

ภาคผนวก ง

ใบรับรองผลการติดตามตรวจสอบผลกระทบสิ่งแวดล้อม
ระหว่างเดือนมกราคม ถึงมิถุนายน พ.ศ.2569

ภาคผนวก ง.1

ใบรับรองผลการตรวจวัดคุณภาพอากาศจากแหล่งกำเนิด

**The Monitoring Result of Emission Concentration
100-H1**

PTT Global Chemical Public Co., Ltd.

(Branch 4 : Aromatics 1 Plant)

February 16, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.53	5.53	46.64	46.65	42.19
2	5.48	5.45	48.95	48.96	44.05
3	5.48	5.42	50.64	50.65	45.48
Average	5.50	5.47	48.74	48.75	43.91

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.53	5.53	6.06	6.03	5.45
2	5.48	5.45	6.28	6.24	5.61
3	5.48	5.42	6.31	6.26	5.62
Average	5.50	5.47	6.22	6.18	5.56

**PTT Global Chemical Public Company Limited
EMISSION TEST RESULT**

Date: February 16, 2026
 Start time: 11:30 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Run # : 1
 Location : 100-H1
 Finish time : 11:50 AM
 Serial No.: 121121-10
 Serial No.: 441
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:30 AM	5.74	47.03	6.14
11:31 AM	5.71	47.31	6.22
11:32 AM	5.64	46.53	6.16
11:33 AM	5.61	46.35	6.17
11:34 AM	5.59	46.12	5.92
11:35 AM	5.53	46.24	5.94
11:36 AM	5.52	46.20	5.92
11:37 AM	5.51	46.05	5.94
11:38 AM	5.50	46.16	5.82
11:39 AM	5.44	46.52	5.94
11:40 AM	5.46	46.84	6.19
11:41 AM	5.49	47.06	6.14
11:42 AM	5.49	46.61	6.14
11:43 AM	5.49	46.27	6.09
11:44 AM	5.50	46.09	6.24
11:45 AM	5.51	46.36	6.20
11:46 AM	5.48	46.59	6.20
11:47 AM	5.44	47.13	6.15
11:48 AM	5.48	46.89	6.00
11:49 AM	5.51	47.35	6.14
11:50 AM	5.51	47.70	5.59
Average	5.53	46.64	6.06

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 16, 2026
Start time: 11:51 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 100-H1
Finish time : 12:11 PM
Serial No.: 121121-10
Serial No.: 441
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:51 AM	5.49	47.96	5.97
11:52 AM	5.47	47.79	6.30
11:53 AM	5.44	47.38	6.29
11:54 AM	5.46	47.57	6.27
11:55 AM	5.48	48.34	6.22
11:56 AM	5.51	48.73	6.17
11:57 AM	5.51	48.72	6.27
11:58 AM	5.55	48.51	6.30
11:59 AM	5.57	48.49	6.37
12:00 PM	5.55	48.90	6.38
12:01 PM	5.51	48.92	6.30
12:02 PM	5.51	49.09	6.37
12:03 PM	5.53	49.22	6.27
12:04 PM	5.51	49.45	6.32
12:05 PM	5.51	49.42	6.23
12:06 PM	5.50	49.39	6.23
12:07 PM	5.46	49.80	6.35
12:08 PM	5.44	50.14	6.30
12:09 PM	5.41	50.42	6.32
12:10 PM	5.37	49.98	6.23
12:11 PM	5.35	49.68	6.35
Average	5.48	48.95	6.28

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 16, 2026
Start time: 12:12 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 100-H1
Finish time : 12:32 PM
Serial No.: 121121-10
Serial No.: 441
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
12:12 PM	5.34	49.62	6.32
12:13 PM	5.33	50.14	6.22
12:14 PM	5.29	50.31	6.27
12:15 PM	5.29	50.26	6.32
12:16 PM	5.29	50.35	6.42
12:17 PM	5.29	50.24	6.38
12:18 PM	5.30	49.49	6.37
12:19 PM	5.32	49.00	6.38
12:20 PM	5.37	49.29	6.30
12:21 PM	5.42	50.36	6.30
12:22 PM	5.44	50.36	6.36
12:23 PM	5.44	51.31	5.95
12:24 PM	5.49	50.50	6.33
12:25 PM	5.54	49.75	6.31
12:26 PM	5.64	50.29	6.38
12:27 PM	5.68	51.38	6.31
12:28 PM	5.69	51.72	6.26
12:29 PM	5.72	51.90	6.33
12:30 PM	5.74	52.28	6.33
12:31 PM	5.74	52.45	6.36
12:32 PM	5.74	52.40	6.35
Average	5.48	50.64	6.31

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



บริษัท ซีคอต จำกัด
SECOT CO.,LTD.

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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 226096-CEMs-2602-0019
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION NO.	: 2-239
SAMPLING DATE	: 16/02/2026	SAMPLING TIME	: 11:20 AM - 12:32 PM
RECEIVED DATE	: 20/02/2026	ANALYTICAL DATE	: 24/02-13/03/2026
REPORT DATE	: 16/03/2026	OPERATOR	: Mr. Song Hengchwankul (2-239-0-0016)
STACK LOCATION	: 100-H1	FUEL TYPE	: Fuel gas
SOURCE DESCRIPTION	: Combustion	SAMPLE CONDITION	: Normal

STACK DESCRIPTION

Height	: 52.61	m	Gas Velocity	: 4.9	m/s
Diameter	: 1.44	m	Flow rate ^{1/}	: 284	Ncu.m/min
Temperature	: 168.3	°C	Excess Oxygen	: 5.5	%
Moisture	: 12.0	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.5%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	6.18	5.56	0.08	60*/12.69**	0.17**	US. EPA Method 6C
Oxide of Nitrogen	ppm	48.75	43.91	0.43	200*/59.19**	0.57**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 2-239-0-0006


(Miss Preeda Somjai)

Technical Management Team

REG. NO. 2-239-0-0006

- Remark :**
1. Reported analysis refers to submitted sample only.
 2. This report shall not be reproduced, except in full, without official approval.
 3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.
 4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).
 5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 226096-CEMs-2602-0019
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION NO.	: -
SAMPLING DATE	: 16/02/2026	SAMPLING TIME	: 11:20 AM - 12:00 PM
RECEIVED DATE	: 20/02/2026	ANALYTICAL DATE	: 23/02/2026
REPORT DATE	: 07/03/2026	OPERATOR	: Mr. Song Hengchwankul
STACK LOCATION	: 100-H1	FUEL TYPE	: Fuel gas
SOURCE DESCRIPTION	: Combustion	SAMPLE CONDITION	: Normal

STACK DESCRIPTION

Height	: 52.61	m	Gas Velocity	: 4.9	m/s
Diameter	: 1.44	m	Flow rate ^{1/}	: 284	Ncu.m/min
Temperature	: 168.3	°C	Excess Oxygen	: 5.5	%
Moisture	: 12.0	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.5%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	4.77	4.30	0.041	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)

Analyst


(Miss Narisa Poowasanpetch)

Technical Management Team

- Remark :**
1. Reported analysis refers to submitted sample only.
 2. This report shall not be reproduced, except in full, without official approval.
 3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

**The Monitoring Result of Emission Concentration
100-H1A**

PTT Global Chemical Public Co., Ltd.

(Branch 4 : Aromatics 1 Plant)

February 16, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	6.62	6.52	14.64	14.59	14.10
2	6.41	6.30	14.63	14.60	13.90
3	6.59	6.45	14.67	14.65	14.09
Average	6.54	6.42	14.65	14.61	14.03

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	6.62	6.52	4.62	4.56	4.41
2	6.41	6.30	4.74	4.69	4.47
3	6.59	6.45	4.69	4.66	4.48
Average	6.54	6.42	4.68	4.64	4.45

**PTT Global Chemical Public Company Limited
EMISSION TEST RESULT**

Run # : 1

Date: February 16, 2026

Start time: 11:30 AM

O₂ instrument Model: AMI 70

NO_x instrument Model: API 200 AH

SO₂ instrument Model: API 100 AH

Fuel Type : Natural Gas

Location : 100-H1A

Finish time : 11:50 AM

Serial No.: 161212-13

Serial No.: 314

Serial No.: 058

Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:30 AM	6.63	14.83	4.65
11:31 AM	6.57	14.88	4.65
11:32 AM	6.68	14.82	4.62
11:33 AM	6.70	14.80	4.58
11:34 AM	6.71	14.76	4.61
11:35 AM	6.72	14.75	4.64
11:36 AM	6.69	14.75	4.67
11:37 AM	6.76	14.76	4.69
11:38 AM	6.67	14.74	4.71
11:39 AM	6.66	14.79	4.69
11:40 AM	6.73	14.44	4.60
11:41 AM	6.71	14.43	4.57
11:42 AM	6.80	14.43	4.56
11:43 AM	6.78	14.44	4.56
11:44 AM	6.97	14.46	4.56
11:45 AM	6.89	14.51	4.56
11:46 AM	6.24	14.51	4.55
11:47 AM	6.34	14.51	4.55
11:48 AM	6.27	14.56	4.61
11:49 AM	6.27	14.61	4.67
11:50 AM	6.26	14.62	4.69
Average	6.62	14.64	4.62

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 16, 2026
Start time: 11:51 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 100-H1A
Finish time : 12:11 PM
Serial No.: 161212-13
Serial No.: 314
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:51 AM	6.35	14.61	4.71
11:52 AM	6.26	14.64	4.74
11:53 AM	6.27	14.67	4.77
11:54 AM	6.33	14.63	4.79
11:55 AM	6.32	14.57	4.79
11:56 AM	6.31	14.61	4.70
11:57 AM	6.30	14.66	4.67
11:58 AM	6.36	14.56	4.66
11:59 AM	6.39	14.48	4.66
12:00 PM	6.35	14.52	4.65
12:01 PM	6.30	14.61	4.65
12:02 PM	6.44	14.60	4.65
12:03 PM	6.44	14.63	4.65
12:04 PM	6.50	14.71	4.71
12:05 PM	6.49	14.71	4.83
12:06 PM	6.56	14.77	5.02
12:07 PM	6.60	14.78	5.10
12:08 PM	6.53	14.66	4.76
12:09 PM	6.56	14.60	4.68
12:10 PM	6.48	14.63	4.67
12:11 PM	6.53	14.64	4.66
Average	6.41	14.63	4.74

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 16, 2026
Start time: 12:12 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 100-H1A
Finish time : 12:32 PM
Serial No.: 161212-13
Serial No.: 314
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
12:12 PM	6.60	14.58	4.66
12:13 PM	6.57	14.62	4.65
12:14 PM	6.56	14.68	4.65
12:15 PM	6.60	14.73	4.65
12:16 PM	6.54	14.73	4.65
12:17 PM	6.57	14.74	4.65
12:18 PM	6.64	14.69	4.65
12:19 PM	6.62	14.51	4.65
12:20 PM	6.63	14.56	4.65
12:21 PM	6.69	14.63	4.65
12:22 PM	6.63	14.61	4.65
12:23 PM	6.43	14.66	4.67
12:24 PM	6.51	14.77	4.72
12:25 PM	6.63	14.75	4.80
12:26 PM	6.57	14.72	4.87
12:27 PM	6.64	14.74	4.88
12:28 PM	6.56	14.67	4.79
12:29 PM	6.52	14.62	4.69
12:30 PM	6.60	14.63	4.67
12:31 PM	6.63	14.71	4.66
12:32 PM	6.70	14.79	4.66
Average	6.59	14.67	4.69

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



บริษัท ซีคอต จำกัด
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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : 2-239
SAMPLING DATE : 16/02/2026 SAMPLING TIME : 11:20 AM - 12:32 PM
RECEIVED DATE : 20/02/2026 ANALYTICAL DATE : 24/02-13/03/2026
REPORT DATE : 16/03/2026 OPERATOR : Mr. Song Hengchwankul (2-239-0-0016)
STACK LOCATION : 100-H1A FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 52.61 m Gas Velocity : 3.9 m/s
Diameter : 1.44 m Flow rate^{1/} : 183 Neu.m/min
Temperature : 251.3 °C Excess Oxygen : 6.4 %
Moisture : 14.4 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE
		6.4%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	4.64	4.45	0.04	60*/14.89**	0.11**	US. EPA Method 6C
Oxide of Nitrogen	ppm	14.61	14.03	0.08	200*/99.84**	0.53**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 2-239-0-0006


(Miss Preeda Somjai)

Technical Management Team

REG. NO. 2-239-0-0006

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment,
B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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SECOT CO.,LTD.

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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : -
SAMPLING DATE : 16/02/2026 SAMPLING TIME : 11:20 AM - 12:00 PM
RECEIVED DATE : 20/02/2026 ANALYTICAL DATE : 23/02/2026
REPORT DATE : 07/03/2026 OPERATOR : Mr. Song Hengchwankul
STACK LOCATION : 100-H1A FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 52.61 m Gas Velocity : 3.9 m/s
Diameter : 1.44 m Flow rate^{1/} : 183 Neu.m/min
Temperature : 251.3 °C Excess Oxygen : 6.4 %
Moisture : 14.4 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE
		6.4%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	4.53	4.35	0.025	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)

Analyst


(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
150-H1/H2
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
February 17, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.22	4.19	34.14	34.13	28.39
2	4.40	4.37	34.96	34.96	29.40
3	4.71	4.68	35.05	35.04	30.03
Average	4.44	4.41	34.72	34.71	29.26

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.22	4.19	2.86	2.82	2.35
2	4.40	4.37	3.26	3.22	2.71
3	4.71	4.68	3.35	3.31	2.84
Average	4.44	4.41	3.15	3.12	2.63

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 1
Date: February 17, 2026
Start time: 3:00 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: TELEDYNE 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas
Location : 150-H1/H2
Finish time : 3:20 PM
Serial No.: 161212-14
Serial No.: 433
Serial No.: 118
Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:00 PM	4.27	33.92	2.77
3:01 PM	4.23	33.84	2.73
3:02 PM	4.21	33.80	2.71
3:03 PM	4.25	33.85	2.75
3:04 PM	4.29	33.91	2.79
3:05 PM	4.32	33.98	2.82
3:06 PM	4.21	34.06	2.71
3:07 PM	4.23	33.85	2.73
3:08 PM	4.15	33.71	2.65
3:09 PM	4.19	33.67	2.69
3:10 PM	4.16	33.82	2.66
3:11 PM	4.10	34.05	2.60
3:12 PM	4.18	34.25	2.68
3:13 PM	4.20	34.44	3.16
3:14 PM	4.26	34.47	3.10
3:15 PM	4.23	34.43	3.07
3:16 PM	4.21	34.53	3.01
3:17 PM	4.23	34.54	3.05
3:18 PM	4.22	34.50	3.08
3:19 PM	4.20	34.58	3.20
3:20 PM	4.22	34.64	3.09
Average	4.22	34.14	2.86

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 17, 2026
Start time: 3:21 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: TELEDYNE 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 150-H1/H2
Finish time : 3:41 PM
Serial No.: 161212-14
Serial No.: 433
Serial No.: 118
Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:21 PM	4.27	34.79	3.10
3:22 PM	4.21	34.89	3.15
3:23 PM	4.25	34.79	3.17
3:24 PM	4.27	34.88	3.27
3:25 PM	4.37	34.97	3.24
3:26 PM	4.40	35.04	3.26
3:27 PM	4.42	35.17	3.42
3:28 PM	4.50	35.21	3.37
3:29 PM	4.46	35.19	3.36
3:30 PM	4.50	35.20	3.26
3:31 PM	4.40	35.17	3.25
3:32 PM	4.40	35.01	3.27
3:33 PM	4.34	34.88	3.12
3:34 PM	4.27	34.90	3.17
3:35 PM	4.24	34.82	3.24
3:36 PM	4.46	34.62	3.22
3:37 PM	4.45	34.69	3.23
3:38 PM	4.41	34.83	3.28
3:39 PM	4.50	34.95	3.27
3:40 PM	4.57	35.04	3.32
3:41 PM	4.63	35.13	3.41
Average	4.40	34.96	3.26

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 17, 2026
Start time: 3:42 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: TELEDYNE 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 150-H1/H2
Finish time : 4:02 PM
Serial No.: 161212-14
Serial No.: 433
Serial No.: 118
Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:42 PM	4.59	35.27	3.43
3:43 PM	4.69	35.35	3.29
3:44 PM	4.73	35.48	3.34
3:45 PM	4.65	35.53	3.31
3:46 PM	4.64	35.24	3.23
3:47 PM	4.62	34.95	3.36
3:48 PM	4.63	34.90	3.42
3:49 PM	4.66	34.96	3.41
3:50 PM	4.60	34.94	3.34
3:51 PM	4.76	34.96	3.34
3:52 PM	4.76	35.11	3.42
3:53 PM	4.76	35.21	3.38
3:54 PM	4.73	35.24	3.25
3:55 PM	4.72	35.10	3.26
3:56 PM	4.71	34.76	3.19
3:57 PM	4.73	34.67	3.24
3:58 PM	4.69	34.70	3.22
3:59 PM	4.82	34.69	3.31
4:00 PM	4.81	34.87	3.40
4:01 PM	4.78	35.08	3.56
4:02 PM	4.75	35.09	3.63
Average	4.71	35.05	3.35

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. **REFERENCE NO.** : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. **REGISTRATION NO.** : 3-239
SAMPLING DATE : 17/02/2026 **SAMPLING TIME** : 03:00 - 04:02 PM
RECEIVED DATE : 20/02/2026 **ANALYTICAL DATE** : 24/02-13/03/2026
REPORT DATE : 16/03/2026 **OPERATOR** : Mr. Kittipong Thakoengsuk (3-239-0-0024)
STACK LOCATION : 150-H1/H2 **FUEL TYPE** : Fuel gas
SOURCE DESCRIPTION : Combustion **SAMPLE CONDITION** : Normal

STACK DESCRIPTION

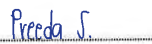
Height : 35.70 m **Gas Velocity** : 6.5 m/s
Diameter : 1.44 m **Flow rate^{1/}** : 352 Ncu.m/min
Temperature : 196.8 °C **Excess Oxygen** : 4.4 %
Moisture : 12.4 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.4%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	3.12	2.63	0.05	60*/10.37**	0.19**	US. EPA Method 6C
Oxide of Nitrogen	ppm	34.71	29.26	0.38	200*/60.74**	0.80**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 3-239-0-0006


(Miss Preeda Somjai)

Technical Management Team

REG. NO. 3-239-0-0006

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment,
B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. **REFERENCE NO.** : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. **REGISTRATION NO.** : -
SAMPLING DATE : 17/02/2026 **SAMPLING TIME** : 03:00 - 04:00 PM
RECEIVED DATE : 20/02/2026 **ANALYTICAL DATE** : 23/02/2026
REPORT DATE : 07/03/2026 **OPERATOR** : Mr. Kittipong Thakoengsuk
STACK LOCATION : 150-H1/H2 **FUEL TYPE** : Fuel gas
SOURCE DESCRIPTION : Combustion **SAMPLE CONDITION** : Normal
STACK DESCRIPTION

Height : 35.70 m **Gas Velocity** : 6.5 m/s
Diameter : 1.44 m **Flow rate^{1/}** : 352 Ncu.m/min
Temperature : 196.8 °C **Excess Oxygen** : 4.4 %
Moisture : 12.4 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.4%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	3.67	3.09	0.039	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)

Analyst


(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
200-H1/H2/H3/H4/H5
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
February 17, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.20	4.18	40.74	40.74	33.87
2	4.34	4.32	38.76	38.76	32.49
3	4.39	4.37	39.09	39.09	32.87
Average	4.31	4.29	39.53	39.53	33.08

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.20	4.18	3.68	3.62	3.01
2	4.34	4.32	4.07	4.02	3.37
3	4.39	4.37	4.25	4.20	3.53
Average	4.31	4.29	4.00	3.95	3.30

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Date: February 17, 2026
 Start time: 10:30 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Run # : 1
 Location : 200-H1/H2/H3/H4/H5
 Finish time : 10:50 AM
 Serial No.: 121121-10
 Serial No.: 441
 Serial No.: 058
 Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
10:30 AM	4.25	41.64	3.77
10:31 AM	4.31	41.65	3.79
10:32 AM	4.24	41.96	3.74
10:33 AM	4.26	42.00	3.67
10:34 AM	4.22	42.07	3.68
10:35 AM	4.18	42.00	3.64
10:36 AM	4.15	41.64	3.60
10:37 AM	4.14	41.66	3.62
10:38 AM	4.10	41.19	3.66
10:39 AM	4.12	41.05	3.65
10:40 AM	4.15	40.84	3.61
10:41 AM	4.12	40.84	3.67
10:42 AM	4.13	40.95	3.66
10:43 AM	4.20	40.79	3.68
10:44 AM	4.28	40.91	3.69
10:45 AM	4.25	39.66	3.66
10:46 AM	4.25	39.00	3.62
10:47 AM	4.16	39.89	3.71
10:48 AM	4.16	39.04	3.75
10:49 AM	4.24	39.39	3.73
10:50 AM	4.20	37.33	3.75
Average	4.20	40.74	3.68

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 17, 2026
 Start time: 10:51 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 200-H1/H2/H3/H4/H5
 Finish time : 11:11 AM
 Serial No.: 121121-10
 Serial No.: 441
 Serial No.: 058
 Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
10:51 AM	4.22	38.00	3.82
10:52 AM	4.25	38.37	3.87
10:53 AM	4.30	38.64	3.90
10:54 AM	4.33	38.91	3.91
10:55 AM	4.31	38.87	3.97
10:56 AM	4.30	38.71	4.01
10:57 AM	4.26	38.87	4.09
10:58 AM	4.25	38.74	4.11
10:59 AM	4.29	38.54	4.03
11:00 AM	4.33	38.58	4.08
11:01 AM	4.34	38.71	4.11
11:02 AM	4.39	38.82	4.11
11:03 AM	4.43	38.97	4.11
11:04 AM	4.41	38.88	4.13
11:05 AM	4.32	38.83	4.18
11:06 AM	4.30	38.96	4.16
11:07 AM	4.35	38.97	4.18
11:08 AM	4.40	38.84	4.17
11:09 AM	4.46	39.07	4.21
11:10 AM	4.47	38.89	4.21
11:11 AM	4.47	38.87	4.18
Average	4.34	38.76	4.07

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 17, 2026
 Start time: 11:12 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 200-H1/H2/H3/H4/H5
 Finish time : 11:32 AM
 Serial No.: 121121-10
 Serial No.: 441
 Serial No.: 058
 Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:12 AM	4.45	39.15	4.18
11:13 AM	4.36	38.91	4.19
11:14 AM	4.32	38.89	4.20
11:15 AM	4.32	38.81	4.23
11:16 AM	4.42	38.81	4.24
11:17 AM	4.48	38.77	4.24
11:18 AM	4.48	39.06	4.24
11:19 AM	4.45	39.12	4.24
11:20 AM	4.44	39.23	4.22
11:21 AM	4.47	38.95	4.25
11:22 AM	4.45	39.08	4.25
11:23 AM	4.44	39.23	4.30
11:24 AM	4.40	39.34	4.22
11:25 AM	4.37	39.32	4.28
11:26 AM	4.37	39.30	4.31
11:27 AM	4.39	38.97	4.22
11:28 AM	4.35	39.21	4.26
11:29 AM	4.36	39.39	4.25
11:30 AM	4.35	39.22	4.31
11:31 AM	4.29	39.08	4.30
11:32 AM	4.24	39.09	4.28
Average	4.39	39.09	4.25

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	226096-CEMs-2602-0019
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	SECOT Co., Ltd.	REGISTRATION NO.	จ-239
SAMPLING DATE	17/02/2026	SAMPLING TIME	10:30 - 11:32 AM
RECEIVED DATE	20/02/2026	ANALYTICAL DATE	24/02-13/03/2026
REPORT DATE	16/03/2026	OPERATOR	Mr. Kittipong Thakoengsuk (จ-239-0-0024)
STACK LOCATION	200-H1/H2/H3/H4/H5	FUEL TYPE	Fuel gas
SOURCE DESCRIPTION	Combustion	SAMPLE CONDITION	Normal

STACK DESCRIPTION

Height	84.00	m	Gas Velocity	5.9	m/s
Diameter	3.42	m	Flow rate ^{1/}	1,759	Ncu.m/min
Temperature	206.4	°C	Excess Oxygen	4.3	%
Moisture	12.7	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.3%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	3.95	3.30	0.30	60*/26.62**	0.96**	US. EPA Method 6C
Oxide of Nitrogen	ppm	39.53	33.08	2.18	200*/145.46**	3.77**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. จ-239-0-0006


(Miss Preeda Somjai)

Technical Management Team

REG. NO. จ-239-0-0006

- Remark :**
1. Reported analysis refers to submitted sample only.
 2. This report shall not be reproduced, except in full, without official approval.
 3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.
 4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).
 5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	226096-CEMs-2602-0019
	Branch 4 (Aromatics 1 Plant)		
SAMPLING BY	SECOT Co., Ltd.	REGISTRATION NO.	-
SAMPLING DATE	17/02/2026	SAMPLING TIME	10:30 - 11:00 AM
RECEIVED DATE	20/02/2026	ANALYTICAL DATE	23/02/2026
REPORT DATE	07/03/2026	OPERATOR	Mr. Kittipong Thakoengsuk
STACK LOCATION	200-H1/H2/H3/H4/H5	FUEL TYPE	Fuel gas
SOURCE DESCRIPTION	Combustion	SAMPLE CONDITION	Normal

STACK DESCRIPTION

Height	84.00	m	Gas Velocity	5.9	m/s
Diameter	3.42	m	Flow rate ^{1/}	1,759	Ncu.m/min
Temperature	206.4	°C	Excess Oxygen	4.3	%
Moisture	12.7	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.3%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	4.23	3.54	0.224	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)

Analyst


(Miss Narisa Poowasanpetch)

Technical Management Team

- Remark :**
1. Reported analysis refers to submitted sample only.
 2. This report shall not be reproduced, except in full, without official approval.
 3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
430-H1
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
February 20, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.32	5.27	51.06	51.07	45.42
2	5.26	5.19	51.59	51.60	45.65
3	5.23	5.15	52.13	52.15	46.02
Average	5.27	5.20	51.60	51.61	45.70

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.32	5.27	4.69	4.66	4.14
2	5.26	5.19	5.11	5.09	4.50
3	5.23	5.15	5.10	5.08	4.48
Average	5.27	5.20	4.97	4.94	4.38

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 1
Date: February 20, 2026
Start time: 10:30 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas
Location : 430-H1
Finish time : 10:50 AM
Serial No.: 121121-10
Serial No.: 441
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
10:30 AM	5.34	50.05	4.18
10:31 AM	5.33	50.20	4.35
10:32 AM	5.26	50.20	4.47
10:33 AM	5.30	49.99	4.72
10:34 AM	5.42	49.75	4.75
10:35 AM	5.55	50.05	4.93
10:36 AM	5.62	50.77	4.95
10:37 AM	5.80	50.99	4.88
10:38 AM	5.53	51.10	4.78
10:39 AM	5.26	51.72	4.67
10:40 AM	5.07	51.80	4.74
10:41 AM	4.93	50.85	4.60
10:42 AM	5.26	50.74	4.55
10:43 AM	5.45	51.09	4.48
10:44 AM	5.35	51.46	4.59
10:45 AM	5.26	51.58	4.62
10:46 AM	5.22	51.75	4.62
10:47 AM	5.18	51.64	4.76
10:48 AM	5.12	52.04	4.88
10:49 AM	5.20	52.18	4.95
10:50 AM	5.36	52.30	5.10
Average	5.32	51.06	4.69

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 20, 2026
 Start time: 10:51 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 430-H1
 Finish time : 11:11 AM
 Serial No.: 121121-10
 Serial No.: 441
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
10:51 AM	5.44	51.01	5.14
10:52 AM	5.46	51.14	5.32
10:53 AM	5.26	51.64	5.36
10:54 AM	5.21	51.91	5.41
10:55 AM	5.20	51.51	5.25
10:56 AM	5.21	51.38	5.07
10:57 AM	5.36	51.30	4.99
10:58 AM	5.26	51.42	4.86
10:59 AM	5.20	51.97	4.84
11:00 AM	5.25	51.88	4.73
11:01 AM	5.24	51.90	4.82
11:02 AM	5.25	51.96	4.91
11:03 AM	5.20	51.88	5.04
11:04 AM	5.25	52.02	5.18
11:05 AM	5.22	51.36	5.28
11:06 AM	5.22	51.37	5.19
11:07 AM	5.20	51.55	5.20
11:08 AM	5.17	51.64	5.23
11:09 AM	5.20	51.93	5.17
11:10 AM	5.24	51.56	5.12
11:11 AM	5.33	51.13	5.19
Average	5.26	51.59	5.11

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 20, 2026
 Start time: 11:12 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 430-H1
 Finish time : 11:32 AM
 Serial No.: 121121-10
 Serial No.: 441
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:12 AM	5.54	51.57	5.05
11:13 AM	5.47	52.02	5.06
11:14 AM	5.34	52.16	5.15
11:15 AM	5.21	51.97	5.19
11:16 AM	5.17	52.32	5.16
11:17 AM	5.08	52.16	5.22
11:18 AM	5.06	52.19	5.19
11:19 AM	5.19	51.91	5.24
11:20 AM	5.22	52.21	5.18
11:21 AM	5.13	52.30	5.19
11:22 AM	5.06	52.16	5.22
11:23 AM	5.08	51.95	5.17
11:24 AM	5.22	51.70	5.27
11:25 AM	5.40	51.58	5.08
11:26 AM	5.55	51.91	5.04
11:27 AM	5.52	52.18	4.93
11:28 AM	5.18	52.62	4.87
11:29 AM	5.01	52.38	4.91
11:30 AM	4.98	52.66	4.93
11:31 AM	5.12	52.41	5.04
11:32 AM	5.20	52.45	5.10
Average	5.23	52.13	5.10

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 226096-CEMs-2602-0019
	Branch 4 (Aromatics I Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION NO.	: 3-239
SAMPLING DATE	: 20/02/2026	SAMPLING TIME	: 10:30 - 11:45 AM
RECEIVED DATE	: 23/02/2026	ANALYTICAL DATE	: 24/02-13/03/2026
REPORT DATE	: 16/03/2026	OPERATOR	: Mr. Song Hengchwankul (3-239-0-0016)
STACK LOCATION	: 430-H1	FUEL TYPE	: Fuel gas
SOURCE DESCRIPTION	: Combustion	SAMPLE CONDITION	: Normal

STACK DESCRIPTION

Height	: 45.00	m	Gas Velocity	: 8.2	m/s
Diameter	: 1.44	m	Flow rate^{1/}	: 377	Ncu.m/min
Temperature	: 277.3	°C	Excess Oxygen	: 5.2	%
Moisture	: 12.7	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	4.94	4.38	0.08	60*/14.93**	0.25**	US. EPA Method 6C
Oxide of Nitrogen	ppm	51.61	45.70	0.61	200*/93.89**	1.13**	US. EPA Method 7E

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 3-239-0-0006

(Miss Preeda Somjai)

Technical Management Team

REG. NO. 3-239-0-0006

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REFERENCE NO.	: 226096-CEMs-2602-0019
	Branch 4 (Aromatics I Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION NO.	: -
SAMPLING DATE	: 20/02/2026	SAMPLING TIME	: 10:45 - 11:45 AM
RECEIVED DATE	: 23/02/2026	ANALYTICAL DATE	: 25/02/2026
REPORT DATE	: 07/03/2026	OPERATOR	: Mr. Song Hengchwankul
STACK LOCATION	: 430-H1	FUEL TYPE	: Fuel gas
SOURCE DESCRIPTION	: Combustion	SAMPLE CONDITION	: Normal

STACK DESCRIPTION

Height	: 45.00	m	Gas Velocity	: 8.2	m/s
Diameter	: 1.44	m	Flow rate^{1/}	: 377	Ncu.m/min
Temperature	: 277.3	°C	Excess Oxygen	: 5.2	%
Moisture	: 12.7	%			

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compound	ppm	3.83	3.39	0.043	-	-	US. EPA Method 25A

(Miss Sudaporn Soonthorn)

Analyst

(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

The Monitoring Result of Emission Concentration
380-H1/H2
PTT Global Chemical Public Co., Ltd.
(Branch 4 : Aromatics 1 Plant)
February 19, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.68	4.66	35.95	35.95	30.77
2	4.71	4.69	36.27	36.27	31.10
3	4.89	4.86	36.62	36.62	31.73
Average	4.76	4.74	36.28	36.28	31.20

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.68	4.66	4.18	4.15	3.55
2	4.71	4.69	4.41	4.37	3.75
3	4.89	4.86	4.42	4.38	3.80
Average	4.76	4.74	4.34	4.30	3.70

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 1
Date: February 19, 2026
Start time: 11:10 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: TELEDYNE 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas
Location : 380-H1/H2
Finish time : 11:30 AM
Serial No.: 161212-14
Serial No.: 433
Serial No.: 118
Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:10 AM	4.71	36.02	3.87
11:11 AM	4.70	36.20	3.89
11:12 AM	4.70	36.12	3.95
11:13 AM	4.72	35.77	3.92
11:14 AM	4.67	35.66	3.97
11:15 AM	4.62	35.74	4.00
11:16 AM	4.62	35.76	4.04
11:17 AM	4.72	35.82	4.08
11:18 AM	4.73	36.05	4.04
11:19 AM	4.63	36.12	4.08
11:20 AM	4.60	35.93	4.12
11:21 AM	4.60	35.89	4.21
11:22 AM	4.58	35.78	4.25
11:23 AM	4.63	35.50	4.38
11:24 AM	4.67	35.40	4.28
11:25 AM	4.77	35.78	4.51
11:26 AM	4.77	36.21	4.50
11:27 AM	4.78	36.34	4.42
11:28 AM	4.73	36.30	4.48
11:29 AM	4.66	36.32	4.46
11:30 AM	4.66	36.16	4.36
Average	4.68	35.95	4.18

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 19, 2026
Start time: 11:31 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: TELEDYNE 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 380-H1/H2
Finish time : 11:51 AM
Serial No.: 161212-14
Serial No.: 433
Serial No.: 118
Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:31 AM	4.64	35.97	4.41
11:32 AM	4.66	35.93	4.44
11:33 AM	4.66	35.84	4.37
11:34 AM	4.65	35.86	4.35
11:35 AM	4.66	35.84	4.31
11:36 AM	4.66	35.81	4.24
11:37 AM	4.68	35.96	4.29
11:38 AM	4.70	36.07	4.33
11:39 AM	4.69	36.12	4.44
11:40 AM	4.81	36.24	4.51
11:41 AM	4.77	36.43	4.58
11:42 AM	4.74	36.43	4.50
11:43 AM	4.69	36.42	4.44
11:44 AM	4.69	36.51	4.39
11:45 AM	4.68	36.44	4.42
11:46 AM	4.67	36.35	4.32
11:47 AM	4.68	36.43	4.37
11:48 AM	4.80	36.51	4.44
11:49 AM	4.80	36.59	4.47
11:50 AM	4.82	36.88	4.50
11:51 AM	4.79	36.98	4.46
Average	4.71	36.27	4.41

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 19, 2026
Start time: 11:52 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: TELEDYNE 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 380-H1/H2
Finish time : 12:12 PM
Serial No.: 161212-14
Serial No.: 433
Serial No.: 118
Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:52 AM	4.76	36.77	4.42
11:53 AM	4.71	36.61	4.38
11:54 AM	4.68	36.63	4.32
11:55 AM	4.68	36.47	4.27
11:56 AM	4.79	36.31	4.28
11:57 AM	4.84	36.36	4.28
11:58 AM	4.93	36.30	4.30
11:59 AM	5.06	36.36	4.30
12:00 PM	5.11	36.56	4.40
12:01 PM	5.15	36.78	4.41
12:02 PM	5.15	36.98	4.48
12:03 PM	5.12	37.07	4.63
12:04 PM	5.12	37.09	4.62
12:05 PM	5.01	37.23	4.56
12:06 PM	4.80	37.10	4.55
12:07 PM	4.71	36.93	4.47
12:08 PM	4.77	36.73	4.47
12:09 PM	4.75	36.47	4.45
12:10 PM	4.73	36.19	4.39
12:11 PM	4.82	35.91	4.52
12:12 PM	4.93	36.08	4.36
Average	4.89	36.62	4.42

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : 2-239
SAMPLING DATE : 19/02/2026 SAMPLING TIME : 11:10 AM - 12:12 PM
RECEIVED DATE : 20/02/2026 ANALYTICAL DATE : 24/02-13/03/2026
REPORT DATE : 16/03/2026 OPERATOR : Mr. Kittipong Thakoengsuk (2-239-0-0024)
STACK LOCATION : 380-H1/H2 FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 37.50 m Gas Velocity : 5.4 m/s
Diameter : 1.88 m Flow rate^{1/} : 390 Ncu.m/min
Temperature : 321.6 °C Excess Oxygen : 4.7 %
Moisture : 12.7 %

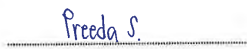
PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.7%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	4.30	3.70	0.07	60*/11.61**	0.27**	US. EPA Method 6C
Oxide of Nitrogen	ppm	36.28	31.20	0.44	200*/59.25**	0.99**	US. EPA Method 7E



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 2-239-0-0006



(Miss Preeda Somjai)

Technical Management Team

REG. NO. 2-239-0-0006

Remark : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment,
B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : -
SAMPLING DATE : 19/02/2026 SAMPLING TIME : 11:15 - 11:45 AM
RECEIVED DATE : 20/02/2026 ANALYTICAL DATE : 23/02/2026
REPORT DATE : 07/03/2026 OPERATOR : Mr. Kittipong Thakoengsuk
STACK LOCATION : 380-H1/H2 FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 37.50 m Gas Velocity : 5.4 m/s
Diameter : 1.88 m Flow rate^{1/} : 390 Ncu.m/min
Temperature : 321.6 °C Excess Oxygen : 4.7 %
Moisture : 12.7 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.7%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	3.05	2.62	0.036	-	-	US. EPA Method 25A



(Miss Sudaporn Soonthorn)

Analyst



(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

**The Monitoring Result of Emission Concentration
432-H1**

PTT Global Chemical Public Co., Ltd.

(Branch 4 : Aromatics 1 Plant)

February 19, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.81	4.79	61.52	61.54	53.10
2	4.69	4.67	61.54	61.57	52.73
3	4.68	4.66	62.28	62.31	53.33
Average	4.73	4.71	61.78	61.81	53.05

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.81	4.79	7.69	7.65	6.60
2	4.69	4.67	7.73	7.69	6.59
3	4.68	4.66	7.76	7.72	6.61
Average	4.73	4.71	7.73	7.69	6.60

**PTT Global Chemical Public Company Limited
EMISSION TEST RESULT**

Run # : 1
Date: February 19, 2026
Start time: 11:10 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas
Location : 432-H1
Finish time : 11:30 AM
Serial No.: 121121-10
Serial No.: 441
Serial No.: 058
Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:10 AM	4.82	61.00	7.72
11:11 AM	4.82	60.21	7.70
11:12 AM	4.81	61.21	7.68
11:13 AM	4.79	61.48	7.70
11:14 AM	4.77	61.82	7.68
11:15 AM	4.77	61.75	7.67
11:16 AM	4.75	61.62	7.64
11:17 AM	4.75	61.71	7.64
11:18 AM	4.77	61.67	7.70
11:19 AM	4.81	61.79	7.68
11:20 AM	4.82	62.17	7.67
11:21 AM	4.84	61.61	7.66
11:22 AM	4.86	61.27	7.70
11:23 AM	4.86	61.39	7.68
11:24 AM	4.83	61.47	7.72
11:25 AM	4.82	61.39	7.70
11:26 AM	4.82	61.52	7.69
11:27 AM	4.82	61.45	7.74
11:28 AM	4.82	61.57	7.66
11:29 AM	4.82	61.83	7.67
11:30 AM	4.82	61.90	7.72
Average	4.81	61.52	7.69

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 19, 2026
Start time: 11:31 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 432-H1
Finish time : 11:51 AM
Serial No.: 121121-10
Serial No.: 441
Serial No.: 058
Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:31 AM	4.82	61.52	7.77
11:32 AM	4.80	61.57	7.72
11:33 AM	4.79	61.32	7.71
11:34 AM	4.79	61.16	7.67
11:35 AM	4.77	61.13	7.68
11:36 AM	4.76	61.14	7.71
11:37 AM	4.74	61.39	7.71
11:38 AM	4.71	61.13	7.76
11:39 AM	4.68	60.96	7.70
11:40 AM	4.68	60.72	7.73
11:41 AM	4.68	61.33	7.74
11:42 AM	4.68	61.78	7.76
11:43 AM	4.68	61.59	7.76
11:44 AM	4.68	61.70	7.76
11:45 AM	4.68	61.67	7.73
11:46 AM	4.65	61.88	7.78
11:47 AM	4.60	62.06	7.75
11:48 AM	4.57	61.69	7.73
11:49 AM	4.57	61.62	7.72
11:50 AM	4.57	62.41	7.75
11:51 AM	4.61	62.58	7.75
Average	4.69	61.54	7.73

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 19, 2026
Start time: 11:52 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 432-H1
Finish time : 12:12 PM
Serial No.: 121121-10
Serial No.: 441
Serial No.: 058
Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:52 AM	4.62	62.68	7.75
11:53 AM	4.63	62.77	7.69
11:54 AM	4.64	62.62	7.78
11:55 AM	4.63	62.36	7.74
11:56 AM	4.61	62.14	7.74
11:57 AM	4.57	61.73	7.79
11:58 AM	4.56	62.03	7.76
11:59 AM	4.56	61.88	7.72
12:00 PM	4.57	61.79	7.71
12:01 PM	4.61	62.05	7.69
12:02 PM	4.65	61.97	7.80
12:03 PM	4.68	62.11	7.77
12:04 PM	4.70	62.23	7.76
12:05 PM	4.75	62.56	7.80
12:06 PM	4.78	62.75	7.78
12:07 PM	4.81	62.46	7.74
12:08 PM	4.80	62.72	7.78
12:09 PM	4.79	62.52	7.77
12:10 PM	4.77	62.36	7.82
12:11 PM	4.74	62.19	7.80
12:12 PM	4.72	62.02	7.80
Average	4.68	62.28	7.76

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. **REFERENCE NO.** : 226096-CEMs-2602-0019
Branch 4 (Aromatics I Plant)
SAMPLING BY : SECOT Co., Ltd. **REGISTRATION NO.** : 2-239
SAMPLING DATE : 19/02/2026 **SAMPLING TIME** : 10:30 AM - 12:12 PM
RECEIVED DATE : 20/02/2026 **ANALYTICAL DATE** : 24/02-13/03/2026
REPORT DATE : 16/03/2026 **OPERATOR** : Mr. Kittipong Thakoengsuk (2-239-0-0024)
STACK LOCATION : 432-H1 **FUEL TYPE** : Fuel gas
SOURCE DESCRIPTION : Combustion **SAMPLE CONDITION** : Normal

STACK DESCRIPTION

Height : 40.84 m **Gas Velocity** : 5.9 m/s
Diameter : 2.03 m **Flow rate**^{1/} : 529 Ncu.m/min
Temperature : 289.5 °C **Excess Oxygen** : 4.7 %
Moisture : 12.6 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.7%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	7.69	6.60	0.18	60*/11.33**	0.31**	US. EPA Method 6C
Oxide of Nitrogen	ppm	61.81	53.05	1.02	200*/88.50**	1.74**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 2-239-0-0006



(Miss Preeda Somjai)

Technical Management Team

REG. NO. 2-239-0-0006

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4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. **REFERENCE NO.** : 226096-CEMs-2602-0019
Branch 4 (Aromatics I Plant)
SAMPLING BY : SECOT Co., Ltd. **REGISTRATION NO.** : -
SAMPLING DATE : 19/02/2026 **SAMPLING TIME** : 10:25 - 11:00 AM
RECEIVED DATE : 20/02/2026 **ANALYTICAL DATE** : 23/02/2026
REPORT DATE : 07/03/2026 **OPERATOR** : Mr. Kittipong Thakoengsuk
STACK LOCATION : 432-H1 **FUEL TYPE** : Fuel gas
SOURCE DESCRIPTION : Combustion **SAMPLE CONDITION** : Normal

STACK DESCRIPTION

Height : 40.84 m **Gas Velocity** : 5.9 m/s
Diameter : 2.03 m **Flow rate**^{1/} : 529 Ncu.m/min
Temperature : 289.5 °C **Excess Oxygen** : 4.7 %
Moisture : 12.6 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.7%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	4.83	4.15	0.077	-	-	US. EPA Method 25A



(Miss Sudaporn Soonthorn)

Analyst



(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

**The Monitoring Result of Emission Concentration
432-H2**

PTT Global Chemical Public Co., Ltd.

