:00 HOUR	56.2	83.5	46.3	60.7
16:00-17:00 HOUR	55.1	77.2	48.3	60.7
17:00-18:00 HOUR	58.8	83.3	47.4	60.7
18:00-19:00 HOUR	56.9	75.5	48.3	60.7
19:00-20:00 HOUR	61.1	86.4	50.2	60.7
20:00-21:00 HOUR	60.0	80.9	50.8	60.7
21:00-22:00 HOUR	54.5	72.6	43.2	60.7
22:00-23:00 HOUR	58.0	77.0	54.1	61.0
23:00-00:00 HOUR	52.3	67.2	50.5	61.1
00:00-01:00 HOUR	52.9	72.0	51.0	61.0
01:00-02:00 HOUR	53.6	69.4	51.4	61.0
02:00-03:00 HOUR	52.2	65.2	50.6	60.9
03:00-04:00 HOUR	50.6	73.5	47.9	60.8
04:00-05:00 HOUR	50.2	67.6	48.3	60.8
05:00-06:00 HOUR	49.8	65.1	48.3	60.8
06:00-07:00 HOUR	51.8	76.7	47.2	60.8
L _{Aeq} 24 hours	57.0			
UNIT	dB(A)			

RESULT

BAN ANG HIN

SEPTEMBER 22-23, 2023

T23AT191-0004

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	52.4	72.8	46.0	60.8
08:00-09:00 HOUR	56.1	81.4	45.8	60.8
09:00-10:00 HOUR	57.0	78.3	46.9	60.8
10:00-11:00 HOUR	58.8	82.8	47.6	60.7
11:00-12:00 HOUR	59.7	84.5	48.0	60.7
12:00-13:00 HOUR	59.7	86.4	48.1	60.7
13:00-14:00 HOUR	57.1	77.6	47.7	60.7
14:00-15:00 HOUR	60.3	80.5	48.6	60.7
15:00-16:00 HOUR	57.8	85.1	47.9	60.8
16:00-17:00 HOUR	55.9	78.0	49.1	60.8
17:00-18:00 HOUR	58.9	83.4	47.5	60.8
18:00-19:00 HOUR	57.3	75.9	48.7	60.8
19:00-20:00 HOUR	60.7	86.0	49.8	60.8
20:00-21:00 HOUR	59.5	80.4	50.3	60.8
21:00-22:00 HOUR	52.6	70.7	41.3	60.7
22:00-23:00 HOUR	57.5	76.5	53.6	60.6
23:00-00:00 HOUR	51.2	66.1	49.4	60.6
00:00-01:00 HOUR	51.8	70.9	49.9	60.5
01:00-02:00 HOUR	54.6	70.4	52.4	60.6
02:00-03:00 HOUR	50.5	63.5	48.9	60.5
03:00-04:00 HOUR	50.2	73.1	47.5	60.5
04:00-05:00 HOUR	49.5	66.9	47.6	60.5
05:00-06:00 HOUR	49.4	64.7	47.9	60.5
06:00-07:00 HOUR	51.4	76.3	46.8	60.4
L _{Aeq} 24 hours	56.8			
UNIT	dB(A)			

RESULT

BAN ANG HIN

SEPTEMBER 23-24, 2023

T23AT191-0005

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	53.3	73.7	46.9	60.4
08:00-09:00 HOUR	54.1	79.4	43.8	60.4
09:00-10:00 HOUR	57.1	78.4	47.0	60.4
10:00-11:00 HOUR	59.9	83.9	48.7	60.5
11:00-12:00 HOUR	60.2	85.0	48.5	60.5
12:00-13:00 HOUR	61.3	88.0	49.7	60.5
13:00-14:00 HOUR	58.4	78.9	49.0	60.6
14:00-15:00 HOUR	58.7	78.9	47.0	60.5
15:00-16:00 HOUR	55.4	82.7	45.5	60.5
16:00-17:00 HOUR	54.8	76.9	48.0	60.5
17:00-18:00 HOUR	59.1	83.6	47.7	60.5
18:00-19:00 HOUR	56.9	75.5	48.3	60.5
19:00-20:00 HOUR	57.9	83.2	47.0	60.4
20:00-21:00 HOUR	60.2	81.1	51.0	60.4
21:00-22:00 HOUR	51.1	69.2	39.8	60.4
22:00-23:00 HOUR	56.3	75.3	52.4	60.2
23:00-00:00 HOUR	51.8	66.7	50.0	60.2
00:00-01:00 HOUR	54.3	73.4	52.4	60.4
01:00-02:00 HOUR	55.3	71.1	53.1	60.5
02:00-03:00 HOUR	53.1	66.1	51.5	60.6
03:00-04:00 HOUR	53.0	75.9	50.3	60.8
04:00-05:00 HOUR	50.6	68.0	48.7	60.8
05:00-06:00 HOUR	50.1	65.4	48.6	60.8
06:00-07:00 HOUR	50.4	75.3	45.8	60.8
L _{Aeq} 24 hours		56.8		
UNIT		dB(A)		

RESULT

BAN ANG HIN

SEPTEMBER 24-25, 2023

T23AT191-0006

TIME*	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	52.3	72.7	45.9	60.8
08:00-09:00 HOUR	55.4	80.7	45.1	60.8
09:00-10:00 HOUR	56.1	77.4	46.0	60.8
10:00-11:00 HOUR	60.9	84.9	49.7	60.8
11:00-12:00 HOUR	57.9	82.7	46.2	60.7
12:00-13:00 HOUR	58.7	85.4	47.1	60.7
13:00-14:00 HOUR	56.9	77.4	47.5	60.6
14:00-15:00 HOUR	59.1	79.3	47.4	60.6
15:00-16:00 HOUR	54.9	82.2	45.0	60.6
16:00-17:00 HOUR	55.5	77.6	48.7	60.6
17:00-18:00 HOUR	60.6	85.1	49.2	60.7
18:00-19:00 HOUR	55.0	73.6	46.4	60.7
19:00-20:00 HOUR	58.0	83.3	47.1	60.7
20:00-21:00 HOUR	58.1	79.0	48.9	60.6
21:00-22:00 HOUR	51.7	69.8	40.4	60.6
22:00-23:00 HOUR	56.0	75.0	52.1	60.6
23:00-00:00 HOUR	49.8	64.7	48.0	60.5
00:00-01:00 HOUR	51.2	70.3	49.3	60.2
01:00-02:00 HOUR	54.3	70.1	52.1	60.1
02:00-03:00 HOUR	53.7	66.7	52.1	60.2
03:00-04:00 HOUR	49.9	72.8	47.2	60.0
04:00-05:00 HOUR	49.7	67.1	47.8	59.9
05:00-06:00 HOUR	49.1	64.4	47.6	59.9
06:00-07:00 HOUR	50.0	74.9	45.4	59.9
L _{Aeq} 24 hours		56.1		
UNIT		dB(A)		

RESULT

BAN ANG HIN

TIME*

SEPTEMBER 25-26, 2023

T23AT191-0007

	L _{Aeq} 1 hour	L _{Amax}	L _{A90}	L _{Adn}
07:00-08:00 HOUR	53.0	73.4	46.6	59.9
08:00-09:00 HOUR	54.5	79.8	44.2	59.9
09:00-10:00 HOUR	56.6	77.9	46.5	59.9
10:00-11:00 HOUR	59.1	83.1	47.9	59.8
11:00-12:00 HOUR	59.7	84.5	48.0	59.9
12:00-13:00 HOUR	61.2	87.9	49.6	60.0
13:00-14:00 HOUR	58.1	78.6	48.7	60.0
14:00-15:00 HOUR	60.3	80.5	48.6	60.1
15:00-16:00 HOUR	55.5	82.8	45.6	60.1
16:00-17:00 HOUR	56.2	78.3	49.4	60.1
17:00-18:00 HOUR	60.4	84.9	49.0	60.1
18:00-19:00 HOUR	57.7	76.3	49.1	60.1
19:00-20:00 HOUR	59.3	84.6	48.4	60.2
20:00-21:00 HOUR	60.3	81.2	51.1	60.2
21:00-22:00 HOUR	53.4	71.5	42.1	60.2
22:00-23:00 HOUR	56.0	75.0	52.1	60.2
23:00-00:00 HOUR	51.4	66.3	49.6	60.3
00:00-01:00 HOUR	50.4	69.5	48.5	60.3
01:00-02:00 HOUR	52.5	68.3	50.3	60.1
02:00-03:00 HOUR	52.8	65.8	51.2	60.0
03:00-04:00 HOUR	49.2	72.1	46.5	60.0
04:00-05:00 HOUR	49.9	67.3	48.0	60.0
05:00-06:00 HOUR	48.8	64.1	47.3	60.0
06:00-07:00 HOUR	50.6	75.5	46.0	60.0
L _{Aeq} 24 hours		56.9		
UNIT		dB(A)		