(Branch 4 : Aromatics 1 Plant)

February 18, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.45	4.42	24.56	24.54	20.70
2	4.50	4.47	24.56	24.54	20.76
3	4.60	4.57	24.60	24.58	20.92
Average	4.52	4.49	24.57	24.55	20.79

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	4.45	4.42	4.14	4.10	3.46
2	4.50	4.47	4.18	4.13	3.49
3	4.60	4.57	4.35	4.29	3.65
Average	4.52	4.49	4.22	4.17	3.53

**PTT Global Chemical Public Company Limited
EMISSION TEST RESULT**

Date: February 18, 2026
 Start time: 11:00 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: TELEDYNE 200 EM
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Run # : 1
 Location : 432-H2
 Finish time : 11:20 AM
 Serial No.: 161212-14
 Serial No.: 433
 Serial No.: 118
 Test Operator : Pisanu S.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
11:00 AM	4.38	24.48	3.91
11:01 AM	4.46	24.42	3.88
11:02 AM	4.33	24.57	3.93
11:03 AM	4.27	24.59	3.95
11:04 AM	4.32	24.36	4.11
11:05 AM	4.37	24.28	4.02
11:06 AM	4.44	24.28	4.00
11:07 AM	4.38	24.35	4.27
11:08 AM	4.48	24.34	4.63
11:09 AM	4.57	24.57	4.29
11:10 AM	4.50	24.80	4.19
11:11 AM	4.46	24.76	4.22
11:12 AM	4.40	24.71	4.40
11:13 AM	4.43	24.81	4.27
11:14 AM	4.43	24.68	4.46
11:15 AM	4.46	24.38	4.16
11:16 AM	4.58	24.41	3.92
11:17 AM	4.66	24.60	3.89
11:18 AM	4.46	24.74	4.02
11:19 AM	4.47	24.69	4.36
11:20 AM	4.52	24.90	4.00
Average	4.45	24.56	4.14

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 18, 2026
 Start time: 11:21 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: TELEDYNE 200 EM
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 432-H2
 Finish time : 11:41 AM
 Serial No.: 161212-14
 Serial No.: 433
 Serial No.: 118
 Test Operator : Pisanu S.

Time, min	O ₂ (%)	NOx (ppm)	SO2 (ppm)
11:21 AM	4.47	24.98	3.99
11:22 AM	4.43	24.87	4.11
11:23 AM	4.35	24.68	4.23
11:24 AM	4.44	24.60	4.32
11:25 AM	4.51	24.69	4.19
11:26 AM	4.46	24.61	4.11
11:27 AM	4.49	24.48	3.91
11:28 AM	4.48	24.43	4.26
11:29 AM	4.56	24.37	4.06
11:30 AM	4.54	24.41	3.88
11:31 AM	4.45	24.40	4.01
11:32 AM	4.58	24.42	4.02
11:33 AM	4.57	24.74	4.00
11:34 AM	4.45	24.70	4.07
11:35 AM	4.44	24.64	4.34
11:36 AM	4.52	24.62	4.65
11:37 AM	4.53	24.30	4.53
11:38 AM	4.50	23.91	4.33
11:39 AM	4.51	24.21	4.38
11:40 AM	4.66	24.91	4.27
11:41 AM	4.62	24.83	4.07
Average	4.50	24.56	4.18

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 18, 2026
 Start time: 11:42 AM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: TELEDYNE 200 EM
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 432-H2
 Finish time : 12:02 PM
 Serial No.: 161212-14
 Serial No.: 433
 Serial No.: 118
 Test Operator : Pisanu S.

Time, min	O ₂ (%)	NOx (ppm)	SO2 (ppm)
11:42 AM	4.59	24.30	4.08
11:43 AM	4.57	24.19	4.02
11:44 AM	4.45	24.50	4.42
11:45 AM	4.46	24.39	4.44
11:46 AM	4.46	24.05	4.34
11:47 AM	4.54	24.01	4.32
11:48 AM	4.71	24.21	4.31
11:49 AM	4.60	24.72	4.33
11:50 AM	4.59	24.96	4.58
11:51 AM	4.58	24.93	4.48
11:52 AM	4.54	24.77	4.38
11:53 AM	4.64	25.00	4.54
11:54 AM	4.50	25.12	4.40
11:55 AM	4.49	24.45	4.26
11:56 AM	4.65	24.24	4.41
11:57 AM	4.63	24.70	4.59
11:58 AM	4.74	24.96	4.26
11:59 AM	4.74	24.83	4.03
12:00 PM	4.74	24.56	4.14
12:01 PM	4.72	24.67	4.65
12:02 PM	4.70	24.95	4.47
Average	4.60	24.60	4.35

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : 2-239
SAMPLING DATE : 18/02/2026 SAMPLING TIME : 11:00 AM - 12:02 PM
RECEIVED DATE : 20/02/2026 ANALYTICAL DATE : 24/02-13/03/2026
REPORT DATE : 16/03/2026 OPERATOR : Mr. Pisanu Swwnampeng (2-239-0-0029)
STACK LOCATION : 432-H2 FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 32.06 m Gas Velocity : 3.9 m/s
Diameter : 1.28 m Flow rate^{1/} : 148 Ncu.m/min
Temperature : 259.9 °C Excess Oxygen : 4.5 %
Moisture : 12.1 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.5%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	4.17	3.53	0.03	60*/11.56**	0.08**	US. EPA Method 6C
Oxide of Nitrogen	ppm	24.55	20.79	0.11	200*/84.46**	0.42**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 2-239-0-0006


Preeda S.

(Miss Preeda Somjai)

Technical Management Team

REG. NO. 2-239-0-0006

Remark : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment,
B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : -
SAMPLING DATE : 18/02/2026 SAMPLING TIME : 11:30 AM - 12:00 PM
RECEIVED DATE : 20/02/2026 ANALYTICAL DATE : 23/02/2026
REPORT DATE : 07/03/2026 OPERATOR : Mr. Pisanu Seenampeng
STACK LOCATION : 432-H2 FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 32.06 m Gas Velocity : 3.9 m/s
Diameter : 1.28 m Flow rate^{1/} : 148 Ncu.m/min
Temperature : 259.9 °C Excess Oxygen : 4.5 %
Moisture : 12.1 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		4.5%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	3.80	3.22	0.017	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)

Analyst


(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

**The Monitoring Result of Emission Concentration
432-H3**

PTT Global Chemical Public Co., Ltd.

(Branch 4 : Aromatics 1 Plant)

February 18, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	6.13	6.11	52.06	52.09	48.96
2	6.10	6.08	51.50	51.52	48.32
3	6.15	6.13	51.59	51.61	48.57
Average	6.13	6.11	51.72	51.74	48.62

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	6.13	6.11	3.72	3.68	3.46
2	6.10	6.08	3.80	3.76	3.53
3	6.15	6.13	3.91	3.87	3.64
Average	6.13	6.11	3.81	3.77	3.54

**PTT Global Chemical Public Company Limited
EMISSION TEST RESULT**

Run # : 1

Date: February 18, 2026

Start time: 10:50 AM

O₂ instrument Model: AMI 70

NO_x instrument Model: API 200 AH

SO₂ instrument Model: API 100 AH

Fuel Type : Natural Gas

Location : 432-H3

Finish time : 11:10 AM

Serial No.: 121121-10

Serial No.: 441

Serial No.: 058

Test Operator : Kittipong T.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
10:50 AM	6.18	52.65	3.62
10:51 AM	6.16	52.62	3.56
10:52 AM	6.14	53.05	3.65
10:53 AM	6.13	52.87	3.65
10:54 AM	6.14	52.70	3.65
10:55 AM	6.14	52.65	3.61
10:56 AM	6.13	52.62	3.64
10:57 AM	6.14	52.35	3.62
10:58 AM	6.14	52.34	3.70
10:59 AM	6.16	52.48	3.71
11:00 AM	6.15	52.29	3.70
11:01 AM	6.14	52.02	3.80
11:02 AM	6.14	51.80	3.77
11:03 AM	6.11	51.74	3.77
11:04 AM	6.09	51.52	3.83
11:05 AM	6.09	51.32	3.82
11:06 AM	6.11	51.30	3.82
11:07 AM	6.12	51.22	3.79
11:08 AM	6.09	51.34	3.88
11:09 AM	6.11	51.21	3.78
11:10 AM	6.14	51.08	3.82
Average	6.13	52.06	3.72

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 18, 2026
Start time: 11:11 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 432-H3
Finish time : 11:31 AM
Serial No.: 121121-10
Serial No.: 441
Serial No.: 058
Test Operator : Kittipong T.

Time, min	O ₂ (%)	NOx (ppm)	SO2 (ppm)
11:11 AM	6.14	51.39	3.86
11:12 AM	6.12	51.51	3.80
11:13 AM	6.11	51.12	3.88
11:14 AM	6.09	50.91	3.86
11:15 AM	6.09	51.03	3.80
11:16 AM	6.09	51.21	3.80
11:17 AM	6.11	51.40	3.83
11:18 AM	6.14	51.41	3.84
11:19 AM	6.12	51.43	3.78
11:20 AM	6.12	51.60	3.82
11:21 AM	6.12	51.57	3.78
11:22 AM	6.12	51.67	3.80
11:23 AM	6.11	51.86	3.77
11:24 AM	6.07	52.07	3.70
11:25 AM	6.08	52.00	3.72
11:26 AM	6.09	51.80	3.74
11:27 AM	6.04	51.55	3.73
11:28 AM	6.04	51.53	3.88
11:29 AM	6.09	51.46	3.83
11:30 AM	6.09	51.38	3.85
11:31 AM	6.11	51.61	3.79
Average	6.10	51.50	3.80

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 18, 2026
Start time: 11:32 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 432-H3
Finish time : 11:52 AM
Serial No.: 121121-10
Serial No.: 441
Serial No.: 058
Test Operator : Kittipong T.

Time, min	O ₂ (%)	NOx (ppm)	SO2 (ppm)
11:32 AM	6.13	51.60	3.84
11:33 AM	6.19	51.54	3.90
11:34 AM	6.19	51.60	3.90
11:35 AM	6.18	51.65	3.88
11:36 AM	6.14	51.68	3.84
11:37 AM	6.13	51.64	3.88
11:38 AM	6.14	51.52	3.90
11:39 AM	6.14	51.46	3.90
11:40 AM	6.14	51.04	3.86
11:41 AM	6.15	50.92	3.96
11:42 AM	6.15	51.46	3.97
11:43 AM	6.14	51.78	3.95
11:44 AM	6.14	51.65	4.00
11:45 AM	6.12	51.43	3.94
11:46 AM	6.12	51.45	3.90
11:47 AM	6.13	51.59	3.89
11:48 AM	6.14	51.98	3.92
11:49 AM	6.18	51.82	3.86
11:50 AM	6.17	51.73	3.91
11:51 AM	6.14	51.94	3.95
11:52 AM	6.13	52.01	4.01
Average	6.15	51.59	3.91

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. **REFERENCE NO.** : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. **REGISTRATION NO.** : 3-239
SAMPLING DATE : 18/02/2026 **SAMPLING TIME** : 10:50 - 11:52 AM
RECEIVED DATE : 20/02/2026 **ANALYTICAL DATE** : 24/02-13/03/2026
REPORT DATE : 16/03/2026 **OPERATOR** : Mr. Kittipong Thakoengsuk (3-239-0-0024)
STACK LOCATION : 432-H3 **FUEL TYPE** : Fuel gas
SOURCE DESCRIPTION : Combustion **SAMPLE CONDITION** : Normal

STACK DESCRIPTION

Height : 46.05 m **Gas Velocity** : 6.8 m/s
Diameter : 2.66 m **Flow rate^{1/}** : 1,238 Ncu.m/min
Temperature : 206.9 °C **Excess Oxygen** : 6.1 %
Moisture : 11.7 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		6.1%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	3.77	3.54	0.20	60*/12.88**	0.61**	US. EPA Method 6C
Oxide of Nitrogen	ppm	51.74	48.62	2.01	200*/94.63**	3.22**	US. EPA Method 7E



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 3-239-0-0006



(Miss Preeda Somjai)

Technical Management Team

REG. NO. 3-239-0-0006

Remark : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. **REFERENCE NO.** : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. **REGISTRATION NO.** : -
SAMPLING DATE : 18/02/2026 **SAMPLING TIME** : 10:50 - 11:20 AM
RECEIVED DATE : 20/02/2026 **ANALYTICAL DATE** : 23/02/2026
REPORT DATE : 07/03/2026 **OPERATOR** : Mr. Kittipong Thakoengsuk
STACK LOCATION : 432-H3 **FUEL TYPE** : Fuel gas
SOURCE DESCRIPTION : Combustion **SAMPLE CONDITION** : Normal

STACK DESCRIPTION

Height : 46.05 m **Gas Velocity** : 6.8 m/s
Diameter : 2.66 m **Flow rate^{1/}** : 1,238 Ncu.m/min
Temperature : 206.9 °C **Excess Oxygen** : 6.1 %
Moisture : 11.7 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		6.1%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	3.73	3.50	0.139	-	-	US. EPA Method 25A



(Miss Sudaporn Soonthorn)

Analyst



(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

**The Monitoring Result of Emission Concentration
320-H1**

PTT Global Chemical Public Co., Ltd.

(Branch 4 : Aromatics 1 Plant)

February 20, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	3.93	3.87	32.87	32.86	26.82
2	3.86	3.81	32.17	32.16	26.16
3	4.02	3.98	32.37	32.36	26.58
Average	3.94	3.89	32.47	32.46	26.52

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	3.93	3.87	1.79	1.76	1.44
2	3.86	3.81	2.00	1.97	1.60
3	4.02	3.98	2.17	2.13	1.75
Average	3.94	3.89	1.99	1.95	1.60

**PTT Global Chemical Public Company Limited
EMISSION TEST RESULT**

Date:	February 20, 2026	Run # :	1
Start time:	10:30 AM	Location :	320-H1
O₂ instrument Model:	AMI 70	Finish time :	10:50 AM
NO_x instrument Model:	Teledyne 200 EM	Serial No.:	161212-14
SO₂ instrument Model:	API 100 AH	Serial No.:	433
Fuel Type :	Natural Gas	Serial No.:	118
		Test Operator :	Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
10:30 AM	3.78	33.05	1.67
10:31 AM	3.80	32.79	1.28
10:32 AM	3.79	32.61	1.48
10:33 AM	3.92	32.57	1.57
10:34 AM	4.00	32.64	1.56
10:35 AM	4.00	32.83	1.81
10:36 AM	3.99	33.00	1.78
10:37 AM	4.00	33.02	1.52
10:38 AM	4.10	32.86	1.50
10:39 AM	4.05	32.81	1.65
10:40 AM	3.91	32.88	1.52
10:41 AM	3.89	32.79	1.52
10:42 AM	3.89	32.80	1.52
10:43 AM	3.98	32.99	2.69
10:44 AM	4.08	33.13	2.31
10:45 AM	4.03	33.21	1.79
10:46 AM	3.95	33.29	1.53
10:47 AM	3.85	33.16	1.58
10:48 AM	3.86	32.81	1.58
10:49 AM	3.78	32.57	2.79
10:50 AM	3.95	32.49	2.96
Average	3.93	32.87	1.79

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 20, 2026
Start time: 10:51 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 320-H1
Finish time : 11:11 AM
Serial No.: 161212-14
Serial No.: 433
Serial No.: 118
Test Operator : Song H.

Time, min	O ₂ (%)	NOx (ppm)	SO2 (ppm)
10:51 AM	3.91	32.46	2.92
10:52 AM	3.83	32.44	2.77
10:53 AM	3.81	32.22	2.15
10:54 AM	3.77	31.90	1.54
10:55 AM	3.79	31.68	1.50
10:56 AM	3.94	31.67	1.65
10:57 AM	3.89	31.80	1.54
10:58 AM	3.95	31.84	1.30
10:59 AM	3.62	31.79	1.82
11:00 AM	3.64	31.91	1.83
11:01 AM	3.68	31.99	1.71
11:02 AM	3.64	32.00	2.39
11:03 AM	3.80	32.03	1.47
11:04 AM	3.82	32.03	1.69
11:05 AM	3.95	32.19	1.53
11:06 AM	4.11	32.38	2.22
11:07 AM	4.19	32.58	2.78
11:08 AM	3.97	32.77	2.67
11:09 AM	3.79	32.82	2.62
11:10 AM	3.87	32.61	2.30
11:11 AM	4.01	32.51	1.69
Average	3.86	32.17	2.00

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 20, 2026
Start time: 11:12 AM
O₂ instrument Model: AMI 70
NO_x instrument Model: Teledyne 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 320-H1
Finish time : 11:32 AM
Serial No.: 161212-14
Serial No.: 433
Serial No.: 118
Test Operator : Song H.

Time, min	O ₂ (%)	NOx (ppm)	SO2 (ppm)
11:12 AM	3.98	32.70	4.60
11:13 AM	3.96	32.87	2.84
11:14 AM	3.93	32.87	2.62
11:15 AM	3.83	32.67	2.55
11:16 AM	3.84	32.41	2.49
11:17 AM	3.78	32.26	2.20
11:18 AM	3.96	32.30	1.54
11:19 AM	3.97	32.47	1.50
11:20 AM	3.98	32.51	1.67
11:21 AM	4.08	32.33	2.78
11:22 AM	4.05	32.21	2.39
11:23 AM	4.14	32.20	2.50
11:24 AM	4.12	32.31	2.42
11:25 AM	4.16	32.42	2.31
11:26 AM	4.18	32.37	1.93
11:27 AM	4.08	32.34	1.54
11:28 AM	4.02	32.36	1.54
11:29 AM	4.07	32.25	1.54
11:30 AM	4.03	32.05	1.54
11:31 AM	4.14	31.92	1.53
11:32 AM	4.09	32.02	1.53
Average	4.02	32.37	2.17

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : 2-239
SAMPLING DATE : 20/02/2026 SAMPLING TIME : 10:30 - 11:32 AM
RECEIVED DATE : 23/02/2026 ANALYTICAL DATE : 24/02-13/03/2026
REPORT DATE : 16/03/2026 OPERATOR : Mr. Song Hengchwankul (2-239-0-0016)
STACK LOCATION : 320-H1/H2 FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 36.28 m Gas Velocity : 9.3 m/s
Diameter : 1.74 m Flow rate ^{1/} : 566 Ncu.m/min
Temperature : 335.1 °C Excess Oxygen : 3.9 %
Moisture : 12.3 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE
		3.9%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	1.95	1.60	0.05	60*/12.39**	0.28**	US. EPA Method 6C
Oxide of Nitrogen	ppm	32.46	26.52	0.58	200*/66.49**	1.08**	US. EPA Method 7E

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 2-239-0-0006

(Miss Preeda Somjai)

Technical Management Team

REG. NO. 2-239-0-0006

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : -
SAMPLING DATE : 20/02/2026 SAMPLING TIME : 10:30 - 11:00 AM
RECEIVED DATE : 23/02/2026 ANALYTICAL DATE : 25/02/2026
REPORT DATE : 07/03/2026 OPERATOR : Mr. Song Hengchwankul
STACK LOCATION : 320-H1/H2 FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 36.28 m Gas Velocity : 9.3 m/s
Diameter : 1.74 m Flow rate ^{1/} : 566 Ncu.m/min
Temperature : 335.1 °C Excess Oxygen : 3.9 %
Moisture : 12.3 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE
		3.9%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	4.70	3.84	0.080	-	-	US. EPA Method 25A

(Miss Sudaporn Soonthorn)

Analyst

(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

**The Monitoring Result of Emission Concentration
390-H1**

PTT Global Chemical Public Co., Ltd.

(Branch 4 : Aromatics 1 Plant)

February 16, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	6.28	6.16	20.49	20.48	19.31
2	6.27	6.17	21.59	21.57	20.35
3	6.35	6.28	22.26	22.24	21.14
Average	6.30	6.20	21.45	21.43	20.27

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	6.28	6.16	3.64	3.61	3.40
2	6.27	6.17	3.64	3.60	3.40
3	6.35	6.28	3.75	3.71	3.53
Average	6.30	6.20	3.67	3.64	3.44

**PTT Global Chemical Public Company Limited
EMISSION TEST RESULT**

Run # : 1

Date: February 16, 2026

Start time: 3:00 PM

O₂ instrument Model: AMI 70

NO_x instrument Model: TELEDYNE 200 EM

SO₂ instrument Model: API 100 AH

Fuel Type : Natural Gas

Location : 390-H1

Finish time : 3:20 PM

Serial No.: 161212-14

Serial No.: 433

Serial No.: 118

Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:00 PM	6.23	20.31	4.30
3:01 PM	6.19	19.55	4.36
3:02 PM	6.19	18.57	4.21
3:03 PM	6.16	21.68	3.89
3:04 PM	6.18	20.67	3.65
3:05 PM	6.26	22.66	3.92
3:06 PM	6.27	20.78	3.60
3:07 PM	6.30	21.99	2.91
3:08 PM	6.28	20.24	3.20
3:09 PM	6.30	21.16	3.27
3:10 PM	6.40	20.33	3.75
3:11 PM	6.44	21.76	3.38
3:12 PM	6.45	21.18	3.24
3:13 PM	6.42	20.13	3.47
3:14 PM	6.36	17.57	3.39
3:15 PM	6.31	19.47	3.43
3:16 PM	6.19	17.85	3.48
3:17 PM	6.18	20.91	3.59
3:18 PM	6.26	21.89	3.65
3:19 PM	6.27	18.51	3.89
3:20 PM	6.20	23.16	3.79
Average	6.28	20.49	3.64

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 16, 2026
Start time: 3:21 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: TELEDYNE 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 390-H1
Finish time : 3:41 PM
Serial No.: 161212-14
Serial No.: 433
Serial No.: 118
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:21 PM	6.27	23.66	3.84
3:22 PM	6.15	23.11	3.72
3:23 PM	6.19	21.64	3.76
3:24 PM	6.22	23.06	3.61
3:25 PM	6.33	23.07	3.65
3:26 PM	6.26	22.48	3.59
3:27 PM	6.34	21.52	3.72
3:28 PM	6.29	18.89	3.69
3:29 PM	6.24	23.55	3.33
3:30 PM	6.33	23.49	3.35
3:31 PM	6.29	20.79	3.43
3:32 PM	6.19	18.92	3.27
3:33 PM	6.22	21.75	3.17
3:34 PM	6.24	23.49	3.02
3:35 PM	6.27	22.85	3.08
3:36 PM	6.29	20.10	3.52
3:37 PM	6.28	21.01	3.19
3:38 PM	6.34	18.60	3.41
3:39 PM	6.34	20.21	4.64
3:40 PM	6.32	19.71	4.68
3:41 PM	6.32	21.49	4.69
Average	6.27	21.59	3.64

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 16, 2026
Start time: 3:42 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: TELEDYNE 200 EM
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 390-H1
Finish time : 4:02 PM
Serial No.: 161212-14
Serial No.: 433
Serial No.: 118
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:42 PM	6.35	20.20	4.36
3:43 PM	6.30	21.93	4.27
3:44 PM	6.29	21.00	4.35
3:45 PM	6.32	20.67	4.16
3:46 PM	6.31	20.99	4.04
3:47 PM	6.31	24.94	3.88
3:48 PM	6.39	23.29	3.75
3:49 PM	6.43	23.60	3.75
3:50 PM	6.40	24.94	3.82
3:51 PM	6.39	21.05	3.71
3:52 PM	6.42	21.61	3.55
3:53 PM	6.33	20.77	3.52
3:54 PM	6.35	23.56	3.52
3:55 PM	6.35	24.77	3.74
3:56 PM	6.31	25.16	3.77
3:57 PM	6.26	21.68	3.48
3:58 PM	6.30	23.00	3.51
3:59 PM	6.37	23.17	3.55
4:00 PM	6.39	18.50	3.38
4:01 PM	6.42	20.60	3.33
4:02 PM	6.39	22.06	3.35
Average	6.35	22.26	3.75

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : 2-239
SAMPLING DATE : 16/02/2026 SAMPLING TIME : 03:00 - 04:02 PM
RECEIVED DATE : 20/02/2026 ANALYTICAL DATE : 24/02-13/03/2026
REPORT DATE : 16/03/2026 OPERATOR : Mr. Song Hengchwankul (2-239-0016)
STACK LOCATION : 390-H1 FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

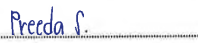
Height : 34.80 m Gas Velocity : 2.8 m/s
Diameter : 0.89 m Flow rate^{1/} : 54 Ncu.m/min
Temperature : 230.1 °C Excess Oxygen : 6.2 %
Moisture : 13.4 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE
		6.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	3.64	3.44	0.01	60*/11.50**	0.03**	US. EPA Method 6C
Oxide of Nitrogen	ppm	21.43	20.27	0.04	200*/79.99**	0.15**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 2-239-0-0006


(Miss Preeda Somjai)

Technical Management Team

REG. NO. 2-239-0-0006

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment, B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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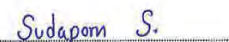
STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : -
SAMPLING DATE : 16/02/2026 SAMPLING TIME : 03:00 - 03:35 PM
RECEIVED DATE : 20/02/2026 ANALYTICAL DATE : 23/02/2026
REPORT DATE : 07/03/2026 OPERATOR : Mr. Song Hengchwankul
STACK LOCATION : 390-H1 FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 34.80 m Gas Velocity : 2.8 m/s
Diameter : 0.89 m Flow rate^{1/} : 54 Ncu.m/min
Temperature : 230.1 °C Excess Oxygen : 6.2 %
Moisture : 13.4 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE
		6.2%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	4.90	4.63	0.008	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)
Analyst


(Miss Narisa Poowasanpetch)
Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

**The Monitoring Result of Emission Concentration
390-H2**

PTT Global Chemical Public Co., Ltd.

(Branch 4 : Aromatics 1 Plant)

February 16, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.78	5.70	41.46	41.46	37.91
2	5.63	5.56	43.34	43.34	39.27
3	5.56	5.49	43.09	43.09	38.87
Average	5.66	5.58	42.63	42.63	38.69

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.78	5.70	3.85	3.79	3.47
2	5.63	5.56	3.94	3.89	3.52
3	5.56	5.49	4.13	4.10	3.70
Average	5.66	5.58	3.97	3.93	3.56

**PTT Global Chemical Public Company Limited
EMISSION TEST RESULT**

Date: February 16, 2026
 Start time: 3:00 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Run # : 1
 Location : 390-H2
 Finish time : 3:20 PM
 Serial No.: 121121-10
 Serial No.: 441
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:00 PM	5.87	41.37	4.11
3:01 PM	5.94	41.28	4.13
3:02 PM	5.88	41.55	4.01
3:03 PM	5.87	41.34	3.79
3:04 PM	5.84	41.11	3.69
3:05 PM	5.82	41.10	3.72
3:06 PM	5.81	40.86	3.82
3:07 PM	5.80	40.71	3.81
3:08 PM	5.78	40.72	3.92
3:09 PM	5.77	41.17	3.90
3:10 PM	5.77	41.01	3.99
3:11 PM	5.78	41.03	3.88
3:12 PM	5.66	41.00	3.96
3:13 PM	5.70	41.39	4.02
3:14 PM	5.77	41.30	3.89
3:15 PM	5.74	41.44	3.77
3:16 PM	5.72	42.00	3.80
3:17 PM	5.69	42.29	3.68
3:18 PM	5.71	42.45	3.72
3:19 PM	5.72	42.81	3.67
3:20 PM	5.71	42.73	3.49
Average	5.78	41.46	3.85

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 16, 2026
 Start time: 3:21 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 390-H2
 Finish time : 3:41 PM
 Serial No.: 121121-10
 Serial No.: 441
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:21 PM	5.67	42.56	3.68
3:22 PM	5.64	42.76	3.82
3:23 PM	5.68	42.82	4.08
3:24 PM	5.69	42.92	3.82
3:25 PM	5.69	43.05	3.76
3:26 PM	5.75	43.38	3.68
3:27 PM	5.72	43.35	3.91
3:28 PM	5.75	43.15	3.97
3:29 PM	5.71	42.80	3.85
3:30 PM	5.69	43.24	3.93
3:31 PM	5.68	43.41	4.05
3:32 PM	5.54	43.43	4.01
3:33 PM	5.51	43.61	3.93
3:34 PM	5.53	43.19	3.89
3:35 PM	5.58	43.37	3.98
3:36 PM	5.59	43.74	3.90
3:37 PM	5.59	43.94	4.17
3:38 PM	5.59	43.81	4.07
3:39 PM	5.53	43.91	4.00
3:40 PM	5.51	43.91	4.18
3:41 PM	5.51	43.84	4.07
Average	5.63	43.34	3.94

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 16, 2026
 Start time: 3:42 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Location : 390-H2
 Finish time : 4:02 PM
 Serial No.: 121121-10
 Serial No.: 441
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
3:42 PM	5.51	43.73	3.97
3:43 PM	5.46	43.60	4.11
3:44 PM	5.52	43.42	4.28
3:45 PM	5.53	42.76	4.30
3:46 PM	5.56	42.24	4.10
3:47 PM	5.57	41.76	4.12
3:48 PM	5.55	42.21	4.19
3:49 PM	5.59	42.48	4.23
3:50 PM	5.59	43.06	4.12
3:51 PM	5.59	43.39	4.06
3:52 PM	5.59	43.34	4.10
3:53 PM	5.61	43.38	4.32
3:54 PM	5.59	43.28	4.20
3:55 PM	5.59	43.21	4.13
3:56 PM	5.59	43.20	4.13
3:57 PM	5.59	43.12	3.99
3:58 PM	5.57	43.47	4.10
3:59 PM	5.57	43.41	4.06
4:00 PM	5.52	43.03	4.05
4:01 PM	5.55	43.24	4.07
4:02 PM	5.59	43.61	4.15
Average	5.56	43.09	4.13

Signature

(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : 2-239
SAMPLING DATE : 16/02/2026 SAMPLING TIME : 03:00 - 04:02 PM
RECEIVED DATE : 20/02/2026 ANALYTICAL DATE : 24/02-13/03/2026
REPORT DATE : 16/03/2026 OPERATOR : Mr. Song Hengchwankul (2-239-0-0016)
STACK LOCATION : 390-H2 FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 30.00 m Gas Velocity : 6.2 m/s
Diameter : 0.94 m Flow rate ^{1/} : 127 Ncu.m/min
Temperature : 240.3 °C Excess Oxygen : 5.6 %
Moisture : 14.7 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.6%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	3.93	3.56	0.02	60*/12.26**	0.06**	US. EPA Method 6C
Oxide of Nitrogen	ppm	42.63	38.69	0.17	200*/59.71**	0.21**	US. EPA Method 7E


(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 2-239-0-0006


(Miss Preeda Somjai)

Technical Management Team

REG. NO. 2-239-0-0006

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment,
B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : *
SAMPLING DATE : 16/02/2026 SAMPLING TIME : 03:00 - 03:35 PM
RECEIVED DATE : 20/02/2026 ANALYTICAL DATE : 23/02/2026
REPORT DATE : 07/03/2026 OPERATOR : Mr. Song Hengchwankul
STACK LOCATION : 390-H2 FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 30.00 m Gas Velocity : 6.2 m/s
Diameter : 0.94 m Flow rate ^{1/} : 127 Ncu.m/min
Temperature : 240.3 °C Excess Oxygen : 5.6 %
Moisture : 14.7 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.6%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	4.00	3.63	0.015	-	-	US. EPA Method 25A


(Miss Sudaporn Soonthorn)

Analyst


(Miss Narisa Poowasanpetch)

Technical Management Team

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

**The Monitoring Result of Emission Concentration
940-H1**

PTT Global Chemical Public Co., Ltd.

(Branch 4 : Aromatics 1 Plant)

February 20, 2026

Run Number	Oxygen content (%)		Oxide of Nitrogen (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.60	5.51	83.37	83.42	75.34
2	5.50	5.42	85.24	85.29	76.58
3	5.56	5.49	84.60	84.65	76.36
Average	5.56	5.47	84.40	84.45	76.10

Run Number	Oxygen content (%)		Sulfur dioxide (ppm)		
	RM Stack Gas Conc	Corrected Gas Conc	RM Stack Gas Conc	Corrected Gas Conc @Actual O2	Corrected Gas Conc @7% O2
1	5.60	5.51	3.81	3.79	3.42
2	5.50	5.42	4.31	4.27	3.83
3	5.56	5.49	4.72	4.67	4.21
Average	5.56	5.47	4.28	4.24	3.82

**PTT Global Chemical Public Company Limited
EMISSION TEST RESULT**

Date: February 20, 2026
 Start time: 2:10 PM
 O₂ instrument Model: AMI 70
 NO_x instrument Model: API 200 AH
 SO₂ instrument Model: API 100 AH
 Fuel Type : Natural Gas

Run # : 1
 Location : 940-H1
 Finish time : 2:30 PM
 Serial No.: 121121-10
 Serial No.: 441
 Serial No.: 058
 Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
2:10 PM	5.75	82.10	3.20
2:11 PM	5.68	81.72	3.30
2:12 PM	5.74	81.52	3.37
2:13 PM	5.62	81.27	3.43
2:14 PM	5.58	81.26	3.53
2:15 PM	5.56	81.68	3.65
2:16 PM	5.58	82.03	3.70
2:17 PM	5.58	82.80	3.71
2:18 PM	5.56	83.03	3.74
2:19 PM	5.57	82.69	3.80
2:20 PM	5.51	83.15	3.77
2:21 PM	5.63	84.12	3.81
2:22 PM	5.64	84.17	3.81
2:23 PM	5.62	84.53	3.98
2:24 PM	5.71	84.83	4.02
2:25 PM	5.64	83.90	4.01
2:26 PM	5.68	83.31	4.16
2:27 PM	5.48	85.52	4.26
2:28 PM	5.41	85.34	4.30
2:29 PM	5.54	86.69	4.28
2:30 PM	5.60	85.13	4.25
Average	5.60	83.37	3.81

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 2

Date: February 20, 2026
Start time: 2:31 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 940-H1
Finish time : 2:51 PM
Serial No.: 121121-10
Serial No.: 441
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
2:31 PM	5.72	85.27	4.08
2:32 PM	5.68	85.63	4.01
2:33 PM	5.65	86.51	3.99
2:34 PM	5.82	84.59	3.99
2:35 PM	5.60	85.27	4.04
2:36 PM	5.46	85.78	4.17
2:37 PM	5.47	84.71	4.33
2:38 PM	5.54	86.43	4.36
2:39 PM	5.52	86.43	4.42
2:40 PM	5.52	85.34	4.32
2:41 PM	5.60	84.83	4.44
2:42 PM	5.52	85.73	4.48
2:43 PM	5.49	84.37	4.50
2:44 PM	5.42	84.97	4.42
2:45 PM	5.40	84.71	4.41
2:46 PM	5.34	84.14	4.36
2:47 PM	5.25	84.62	4.40
2:48 PM	5.32	86.25	4.37
2:49 PM	5.40	85.36	4.45
2:50 PM	5.40	84.69	4.38
2:51 PM	5.46	84.36	4.49
Average	5.50	85.24	4.31

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist

PTT Global Chemical Public Company Limited
EMISSION TEST RESULT

Run # : 3

Date: February 20, 2026
Start time: 2:52 PM
O₂ instrument Model: AMI 70
NO_x instrument Model: API 200 AH
SO₂ instrument Model: API 100 AH
Fuel Type : Natural Gas

Location : 940-H1
Finish time : 3:12 PM
Serial No.: 121121-10
Serial No.: 441
Serial No.: 058
Test Operator : Song H.

Time, min	O ₂ (%)	NO _x (ppm)	SO ₂ (ppm)
2:52 PM	5.60	84.43	4.39
2:53 PM	5.77	84.54	4.38
2:54 PM	5.76	84.53	4.48
2:55 PM	5.73	84.50	4.55
2:56 PM	5.78	84.52	4.73
2:57 PM	5.67	85.12	4.69
2:58 PM	5.75	85.93	4.60
2:59 PM	5.79	85.37	4.56
3:00 PM	5.72	83.96	4.54
3:01 PM	5.66	83.49	4.63
3:02 PM	5.47	83.92	4.53
3:03 PM	5.42	83.76	4.67
3:04 PM	5.47	84.47	4.66
3:05 PM	5.48	85.47	4.69
3:06 PM	5.43	85.31	4.85
3:07 PM	5.33	85.26	4.99
3:08 PM	5.35	84.42	5.05
3:09 PM	5.34	85.08	4.97
3:10 PM	5.35	85.28	5.06
3:11 PM	5.42	83.77	5.03
3:12 PM	5.46	83.49	4.99
Average	5.56	84.60	4.72

Signature



(Miss Katesarin Vorradetwittaya)

Environmental Scientist



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : 2-239
SAMPLING DATE : 20/02/2026 SAMPLING TIME : 02:10 - 03:12 PM
RECEIVED DATE : 23/02/2026 ANALYTICAL DATE : 24/02-13/03/2026
REPORT DATE : 16/03/2026 OPERATOR : Mr. Song Hengchwankul (2-239-0-0016)
STACK LOCATION : 940-H1 (Boiler) FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 30.00 m Gas Velocity : 6.9 m/s
Diameter : 1.35 m Flow rate^{1/} : 339 Ncu.m/min
Temperature : 180.0 °C Excess Oxygen : 5.5 %
Moisture : 12.3 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.5%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Sulfur Dioxide	ppm	4.24	3.82	0.06	60*/10.39**	0.15**	US. EPA Method 6C
Oxide of Nitrogen	ppm	84.45	76.10	0.90	200*/102.19**	1.06**	US. EPA Method 7E

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

REG. NO. 2-239-0-0006

(Miss Preeda Somjai)

Technical Management Team

REG. NO. 2-239-0-0006

Remarks : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

4. * Notification of Ministry of Industry, B.E.2549 (2006) and Notification of Ministry of Natural Resource and Environment,

B.E.2549 (2006) (at 7 % O₂).

5. ** The assigned value in EIA report.



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STACK EMISSION ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-CEMs-2602-0019
Branch 4 (Aromatics 1 Plant)
SAMPLING BY : SECOT Co., Ltd. REGISTRATION NO. : -
SAMPLING DATE : 20/02/2026 SAMPLING TIME : 02:10 - 02:45 PM
RECEIVED DATE : 23/02/2026 ANALYTICAL DATE : 25/02/2026
REPORT DATE : 07/03/2026 OPERATOR : Mr. Song Hengchwankul
STACK LOCATION : 940-H1 (Boiler) FUEL TYPE : Fuel gas
SOURCE DESCRIPTION : Combustion SAMPLE CONDITION : Normal

STACK DESCRIPTION

Height : 30.00 m Gas Velocity : 6.9 m/s
Diameter : 1.35 m Flow rate^{1/} : 339 Ncu.m/min
Temperature : 180.0 °C Excess Oxygen : 5.5 %
Moisture : 12.3 %

PARAMETER	UNIT	RESULT ^{1/}			STANDARD		REFERENCE METHOD
		5.5%O ₂	7%O ₂	g/s	7%O ₂	g/s	
Total Volatile Organic Compounds	ppm	2.72	2.45	0.028	-	-	US. EPA Method 25A

(Miss Sudaporn Soonthorn)

Analyst

(Miss Narisa Poowasanpetch)

Technical Management Team

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3. ^{1/} At standard pressure of 760 mmHg and temperature of 25 °C, dry basis.