ตำแหน่งพิกัดของสถานีตรวจวัด : 14.642456, 101.146795

ตำแหน่งพิกัด UTM ของสถานี : 731223E, 1619876N

Signature

MR SILA BANJONGJAIKUK

LABORATORY SUPERVISOR

OCTOBER 3, 2023

ภาคผนวก ข-5

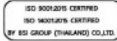
ผลการติดตามตรวจสอบคุณภาพน้ำผิวดินและน้ำทิ้ง

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 : POWER PLANT AREA
SAMPLE TYPE : SURFACE WATER
SAMPLING DATE : AUGUST 17, 2023
SAMPLING TIME : 09:20 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR MANIT PANCHOT
ANALYZED BY : MISS NAPAPORN KIJUNNOKHOM

RECEIVED DATE : AUGUST 17, 2023
ANALYTICAL DATE : AUGUST 17 - SEPTEMBER 1, 2023
REPORT NO. : 2023-U073157
WORK NO. : 2022-010807
ANALYSIS NO. : T23AP956-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT SURFACE WATER T23AP956-0002	REGULATORY STANDARD	DETECTION LIMIT
pH *	-	ELECTROMETRIC METHOD AT SITE (SM PART 4500-H B)	8.8 (30°C)	5.0-9.0	-
TEMPERATURE °	°C	THERMOMETER AT SITE (SM PART 2550 B)	30	n ^a	-
ELECTRICAL CONDUCTIVITY °	µS/cm	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2510 B)	896 (30°C)	-	0.1
ODOUR °	-	OBSERVATION METHOD	NONE	n	-
COLOUR °	Pt-Co	VISUAL COMPARISON METHOD (SM PART 2100 B)	10	n	5
DISSOLVED OXYGEN °	mg/L	AZIDE MODIFICATION METHOD AT SITE (SM PART 4500-O C)	6.0	≥ 2.0	0.5
BIOCHEMICAL OXYGEN DEMAND °	mg/L	AZIDE MODIFICATION METHOD (SM PART 5210 B AND PART 4500-O C)	2.5	≤ 4.0	1.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLEX, COLOURIMETRIC METHOD (SM PART 5220 D)	ND	-	25.0
TOTAL SUSPENDED SOLIDS *	mg/L	TOTAL SUSPENDED SOLIDS DRIED AT 103-105 °C (SM PART 2540 D)	22.7	-	5.0
TOTAL DISSOLVED SOLIDS *	mg/L	TOTAL DISSOLVED SOLIDS DRIED AT 180 °C (SM PART 2540 C)	453	-	25
TOTAL HARDNESS *	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM PART 2340 C)	115	-	4.0
CYANIDE AS HCN °	mg/L HCN	DISTILLATION, PYRIDINE-BARBITURIC ACID METHOD (SM PART 4500-CN C AND PART 4500-CN E)	0.002	-	0.001
FORMALDEHYDE °	mg/L	DISTILLATION AND COLOURIMETRIC METHOD	ND	-	0.05
FREE CHLORINE °	mg/L Cl ₂	DPO FERROUS TITRIMETRIC METHOD (SM PART 4500-Cl F)	ND	-	0.1
HYDROGEN SULPHIDE °	mg/L H ₂ S	METHYLENE BLUE METHOD (SM PART 4500-S ² D)	ND	-	0.02
PHENOLS °	mg/L	DISTILLATION, 4-AMINOANTHRACENE METHOD (SM PART 5530 B AND PART 5530 C)	ND	≤ 0.005	0.005
PHOSPHATE °	mg/L PO ₄ ³⁻	ASCORBIC ACID METHOD (SM PART 4500-P E)	0.06	-	0.03
RESIDUAL CHLORINE °	mg/L Cl ₂	DPO FERROUS TITRIMETRIC METHOD (SM PART 4500-Cl F)	ND	-	0.1
TOTAL KJELDAHL NITROGEN °	mg/L	IN-HOUSE METHOD: UAE.TP.WAS.001 (KJELDAHL METHOD); SM PART 4500-Norg C	< LOQ	-	1.5



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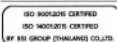
PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT SURFACE WATER T23AP956-0002	REGULATORY STANDARD	DETECTION LIMIT
ZINC °	mg/L Zn	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	ND	≤ 1.0	0.003
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR 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, 23rd EDITION, 2017.
SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
REGULATORY STANDARD : SURFACE WATER QUALITY STANDARDS CLASS 4, NOTIFICATION OF THE NATIONAL ENVIRONMENT BOARD, NO.8, B.E. 2537 ISSUED UNDER THE ENHANCEMENT AND CONSERVATION OF NATIONAL ENVIRONMENTAL QUALITY ACT, B.E. 2535, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL. 111, PART 16, DATED FEBRUARY 24, B.E. 2537 (1994).
CLASS 4 : MEDIUM CLEAN FRESH SURFACE WATER RESOURCES USED FOR (1) CONSUMPTION, BUT PASSING THROUGH AN ORDINARY TREATMENT PROCESS BEFORE USING (2) INDUSTRY
n : NATURALLY
n^a : THE TEMPERATURE OF THE WATER MUST NOT BE HIGHER THAN THE NATURAL TEMPERATURE EXCEEDING 3 DEGREES CELSIUS
≤ 0.005° : WHEN WATER HARDNESS NOT MORE THAN 100 mg/L AS CaCO₃
≤ 0.05° : WHEN WATER HARDNESS MORE THAN 100 mg/L AS CaCO₃
ND : NON-DETECTABLE
< LOQ : < LIMIT OF QUANTITATION (TOTAL KJELDAHL NITROGEN ≥ 1.5 AND < 5.0 mg/L, MANGANESE ≥ 0.002 AND < 0.025 mg/L, MERCURY ≥ 0.0001 AND < 0.0005 mg/L).

Bhuchonk P.
(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

SEPTEMBER 5, 2023



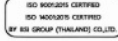
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2023-U073157

- End of Analysis Report -

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT SURFACE WATER T23AP956-0002	REGULATORY STANDARD	DETECTION LIMIT
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	ND	-	3
METALS					
ARSENIC °	mg/L As	HYDRIDE GENERATION AAS METHOD (SM PART 3114 C)	0.0011	≤ 0.01	0.0003
BARILUM °	mg/L Ba	NITRIC ACID-HYDROCHLORIC ACID DIGESTION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (SM PART 3030 F AND PART 3120 B)	0.036	-	0.003
CADMIUM °	mg/L Cd	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	ND	≤ 0.005*, ≤ 0.05**	0.002
HEXAVALENT CHROMIUM °	mg/L Cr ⁶⁺	EXTRACTION AND AIR-ACETYLENE FLAME METHOD (SM PART 3111 C)	ND	≤ 0.05	0.001
TRIVALENT CHROMIUM °	mg/L Cr ³⁺	NITRIC ACID DIGESTION, DIRECT AIR ACETYLENE FLAME, COLOURIMETRIC (SM PART 3030 E, PART 3111 B AND PART 3500-Cr B) AND CALCULATION METHOD	ND	-	0.005
COPPER °	mg/L Cu	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	ND	≤ 0.1	0.002
LEAD °	mg/L Pb	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	ND	≤ 0.05	0.003
MANGANESE °	mg/L Mn	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	< LOQ	≤ 1.0	0.002
MERCURY °	mg/L Hg	IN-HOUSE METHOD: UAE.TP.HBM.002 (COLD VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD); SM PART 3112 B	< LOQ	≤ 0.002	0.0001
NICKEL °	mg/L Ni	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	ND	≤ 0.1	0.005
SELENIUM °	mg/L Se	HYDRIDE GENERATION AAS METHOD (SM PART 3114 C)	0.0008	-	0.0005



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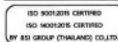
2023-U073157

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 : POWER PLANT AREA
SAMPLE TYPE : SURFACE WATER
SAMPLING DATE : AUGUST 17, 2023
SAMPLING TIME : 09:20 HOUR
SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ° : MR MANIT PANCHOT
ANALYZED BY : MISS ITSIRIYAPORN BUATIB

RECEIVED DATE : AUGUST 17, 2023
ANALYTICAL DATE : AUGUST 17 - SEPTEMBER 3, 2023
REPORT NO. : 2023-U073169
WORK NO. : 2022-010807
ANALYSIS NO. : T23AP956-0003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT SURFACE WATER T23AP956-0003	REGULATORY STANDARD	DETECTION LIMIT
TURBIDITY °	NTU	NEPHELOMETRIC METHOD (SM PART 2100 B)	27	-	0.1
SALINITY °	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2520 B)	0.4	-	0.1
NITRATE-NITROGEN °	mg/L NO ₃ -N	CADMIUM REDUCTION METHOD (SM PART 4500-NO ₃ -E)	4.92	≤ 5.0	0.02
SULPHATE °	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM PART 4500-SO ₄ ²⁻ E)	95.3	-	0.3
SODIUM ADSORPTION RATIO °	-	INDUCTIVELY COUPLED PLASMA (ICP) AND CALCULATION METHOD	2.47	-	-
METALS					
IRON °	mg/L Fe	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	0.084	-	0.005
TITANIUM °	mg/L Ti	NITRIC ACID-HYDROCHLORIC ACID DIGESTION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (SM PART 3030 F AND PART 3120 B)	ND	-	0.005



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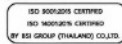
PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SURFACE WATER T23AP956-0003		
MICROBIOLOGY					
COLIFORM BACTERIA ^a	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM PART 9221B)	210	-	1.8
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM PART 9221E)	49	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

^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.
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CLASS 4 : MEDIUM CLEAN FRESH SURFACE WATER RESOURCES USED FOR
(1) CONSUMPTION, BUT PASSING THROUGH AN ORDINARY TREATMENT PROCESS BEFORE USING
(2) INDUSTRY
ND : NON-DETECTABLE.

Bhuchonk P.
(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

SEPTEMBER 5, 2023



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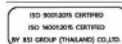
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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SURFACE WATER T23AP956-0002		
p.p-DOO	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM PART 6630 C)	ND	-	0.04
p.p-DOE	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM PART 6630 C)	ND	-	0.04
p.p-DOT	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM PART 6630 C)	ND	-	0.04
METHOXYCHLOR	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM PART 6630 C)	ND	-	0.20
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd EDITION, 2017.
REGULATORY STANDARD : SURFACE WATER QUALITY STANDARDS CLASS 4, NOTIFICATION OF THE NATIONAL ENVIRONMENT BOARD, NO.8, B.E. 2537 ISSUED UNDER THE ENHANCEMENT AND CONSERVATION OF NATIONAL ENVIRONMENTAL QUALITY ACT, B.E. 2535, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL. 111, PART 16, DATED FEBRUARY 24, B.E. 2537 (994).
CLASS 4 : MEDIUM CLEAN FRESH SURFACE WATER RESOURCES USED FOR
(1) CONSUMPTION, BUT PASSING THROUGH AN ORDINARY TREATMENT PROCESS BEFORE USING
(2) INDUSTRY
V : TOTAL OF HEPTACHLOR AND HEPTACHLOR EPOXIDE FOLLOWS THE STANDARD IS LESS THAN 0.2 µg/L.
ND : NON-DETECTABLE.

Benjawan V.
(MISS BENJAWAN VIRIYOTHAJ)
LABORATORY SUPERVISOR

SEPTEMBER 5, 2023



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2023-U073168

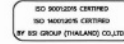
- End of Analysis Report -

ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPARP ROAD MITTRAPHAP TABKWANG KAENGKOT SARABURI 18260
CONTACT INFORMATION : TEL : 06 4294 9161 e-mail : chod.padmuk@gmail.com
SAMPLING SOURCE : POWER PLANT AREA
SAMPLE TYPE : SURFACE WATER
SAMPLING DATE : AUGUST 17, 2023
SAMPLING TIME : 09:20 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR MANIT PANCHOT
ANALYZED BY : MISS WORAKON PADSONGCHAN

RECEIVED DATE : AUGUST 17, 2023
ANALYTICAL DATE : AUGUST 17-22, 2023
REPORT NO. : 2023-U073168
WORK NO. : 2022-010807
ANALYSIS NO. : T23AP956-0002

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SURFACE WATER T23AP956-0002		
ORGANOCHLORINE PESTICIDES					
α-BHC	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	≤ 0.02	0.02
β-BHC	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	-	0.02
γ-BHC	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	-	0.02
δ-BHC	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	-	0.02
ALDRIN	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	≤ 0.1	0.02
DIELDRIN	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	≤ 0.1	0.02
ENDOSULFAN I	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	-	0.02
ENDOSULFAN II	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	-	0.04
ENDOSULFAN SULFATE	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	-	0.04
ENDRIN	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	NONE	0.04
ENDRIN ALDEHYDE	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	-	0.04
HEPTACHLOR	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	V	0.02
HEPTACHLOR EPOXIDE	µg/L	LIQUID-LIQUID EXTRACTION GAS CHROMATOGRAPHIC (ECD) METHOD (SM: PART 6630 C)	ND	V	0.02



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ANALYSIS REPORT

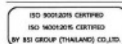
CUSTOMER NAME : TPI POLENE PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPARP ROAD MITTRAPHAP TABKWANG KAENGKOT SARABURI 18260
CONTACT INFORMATION : TEL : 06 4294 9161 e-mail : chod.padmuk@gmail.com
SAMPLING SOURCE : หน่วยบำบัดน้ำ (บริเวณโรงบำบัดน้ำ)
SAMPLE TYPE : SURFACE WATER
SAMPLING DATE : AUGUST 17, 2023
SAMPLING TIME : 14:00 HOUR
SAMPLING METHOD : GRAB
SAMPLING BY : MR MANIT PANCHOT
ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM

RECEIVED DATE : AUGUST 17, 2023
ANALYTICAL DATE : AUGUST 17-23, 2023
REPORT NO. : 2023-U073170
WORK NO. : 2022-010807
ANALYSIS NO. : T23AP956-0004

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			SURFACE WATER T23AP956-0004		
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM PART 4500-H ⁺ B)	7.8 (28°C)	5.0-9.0	-
TEMPERATURE ^c	°C	THERMOMETER AT SITE (SM PART 2550 B)	28	n ^d	-
ELECTRICAL CONDUCTIVITY ^c	µS/cm	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2510 B)	972 (28°C)	-	0.1
DISSOLVED OXYGEN ^c	mg/L	AZIDE MODIFICATION METHOD AT SITE (SM PART 4500-O ₂ C)	5.9	≥ 4.0	0.5
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	AZIDE MODIFICATION METHOD (SM PART 5210 B AND PART 4500-O ₂ C)	ND	≤ 2.0	1.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, COLOURIMETRIC METHOD (SM PART 5220 D)	ND	-	25.0
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)	552	-	25
PHOSPHATE ^c	mg/L PO ₄ ³⁻	ASCORBIC ACID METHOD (SM PART 4500-P E)	0.95	-	0.03

Benjawan V.
(MISS BENJAWAN VIRIYOTHAJ)
LABORATORY SUPERVISOR

SEPTEMBER 5, 2023

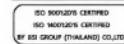


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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT SURFACE WATER T23AP956-0004	REGULATORY STANDARD	DETECTION LIMIT
RESIDUAL CHLORINE ^a	mg/L Cl ₂	DPO FERROUS TITRIMETRIC METHOD (SM PART 4500-Cl F)	ND	-	0.1
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

^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

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

REGULATORY STANDARD : SURFACE WATER QUALITY STANDARDS CLASS 3, NOTIFICATION OF THE NATIONAL ENVIRONMENT BOARD, NO.8, B.E. 2537 ISSUED UNDER THE ENHANCEMENT AND CONSERVATION OF NATIONAL ENVIRONMENTAL QUALITY ACT, B.E. 2535, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL. 111, PART 16, DATED FEBRUARY 24, B.E. 2537 (1994).