ภาคผนวก ง.2

ใบรับรองผลการตรวจวัดคุณภาพอากาศในบรรยากาศ



Meteorological Monitoring Results : Wind Rose MTR-PTTGC4

Location : Gate of PTTGC Branch 4 Aromatics I Plant

Monitor period : 13-20 Feb 2026

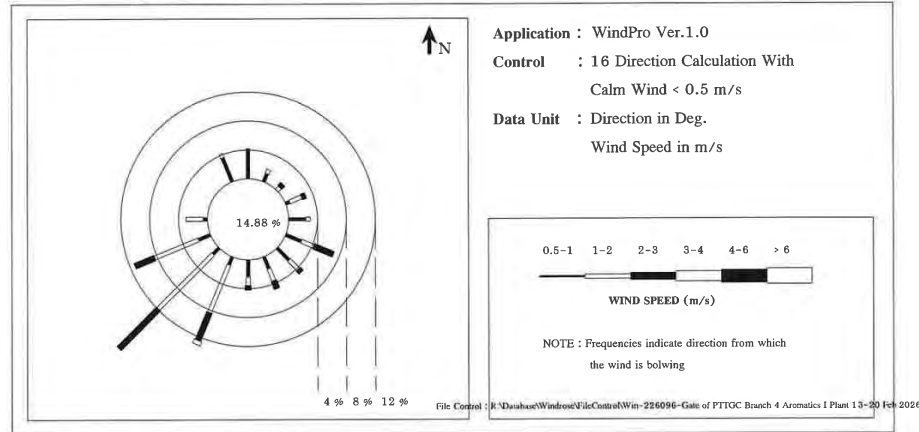
Wind Speed Model : Scarlet WS-21

Serial No : AD:16

Wind Direction Model : Scarlet WS-21

Serial No : AD:16

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
NNE	0.0119	0.0060	0.0000	0.0000	0.0000	0.0000	0.0179
NE	0.0000	0.0060	0.0060	0.0000	0.0000	0.0000	0.0119
ENE	0.0060	0.0179	0.0060	0.0000	0.0000	0.0000	0.0298
E	0.0238	0.0060	0.0000	0.0000	0.0000	0.0000	0.0298
ESE	0.0238	0.0179	0.0298	0.0000	0.0000	0.0000	0.0714
SE	0.0238	0.0179	0.0060	0.0000	0.0000	0.0000	0.0476
SSE	0.0179	0.0179	0.0119	0.0000	0.0000	0.0000	0.0476
S	0.0238	0.0119	0.0060	0.0000	0.0000	0.0000	0.0417
SSW	0.0119	0.0714	0.0417	0.0060	0.0000	0.0000	0.1310
SW	0.0119	0.1071	0.0774	0.0000	0.0000	0.0000	0.1964
WSW	0.0179	0.0655	0.0298	0.0000	0.0000	0.0000	0.1131
W	0.0060	0.0238	0.0000	0.0000	0.0000	0.0000	0.0298
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0357	0.0060	0.0000	0.0000	0.0000	0.0000	0.0417
CALM	0.1488						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-PTTGC4

Location : Gate of PTTGC Branch 4 Aromatics I Plant

Monitor period : 13-20 Feb 2026

Wind Speed Model : Scarlet WS-21

Serial No : AD:16

Wind Direction Model : Scarlet WS-21

Serial No : AD:16

Time	13-14 Feb 2026		14-15 Feb 2026		15-16 Feb 2026		16-17 Feb 2026	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
13:00 - 14:00	1.0	NNW	0.2	W	2.1	SSW	1.0	SSE
14:00 - 15:00	0.9	NNW	0.0	SE	1.0	SE	2.0	WSW
15:00 - 16:00	0.8	NNW	0.0	SE	0.9	SE	1.5	SW
16:00 - 17:00	0.7	SE	0.9	W	0.4	SSW	2.5	SSW
17:00 - 18:00	0.6	NNW	1.2	SSW	0.4	SW	2.2	SSW
18:00 - 19:00	0.5	NNE	2.3	SSW	0.1	SW	0.5	E
19:00 - 20:00	0.6	N	1.8	WSW	0.1	NW	0.5	S
20:00 - 21:00	0.6	N	1.8	S	0.2	WNW	1.4	SW
21:00 - 22:00	0.5	N	0.7	S	0.1	SSW	2.1	SW
22:00 - 23:00	0.4	NNW	1.3	W	0.1	WSW	1.1	SW
23:00 - 24:00	0.4	NNW	2.0	SW	0.2	WNW	0.8	WSW
00:00 - 01:00	0.6	NNW	1.1	SW	0.1	W	1.3	SSW
01:00 - 02:00	0.4	N	1.0	SW	0.0	NNE	2.0	WSW
02:00 - 03:00	0.6	NNW	1.5	SSW	0.0	WSW	2.1	SSW
03:00 - 04:00	0.4	N	0.5	N	0.0	SW	1.5	SW
04:00 - 05:00	0.4	NNW	2.2	ENE	0.0	NE	1.9	SSW
05:00 - 06:00	0.3	NNW	1.4	NNE	0.0	NE	0.5	ESE
06:00 - 07:00	0.3	NNW	0.5	NNW	0.1	NNW	0.7	S
07:00 - 08:00	0.5	N	0.6	SSW	0.6	NNE	0.7	SSE
08:00 - 09:00	0.9	ENE	0.6	ESE	0.7	SSW	2.1	ESE
09:00 - 10:00	1.0	ESE	2.2	ESE	0.9	SSE	2.3	SSE
10:00 - 11:00	1.3	ESE	2.0	ESE	1.0	SSE	2.1	SSE
11:00 - 12:00	1.3	SE	2.2	ESE	1.0	S	2.0	ESE
12:00 - 13:00	1.5	SE	0.6	WSW	1.1	SSE	0.7	WSW



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

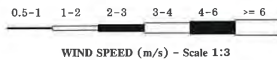
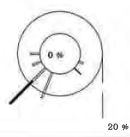
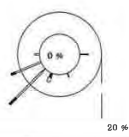
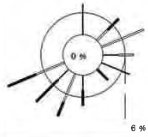


Meteorological Monitoring Results : Wind Rose MTR-PTTGC4

Location : Gate of PTTGC Branch 4 Aromatics I Plant Monitor period : 13-20 Feb 2026
Wind Speed Model : Scarlet WS-21 Serial No : AD:16
Wind Direction Model : Scarlet WS-21 Serial No : AD:16

Time	17-18 Feb 2026		18-19 Feb 2026		19-20 Feb 2026		
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	
13:00 - 14:00	0.9	SW	2.0	WSW	2.8	SW	
14:00 - 15:00	1.0	WSW	1.6	WSW	2.5	SW	
15:00 - 16:00	2.1	WSW	1.5	WSW	2.3	SW	
16:00 - 17:00	1.0	WSW	1.0	SW	1.4	W	
17:00 - 18:00	1.3	SSW	1.0	WSW	1.2	WSW	
18:00 - 19:00	2.5	SW	1.3	SW	1.1	WSW	
19:00 - 20:00	2.0	WSW	1.4	SW	1.2	SSW	
20:00 - 21:00	1.8	SSW	1.4	SW	1.4	SSW	
21:00 - 22:00	2.0	S	1.4	SW	1.5	SSW	
22:00 - 23:00	2.4	SSW	1.2	WSW	1.6	SSW	
23:00 - 24:00	0.7	ESE	1.3	SW	1.5	SSW	
00:00 - 01:00	2.2	SE	1.5	W	1.4	SSW	
01:00 - 02:00	0.6	N	1.1	SW	1.3	SW	
02:00 - 03:00	0.5	S	1.1	WSW	1.0	SW	
03:00 - 04:00	0.6	N	0.9	E	1.2	SW	
04:00 - 05:00	1.2	ENE	0.9	E	0.8	SE	
05:00 - 06:00	0.8	E	0.9	SSE	0.9	SE	
06:00 - 07:00	1.9	E	0.9	SW	1.0	ESE	
07:00 - 08:00	1.9	ENE	1.4	SW	1.2	W	
08:00 - 09:00	1.1	ENE	2.1	SSW	1.5	SW	
09:00 - 10:00	2.5	NE	2.5	SW	2.0	SW	
10:00 - 11:00	1.5	NE	1.8	WSW	2.3	SW	
11:00 - 12:00	0.6	ESE	2.4	SW	2.8	SW	
12:00 - 13:00	2.2	SW	3.1	SSW	2.3	SW	

Wind Rose



WIND SPEED (m/s) - Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-226096-Gate of PTTGC Branch 4 Aromatics I Plant 13-20 Feb 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Nitrogen dioxide MTR-PTTGC4

Location : Gate of PTTGC Branch 4 Aromatics I Plant Monitor Period : 13-20 Feb 2026
Analyzer Model : Teledyne T200 Station No : Shelter 17
Serial No : 110 Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0102326
Certified Date : 08 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 07 Jan 2027

Time	NO2 Concentration (ppb)						
	13-14 Feb 2026	14-15 Feb 2026	15-16 Feb 2026	16-17 Feb 2026	17-18 Feb 2026	18-19 Feb 2026	19-20 Feb 2026
13:00 - 14:00	8.6	5.2	1.5	4.6	6.2	4.0	2.2
14:00 - 15:00	7.8	5.3	4.0	9.0	6.3	1.7	2.8
15:00 - 16:00	9.4	7.1	7.1	6.2	5.5	7.0	6.7
16:00 - 17:00	10.1	10.2	10.4	13.0	10.9	9.3	11.2
17:00 - 18:00	15.3	10.1	9.9	9.5	13.0	10.7	16.2
18:00 - 19:00	14.2	12.6	15.9	14.4	16.3	12.9	15.8
19:00 - 20:00	12.5	9.9	16.0	12.2	10.1	13.5	12.6
20:00 - 21:00	12.3	9.8	15.9	9.3	11.9	9.4	11.0
21:00 - 22:00	12.5	11.9	15.3	12.4	11.3	10.7	13.3
22:00 - 23:00	10.6	11.7	13.7	9.8	11.4	9.6	16.5
23:00 - 00:00	13.8	10.5	14.8	10.6	10.3	14.4	14.9
00:00 - 01:00	10.1	11.6	13.4	10.8	11.9	16.3	15.6
01:00 - 02:00	10.4	9.9	14.3	12.3	10.5	16.0	15.4
02:00 - 03:00	13.6	11.0	11.6	13.1	10.8	12.9	13.6
03:00 - 04:00	11.3	13.0	15.5	13.2	16.1	14.4	15.9
04:00 - 05:00	10.5	13.2	15.9	11.5	16.0	16.5	16.0
05:00 - 06:00	14.6	14.7	16.0	9.4	14.8	13.4	15.3
06:00 - 07:00	17.3	14.1	14.4	16.1	16.1	16.4	15.7
07:00 - 08:00	16.2	16.9	16.0	14.0	16.6	15.7	14.1
08:00 - 09:00	12.4	15.5	10.6	11.5	13.5	10.4	14.1
09:00 - 10:00	10.3	13.2	10.3	8.8	9.8	8.5	11.7
10:00 - 11:00	8.5	7.9	6.2	5.8	5.1	4.4	4.4
11:00 - 12:00	9.5	7.8	8.7	8.2	7.4	4.1	5.7
12:00 - 13:00	8.1	8.7	5.9	6.1	3.7	7.5	5.8

Average-24Hr*	11.7	10.9	11.8	10.5	11.1	10.8	11.9
Max-1Hr	17.3	16.9	16.0	16.1	16.6	16.5	16.5
Min-1Hr	7.8	5.2	1.5	4.6	3.7	1.7	2.2

Standard-1Hr	120 ppb						
Standard-24Hr	-						

Remark : * Average time between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Nitrogen dioxide MTR-PTTGC4

Location : Chaklukya Community Monitor Period : 13-20 Feb 2026
Analyzer Model : API 200A Station No : SCT-17
Serial No : 074 Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0102326
Certified Date : 08 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 07 Jan 2027

Time	NO2 Concentration (ppb)						
	13-14 Feb 2026	14-15 Feb 2026	15-16 Feb 2026	16-17 Feb 2026	17-18 Feb 2026	18-19 Feb 2026	19-20 Feb 2026
13:00 - 14:00	5.4	6.5	6.3	4.3	2.2	3.4	5.7
14:00 - 15:00	3.6	2.9	6.1	6.0	3.3	3.8	4.6
15:00 - 16:00	4.3	3.1	4.5	2.8	6.0	5.5	5.1
16:00 - 17:00	9.6	7.9	8.8	3.3	8.0	7.1	8.2
17:00 - 18:00	11.8	10.4	9.5	8.8	9.9	7.0	12.8
18:00 - 19:00	12.8	9.7	11.3	12.5	13.3	11.8	10.5
19:00 - 20:00	13.6	9.5	11.3	14.2	8.3	12.7	10.6
20:00 - 21:00	12.3	6.9	11.8	13.0	10.0	13.9	10.0
21:00 - 22:00	12.0	9.5	13.4	13.3	9.9	10.1	12.7
22:00 - 23:00	11.7	10.4	10.9	7.1	7.3	12.3	11.5
23:00 - 00:00	13.0	9.0	10.6	7.7	9.7	10.5	13.8
00:00 - 01:00	11.1	10.2	13.6	7.1	7.4	12.2	11.0
01:00 - 02:00	12.5	6.8	14.0	6.6	11.3	12.7	11.1
02:00 - 03:00	14.0	9.5	14.0	8.5	12.6	11.9	15.0
03:00 - 04:00	12.9	12.8	13.4	9.9	14.0	13.8	15.6
04:00 - 05:00	13.5	11.4	11.6	10.3	11.9	17.6	14.9
05:00 - 06:00	11.5	14.1	11.4	10.6	13.2	17.2	17.2
06:00 - 07:00	13.3	18.0	13.8	11.6	12.5	17.1	17.7
07:00 - 08:00	11.9	11.3	10.8	11.0	10.3	10.0	14.2
08:00 - 09:00	9.3	11.5	8.1	7.0	10.4	6.3	10.7
09:00 - 10:00	8.6	9.7	6.9	9.0	7.0	4.1	3.0
10:00 - 11:00	3.7	9.9	4.2	4.2	2.4	2.0	5.1
11:00 - 12:00	4.5	3.6	3.7	2.6	2.6	2.9	1.7
12:00 - 13:00	3.5	5.2	4.6	5.5	3.8	5.1	4.9
Average-24Hr*	10.0	9.2	9.8	8.2	8.6	9.6	10.3
Max-1Hr	14.0	18.0	14.0	14.2	14.0	17.6	17.7
Min-1Hr	3.5	2.9	3.7	2.6	2.2	2.0	1.7
Standard-1Hr	120 ppb						
Standard-24Hr	-						

Remark : * Average time between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-PTTGC4

Location : Gate of PTTGC Branch 4 Aromatics 1 Plant Monitor Period : 13-20 Feb 2026
Analyzer Model : Teledyne T100 Station No : Shelter 17
Serial No : 120 Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0102326
Certified Date : 10 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 09 Jan 2027

Time	SO2 Concentration (ppb)						
	13-14 Feb 2026	14-15 Feb 2026	15-16 Feb 2026	16-17 Feb 2026	17-18 Feb 2026	18-19 Feb 2026	19-20 Feb 2026
13:00 - 14:00	8.0	7.4	7.6	7.2	5.3	5.3	4.5
14:00 - 15:00	7.4	6.8	7.3	6.9	5.3	5.6	4.3
15:00 - 16:00	7.2	6.6	7.4	6.6	5.5	6.0	4.4
16:00 - 17:00	7.8	7.0	7.7	6.8	6.1	6.5	5.1
17:00 - 18:00	8.7	7.9	8.4	7.4	7.1	7.2	6.2
18:00 - 19:00	8.9	8.4	9.9	9.5	8.4	7.8	7.4
19:00 - 20:00	8.6	8.3	10.0	9.3	8.2	7.8	7.7
20:00 - 21:00	8.3	8.1	10.2	9.0	7.8	7.8	8.1
21:00 - 22:00	8.0	8.0	10.1	8.5	7.5	7.8	8.5
22:00 - 23:00	7.8	7.9	9.5	8.1	7.1	7.7	8.8
23:00 - 00:00	8.3	7.9	8.7	7.5	6.9	7.4	12.7
00:00 - 01:00	8.2	7.9	8.2	7.1	6.9	7.3	13.1
01:00 - 02:00	8.1	7.8	8.0	7.0	7.2	7.4	13.5
02:00 - 03:00	8.1	7.8	8.0	7.2	7.6	7.7	13.8
03:00 - 04:00	8.4	8.1	8.3	7.4	8.2	8.1	14.3
04:00 - 05:00	9.2	8.9	9.0	8.0	8.7	9.0	15.3
05:00 - 06:00	10.2	10.0	9.8	8.7	9.2	10.1	16.1
06:00 - 07:00	11.0	10.7	9.5	9.0	9.7	9.7	13.8
07:00 - 08:00	10.8	10.7	9.3	8.8	9.6	8.7	12.9
08:00 - 09:00	10.4	10.7	9.0	8.3	9.6	7.3	11.8
09:00 - 10:00	10.0	10.5	8.7	7.9	9.2	6.1	10.4
10:00 - 11:00	9.4	9.7	8.3	7.1	8.1	5.4	8.6
11:00 - 12:00	8.7	8.7	8.0	6.3	6.5	5.0	6.8
12:00 - 13:00	8.0	7.9	7.7	5.6	5.5	4.8	5.3
Average-24Hr*	8.7	8.5	8.7	7.7	7.6	7.2	9.7
Max-1Hr	11.0	10.7	10.2	9.5	9.7	10.1	16.1
Min-1Hr	7.2	6.6	7.3	5.6	5.3	4.8	4.3
Standard-1Hr	100 ppb						
Standard-24Hr	50 ppb						

Remark : * Average time between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-PTTGC4

Location : Chaklukya Community Monitor Period : 13-20 Feb 2026
Analyzer Model : Thermo 43C Station No : SCT-17
Serial No : 0607415773 Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0102326
Certified Date : 10 Jan 2026 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 09 Jan 2027

Time	SO2 Concentration (ppb)						
	13-14 Feb 2026	14-15 Feb 2026	15-16 Feb 2026	16-17 Feb 2026	17-18 Feb 2026	18-19 Feb 2026	19-20 Feb 2026
13:00 - 14:00	6.6	5.0	5.6	4.3	5.6	3.8	5.3
14:00 - 15:00	4.5	5.2	4.3	4.4	3.8	4.2	3.7
15:00 - 16:00	4.1	5.2	5.4	3.7	4.3	5.9	4.0
16:00 - 17:00	6.0	5.2	6.1	5.8	5.5	6.0	4.7
17:00 - 18:00	9.1	5.5	5.9	4.7	5.1	4.3	4.2
18:00 - 19:00	8.9	3.9	6.9	8.1	7.6	7.6	6.3
19:00 - 20:00	4.9	4.6	8.5	7.4	6.6	7.5	6.7
20:00 - 21:00	4.5	5.5	8.2	7.0	3.9	7.7	7.9
21:00 - 22:00	6.4	4.1	7.7	8.9	5.2	7.7	7.6
22:00 - 23:00	4.5	6.4	7.8	5.0	3.5	9.2	7.9
23:00 - 00:00	5.1	5.1	7.0	4.0	5.1	3.6	6.6
00:00 - 01:00	6.9	6.0	4.1	5.1	5.6	4.0	8.4
01:00 - 02:00	6.1	6.7	6.1	6.2	5.3	4.0	7.7
02:00 - 03:00	5.7	6.2	4.6	5.1	6.0	6.9	8.9
03:00 - 04:00	4.2	4.1	3.8	5.1	9.1	8.8	6.2
04:00 - 05:00	6.3	5.4	8.0	4.7	7.6	9.1	9.0
05:00 - 06:00	7.0	9.4	7.8	9.5	7.2	9.0	8.5
06:00 - 07:00	9.1	7.1	9.5	8.0	7.5	6.3	7.5
07:00 - 08:00	9.6	7.2	6.7	7.0	9.4	7.6	8.6
08:00 - 09:00	9.3	9.1	9.6	7.4	8.7	4.4	7.3
09:00 - 10:00	7.6	9.1	7.0	5.7	8.5	3.6	6.7
10:00 - 11:00	9.9	7.3	5.2	6.4	8.9	3.4	3.5
11:00 - 12:00	5.6	6.1	5.2	3.6	5.3	5.4	3.4
12:00 - 13:00	4.7	4.7	5.0	6.3	5.6	4.2	3.8
Average-24Hr*	6.5	6.0	6.5	6.0	6.3	6.0	6.4
Max-1Hr	9.9	9.4	9.6	9.5	9.4	9.2	9.0
Min-1Hr	4.1	3.9	3.8	3.6	3.5	3.4	3.4
Standard-1Hr	100 ppb						
Standard-24Hr	50 ppb						

Remark : * Average time between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



บริษัท ซีคอต จำกัด SECOT CO., LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร 10800
239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND
TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 0083/69
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 21/01/2026
SAMPLING DATE : 13-14/01/2026 SAMPLE CONDITION : Normal
SAMPLING TIME : 10:10-10:50 FILE CODE : 226096_TO-15_January
RECEIVED DATE : 15/01/2026
REPORT DATE : 23/01/2026

Compound	SAMPLING LOCATION				STANDARD (µg/m ³)
	Non Detection		Branch 4 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	2.16	6.90	-
Cyclohexane	0.02	0.07	3.69	12.71	-
Toluene	0.02	0.08	5.01	18.87	-
m,p-xylene	0.04	0.17	0.74	3.21	-
o-xylene	0.02	0.09	0.29	1.26	-
Total xylene	0.06	0.26	1.03	4.47	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Jutarat Jaemruen
(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-nga
(Miss Siriwan Chimsa-nga)
Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 0083/69
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 13-14/01/2026	ANALYTICAL DATE	: 21/01/2026
SAMPLING TIME	: 10:30-11:00	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 15/01/2026	FILE CODE	: 226096_TO-15_January
REPORT DATE	: 23/01/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 4 : South		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	2.01	6.42	-
Cyclohexane	0.02	0.07	2.42	8.33	-
Toluene	0.02	0.08	6.83	25.73	-
m,p-xylene	0.04	0.17	5.77	25.06	-
o-xylene	0.02	0.09	0.29	1.26	-
Total xylene	0.06	0.26	6.06	26.32	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 0083/69
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 13-14/01/2026	ANALYTICAL DATE	: 21/01/2026
SAMPLING TIME	: 13:30-13:50	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 15/01/2026	FILE CODE	: 226096_TO-15_January
REPORT DATE	: 23/01/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	4.17	13.32	-
Cyclohexane	0.02	0.07	3.67	12.64	-
Toluene	0.02	0.08	3.35	12.62	-
m,p-xylene	0.04	0.17	1.63	7.08	-
o-xylene	0.02 *	0.09	0.23	1.00	-
Total xylene	0.06	0.26	1.86	8.08	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0083/69
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 21/01/2026
SAMPLING DATE	: 13-14/01/2026	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 13:17-13:35	FILE CODE	: 226096_TO-15_January
RECEIVED DATE	: 15/01/2026		
REPORT DATE	: 23/01/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	2.68	8.56	-
Cyclohexane	0.02	0.07	5.07	17.46	-
Toluene	0.02	0.08	4.95	18.65	-
m,p-xylene	0.04	0.17	0.84	3.65	-
o-xylene	0.02	0.09	0.40	1.74	-
Total xylene	0.06	0.26	1.24	5.39	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Technical Management Team

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3. - Not available.

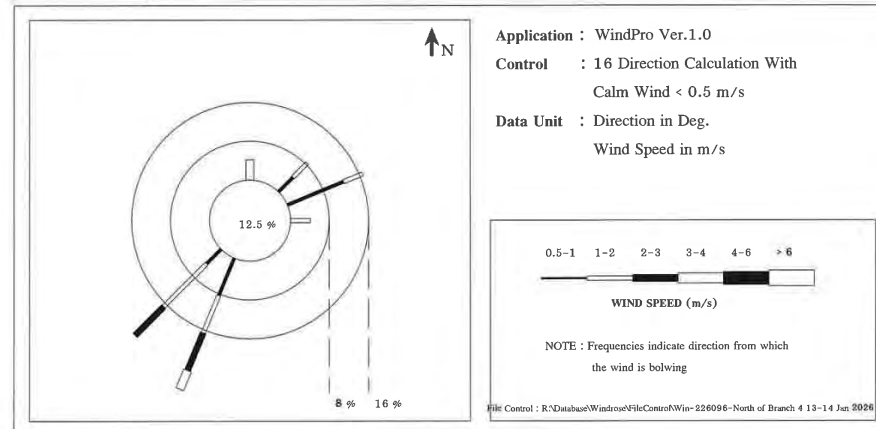
R:\Database\Winrose\FileControl\Win-226096-North of Branch 4 13-14 Jan 2026



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4	Monitor period : 13-14 Jan 2026
Wind Speed Model : Novalynx WS-25	Serial No : A5091
Wind Direction Model : Novalynx WS-25	Serial No : A5091

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0000	0.0000	0.0000	0.0417	0.0000	0.0000	0.0417
NNE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NE	0.0417	0.0417	0.0000	0.0000	0.0000	0.0000	0.0833
ENE	0.1250	0.0417	0.0000	0.0000	0.0000	0.0000	0.1667
E	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0833	0.0833	0.0833	0.0417	0.0000	0.0000	0.2917
SW	0.0417	0.1250	0.0833	0.0000	0.0000	0.0000	0.2500
WSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.1250						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

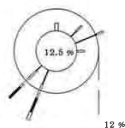


Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

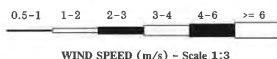
Location : North of Branch 4 Monitor period : 13-14 Jan 2026
 Wind Speed Model : Novalynx WS-25 Serial No : A5091
 Wind Direction Model : Novalynx WS-25 Serial No : A5091

Time	13-14 Jan 2026	
	WS(m/s)	WD
09:00 - 10:00	2.1	SW
10:00 - 11:00	1.9	SSW
11:00 - 12:00	1.7	SW
12:00 - 13:00	2.7	SSW
13:00 - 14:00	3.0	N
14:00 - 15:00	2.5	SSW
15:00 - 16:00	3.0	SSW
16:00 - 17:00	2.1	SW
17:00 - 18:00	1.7	SW
18:00 - 19:00	1.4	SSW
19:00 - 20:00	1.6	SW
20:00 - 21:00	0.6	SSW
21:00 - 22:00	0.5	SSW
22:00 - 23:00	0.7	SW
23:00 - 24:00	0.7	ENE
00:00 - 01:00	0.9	NE
01:00 - 02:00	1.1	NE
02:00 - 03:00	0.3	NNE
03:00 - 04:00	0.4	NE
04:00 - 05:00	0.6	ENE
05:00 - 06:00	0.4	NE
06:00 - 07:00	0.9	ENE
07:00 - 08:00	1.1	E
08:00 - 09:00	1.5	ENE

Wind Rose



12 %



WIND SPEED (m/s) - Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 4 13-14 Jan 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

SECOT CO.,LTD

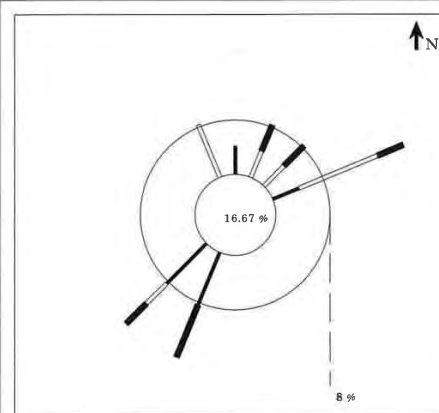
239 Rimklonggrups Rd.
Bangkok, Bangkok 10800
Tel:166(0)2959-3600 Fax: +66(0)2959-3535



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 8 Monitor period : 13-14 Jan 2026
 Wind Speed Model : Novalynx WS-25 Serial No : A5088
 Wind Direction Model : Novalynx WS-25 Serial No : A5088

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	Total
N	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
NNE	0.0000	0.0417	0.0417	0.0000	0.0000	0.0000	0.0833
NE	0.0000	0.0417	0.0417	0.0000	0.0000	0.0000	0.0833
ENE	0.0417	0.1250	0.0417	0.0000	0.0000	0.0000	0.2083
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0833	0.0000	0.0833	0.0000	0.0000	0.0000	0.1667
SW	0.0833	0.0417	0.0417	0.0000	0.0000	0.0000	0.1667
WSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0833	0.0000	0.0000	0.0000	0.0000	0.0833
CALM	0.1667						



8 %

Application : WindPro Ver.1.0

Control : 16 Direction Calculation With
Calm Wind < 0.5 m/s

Data Unit : Direction in Deg.
Wind Speed in m/s



NOTE : Frequencies indicate direction from which
the wind is blowing

File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 8 13-14 Jan 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

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Meteorological Monitoring Results : Wind Rose

MTR-PTTGC 4

Location : North of Branch 8 Monitor period : 13-14 Jan 2026

Wind Speed Model : Novalynx WS-25 Serial No : A5088

Wind Direction Model : Novalynx WS-25 Serial No : A5088

Time	13-14 Jan 2026	
	WS(m/s)	WD
13:00 - 14:00	0.5	SSW
14:00 - 15:00	0.4	SSW
15:00 - 16:00	0.6	SW
16:00 - 17:00	0.6	SW
17:00 - 18:00	0.8	SSW
18:00 - 19:00	1.3	SW
19:00 - 20:00	1.5	NNW
20:00 - 21:00	2.9	SSW
21:00 - 22:00	2.4	SSW
22:00 - 23:00	2.9	SW
23:00 - 24:00	2.0	NNE
00:00 - 01:00	1.6	ENE
01:00 - 02:00	1.0	NNE
02:00 - 03:00	1.4	ENE
03:00 - 04:00	1.4	ENE
04:00 - 05:00	1.2	NE
05:00 - 06:00	2.0	ENE
06:00 - 07:00	2.8	NE
07:00 - 08:00	1.0	NNW
08:00 - 09:00	0.2	NE
09:00 - 10:00	0.3	E
10:00 - 11:00	0.5	ENE
11:00 - 12:00	0.3	NE
12:00 - 13:00	0.8	N

Wind Rose



File Control : R:\Database\Windrose\FileControlWin-226096-North of Branch 8 13-14 Jan 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



บริษัท ซีคอต จำกัด

SECOT CO., LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร 10800
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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0246/69
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 15/02/2026
SAMPLING DATE	: 10-11/02/2026	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 09:21-09:45	FILE CODE	: 226096_TO-15_February
RECEIVED DATE	: 12/02/2026		
REPORT DATE	: 17/02/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 4 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	1.65	5.27	-
Cyclohexane	0.02	0.07	6.64	22.87	-
Toluene	0.02	0.08	4.92	18.53	-
m,p-xylene	0.04	0.17	0.95	4.13	-
o-xylene	0.02	0.09	0.33	1.43	-
Total xylene	0.06	0.26	1.28	5.56	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15.1999

(Miss Jutarat Jaemruen)

Analyst

(Miss Siriwan Chimsa-nga)

Technical Management Team

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SECOT CO., LTD.

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 0246/69
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 10-11/02/2026	ANALYTICAL DATE	: 15/02/2026
SAMPLING TIME	: 09:47-09:56	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 12/02/2026	FILE CODE	: 226096_TO-15_February
REPORT DATE	: 17/02/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 4 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	1.39	4.44	-
Cyclohexane	0.02	0.07	0.78	2.69	-
Toluene	0.02	0.08	3.87	14.58	-
m,p-xylene	0.04	0.17	1.46	6.34	-
o-xylene	0.02	0.09	0.17	0.74	-
Total xylene	0.06	0.26	1.63	7.08	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-ngu

(Miss Siriwan Chimsa-ngu)

Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 0246/69
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 10-11/02/2026	ANALYTICAL DATE	: 15/02/2026
SAMPLING TIME	: 10:22-10:25	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 12/02/2026	FILE CODE	: 226096_TO-15_February
REPORT DATE	: 17/02/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	2.23	7.12	-
Cyclohexane	0.02	0.07	1.51	5.20	-
Toluene	0.02	0.08	3.26	12.28	-
m,p-xylene	0.04	0.17	1.07	4.65	-
o-xylene	0.02	0.09	0.29	1.26	-
Total xylene	0.06	0.26	1.36	5.91	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-ngu

(Miss Siriwan Chimsa-ngu)

Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 0246/69
(Branch 4 : Aromatics I Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 15/02/2026
SAMPLING DATE : 10-11/02/2026 SAMPLE CONDITION : Normal
SAMPLING TIME : 10:15-10:33 FILE CODE : 226096_TO-15_February
RECEIVED DATE : 12/02/2026
REPORT DATE : 17/02/2026

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	2.53	8.08	-
Cyclohexane	0.02	0.07	3.58	12.33	+
Toluene	0.02	0.08	4.67	17.59	+
m,p-xylene	0.04	0.17	1.36	5.91	+
o-xylene	0.02	0.09	0.42	1.82	-
Total xylene	0.06	0.26	1.78	7.73	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd ed. EPA Methods TO-15, 1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-ngu

(Miss Siriwan Chimsa-ngu)

Technical Management Team

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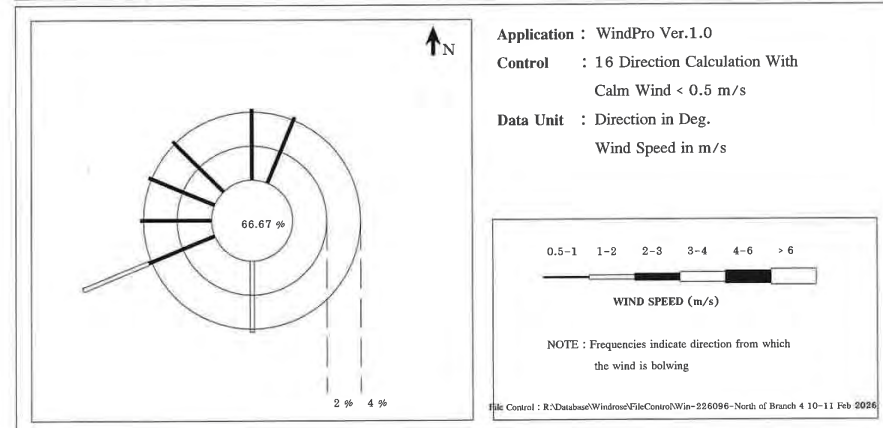
R:\Database\Windrose\FileControl\Win-226096-North of Branch 4 10-11 Feb 2026



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 10-11 Feb 2026
Wind Speed Model : Scarlet WS-21 Serial No : AD:80
Wind Direction Model : Scarlet WS-21 Serial No : AD:80

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
NNE	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
NE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
S	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
SSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WSW	0.0417	0.0417	0.0000	0.0000	0.0000	0.0000	0.0833
W	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
WNW	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
NW	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.6667						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4

Monitor period : 10-11 Feb 2026

Wind Speed Model : Scarlet WS-21

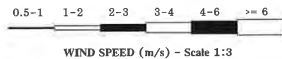
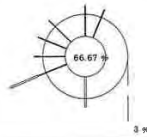
Serial No : AD:80

Wind Direction Model : Scarlet WS-21

Serial No : AD:80

Time	10-11 Feb 2026	
	WS(m/s)	WD
10:00 - 11:00	0.8	WSW
11:00 - 12:00	0.7	NW
12:00 - 13:00	0.9	NNE
13:00 - 14:00	0.6	N
14:00 - 15:00	0.3	WSW
15:00 - 16:00	0.2	W
16:00 - 17:00	0.2	WSW
17:00 - 18:00	0.1	W
18:00 - 19:00	0.0	WNW
19:00 - 20:00	0.1	NW
20:00 - 21:00	0.2	NW
21:00 - 22:00	0.1	WNW
22:00 - 23:00	0.0	WNW
23:00 - 24:00	0.1	WNW
00:00 - 01:00	0.5	WNW
01:00 - 02:00	0.2	NNE
02:00 - 03:00	0.0	NNE
03:00 - 04:00	0.1	NNE
04:00 - 05:00	0.1	NNE
05:00 - 06:00	0.0	NNE
06:00 - 07:00	0.2	NNW
07:00 - 08:00	0.8	W
08:00 - 09:00	1.2	WSW
09:00 - 10:00	1.2	S

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 4 10-11 Feb 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 8

Monitor period : 10-11 Feb 2026

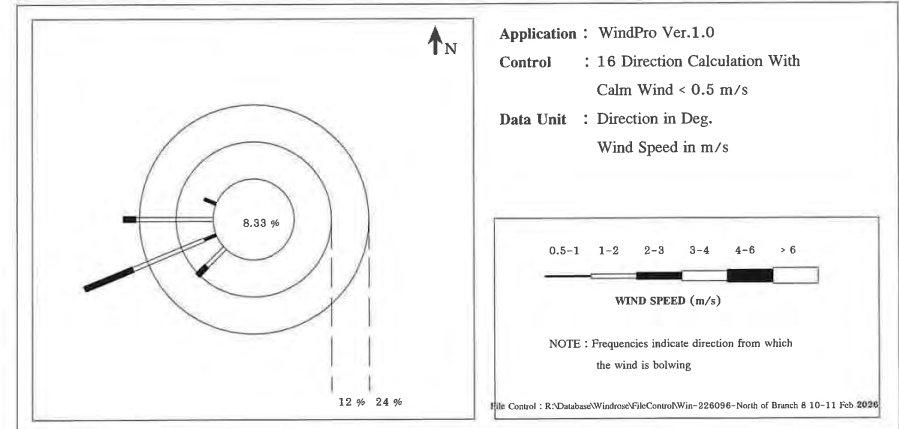
Wind Speed Model : Scarlet WS-21

Serial No : AD:66

Wind Direction Model : Scarlet WS-21

Serial No : AD:66

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	Total
N	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SW	0.0000	0.0833	0.0417	0.0000	0.0000	0.0000	0.1250
WSW	0.0417	0.2500	0.1667	0.0000	0.0000	0.0000	0.4583
W	0.0000	0.2500	0.0417	0.0000	0.0000	0.0000	0.2917
WNW	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.0833						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

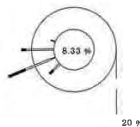


Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 8 Monitor period : 10-11 Feb 2026
Wind Speed Model : Scarlet WS-21 Serial No : AD:66
Wind Direction Model : Scarlet WS-21 Serial No : AD:66

Time	10-11 Feb 2026	
	WS(m/s)	WD
11:00 - 12:00	1.7	W
12:00 - 13:00	1.8	W
13:00 - 14:00	1.7	W
14:00 - 15:00	1.6	W
15:00 - 16:00	1.5	WSW
16:00 - 17:00	1.0	W
17:00 - 18:00	1.0	WSW
18:00 - 19:00	0.7	WNW
19:00 - 20:00	0.3	WNW
20:00 - 21:00	0.3	WSW
21:00 - 22:00	0.8	WSW
22:00 - 23:00	1.1	WSW
23:00 - 24:00	1.8	W
00:00 - 01:00	1.4	WSW
01:00 - 02:00	1.5	WSW
02:00 - 03:00	1.2	WSW
03:00 - 04:00	2.3	W
04:00 - 05:00	2.4	WSW
05:00 - 06:00	2.4	WSW
06:00 - 07:00	2.8	WSW
07:00 - 08:00	2.3	WSW
08:00 - 09:00	2.1	SW
09:00 - 10:00	1.9	SW
10:00 - 11:00	1.8	SW

Wind Rose



0.5-1 1-2 2-3 3-4 4-6 >= 6
WIND SPEED (m/s) - Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 8 10-11 Feb 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 0431/69
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 17-18/03/2026
SAMPLING DATE : 10-11/03/2026 SAMPLE CONDITION : Normal
SAMPLING TIME : 09:55-10:00 FILE CODE : 226096_TO-15_March
RECEIVED DATE : 12/03/2026
REPORT DATE : 18/03/2026

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 4 : North		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	0.77	2.46	-
Cyclohexane	0.02	0.07	4.03	13.88	-
Toluene	0.02	0.08	1.40	5.27	-
m,p-xylene	0.04	0.17	0.43	1.87	-
o-xylene	0.02	0.09	0.06	0.26	-
Total xylene	0.06	0.26	0.49	2.13	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd ed. EPA Methods TO-15,1999

Jutarat Jaemrue

(Miss Jutarat Jaemrue)

Analyst

Shivan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 0431/69
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 17-18/03/2026
SAMPLING DATE : 10-11/03/2026 SAMPLE CONDITION : Normal
SAMPLING TIME : 10:15-10:17 FILE CODE : 226096_TO-15_March
RECEIVED DATE : 12/03/2026
REPORT DATE : 18/03/2026

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 4 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	0.49	1.57	-
Cyclohexane	0.02	0.07	0.66	2.27	-
Toluene	0.02	0.08	0.78	2.94	-
m,p-xylene	0.04	0.17	3.65	15.85	-
o-xylene	0.02	0.09	0.04	0.17	-
Total xylene	0.06	0.26	3.69	16.02	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-ngu

(Miss Siriwan Chimsa-ngu)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 0431/69
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 17-18/03/2026
SAMPLING DATE : 10-11/03/2026 SAMPLE CONDITION : Normal
SAMPLING TIME : 10:52-10:51 FILE CODE : 226096_TO-15_March
RECEIVED DATE : 12/03/2026
REPORT DATE : 18/03/2026

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	4.04	12.90	-
Cyclohexane	0.02	0.07	1.36	4.68	-
Toluene	0.02	0.08	1.49	5.61	-
m,p-xylene	0.04	0.17	0.41	1.78	-
o-xylene	0.02	0.09	0.08	0.35	-
Total xylene	0.06	0.26	0.49	2.13	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 0431/69
(Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 17-18/03/2026
SAMPLING DATE : 10-11/03/2026 SAMPLE CONDITION : Normal
SAMPLING TIME : 10:45-10:42 FILE CODE : 226096_TO-15_March
RECEIVED DATE : 12/03/2026
REPORT DATE : 18/03/2026

Compound	SAMPLING LOCATION				STANDARD (µg/m ³)
	Non Detection		Branch 8 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	2.05	6.55	-
Cyclohexane	0.02	0.07	2.65	9.13	-
Toluene	0.02	0.08	2.57	9.68	-
m,p-xylene	0.04	0.17	0.66	2.87	-
o-xylene	0.02	0.09	0.23	1.00	-
Total xylene	0.06	0.26	0.89	3.87	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 3rd : EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

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(Miss Siriwan Chimsa-nga)