CLASS 3 : MEDIUM CLEAN FRESH SURFACE WATER RESOURCES USED FOR
(1) CONSUMPTION, BUT PASSING THROUGH AN ORDINARY TREATMENT PROCESS BEFORE USING
(2) AGRICULTURE

IT : THE TEMPERATURE OF THE WATER MUST NOT BE HIGHER THAN THE NATURAL TEMPERATURE EXCEEDING 3 DEGREES CELSIUS

ND : NON-DETECTABLE.

Bruchok
(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

SEPTEMBER 5, 2023



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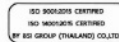
PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT SURFACE WATER T23AP956-0005	REGULATORY STANDARD	DETECTION LIMIT
MANGANESE ^c	mg/L Mn	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	0.037	≤ 1.0	0.002
MERCURY ^b	mg/L Hg	IN-HOUSE METHOD: UAE.TP.HEM.002 (COLD VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD); SM PART 3112 B	< LOQ	≤ 0.002	0.0001
NICKEL ^c	mg/L Ni	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	ND	≤ 0.1	0.005
SELENIUM ^c	mg/L Se	HYDRIDE GENERATION AAS METHOD (SM PART 3114 C)	0.0009	-	0.0005
TITANIUM ^c	mg/L Ti	NITRIC ACID-HYDROCHLORIC ACID DIGESTION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (SM PART 3030 F AND PART 3120 B)	0.006	-	0.005
ZINC ^c	mg/L Zn	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	< LOQ	≤ 1.0	0.003

ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPAP ROAD MITTRAPAP TABKWANG KANGKOI SARABURI 18260
CONTACT INFORMATION : TEL : 06 4294 9161 e-mail : chod.padmuk@gmail.com
SAMPLING SOURCE : วัดบ้านสวน (วัดบ้านสวน)
SAMPLE TYPE : SURFACE WATER
SAMPLING DATE : AUGUST 17, 2023
SAMPLING TIME : 14:00 HOUR
SAMPLING METHOD ^a : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY ^a : MR MANIT PANCHOT
ANALYSIS BY : MISS NADNAPA KAMOLBOON

RECEIVED DATE : AUGUST 17, 2023
ANALYTICAL DATE : AUGUST 17 - SEPTEMBER 3, 2023
REPORT NO. : 2023-U073171
WORK NO. : 2022-010807
ANALYSIS NO. : T23AP956-0005

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT SURFACE WATER T23AP956-0005	REGULATORY STANDARD	DETECTION LIMIT
TURBIDITY ^c	NTU	NEPHELOMETRIC METHOD (SM PART 2130 B)	3.5	-	0.1
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2520 B)	0.4	-	0.1
TOTAL HARDNESS ^a	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM PART 2340 C)	346	-	4.0
NITRATE-NITROGEN ^c	mg/L NO ₃ -N	CADMIUM REDUCTION METHOD (SM PART 4500-NO ₃ -E)	0.24	≤ 5.0	0.02
SULPHATE ^c	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM PART 4500-SO ₄ ²⁻ -E)	76.1	-	0.3
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	ND	-	3
SODIUM ADSORPTION RATIO ^c	-	INDUCTIVELY COUPLED PLASMA (ICP) AND CALCULATION METHOD	1.37	-	-
METALS					
ARSENIC ^c	mg/L As	HYDRIDE GENERATION AAS METHOD (SM PART 3114 C)	0.0012	≤ 0.01	0.0003
BARIUM ^c	mg/L Ba	NITRIC ACID-HYDROCHLORIC ACID DIGESTION AND INDUCTIVELY COUPLED PLASMA (ICP) METHOD (SM PART 3030 F AND PART 3120 B)	0.083	-	0.003
CADMIUM ^c	mg/L Cd	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	ND	≤ 0.005*, ≤ 0.05**	0.002
HEXAVALENT CHROMIUM ^c	mg/L Cr ⁶⁺	EXTRACTION AND AIR-ACETYLENE FLAME METHOD (SM PART 3111 C)	ND	≤ 0.05	0.001
COPPER ^c	mg/L Cu	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	< LOQ	≤ 0.1	0.002
IRON ^c	mg/L Fe	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	0.234	-	0.005
LEAD ^c	mg/L Pb	IN-HOUSE METHOD: UAE.TP.SW.01 (NITRIC ACID DIGESTION AND DIRECT AIR ACETYLENE FLAME METHOD); SM PART 3030 E AND PART 3111 B	ND	≤ 0.05	0.003



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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT SURFACE WATER T23AP956-0005	REGULATORY STANDARD	DETECTION LIMIT
MICROBIOLOGY					
COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM PART 9221 B)	210	≤ 20,000	1.8
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM PART 9221 E)	4.0	≤ 4,000	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			COLOURLESS/CLEAR BROWN		

^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 : SURFACE WATER QUALITY STANDARDS CLASS 3, NOTIFICATION OF THE NATIONAL ENVIRONMENT BOARD, NO.8, B.E. 2537 ISSUED UNDER THE ENHANCEMENT AND CONSERVATION OF NATIONAL ENVIRONMENTAL QUALITY ACT, B.E. 2535, PUBLISHED IN THE ROYAL GOVERNMENT GAZETTE, VOL. 111, PART 16, DATED FEBRUARY 24, B.E. 2537 (1994).

CLASS 3 : MEDIUM CLEAN FRESH SURFACE WATER RESOURCES USED FOR
(1) CONSUMPTION, BUT PASSING THROUGH AN ORDINARY TREATMENT PROCESS BEFORE USING
(2) AGRICULTURE

≤ 0.005* : WHEN WATER HARDNESS NOT MORE THAN 100 mg/L AS CaCO₃

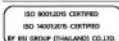
≤ 0.05** : WHEN WATER HARDNESS MORE THAN 100 mg/L AS CaCO₃

ND : NON-DETECTABLE.

< LOQ : < LIMIT OF QUANTITATION (COPPER ≥ 0.002 AND < 0.025 mg/L, MERCURY ≥ 0.0001 AND < 0.0005 mg/L, ZINC ≥ 0.003 AND < 0.025 mg/L).

Bruchok
(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

SEPTEMBER 5, 2023

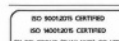


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2023-U073171

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ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPAP ROAD MITTRAPAP TAMBANG KAENGKOT SARABURI 18260
CONTACT INFORMATION : TEL : 06 4294 9161 e-mail : chod.padmuk@gmail.com
SAMPLING SOURCE : TRIANGULAR POND AREA
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : JULY 18, 2023
SAMPLING TIME : 09:00 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR ACHITA SAENGJAN
ANALYZED BY : MISS AKSARIN BUNKONG

RECEIVED DATE : JULY 19, 2023
ANALYTICAL DATE : JULY 19-30, 2023
REPORT NO. : 2023-U064001
WORK NO. : 2022-010805
ANALYSIS NO. : T23AN881-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AN881-0001	REGULATORY STANDARD	DETECTION LIMIT
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM PART 4500-H ⁺ B)	8.4 (33°C)	5.5-9.0	-
TEMPERATURE ^a	°C	LABORATORY AND FIELD METHODS (SM PART 2550 B)	33	≤ 40	-
ELECTRICAL CONDUCTIVITY ^a	µmhos/cm	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2510 B)	996 (33°C)	-	0.1
DISSOLVED OXYGEN ^a	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM PART 4500-O ₂ G)	4.1	-	0.5
SALINITY ^a	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2520 B)	0.4	-	0.1
TURBIDITY ^a	NTU	NEPHELOMETRIC METHOD (SM PART 2100 B)	34	-	0.1
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM PART 5210 B AND PART 4500-O ₂ G)	2.1	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^a	mg/L	CLOSED REFLEX, COLOURIMETRIC METHOD (SM PART 5220 D)	25.5	≤ 100	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM PART 2540 D)	217	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM PART 2540 C)	602	≤ 3,000	25
TOTAL HARDNESS ^c	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM PART 2340 C)	285	-	4.0
NITRATE-NITROGEN ^c	mg/L NO ₃ -N	CADMIUM REDUCTION METHOD (SM PART 4500-NO ₃ -E)	4.82	-	0.02
PHOSPHATE ^c	mg/L PO ₄ ³⁻	ASCORBIC ACID METHOD (SM PART 4500-P)	0.37	-	0.03
RESIDUAL CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
SULPHATE ^c	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM PART 4500-SO ₄ ²⁻ E)	57.4	-	0.3
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	ND	≤ 5	3
SODIUM ADSORPTION RATIO ^c	-	INDUCTIVELY COUPLED PLASMA (ICP) AND CALCULATION METHOD	1.72	-	-