Technical Management Team

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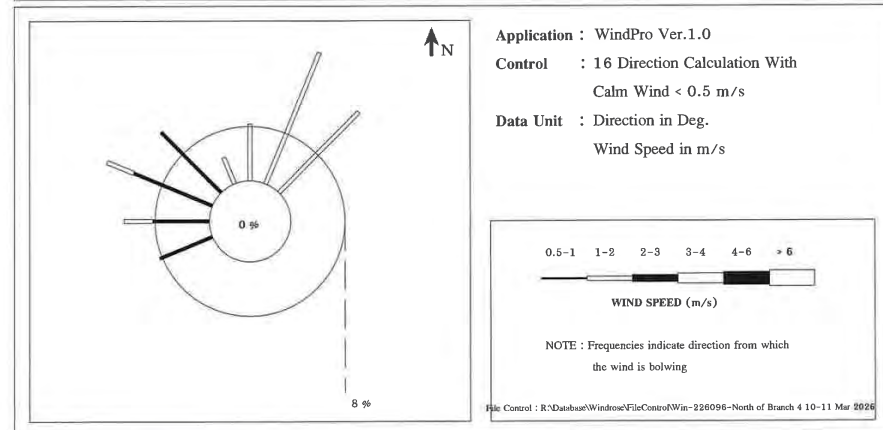
R:\Database\WinDraw\FileControl\Win-226096-North of Branch 4 10-11 Mar 2026



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 10-11 Mar 2026
Wind Speed Model : Scarlet WS-21 Serial No : AD:42
Wind Direction Model : Scarlet WS-21 Serial No : AD:42

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0000	0.0833	0.0000	0.0000	0.0000	0.0000	0.0833
NNE	0.0000	0.2083	0.0000	0.0000	0.0000	0.0000	0.2083
NE	0.0000	0.1667	0.0000	0.0000	0.0000	0.0000	0.1667
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WSW	0.0833	0.0000	0.0000	0.0000	0.0000	0.0000	0.0833
W	0.0833	0.0417	0.0000	0.0000	0.0000	0.0000	0.1250
WNW	0.1250	0.0417	0.0000	0.0000	0.0000	0.0000	0.1667
NW	0.1250	0.0000	0.0000	0.0000	0.0000	0.0000	0.1250
NNW	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
CALM	0.0000						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



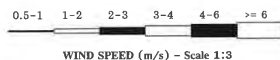
Meteorological Monitoring Results : Wind Rose

MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 10-11 Mar 2026
 Wind Speed Model : Scarlet WS-21 Serial No : AD:42
 Wind Direction Model : Scarlet WS-21 Serial No : AD:42

Time	10-11 Mar 2026	
	WS(m/s)	WD
09:00 - 10:00	1.2	NE
10:00 - 11:00	1.2	NE
11:00 - 12:00	1.1	NE
12:00 - 13:00	1.1	NNE
13:00 - 14:00	1.0	NNE
14:00 - 15:00	1.1	N
15:00 - 16:00	1.3	NNW
16:00 - 17:00	1.3	W
17:00 - 18:00	1.0	WNW
18:00 - 19:00	0.9	WNW
19:00 - 20:00	0.9	WSW
20:00 - 21:00	0.9	WSW
21:00 - 22:00	0.7	W
22:00 - 23:00	0.7	W
23:00 - 24:00	0.6	WNW
00:00 - 01:00	0.6	WNW
01:00 - 02:00	0.9	NW
02:00 - 03:00	0.8	NW
03:00 - 04:00	0.9	NW
04:00 - 05:00	1.1	N
05:00 - 06:00	1.4	NNE
06:00 - 07:00	1.5	NNE
07:00 - 08:00	1.4	NNE
08:00 - 09:00	1.2	NE

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 4 10-11 Mar 2026

(Miss Katesarin Vorradetwittaya)
 Environmental Scientist

(Miss Preeda Somjai)
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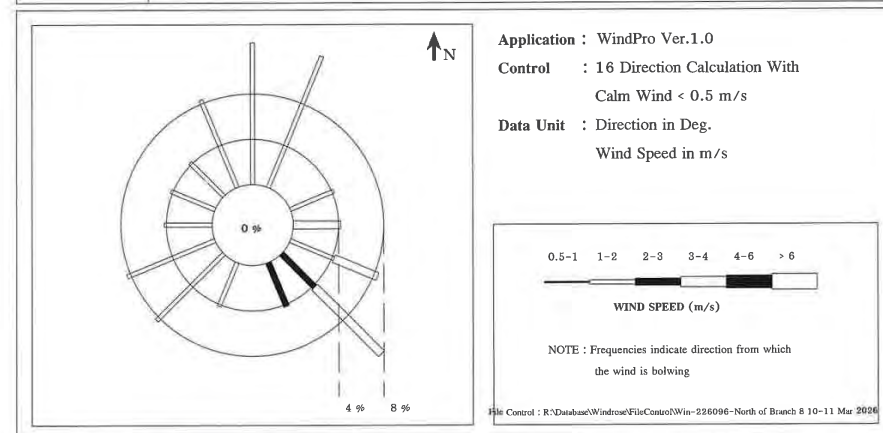


Meteorological Monitoring Results : Wind Rose

MTR-PTTGC 4

Location : North of Branch 8 Monitor period : 10-11 Mar 2026
 Wind Speed Model : Scarlet WS-21 Serial No : AD:66
 Wind Direction Model : Scarlet WS-21 Serial No : AD:66

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0000	0.1250	0.0000	0.0000	0.0000	0.0000	0.1250
NNE	0.0000	0.1250	0.0000	0.0000	0.0000	0.0000	0.1250
NE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ENE	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
E	0.0000	0.0000	0.0000	0.0417	0.0000	0.0000	0.0417
ESE	0.0000	0.0417	0.0000	0.0417	0.0000	0.0000	0.0833
SE	0.0000	0.0000	0.0417	0.0833	0.0000	0.0000	0.1250
SSE	0.0000	0.0000	0.0417	0.0000	0.0000	0.0000	0.0417
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
SW	0.0000	0.0833	0.0000	0.0000	0.0000	0.0000	0.0833
WSW	0.0000	0.0833	0.0000	0.0000	0.0000	0.0000	0.0833
W	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
WNW	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
NW	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
NNW	0.0000	0.0833	0.0000	0.0000	0.0000	0.0000	0.0833
CALM	0.0000						



(Miss Katesarin Vorradetwittaya)
 Environmental Scientist

(Miss Preeda Somjai)
 Technical Management Team



Meteorological Monitoring Results : Wind Rose

MTR-PTTGC 4

Location : North of Branch 8 Monitor period : 10-11 Mar 2026

Wind Speed Model : Scarlet WS-21

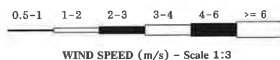
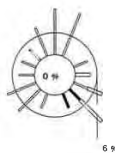
Serial No : AD:66

Wind Direction Model : Scarlet WS-21

Serial No : AD:66

Time	10-11 Mar 2026	
	WS(m/s)	WD
10:00 - 11:00	3.6	E
11:00 - 12:00	3.2	ESE
12:00 - 13:00	3.6	SE
13:00 - 14:00	3.0	SE
14:00 - 15:00	2.4	SE
15:00 - 16:00	2.2	SSE
16:00 - 17:00	1.9	SW
17:00 - 18:00	1.2	WSW
18:00 - 19:00	1.1	W
19:00 - 20:00	1.5	WSW
20:00 - 21:00	1.4	SW
21:00 - 22:00	1.1	SSW
22:00 - 23:00	1.1	ESE
23:00 - 24:00	1.0	NNE
00:00 - 01:00	1.0	NNW
01:00 - 02:00	1.2	WNW
02:00 - 03:00	1.1	N
03:00 - 04:00	1.0	NW
04:00 - 05:00	1.3	NNE
05:00 - 06:00	1.3	N
06:00 - 07:00	1.4	NNW
07:00 - 08:00	1.4	N
08:00 - 09:00	1.8	ENE
09:00 - 10:00	1.6	NNE

Wind Rose



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(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0665/69
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 28/04/2026
SAMPLING DATE	: 21-22/04/2026	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 23/04/2026	FILE CODE	: 226096_TO-15_April
REPORT DATE	: 28/04/2026		

Compound	SAMPLING LOCATION				STANDARD ($\mu\text{g}/\text{m}^3$)
	Non Detection		Branch 4 : North		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	1.03	3.29	-
Cyclohexane	0.02	0.07	0.23	0.79	-
Toluene	0.02	0.08	1.19	4.48	-
m,p-xylene	0.04	0.17	0.27	1.17	-
o-xylene	0.02	0.09	0.06	0.26	-
Total xylene	0.06	0.26	0.33	1.43	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd EPA Methods TO-15, 1999

(Miss Jutarat Jaemruen)

Analyst

(Miss Siriwan Chimsa-ngu)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 0665/69
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 21-22/04/2026	ANALYTICAL DATE	: 28/04/2026
SAMPLING TIME	: 13:59-14:28	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 23/04/2026	FILE CODE	: 226096_TO-15_April
REPORT DATE	: 28/04/2026		

Compound	SAMPLING LOCATION				STANDARD (µg/m ³)
	Non Detection		Branch 4 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	0.11	0.35	-
Cyclohexane	0.02	0.07	0.11	0.38	-
Toluene	0.02	0.08	0.28	1.05	-
m,p-xylene	0.04	0.17	0.16	0.69	-
o-xylene	0.02	0.09	0.06	0.26	-
Total xylene	0.06	0.26	0.22	0.95	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-ngu

(Miss Siriwan Chimsa-ngu)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 0665/69
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 21-22/04/2026	ANALYTICAL DATE	: 28/04/2026
SAMPLING TIME	: 14:27-14:55	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 23/04/2026	FILE CODE	: 226096_TO-15_April
REPORT DATE	: 28/04/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	2.20	7.03	-
Cyclohexane	0.02	0.07	1.34	4.61	-
Toluene	0.02	0.08	1.14	4.29	-
m,p-xylene	0.04	0.17	5.60	24.32	-
o-xylene	0.02	0.09	0.27	1.17	-
Total xylene	0.06	0.26	5.87	25.49	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-ngu

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0665/69
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 28/04/2026
SAMPLING DATE	: 21-22/04/2026	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 14:34-15:03	FILE CODE	: 226096_TO-15_April
RECEIVED DATE	: 23/04/2026		
REPORT DATE	: 28/04/2026		

Compound	SAMPLING LOCATION				STANDARD (µg/m ³)
	Non Detection		Branch 8 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	0.17	0.54	-
Cyclohexane	0.02	0.07	0.13	0.45	-
Toluene	0.02	0.08	0.19	0.72	-
m,p-xylene	0.04	0.17	0.89	3.87	-
o-xylene	0.02	0.09	0.06	0.26	-
Total xylene	0.06	0.26	0.95	4.13	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Sitwan Chimsa-ngu

(Miss Siriwan Chimsa-ngu)

Technical Management Team

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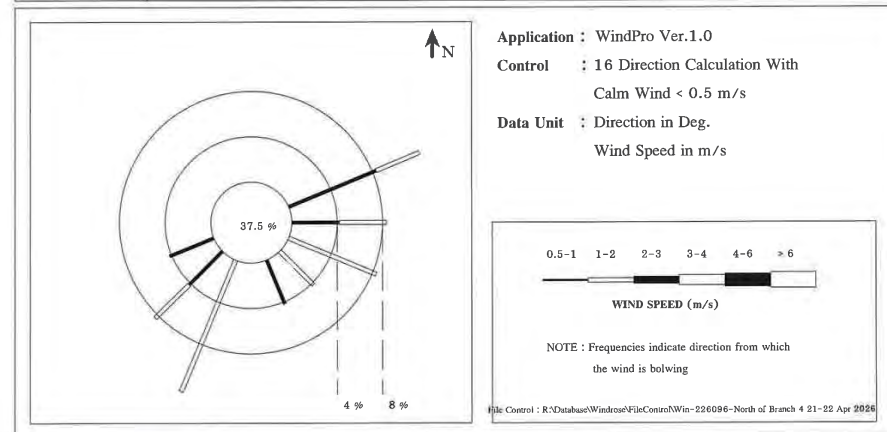
R:\Database\Windrose\FileContro\Win- 226096-North of Branch 4 21-22 Apr 2026



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4	Monitor period : 21-22 Apr 2026
Wind Speed Model : Scarlet WS-21	Serial No : AD:37
Wind Direction Model : Scarlet WS-21	Serial No : AD:37

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	Total
N	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ENE	0.0833	0.0417	0.0000	0.0000	0.0000	0.0000	0.1250
E	0.0417	0.0417	0.0000	0.0000	0.0000	0.0000	0.0833
ESE	0.0000	0.0833	0.0000	0.0000	0.0000	0.0000	0.0833
SE	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
SSE	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0000	0.1250	0.0000	0.0000	0.0000	0.0000	0.1250
SW	0.0417	0.0417	0.0000	0.0000	0.0000	0.0000	0.0833
WSW	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.3750						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

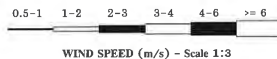
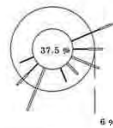


Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 21-22 Apr 2026
Wind Speed Model : Scarlet WS-21 Serial No : AD:37
Wind Direction Model : Scarlet WS-21 Serial No : AD:37

Time	21-22 Apr 2026	
	WS(m/s)	WD
14:00 – 15:00	0.8	SW
15:00 – 16:00	0.8	SSE
16:00 – 17:00	0.7	WSW
17:00 – 18:00	1.3	SSW
18:00 – 19:00	1.4	SW
19:00 – 20:00	0.3	NNW
20:00 – 21:00	0.3	N
21:00 – 22:00	0.2	NW
22:00 – 23:00	0.2	SSW
23:00 – 24:00	0.0	NE
00:00 – 01:00	0.0	E
01:00 – 02:00	0.0	E
02:00 – 03:00	0.1	ENE
03:00 – 04:00	0.4	ENE
04:00 – 05:00	0.7	ENE
05:00 – 06:00	0.6	E
06:00 – 07:00	0.6	ENE
07:00 – 08:00	1.0	ENE
08:00 – 09:00	1.2	E
09:00 – 10:00	1.2	ESE
10:00 – 11:00	1.3	SE
11:00 – 12:00	1.4	ESE
12:00 – 13:00	1.5	SSW
13:00 – 14:00	1.5	SSW

Wind Rose



WIND SPEED (m/s) – Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 4 21-22 Apr 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

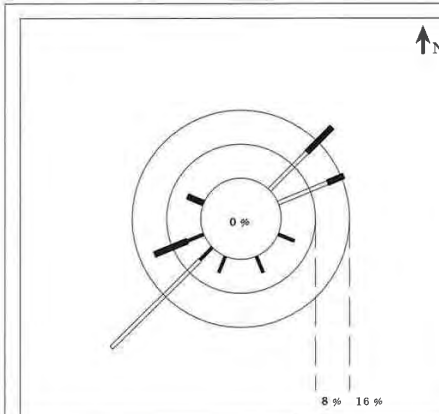
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 8 Monitor period : 21-22 Apr 2026
Wind Speed Model : Scarlet WS-21 Serial No : AD:28
Wind Direction Model : Scarlet WS-21 Serial No : AD:28

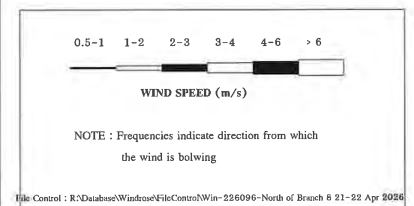
Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	Total
N	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NE	0.0000	0.1250	0.0833	0.0000	0.0000	0.0000	0.2083
ENE	0.0000	0.1250	0.0417	0.0000	0.0000	0.0000	0.1667
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
SW	0.0417	0.2917	0.0000	0.0000	0.0000	0.0000	0.3333
WSW	0.0417	0.0000	0.0833	0.0000	0.0000	0.0000	0.1250
W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WNW	0.0000	0.0000	0.0417	0.0000	0.0000	0.0000	0.0417
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.0000						



Application : WindPro Ver.1.0

Control : 16 Direction Calculation With
Calm Wind < 0.5 m/s

Data Unit : Direction in Deg.
Wind Speed in m/s



NOTE : Frequencies indicate direction from which
the wind is blowing

File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 8 21-22 Apr 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose

MTR-PTTGC 4

Location : North of Branch 8 Monitor period : 21-22 Apr 2026

Wind Speed Model : Scarlet WS-21

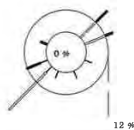
Serial No : AD:28

Wind Direction Model : Scarlet WS-21

Serial No : AD:28

Time	21-22 Apr 2026	
	WS(m/s)	WD
15:00 - 16:00	1.3	SW
16:00 - 17:00	2.1	WSW
17:00 - 18:00	2.3	WSW
18:00 - 19:00	2.1	WNW
19:00 - 20:00	2.7	NE
20:00 - 21:00	2.4	NE
21:00 - 22:00	1.9	NE
22:00 - 23:00	1.7	NE
23:00 - 24:00	1.6	NE
00:00 - 01:00	1.5	ENE
01:00 - 02:00	2.0	ENE
02:00 - 03:00	1.8	ENE
03:00 - 04:00	1.4	ENE
04:00 - 05:00	0.5	SSE
05:00 - 06:00	0.6	SSW
06:00 - 07:00	0.8	ESE
07:00 - 08:00	0.9	WSW
08:00 - 09:00	1.0	SW
09:00 - 10:00	0.9	SW
10:00 - 11:00	1.1	SW
11:00 - 12:00	1.2	SW
12:00 - 13:00	1.2	SW
13:00 - 14:00	1.3	SW
14:00 - 15:00	1.8	SW

Wind Rose



0.5-1 1-2 2-3 3-4 4-6 >= 6

WIND SPEED (m/s) - Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 8 21-22 Apr 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0821/69
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 18-19/05/2026
SAMPLING DATE	: 12-13/05/2026	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 09:39-10:00	FILE CODE	: 226096_TO-15_May
RECEIVED DATE	: 14/05/2026		
REPORT DATE	: 20/05/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 4 : North		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	1.20	3.83	-
Cyclohexane	0.02	0.07	2.10	7.23	-
Toluene	0.02	0.08	4.08	15.37	-
m,p-xylene	0.04	0.17	0.52	2.26	-
o-xylene	0.02	0.09	0.12	0.52	-
Total xylene	0.06	0.26	0.64	2.78	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Jutarat Jaernuen

(Miss Jutarat Jaernuen)

Analyst

Siriwan Chimsanga

(Miss Siriwan Chimsanga)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 0821/69
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 12-13/05/2026	ANALYTICAL DATE	: 18-19/05/2026
SAMPLING TIME	: 09:55-10:14	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 14/05/2026	FILE CODE	: 226096_TO-15_May
REPORT DATE	: 20/05/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 4 : South		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	0.19	0.61	-
Cyclohexane	0.02	0.07	0.32	1.10	-
Toluene	0.02	0.08	1.12	4.22	-
m,p-xylene	0.04	0.17	0.66	2.87	-
o-xylene	0.02	0.09	0.08	0.35	-
Total xylene	0.06	0.26	0.74	3.22	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 0821/69
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 12-13/05/2026	ANALYTICAL DATE	: 18-19/05/2026
SAMPLING TIME	: 10:24-10:37	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 14/05/2026	FILE CODE	: 226096_TO-15_May
REPORT DATE	: 20/05/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	3.00	9.58	-
Cyclohexane	0.02	0.07	3.18	10.95	-
Toluene	0.02	0.08	2.53	9.53	-
m,p-xylene	0.04	0.17	3.61	15.68	-
o-xylene	0.02	0.09	0.29	1.26	-
Total xylene	0.06	0.26	3.90	16.94	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0821/69
	(Branch 4 : Aromatics I Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 18-19/05/2026
SAMPLING DATE	: 12-13/05/2026	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 10:34-10:46	FILE CODE	: 226096_TO-15_May
RECEIVED DATE	: 14/05/2026		
REPORT DATE	: 20/05/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	1.63	5.21	-
Cyclohexane	0.02	0.07	3.24	11.16	-
Toluene	0.02	0.08	1.84	6.93	-
m,p-xylene	0.04	0.17	0.66	2.87	-
o-xylene	0.02	0.09	0.21	0.91	-
Total xylene	0.06	0.26	0.87	3.78	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Technical Management Team

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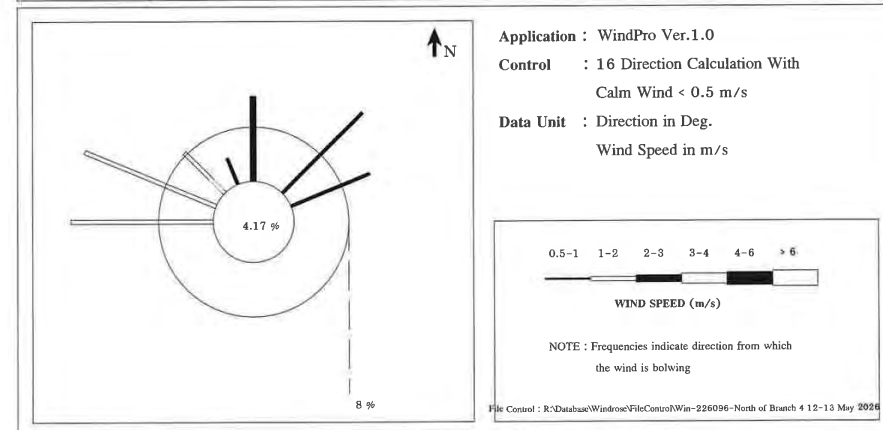
R:\Database\Windrose\FileControl\Win-226096-North of Branch 4 12-13 May 2026



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location	: North of Branch 4	Monitor period	: 12-13 May 2026
Wind Speed Model	: Scarlet WS-21	Serial No	: AD:41
Wind Direction Model	: Scarlet WS-21	Serial No	: AD:41

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0000	0.0000	0.1250	0.0000	0.0000	0.0000	0.1250
NNE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NE	0.1667	0.0000	0.0000	0.0000	0.0000	0.0000	0.1667
ENE	0.1250	0.0000	0.0000	0.0000	0.0000	0.0000	0.1250
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
W	0.0000	0.2083	0.0000	0.0000	0.0000	0.0000	0.2083
WNW	0.0000	0.2083	0.0000	0.0000	0.0000	0.0000	0.2083
NW	0.0000	0.0833	0.0000	0.0000	0.0000	0.0000	0.0833
NNW	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
CALM	0.0417						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

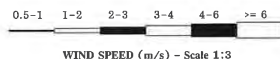
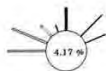


Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 4 Monitor period : 12-13 May 2026
Wind Speed Model : Scarlet WS-21 Serial No : AD:41
Wind Direction Model : Scarlet WS-21 Serial No : AD:41

Time	12-13 May 2026	
	WS(m/s)	WD
10:00 - 11:00	0.6	NNW
11:00 - 12:00	0.2	NNW
12:00 - 13:00	1.6	WNW
13:00 - 14:00	1.6	WNW
14:00 - 15:00	1.6	W
15:00 - 16:00	1.7	WNW
16:00 - 17:00	1.4	W
17:00 - 18:00	1.6	W
18:00 - 19:00	1.4	W
19:00 - 20:00	1.6	W
20:00 - 21:00	0.5	NE
21:00 - 22:00	1.7	NW
22:00 - 23:00	2.0	N
23:00 - 24:00	0.6	NE
00:00 - 01:00	1.7	NW
01:00 - 02:00	1.6	WNW
02:00 - 03:00	1.7	WNW
03:00 - 04:00	2.0	N
04:00 - 05:00	0.7	ENE
05:00 - 06:00	0.6	NE
06:00 - 07:00	0.5	NE
07:00 - 08:00	0.7	ENE
08:00 - 09:00	0.5	ENE
09:00 - 10:00	2.0	N

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 4 12-13 May 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

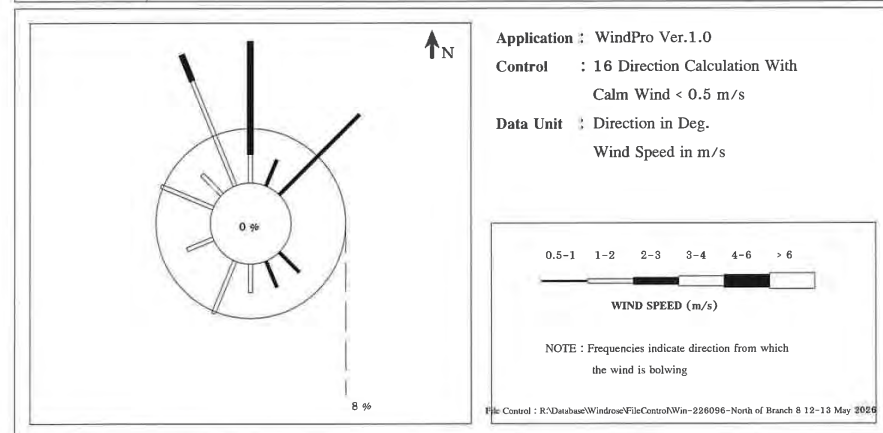
Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 8 Monitor period : 12-13 May 2026
Wind Speed Model : Scarlet WS-21 Serial No : AD:39
Wind Direction Model : Scarlet WS-21 Serial No : AD:39

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0000	0.0417	0.1667	0.0000	0.0000	0.0000	0.2083
NNE	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
NE	0.1667	0.0000	0.0000	0.0000	0.0000	0.0000	0.1667
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
SSE	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
S	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
SSW	0.0000	0.0833	0.0000	0.0000	0.0000	0.0000	0.0833
SW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WSW	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WNW	0.0000	0.0833	0.0000	0.0000	0.0000	0.0000	0.0833
NW	0.0000	0.0417	0.0000	0.0000	0.0000	0.0000	0.0417
NNW	0.0000	0.1667	0.0417	0.0000	0.0000	0.0000	0.2083
CALM	0.0000						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



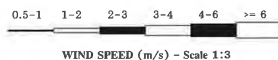
Meteorological Monitoring Results : Wind Rose

MTR-PTTGC 4

Location : North of Branch 8 Monitor period : 12-13 May 2026
 Wind Speed Model : Scarlet WS-21 Serial No : AD:39
 Wind Direction Model : Scarlet WS-21 Serial No : AD:39

Time	12-13 May 2026	
	WS(m/s)	WD
10:00 - 11:00	1.1	SSW
11:00 - 12:00	2.0	N
12:00 - 13:00	1.5	WNW
13:00 - 14:00	2.0	NNW
14:00 - 15:00	0.6	NNE
15:00 - 16:00	1.8	NNW
16:00 - 17:00	1.2	S
17:00 - 18:00	1.8	NNW
18:00 - 19:00	0.7	SE
19:00 - 20:00	0.5	NE
20:00 - 21:00	2.0	N
21:00 - 22:00	1.2	SSW
22:00 - 23:00	0.6	NE
23:00 - 24:00	1.8	NNW
00:00 - 01:00	0.5	NE
01:00 - 02:00	1.3	WSW
02:00 - 03:00	1.8	N
03:00 - 04:00	2.0	N
04:00 - 05:00	1.7	NW
05:00 - 06:00	2.0	N
06:00 - 07:00	0.6	NE
07:00 - 08:00	0.9	SSE
08:00 - 09:00	1.8	NNW
09:00 - 10:00	1.7	WNW

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 8 12-13 May 2026

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Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



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 TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REQUEST SERVICE No. : 1003/69
 (Branch 4 : Aromatics 1 Plant) SAMPLING METHOD : Subatmospheric Pressure Sampling
 SAMPLING BY : SECOT Co., Ltd. ANALYTICAL DATE : 13/06/2026
 SAMPLING DATE : 09-10/06/2026 SAMPLE CONDITION : Normal
 RECEIVED DATE : 11/06/2026 FILE CODE : 226096_TO-15_June
 REPORT DATE : 15/06/2026

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 4 : North		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	0.51	1.63	-
Cyclohexane	0.02	0.07	11.21	38.60	-
Toluene	0.02	0.08	2.59	9.76	-
m,p-xylene	0.04	0.17	0.23	1.00	-
o-xylene	0.02	0.09	0.06	0.26	-
Total xylene	0.06	0.26	0.29	1.26	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd : EPA Methods TO-15, 1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 1003/69
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 09-10/06/2026	ANALYTICAL DATE	: 13/06/2026
SAMPLING TIME	: 14:42-14:30	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 11/06/2026	FILE CODE	: 226096_TO-15_June
REPORT DATE	: 15/06/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 4 : South		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	0.13	0.42	-
Cyclohexane	0.02	0.07	0.06	0.21	-
Toluene	0.02	0.08	0.39	1.47	-
m,p-xylene	0.04	0.17	0.21	0.91	-
o-xylene	0.02	0.09	0.04	0.17	-
Total xylene	0.06	0.26	0.25	1.08	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 1003/69
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING DATE	: 09-10/06/2026	ANALYTICAL DATE	: 13/06/2026
SAMPLING TIME	: 15:24-15:20	SAMPLE CONDITION	: Normal
RECEIVED DATE	: 11/06/2026	FILE CODE	: 226096_TO-15_June
REPORT DATE	: 15/06/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD (µg/m ³)
			Branch 8 : North		
	ppbv	µg/m ³	ppbv	µg/m ³	
Benzene	0.004	0.013	0.79	2.52	-
Cyclohexane	0.02	0.07	5.85	20.15	-
Toluene	0.02	0.08	2.89	10.89	-
m,p-xylene	0.04	0.17	0.35	1.52	-
o-xylene	0.02	0.09	0.12	0.52	-
Total xylene	0.06	0.26	0.47	2.04	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15,1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

Siriwan Chimsa-nga

(Miss Siriwan Chimsa-nga)

Technical Management Team

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 1003/69
	(Branch 4 : Aromatics 1 Plant)	SAMPLING METHOD	: Subatmospheric Pressure Sampling
SAMPLING BY	: SECOT Co., Ltd.	ANALYTICAL DATE	: 13/06/2026
SAMPLING DATE	: 09-10/06/2026	SAMPLE CONDITION	: Normal
SAMPLING TIME	: 15:34-15:36	FILE CODE	: 226096_TO-15_June
RECEIVED DATE	: 11/06/2026		
REPORT DATE	: 15/06/2026		

Compound	Non Detection		SAMPLING LOCATION		STANDARD ($\mu\text{g}/\text{m}^3$)
			Branch 8 : South		
	ppbv	$\mu\text{g}/\text{m}^3$	ppbv	$\mu\text{g}/\text{m}^3$	
Benzene	0.004	0.013	0.15	0.48	-
Cyclohexane	0.02	0.07	6.47	22.28	-
Toluene	0.02	0.08	0.58	2.18	-
m,p-xylene	0.04	0.17	0.12	0.52	-
o-xylene	0.02	0.09	0.04	0.17	-
Total xylene	0.06	0.26	0.16	0.69	-

Methods for the Determination of Toxic Organic Compound in Ambient Air, 2nd - EPA Methods TO-15.1999

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

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(Miss Siriwan Chimsa-nga)

Technical Management Team

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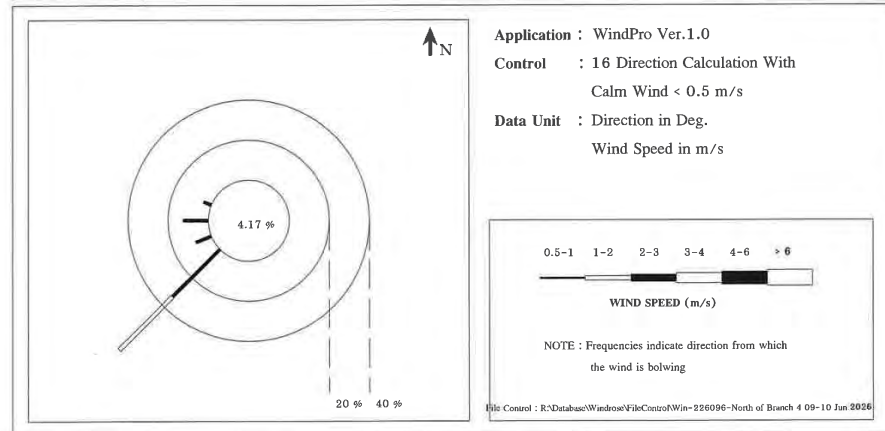
R:\Database\Winrose\FileControl\Win-226096-North of Branch 4 09-10 Jun 2026



Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location	: North of Branch 4	Monitor period	: 09-10 Jun 2026
Wind Speed Model	: Scarlet WL-21	Serial No	: 2112DR0042
Wind Direction Model	: Scarlet WL-21	Serial No	: 2112DR0042

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
S	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SW	0.3333	0.3750	0.0000	0.0000	0.0000	0.0000	0.7083
WSW	0.0833	0.0000	0.0000	0.0000	0.0000	0.0000	0.0833
W	0.1250	0.0000	0.0000	0.0000	0.0000	0.0000	0.1250
WNW	0.0417	0.0000	0.0000	0.0000	0.0000	0.0000	0.0417
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.0417						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda J.
(Miss Preeda Somjai)
Technical Management Team

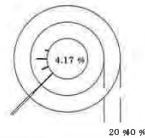


Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

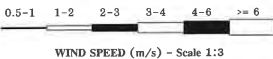
Location : North of Branch 4 Monitor period : 09-10 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2112DR0042
Wind Direction Model : Scarlet WL-21 Serial No : 2112DR0042

Time	09-10 Jun 2026	
	WS(m/s)	WD
14:00 - 15:00	1.2	SW
15:00 - 16:00	1.1	SW
16:00 - 17:00	1.2	SW
17:00 - 18:00	1.2	SW
18:00 - 19:00	1.1	SW
19:00 - 20:00	1.1	SW
20:00 - 21:00	1.2	SW
21:00 - 22:00	0.6	SW
22:00 - 23:00	0.5	SW
23:00 - 24:00	0.5	WNW
00:00 - 01:00	0.5	WSW
01:00 - 02:00	0.5	W
02:00 - 03:00	0.6	SW
03:00 - 04:00	0.5	SW
04:00 - 05:00	0.5	WSW
05:00 - 06:00	0.5	W
06:00 - 07:00	0.5	SW
07:00 - 08:00	0.5	W
08:00 - 09:00	0.6	SW
09:00 - 10:00	0.4	SW
10:00 - 11:00	0.5	SW
11:00 - 12:00	0.8	SW
12:00 - 13:00	1.0	SW
13:00 - 14:00	1.2	SW

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 4 09-10 Jun 2026



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

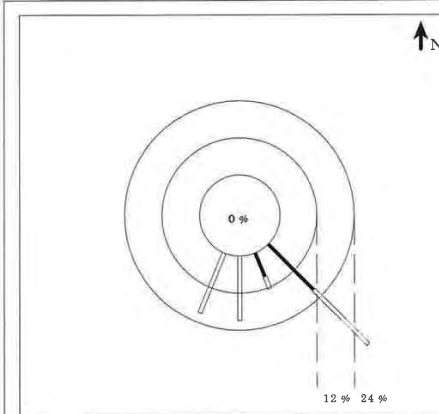
(Miss Preeda Somjai)
Technical Management Team



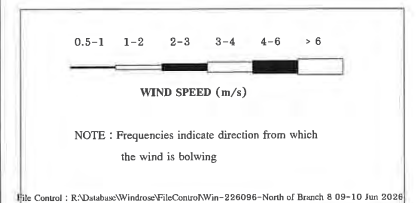
Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 8 Monitor period : 09-10 Jun 2026
Wind Speed Model : Scarlet WL-21 Serial No : 2112DR0016
Wind Direction Model : Scarlet WL-21 Serial No : 2112DR0016

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						
	0.5 - 1 m/s	1 - 2 m/s	2 - 3 m/s	3 - 4 m/s	4 - 6 m/s	More than 6	Total
N	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ENE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
SE	0.2083	0.2500	0.0000	0.0000	0.0000	0.0000	0.4583
SSE	0.0833	0.0417	0.0000	0.0000	0.0000	0.0000	0.1250
S	0.0000	0.2083	0.0000	0.0000	0.0000	0.0000	0.2083
SSW	0.0000	0.2083	0.0000	0.0000	0.0000	0.0000	0.2083
SW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WSW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.0000						



Application : WindPro Ver.1.0
Control : 16 Direction Calculation With
Calm Wind < 0.5 m/s
Data Unit : Direction in Deg.
Wind Speed in m/s



File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 8 09-10 Jun 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

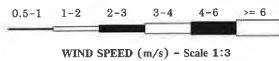


Meteorological Monitoring Results : Wind Rose MTR-PTTGC 4

Location : North of Branch 8 Monitor period : 09-10 Jun 2026
 Wind Speed Model : Scarlet WL-21 Serial No : 2112DR0016
 Wind Direction Model : Scarlet WL-21 Serial No : 2112DR0016

Time	09-10 Jun 2026	
	WS(m/s)	WD
14:00 - 15:00	1.6	SSW
15:00 - 16:00	1.4	S
16:00 - 17:00	1.5	SSE
17:00 - 18:00	1.6	S
18:00 - 19:00	1.4	S
19:00 - 20:00	1.8	SSW
20:00 - 21:00	1.7	SSW
21:00 - 22:00	1.8	SSW
22:00 - 23:00	1.6	SSW
23:00 - 24:00	1.4	S
00:00 - 01:00	1.5	SE
01:00 - 02:00	1.4	SE
02:00 - 03:00	1.2	SE
03:00 - 04:00	1.0	SE
04:00 - 05:00	1.2	SE
05:00 - 06:00	1.1	SE
06:00 - 07:00	0.9	SE
07:00 - 08:00	0.9	SE
08:00 - 09:00	0.7	SE
09:00 - 10:00	0.7	SE
10:00 - 11:00	0.8	SE
11:00 - 12:00	0.6	SSE
12:00 - 13:00	0.5	SSE
13:00 - 14:00	1.7	S

Wind Rose	
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File Control : R:\Database\Windrose\FileControl\Win-226096-North of Branch 8 09-10 Jun 2026

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

ภาคผนวก ง.3

ใบรับรองผลการตรวจวัดคุณภาพน้ำ



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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0017/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 07/01/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 08/01/2026	SAMPLING TIME	: 10:03
ANALYTICAL DATE	: 08-16/01/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 16/01/2026		: 7-239-0-0027
SAMPLE CONDITION	: เหลืองปูนมีตะกอน	FILE CODE	: 226096_WW_January

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD
				Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.63	-
Total Suspended Solids	mg/l	2540 D	< 2.5	28	-
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	-
BOD ₅	mg/l	5210 B	< 1.0	9.4	-
COD	mg/l	5220 C	< 15.00	33.66	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0084	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

Pornnapa Budthum

(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-0-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-0-0005

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0017/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 07/01/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 08/01/2026	SAMPLING TIME	: 09:35
ANALYTICAL DATE	: 08-16/01/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 16/01/2026		: 7-239-0-0027
SAMPLE CONDITION	: เหลืองใส	FILE CODE	: 226096_WW_January

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	8.09	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 1
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	< 15.00	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

Pornnapa Budthum

(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-0-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-0-0005

- Remark :**
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 2. This report shall not be reproduced, except in full, without official approval.
 3. ^{1/} Notification of the Ministry of Natural Resources and Environment, B.E.2559 (2016) and Notification of the Ministry of Industry, Regarding Industrial Effluent Standards, B.E.2560 (2017).
 4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0017/69
	: (Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 07/01/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 08/01/2026	SAMPLING TIME	: 10:19
ANALYTICAL DATE	: 08-16/01/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 16/01/2026	FILE CODE	: 7-239-ก-0027
SAMPLE CONDITION	: เหลืองใสมีตะกอน		: 226096_WW_January

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	8.45	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	2,060	≤ 32,480 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	38.15	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

Bong Pornnapa Budthum
(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-ก-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-ก-0005

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 3. ^{1/} Notification of the Ministry of Natural Resources and Environment, B.E.2559 (2016) and Notification of the Ministry of Industry, Regarding Industrial Effluent Standards, B.E.2560 (2017).
 4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l (TDS valve in the last month in receiving water = 27,480 mg/l).
 5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0175/69
	: (Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 04/02/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 05/02/2026	SAMPLING TIME	: 09:30
ANALYTICAL DATE	: 05-12/02/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 12/02/2026	FILE CODE	: 7-239-ก-0026
SAMPLE CONDITION	: เหลืองขุ่นมีตะกอน		: 226096_WW_February

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD
				Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.20	-
Total Suspended Solids	mg/l	2540 D	< 2.5	21	-
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	-
BOD ₅	mg/l	5210 B	< 1.0	24.5	-
COD	mg/l	5220 C	< 15.00	65.46	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0064	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

Bong Pornnapa Budthum
(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-ก-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-ก-0005

- Remark :**
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 3. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0175/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 04/02/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 05/02/2026	SAMPLING TIME	: 09:25
ANALYTICAL DATE	: 05-12/02/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 12/02/2026		: 7-239-ท-0026
SAMPLE CONDITION	: ใส	FILE CODE	: 226096_WW_February

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.05	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 1
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	< 15.00	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Pornnapa Budthum

(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-ท-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-ท-0005

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4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0175/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 04/02/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 05/02/2026	SAMPLING TIME	: 09:45
ANALYTICAL DATE	: 05-12/02/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 12/02/2026		: 7-239-ท-0026
SAMPLE CONDITION	: ใส	FILE CODE	: 226096_WW_February

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	7.83	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	1,660	≤ 37,760 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	< 15.00	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Pornnapa Budthum

(Miss Pornnapa Budthum)

Analyst

REG. NO. 7-239-ท-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-ท-0005

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Notification of the Ministry of Industry, Regarding Industrial Effluent Standards, B.E.2560 (2017).

4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l

(TDS value in the last month in receiving water = 32,760 mg/l).

5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0365/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 04/03/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 05/03/2026	SAMPLING TIME	: 10:05
ANALYTICAL DATE	: 05-12/03/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 12/03/2026		: ๖-239-๖-0027
SAMPLE CONDITION	: น้ำตก	FILE CODE	: 226096_WW_March

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD
				Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.07	-
Total Suspended Solids	mg/l	2540 D	< 2.5	48	-
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	0.93	-
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	-
BOD ₅	mg/l	5210 B	< 1.0	27.2	-
COD	mg/l	5220 C	< 15.00	137	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0114	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Pornapa Budthum
(Miss Pornnapa Budthum)
Analyst
REG. NO. ๖-239-๖-0018

Khemchuda Insorn
(Miss Khemchuda Insorn)
Technical Management Team
REG. NO. ๖-239-๖-0005

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0365/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 04/03/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 05/03/2026	SAMPLING TIME	: 09:50
ANALYTICAL DATE	: 05-12/03/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 12/03/2026		: ๖-239-๖-0027
SAMPLE CONDITION	: เหลืองใส	FILE CODE	: 226096_WW_March

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.08	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 1
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	< 15.00	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Pornapa Budthum
(Miss Pornnapa Budthum)
Analyst
REG. NO. ๖-239-๖-0018

Khemchuda Insorn
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Technical Management Team
REG. NO. ๖-239-๖-0005

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 4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0365/69
	: (Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 04/03/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 05/03/2026	SAMPLING TIME	: 10:15
ANALYTICAL DATE	: 05-12/03/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 12/03/2026		: 7-239-ท-0027
SAMPLE CONDITION	: เหลืองใส	FILE CODE	: 226096_WW_March

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	7.14	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	1,560	≤ 32,200 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	23.45	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Bongpa Puthum
(Miss Pornnapa Budthum)
Analyst
REG. NO. 7-239-ท-0018

Khemchuda Insorn
(Miss Khemchuda Insorn)
Technical Management Team
REG. NO. 7-239-ท-0005

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 4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l (TDS valve in the last month in receiving water = 27,200 mg/l).
 5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0532/69
	: (Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 01/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 02/04/2026	SAMPLING TIME	: 13:40
ANALYTICAL DATE	: 02-08/04/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 08/04/2026		: 7-239-ท-0027
SAMPLE CONDITION	: เทาขุ่น	FILE CODE	: 226096_WW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD
				Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.82	+
Total Suspended Solids	mg/l	2540 D	< 2.5	31	+
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	0.88	+
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	+
BOD ₅	mg/l	5210 B	< 1.0	26.7	+
COD	mg/l	5220 C	< 15.00	102	+
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0123	+

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Bongpa Puthum
(Miss Pornnapa Budthum)
Analyst
REG. NO. 7-239-ท-0018

Khemchuda Insorn
(Miss Khemchuda Insorn)
Technical Management Team
REG. NO. 7-239-ท-0005

- Remark :**
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 3. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0532/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 01/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 02/04/2026	SAMPLING TIME	: 13:30
ANALYTICAL DATE	: 02-08/04/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 08/04/2026		: ๖-239-๖-0027
SAMPLE CONDITION	: เหลือใส	FILE CODE	: 226096_WW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.73	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 1
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	< 15.00	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0106	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

Pornnapa Budthum
(Miss Pornnapa Budthum)

Analyst

REG. NO. ๖-239-๖-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. ๖-239-๖-0005

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 4. - Not available.



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SECOT CO., LTD.

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0660/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 21/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 22/04/2026	SAMPLING TIME	: 10:30
ANALYTICAL DATE	: 22-30/04/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 30/04/2026		: ๖-239-๖-0027
SAMPLE CONDITION	: เหลือใส	FILE CODE	: 226096_WW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.51	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 1
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	23.54	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

Pornnapa Budthum
(Miss Pornnapa Budthum)

Analyst

REG. NO. ๖-239-๖-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. ๖-239-๖-0005

- Remark :**
1. Reported analysis refers to submitted sample only.
 2. This report shall not be reproduced, except in full, without official approval.
 3. ^{1/} Notification of the Ministry of Natural Resources and Environment, B.E.2559 (2016) and
Notification of the Ministry of Industry, Regarding Industrial Effluent Standards, B.E.2560 (2017).
 4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0532/69
	: (Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 01/04/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 02/04/2026	SAMPLING TIME	: 13:50
ANALYTICAL DATE	: 02-08/04/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 08/04/2026		: ๖-239-๓-0027
SAMPLE CONDITION	: เหลือองไส	FILE CODE	: 226096_WW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	8.00	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	2,268	≤ 35,560 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	1.0	≤ 20
COD	mg/l	5220 C	< 15.00	31.39	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

Pornapa Budthum
(Miss Pornnapa Budthum)
Analyst
REG. NO. ๖-239-๓-0018

Khemchuda Insorn
(Miss Khemchuda Insorn)
Technical Management Team
REG. NO. ๖-239-๓-0005

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 4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l
(TDS valve in the last month in receiving water = 30,560 mg/l).
 5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0740/69
	: (Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 10:05
ANALYTICAL DATE	: 07-15/05/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 15/05/2026		: ๖-239-๓-0026
SAMPLE CONDITION	: เทาชุ่ม	FILE CODE	: 226096_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD
				Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.48	-
Total Suspended Solids	mg/l	2540 D	< 2.5	24	-
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	-
BOD ₅	mg/l	5210 B	< 1.0	13.3	-
COD	mg/l	5220 C	< 15.00	51.86	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0102	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2023 (AWWA, APHA, WEF)

Pornapa Budthum
(Miss Pornnapa Budthum)
Analyst
REG. NO. ๖-239-๓-0018

Khemchuda Insorn
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Technical Management Team
REG. NO. ๖-239-๓-0005

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 3. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0740/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 10:00
ANALYTICAL DATE	: 07-15/05/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 15/05/2026		: ๖-239-๖-0026
SAMPLE CONDITION	: ใส	FILE CODE	: 226096_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.84	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 2.5	9.3	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 1
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	23.83	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Pornapa Budthum

(Miss Pornapa Budthum)

Analyst

REG. NO. ๖-239-๖-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

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 4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0740/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 10:20
ANALYTICAL DATE	: 07-15/05/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 15/05/2026		: ๖-239-๖-0026
SAMPLE CONDITION	: ใส	FILE CODE	: 226096_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	7.75	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	3,864	≤ 31,960 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 2.5	7.8	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	16.82	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0006	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Pornapa Budthum

(Miss Pornapa Budthum)

Analyst

REG. NO. ๖-239-๖-0018

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. ๖-239-๖-0005

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 3. ^{1/} Notification of the Ministry of Natural Resources and Environment, B.E.2559 (2016) and Notification of the Ministry of Industry, Regarding Industrial Effluent Standards, B.E.2560 (2017).
 4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l (TDS valve in the last month in receiving water = 26,960 mg/l).
 5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0998/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 10/06/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 11/06/2026	SAMPLING TIME	: 09:40
ANALYTICAL DATE	: 11-19/06/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 19/06/2026		: ๖-239-๖-0027
SAMPLE CONDITION	: เทาปูน	FILE CODE	: 226096_WW_June

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD
				Equalization Tank	
pH	-	4500-H ⁺ B	< 0.10	7.95	-
Total Suspended Solids	mg/l	2540 D	< 2.5	10	-
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	-
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	-
BOD ₅	mg/l	5210 B	< 1.0	35.8	-
COD	mg/l	5220 C	< 15.00	123	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0018	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2021 (AWWA, APHA, WEF)

Bongpa Budthum
(Miss Pornnapa Budthum)

Analyst

REG. NO. ๖-239-๖-0018

Khemchuda Insorn
(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. ๖-239-๖-0005

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 3. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0998/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 10/06/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 11/06/2026	SAMPLING TIME	: 09:30
ANALYTICAL DATE	: 11-19/06/2026	SITE OPERATOR	: Miss Thipsuda Wannakran
REPORT DATE	: 19/06/2026		: ๖-239-๖-0027
SAMPLE CONDITION	: ใส	FILE CODE	: 226096_WW_June

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from Final Effluent Basin	
pH	-	4500-H ⁺ B	< 0.10	7.31	5.5-9.0
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 1
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	≤ 5
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	49.44	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED., 2021 (AWWA, APHA, WEF)

Bongpa Budthum
(Miss Pornnapa Budthum)

Analyst

REG. NO. ๖-239-๖-0018

Khemchuda Insorn
(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. ๖-239-๖-0005

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 4. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0998/69
	: (Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 10/06/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 11/06/2026	SAMPLING TIME	: 09:50
ANALYTICAL DATE	: 11-19/06/2026		: Miss Thipsuda Wannakran
REPORT DATE	: 19/06/2026	SITE OPERATOR	: 7-239-0-0027
SAMPLE CONDITION	: ใส	FILE CODE	: 226096_WW_June

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				Effluent from 940-XC1	
pH	-	4500-H ⁺ B	< 0.10	7.37	5.5-9.0
Total Dissolved Solids	mg/l	2540 C	< 25	1,160	≤ 35,140 ^{2/}
Total Suspended Solids	mg/l	2540 D	< 2.5	< 2.5	≤ 50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0	≤ 20
COD	mg/l	5220 C	< 15.00	16.48	≤ 120
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0007	≤ 0.005

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA APHA WEF)

(Miss Pornnapa Budthum)
Analyst
REG. NO. 7-239-0-0018

(Miss Khemchuda Insorn)
Technical Management Team
REG. NO. 7-239-0-0005

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 3. ^{1/} Notification of the Ministry of Natural Resources and Environment, B.E.2559 (2016) and Notification of the Ministry of Industry, Regarding Industrial Effluent Standards, B.E.2560 (2017).
 4. ^{2/} Total Dissolved Solids (TDS) shall be increased from TDS in receiving water not exceeding 5,000 mg/l (TDS valve in the last month in receiving water = 30,140 mg/l).
 5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0740/69
	: (Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 11:00
ANALYTICAL DATE	: 07-15/05/2026		: Mr.Chanapon Oakkharaplon
REPORT DATE	: 15/05/2026	SITE OPERATOR	: 7-239-0-0026
SAMPLE CONDITION	: เหลืองมีตะกอน	FILE CODE	: 226096_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND	STATION	STANDARD ^{1/}
			(non-detectable)	Upstream	
pH	-	4500-H ⁺ B	< 0.10	8.25	-
Total Suspended Solids	mg/l	2540 D	< 2.5	27	-
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	-
BOD ₅	mg/l	5210 B	< 1.0	2.9	-
COD	mg/l	5220 C	< 15.00	40.65	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	ND	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA APHA WEF)

(Miss Pornnapa Budthum)
Analyst
REG. NO. 7-239-0-0018

(Miss Khemchuda Insorn)
Technical Management Team
REG. NO. 7-239-0-0005

- Remark :**
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 3. ^{1/} The Standard Values of Surface Water Quality for Class 5, Notification by the National Environment Board No.8, B.E.2537 (1994).
 4. - Not available.



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SECOT CO., LTD.

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 4 : Aromatics 1 Plant)	REQUEST SERVICE No.	: 0740/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 2-239
SAMPLING DATE	: 06/05/2026	SAMPLING METHOD	: Grab
RECEIVED DATE	: 07/05/2026	SAMPLING TIME	: 11:10
ANALYTICAL DATE	: 07-15/05/2026	SITE OPERATOR	: Mr.Chanapon Oakkharaplon
REPORT DATE	: 15/05/2026		: 2-239-ท-0026
SAMPLE CONDITION	: เก็บสิ่งมีตะกอน	FILE CODE	: 226096_WW_May

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ^{1/}
		METHODS	(non-detectable)	Downstream	
pH	-	4500-H ⁺ B	< 0.10	8.49	-
Total Suspended Solids	mg/l	2540 D	< 2.5	21	-
Fat Oil & Grease	mg/l	5520 B	< 2.0	ND	-
BOD ₅	mg/l	5210 B	< 1.0	3.4	-
COD	mg/l	5220 C	< 15.00	26.63	-
Mercury (Hg)	mg/l	3112 B	< 0.0005	0.0005	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA/PHA, WEF)

Pornapa Budthum

(Miss Pornapa Budthum)

Analyst

REG. NO. 2-239-ท-0018

Khemchuda Insorn

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Technical Management Team

REG. NO. 2-239-ท-0005

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 3. ^{1/} The Standard Values of Surface Water Quality for Class 5, Notification by the National Environment Board No.8, B.E.2537 (1994).
 4. - Not available.

ภาคผนวก ง.4

ใบรับรองผลการตรวจวัดคุณภาพน้ำใต้ดิน



บริษัท ซีคอต จำกัด
SECOT CO., LTD.

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No. :	0285/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No. :	จ-239
SAMPLING DATE	: 17/02/2026	SAMPLING METHOD	: Pneumatic Bladder Pump
RECEIVED DATE	: 18/02/2026	SAMPLING TIME	: 10:55-11:10
ANALYTICAL DATE	: 01/03/2026	SITE OPERATOR	: Mr. Aniwat Pimwanna
REPORT DATE	: 04/03/2026		: จ-239-0-0007
SAMPLE CONDITION	: ใสมีตะกอน	FILE CODE	: 226096_GW_February

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-01	STANDARD ^{1/}
Benzene	mg/l	6200 B	< 0.0002	ND	≤ 0.2
Toluene	mg/l	6200 B	< 0.0002	ND	≤ 5.0
m-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
o-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
p-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
Total Xylenes	mg/l	6200 B	< 0.0006	ND	≤ 24

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Jutarat Jaemruen
(Miss Jutarat Jaemruen)

Analyst

REG. NO. จ-239-0-0022

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. จ-239-0-0005

Remark : 1. Reported analysis refers to submitted sample only.

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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No. :	0285/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No. :	จ-239
SAMPLING DATE	: 17/02/2026	SAMPLING METHOD	: Pneumatic Bladder Pump
RECEIVED DATE	: 18/02/2026	SAMPLING TIME	: 10:55-11:10
ANALYTICAL DATE	: 25/02/2026	SITE OPERATOR	: Mr. Aniwat Pimwanna
REPORT DATE	: 04/03/2026		: จ-239-0-0007
SAMPLE CONDITION	: ใสมีตะกอน	FILE CODE	: 226096_GW_February

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-01	STANDARD ^{1/}
Mercury (Hg)	mg/l	3112 B	< 0.0001	ND	≤ 0.7

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Jutarat Jaemruen
(Miss Jutarat Jaemruen)

Analyst

REG. NO. จ-239-0-0022

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. จ-239-0-0005

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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0285/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 17/02/2026	SAMPLING METHOD	: Pneumatic Bladder Pump
RECEIVED DATE	: 18/02/2026	SAMPLING TIME	: 10:21-10:38
ANALYTICAL DATE	: 01/03/2026	SITE OPERATOR	: Mr. Aniwat Pimwanna
REPORT DATE	: 04/03/2026		: 7-239-ท-0007
SAMPLE CONDITION	: ใสมีตะกอน	FILE CODE	: 226096_GW_February

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-06	STANDARD ^{1/}
Benzene	mg/l	6200 B	< 0.0002	ND	≤ 0.2
Toluene	mg/l	6200 B	< 0.0002	ND	≤ 5.0
m-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
o-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
p-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
Total Xylenes	mg/l	6200 B	< 0.0006	ND	≤ 24

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

REG. NO. 7-239-ท-0022

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-ท-0005

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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0285/69
	(Branch 4 : Aromatics 1 Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: 7-239
SAMPLING DATE	: 17/02/2026	SAMPLING METHOD	: Pneumatic Bladder Pump
RECEIVED DATE	: 18/02/2026	SAMPLING TIME	: 10:21-10:38
ANALYTICAL DATE	: 25/02/2026	SITE OPERATOR	: Mr. Aniwat Pimwanna
REPORT DATE	: 04/03/2026		: 7-239-ท-0007
SAMPLE CONDITION	: ใสมีตะกอน	FILE CODE	: 226096_GW_February

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-06	STANDARD ^{1/}
Mercury (Hg)	mg/l	3112 B	< 0.0001	ND	≤ 0.7

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

REG. NO. 7-239-ท-0022

Khemchuda Insorn

(Miss Khemchuda Insorn)

Technical Management Team

REG. NO. 7-239-ท-0005

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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 8 : Tank Farm Plant)	REQUEST SERVICE No.	: 0285/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 17/02/2026	SAMPLING METHOD	: Pneumatic Bladder Pump
RECEIVED DATE	: 18/02/2026	SAMPLING TIME	: 11:41-12:00
ANALYTICAL DATE	: 01/03/2026	SITE OPERATOR	: Mr. Aniwat Pimwanna
REPORT DATE	: 04/03/2026	FILE CODE	: ๖-239-๖-0007
SAMPLE CONDITION	: เหลือสิ่งไม่มีตะกอน		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-10	STANDARD ^{1/}
Benzene	mg/l	6200 B	< 0.0002	ND	≤ 0.2
Toluene	mg/l	6200 B	< 0.0002	ND	≤ 5.0
m-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
o-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
p-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
Total Xylenes	mg/l	6200 B	< 0.0006	ND	≤ 24

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

REG. NO. ๖-239-๖-0022

Khemchuda Insorn

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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Branch 8 : Tank Farm Plant)	REQUEST SERVICE No.	: 0285/69
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 17/02/2026	SAMPLING METHOD	: Pneumatic Bladder Pump
RECEIVED DATE	: 18/02/2026	SAMPLING TIME	: 11:41-12:00
ANALYTICAL DATE	: 25/02/2026	SITE OPERATOR	: Mr. Aniwat Pimwanna
REPORT DATE	: 04/03/2026	FILE CODE	: ๖-239-๖-0007
SAMPLE CONDITION	: เหลือสิ่งไม่มีตะกอน		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-10	STANDARD ^{1/}
Mercury (Hg)	mg/l	3112 B	< 0.0001	ND	≤ 0.7

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

REG. NO. ๖-239-๖-0022

Khemchuda Insorn

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Technical Management Team

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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: PTT Global Chemical Public Co., Ltd.	REQUEST SERVICE No.	: 0285/69
	(Branch 8 : Tank Farm Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
SAMPLING DATE	: 17/02/2026	SAMPLING METHOD	: Pneumatic Bladder Pump
RECEIVED DATE	: 18/02/2026	SAMPLING TIME	: 12:24-12:31
ANALYTICAL DATE	: 01/03/2026	SITE OPERATOR	: Mr. Aniwat Pimwanna
REPORT DATE	: 04/03/2026		: ๖-239-๓-0007
SAMPLE CONDITION	: เหลืองใสมีตะกอน	FILE CODE	: 226096_GW_February

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-13	STANDARD ^{1/}
Benzene	mg/l	6200 B	< 0.0002	ND	≤ 0.2
Toluene	mg/l	6200 B	< 0.0002	ND	≤ 5.0
m-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
o-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
p-Xylene	mg/l	6200 B	< 0.0002	ND	≤ 24
Total Xylenes	mg/l	6200 B	< 0.0006	ND	≤ 24

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

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GROUND WATER ANALYSIS REPORT

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	(Branch 8 : Tank Farm Plant)		
SAMPLING BY	: SECOT Co., Ltd.	REGISTRATION No.	: ๖-239
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RECEIVED DATE	: 18/02/2026	SAMPLING TIME	: 12:24-12:31
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SAMPLE CONDITION	: เหลืองใสมีตะกอน	FILE CODE	: 226096_GW_February

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION MW-13	STANDARD ^{1/}
Mercury (Hg)	mg/l	3112 B	< 0.0001	ND	≤ 0.7

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 24th ED. 2023 (AWWA, APHA, WEF)

Jutarat Jaemruen

(Miss Jutarat Jaemruen)

Analyst

REG. NO. ๖-239-๓-0022

Khemchuda Insorn

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Technical Management Team

REG. NO. ๖-239-๓-0005

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ภาคผนวก ง.5

ใบรับรองผลการตรวจวัดระดับเสียงทั่วไป



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Northern Area of PTTGC Branch 4 Aramatics				Monitor Period : 20-27 Feb 2026			
SLM Model : SCARLET ST-21D				Serial No : 821081			
Site Operator : Mr. Siwanon Kulawong							
Calibrator Model : Cirrus CR:515				Serial No : 97097			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Oct 2025			
SLM Reading / Adjust dB(A) : 93.6/0.2				Expire Date : 13 Oct 2026			
Cal Sheet No.: CR-515-2026-045							
Time	Equivalent Sound Pressure Level (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
14:00 - 15:00	65.4	64.2	63.0	65.0	63.5	63.2	65.2
15:00 - 16:00	65.6	66.0	63.0	65.1	62.8	66.4	64.8
16:00 - 17:00	66.6	65.6	63.4	66.5	66.0	67.0	66.5
17:00 - 18:00	69.2	69.4	65.9	68.9	69.3	68.6	68.9
18:00 - 19:00	68.7	69.2	66.6	68.5	68.9	68.5	69.1
19:00 - 20:00	68.4	66.3	66.1	66.7	68.1	67.7	67.7
20:00 - 21:00	64.3	63.3	62.0	64.9	64.1	64.6	63.9
21:00 - 22:00	62.9	63.4	64.1	63.4	62.4	61.3	63.5
22:00 - 23:00	62.4	62.8	61.2	63.5	62.7	63.0	61.5
23:00 - 00:00	64.0	62.4	61.9	61.4	61.7	61.7	61.8
00:00 - 01:00	54.6	60.1	61.3	61.0	61.6	61.9	61.3
01:00 - 02:00	59.8	60.9	59.8	58.4	59.7	59.0	60.0
02:00 - 03:00	60.3	60.4	59.0	58.7	59.9	58.3	59.8
03:00 - 04:00	60.9	57.6	61.7	59.9	61.3	60.2	60.1
04:00 - 05:00	61.4	58.3	59.6	62.5	60.9	60.7	60.6
05:00 - 06:00	63.2	62.5	62.7	55.0	64.8	62.6	62.1
06:00 - 07:00	68.1	68.1	69.2	69.2	68.9	69.5	69.1
07:00 - 08:00	72.0	69.2	72.4	72.7	72.8	72.2	72.1
08:00 - 09:00	68.4	67.2	69.1	69.1	69.4	68.8	69.1
09:00 - 10:00	64.9	64.7	66.2	71.9	66.4	66.3	65.8
10:00 - 11:00	65.3	64.5	66.1	73.0	66.6	65.4	65.2
11:00 - 12:00	64.7	63.7	66.4	65.5	65.5	65.7	65.8
12:00 - 13:00	64.1	62.8	66.7	65.7	65.7	64.9	65.7
13:00 - 14:00	65.8	62.0	67.2	60.8	65.4	65.5	65.3
Leq(24)*	66.0	65.1	65.7	67.1	66.3	66.1	66.1
Ldn	70.3	69.7	70.3	70.7	70.7	70.6	70.4
Lmax **	97.1	93.9	96.3	97.6	92.8	91.6	94.4
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 14:00-14:00

** Maximum Sound Pressure Level between 14:00-14:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-PTTGC 4

Location : Northern Area of PTTGC Branch 4 Aramatics				Monitor Period : 20-27 Feb 2026			
SLM Model : SCARLET ST-21D				Serial No : 821081			
Site Operator : Mr. Siwanon Kulawong							
Calibrator Model : Cirrus CR:515				Serial No : 97097			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Oct 2025			
SLM Reading / Adjust dB(A) : 93.6/0.2				Expire Date : 13 Oct 2026			
Cal Sheet No.: CR-515-2026-045							
Time	L90 (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
14:00 - 15:00	54.9	56.0	54.7	55.1	42.5	42.1	56.6
15:00 - 16:00	55.1	56.1	54.8	55.6	41.8	57.8	55.8
16:00 - 17:00	57.0	56.5	54.6	57.0	57.3	57.3	57.3
17:00 - 18:00	59.3	57.7	55.4	59.4	59.6	59.6	59.7
18:00 - 19:00	59.5	58.5	56.8	58.6	59.3	58.4	58.3
19:00 - 20:00	57.3	56.5	55.2	55.6	57.1	56.6	56.9
20:00 - 21:00	56.4	55.7	54.8	54.9	55.8	55.5	56.2
21:00 - 22:00	55.7	55.4	54.9	54.6	55.6	55.3	56.3
22:00 - 23:00	55.0	55.6	55.1	54.9	55.1	55.5	56.1
23:00 - 00:00	55.4	55.7	55.1	54.8	55.4	55.8	55.9
00:00 - 01:00	50.0	55.3	55.1	54.7	55.7	55.7	56.2
01:00 - 02:00	55.6	55.4	55.0	54.5	55.3	55.6	55.8
02:00 - 03:00	55.3	55.4	55.1	54.7	55.4	55.6	55.9
03:00 - 04:00	55.2	57.0	55.2	55.1	55.1	55.9	55.8
04:00 - 05:00	55.2	57.3	54.8	55.3	55.3	56.0	55.7
05:00 - 06:00	55.9	55.5	54.8	47.2	55.7	56.5	55.1
06:00 - 07:00	58.1	57.1	58.4	58.6	59.1	59.4	59.1
07:00 - 08:00	61.0	58.3	63.1	63.2	63.7	63.4	64.0
08:00 - 09:00	56.8	56.0	58.1	59.2	59.4	59.1	58.3
09:00 - 10:00	55.5	55.4	56.7	57.7	56.6	57.1	56.3
10:00 - 11:00	55.3	54.8	56.3	58.7	56.7	56.5	56.4
11:00 - 12:00	54.9	54.7	56.8	57.0	56.8	56.7	56.8
12:00 - 13:00	55.1	54.8	54.6	55.2	55.7	56.3	56.6
13:00 - 14:00	56.0	54.6	55.5	58.4	45.8	56.5	56.6
L90(avg)*	56.6	56.2	56.4	57.1	57.1	57.4	57.5

Remark : * Average time between 14:00-14:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Southern Area of PTTGC Branch 4 Aromatics				Monitor Period : 20-27 Feb 2026			
SLM Model : Cirrus CR162B				Serial No : G302738			
Site Operator : Mr. Siwanon Kulawong							
Calibrator Model : Cirrus CR:515				Serial No : 97097			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Oct 2025			
SLM Reading / Adjust dB(A) : 94.5/-0.8				Expire Date : 13 Oct 2026			
Cal Sheet No.: CR-515-2026-044							
Time	Equivalent Sound Pressure Level (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 ~ 16:00	51.4	52.6	54.0	55.6	67.4	56.6	56.0
16:00 ~ 17:00	51.3	55.2	54.3	55.9	65.4	58.5	56.2
17:00 ~ 18:00	51.4	54.1	54.9	55.1	64.9	57.2	56.4
18:00 ~ 19:00	52.3	53.1	54.7	55.4	65.5	57.4	56.4
19:00 ~ 20:00	53.2	53.4	54.4	55.3	66.1	58.2	56.0
20:00 ~ 21:00	54.2	53.6	54.7	55.9	66.8	58.5	55.3
21:00 ~ 22:00	54.9	54.0	56.0	55.3	66.3	63.0	55.2
22:00 ~ 23:00	55.3	55.6	54.5	56.4	65.8	60.5	55.7
23:00 ~ 00:00	55.3	55.8	54.3	56.3	65.5	60.1	55.2
00:00 ~ 01:00	55.3	56.2	55.1	56.7	61.5	60.1	54.8
01:00 ~ 02:00	55.3	55.5	54.2	57.4	59.2	59.6	54.5
02:00 ~ 03:00	55.7	55.5	54.4	57.4	55.8	59.5	54.7
03:00 ~ 04:00	56.1	55.2	54.1	56.0	56.7	60.1	54.4
04:00 ~ 05:00	57.0	55.6	54.0	56.0	59.7	60.0	54.9
05:00 ~ 06:00	57.2	55.8	54.4	56.2	64.7	59.3	55.5
06:00 ~ 07:00	58.4	55.3	55.6	55.8	65.1	59.1	56.0
07:00 ~ 08:00	58.4	55.3	55.8	56.0	62.9	57.3	55.0
08:00 ~ 09:00	58.8	54.4	54.8	56.5	59.2	55.7	54.1
09:00 ~ 10:00	56.2	53.3	54.6	62.1	57.2	57.4	53.7
10:00 ~ 11:00	53.4	53.5	54.7	66.5	57.7	56.1	56.5
11:00 ~ 12:00	53.5	53.4	55.8	63.5	58.1	56.7	57.2
12:00 ~ 13:00	53.3	53.8	55.3	67.8	57.3	56.4	57.0
13:00 ~ 14:00	53.4	53.9	55.7	62.9	57.1	56.6	56.7
14:00 ~ 15:00	52.1	53.9	55.7	61.5	57.2	56.6	56.8
Leq(24)*	55.3	54.6	54.9	60.2	63.4	58.7	55.7
Ldn	62.5	61.8	61.0	64.1	69.4	66.0	61.7
Lmax **	93.8	90.6	92.3	98.3	91.3	101.0	92.3
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 15:00-15:00

** Maximum Sound Pressure Level between 15:00-15:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-PTTGC 4

Location : Southern Area of PTTGC Branch 4 Aromatics				Monitor Period : 20-27 Feb 2026			
SLM Model : Cirrus CR162B				Serial No : G302738			
Site Operator : Mr. Siwanon Kulawong							
Calibrator Model : Cirrus CR:515				Serial No : 97097			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Oct 2025			
SLM Reading / Adjust dB(A) : 94.5/-0.8				Expire Date : 13 Oct 2026			
Cal Sheet No.: CR-515-2026-044							
Time	L90 (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 - 16:00	49.8	51.1	52.2	54.0	63.2	54.4	54.3
16:00 - 17:00	49.7	52.9	52.8	53.9	62.4	55.8	54.4
17:00 - 18:00	50.1	52.1	53.2	53.5	62.2	55.2	54.4
18:00 - 19:00	50.8	51.8	53.2	53.8	63.2	55.8	54.3
19:00 - 20:00	52.1	52.3	53.2	53.8	63.5	56.4	54.3
20:00 - 21:00	53.2	52.1	53.2	53.7	64.8	56.9	53.7
21:00 - 22:00	54.1	52.7	54.4	53.9	64.1	59.8	53.9
22:00 - 23:00	54.7	53.7	53.1	55.0	62.3	59.0	54.1
23:00 - 00:00	54.7	54.4	53.1	54.9	63.1	58.3	53.7
00:00 - 01:00	54.5	54.4	53.6	55.2	58.7	58.3	53.4
01:00 - 02:00	54.5	53.9	53.0	55.3	56.5	57.6	53.1
02:00 - 03:00	54.9	53.9	53.3	55.2	54.4	57.5	53.3
03:00 - 04:00	55.1	53.7	53.1	54.7	54.8	58.0	53.0
04:00 - 05:00	55.4	53.6	53.1	54.6	57.2	57.9	53.0
05:00 - 06:00	55.3	53.9	53.2	54.7	60.9	57.4	53.2
06:00 - 07:00	57.2	53.3	54.3	54.5	63.0	57.2	53.2
07:00 - 08:00	56.7	52.7	54.0	54.3	60.2	55.6	53.1
08:00 - 09:00	55.8	52.6	53.4	53.0	56.8	53.9	51.8
09:00 - 10:00	53.3	52.0	53.2	53.4	55.3	54.2	51.3
10:00 - 11:00	52.1	52.0	52.8	74.3	55.4	54.1	55.1
11:00 - 12:00	52.2	51.9	54.1	70.0	55.6	54.7	55.7
12:00 - 13:00	51.9	52.1	53.5	64.3	55.1	54.3	55.4
13:00 - 14:00	52.0	52.2	53.9	58.9	54.9	54.6	55.3
14:00 - 15:00	50.7	52.3	53.9	61.1	55.0	54.5	55.3
L90(avg)*	53.9	52.9	53.4	62.9	60.7	56.7	54.0

Remark : * Average time between 15:00-15:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Eastern Area of PTTGC Branch 4 Aromatics				Monitor Period : 20-27 Feb 2026			
SLM Model : SCARLET ST-21D				Serial No : 820730			
Site Operator : Mr. Siwanon Kulawong							
Calibrator Model : Cirrus CR:515				Serial No : 97097			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Oct 2025			
SLM Reading / Adjust dB(A) : 94.2/-0.4				Expire Date : 13 Oct 2026			
Cal Sheet No.: CR-515-2026-045							
Time	Equivalent Sound Pressure Level (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
14:00 - 15:00	65.2	58.5	65.1	64.9	65.0	65.1	65.0
15:00 - 16:00	65.4	65.4	65.1	64.7	64.9	65.1	64.8
16:00 - 17:00	65.3	65.4	65.2	62.1	65.0	65.2	65.0
17:00 - 18:00	65.5	65.7	65.4	63.5	65.0	65.1	65.1
18:00 - 19:00	65.6	65.5	65.1	65.0	65.1	65.1	65.1
19:00 - 20:00	65.5	65.5	65.3	65.0	65.1	65.0	65.1
20:00 - 21:00	65.4	65.4	65.1	64.8	65.1	64.9	65.0
21:00 - 22:00	65.1	65.3	65.0	60.0	65.0	64.8	64.9
22:00 - 23:00	65.2	65.4	65.1	64.2	65.0	64.8	64.8
23:00 - 00:00	65.2	65.4	65.2	64.9	65.0	64.9	65.0
00:00 - 01:00	65.3	65.3	65.2	64.8	65.0	64.8	65.0
01:00 - 02:00	65.2	65.3	65.1	64.8	64.2	64.8	65.0
02:00 - 03:00	65.2	65.3	65.1	64.8	64.8	64.9	64.9
03:00 - 04:00	65.1	65.3	65.2	64.7	64.8	64.9	64.9
04:00 - 05:00	65.1	65.3	65.1	64.8	64.6	64.9	65.0
05:00 - 06:00	65.2	65.3	65.0	64.7	64.7	65.0	65.0
06:00 - 07:00	65.4	65.4	65.3	64.9	65.1	65.2	65.3
07:00 - 08:00	65.9	65.7	65.7	65.5	65.6	65.6	65.8
08:00 - 09:00	65.4	65.6	62.2	65.1	65.4	65.3	65.3
09:00 - 10:00	65.4	65.2	64.0	65.7	65.0	65.3	65.1
10:00 - 11:00	65.2	65.1	64.7	66.2	64.8	65.0	65.1
11:00 - 12:00	65.0	65.1	65.0	65.3	64.9	65.0	64.9
12:00 - 13:00	65.1	65.0	64.8	64.8	64.7	64.9	64.8
13:00 - 14:00	65.4	65.1	64.6	64.8	64.8	65.0	65.1
Leq(24)*	65.3	65.2	65.0	64.7	64.9	65.0	65.0
Ldn	71.6	71.7	71.5	71.1	71.3	71.3	71.4
Lmax **	87.6	84.2	80.1	80.4	79.7	80.3	80.3
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 14:00-14:00

** Maximum Sound Pressure Level between 14:00-14:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team

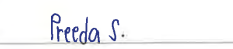


Noise Monitoring Result : Background Noise MTR-PTTGC 4

Location : Eastern Area of PTTGC Branch 4 Aromatics				Monitor Period : 20-27 Feb 2026			
SLM Model : SCARLET ST-21D				Serial No : 820730			
Site Operator : Mr. Siwanon Kulawong							
Calibrator Model : Cirrus CR:515				Serial No : 97097			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Oct 2025			
SLM Reading / Adjust dB(A) : 94.2/-0.4				Expire Date : 13 Oct 2026			
Cal Sheet No.: CR-515-2026-045							
Time	L90 (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
14:00 - 15:00	64.7	46.7	64.8	64.3	64.4	64.6	64.5
15:00 - 16:00	64.8	64.9	64.8	64.3	64.4	64.6	64.4
16:00 - 17:00	64.9	65.0	64.8	64.8	64.6	64.7	64.5
17:00 - 18:00	65.1	65.1	64.9	65.7	64.5	64.7	64.7
18:00 - 19:00	65.1	65.1	64.8	64.4	64.6	64.6	64.6
19:00 - 20:00	65.1	65.1	64.9	64.5	64.7	64.6	64.7
20:00 - 21:00	65.0	65.1	64.8	64.4	64.7	64.6	64.6
21:00 - 22:00	64.8	65.0	64.7	46.5	64.7	64.5	64.6
22:00 - 23:00	64.9	65.1	64.8	48.6	64.7	64.5	64.5
23:00 - 00:00	65.0	65.1	64.8	64.5	64.7	64.6	64.7
00:00 - 01:00	65.0	65.1	64.9	64.5	64.6	64.5	64.7
01:00 - 02:00	65.0	65.1	64.9	64.5	64.3	64.5	64.7
02:00 - 03:00	65.0	65.1	64.9	64.5	64.4	64.6	64.7
03:00 - 04:00	64.9	65.1	64.9	64.4	64.5	64.7	64.7
04:00 - 05:00	64.9	65.0	64.8	64.5	64.3	64.7	64.7
05:00 - 06:00	64.9	65.0	64.7	64.4	64.4	64.7	64.7
06:00 - 07:00	65.0	65.1	64.8	64.4	64.6	64.7	64.8
07:00 - 08:00	65.0	65.2	64.9	64.7	64.7	64.9	65.0
08:00 - 09:00	65.0	65.0	64.8	64.5	64.7	64.8	64.7
09:00 - 10:00	65.0	64.9	65.6	64.6	64.5	64.8	64.6
10:00 - 11:00	64.7	64.7	64.0	65.4	64.3	64.5	64.5
11:00 - 12:00	64.6	64.7	64.4	64.6	64.4	64.5	64.4
12:00 - 13:00	64.7	64.7	64.3	64.3	64.3	64.4	64.4
13:00 - 14:00	64.8	64.7	64.1	64.3	64.4	64.5	64.4
L90(avg)*	64.9	64.8	64.8	64.2	64.5	64.6	64.6

Remark : * Average time between 14:00-14:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Western Area of PTTGC Branch 4 Aromatics				Monitor Period : 20-27 Feb 2026			
SLM Model : SCARLET ST-21D				Serial No : 821082			
Site Operator : Mr. Siwanon Kulawong							
Calibrator Model : Cirrus CR:515				Serial No : 97097			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Oct 2025			
SLM Reading / Adjust dB(A) : 93.0/0.8				Expire Date : 13 Oct 2026			
Cal Sheet No.: CR-515-2026-045							
Time	Equivalent Sound Pressure Level (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 ~ 16:00	68.9	66.3	67.1	68.2	66.9	67.1	67.0
16:00 ~ 17:00	69.1	67.4	67.1	67.9	66.9	67.1	67.5
17:00 ~ 18:00	69.5	66.9	67.4	66.8	67.8	67.6	68.1
18:00 ~ 19:00	67.8	66.8	68.1	67.3	68.0	68.6	67.9
19:00 ~ 20:00	67.6	67.4	67.3	67.6	68.2	68.9	68.4
20:00 ~ 21:00	67.6	67.2	67.6	67.5	68.0	68.8	68.5
21:00 ~ 22:00	67.9	67.2	67.3	67.6	68.5	68.9	68.4
22:00 ~ 23:00	67.7	66.7	67.4	68.6	68.5	68.8	68.1
23:00 ~ 00:00	67.6	66.7	66.8	69.4	68.5	68.9	68.2
00:00 ~ 01:00	67.5	68.0	66.7	67.7	68.7	69.5	68.0
01:00 ~ 02:00	67.8	67.8	66.7	67.4	69.0	69.0	68.1
02:00 ~ 03:00	68.1	67.2	66.7	67.4	68.9	68.9	68.3
03:00 ~ 04:00	67.3	67.4	66.8	67.3	68.9	70.0	68.2
04:00 ~ 05:00	67.3	67.5	67.8	67.2	69.1	69.2	68.1
05:00 ~ 06:00	67.6	67.3	67.5	67.3	69.2	68.6	67.8
06:00 ~ 07:00	67.4	66.9	63.3	67.6	69.3	68.7	68.0
07:00 ~ 08:00	67.5	67.3	65.5	66.9	68.8	69.9	68.1
08:00 ~ 09:00	66.8	67.4	66.2	66.6	67.8	69.2	68.5
09:00 ~ 10:00	67.7	66.6	66.3	67.3	67.5	68.0	68.2
10:00 ~ 11:00	67.3	67.3	66.6	70.3	67.6	66.7	68.0
11:00 ~ 12:00	68.2	67.1	66.4	70.2	67.4	66.8	67.5
12:00 ~ 13:00	66.6	67.6	66.4	66.3	67.1	66.1	67.0
13:00 ~ 14:00	67.3	66.5	66.4	66.4	67.2	66.1	67.2
14:00 ~ 15:00	66.4	66.5	66.5	66.3	67.7	66.6	68.4
Leq(24)*	67.7	67.1	66.8	67.8	68.2	68.4	68.0
Ldn	74.0	73.7	73.2	74.2	75.2	75.3	74.5
Lmax **	88.0	82.3	82.8	87.0	85.4	86.2	88.8
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 15:00-15:00

** Maximum Sound Pressure Level between 15:00-15:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-PTTGC 4

Location : Western Area of PTTGC Branch 4 Aromatics				Monitor Period : 20-27 Feb 2026			
SLM Model : SCARLET ST-21D				Serial No : 821082			
Site Operator : Mr. Siwanon Kulawong							
Calibrator Model : Cirrus CR:515				Serial No : 97097			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Oct 2025			
SLM Reading / Adjust dB(A) : 93.0/0.8				Expire Date : 13 Oct 2026			
Cal Sheet No.: CR-515-2026-045							
Time	L90 (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 - 16:00	68.4	65.9	65.9	67.8	66.3	66.6	66.3
16:00 - 17:00	68.5	66.1	66.1	66.7	66.4	66.7	67.1
17:00 - 18:00	68.3	66.1	66.4	66.3	67.2	67.1	67.4
18:00 - 19:00	67.2	66.3	67.0	66.9	67.7	68.2	67.4
19:00 - 20:00	67.1	66.3	66.9	67.2	67.9	68.6	68.0
20:00 - 21:00	67.1	66.2	66.7	67.2	67.7	68.6	68.1
21:00 - 22:00	67.1	66.4	66.5	67.3	68.2	68.6	68.0
22:00 - 23:00	67.2	66.3	66.2	67.4	68.1	68.5	67.6
23:00 - 00:00	67.2	66.3	66.4	69.1	68.2	68.5	67.7
00:00 - 01:00	67.0	66.6	66.4	67.2	68.4	69.1	67.5
01:00 - 02:00	67.0	66.6	66.4	67.1	68.7	68.7	67.6
02:00 - 03:00	67.1	66.4	66.4	67.0	68.6	68.5	67.8
03:00 - 04:00	66.8	66.2	66.4	66.9	68.6	69.6	67.7
04:00 - 05:00	66.9	66.4	66.5	66.7	68.8	68.3	67.6
05:00 - 06:00	66.9	66.2	66.4	66.9	68.9	68.2	67.4
06:00 - 07:00	66.6	66.1	48.3	67.2	68.9	68.2	67.4
07:00 - 08:00	66.5	66.1	49.4	66.3	68.1	69.3	67.5
08:00 - 09:00	66.2	66.1	65.7	65.9	67.4	67.7	67.8
09:00 - 10:00	66.6	66.1	66.0	65.9	67.1	66.7	67.6
10:00 - 11:00	66.6	66.2	65.9	68.0	67.1	66.0	67.2
11:00 - 12:00	66.3	66.1	66.0	67.6	66.7	66.0	66.6
12:00 - 13:00	65.9	66.0	65.9	65.8	66.7	65.6	66.3
13:00 - 14:00	66.1	65.7	65.9	65.9	66.7	65.6	66.4
14:00 - 15:00	65.9	65.7	65.7	65.8	67.0	65.7	66.7
L90(avg)*	67.0	66.2	65.9	67.0	67.8	67.9	67.4