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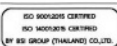


ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPAP ROAD MITTRAPAP TAMBANG KAENGKOT SARABURI 18260
CONTACT INFORMATION : TEL : 06 4294 9161 e-mail : chod.padmuk@gmail.com
SAMPLING SOURCE : TRIANGULAR POND AREA
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : AUGUST 17, 2023
SAMPLING TIME : 10:00 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR MANIT PANCHOT
ANALYZED BY : MISS NAPAORN KHUNWOKKHUM

RECEIVED DATE : AUGUST 17, 2023
ANALYTICAL DATE : AUGUST 17-SEPTEMBER 3, 2023
REPORT NO. : 2023-U073459
WORK NO. : 2022-010805
ANALYSIS NO. : T23AP953-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AP953-0006	REGULATORY STANDARD	DETECTION LIMIT
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM PART 4500-H ⁺ B)	8.0 (32°C)	5.5-9.0	-
TEMPERATURE ^a	°C	LABORATORY AND FIELD METHODS (SM PART 2550 B)	32	≤ 40	-
ELECTRICAL CONDUCTIVITY ^a	µmhos/cm	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2510 B)	1,207 (32°C)	-	0.1
ODOUR ^a	-	OBSERVATION METHOD	NONE	-	-
TURBIDITY ^a	NTU	NEPHELOMETRIC METHOD (SM PART 2100 B)	26	-	0.1
COLOUR (ORIGINAL pH) ^b	ADMI	ADMI WEIGHTED ORDINATE SPECTROPHOTOMETRIC METHOD (SM PART 2120 F)	< 10	≤ 300	10
COLOUR (pH 7.0) ^b	ADMI	ADMI WEIGHTED ORDINATE SPECTROPHOTOMETRIC METHOD (SM PART 2120 F)	< 10	≤ 300	10
SALINITY ^a	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2520 B)	0.5	-	0.1
DISSOLVED OXYGEN ^a	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM PART 4500-O ₂ G)	4.1	-	0.5
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM PART 5210 B AND PART 4500-O ₂ G)	ND	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^a	mg/L	CLOSED REFLEX, COLOURIMETRIC METHOD (SM PART 5220 D)	ND	≤ 100	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM PART 2540 D)	16.8	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM PART 2540 C)	602	≤ 3,000	25
TOTAL HARDNESS ^c	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM PART 2340 C)	243	-	4.0
CYANIDE ^c	mg/L CN	DISTILLATION, COLOURIMETRIC METHOD (SM PART 4500-CN C AND PART 4500-CN F)	ND	≤ 0.2	0.005
FORMALDEHYDE ^c	mg/L	DISTILLATION, COLOURIMETRIC METHOD	ND	≤ 1	0.05
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	≤ 1	0.1
NITRATE-NITROGEN ^c	mg/L NO ₃ -N	CADMIUM REDUCTION METHOD (SM PART 4500-NO ₃ -E)	4.41	-	0.02
PHENOLS ^c	mg/L	DISTILLATION, DIRECT PHOTOMETRIC METHOD (SM 5530 B AND 5530 D)	ND	≤ 1	0.1



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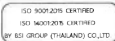


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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AP953-0006	REGULATORY STANDARD	DETECTION LIMIT
PHOSPHATE ^a	mg/L PO ₄ ³⁻	ASCORBIC ACID METHOD (SM PART 4500-P E)	0.24	-	0.03
RESIDUAL CHLORINE ^a	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
SULPHATE ^a	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM PART 4500-SO ₂ -E)	79.2	-	0.3
SULPHIDE ^b	mg/L	ZnS PRECIPITATION, IODOMETRIC METHOD (SM PART 4500-SF E)	< 0.50	≤ 1	0.50
TOTAL KJELDAHL NITROGEN ^b	mg/L	DIGESTION, DISTILLATION, TITRIMETRIC METHOD (SM PART 4500-Norg C)	< LOQ	≤ 100	15
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	ND	≤ 5	3
SODIUM ADSORPTION RATIO ^c	-	INDUCTIVELY COUPLED PLASMA (ICP) AND CALCULATION METHOD	2.08	-	-
METALS					
ARSENIC ^c	mg/L As	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3114 C)	0.0023	≤ 0.25	0.0003
BARIUM ^c	mg/L Ba	DIGESTION, INDUCTIVELY COUPLED PLASMA METHOD (SM PART 3030 F AND PART 3120 B)	0.074	≤ 10	0.005
CADMIUM ^c	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	< 0.03	0.002
TRIVALENT CHROMIUM ^c	mg/L Cr ³⁺	DIGESTION, DIRECT AIR-ACETYLENE FLAME, FILTRATION, COLOURIMETRIC METHOD; CALCULATION (SM PART 3030 E, PART 3111 B AND PART 3500-Cr B)	ND	≤ 0.75	0.007
HEXAVALENT CHROMIUM ^c	mg/L Cr ⁶⁺	FILTRATION, COLOURIMETRIC METHOD (SM 3500-Cr B)	ND	≤ 0.25	0.006
COPPER ^c	mg/L Cu	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	≤ 2.0	0.005
LEAD ^c	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	≤ 0.2	0.015
MANGANESE ^c	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	0.064	≤ 5.0	0.004
MERCURY ^c	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3112 B)	ND	≤ 0.005	0.0005
NICKEL ^c	mg/L Ni	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	≤ 1.0	0.005
SELENIUM ^c	mg/L Se	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3114 C)	0.0008	≤ 0.02	0.0005
TITANIUM ^c	mg/L Ti	DIGESTION, INDUCTIVELY COUPLED PLASMA METHOD (SM PART 3030 F AND PART 3120 B)	ND	-	0.010



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2023-U073459

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AP953-0006	REGULATORY STANDARD	DETECTION LIMIT
TOTAL IRON ^a	mg/L Fe	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	0.352	-	0.005
ZINC ^a	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	< LOQ	≤ 5.0	0.003
MICROBIOLOGY					
COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM PART 9221 B)	24,000	-	18
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221 E)	24,000	-	18
ORGANOCHLORINE PESTICIDES					
α-BHC ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
β-BHC ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
γ-BHC ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
δ-BHC ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
ALDRIN ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
DIELDRIN ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
ENDOSULFAN I ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
ENDOSULFAN II ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04
ENDOSULFAN SULFATE ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04
ENDRIN ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04
ENDRIN ALDEHYDE ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04
HEPTACHLOR ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
HEPTACHLOR EPOXIDE ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
p,p'-DDD ^c	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04



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2023-U073459

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AP953-0006	REGULATORY STANDARD	DETECTION LIMIT
p,p'-DDE ^a	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04
p,p'-DDT ^a	μg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

^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

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd 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 (TOTAL KJELDAHL NITROGEN ≥ 15 AND < 5.0 mg/L ZINC ≥ 0.003 AND < 0.050 mg/L)

ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPARP ROAD MITRAPHAP TABKWANG KAENGKOT SARABURI 18260
CONTACT INFORMATION : TEL : 06 4294 9161 e-mail : chod.padmuk@gmail.com
SAMPLING SOURCE : TRIANGULAR POND AREA
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : SEPTEMBER 21, 2023
SAMPLING TIME : 09:00 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR MANIT PANCHOT
ANALYZED BY : MISS NAPAPORN KHUNNOKHUM