Remark : * Average time between 15:00-15:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Gate of PTTGC Branch 8 Aromatics Monitor Period : 20-27 Feb 2026
SLM Model : SCARLET ST-21D Serial No : 820731
Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Cirrus CR:515 Serial No : 97097
Calibration Ref dB(A) : 94.0 Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 94.0/-0.2 Expire Date : 13 Oct 2026
Cal Sheet No.: CR-515-2026-045

Time	Equivalent Sound Pressure Level (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 - 16:00	70.8	69.3	69.0	69.4	69.5	70.3	68.9
16:00 - 17:00	70.2	70.3	69.0	70.4	70.5	70.6	69.0
17:00 - 18:00	70.8	71.1	69.1	63.8	69.7	71.0	70.9
18:00 - 19:00	70.6	70.2	70.2	70.8	70.4	68.1	70.8
19:00 - 20:00	70.0	70.2	69.9	70.5	70.0	68.4	69.4
20:00 - 21:00	69.6	69.8	61.6	69.9	70.4	69.3	69.0
21:00 - 22:00	68.8	68.8	68.9	69.1	69.3	64.6	69.0
22:00 - 23:00	69.0	69.3	68.4	69.2	69.1	69.1	68.7
23:00 - 00:00	68.6	68.5	68.4	69.1	68.1	69.3	68.6
00:00 - 01:00	68.0	68.6	68.4	69.2	68.0	69.2	68.6
01:00 - 02:00	68.1	68.4	68.1	68.7	68.3	68.9	67.7
02:00 - 03:00	67.6	68.5	68.2	66.6	67.8	68.8	68.5
03:00 - 04:00	67.3	68.1	68.4	66.6	67.4	68.8	67.9
04:00 - 05:00	68.1	68.2	68.2	68.9	67.9	68.8	67.5
05:00 - 06:00	68.9	68.5	69.0	69.2	68.5	69.3	67.2
06:00 - 07:00	70.8	70.3	70.7	71.4	70.4	70.9	70.7
07:00 - 08:00	70.1	70.5	71.9	71.4	71.1	72.6	70.3
08:00 - 09:00	70.6	70.0	70.4	71.1	70.5	65.4	68.4
09:00 - 10:00	69.2	69.5	70.1	69.9	69.4	70.4	69.5
10:00 - 11:00	69.8	68.7	70.2	69.9	70.1	70.5	69.4
11:00 - 12:00	69.4	68.7	70.1	72.0	69.9	70.5	70.2
12:00 - 13:00	68.1	68.9	69.5	69.3	69.1	69.7	69.8
13:00 - 14:00	68.7	69.1	69.7	70.1	69.7	70.0	70.6
14:00 - 15:00	68.8	68.7	69.4	69.6	69.9	69.4	69.5
Leq(24)*	69.4	69.3	69.3	69.7	69.5	69.6	69.3
Ldn	75.2	75.3	75.3	75.6	75.1	75.8	75.1
Lmax **	93.8	94.3	94.8	94.7	99.0	97.5	103.0
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 15:00-18:00

** Maximum Sound Pressure Level between 15:00-18:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-PTTGC 4

Location : Gate of PTTGC Branch 8 Aromatics Monitor Period : 20-27 Feb 2026
SLM Model : SCARLET ST-21D Serial No : 820731
Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Cirrus CR:515 Serial No : 97097
Calibration Ref dB(A) : 94.0 Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 94.0/-0.2 Expire Date : 13 Oct 2026
Cal Sheet No.: CR-515-2026-045

Time	L90 (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 - 16:00	69.3	67.3	67.6	65.9	66.9	68.0	67.5
16:00 - 17:00	69.2	67.6	67.3	68.2	67.4	68.5	67.8
17:00 - 18:00	69.4	67.2	67.6	51.0	67.2	68.4	69.6
18:00 - 19:00	69.5	68.0	68.0	68.8	67.7	51.3	69.8
19:00 - 20:00	67.6	68.1	67.6	68.4	67.2	51.9	68.5
20:00 - 21:00	67.7	67.6	49.6	68.2	68.2	67.8	68.4
21:00 - 22:00	67.8	67.7	67.2	68.2	68.1	50.1	68.4
22:00 - 23:00	67.5	67.8	67.2	68.1	67.7	67.8	68.2
23:00 - 00:00	67.3	67.7	67.3	68.0	67.3	68.3	68.3
00:00 - 01:00	67.0	67.9	67.1	68.1	67.4	68.0	68.3
01:00 - 02:00	66.7	67.9	67.2	68.2	67.3	67.9	64.4
02:00 - 03:00	66.0	67.9	67.1	50.7	67.2	68.0	67.1
03:00 - 04:00	66.1	67.4	67.2	50.6	67.1	67.9	66.3
04:00 - 05:00	66.0	66.7	67.2	68.0	67.2	68.1	66.0
05:00 - 06:00	67.6	66.8	67.6	68.1	67.3	68.1	65.6
06:00 - 07:00	67.4	67.9	67.6	68.7	67.6	68.4	68.4
07:00 - 08:00	66.0	67.5	67.8	67.7	67.7	68.6	67.3
08:00 - 09:00	67.8	67.7	67.8	68.5	67.3	50.6	55.4
09:00 - 10:00	66.5	67.5	67.1	66.6	67.1	68.1	66.5
10:00 - 11:00	67.1	66.8	67.3	66.2	67.2	67.5	66.5
11:00 - 12:00	66.1	66.1	67.3	68.5	62.5	67.6	67.8
12:00 - 13:00	53.0	66.9	65.8	66.8	67.2	67.9	68.1
13:00 - 14:00	66.4	67.1	67.3	68.0	67.5	68.0	67.9
14:00 - 15:00	67.2	66.8	66.6	66.7	67.6	67.6	67.5
L90(avg)*	67.3	67.4	67.1	67.3	67.3	67.3	67.6

Remark : * Average time between 15:00-18:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Northern Area of PTTGC Branch 8 Aromatics				Monitor Period : 20-27 Feb 2026			
SLM Model : SCARLET ST-21D				Serial No : 820727			
Site Operator : Mr. Siwanon Kulawong							
Calibrator Model : Cirrus CR:515				Serial No : 97097			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Oct 2025			
SLM Reading / Adjust dB(A) : 93.7/0.1				Expire Date : 13 Oct 2026			
Cal Sheet No.: CR-515-2026-045							
Time	Equivalent Sound Pressure Level (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 - 16:00	67.7	69.3	71.3	68.1	65.2	67.3	67.2
16:00 - 17:00	67.6	69.4	71.3	68.1	65.3	67.4	66.4
17:00 - 18:00	68.1	69.5	71.5	68.3	65.9	67.6	66.8
18:00 - 19:00	68.1	69.4	71.0	68.3	66.2	68.1	67.4
19:00 - 20:00	67.8	69.0	69.4	68.3	66.0	68.2	67.4
20:00 - 21:00	68.5	69.0	69.3	68.2	65.9	68.3	67.6
21:00 - 22:00	68.5	69.0	69.2	68.2	66.0	68.3	67.6
22:00 - 23:00	68.5	69.1	69.1	68.2	66.0	68.4	67.6
23:00 - 00:00	68.1	69.1	68.1	66.5	65.8	68.5	66.9
00:00 - 01:00	69.1	69.2	68.1	68.2	67.5	68.5	65.7
01:00 - 02:00	71.3	69.2	68.6	68.3	68.1	68.5	65.8
02:00 - 03:00	71.4	69.3	68.5	68.2	68.1	68.5	65.7
03:00 - 04:00	71.5	69.3	67.7	68.1	68.1	68.5	65.7
04:00 - 05:00	71.5	69.3	68.7	68.3	68.0	68.6	65.8
05:00 - 06:00	71.5	69.3	68.9	64.8	68.1	68.6	65.8
06:00 - 07:00	71.6	69.4	70.0	65.0	68.3	68.7	65.8
07:00 - 08:00	69.3	69.2	68.8	65.1	68.2	68.6	65.9
08:00 - 09:00	68.4	69.9	68.8	65.0	68.0	68.7	65.3
09:00 - 10:00	68.7	69.3	68.9	65.0	67.7	68.4	66.6
10:00 - 11:00	69.4	71.4	68.9	70.8	67.4	68.1	67.0
11:00 - 12:00	69.8	71.3	69.0	65.0	67.6	67.7	64.7
12:00 - 13:00	71.1	71.3	69.3	65.1	67.2	67.7	65.2
13:00 - 14:00	71.2	71.3	68.1	65.0	67.3	67.7	64.6
14:00 - 15:00	71.3	71.4	68.1	65.0	67.3	67.6	64.7
Leq(24)*	69.8	69.8	69.3	67.4	67.2	68.2	66.3
Ldn	76.9	75.8	75.2	73.9	73.9	74.9	72.6.
Lmax **	89.2	85.4	93.4	97.8	88.4	99.9	105.6
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 15:00-15:00

** Maximum Sound Pressure Level between 15:00-15:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-PTTGC 4

Location : Northern Area of PTTGC Branch 8 Aromatics				Monitor Period : 20-27 Feb 2026			
SLM Model : SCARLET ST-21D				Serial No : 820727			
Site Operator : Mr. Siwanon Kulawong							
Calibrator Model : Cirrus CR:515				Serial No : 97097			
Calibration Ref dB(A) : 94.0				Certified Date : 14 Oct 2025			
SLM Reading / Adjust dB(A) : 93.7/0.1				Expire Date : 13 Oct 2026			
Cal Sheet No.: CR-515-2026-045							
Time	L90 (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 - 16:00	67.3	68.8	70.8	67.7	64.8	66.9	66.2
16:00 - 17:00	67.2	68.9	70.7	67.6	64.9	67.0	65.3
17:00 - 18:00	67.6	69.0	71.0	67.7	65.2	67.2	65.7
18:00 - 19:00	52.8	68.8	70.1	67.9	65.8	67.7	66.4
19:00 - 20:00	54.2	68.5	68.9	67.9	65.6	67.9	66.1
20:00 - 21:00	68.1	68.5	68.7	67.8	65.7	68.0	66.2
21:00 - 22:00	68.1	68.5	68.6	67.8	65.7	68.0	66.1
22:00 - 23:00	68.1	68.7	68.6	67.8	65.7	68.0	66.1
23:00 - 00:00	66.7	68.6	62.9	66.2	64.8	68.2	64.6
00:00 - 01:00	65.7	68.7	66.9	67.8	64.9	68.2	65.3
01:00 - 02:00	70.9	68.8	68.1	67.9	67.8	68.1	65.5
02:00 - 03:00	71.0	68.8	68.1	67.8	67.8	68.1	65.4
03:00 - 04:00	71.1	68.8	52.6	67.7	67.8	68.2	65.4
04:00 - 05:00	71.1	68.8	53.1	56.5	67.7	68.2	65.5
05:00 - 06:00	71.1	68.9	68.4	64.5	67.8	68.2	65.4
06:00 - 07:00	71.2	68.9	69.5	64.7	68.0	68.3	65.5
07:00 - 08:00	68.6	68.6	68.1	64.7	67.9	68.2	65.6
08:00 - 09:00	68.0	69.2	68.4	64.5	67.6	68.3	64.8
09:00 - 10:00	56.9	68.5	67.5	64.4	67.4	68.1	64.6
10:00 - 11:00	68.9	70.9	68.4	55.8	67.0	67.5	64.2
11:00 - 12:00	69.2	70.8	67.4	59.3	67.0	67.3	64.3
12:00 - 13:00	70.6	70.8	68.8	64.7	66.9	67.2	64.8
13:00 - 14:00	70.7	70.7	67.6	64.7	66.9	67.2	64.2
14:00 - 15:00	70.8	70.7	67.7	64.6	66.8	67.2	64.1
L90(avg)*	68.9	69.3	68.3	66.2	66.7	67.8	65.4

Remark : * Average time between 15:00-15:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Southern Area of PTTGC Branch 8 Aromatics Monitor Period : 20-27 Feb 2026
SLM Model : SCARLET ST-21D Serial No : 820726
Site Operator : Mr. Siwanon Kulawong

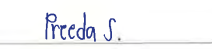
Calibrator Model : Cirrus CR:515 Serial No : 97097
Calibration Ref dB(A) : 94.0 Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 93.2/0.6 Expire Date : 13 Oct 2026
Cal Sheet No.: CR-515-2026-045

Time	Equivalent Sound Pressure Level (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 - 16:00	56.6	54.9	55.1	65.9	56.2	63.9	58.9
16:00 - 17:00	55.4	56.0	54.0	55.6	56.5	56.6	56.8
17:00 - 18:00	60.4	55.2	54.6	60.9	56.9	55.7	56.3
18:00 - 19:00	55.8	56.2	54.9	58.6	60.3	55.9	57.2
19:00 - 20:00	54.6	55.2	54.2	54.9	55.7	54.8	54.7
20:00 - 21:00	53.9	54.9	52.8	54.5	54.5	53.8	54.9
21:00 - 22:00	53.7	55.6	53.0	55.0	54.0	53.1	54.5
22:00 - 23:00	52.9	54.5	53.1	55.0	54.3	54.0	54.3
23:00 - 00:00	52.2	54.3	53.1	54.3	53.9	54.9	53.9
00:00 - 01:00	52.4	54.1	53.1	54.3	54.2	54.8	54.0
01:00 - 02:00	52.1	53.3	52.8	53.0	53.9	54.4	54.0
02:00 - 03:00	55.3	53.2	55.5	52.9	55.4	54.5	53.9
03:00 - 04:00	54.3	54.6	56.7	54.8	53.2	55.3	53.6
04:00 - 05:00	62.2	56.1	60.6	55.2	54.1	54.5	55.3
05:00 - 06:00	58.1	55.5	56.9	56.6	55.9	56.9	56.2
06:00 - 07:00	58.5	64.5	57.7	57.2	58.1	61.2	67.2
07:00 - 08:00	57.0	63.2	58.1	58.4	57.6	56.9	57.0
08:00 - 09:00	55.4	59.0	57.4	58.0	57.4	56.6	56.8
09:00 - 10:00	54.7	54.1	58.5	60.8	56.4	57.0	56.0
10:00 - 11:00	55.1	55.7	55.6	61.6	60.6	55.6	55.3
11:00 - 12:00	55.8	54.2	58.5	60.2	58.5	57.6	56.5
12:00 - 13:00	54.1	54.0	54.8	55.3	61.2	56.0	55.5
13:00 - 14:00	55.6	58.7	58.2	56.2	62.0	51.0	60.5
14:00 - 15:00	54.5	59.2	55.2	58.1	67.0	57.3	55.7
Leq(24)*	56.2	57.4	56.2	58.3	58.6	56.9	57.8
Ldn	63.1	63.9	62.7	62.4	62.6	62.9	65.3
Lmax **	92.4	104.3	90.4	98.0	90.6	87.8	95.7
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 15:00-15:00

** Maximum Sound Pressure Level between 15:00-15:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-PTTGC 4

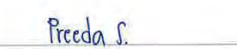
Location : Southern Area of PTTGC Branch 8 Aromatics Monitor Period : 20-27 Feb 2026
SLM Model : SCARLET ST-21D Serial No : 820726
Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Cirrus CR:515 Serial No : 97097
Calibration Ref dB(A) : 94.0 Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 93.2/0.6 Expire Date : 13 Oct 2026
Cal Sheet No.: CR-515-2026-045

Time	L90 (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 - 16:00	53.6	53.1	53.0	53.2	54.9	54.3	54.6
16:00 - 17:00	53.3	53.7	52.5	53.7	55.3	54.4	55.0
17:00 - 18:00	53.4	53.4	52.0	53.9	55.0	53.6	54.8
18:00 - 19:00	53.5	53.7	52.3	53.9	54.6	53.6	54.7
19:00 - 20:00	52.9	53.3	52.3	52.9	54.0	53.7	53.3
20:00 - 21:00	52.3	52.9	52.0	52.7	53.5	52.7	53.3
21:00 - 22:00	51.7	52.7	52.1	52.3	53.3	52.7	53.1
22:00 - 23:00	51.7	52.8	52.3	52.6	53.6	53.0	53.3
23:00 - 00:00	51.8	52.8	52.6	52.6	53.4	53.4	53.2
00:00 - 01:00	52.0	52.7	52.5	52.9	53.5	53.3	53.4
01:00 - 02:00	51.5	52.7	52.3	52.4	53.2	53.2	53.3
02:00 - 03:00	51.4	52.6	52.4	52.3	53.0	53.1	53.3
03:00 - 04:00	51.9	52.8	52.4	52.3	52.7	53.1	53.0
04:00 - 05:00	52.1	52.8	52.4	52.8	52.5	53.1	53.4
05:00 - 06:00	52.2	53.4	52.6	53.1	53.2	53.5	53.5
06:00 - 07:00	53.2	53.7	53.3	53.5	54.0	54.4	54.0
07:00 - 08:00	53.2	54.1	54.7	55.5	54.7	55.0	55.2
08:00 - 09:00	52.3	53.4	54.3	54.6	54.4	54.2	54.3
09:00 - 10:00	52.3	53.1	53.9	54.0	53.6	54.1	54.0
10:00 - 11:00	52.5	53.1	53.4	56.2	53.8	53.6	53.6
11:00 - 12:00	52.5	53.0	53.6	55.3	55.3	54.0	54.0
12:00 - 13:00	52.4	52.8	53.0	53.5	56.0	54.6	53.3
13:00 - 14:00	52.8	52.9	53.4	53.7	55.8	37.5	53.6
14:00 - 15:00	52.9	52.9	53.5	54.1	54.8	54.8	53.4
L90(avg)*	52.5	53.1	52.9	53.6	54.2	53.6	53.8

Remark : * Average time between 15:00-15:00


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-PTTGC 4

Location : Western Area of PTTGC Branch 8 Aromatics Monitor Period : 20-27 Feb 2026
SLM Model : SCARLET ST-21D Serial No : 820724
Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Cirrus CR:515 Serial No : 97097
Calibration Ref dB(A) : 94.0 Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 92.9/0.9 Expire Date : 13 Oct 2026
Cal Sheet No.: CR-515-2026-045

Time	Equivalent Sound Pressure Level (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 - 16:00	68.2	69.1	68.9	68.8	69.0	69.3	69.1
16:00 - 17:00	68.2	69.1	68.9	68.8	69.1	69.3	69.0
17:00 - 18:00	68.6	69.2	68.9	68.9	69.0	69.2	69.0
18:00 - 19:00	68.9	69.2	68.9	68.9	69.0	69.0	68.9
19:00 - 20:00	69.0	69.2	68.8	68.9	69.0	69.0	68.9
20:00 - 21:00	68.8	69.1	68.8	68.9	69.0	68.9	68.9
21:00 - 22:00	68.5	69.0	68.8	68.9	69.0	68.7	69.1
22:00 - 23:00	68.3	68.9	68.9	68.8	69.0	68.8	69.2
23:00 - 00:00	68.5	67.8	69.0	68.8	69.1	69.0	69.1
00:00 - 01:00	68.7	67.4	69.1	68.8	69.4	68.9	69.2
01:00 - 02:00	68.8	69.1	69.1	68.8	69.1	69.0	69.2
02:00 - 03:00	68.7	69.3	69.0	68.8	69.0	69.1	69.2
03:00 - 04:00	68.8	69.3	69.0	68.9	69.0	69.2	69.2
04:00 - 05:00	68.8	69.1	68.9	69.0	68.9	69.2	69.7
05:00 - 06:00	68.8	69.1	68.9	68.9	69.0	69.2	69.5
06:00 - 07:00	68.9	69.1	68.9	68.9	69.0	69.1	69.2
07:00 - 08:00	68.9	69.1	68.9	69.0	68.9	69.1	69.2
08:00 - 09:00	68.7	69.1	68.9	69.0	69.0	69.0	69.2
09:00 - 10:00	68.9	69.1	68.9	70.1	69.0	69.2	69.2
10:00 - 11:00	68.9	69.0	68.9	70.1	69.1	69.2	69.2
11:00 - 12:00	69.0	69.1	69.2	69.0	69.8	69.2	69.0
12:00 - 13:00	69.0	69.0	68.7	69.0	69.1	69.2	69.1
13:00 - 14:00	69.0	68.9	68.7	68.9	69.3	69.1	67.5
14:00 - 15:00	69.1	68.9	68.7	69.0	69.4	69.1	66.8
Leq(24)*	68.8	69.0	68.9	69.0	69.1	69.1	69.0
Ldn	75.1	75.3	75.4	75.3	75.5	75.5	75.6
Lmax **	80.1	94.0	81.3	79.6	86.3	82.9	93.3
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 15:00-15:00

** Maximum Sound Pressure Level between 15:00-15:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-PTTGC 4

Location : Western Area of PTTGC Branch 8 Aromatics Monitor Period : 20-27 Feb 2026
SLM Model : SCARLET ST-21D Serial No : 820724
Site Operator : Mr. Siwanon Kulawong

Calibrator Model : Cirrus CR:515 Serial No : 97097
Calibration Ref dB(A) : 94.0 Certified Date : 14 Oct 2025
SLM Reading / Adjust dB(A) : 92.9/0.9 Expire Date : 13 Oct 2026
Cal Sheet No.: CR-515-2026-045

Time	L90 (dB(A))						
	20-21 Feb 2026	21-22 Feb 2026	22-23 Feb 2026	23-24 Feb 2026	24-25 Feb 2026	25-26 Feb 2026	26-27 Feb 2026
15:00 - 16:00	67.8	68.7	68.5	68.4	68.6	68.9	68.6
16:00 - 17:00	67.7	68.7	68.6	68.4	68.7	68.9	68.6
17:00 - 18:00	68.2	68.8	68.5	68.5	68.7	68.8	68.7
18:00 - 19:00	68.4	68.8	68.6	68.6	68.7	68.7	68.6
19:00 - 20:00	68.5	68.8	68.5	68.6	68.6	68.7	68.6
20:00 - 21:00	68.4	68.8	68.5	68.6	68.7	68.6	68.6
21:00 - 22:00	68.2	68.7	68.6	68.6	68.7	68.4	68.8
22:00 - 23:00	68.1	68.6	68.6	68.4	68.7	68.5	68.8
23:00 - 00:00	68.2	51.1	68.7	68.4	68.8	68.7	68.7
00:00 - 01:00	68.4	51.7	68.7	68.4	69.0	68.6	68.8
01:00 - 02:00	68.5	68.7	68.8	68.4	68.7	68.7	68.9
02:00 - 03:00	68.4	68.9	68.8	68.4	68.7	68.8	68.9
03:00 - 04:00	68.5	68.9	68.7	68.6	68.7	68.8	68.8
04:00 - 05:00	68.6	68.8	68.6	68.7	68.7	68.8	69.0
05:00 - 06:00	68.6	68.7	68.6	68.6	68.7	68.8	69.0
06:00 - 07:00	68.7	68.7	68.6	68.7	68.7	68.8	68.9
07:00 - 08:00	68.7	68.7	68.6	68.7	68.7	68.8	68.9
08:00 - 09:00	68.4	68.8	68.6	68.7	68.7	68.7	68.8
09:00 - 10:00	68.5	68.7	68.5	68.6	68.7	68.9	68.8
10:00 - 11:00	68.5	68.6	68.4	68.6	68.7	68.8	68.7
11:00 - 12:00	68.5	68.7	68.6	68.6	68.9	68.8	68.6
12:00 - 13:00	68.5	68.5	68.3	68.6	68.7	68.7	68.6
13:00 - 14:00	68.5	68.5	68.3	68.4	68.8	68.7	51.1
14:00 - 15:00	68.7	68.5	68.3	68.6	68.9	68.6	50.6
L90(avg)*	68.4	68.3	68.6	68.5	68.7	68.7	68.4

Remark : * Average time between 15:00-15:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

ภาคผนวก ง.6

ใบรับรองผลการตรวจวัดระดับเสียงที่ลูกจ้างได้รับ
เฉลี่ยตลอดระยะเวลาการทำงาน (TWA)



บริษัท ซีคอต จำกัด
SECOT CO., LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพฯ 10800
239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND
TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

NOISE MEASUREMENT REPORT : NOISE DOSE

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Aromatics 1 Plant)	REFERENCE NO.	: 226096-Noise Dose-2602-0014
MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Noise Dosimeter
MEASUREMENT DATE	: 25/02/2026	CALIBRATOR TYPE	: Pulsar Model 22R
MEASUREMENT LOCATION	: PTTGC4	SERIAL NO.	: 79781
SITE OPERATOR	: Miss Wiraya Patchimboon	CALIBRATOR REF.	: 114 dB @ 1kHz

OPERATOR ID	RESPONSIBILITY/AREA	TIME	SOUND PRESSURE LEVEL (dB(A))		
			%DOSE	TWA (12-hr)	STANDARD *
ID : 26001250	Reformer 1	08:36-19:00	74.9	81.9	83.0
ID : 26002414	Reformer 1	08:35-19:00	15.1	75.0	83.0
ID : 26001143	Reformer 2	08:36-19:00	45.6	79.8	83.0

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Sununta Sirawuttinanon)

Technical Management Team

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 4. TWA means Time Weighted Average.



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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

NOISE MEASUREMENT REPORT : NOISE DOSE

CLIENT NAME	: PTT Global Chemical Public Co., Ltd. (Aromatics 1 Plant)	REFERENCE NO.	: 226096-Noise Dose-2602-0014
MEASUREMENT BY	: SECOT Co., Ltd.	INSTRUMENT	: Noise Dosimeter
MEASUREMENT DATE	: 26/02/2026	CALIBRATOR TYPE	: Pulsar Model 22R
MEASUREMENT LOCATION	: PTTGC4	SERIAL NO.	: 79781
SITE OPERATOR	: Miss Wiraya Patchimboon	CALIBRATOR REF.	: 114 dB @ 1kHz

OPERATOR ID	RESPONSIBILITY/AREA	TIME	SOUND PRESSURE LEVEL (dB(A))		
			%DOSE	TWA (12-hr)	STANDARD *
ID : 26002461	Aromatics 1 (Extract)	08:24-19:00	2.7	67.5	83.0
ID : 26006412	Aromatics 1 (Extract)	08:24-19:00	6.4	71.3	83.0
ID : 26009138	Aromatics 2 (Xylene)	08:22-19:00	18.5	75.9	83.0
ID : 26002440	Aromatics 3 (Xylene)	08:24-19:00	34.2	78.6	83.0
ID : 26001467	Aromatics 4 / Unit 390	08:25-19:00	20.6	76.4	83.0

(Miss Katesarin Vorradetwittaya)

Environmental Scientist

(Miss Sununta Sirawuttinanon)

Technical Management Team

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NOISE MEASUREMENT REPORT : NOISE DOSE

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-Noise Dose-2603-0215
(Aromatics 1 Plant)
MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : Noise Dosimeter
MEASUREMENT DATE : 25/03/2026 CALIBRATOR TYPE : Cirrus RC:110A
MEASUREMENT LOCATION : PTTGC4 SERIAL NO. : 95167
SITE OPERATOR : Mr. Pongsiri Jukkeaw CALIBRATOR REF. : 114 dB @ 1kHz

OPERATOR ID	RESPONSIBILITY/AREA	TIME	SOUND PRESSURE LEVEL (dB(A))		
			%DOSE	TWA (12-hr)	STANDARD *
ID : 26002351	Reformer 1-2	07:52-19:05	42.6	79.5	83.0
ID : 26001154	Utility	07:51-19:00	40.6	79.3	83.0


(Miss Katesarin Vorradetwittaya)

Environmental Scientist


(Miss Sununta Sirawuttinanon)

Technical Management Team

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TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

NOISE MEASUREMENT REPORT : NOISE DOSE

CLIENT NAME : PTT Global Chemical Public Co., Ltd. REFERENCE NO. : 226096-Noise Dose-2602-0014
(Aromatics 1 Plant)
MEASUREMENT BY : SECOT Co., Ltd. INSTRUMENT : Noise Dosimeter
MEASUREMENT DATE : 25/02/2026 CALIBRATOR TYPE : Pulsar Model 22R
MEASUREMENT LOCATION : PTTGC4 SERIAL NO. : 79781
SITE OPERATOR : Miss Wiraya Patchimboon CALIBRATOR REF. : 114 dB @ 1kHz

OPERATOR ID	RESPONSIBILITY/AREA	TIME	SOUND PRESSURE LEVEL (dB(A))		
			%DOSE	TWA (8-hr)	STANDARD *
ID : 98002836	Workshop	08:11-17:00	3.2	70.1	85.0


(Miss Katesarin Vorradetwittaya)

Environmental Scientist


(Miss Sununta Sirawuttinanon)

Technical Management Team

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ภาคผนวก ง.7

ใบรับรองผลการตรวจวัดระดับเสียงภายในสถานประกอบการ



Noise Monitoring Result : Working Noise

MTR-PTTGC4

LOCATION	: Gate House B	MEASUREMENT DATE	: 25/02/2026
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 821078
SITE OPERATOR	: Miss Wiraya Patchimboon		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 97097
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14/10/2025
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13/10/2026
CAL SHEET No.	: CAL-2602-0013-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	25/02/2026	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	66.0	
09:00 - 10:00	65.9	
10:00 - 11:00	67.1	
11:00 - 12:00	66.1	
12:00 - 13:00	65.4	
13:00 - 14:00	65.7	
14:00 - 15:00	66.1	
15:00 - 16:00	65.9	
16:00 - 17:00		
17:00 - 18:00		
18:00 - 19:00		
19:00 - 20:00		
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		

Leq(8)	66.1
Lmax	91.7
Standard*	90 dB(A)
Standard-Max	140 dB(A)

Remark : * Notification of Ministry of Industry, B.E.2546

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Sununta Sirawuttinanon)
Technical Management Team

Noise Monitoring Result : Working Noise

MTR-PTTGC4

LOCATION	: Gate House B	MEASUREMENT DATE	: 25/02/2026
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 821078
SITE OPERATOR	: Miss Wiraya Patchimboon		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 97097
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14/10/2025
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13/10/2026
CAL SHEET No.	: CAL-2602-0013-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	25/02/2026	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	66.0	
09:00 - 10:00	65.9	
10:00 - 11:00	67.1	
11:00 - 12:00	66.1	
12:00 - 13:00	65.4	
13:00 - 14:00	65.7	
14:00 - 15:00	66.1	
15:00 - 16:00	65.9	
16:00 - 17:00	68.1	
17:00 - 18:00	69.5	
18:00 - 19:00	69.7	
19:00 - 20:00	69.4	
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		

Leq(12)	67.4
Lmax	91.7
Standard*	87 dB(A)
Standard-Max	140 dB(A)

Remark : * Notification of Ministry of Industry, B.E.2546

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise

MTR-PTTGC4

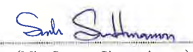
LOCATION	: Pump Station	MEASUREMENT DATE	: 26/02/2026
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 821078
SITE OPERATOR	: Miss Wiraya Patchimboon		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 97097
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14/10/2025
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13/10/2026
CAL SHEET No.	: CAL-2602-0013-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	26/02/2026	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00		
09:00 - 10:00	83.8	
10:00 - 11:00	83.3	
11:00 - 12:00	83.4	
12:00 - 13:00	83.3	
13:00 - 14:00	83.7	
14:00 - 15:00	83.5	
15:00 - 16:00	83.7	
16:00 - 17:00	83.3	
17:00 - 18:00		
18:00 - 19:00		
19:00 - 20:00		
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(8)	83.5	
Lmax	94.8	
Standard*	90 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Notification of Ministry of Industry, B.E.2546


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise

MTR-PTTGC4

LOCATION	: Pump Station	MEASUREMENT DATE	: 26/02/2026
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 821078
SITE OPERATOR	: Miss Wiraya Patchimboon		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 97097
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14/10/2025
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13/10/2026
CAL SHEET No.	: CAL-2602-0013-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	26/02/2026	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00		
09:00 - 10:00	83.8	
10:00 - 11:00	83.3	
11:00 - 12:00	83.4	
12:00 - 13:00	83.3	
13:00 - 14:00	83.7	
14:00 - 15:00	83.5	
15:00 - 16:00	83.7	
16:00 - 17:00	83.3	
17:00 - 18:00	83.5	
18:00 - 19:00	83.3	
19:00 - 20:00	83.6	
20:00 - 21:00	83.5	
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(12)	83.5	
Lmax	94.8	
Standard*	87 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Notification of Ministry of Industry, B.E.2546


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise

MTR-PTTGC4

LOCATION	: Truck Loading I-17	MEASUREMENT DATE	: 26/02/2026
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 821080
SITE OPERATOR	: Miss Wiraya Patchimboon		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 97097
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14/10/2025
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13/10/2026
CAL SHEET No.	: CAL-2602-0013-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	26/02/2026	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	69.9	
09:00 - 10:00	72.1	
10:00 - 11:00	70.7	
11:00 - 12:00	68.2	
12:00 - 13:00	67.2	
13:00 - 14:00	67.6	
14:00 - 15:00	70.3	
15:00 - 16:00	68.3	
16:00 - 17:00		
17:00 - 18:00		
18:00 - 19:00		
19:00 - 20:00		
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(8)	69.6	
Lmax	94.4	
Standard*	90 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Notification of Ministry of Industry, B.E.2546


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team



Noise Monitoring Result : Working Noise

MTR-PTTGC4

LOCATION	: Truck Loading I-17	MEASUREMENT DATE	: 26/02/2026
SLM MODEL	: SCARLET TECH ST-21D	SERIAL No.	: 821080
SITE OPERATOR	: Miss Wiraya Patchimboon		

CALIBRATOR MODEL	: Cirrus CR:515	SERIAL No.	: 97097
CALIBRATION REF/EFF dB(A)	: 94.0/93.8	CERTIFIED DATE	: 14/10/2025
SLM READING/ADJUST dB(A)	: 93.8/0.0	EXPIRE DATE	: 13/10/2026
CAL SHEET No.	: CAL-2602-0013-01		

TIME	EQUIVALENT SOUND PRESSURE LEVEL (dB(A))	
	26/02/2026	
00:00 - 01:00		
01:00 - 02:00		
02:00 - 03:00		
03:00 - 04:00		
04:00 - 05:00		
05:00 - 06:00		
06:00 - 07:00		
07:00 - 08:00		
08:00 - 09:00	69.9	
09:00 - 10:00	72.1	
10:00 - 11:00	70.7	
11:00 - 12:00	68.2	
12:00 - 13:00	67.2	
13:00 - 14:00	67.6	
14:00 - 15:00	70.3	
15:00 - 16:00	68.3	
16:00 - 17:00	68.1	
17:00 - 18:00	68.5	
18:00 - 19:00	68.2	
19:00 - 20:00	68.3	
20:00 - 21:00		
21:00 - 22:00		
22:00 - 23:00		
23:00 - 00:00		
Leq(12)	69.2	
Lmax	94.4	
Standard*	87 dB(A)	
Standard-Max	140 dB(A)	

Remark : * Notification of Ministry of Industry, B.E.2546


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Sununta Sirawuttinanon)
Technical Management Team

ภาคผนวก ง.8

ใบรับรองผลการตรวจวัดคุณภาพอากาศภายในสถานประกอบการ

คุณภาพอากาศภายในสถานประกอบการแบบติดตั้งกับพื้นที่



บริษัท ซีคอต จำกัด SECOT CO., LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร 10800

239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND

TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 0342/69
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 26/02/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong , Rayong 21150	Received Date	: 27/02/2026
		Test Date	: 06/03/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 13/03/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sorbent Adsorption
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
Loading Area สถานีที่ 8	26/02/2026	Benzene	NIOSH 1501/GC FID	< 0.007	ND	1
	09:20-13:40	Toluene	NIOSH 1501/GC FID	< 0.023	ND	200
		Total xylene	NIOSH 1501/GC FID	< 0.014	ND	100
		Cyclohexane	NIOSH 1500/GC FID	< 0.01	ND	300

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 2155/68
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 15/05/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang Rayong , Rayong 21150	Received Date	: 16/05/2026
		Test Date	: 21/05/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/05/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Sorbent Adsorption
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
Loading Area สถานีที่ 8	15/05/2026	Benzene	NIOSH 1501/GC FID	< 0.007	0.376	1
	07:45-11:45	Toluene	NIOSH 1501/GC FID	< 0.023	ND	200
		Total xylene	NIOSH 1501/GC FID	< 0.014	ND	100
		Cyclohexane	NIOSH 1500/GC FID	< 0.01	0.41	300

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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คุณภาพอากาศภายในสถานประกอบการแบบติดตัวบุคคล



บริษัท ซีคอต จำกัด SECOT CO., LTD.

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 0342/69
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 25/02/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 27/02/2026
		Test Date	: 02/03/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 13/03/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID. 26002414	25/02/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Reformer 1	08:20-13:30	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100
ID. 26001173	25/02/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Reformer 2	08:20-13:30	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100



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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 0342/69
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 26/02/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 27/02/2026
		Test Date	: 02/03/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 13/03/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID. 26006412	26/02/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 1 (Extract)	08:25-13:25	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100
ID. 26009138	26/02/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 2 (Xylene)	08:25-13:25	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100
ID. 26002440	26/02/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 3 (Xylene)	08:25-13:25	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Maia Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Maia Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND
TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 0342/69
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 25/02/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 27/02/2026
		Test Date	: 02/03/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 13/03/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID. 26002438	25/02/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Waste Water Treatment (WWT)	08:20-13:30	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100



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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 0342/69
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 26/02/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 27/02/2026
		Test Date	: 02/03/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 13/03/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID. 26001467	26/02/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 4/Unit 390 (Xylene)	08:30-13:30	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Miss Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Miss Narisa Poowasanpetch
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Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 0342/69
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 26/02/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 27/02/2026
		Test Date	: 02/03/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 13/03/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND ppm	RESULT ppm	STANDARD ppm
ID. 26001495	26/02/2026	Cyclohexane	ISO 16200-2/GC FID	< 0.04	ND	300
Area : Aromatics 4/Cyclohexane (Extract)	08:25-13:25					

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 0847/69
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 15/05/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 16/05/2026
		Test Date	: 21/05/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/05/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND ppm	RESULT ppm	STANDARD ppm
ID. 26004927	15/05/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Reformer 1	08:00-19:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100
ID. 26001277	15/05/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Reformer 2	08:00-19:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 0847/69
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 15/05/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 16/05/2026
		Test Date	: 21/05/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/05/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID. 26002436	15/05/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 1 (Extract)	07:50-19:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100
ID. 26008162	15/05/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 2 (Xylene)	07:50-19:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100
ID. 26002074	15/05/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatics 3 (Xylene)	07:50-19:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)
Technical Management Team

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ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 0847/69
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 15/05/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 16/05/2026
		Test Date	: 21/05/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/05/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID. 26005507	15/05/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area :Waste Water Treatment (WWT)	08:00-19:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100

Analyst By : Sudaporn S.
(Miss Sudaporn Soonthorn)

Approved By : Narisa Poowasanpetch
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Technical Management Team

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ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 0847/69
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 15/05/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 16/05/2026
		Test Date	: 21/05/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/05/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID. 26001409	15/05/2026	Benzene	OSHA 1005/GC FID	< 0.04	ND	1
Area : Aromatic 4/Unit 390 (Xylene)	07:50-19:00	Toluene	OSHA 111/GC FID	< 0.04	ND	200
		Total xylene	OSHA 1002/GC FID	< 0.08	ND	100



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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

ANALYSIS/TEST REPORT

Customer	: RND/SECOT Co., Ltd.	Request Service No.	: 0847/69
For	: PTT Global Chemical Public Co., Ltd. (Branch 4 :Aromatics 1 Plant)	Sampling Date	: 15/05/2026
Address	: No.4, I-2 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Mueang Rayong , Rayong 21150	Received Date	: 16/05/2026
		Test Date	: 21/05/2026
Tel/Fax	: 0-3897-2370 / 0-3897-4111	Report Date	: 29/05/2026

SAMPLE DESCRIPTION / SAMPLING INFORMATION

Sample Designated As	: Workplace Air	Sampling Method	: Passive Diffusion
Sampling By	: SECOT Co., Ltd.	Sample Condition	: Normal

Sampling Location	Sampling Date/Time	Compound	Analytical Method	ND	RESULT	STANDARD
				ppm	ppm	ppm
ID. 26001410	15/05/2026	Cyclohexane	ISO 16200-2/GC FID	< 0.04	ND	300
Area :Aromatic 4/Cyclohexane (Extract)	07:50-19:00					

Analyst By :

Sudapom S.

(Miss Sudapom Soonthorn)

Approved By :

Naris Poowasanpetch

(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. Notification of the Department of Labour Protection and Welfare, B.E.2560 (2017).

4. ND = non-detectable.

Analyst By :

Sudapom S.

(Miss Sudapom Soonthorn)

Approved By :

Naris Poowasanpetch

(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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3. Notification of the Department of Labour Protection and Welfare, B.E.2560 (2017).

4. ND = non-detectable.

ภาคผนวก จ

เอกสารแสดงการตรวจเทียบเครื่องมือการตรวจวัดคุณภาพสิ่งแวดล้อม



CONTROL UNIT CALIBRATION

(Metric units, mm)

Date 6 Jan 26

Initial Final Average
Barometric press, Pb 759 759 759 mmHg

Dry Gas Meter Data

Console No. M50-08

Serial No. 358794

Metering System ID

Model S110

DGM Number 975906

Correction factor (Yr) 1.0058

DGM Model ES-110

Last Calibration Date 10 Oct 25

Calibrated by : Montri P.

Orifice manometer setting, ΔH mm H2O	Ref. DGM Volume V _r Liters	DGM Volume V _m Liters	Temperature (°C)				Time ⊙ min	DGM Correction factor (Y)	ΔH@ mm
			Ref DGM T _r	Dry Gas Meter					
				Inlet T _i	Outlet T _o	Avg T _m			
12.5	100.2	99.2	25	25	24	24.5	8.33	1.0142	39.2697
25.0	100.8	99.8	25	25	24	24.5	5.92	1.0136	39.0750
50.0	100.1	99.9	25	25	24	24.5	4.35	1.0035	42.8100
76.0	100.1	100.6	25	25	24	24.5	3.50	0.9940	42.1424
100.0	100.1	100.9	25	25	24	24.5	3.50	0.9892	43.9694
150.0	100.2	100.4	25	25	24	24.5	2.53	0.9896	43.5063

Average 1.0007 41.7954

Approved by :



PITOT TUBE CALIBRATION REPORT

Calibration Location: SECOT

Calibration Date : 08-01-2026

Calibration Duct No.: CD-0123

Calibration Standard Pitot tube data

Pitot No. : Std-02

Coefficient (Cp) : 0.99

Type S Pitot No. : PV15-01

Calibrated by : Mr. Montri P.

A Side Calibration

Run No.	ΔPstd (mm H ₂ O)	ΔPs (mm H ₂ O)	Cp(s)	Deviation, δ Cp(s) - Cp(A)
1	15.0	21.0	0.8367	0.0033
2	15.0	21.0	0.8367	0.0033
3	15.0	21.5	0.8269	-0.0065

C_{P(A)} avg 0.8334

B Side Calibration

Run No.	ΔPstd (mm H ₂ O)	ΔPs (mm H ₂ O)	Cp(s)	Deviation, δ Cp(s) - Cp(B)
1	15.0	21.0	0.8367	0.0000
2	15.0	21.0	0.8367	0.0000
3	15.0	21.0	0.8367	0.0000

C_{P(B)} avg 0.8367

| CP(A)-CP(B) | = 0.0033

C_{P(Avg)} = 0.8351

Approved by :

*** δ must be ≤ 0.01 for the test to be acceptable ***
*** | Cp(A)-Cp(B) | must also be < 0.01 if average of Cp(A) and Cp(B) is to be used ***



CONTROL UNIT CALIBRATION

(Metric units, mm)

Date 5 Jan 26

Barometric press, Pb

Initial	Final	Average
758	758	758

mmHg

Dry Gas Meter Data

Console No. M50-06

Metering System ID

DGM Number 28779

DGM Model MST-C2-1

Calibrated by : Montri P.

Reference Dry Gas Meter Data

Serial No. 358794

Model S110

Correction factor (Yr) 1.0058

Last Calibration Date 10 Oct 25

Orifice manometer setting, ΔH mm H2O	Ref. DGM Volume V _r Liters	DGM Volume V _m Liters	Temperature (°C)				Time ⊙ min	DGM Correction factor (Y)	ΔH@ mm
			Ref DGM T _r	Dry Gas Meter					
				Inlet T _i	Outlet T _o	Avg T _m			
12.5	100.0	101.0	25	25	24	24.5	9.03	0.9930	46.5409
25.0	100.0	101.0	25	25	24	24.5	6.35	0.9918	45.9956
50.0	100.0	101.0	25	25	24	24.5	4.57	0.9894	47.5770
76.0	100.0	100.0	25	25	24	24.5	3.68	0.9968	47.0462
100.0	100.0	99.0	25	25	24	24.5	3.68	1.0045	47.2108
150.0	100.0	99.0	25	25	24	24.5	2.62	0.9997	46.8616

Average

0.9958	46.8720
--------	---------

Approved by :



PITOT TUBE CALIBRATION REPORT

Calibration Location: SECOT

Calibration Date : 08-01-2026

Calibration Duct No.: CD-0123

Calibration Standard Pitot tube data

Pitot No. : Std-02

Coefficient (Cp) : 0.99

Type S Pitot No. : PV15-02

Calibrated by : Mr. Montri P.

A Side Calibration

Run No.	ΔPstd (mm H ₂ O)	ΔPs (mm H ₂ O)	Cp(s)	Deviation, δ Cp(s) - Cp(A)
1	15.0	22.0	0.8175	-0.0096
2	15.0	21.5	0.8269	-0.0001
3	15.0	21.0	0.8367	0.0097

C_{P(A)}, avg 0.8270

B Side Calibration

Run No.	ΔPstd (mm H ₂ O)	ΔPs (mm H ₂ O)	Cp(s)	Deviation, δ Cp(s) - Cp(B)
1	15.0	21.0	0.8367	0.0033
2	15.0	21.0	0.8367	0.0033
3	15.0	21.5	0.8269	-0.0065

C_{P(B)}, avg 0.8334

|CP(A)-CP(B)| = 0.0064

C_{P(Avg)} = 0.8302

Approved by :

*** δ must be ≤ 0.01 for the test to be acceptable ***
*** |Cp(A)-Cp(B)| must also be < 0.01 if average of Cp(A) and Cp(B) is to be used ***

Certificate Of Analysis

Special Gases Mixture

Customer Details

Name: Secot Co., Ltd. Address: 239 Rimklongprapa Rd. Bangsue Khet Bangsue Bangkok 10800 Customer Tag No.:

Certificate Details

Number: 0484/23 Date of Issue: 22-Feb-2023 Expiry date: 21-Feb-2027
Material Details
Production Order: 90176403 Material Code: 478100-J-62 Cylinder No.: 12360
Gas content: 6.520 M³ (nominal) Filling pressure: 145 bar (g) Valve: CGA 590 BRASS
Cylinder Owner: LINDE Cylinder Material: STEEL Cylinder Size: 47 L

Laboratory Report

Component	Normal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³
Oxygen	8.00%	7.94%	± 2% relative	(1) SG-O-01
In Nitrogen				

Recommend usage condition

Minimum utilization: 5% of actual content or before expire date whichever comes first.

Storage condition: Keep in well ventilation and secure area.

Comments

Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

Sukanya Parinyasontorn
Signatory for and on behalf of Linde (Thailand) Co., Ltd.

Page 1 of 1

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PB-002/T004

Iss.K/2, 15 Oct 2021

บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

15 Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad KM. 6-5 Road, Bangnaeew

Bangplee, Samutprakarn 10540, Tel. (66) 2338-6100, Fax (66) 2338-6333

Weigrow Plant: 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93, Fax (66) 38.570-323

Linde (Thailand) Public Company Limited

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Weigrow Plant: 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93, Fax (66) 38.570-323

Certificate Of Analysis

Special Gases Mixture

Customer Details

Name: Secot Co., Ltd. Address: 239, Rimklongprapa Rd, Bangsue, Bangkok 10800 Customer Tag No.:

Certificate Details

Number: 0742/23 Date of Issue: 29-Mar-2023 Expiry date: 29-Mar-2027
Material Details
Production Order: 90176408 Material Code: 608400-SK-44 Cylinder No.: A00940SK
Gas content: 5.52 M³ Filling pressure: 145.0 bar Valve: CGA 660 SS
Cylinder Owner: LINDE Cylinder Material: Spectra seal Cylinder Size: 40 L

Laboratory Report

Component	Normal Concentration	Analytical Result			Assay Date
		Analysis Result ¹	Uncertainty ²	Method of Analysis ³	
Sulphur Dioxide	40.0 ppm	40.2 ppm	± 1% relative	(6) I-PB-352	22-Mar & 29-Mar-23
In Nitrogen					

Reference Standard used in Assay

Reference Standard	Cylinder number	Concentration	Expiry date:
Sulphur Dioxide	256240	52.73 ± 0.42 ppm	6-May-2023
In Nitrogen			

Analytical Instruments used in Assay

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
FTIR Spectrometers Nicolet iS50	FTIR-SO2	17-Mar-2023

Recommend usage condition

Minimum utilization: 5% of actual content or before expire date whichever comes first.

Storage condition: Keep in well ventilation and secure area.

Comments

When reordering, please quote the material number

Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified. The Assay of this Standard has been performed in accordance with the EPA Traceability Protocol EPA-600/R-12/531 for the Assay and Certification of Gaseous Calibration Standards using procedure G1
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

Page 1 of 1

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บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

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Thailand, Tel (66) 38.570-479-93, Fax (66) 38.570-323

Sukanya Parinyasontorn
Signatory for and on behalf of Linde (Thailand) Co., Ltd.

Linde (Thailand) Public Company Limited

15 Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad KM. 6-5 Road, Bangnaeew

Bangplee, Samutprakarn 10540, Tel. (66) 2338-6100, Fax (66) 2338-6333

Weigrow Plant: 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93, Fax (66) 38.570-323



Certificate Of Analysis Special Gases Mixture

Customer Details					
Name: Secot Co., Ltd.		Address: 239, Rimklongprapa Rd., Bangsue, Bangkok 10800		Customer Tag No.: ---	
Certificate Details					
Number:	1096/24	Date of Issue:	26-Apr-2024	Expiry date:	26-Apr-2027
Material Details					
Production Order:	90183676	Material Code:	511600-SK-34	Cylinder No.:	143360
Gas content:	5.200 M ³	Filling pressure:	137 bar	Valve:	CGA 660 SS
Cylinder Owner:	LINDE	Cylinder Material:	Spectra seal	Cylinder Size:	40 L
Laboratory Report					
Analytical Result					
Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³	Assay Date
Nitric Oxide	40.0 ppm	39.2 ppm	± 1% relative	(6) I-PB-352	19-Apr & 26-Apr-2024
Other NOx impurity		Less than 1.9 ppm			
Carbon Monoxide	40.0 ppm	40.9 ppm	± 1% relative	(6) I-PB-352	19-Apr-2024
In Nitrogen					
Reference Standard used in Assay					
Reference Standard	Cylinder number	Concentration	Expiry date:		
Carbon Monoxide	D619725	70.6 ± 0.2 ppm	20-Sep-2026		
Nitric Oxide	D619725	70.6 ± 0.2 ppm	20-Sep-2026		
In Nitrogen					
Analytical Instruments used in Assay					
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration			
FTIR Spectrometers Nicolet iS50	FTIR-CO	5-Apr-2024			
FTIR Spectrometers Nicolet iS50	FTIR-NO	5-Apr-2024			
Recommend usage condition					
Minimum utilization: 5% of actual content or before expire date whichever comes first.					
Storage condition: Keep in well ventilation and secure area.					
Comments					
When reordering, please quote the material number					
Note:					
1. All results expressed in this report are on mole/mole basis, unless otherwise specified. The Assay of this Standard has been performed in accordance with the EPA Traceability Protocol EPA-600/R-12/531 for the Assay and Certification of Gaseous Calibration Standards using procedure G1.					
2. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%.					
3. (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified					

Page 1 of 1

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บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

เลขที่ใบอนุญาตประกอบกิจการ (10540) 10540

ชั้น 15 อาคารทาวเวอร์ A, 2/3 หมู่ 14, ถนนลาดพร้าว, แขวงจตุจักร, กรุงเทพฯ 10110

เบอร์โทร: 02-2338-6100 โทรสาร: (66) 2338-6100 แฟกซ์: (66) 2338-6333

โรงงานผลิต: 105 หมู่ 5, ตำบลบางพลีใหญ่, อำเภอบางพลี, จังหวัดสมุทรปราการ 10540

เบอร์โทร: (66) 38.570-479-93 โทรสาร: (66) 38.570-323

Linde (Thailand) Public Company Limited

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad Km. 6.5 Road, Bangkok

Bangplee, Samutprakarn 10540, Tel (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant : 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93 Fax (66) 38.570-323

PB-002/1006

Iss. M/1, 01 December 2023



Certificate Of Analysis Special Gases Mixture

Customer Details					
Name: Secot Co., Ltd.		Address: 239, Rimklongprapa Rd., Bangsue, Bangkok 10800		Customer Tag No.: ---	
Certificate Details					
Number:	0530/23	Date of Issue:	7-Mar-2023	Expiry date:	7-Mar-2026
Material Details					
Production Order:	90176407	Material Code:	436700-SK-34	Cylinder No.:	A009295K
Gas content:	5.23 M ³	Filling pressure:	137.0 bar	Valve:	CGA 660 SS
Cylinder Owner:	LINDE	Cylinder Material:	Spectra seal	Cylinder Size:	40 L
Laboratory Report					
Analytical Result					
Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³	Assay Date
Nitric Oxide	80.0 ppm	79.8 ppm	± 1% relative	(6) I-PB-352	27-Feb & 7-Mar-23
Other NOx impurity		Less than 3.9 ppm			
Carbon Monoxide	80.0 ppm	81.1 ppm	± 1% relative	(6) I-PB-352	27-Feb-2023
In Nitrogen					
Reference Standard used in Assay					
Reference Standard	Cylinder number	Concentration	Expiry date:		
Nitric Oxide	Z560035G	50.89 ± 0.41 ppm	13-Dec-2024		
Carbon Monoxide	ND46423	50.20 ± 0.26 ppm	4-May-2024		
In Nitrogen					
Analytical Instruments used in Assay					
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration			
FTIR Spectrometers Nicolet iS50	FTIR-NO	27-Jan & 1-Mar-23			
FTIR Spectrometers Nicolet iS50	FTIR-CO	22-Feb-2023			
Recommend usage condition					
Minimum utilization: 5% of actual content or before expire date whichever comes first.					
Storage condition: Keep in well ventilation and secure area.					
Comments					
When reordering, please quote the material number					
Note:					
1. All results expressed in this report are on mole/mole basis, unless otherwise specified. The Assay of this Standard has been performed in accordance with the EPA Traceability Protocol EPA-600/R-12/531 for the Assay and Certification of Gaseous Calibration Standards using procedure G1.					
2. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%.					
3. (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified					

Page 1 of 1

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บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

เลขที่ใบอนุญาตประกอบกิจการ (10540) 10540

ชั้น 15 อาคารทาวเวอร์ A, 2/3 หมู่ 14, ถนนลาดพร้าว, แขวงจตุจักร, กรุงเทพฯ 10110

เบอร์โทร: 02-2338-6100 โทรสาร: (66) 2338-6100 แฟกซ์: (66) 2338-6333

โรงงานผลิต: 105 หมู่ 5, ตำบลบางพลีใหญ่, อำเภอบางพลี, จังหวัดสมุทรปราการ 10540

เบอร์โทร: (66) 38.570-479-93 โทรสาร: (66) 38.570-323

Sukanya Parinyasontorn

Signatory for and on behalf of Linde (Thailand) Co., Ltd.

PB-002/F006

Iss. K/2, 15 Oct 2021

Linde (Thailand) Public Company Limited

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad Km. 6.5 Road, Bangkok

Bangplee, Samutprakarn 10540, Tel (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant : 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93 Fax (66) 38.570-323



THE LINDE GROUP

Linde

Certificate Of Analysis

Special Gases Mixture

Customer Details		
Name:	Address:	Customer Tag No.:
Secot Co., Ltd.	239 Rimklongprapa Rd., Bangsue, Bangkok 10800	

Certificate Details					
Number:	0609/23	Date of Issue:	21-Mar-2023	Expiry date:	21-Mar-2031
Material Details					
Production Order:	90176409	Material Code:	445100-SK-44	Cylinder No.:	D869455
Gas content:	5.52 M ³	Filling pressure:	145.0 bar	Valve:	CGA 660 SS
Cylinder Owner:	LINDE	Cylinder Material:	Spectra seal	Cylinder Size:	40 L

Laboratory Report					
Analytical Result					
Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ⁴	Assay Date
Sulphur Dioxide In Nitrogen	80.0 ppm	83.5 ppm	± 1% relative	(6) I-PB-352	14-Mar & 21-Mar-23

Reference Standard used in Assay			
Reference Standard	Cylinder number	Concentration	Expiry date
Sulphur Dioxide In Nitrogen	256240	52.73 ± 0.42 ppm	6-May-2023

Analytical Instruments used in Assay		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
FTIR Spectrometers Nicolet iS50	FTIR-SQ2	16-Feb & 17-Mar-23

Recommend usage condition

Minimum utilization: 5% of actual content or before expire date whichever comes first.
Storage condition: Keep in well ventilation and secure area.

Comments

When reordering, please quote the material number

Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified. The Assay of this Standard has been performed in accordance with the EPA Traceability Protocol EPA-600/R-12/531 for the Assay and Certification of Gaseous Calibration Standards using procedure G1
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

Page 1 of 1

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บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

เลขที่ใบแจ้งหนี้: 010737000785

ชั้น 15 อาคารทาวเวอร์ 2/3 หมู่ 14 ถนนพหลโยธิน แขวงจตุจักร กรุงเทพฯ 10310

เบอร์โทร: 02-2555-10540 โทรสาร: (66) 2338-6100 แฟกซ์: (66) 2338-6333

เว็บไซต์: 105 หมู่ 5 ตำบลลำโพง อำเภอลำลูกกา จังหวัดปทุมธานี 11130

โทรสาร: (66) 38.570-479-93 โทรสาร: (66) 38.570-323

Sukanya Parinyasoontorn
Signatory for and on behalf of Linde (Thailand) Co., Ltd.

Linde (Thailand) Public Company Limited PB-002/F006
15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad KM. 6.5 Road, Bangkew
Bangplee, Samutprakarn 10540, Tel. (66) 2338-6100 Fax (66) 2338-6333
Wellgrow Plant, 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180
Thailand, Tel (66) 38.570-479-93 Fax (66) 38.570-323

Certificate Of Analysis

Special Gases Mixture

Customer Details		
Name:	Address:	Customer Tag No.:
Secot Co., Ltd.	239.Bangsue, KHET BANG SUE, Bangkok Thailand 10800	

Certificate Details					
Number:	3281/25	Date of Issue:	11-Nov-2025	Expiry date:	10-Nov-2029
Material Details					
Production Order:	90196173	Material Code:	429900-J-62	Cylinder No.:	S4729568
Gas content:	6.560 M ³ (nominal)	Filling pressure:	145.0 bar (g)	Valve:	CGA 590 BRASS
Cylinder Owner:	LINDE	Cylinder Material:	STEEL	Cylinder Size:	47 L

Laboratory Report					
Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³	
Oxygen In Nitrogen	15.0%	15.0%	± 2% relative	(2) I-PB-354	

Recommend usage condition

Minimum utilization: 5% of actual content or before expire date whichever comes first.
Storage condition: Keep in well ventilation and secure area.

Comments

Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified
- Unit ppm is equivalent to µmol/mol, unit percent is equivalent to cmol/mol

Sukanya Parinyasoontorn

Signatory for and on behalf of Linde (Thailand) Co., Ltd.

Page 1 of 1

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PB-002/F004

Iss:M/2, 01 March 2025

บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

เลขที่ใบแจ้งหนี้: 010737000785

ชั้น 15 อาคารทาวเวอร์ 2/3 หมู่ 14 ถนนพหลโยธิน แขวงจตุจักร กรุงเทพฯ 10310

เบอร์โทร: 02-2555-10540 โทรสาร: (66) 2338-6100 แฟกซ์: (66) 2338-6333

เว็บไซต์: 105 หมู่ 5 ตำบลลำโพง อำเภอลำลูกกา จังหวัดปทุมธานี 11130

โทรสาร: (66) 38.570-479-93 โทรสาร: (66) 38.570-323

Linde (Thailand) Public Company Limited

PLC Registration no 010737000785

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad KM. 6.5 Road, Bangkew

Bangplee, Samutprakarn 10540, Tel. (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant, 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93 Fax (66) 38.570-323



Certificate Of Analysis

Special Gases Mixture

Customer Details

Name: Secot Co., Ltd.
Address: 239, Rimklongprapa Rd., Bangsue, Bangkok 10800
Customer Tag No.:

Certificate Details

Number: 1096/24 Date of Issue: 26-Apr-2024 Expiry date: 26-Apr-2027
Material Details
Production Order: 90183676 Material Code: 511600-SK-34 Cylinder No.: 143360
Gas content: 5.200 M³ Filling pressure: 137 bar Valve: CGA 660 SS
Cylinder Owner: LINDE Cylinder Material: Spectra seal Cylinder Size: 40 L

Laboratory Report

Analytical Result

Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³	Assay Date
Nitric Oxide	40.0 ppm	39.2 ppm	± 1% relative	(6) I-PB-352	19-Apr & 26-Apr-2024
Other NOx impurity		Less than 1.9 ppm			
Carbon Monoxide in Nitrogen	40.0 ppm	40.9 ppm	± 1% relative	(6) I-PB-352	19-Apr-2024

Reference Standard used in Assay

Reference Standard	Cylinder number	Concentration	Expiry date
Carbon Monoxide	D619725	70.6 ± 0.2 ppm	20-Sep-2026
Nitric Oxide in Nitrogen	D619725	70.6 ± 0.2 ppm	20-Sep-2026

Analytical Instruments used in Assay

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
FTIR Spectrometers Nicolet iS50	FTIR-CO	5-Apr-2024
FTIR Spectrometers Nicolet iS50	FTIR-NO	5-Apr-2024

Recommend usage condition

Minimum utilization: 5% of actual content or before expire date whichever comes first.
Storage condition: Keep in well ventilation and secure area.

Comments

When reordering, please quote the material number.

Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified. The Assay of this standard has been performed in accordance with the EPA Traceability Protocol EPA-600/P-12/531 for the Assay and Certification of Gaseous Calibration Standards using procedure G1.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%.
- The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

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Signatory for and on behalf of Linde (Thailand) Co., Ltd.

PB-002/T006

Iss. M/1, 01 December 2023

บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad KM. 6.5 Road, Bangkew

เลขที่ 15 ถนนตราด กม. 6.5 หมู่ 14 ตำบลบางนาเทวดา แขวงบางนา เขตคลองเตย กรุงเทพฯ 10540 โทรศัพท์ (66) 2338-6100 โทรสาร (66) 2338-6333

โรงงานผลิต: 105 หมู่ 5 ตำบลบางนา อำเภอบางพลี จังหวัดสมุทรปราการ 24180

โทรศัพท์ (66) 38.570-479-93 โทรสาร (66) 38.570-323

Linde (Thailand) Public Company Limited

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad KM. 6.5 Road, Bangkew

Bangplee, Samutprakarn 10540, Tel (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant: 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93 Fax (66) 38.570-323



Certificate Of Analysis

Special Gases Mixture

Customer Details

Name: Secot Co., Ltd.
Address: 239 Rimklongprapa Rd. Bangsue Khet Bangsue Bangkok 10800
Customer Tag No.:

Certificate Details

Number: 0484/23 Date of Issue: 22-Feb-2023 Expiry date: 21-Feb-2027
Material Details
Production Order: 90176403 Material Code: 478100-J-62 Cylinder No.: 12360
Gas content: 6.520 M³ (nominal) Filling pressure: 145 bar (g) Valve: CGA 590 BRASS
Cylinder Owner: LINDE Cylinder Material: STEEL Cylinder Size: 47 L

Laboratory Report

Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³
Oxygen in Nitrogen	8.00%	7.94%	± 2% relative	(1) SG-O-01

Recommend usage condition

Minimum utilization: 5% of actual content or before expire date whichever comes first.
Storage condition: Keep in well ventilation and secure area.

Comments

Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

Sukanya Parinyasoontorn

Signatory for and on behalf of Linde (Thailand) Co., Ltd.

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PB-002/T004

Iss. K/2, 15 Oct 2021

บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad KM. 6.5 Road, Bangkew

เลขที่ 15 ถนนตราด กม. 6.5 หมู่ 14 ตำบลบางนาเทวดา แขวงบางนา เขตคลองเตย กรุงเทพฯ 10540 โทรศัพท์ (66) 2338-6100 โทรสาร (66) 2338-6333

โรงงานผลิต: 105 หมู่ 5 ตำบลบางนา อำเภอบางพลี จังหวัดสมุทรปราการ 24180

โทรศัพท์ (66) 38.570-479-93 โทรสาร (66) 38.570-323

Linde (Thailand) Public Company Limited

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad KM. 6.5 Road, Bangkew

Bangplee, Samutprakarn 10540, Tel (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant: 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93 Fax (66) 38.570-323

THE LINDE GROUP

Linde

Certificate Of Analysis
Special Gases Mixture

Customer Details

Name: Secot Co., Ltd. Address: 239, Rimklongprapa Rd., Bangsue, Bangkok 10800 Customer Tag No.:

Certificate Details

Number: 0742/23 Date of Issue: 29-Mar-2023 Expiry date: 29-Mar-2027
Material Details
Production Order: 90176408 Material Code: 608400-SK-44 Cylinder No.: A00940SK
Gas content: 5.52 M³ Filling pressure: 145.0 bar Valve: CGA 660 SS
Cylinder Owner: LINDE Cylinder Material: Spectra seal Cylinder Size: 40 L

Laboratory Report

Analytical Result

Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³	Assay Date
Sulphur Dioxide In Nitrogen	40.0 ppm	40.2 ppm	± 1% relative	(6) I-PB-352	22-Mar & 29-Mar-23

Reference Standard used in Assay

Reference Standard	Cylinder number	Concentration	Expiry date:
Sulphur Dioxide In Nitrogen	256240	52.73 ± 0.42 ppm	6-May-2023

Analytical Instruments used in Assay

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
FTIR Spectrometers Nicolet iS50	FTIR-SO2	17-Mar-2023

Recommend usage condition

Minimum utilization: 5% of actual content or before expire date whichever comes first.
Storage condition: Keep in well ventilation and secure area.

Comments

When reordering, please quote the material number

Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified. The Assay of this Standard has been performed in accordance with the EPA Traceability Protocol EPA-600/R-12/531 for the Assay and Certification of Gaseous Calibration Standards using procedure G1.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

Page 1 of 1

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บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

เลขที่ใบแจ้งหนี้: 0101000000

วันที่ 15 มกราคม 2567 ถึง 2/3 มิถุนายน 2567 (วันหมดอายุ: 6.5 เดือน)

เลขที่ใบแจ้งหนี้: 10540 โทรสาร (66) 2338-6100 โทรสาร (66) 2338-6333

เลขที่ใบแจ้งหนี้: 105 มิถุนายน 2567 โทรสาร 24180

โทรสาร (66) 38.570-479-93

โทรสาร (66) 38.570-323

Sukanya Parinyasontorn

Signatory for and on behalf of Linde (Thailand) Co., Ltd.

Linde (Thailand) Public Company Limited

P.O. Registration no. 010519000000

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trid KM. 6.5 Road, Bangkwaew

Bangklee, Samutprakarn 10540, Tel (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant: 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93

Fax (66) 38.570-323

PB-002/E006

Iss. K/Z, 15 Oct 2021

Making our world more productive

Certificate Of Analysis
Special Gases Mixture

Customer Details

Name: Secot Co., Ltd. Address: 239, Rimklongprapa Rd., Bangsue, Bangkok 10800 Customer Tag No.:

Certificate Details

Number: 1096/24 Date of Issue: 26-Apr-2024 Expiry date: 26-Apr-2027
Material Details
Production Order: 90183676 Material Code: 511600-SK-34 Cylinder No.: 143360
Gas content: 5.200 M³ Filling pressure: 137 bar Valve: CGA 660 SS
Cylinder Owner: LINDE Cylinder Material: Spectra seal Cylinder Size: 40 L

Laboratory Report

Analytical Result

Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³	Assay Date
Nitric Oxide	40.0 ppm	39.2 ppm	± 1% relative	(6) I-PB-352	19-Apr & 26-Apr-2024
Other NO _x impurity		Less than 1.9 ppm			
Carbon Monoxide In Nitrogen	40.0 ppm	40.9 ppm	± 1% relative	(6) I-PB-352	19-Apr-2024

Reference Standard used in Assay

Reference Standard	Cylinder number	Concentration	Expiry date:
Carbon Monoxide	D619725	70.6 ± 0.2 ppm	20-Sep-2026
Nitric Oxide In Nitrogen	D619725	70.6 ± 0.2 ppm	20-Sep-2026

Analytical Instruments used in Assay

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
FTIR Spectrometers Nicolet iS50	FTIR-CO	5-Apr-2024
FTIR Spectrometers Nicolet iS50	FTIR-NO	5-Apr-2024

Recommend usage condition

Minimum utilization: 5% of actual content or before expire date whichever comes first.
Storage condition: Keep in well ventilation and secure area.

Comments

When reordering, please quote the material number

Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified. The Assay of this Standard has been performed in accordance with the EPA Traceability Protocol EPA-600/R-12/531 for the Assay and Certification of Gaseous Calibration Standards using procedure G1.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

Page 1 of 1

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Sukanya Parinyasontorn

Signatory for and on behalf of Linde (Thailand) Co., Ltd.

PB-002/E006

Iss. M/T, 01 December 2023

บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

เลขที่ใบแจ้งหนี้: 010519000000

วันที่ 15 มกราคม 2567 ถึง 2/3 มิถุนายน 2567 (วันหมดอายุ: 6.5 เดือน)

เลขที่ใบแจ้งหนี้: 10540 โทรสาร (66) 2338-6100 โทรสาร (66) 2338-6333

เลขที่ใบแจ้งหนี้: 105 มิถุนายน 2567 โทรสาร 24180

โทรสาร (66) 38.570-479-93

โทรสาร (66) 38.570-323

Linde (Thailand) Public Company Limited

P.O. Registration no. 010519000000

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trid KM. 6.5 Road, Bangkwaew

Bangklee, Samutprakarn 10540, Tel (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant: 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93

Fax (66) 38.570-323

THE LINDE GROUP

Linde

Certificate Of Analysis
Special Gases Mixture

Customer Details		
Name:	Address:	Customer Tag No.:
Secot Co., Ltd.	239 Rimklongprapa Rd., Bangsue, Bangkok 10800	

Certificate Details					
Number:	0530/23	Date of Issue:	7-Mar-2023	Expiry date:	7-Mar-2026
Material Details					
Production Order:	90176407	Material Code:	436700-SK-34	Cylinder No.:	A009295K
Gas content:	5.23 M ³	Filling pressure:	137.0 bar	Valve:	CGA 660 SS
Cylinder Owner:	LINDE	Cylinder Material:	Spectra seal	Cylinder Size:	40 L

Laboratory Report

Analytical Result					
Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³	Assay Date
Nitric Oxide	80.0 ppm	79.8 ppm	± 1% relative	(6) I-PB-352	27-Feb & 7-Mar-23
Other NOx impurity		Less than 3.9 ppm			
Carbon Monoxide In Nitrogen	80.0 ppm	81.1 ppm	± 1% relative	(6) I-PB-352	27-Feb-2023

Reference Standard used in Assay

Reference Standard	Cylinder number	Concentration	Expiry date:
Nitric Oxide	2560035G	50.89 ± 0.41 ppm	13-Dec-2024
Carbon Monoxide In Nitrogen	ND46423	50.20 ± 0.26 ppm	4-May-2024

Analytical Instruments used in Assay

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
FTIR Spectrometers Nicolet iS50	FTIR-NO	27-Jan & 1-Mar-23
FTIR Spectrometers Nicolet iS50	FTIR-CO	22-Feb-2023

Recommend usage condition

Minimum utilization: 5% of actual content or before expiry date whichever comes first.

Storage condition: Keep in well ventilation and secure area.

Comments

When reordering, please quote the material number

Note:

1. All results expressed in this report are on mole/mole basis, unless otherwise specified. The Assay of this Standard has been performed in accordance with the EPA Traceability Protocol EPA-600/R-12/531 for the Assay and Certification of Gaseous Calibration Standards using procedure G1.
2. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
3. (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

Sukanya Parinyasoonporn

Signatory for and on behalf of Linde (Thailand) Co., Ltd.

Page 1 of 1

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ฉบับนี้ (ฉบับนี้) (ฉบับนี้) (ฉบับนี้) (ฉบับนี้) (ฉบับนี้)

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Linde (Thailand) Public Company Limited

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trid KM. 6.5 Road, Bangnaew

Bangplee, Samutprakarn 10540, Tel (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant, 105 Moo 5, 1.Banglamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93 Fax (66) 38.570-323

PB-002/F006
Iss: K/2, 15 Oct 2021

THE LINDE GROUP

Linde

Certificate Of Analysis
Special Gases Mixture

Customer Details		
Name:	Address:	Customer Tag No.:
Secot Co., Ltd.	239 Rimklongprapa Rd., Bangsue, Bangkok 10800	

Certificate Details					
Number:	0609/23	Date of Issue:	21-Mar-2023	Expiry date:	21-Mar-2031
Material Details					
Production Order:	90176409	Material Code:	445100-SK-44	Cylinder No.:	D869455
Gas content:	5.52 M ³	Filling pressure:	145.0 bar	Valve:	CGA 660 SS
Cylinder Owner:	LINDE	Cylinder Material:	Spectra seal	Cylinder Size:	40 L

Laboratory Report

Analytical Result					
Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³	Assay Date
Sulphur Dioxide In Nitrogen	80.0 ppm	83.5 ppm	± 1% relative	(6) I-PB-352	14-Mar & 21-Mar-23

Reference Standard used in Assay

Reference Standard	Cylinder number	Concentration	Expiry date:
Sulphur Dioxide In Nitrogen	256240	52.73 ± 0.42 ppm	6-May-2023

Analytical Instruments used in Assay

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
FTIR Spectrometers Nicolet iS50	FTIR-SO2	16-Feb & 17-Mar-23

Recommend usage condition

Minimum utilization: 5% of actual content or before expiry date whichever comes first.

Storage condition: Keep in well ventilation and secure area.

Comments

When reordering, please quote the material number

Note:

1. All results expressed in this report are on mole/mole basis, unless otherwise specified. The Assay of this Standard has been performed in accordance with the EPA Traceability Protocol EPA-600/R-12/531 for the Assay and Certification of Gaseous Calibration Standards using procedure G1.
2. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
3. (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

Sukanya Parinyasoonporn

Signatory for and on behalf of Linde (Thailand) Co., Ltd.

Page 1 of 1

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ฉบับนี้ (ฉบับนี้) (ฉบับนี้) (ฉบับนี้) (ฉบับนี้) (ฉบับนี้)

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ฉบับนี้ (ฉบับนี้) (ฉบับนี้) (ฉบับนี้) (ฉบับนี้) (ฉบับนี้)

Linde (Thailand) Public Company Limited

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trid KM. 6.5 Road, Bangnaew

Bangplee, Samutprakarn 10540, Tel (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant, 105 Moo 5, 1.Banglamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93 Fax (66) 38.570-323

PB-002/F006
Iss: K/2, 15 Oct 2021



Certificate Of Analysis Special Gases Mixture

Customer Details

Name: Secot Co., Ltd. Address: 239.Bangsue,KHET BANG SUE,Bangkok Thailand 10800 Customer Tag No.:

Certificate Details

Number: 3281/25 Date of Issue: 11-Nov-2025 Expiry date: 10-Nov-2029
Material Details
Production Order: 90196173 Material Code: 429900-J-62 Cylinder No.: S472956B
Gas content: 6.560 M³ (nominal) Filling pressure: 145.0 bar (g) Valve: CGA 590 BRASS
Cylinder Owner: LINDE Cylinder Material: STEEL Cylinder Size: 47 L

Laboratory Report

Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³
Oxygen	15.0%	15.0%	± 2% relative	(2) I-PB-354
In Nitrogen				

Recommend usage condition

Minimum utilization: 5% of actual content or before expire date whichever comes first.

Storage condition: Keep in well ventilation and secure area.

Comments

Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified
- Unit ppm is equivalent to µmol/mol, unit percent is equivalent to cmol/mol

Sukanya Parinyasontorn

Signatory for and on behalf of Linde (Thailand) Co., Ltd.

PB-002/F004

Iss:M/2, 01 March 2025

Page 1 of 1

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บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

เลขที่จดทะเบียนการค้า: 0107537000785

ชั้น 15 อาคารทราดเคม 2/3 หมู่ 14 ถนนบางนา-ตราด กม. 6.5 แขวงบางนา

เขตคลองเตย กรุงเทพมหานคร 10540 โทรศัพท์ (66) 2338-6100 โทรสาร (66) 2338-6333

โรงงานผลิต: 105 หมู่ 5 ตำบลบึง อ.บางปะกง จ.ฉะเชิงเทรา 24180

โทรศัพท์ (66) 38.570-479-93

โทรสาร (66) 38.570-323

Linde (Thailand) Public Company Limited

PLC Registration no 0107537000785

15th Floor, Bangna Tower A, 2/3 Moo 14, Bangna Trad KM. 6.5 Road, Bangkew

Bangplee, Samutprakarn 10540, Tel (66) 2338-6100 Fax (66) 2338-6333

Wellgrow Plant : 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93

Fax (66) 38.570-323



Certificate Of Analysis Special Gases Mixture

Customer Details

Name: Secot Co., Ltd. Address: 239, Rimklongprapa Rd., Bangsue, Bangkok 10800 Customer Tag No.:

Certificate Details

Number: 1096/24 Date of Issue: 26-Apr-2024 Expiry date: 26-Apr-2027
Material Details
Production Order: 90183676 Material Code: 511600-SK-34 Cylinder No.: 143360
Gas content: 5.200 M³ Filling pressure: 137 bar Valve: CGA 660 SS
Cylinder Owner: LINDE Cylinder Material: Spectra seal Cylinder Size: 40 L

Laboratory Report

Component	Nominal Concentration	Analysis Result ¹	Uncertainty ²	Method of Analysis ³	Assay Date
Nitric Oxide	40.0 ppm	39.2 ppm	± 1% relative	(6) I-PB-352	19-Apr-2024
Other NO _x impurity		Less than 1.9 ppm			
Carbon Monoxide	40.0 ppm	40.9 ppm	± 1% relative	(6) I-PB-352	19-Apr-2024
In Nitrogen					

Reference Standard used in Assay

Reference Standard	Cylinder number	Concentration	Expiry date:
Carbon Monoxide	D619725	70.6 ± 0.2 ppm	20-Sep-2026
Nitric Oxide	D619725	70.6 ± 0.2 ppm	20-Sep-2026
In Nitrogen			

Analytical Instruments used in Assay

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
FTIR Spectrometers Nicolet iS50	FTIR-CO	5-Apr-2024
FTIR Spectrometers Nicolet iS50	FTIR-NO	5-Apr-2024

Recommend usage condition

Minimum utilization: 5% of actual content or before expire date whichever comes first.

Storage condition: Keep in well ventilation and secure area.

Comments

When reordering, please quote the material number.

Note:

- All results expressed in this report are on mole/mole basis, unless otherwise specified. The Assay of this standard has been performed in accordance with the EPA Traceability Protocol EPA-600/P-12/531 for the Assay and Certification of Gaseous Calibration Standards using procedure G1.
- The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The measurement of this material is traceable to the SI through the reference gas standard which is traceable to Swiss National Standard of Mass or other recognised national metrology institutes.
- (1) Gas Chromatography, (2) Paramagnetic Oxygen Analyzer, (3) Electrochemical Oxygen Analyzer, (4) Electrochemical Moisture Analyzer, (5) Total Hydrocarbon Analyzer, (6) Other - Specified

Sukanya Parinyasontorn

Signatory for and on behalf of Linde (Thailand) Co., Ltd.

PB-002/F006

Iss:M/1, 01 December 2023

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บริษัท ลินด์ (ประเทศไทย) จำกัด (มหาชน)

เลขที่จดทะเบียนการค้า: 0107537000785

ชั้น 15 อาคารทราดเคม 2/3 หมู่ 14 ถนนบางนา-ตราด กม. 6.5 แขวงบางนา

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โรงงานผลิต: 105 หมู่ 5 ตำบลบึง อ.บางปะกง จ.ฉะเชิงเทรา 24180

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Linde (Thailand) Public Company Limited

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Wellgrow Plant : 105 Moo 5, T.Bangsamak, A.Bangpakong, Chachoengsao 24180

Thailand, Tel (66) 38.570-479-93

Fax (66) 38.570-323

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number: E04NI99E15AC084 Reference Number: 82-401409170-1
 Cylinder Number: EB0102326 Cylinder Volume: 144.4 CF
 Laboratory: 124 - Riverton (SAP) - NJ Cylinder Pressure: 2015 PSIG
 PGVP Number: B52019 Valve Outlet: 660
 Gas Code: CO,NO,NOX,SO2,BALN Certification Date: Feb 05, 2019

Expiration Date: Feb 05, 2027

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS					
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	50.00 PPM	51.01 PPM	G1	+/- 0.9% NIST Traceable	01/28/2019, 02/05/2019
NITRIC OXIDE	50.00 PPM	50.86 PPM	G1	+/- 0.9% NIST Traceable	01/28/2019, 02/05/2019
SULFUR DIOXIDE	50.00 PPM	50.87 PPM	G1	+/- 1.0% NIST Traceable	01/28/2019, 02/05/2019
CARBON MONOXIDE	0.5000 %	0.5050 %	G1	+/- 0.7% NIST Traceable	01/31/2019
NITROGEN	Balance				

CALIBRATION STANDARDS					
Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	13060206	CC401947	4950 PPM CARBON MONOXIDE/NITROGEN	+/- 0.4%	Feb 15, 2019
PRM	12367	APEX1099237	9.82 PPM NITROGEN DIOXIDE/AIR	+/- 2.0%	Jun 02, 2017
NTRM	12010724	KAL004497	50.03 PPM NITRIC OXIDE/NITROGEN	+/- 0.8%	Mar 12, 2024
GMIS	1114201601	CC506710	4.971 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Nov 14, 2019
NTRM	14010327	KAL004376	49.08 PPM SULFUR DIOXIDE/NITROGEN	+/- 1.0%	Apr 17, 2024

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Siemens Ultramat 6 J3-599 COHIGH	NDIR	Jan 18, 2019
Nicolet 6700 APW1100391 NO	FTIR	Jan 10, 2019
Nicolet 6700 APW1100391 NO2	FTIR	Jan 10, 2019
Nicolet 6700 APW1100391 SO2	FTIR	Jan 10, 2019

Triad Data Available Upon Request
PERMANENT NOTES: PRODUCED IN ACCORDANCE WITH ISO17025 REQUIREMENTS
NOTES:

Gross Weight: 27806.3 grams

Net Weight: 4733.2 grams

This calibration std. has been certified in accordance with the May 2012 EPA Traceability Protocol Document EPA-600/R-12/531. All testing processes and measurements conform to the requirements of ISO/IEC 17025 and to Airgas ISO 9001:2008 and relate only to items identified on this certificate. This document shall not be reproduced in full without written approval of the issuer.