RECEIVED DATE : SEPTEMBER 21, 2023
ANALYTICAL DATE : SEPTEMBER 21-29, 2023
REPORT NO. : 2023-U085565
WORK NO. : 2022-010805
ANALYSIS NO. : T23AS791-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AS791-0001	REGULATORY STANDARD	DETECTION LIMIT
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM PART 4500-H ⁺ B)	7.5 (30°C)	5.5-9.0	-
TEMPERATURE ^a	°C	LABORATORY AND FIELD METHODS (SM PART 2550 B)	30	≤ 40	-
ELECTRICAL CONDUCTIVITY ^a	μS/cm	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2510 B)	1,254 (30°C)	-	0.1
TURBIDITY ^a	NTU	NEPHELOMETRIC METHOD (SM PART 2100 B)	40	-	0.1
SALINITY ^a	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2550 B)	0.8	-	0.1
DISSOLVED OXYGEN ^a	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM PART 4500-O ₂ G)	5.1	-	0.5
BIOCHEMICAL OXYGEN DEMAND ^a	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM PART 5210 B AND PART 4500-O ₂ G)	10.1	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^a	mg/L	CLOSED REFLEX, COLOURIMETRIC METHOD (SM PART 5220 D)	38.8	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM PART 2540 D)	24.2	≤ 90	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM PART 2540 C)	756	≤ 3,000	25
TOTAL HARDNESS ^c	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM PART 2340 C)	299	-	4.0
NITRATE-NITROGEN ^c	mg/L NO ₃ -N	CADMIUM REDUCTION METHOD (SM PART 4500-NO ₃ -E)	0.12	-	0.02
PHOSPHATE ^a	mg/L PO ₄ ³⁻	ASCORBIC ACID METHOD (SM PART 4500-P E)	0.52	-	0.03
RESIDUAL CHLORINE ^a	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
SULPHATE ^a	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM PART 4500-SO ₂ -E)	93.8	-	0.3
FAT, OIL AND GREASE ^a	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	ND	≤ 5	3
SODIUM ADSORPTION RATIO ^c	-	INDUCTIVELY COUPLED PLASMA (ICP) AND CALCULATION METHOD	2.11	-	-

Benjawan V.
(MISS BENJAWAN VIRIYOTHAI)
LABORATORY SUPERVISOR

SEPTEMBER 14, 2023

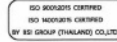


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2023-U073459

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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AS791-0001	REGULATORY STANDARD	DETECTION LIMIT
METALS					
ARSENIC ^o	mg/L As	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3114 C)	0.0030	≤ 0.25	0.0003
BARIUM ^o	mg/L Ba	DIGESTION, INDUCTIVELY COUPLED PLASMA METHOD (SM PART 3030 F AND PART 3120 B)	0.113	≤ 10	0.005
CADMIUM ^o	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	< LOQ	≤ 0.03	0.002
HEXAVALENT CHROMIUM ^o	mg/L Cr ⁶⁺	FILTRATION, COLOURIMETRIC METHOD (SM 3500-Cr B)	ND	≤ 0.25	0.006
COPPER ^o	mg/L Cu	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	< LOQ	≤ 2.0	0.005
LEAD ^o	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	< LOQ	≤ 0.2	0.015
MANGANESE ^o	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	0.133	≤ 5.0	0.004
MERCURY ^o	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3112 B)	ND	≤ 0.005	0.0005
NICKEL ^o	mg/L Ni	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	≤ 10	0.005
SELENIUM ^o	mg/L Se	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3114 C)	ND	≤ 0.02	0.0005
TITANIUM ^o	mg/L Ti	DIGESTION, INDUCTIVELY COUPLED PLASMA METHOD (SM PART 3030 F AND PART 3120 B)	0.033	-	0.010
TOTAL IRON ^o	mg/L Fe	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	0.414	-	0.005
ZINC ^o	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	0.069	≤ 5.0	0.003

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AS791-0001	REGULATORY STANDARD	DETECTION LIMIT
MICROBIOLOGY					
COLIFORM BACTERIA ^a	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM PART 9221 B)	>100,000	-	1.8
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221 E)	>100,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

^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

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd 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 (CADMIUM ≥ 0.002 AND < 0.020 mg/L, COPPER ≥ 0.005 AND < 0.050 mg/L,

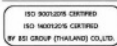
LEAD ≥ 0.015 AND < 0.200 mg/L).

Benjawan V.

(MISS BENJAWAN VIRIYOTHAI)

LABORATORY SUPERVISOR

OCTOBER 9, 2023

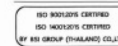


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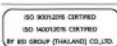
ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPARP ROAD MITRAPHAP TAWKWANG KAENGKOL SARABURI 18260
CONTACT INFORMATION : TEL : 06 4294 9161 e-mail : chod.padmuk@gmail.com
SAMPLING SOURCE : TRIANGULAR POND AREA
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : OCTOBER 17, 2023
SAMPLING TIME : 09:40 HOUR
SAMPLING METHOD : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY : MR MANIT PANCHOT
ANALYZED BY : MISS NAPAPORN KHUNNOKXUHM

RECEIVED DATE : OCTOBER 17, 2023
ANALYTICAL DATE : OCTOBER 17 - NOVEMBER 3, 2023
REPORT NO. : 2023-U099707
WORK NO. : 2022-010805
ANALYSIS NO. : T23AU590-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AU590-0001	REGULATORY STANDARD	DETECTION LIMIT
pH ^a	-	ELECTROMETRIC METHOD AT SITE (SM PART 4500-H ⁺ B)	8.3 (29°C)	5.5-9.0	-
TEMPERATURE ^c	°C	LABORATORY AND FIELD METHODS (SM PART 2550 B)	29	≤ 40	-
ELECTRICAL CONDUCTIVITY ^d	µS/cm	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2510 B)	450 (29°C)	-	0.1
DISSOLVED OXYGEN ^e	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM PART 4500-O ₂ G)	3.9	-	0.5
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2520 B)	0.2	-	0.1
TURBIDITY ^c	NTU	NEPHELOMETRIC METHOD (SM PART 2100 B)	20	-	0.1
BIOCHEMICAL OXYGEN DEMAND ^c	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM PART 5210 B AND PART 4500-O ₂ G)	ND	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^c	mg/L	CLOSED REFLEX, COLOURIMETRIC METHOD (SM PART 5220 D)	ND	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM PART 2540 D)	13.9	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM PART 2540 C)	267	≤ 3,000	25
TOTAL HARDNESS ^c	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM PART 2340 C)	210	-	4.0
NITRATE-NITROGEN ^c	mg/L NO ₃ -N	CADMIUM REDUCTION METHOD (SM PART 4500-NO ₃ -E)	0.10	-	0.02
PHOSPHATE ^c	mg/L PO ₄ ³⁻	ASCORBIC ACID METHOD (SM PART 4500-P _T E)	ND	-	0.03
RESIDUAL CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
SULPHATE ^c	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM PART 4500-SO ₄ ²⁻ E)	10.0	-	0.3
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	ND	≤ 5	3
SODIUM ADSORPTION RATIO ^c	-	INDUCTIVELY COUPLED PLASMA (ICP) AND CALCULATION METHOD	0.158	-	-

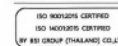
PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AU590-0001	REGULATORY STANDARD	DETECTION LIMIT
METALS					
ARSENIC ^o	mg/L As	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3114 C)	0.0005	≤ 0.25	0.0003
BARIUM ^o	mg/L Ba	DIGESTION, INDUCTIVELY COUPLED PLASMA METHOD (SM PART 3030 F AND PART 3120 B)	0.020	≤ 10	0.005
CADMIUM ^o	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	≤ 0.03	0.002
HEXAVALENT CHROMIUM ^o	mg/L Cr ⁶⁺	FILTRATION, COLOURIMETRIC METHOD (SM 3500-Cr B)	ND	≤ 0.25	0.006
COPPER ^o	mg/L Cu	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	< LOQ	≤ 2.0	0.005
LEAD ^o	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	≤ 0.2	0.015
MANGANESE ^o	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	< LOQ	≤ 5.0	0.004
MERCURY ^o	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3112 B)	ND	≤ 0.005	0.0005
NICKEL ^o	mg/L Ni	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	≤ 10	0.005
SELENIUM ^o	mg/L Se	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3114 C)	ND	≤ 0.02	0.0005
TITANIUM ^o	mg/L Ti	DIGESTION, INDUCTIVELY COUPLED PLASMA METHOD (SM PART 3030 F AND PART 3120 B)	ND	-	0.010
TOTAL IRON ^o	mg/L Fe	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	0.327	-	0.005
ZINC ^o	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	≤ 5.0	0.003



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2023-U099707

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AU590-0001	REGULATORY STANDARD	DETECTION LIMIT
MICROBIOLOGY					
COLIFORM BACTERIA ^a	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM PART 9221 B)	2,400	-	1B
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221 E)	1,300	-	1B
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/CLEAR BROWN		

^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

SM : STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, APHA, AWWA, WEF, 23rd 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 (COPPER ≥ 0.005 AND < 0.050 mg/L, MANGANESE ≥ 0.004 AND < 0.050 mg/L).

Bhuchonk P.
(MR BHUCHONK PANICHLERTUMPI)
LABORATORY SUPERVISOR

NOVEMBER 21, 2023



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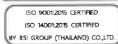
- End of Analysis Report -

ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE PUBLIC COMPANY LIMITED
ADDRESS : 299 MOO 5 MITRAPAP ROAD MITRAPAP TAIKWANG KAENGKOI SARABURI 18260
CONTACT INFORMATION : TEL : 06 4294 9161 e-mail : chod.padmuk@gmail.com
SAMPLING SOURCE : TRIANGULAR POND AREA
SAMPLE TYPE : EFFLUENT
SAMPLING DATE : NOVEMBER 22, 2023
SAMPLING TIME : 10:00 HOUR
SAMPLING METHOD^a : GRAB, GRAB AND STERILE TECHNIQUE
SAMPLING BY^a : MR ACHITA SAENGJAN
ANALYZED BY : MISS AKSARIN BUNKONG

RECEIVED DATE : NOVEMBER 22, 2023
ANALYTICAL DATE : NOVEMBER 22-30, 2023
REPORT NO. : 2023-U107431
WORK NO. : 2022-010805
ANALYSIS NO. : T23AX367-0006

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AX367-0006	REGULATORY STANDARD	DETECTION LIMIT
pH ^c	-	ELECTROMETRIC METHOD AT SITE (SM PART 4500-H ⁺ B)	8.6 (28°C)	5.5-9.0	-
TEMPERATURE ^c	°C	LABORATORY AND FIELD METHODS (SM PART 2550 B)	28	≤ 40	-
ELECTRICAL CONDUCTIVITY ^c	µS/cm	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2510 B)	1,248 (28°C)	-	0.1
DISSOLVED OXYGEN ^d	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM PART 4500-O ₂ G)	3.2	-	0.5
ODOUR ^c	-	OBSERVATION METHOD	NONE	-	-
SALINITY ^c	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM PART 2520 B)	0.6	-	0.1
TURBIDITY ^c	NTU	NEPHELOMETRIC METHOD (SM PART 2130 B)	30	-	0.1
COLOUR (ORIGINAL pH) ^b	ADMI	ADMI WEIGHTED-ORDINATE SPECTROPHOTOMETRIC METHOD (SM PART 2120 F)	22	≤ 300	10
COLOUR (pH 7.0) ^b	ADMI	ADMI WEIGHTED-ORDINATE SPECTROPHOTOMETRIC METHOD (SM PART 2120 F)	18	≤ 300	10
BIOCHEMICAL OXYGEN DEMAND ^{a, b}	mg/L	5-DAY BOD TEST: MEMBRANE ELECTRODE METHOD (SM PART 5210 B AND PART 4500-O ₂ G)	7.6	≤ 20	2.0
CHEMICAL OXYGEN DEMAND ^{a, b}	mg/L	CLOSED REFLEX, COLOURIMETRIC METHOD (SM PART 5220 D)	69.6	≤ 120	25.0
TOTAL SUSPENDED SOLIDS ^a	mg/L	DRIED AT 103-105 °C (SM PART 2540 D)	27.8	≤ 50	5.0
TOTAL DISSOLVED SOLIDS ^b	mg/L	DRIED AT 180 °C (SM PART 2540 C)	783	≤ 3,000	25
CYANIDE ^c	mg/L CN	DISTILLATION, COLOURIMETRIC METHOD (SM PART 4500-CN C AND PART 4500-CN E)	ND	≤ 0.2	0.005
FORMALDEHYDE ^c	mg/L	DISTILLATION, COLOURIMETRIC METHOD	ND	≤ 1	0.05
FREE CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	≤ 1	0.1
PHENOLS ^c	mg/L	DISTILLATION, DIRECT PHOTOMETRIC METHOD (SM 5530 B AND 5530 D)	ND	≤ 1	0.100
PHOSPHATE ^c	mg/L PO ₄ ³⁻	ASCORBIC ACID METHOD (SM PART 4500-P E)	0.18	-	0.03
RESIDUAL CHLORINE ^c	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1



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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AX367-0006	REGULATORY STANDARD	DETECTION LIMIT
SULPHIDE ^b	mg/L	ZnS PRECIPITATION, IODOMETRIC METHOD (SM PART 4600-S ²⁻ F)	< 0.50	≤ 1	0.50
TOTAL HARDNESS ^c	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM PART 2340 C)	282	-	4.0
TOTAL KJELDAHL NITROGEN ^c	mg/L	DIGESTION, DISTILLATION, TITRIMETRIC METHOD (SM PART 4500-Norg C)	9.0	≤ 100	15
NITRATE-NITROGEN ^c	mg/L NO ₃ ⁻ N	CADMIUM REDUCTION METHOD (SM PART 4500-NO ₃ ⁻ E)	0.06	-	0.02
SULPHATE ^c	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM PART 4500-SO ₄ ²⁻ F)	86.9	-	0.3
FAT, OIL AND GREASE ^c	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM PART 5520 B)	ND	≤ 5	3
SODIUM ADSORPTION RATIO ^c	-	INDUCTIVELY COUPLED PLASMA (ICP) AND CALCULATION METHOD	2.22	-	-
METALS					
ARSENIC ^c	mg/L As	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3114 C)	0.0033	≤ 0.25	0.0003
BARIUM ^c	mg/L Ba	DIGESTION, INDUCTIVELY COUPLED PLASMA METHOD (SM PART 3030 F AND PART 3120 B)	0.102	≤ 10	0.005
CADMIUM ^c	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	≤ 0.03	0.002
HEXAVALENT CHROMIUM ^c	mg/L Cr ⁶⁺	FILTRATION, COLOURIMETRIC METHOD (SM 3500-Cr B)	ND	≤ 0.25	0.006
TRIVALENT CHROMIUM ^c	mg/L Cr ³⁺	DIGESTION, DIRECT AIR-ACETYLENE FLAME, FILTRATION, COLOURIMETRIC METHOD, CALCULATION (SM PART 3030 E, PART 3111 B AND PART 3500-Cr B)	ND	≤ 0.75	0.007
COPPER ^c	mg/L Cu	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	< LOQ	≤ 2.0	0.005
LEAD ^c	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	≤ 0.2	0.015
MANGANESE ^c	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	0.099	≤ 5.0	0.004
MERCURY ^c	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3112 B)	ND	≤ 0.005	0.0005
NICKEL ^c	mg/L Ni	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	ND	≤ 10	0.005
SELENIUM ^b	mg/L Se	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM PART 3114 C)	0.0006	≤ 0.02	0.0005
ZINC ^c	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	< LOQ	≤ 5.0	0.003



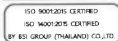
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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT EFFLUENT T23AX367-0006	REGULATORY STANDARD	DETECTION LIMIT
TITANIUM ^c	mg/L Ti	DIGESTION, INDUCTIVELY COUPLED PLASMA METHOD (SM PART 3030 F AND PART 3120 B)	ND	-	0.010
TOTAL IRON ^c	mg/L Fe	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM PART 3030 E AND PART 3111 B)	0.700	-	0.005
MICROBIOLOGY					
COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM PART 9221 B)	160,000	-	1B
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221 E)	28,000	-	1B
ORGANOCHLORINE PESTICIDES					
α-BHC ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
β-BHC ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
γ-BHC ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
δ-BHC ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
ALDRIN ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
DIELDRIN ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
ENDOSULFAN I ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
ENDOSULFAN II ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04
ENDOSULFAN SULFATE ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04
ENDRIN ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04
ENDRIN ALDEHYDE ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04
HEPTACHLOR ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
HEPTACHLOR EPOXIDE ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.02
p,p-DDD ^c	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM PART 6630 C)	ND	NONE	0.04



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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT T23AX367-0006		
pp-DDE °	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM. PART 8630 C)	ND	NONE	0.04
pp-DDT °	µg/L	LIQUID-LIQUID EXTRACTION, GAS CHROMATOGRAPHIC METHOD (SM. PART 8630 C)	ND	NONE	0.04
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

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

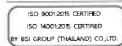
< LOQ : < LIMIT OF QUANTITATION (COPPER ≥ 0.005 AND < 0.050 mg/L, ZINC ≥ 0.003 AND < 0.050 mg/L)

° : SAMPLING AT 09:25 HOUR ON DECEMBER 19, 2023, ANALYSIS NO. T23AZ07-0001 (ANALYTICAL DATE : DECEMBER 21/26, 2023)

Benjawan V.

(MISS BENJAWAN VIRIYOTHA)
LABORATORY SUPERVISOR

JANUARY 10, 2024



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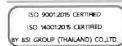
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- End of Analysis Report -

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT T23A456-0001		
METALS					
ARSENIC °	mg/L As	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM. PART 3114 C)	0.0031	≤ 0.25	0.0003
BARIUM °	mg/L Ba	DIGESTION, INDUCTIVELY COUPLED PLASMA METHOD (SM. PART 3030 F AND PART 3120 B)	0.081	≤ 10	0.005
CADMIUM °	mg/L Cd	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM. PART 3030 E AND PART 3111 B)	ND	≤ 0.03	0.002
HEXAVALENT CHROMIUM °	mg/L Cr ⁶⁺	FILTRATION, COLOURIMETRIC METHOD (SM. PART 3020 G)	ND	≤ 0.25	0.006
COPPER °	mg/L Cu	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM. PART 3030 E AND PART 3111 B)	< LOQ	≤ 2.0	0.005
LEAD °	mg/L Pb	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM. PART 3030 E AND PART 3111 B)	ND	≤ 0.2	0.015
MANGANESE °	mg/L Mn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM. PART 3030 E AND PART 3111 B)	0.112	≤ 5.0	0.004
MERCURY °	mg/L Hg	DIGESTION, COLD-VAPOUR ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM. PART 3112 B)	ND	≤ 0.005	0.0005
NICKEL °	mg/L Ni	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM. PART 3030 E AND PART 3111 B)	ND	≤ 1.0	0.005
SELENIUM °	mg/L Se	DIGESTION, HYDRIDE GENERATION/ATOMIC ABSORPTION SPECTROMETRIC METHOD (SM. PART 3114 C)	0.0008	≤ 0.02	0.0005
TITANIUM °	mg/L Ti	DIGESTION, INDUCTIVELY COUPLED PLASMA METHOD (SM. PART 3030 F AND PART 3120 B)	ND	-	0.010
TOTAL IRON °	mg/L Fe	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM. PART 3030 E AND PART 3111 B)	0.429	-	0.005
ZINC °	mg/L Zn	DIGESTION, DIRECT AIR-ACETYLENE FLAME METHOD (SM. PART 3030 E AND PART 3111 B)	< LOQ	≤ 5.0	0.003



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2024-U003215

ANALYSIS REPORT

CUSTOMER NAME : TPI POLENE PUBLIC COMPANY LIMITED

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

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

SAMPLING SOURCE : TRIANGULAR POND AREA

SAMPLE TYPE : EFFLUENT

SAMPLING DATE : DECEMBER 19, 2023

SAMPLING TIME : 09:25 HOUR

SAMPLING METHOD ° : GRAB, GRAB AND STERILE TECHNIQUE

SAMPLING BY ° : MR. ACHITA SAENGJAN

ANALYZED BY : MISS NAPAPORN KHUNNOKKHUM

RECEIVED DATE : DECEMBER 19, 2023

ANALYTICAL DATE : DECEMBER 19, 2023 - JANUARY 2, 2024

REPORT NO. : 2024-U003215

WORK NO. : 2022-010805

ANALYSIS NO. : T23AZ456-0001

PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT T23AZ456-0001		
pH °	-	ELECTROMETRIC METHOD AT SITE (SM. PART 4500-H B)	8.3 (29°C)	5.5-9.0	-
TEMPERATURE °	°C	LABORATORY AND FIELD METHODS (SM. PART 2550 B)	29	≤ 40	-
ELECTRICAL CONDUCTIVITY °	µS/cm	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM. PART 2510 B)	1,159 (29°C)	-	0.1
DISSOLVED OXYGEN °	mg/L	MEMBRANE ELECTRODE METHOD AT SITE (SM. PART 4500-O G)	3.3	-	0.5
SALINITY °	ppt	ELECTRICAL CONDUCTIVITY METHOD AT SITE (SM. PART 2520 B)	0.5	-	0.1
TURBIDITY °	NTU	NEPHELOMETRIC METHOD (SM. PART 2130 B)	19	-	0.1
BIOCHEMICAL OXYGEN DEMAND °	mg/L	5-DAY BOD TEST, MEMBRANE ELECTRODE METHOD (SM. PART 5210 B AND PART 4500-O G)	7.6	≤ 20	2.0
CHEMICAL OXYGEN DEMAND °	mg/L	CLOSED REFLEX, COLOURIMETRIC METHOD (SM. PART 5220 D)	69.8	≤ 120	25.0
TOTAL SUSPENDED SOLIDS °	mg/L	DRIED AT 103-105 °C (SM. PART 2540 D)	22.5	≤ 50	5.0
TOTAL DISSOLVED SOLIDS °	mg/L	DRIED AT 180 °C (SM. PART 2540 C)	705	≤ 3,000	25
TOTAL HARDNESS °	mg/L as CaCO ₃	EDTA TITRIMETRIC METHOD (SM. PART 2340 C)	234	-	4.0
NITRATE-NITROGEN °	mg/L NO ₃ -N	CADMIUM REDUCTION METHOD (SM. PART 4500-NO ₃ -E)	0.70	-	0.02
PHOSPHATE °	mg/L PO ₄ ³⁻	ASCOBIC ACID METHOD (SM. PART 4500-P E)	0.21	-	0.03
RESIDUAL CHLORINE °	mg/L Cl ₂	MODIFIED DPD COLOURIMETRIC METHOD (AT SITE)	ND	-	0.1
SULPHATE °	mg/L SO ₄ ²⁻	TURBIDIMETRIC METHOD (SM. PART 4500 -SO ₄ ²⁻ E)	914	-	0.3
FAT, OIL AND GREASE °	mg/L	LIQUID-LIQUID, PARTITION-GRAVIMETRIC METHOD (SM. PART 5520 B)	ND	≤ 5	3
SODIUM ADSORPTION RATIO °	-	INDUCTIVELY COUPLED PLASMA (ICP) AND CALCULATION METHOD	3.05	-	-



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PARAMETER	UNIT	METHOD OF ANALYSIS	RESULT	REGULATORY STANDARD	DETECTION LIMIT
			EFFLUENT T23A/456-0001		
MICROBIOLOGY					
COLIFORM BACTERIA ^a	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM PART 9221B)	92,000	-	1.8
FAECAL COLIFORM BACTERIA ^b	MPN/100 mL	MULTIPLE-TUBE FERMENTATION TECHNIQUE (SM 9221E)	92,000	-	1.8
SAMPLE CONDITION WATER'S COLOUR/TURBID SEDIMENT			YELLOW/TURBID BROWN		

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

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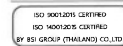
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Bhuchonk P.

(MR. BHUCHONK PANCHLERTUMPI)
LABORATORY SUPERVISOR

JANUARY 11, 2024



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2024-U003215

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