TESTING CERT No. 3082.05

Approved for Release

Page 1 of 82-401409170-1


National Institute of Metrology (Thailand)
 Ministry of Higher Education, Science, Research and Innovation

Certificate of Calibration

 NSC-TISI-TIS 17025
 Calibration 0144

Certificate No. : MW-0072-25
 Issued by : Flow and Volume of Liquid Laboratory
 Mechanical Metrology Department

Page 1 of 3 pages

MEASUREMENT ITEM : Mass Flow Meter
 MANUFACTURER : AALBORG Instrument & Control, Inc
 MODEL/TYPE : GFM17
 SERIAL NUMBER : 602766-1
 CUSTOMER : SECOT Co., Ltd.
 239 Rimklongprapa Rd.,
 Bangsue, Bangkok 10800

MEASUREMENT DATE : November 14, 2025

The reported measurement result relates only to the measurand and applies only at the time of measurement.

Reference:	Date:	Approved by:	Performed by:
MEC1106-01/25	November 26, 2025		
		(Wirun Laopornpichayanuwat)	(Patcharapol Gorgitattanakul)

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ENVIRONMENTAL CONDITIONS :

The measurement was carried out in an ambient temperature of $(23.6 \pm 0.1) ^\circ\text{C}$, atmospheric pressure of (1009 ± 1) mbar and relative humidity of $(51 \pm 1) \%$.

MEASUREMENT METHOD :

The calibration gas was supplied through the Standard, Unit Under Calibration (UUC) and discharged to the atmosphere. The gas flow readings of the UUC were compared to the flows of the Standard to determine the errors. The uncertainty was calculated for each reading.

TABULATION OF RESULTS :

The following table gives the calibration results and associated measurement uncertainties at 95 % of confidence level.

The flow rate values of the UUC were obtained over a period of 30 seconds from the UUC. The reported values are averages of 6 measurements.

The calibration gas was filtered dry air. The unit of measurement is standard cubic centimeter per minute, which refers to the standard conditions of 101.325 kPa and 21.11°C.

Note: The UUC was warmed up for at least 1 hour and zeroed prior to the calibration being performed when this is applicable.

UNCERTAINTY OF MEASUREMENT :

The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor $k = 2$. It has been determined in accordance with EA publication EA-4/02 "Evaluation of the Uncertainty of Measurement in Calibration" and JCGM 100 "Evaluation of measurement data - Guide to the Expression of Uncertainty in Measurement". The value of the measurand lies within the assigned range of values with a probability of approximately 95 %.

TRACEABILITY :

This certificate provides a traceability of the measurement to recognized the national standards, and to the realization of the International System of Units (SI).



MEASUREMENT RESULTS :

The results of calibration and associated measurement uncertainties are reported in the table below.

UUC Reading cm ³ /min	Error (%)	Uncertainty (%)
7.01	-1.93	0.40
5.00	-0.71	0.35
4.00	-0.78	0.35
3.00	-0.96	0.41
2.50	-1.51	0.49

End of Certificate of Calibration



SOUND LEVEL METER CALIBRATION

Calibration Location: SECOT

Calibration Date: Feb 20, 26

ACOUSTIC CALIBRATOR

Brand	Model	Serial No.	Frequency (Hz)	Ref. Calibrated (dB)	Eff. Calibrated (dB)
Cirrus	CR:515	97097	1000.00	94.0	93.7

No.	Brand	Model	Serial No.	Reading (dB)	dB Adjust
42	Cirrus	CR162B	G302738	94.5	-0.8

Calibrated by :

Approved by :

Preeda S.



SOUND LEVEL METER CALIBRATION

Calibration Location: SECOT

Calibration Date: Feb 20, 26

ACOUSTIC CALIBRATOR

Brand	Model	Serial No.	Frequency (Hz)	Ref. Calibrated (dB)	Eff. Calibrated (dB)
Cirrus	CR:515	97097	1000.00	94.0	93.8

No.	Brand	Model	Serial No.	Reading (dB)	dB Adjust
3	SCARLET	ST-21D	820724	92.9	0.9
5	SCARLET	ST-21D	820726	93.2	0.6
6	SCARLET	ST-21D	820727	93.7	0.1
9	SCARLET	ST-21D	820730	94.2	-0.4
10	SCARLET	ST-21D	820731	94.0	-0.2
14	SCARLET	ST-21D	821081	93.6	0.2
15	SCARLET	ST-21D	821082	93.0	0.8

Calibrated by :

Approved by :

Preeda S.



SOUND LEVEL METER CALIBRATION

Calibration Location: SECOT

Calibration Date: 25/02/2026

ACOUSTIC CALIBRATOR

Brand	Model	Serial No.	Frequency (Hz)	Ref.Calibrated (dB)	Eff.Calibrated (dB)
Cirrus	CR:515	97097	1000.00	94	93.8

No.	Brand	Model	Serial No.	Reading (dB)	dB Adjust
1	SCARLET TECH	ST-21D	821078	93.8	0.0

Calibrated by :

Approved by :



SOUND LEVEL METER CALIBRATION

Calibration Location: SECOT

Calibration Date: 26/02/2026

ACOUSTIC CALIBRATOR

Brand	Model	Serial No.	Frequency (Hz)	Ref.Calibrated (dB)	Eff.Calibrated (dB)
Cirrus	CR:515	97097	1000.00	94	93.8

No.	Brand	Model	Serial No.	Reading (dB)	dB Adjust
1	SCARLET TECH	ST-21D	821080	93.8	0.0
2	SCARLET TECH	ST-21D	821078	93.8	0.0

Calibrated by :

Approved by :

CERTIFICATE OF CALIBRATION

ISSUED BY **Noisemeters**

DATE OF ISSUE **02 April 2025** CERTIFICATE NUMBER **237347**

NoiseMeters

NoiseMeters
Acoustic House
Bridlington Road
Hunmanby
YO14 0PH
United Kingdom
www.noisemeters.com

Page 1 of 2

Approved signatory
N.Smith
Electronically signed:



doseBadge Reader : IEC 60942:2003

Instrument information

Manufacturer: Pulsar Instruments

Notes:

Model: Model 22R

Serial number: 79781

Class: 2

Test summary

Date of calibration: 01 April 2025

The doseBadge reader detailed above has been calibrated to the published data as described in the operating manual and in the half-inch configuration. The procedures and techniques used are as described in IEC60942_2003 Annex B – Periodic Tests and three determinations of the sound pressure level, frequency and total distortion were made.

The sound pressure level was measured using a WS2F condenser microphone type MK:224 manufactured by Cirrus Research plc.

The results have been corrected to the reference pressure of 101.33 kPa using the manufacturer's data.

The doseBadge Reader has been shown to conform to the Class 2 requirements for periodic testing, described in Annex B of IEC 60942:2003 for the sound pressure level(s) and frequency(ies) stated, for the environmental conditions under which the tests were performed.

However, as public evidence was not available, from a testing organisation responsible for pattern approval, to demonstrate that the model of doseBadge Reader conformed to the requirements for pattern evaluation described in Annex A of IEC 60942:2003, no general statement or conclusion can be made about conformance of the doseBadge Reader to the requirements of IEC 60942:2003.

Notes:

This certificate provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. The results within this certificate relate only to the items calibrated. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%.

CERTIFICATE OF CALIBRATION

Certificate Number:

237347

Page 2 of 2

Environmental conditions

The following conditions were recorded at the time of the test:

Before Pressure: 102.23 kPa Temperature: 22.3 °C Humidity: 34.7 %

After Pressure: 102.23 kPa Temperature: 22.3 °C Humidity: 35 %

Test equipment

Equipment	Manufacturer	Model	Serial number
Distortion Meter	Keithley	2015	1053426
Environmental Monitor	Comet	T7510	21962628

Initial Acoustic Results

	Expected	Sample 1	Sample 2	Sample 3	Average	Deviation	Tolerance	Uncertainty
Level (dB)	114.00	114.07	114.07	114.06	114.07	0.07	±0.75	0.11 dB
Distortion (%)	< 4.00	0.50	0.50	0.49	0.50	0.50	+4.00	0.13 %
Frequency (Hz)	1000.0	998.9	998.9	998.9	998.9	-1.1	±20.0	0.1 Hz

The measured quantities or deviations (as applicable), extended by the expanded combined uncertainty of measurement, must not exceed the corresponding tolerance.

Adjusted Acoustic Results

	Expected	Sample 1	Sample 2	Sample 3	Average	Deviation	Tolerance	Uncertainty
Level (dB)	114.00	113.99	113.99	114.00	113.99	-0.01	±0.75	0.11 dB
Distortion (%)	< 4.00	0.49	0.49	0.49	0.49	0.49	+4.00	0.13 %
Frequency (Hz)	1000.0	998.9	998.9	998.9	998.9	-1.1	±20.0	0.1 Hz

Functionality Results

Function	Result
Keypad	Pass
Battery Power	Pass
Display	Pass
Communication	Pass
2 way IR link	Pass
Clock	Pass

End of results

CERTIFICATE OF CALIBRATION

ISSUED BY **Noisemeters**

DATE OF ISSUE **02 March 2026**

CERTIFICATE NUMBER **260487**

NoiseMeters

NoiseMeters
Acoustic House
Bridlington Road
Hunmanby
YO14 0PH
United Kingdom
www.noisemeters.com

Page 1 of 2

Approved signatory
N.Smith
Electronically signed:



doseBadge Reader : IEC 60942:2003

Instrument information

Manufacturer: Cirrus Research plc

Notes:

Model: RC:110A

Serial number: 95167

Class: 2

Test summary

Date of calibration: 02 March 2026

The doseBadge reader detailed above has been calibrated to the published data as described in the operating manual and in the half-inch configuration. The procedures and techniques used are as described in IEC60942_2003 Annex B – Periodic Tests and three determinations of the sound pressure level, frequency and total distortion were made.

The sound pressure level was measured using a WS2F condenser microphone type MK:224 manufactured by Cirrus Research plc.

The results have been corrected to the reference pressure of 101.33 kPa using the manufacturer's data.

The doseBadge Reader has been shown to conform to the Class 2 requirements for periodic testing, described in Annex B of IEC 60942:2003 for the sound pressure level(s) and frequency(ies) stated, for the environmental conditions under which the tests were performed.

However, as public evidence was not available, from a testing organisation responsible for pattern approval, to demonstrate that the model of doseBadge Reader conformed to the requirements for pattern evaluation described in Annex A of IEC 60942:2003, no general statement or conclusion can be made about conformance of the doseBadge Reader to the requirements of IEC 60942:2003.

Notes:

This certificate provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. The results within this certificate relate only to the items calibrated. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%.

CERTIFICATE OF CALIBRATION

Certificate Number:

260487

Page 2 of 2

Environmental conditions

The following conditions were recorded at the time of the test:

Before Pressure: 100.27 kPa Temperature: 22.9 °C Humidity: 38.6 %

After Pressure: 100.27 kPa Temperature: 23.1 °C Humidity: 40 %

Test equipment

Equipment	Manufacturer	Model	Serial number
Distortion Meter	Keithley	2015	0939404
Environmental Monitor	Comet	T7510	21962628

Acoustic Results

	Expected	Sample 1	Sample 2	Sample 3	Average	Deviation	Tolerance	Uncertainty
Level (dB)	114.00	113.97	113.98	113.98	113.98	-0.02	±0.75	0.11 dB
Distortion (%)	< 4.00	0.45	0.44	0.44	0.44	0.44	+4.00	0.13 %
Frequency (Hz)	1000.0	990.3	990.3	990.4	990.3	-9.7	±20.0	0.1 Hz

The measured quantities or deviations (as applicable), extended by the expanded combined uncertainty of measurement, must not exceed the corresponding tolerance.

Functionality Results

Function	Result
Keypad	Pass
Battery Power	Pass
Display	Pass
Communication	Pass
2 way IR link	Pass
Clock	Pass

End of results

THAILAND INSTITUTE OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH (TISTR)

Mechanical Engineering Standards Laboratory Sol 1, Bangpoo Industrial Estate, Muang, Samutprakan 10280, Thailand.

Request No.23-69/0216

MTC.No.23-69/0216-01

Number of page(s) 2

CALIBRATION CERTIFICATE

Nomenclature : FLOW CALIBRATOR

Manufacturer : SKC

Serial No.: 21552177

Model : Chek-Mate

Scale range : 20 mL/min to 500 mL/min

Subdivision : (0.01, 0.1) mL/min

Submitted by : SECOT CO.,LTD.

239, Rimklongprapa Road, Bangsue,

Bangkok 10800, Thailand.

Received date : 27 January 2026

Condition of measured item : Normal

Calibration date : 29 January 2026

Standard :

Standard	Certificate No.	Date due	Traceability
RTD Thermometer	PSL-T 0811/67	3-Jul-26	TISTR
Molbox/Pressure Transducer/UpStream	MP-0178-25	29-Jun-27	NIMT
Primary Flow Calibrator S/N 117982	MW-0045-25	2-Jul-27	NIMT

Calibrated by : Terasak Panna

(Mr.Terasak Panna)

Approved by : K. J. P.

(Ms.Kirana Luanghirun)

Director

Mechanical Engineering Standards Laboratory

Ref. 2013269012700462001

Issued Date 3 February 2026

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FM.BLMTC.002 Rev.5

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Bangkok 10900, Thailand
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(66) 08 1889 6827

THAILAND INSTITUTE OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH (TISTR)

Mechanical Engineering Standards Laboratory Sol 1, Bangpoo Industrial Estate, Muang, Samutprakan 10280, Thailand.

Request No.23-69/0216

2/2

MTC.No.23-69/0216-01

Calibration point : (20, 50, 100, 200, 400) mL/min

Ambient condition : Temperature (23 ± 3) °C , Relative humidity (55 ± 15) %

Atmospheric pressure (1010 $\pm$ 13) hPa

Calibration method : The flowmeter (UUC) was calibrated by comparison method with standard flowmeter according to CP-370.01.

The reported value is the value that converted to value at reference condition within pressure and temperature of the actual gas entering the UUC

Measurement data :

UUC Value (mL/min)	Standard Value (mL/min)	Temperature (°C)	Pressure (hPa)	Deviation (%)	Uncertainty (%)
20.61*	20.740	24.061	1014.36	-0.63	0.95
49.71	49.903	24.067	1014.54	-0.39	0.93
100.1	100.98	24.083	1014.92	-0.87	0.93
199.9	201.49	24.095	1015.94	-0.77	0.93
399.9	403.07	24.091	1019.06	-0.79	0.93

The reported expanded uncertainties are based on standard uncertainties multiplied by a coverage factor $k=2$, which provides a level of confidence of approximately 95%.

* : The calibration point is not the scope of accreditation.

The end of calibration certificate.

The results relate only to the items tested/calibrated or value assigned.

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FM.BLMTC.002 Rev.5

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ภาคผนวก จ

ใบอนุญาตขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
จากกรมโรงงานอุตสาหกรรม

ที่ อก ๐๓๓๐(๑)/ ๕๐ ๕๖



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ เขตราชเทวี
กรุงเทพมหานคร ๑๐๕๐๐

๑๕ มิถุนายน ๒๕๖๕

เรื่อง ต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

เรียน กรรมการผู้จัดการ บริษัท ซีคอฟ จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๒ เมษายน ๒๕๖๕

- สิ่งที่ส่งมาด้วย ๑. รายชื่อผู้ควบคุมดูแลห้องปฏิบัติการวิเคราะห์ จำนวน ๑ แผ่น
๒. รายชื่อเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๑ แผ่น
๓. ขอบข่ายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๓๑ แผ่น

ตามคำขอที่อ้างถึง บริษัท ซีคอฟ จำกัด ขอต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน เลขทะเบียน ว-๒๓๙ สถานที่ตั้งเลขที่ ๒๓๙ ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร ต่อกรมโรงงานอุตสาหกรรม นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้บริษัท ซีคอฟ จำกัด ต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน โดยมีองค์ประกอบดังนี้

- ก. ผู้ควบคุมห้องปฏิบัติการวิเคราะห์เอกชน จำนวน ๙ ราย ตามสิ่งที่ส่งมาด้วย ๑
ข. เจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน จำนวน ๔๐ ราย ตามสิ่งที่ส่งมาด้วย ๒
ค. ขอบข่ายชนิดสารมลพิษที่ได้รับขึ้นทะเบียนให้วิเคราะห์ในน้ำ/น้ำเสีย น้ำใต้ดิน อากาศเสีย
สิ่งปฏิกูลหรือวัสดุที่ไม่ใช้แล้ว และดิน ตามสิ่งที่ส่งมาด้วย ๓

หนังสือฉบับนี้จะหมดอายุในวันที่ ๒ พฤษภาคม ๒๕๗๓ หากประสงค์จะต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน ให้ยื่นคำขอต่ออายุพร้อมเอกสารประกอบคำขอต่อกรมโรงงานอุตสาหกรรมภายใน ๖๐ วัน ก่อนวันสิ้นอายุของหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ



(นายศิริ จันทรังค์)

นักวิทยาศาสตร์เชี่ยวชาญ วิชาการการแทน
ผู้อำนวยการกองวิจัยและเลือกกับมลพิษโรงงาน
ปฏิบัติราชการแทนอธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเลือกกับมลพิษโรงงาน

กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบมลพิษและทะเบียนห้องปฏิบัติการ

โทร. ๐ ๒๔๓๐ ๖๓๓๒ ต่อ ๒๑๐๓-๕

โทรสาร ๐ ๒๔๓๐ ๖๓๓๒ ต่อ ๒๑๙๙

ไปรษณีย์อิเล็กทรอนิกส์ saraban@diw.mail.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



เอกสารแนบท้ายหนังสือรับต่ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
บริษัท ซีคอฟ จำกัด

เลขทะเบียน ว-๒๓๙

ที่ อก ๐๓๓๐(๑)/ ๕๐ ๕๖

ลงวันที่

๑๕ มิถุนายน ๒๕๖๕

ก. ผู้ควบคุมดูแลห้องปฏิบัติการวิเคราะห์ จำนวน ๙ ราย

๑) นายขรรชัย เกรียงไกรอุดม

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๒

๒) นางสาวกฤติ เกรียงไกรอุดม

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๓

๓) นางสาวเชมชุตตา อินทร์ศรี

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๕

๔) นางสาวปรีดา สมใจ

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๖

๕) นางสาวอริญา มาตา

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๗

๖) นางสาวดาวลีย์ วงศ์เจริญ

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๘

๗) นางสาวณัฏฐา เกตุวันดี

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๐๙

๘) นางสาวริสา ภูวสรเพ็ชญ์

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๑๐

๙) นางสาวศิริวรรณ ฉิมสง่า

ทะเบียนเลขที่ ว-๒๓๙-ค-๐๐๑๑

ก

เอกสารแนบท้ายหนังสือรับต่ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

บริษัท ชีคอต จำกัด

เลขทะเบียน ว-๒๓๙

ที่ อก ๐๓๑๐(๑)/๕๐๕๖

ลงวันที่ ๑๕ มิถุนายน ๒๕๖๔

ข. เจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๔๐ ราย

๑) นางสาวสุดาพร สุนทร	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๐๓
๒) นางสาวสุธาทิพย์ เทียนเตี้ย	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๐๓
๓) นางสาวสุนันทา ศิริวัฒนานนท์	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๐๔
๔) นายบวร ดิษฐ์ยะ	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๐๕
๕) นางสาวเกศรินทร์ วรเดโชวิทยา	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๐๖
๖) นายอนันต์วัฒน์ พิมพ์นา	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๐๗
๗) นายชิตพล สมประสงค์	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๐๘
๘) นางสาวศศิธร พรหมประเสริฐ	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๐๙
๙) นายศิวะนนท์ กุลวงษ์	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๑๐
๑๐) นางสาวอลิษา คณิธรานนท์	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๑๑
๑๑) นางสาวสิริวรรณ แก้วขิงดวง	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๑๒
๑๒) นางสาวปัทมวรรณ สุวรรณวิโรจน์	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๑๓
๑๓) นางสาวกนิษฐา เจริญเชื้อ	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๑๔
๑๔) นายชอง เองขวัญกุล	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๑๖
๑๕) นางสาวพรนภา บุตรธรรม	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๑๘
๑๖) นางสาวธาริณี อาจปลิว	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๑๙
๑๗) นางสาวจุฑารัตน์ แจ่มเรือน	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๒๒
๑๘) นางสาวณัฏฐา กุ้ยอ่อน	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๒๒
๑๙) นายกิตติพงศ์ ณะกิจสุข	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๒๔
๒๐) นายจิรวัฒน์ โคตรคำหาญ	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๒๕
๒๑) นายชนะพล อัครผล	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๒๖
๒๒) นางสาวทิพย์สุดา วรรณการ	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๒๗
๒๓) นายสิทธิชัย สว่างวงศ์ไชย	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๒๘
๒๔) นายพิษณุ สีนามเพ็ง	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๒๙
๒๕) นายธนาวุฒิ ค่วนแสง	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๓๓
๒๖) นายรอมฎอน เหลี่ยมมามาต	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๓๕
๒๗) นางสาววิระยา ปิจนิมบุรณ์	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๓๘
๒๘) นางสาวสุภาพร สุวรรณมณี	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๔๐
๒๙) นางสาวณัฐณิชา วิสัยทอง	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๔๑
๓๐) นางสาวนิตารัตน์ พิมพ์จินดา	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๔๒
๓๑) นายพงศ์ศิริ จักรแก้ว	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๔๓
๓๒) นายอรรถชัย นวนนัม	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๔๔
๓๓) นางสาวรัตนดิยากร ชื่นชม	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๔๕
๓๔) นางสาวชนิตา หล้าสาย	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๔๖
๓๕) นางสาวดวงกมล ทองศิริบุญ	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๔๗
๓๖) นายอภิวัฒน์ เมฆสุวรรณ	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๔๘
๓๗) นางสาวบุญยนาถ รุ่งแรก	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๔๙
๓๘) นางสาวปาริศา มากภักดี	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๕๐
๓๙) นางสาว เจตนา กำรัมย์	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๕๑
๔๐) นายณัฐชัย ไชยโคตร	ทะเบียนเลขที่	ว-๒๓๙-จ-๐๐๕๒

๓

เอกสารแนบท้ายหนังสือรับต่ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

บริษัท ชีคอต จำกัด

เลขทะเบียน ว-๒๓๙

ที่ อก ๐๓๑๐(๑)/๕๐๕๖

ลงวันที่ ๑๕ มิถุนายน ๒๕๖๔

ขอขยายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๓๖๔ รายการ

น้ำ/น้ำเสีย จำนวน 45 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
2	Arsenic	1) Digestion, Hydride Generation Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
3	Barium	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
4	α-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
5	β-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
6	γ-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
7	δ-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
8	Biochemical Oxygen Demand	1) 5-Day BOD Test, Azide Modification Method ⁽⁴⁾ 2) 5-Day BOD Test, Membrane-Electrode Method ⁽⁴⁾
9	Cadmium	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ⁽⁴⁾ 3) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
10	Chemical Oxygen Demand	1) Open Reflux, Titrimetric method ^(a) 2) Closed Reflux, Colorimetric method ^(a) 3) Closed Reflux, Titrimetric Method ^(a)
11	Chlordane	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a) 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a)
12	Chromium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^(a) 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^(a) 3) Digestion, Inductively Coupled Plasma Method ^(a)
13	Color	ADMI Weighted-Ordinate Spectrophotometric Method ^(a)
14	Copper	1) Digestion, Flame Atomic Absorption Spectrometric Method ^(a) 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^(a) 3) Digestion, Inductively Coupled Plasma Method ^(a)
15	Cyanide	Total Cyanide after Distillation, Colorimetric Method ^(a)
16	4,4'-DDD	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a) 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a)
17	4,4'-DDE	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a) 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a)
18	4,4'-DDT	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a) 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a)
19	Dieldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a) 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a)
20	Endosulfan I	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a)

๑๒

2) Liquid-Liquid...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
21	Endosulfan II	2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a) 1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a) 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a)
22	Endosulfan Sulfate	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a) 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a)
23	Endrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a) 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a)
24	Endrin Aldehyde	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a) 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a)
25	Formaldehyde	Distillation, Colorimetric Method ^(a)
26	Free Chlorine	1) Iodometric Method ^(a) 2) DPD Colorimetric Method ^(a)
27	Heptachlor	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a) 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a)
28	Heptachlor epoxide	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^(a) 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(a)
29	Hexavalent Chromium	1) Colorimetric Method ^(a) 2) Extraction, Air-Acetylene Flame Method ^(a)
30	Lead	1) Digestion, Flame Atomic Absorption Spectrometric Method ^(a) 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^(a) 3) Digestion, Inductively Coupled Plasma Method ^(a)

๑๓

31 Manganese...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
31	Manganese	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ⁽⁴⁾ 3) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
32	Mercury	Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ⁽⁴⁾
33	Methoxychlor	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
34	Nickel	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ⁽⁴⁾ 3) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
35	Oil & Grease	1) Liquid-Liquid, Partition-Gravimetric Method ⁽⁴⁾ 2) Soxhlet Extraction Method ⁽⁴⁾
36	pH	Electrometric Method ⁽⁴⁾
37	Phenols	1) Distillation, Chloroform Extraction Method ⁽⁴⁾ 2) Distillation, Direct Photometric Method ⁽⁴⁾
38	Selenium	1) Digestion, Hydride Generation Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
39	Sulfide	1) Iodometric Method ⁽⁴⁾ 2) Methylene Blue Method ⁽⁴⁾
40	Temperature	Laboratory and Field Methods ⁽⁴⁾
41	Total Dissolved Solids	Dried at 180 °C ⁽⁴⁾
42	Total Kjeldahl Nitrogen	1) Macro-Kjeldahl Method ⁽⁴⁾ 2) Semi-Micro-Kjeldahl Method ⁽⁴⁾
43	Total Suspended Solids	Dried from 103 to 105 °C ⁽⁴⁾
44	Trivalent Chromium	Calculation ⁽⁴⁾
45	Zinc	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ⁽⁴⁾ 3) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾

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น้ำเต้าน...

น้ำเต้าน จำนวน 129 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Acenaphthene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
2	Acetone	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
3	Aldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
4	Aluminum	Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
5	Anthracene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
6	Antimony	Digestion, Inductively Coupled Plasma Spectrometric Method ⁽⁴⁾
7	Arsenic	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
8	Atrazine	Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾
9	Barium	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma Spectrometric Method ⁽⁴⁾
10	Benzo(a)anthracene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
11	Benzene	Purge and Trap Gas Chromatographic/Mass spectrometric Method ⁽⁴⁾
12	Benzo(b)fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
13	Benzo(k)fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
14	Benzoic acid	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
15	Benzo(a)pyrene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
16	Benzo(ghi)perylene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
17	Beryllium	Digestion, Inductively Coupled Plasma Spectrometric Method ⁽⁴⁾
18	Bis(2-chloroethyl)ether	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
19	Bis(2-ethylhexyl)phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
20	Bromodichloromethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
21	Bromoform	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
22	Butanol	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
23	Butyl benzyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
24	Cadmium	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ⁽⁴⁾ 3) Digestion, Inductively Coupled Plasma Spectrometric Method ⁽⁴⁾
25	Carbazole	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
26	Carbon disulfide	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
27	Carbon tetrachloride	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
28	Chlordane	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
29	p-Chloroaniline	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
30	Chlorobenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
31	Chlorodibromomethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾

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32 Chloroform...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
32	Chloroform	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
33	2-Chlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
34	Chromium	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ⁽⁴⁾ 3) Digestion, Inductively Coupled Plasma Spectrometric Method ⁽⁴⁾
35	Chromium (III)	Calculation ⁽⁴⁾
36	Chromium (VI)	1) Colorimetric Method ⁽⁴⁾ 2) Extraction, Air-Acetylene Flame Method ⁽⁴⁾
37	Chrysene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
38	Copper	Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
39	Cyanide	1) Distillation, Titrimetric Method ⁽⁴⁾ 2) Distillation, Colorimetric Method ⁽⁴⁾
40	2,4-D	Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾
41	DDD	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
42	DDE	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
43	DDT	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
44	Dibenz(a,h)anthracene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
45	Di-n-butyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
46	1,2-Dichlorobenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾

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47 1,3-Dichlorobenzene...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
47	1,3-Dichlorobenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
48	1,4-Dichlorobenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
49	3,3'-Dichlorobenzidine	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
50	1,1-Dichloroethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
51	1,2-Dichloroethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
52	1,1-Dichloroethylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
53	cis-1,2-Dichloroethylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
54	trans-1,2-Dichloroethylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
55	2,4-Dichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
56	1,2-Dichloropropane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
57	1,3-Dichloropropane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
58	1,3-Dichloropropene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
59	Dieldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
60	Diethyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
61	2,4-Dimethylphenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
62	2,4-Dinitrophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
63	2,4-Dinitrotoluene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
64	2,6-Dinitrotoluene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
65	Di-n-Octyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
66	Endosulfan	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
67	Endrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
68	Ethylbenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
69	Fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
70	Fluorene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
71	Heptachlor	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
72	Heptachlor epoxide	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
73	Hexachlorobenzene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
74	Hexachloro-1,3-butadiene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
75	n-Hexane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
76	α -HCH	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
77	β -HCH	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
78	γ -HCH	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
79	Hexachlorocyclopentadiene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
80	Hexachloroethane	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
81	Indeno(1,2,3-cd)pyrene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
82	Iron	Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
83	Isophorone	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
84	Lead	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ⁽⁴⁾ 3) Digestion, Inductively Coupled Plasma Spectrometric Method ⁽⁴⁾
85	Manganese	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ⁽⁴⁾ 3) Digestion, Inductively Coupled Plasma Spectrometric Method ⁽⁴⁾
86	Mercury	Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ⁽⁴⁾
87	Methanol	Purge and Trap Gas Chromatographic/Mass spectrometric Method ⁽⁴⁾
88	Methoxychlor	1) Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾ 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾

89 Methyl bromide...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
89	Methyl bromide	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
90	Methylene chloride	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
91	2-Methylphenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
92	2-Methylnaphthalene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
93	Methyl tert-butyl ether	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
94	Molybdenum	Digestion, Inductively Coupled Plasma Method ⁽⁴⁾
95	Naphthalene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
96	Nickel	1) Digestion, Flame Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ⁽⁴⁾ 3) Digestion, Inductively Coupled Plasma Spectrometric Method ⁽⁴⁾
97	Nitrobenzene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
98	N-Nitrosodiphenylamine	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
99	N-Nitrosodi-n-propylamine	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
100	PCBs	Liquid-Liquid Extraction, Gas Chromatographic Method ⁽⁴⁾
101	Pentachlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
102	pH	Electrometric method ⁽⁴⁾
103	Phenanthrene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
104	Phenol	1) Distillation, Chloroform Extraction Method ⁽⁴⁾ 2) Distillation, Direct Photometric Method ⁽⁴⁾ 3) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾
105	Pyrene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽⁴⁾

106 Selenium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
106	Selenium	1) Digestion, Hydride Generation Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Inductively Coupled Plasma Method ^[4]
107	Silver	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Inductively Coupled Plasma Method ^[4]
108	Styrene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
109	1,1,2,2-Tetrachloroethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
110	Tetrachloroethylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
111	Toluene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
112	TPH (C ₅ -C ₈)	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[12,26]
113	TPH (C ₈ -C ₁₆)	1) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[9,21] 2) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass spectrometric Method ^[9,27]
114	TPH (C ₁₆ -C ₃₅)	1) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[9,21] 2) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass spectrometric Method ^[9,27]
115	1,2,4-Trichlorobenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
116	1,1,1-Trichloroethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
117	1,1,2-Trichloroethane	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
118	Trichloroethylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
119	2,4,5-Trichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
120	2,4,6-Trichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]

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121 1,3,5-Trimethylbenzene...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
121	1,3,5-Trimethylbenzene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
122	Vanadium	Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
123	Vinyl acetate	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
124	Vinyl chloride	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
125	m-Xylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
126	o-Xylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
127	p-Xylene	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
128	Xylene (Total)	Purge and Trap Gas Chromatographic/Mass Spectrometric Method ^[4]
129	Zinc	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]

อากาศเสีย (ปล่อยระบาย) จำนวน 27 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Antimony	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
2	Arsenic	1) Isokinetic Sampling, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
3	Beryllium	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]

ตามนี้

4 Cadmium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
4	Cadmium	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
5	Carbon monoxide	Instrumental Analyzer Method ^[5]
6	Chlorine	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]
7	Chromium	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
8	Cobalt	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
9	Copper	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
10	Cresol	Adsorption Sampling, Gas Chromatographic Method ^[5]
11	Dioxin/Furans	Isokinetic Sampling ^[5]
12	Hydrogen chloride	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]
13	Hydrogen Fluoride	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]
14	Hydrogen Sulfide	Absorption Sampling, Iodometric Method ^[5]
15	Lead	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
16	Manganese	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
17	Mercury	Isokinetic Sampling, Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[5]
18	Nickel	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5]

2) Isokinetic...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
19	Opacity	2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5] Ringelmann's Method ^[1]
20	Oxides of Nitrogen	1) Absorption Sampling, Phenoldisulfonic acid Method ^[5] 2) Absorption Sampling, Ion Chromatographic Method ^[5] 3) Instrumental Analyzer Method ^[5]
21	Selenium	1) Isokinetic Sampling, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
22	Sulfur dioxide	1) Isokinetic Sampling, Barium-Thorin Titrimetric Method ^[5] 2) Absorption Sampling, Barium-Thorin Titrimetric Method ^[5] 3) Instrumental Analyzer Method ^[5]
23	Sulfuric acid	Isokinetic Sampling, Barium-Thorin Titrimetric Method ^[5]
24	Tin	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
25	Total Suspended Particulate	1) Isokinetic Sampling, Gravimetric Method ^[5] 2) Paired Train, Isokinetic Sampling, Gravimetric Method ^[5]
26	Vanadium	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
27	Xylene	1) Adsorption Sampling, Gas Chromatographic Method ^[5] 2) Adsorption Sampling, Gas Chromatographic/Mass Spectrometric Method ^[5]

สิ่งปฏิกูลหรือวัสดุที่ไม่ใช้แล้ว จำนวน 34 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aldrin	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,6,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,6,9,27]

3) Soxhlet...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
2	Antimony	3) Soxhlet Extraction, Gas Chromatographic Method ^(10,22) 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27) 1) Waste Extraction, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^(3,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(3,6,14) 3) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^(7,16) 4) Digestion, Inductively Coupled Plasma Method ^(7,14)
3	Arsenic	1) Waste Extraction, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^(3,6,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(3,6,14) 3) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^(7,16) 4) Digestion, Inductively Coupled Plasma Method ^(7,14)
4	Barium	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^(3,6,15) 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(3,6,14) 3) Digestion, Flame Atomic Absorption Spectrometric Method ^(7,15) 4) Digestion, Inductively Coupled Plasma Method ^(7,14)
5	Beryllium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(3,6,14) 2) Digestion, Inductively Coupled Plasma Method ^(7,14)
6	Cadmium	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^(3,6,15) 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(3,6,14) 3) Digestion, Flame Atomic Absorption Spectrometric Method ^(7,15) 4) Digestion, Inductively Coupled Plasma Method ^(7,14)
7	Chlordane	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^(3,9,22)

2) Waste Extraction,...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
8	Chromium	2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(3,9,27) 3) Soxhlet Extraction, Gas Chromatographic Method ^(10,22) 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27) 1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^(3,6,15) 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(3,6,14) 3) Digestion, Flame Atomic Absorption Spectrometric Method ^(7,15) 4) Digestion, Inductively Coupled Plasma Method ^(7,14)
9	Chromium (III)	Calculation ^(3,6,7,8,14,15,17)
10	Chromium (VI)	1) Waste Extraction, Colorimetric Method ^(3,17) 2) Alkaline Digestion, Colorimetric Method ^(8,17)
11	Cobalt	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(3,6,14) 2) Digestion, Inductively Coupled Plasma Method ^(7,14)
12	Copper	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^(3,6,15) 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(3,6,14) 3) Digestion, Flame Atomic Absorption Spectrometric Method ^(7,15) 4) Digestion, Inductively Coupled Plasma Method ^(7,14)
13	2,4-D	1) Waste Extraction, Gas Chromatographic/Mass Spectrometric Method ^(3,25) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽²⁵⁾
14	DDD	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^(3,9,22) 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(3,9,27) 3) Soxhlet Extraction, Gas Chromatographic Method ^(10,22)

4) Soxhlet Extraction,...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
15	DDE	4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27) 1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^(3,9,22) 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(3,9,27) 3) Soxhlet Extraction, Gas Chromatographic Method ^(10,22) 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
16	DDT	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^(3,9,22) 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(3,9,27) 3) Soxhlet Extraction, Gas Chromatographic Method ^(10,22) 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
17	Dieldrin	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^(3,9,22) 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(3,9,27) 3) Soxhlet Extraction, Gas Chromatographic Method ^(10,22) 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
18	Endrin	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^(3,9,22) 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(3,9,27) 3) Soxhlet Extraction, Gas Chromatographic Method ^(10,22) 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
19	Heptachlor	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^(3,9,22) 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(3,9,27)

3) Soxhlet Extraction...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
20	Lead	3) Soxhlet Extraction, Gas Chromatographic Method ^(10,22) 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27) 1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^(3,6,15) 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(3,6,14) 3) Digestion, Flame Atomic Absorption Spectrometric Method ^(7,15) 4) Digestion, Inductively Coupled Plasma Method ^(7,14)
21	Lindane	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^(3,9,22) 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(3,9,27) 3) Soxhlet Extraction, Gas Chromatographic Method ^(10,22) 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
22	Mercury	1) Waste Extraction, Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^(3,18) 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(3,6,14) 3) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ⁽¹⁹⁾ 4) Digestion, Inductively Coupled Plasma Method ^(7,14)
23	Methoxychlor	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^(3,9,22) 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(3,9,27) 3) Soxhlet Extraction, Gas Chromatographic Method ^(10,22) 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
24	Molybdenum	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(3,6,14) 2) Digestion, Inductively Coupled Plasma Method ^(7,18)

25 Nickel...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
25	Nickel	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[3,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
26	PCBs	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[3,9,23] 2) Soxhlet Extraction, Gas Chromatographic Method ^[10,23]
27	Pentachlorophenol	1) Waste Extraction, Gas Chromatographic/Mass Spectrometric Method ^[3,25] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[25]
28	pH	Electrometric Method ^[31,32]
29	Selenium	1) Waste Extraction, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[3,6,20] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,20] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
30	Silver	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
31	Thallium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
32	Trichloroethylene	1) Waste Extraction, Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[3,12,26] 2) Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[12,26]
33	Vanadium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]

34 Zinc...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
34	Zinc	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[3,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[3,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]

ดิน จำนวน 129 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Acenaphthene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
2	Acetone	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
3	Aldrin	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
4	Aluminum	Digestion, Inductively Coupled Plasma Method ^[7,14]
5	Anthracene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
6	Antimony	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,16] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
7	Arsenic	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,16] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
8	Atrazine	Ultrasonic Extraction, Gas Chromatographic Method ^[11,24]
9	Barium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
10	Benzo(a)anthracene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
11	Benzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]

12 Benzo(b)fluoranthene...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
12	Benzo(b)fluoranthene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
13	Benzo(k)fluoranthene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
14	Benzoic acid	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
15	Benzo(a)pyrene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
16	Benzo(ghi)perylene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
17	Beryllium	Digestion, Inductively Coupled Plasma Method ^(7,14)
18	Bis(2-chloroethyl)ether	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
19	Bis(2-ethylhexyl)phthalate	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
20	Bromodichloromethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
21	Bromoform	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
22	Butanol	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
23	Butyl benzyl phthalate	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
24	Cadmium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^(7,15) 2) Digestion, Inductively Coupled Plasma Method ^(7,14)
25	Carbazole	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
26	Carbon disulfide	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
27	Carbon tetrachloride	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
28	Chlordane	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
29	p-Chloroaniline	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
30	Chlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
31	Chlorodibromomethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
32	Chloroform	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
33	2-Chlorophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
34	Chromium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^(7,15) 2) Digestion, Inductively Coupled Plasma Method ^(7,14)
35	Chromium (III)	Calculation ^(7,8,14,15,17)
36	Chromium (VI)	Alkaline Digestion, Colorimetric Method ^(8,17)
37	Chrysene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
38	Copper	Digestion, Inductively Coupled Plasma Method ^(7,14)
39	Cyanide	1) Extraction, Distillation, Titrimetric Method ^(28,29,30) 2) Extraction, Distillation, Colorimetric Method ^(28,29,30)
40	2,4-D	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽²⁵⁾
41	DDD	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
42	DDE	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
43	DDT	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
44	Dibenz(a,h)anthracene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
45	Di-n-butyl phthalate	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
46	1,2-Dichlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
47	1,3-Dichlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
48	1,4-Dichlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
49	3,3'-Dichlorobenzidine	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
50	1,1-Dichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
51	1,2-Dichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
52	1,1-Dichloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
53	cis-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
54	trans-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
55	2,4-Dichlorophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
56	1,2-Dichloropropane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
57	1,3-Dichloropropane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
58	1,3-Dichloropropene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
59	Dieldrin	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
60	Diethyl phthalate	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
61	2,4-Dimethylphenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
62	2,4-Dinitrophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
63	2,4-Dinitrotoluene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
64	2,6-Dinitrotoluene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
65	Di-n-Octyl phthalate	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
66	Endosulfan	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
67	Endrin	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
68	Ethylbenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
69	Fluoranthene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
70	Fluorene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
71	Heptachlor	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
72	Heptachlor epoxide	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
73	Hexachlorobenzene	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
74	Hexachloro-1,3-butadiene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
75	n-Hexane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
76	α -HCH	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
77	β -HCH	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
78	γ -HCH	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
79	Hexachlorocyclopentadiene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
80	Hexachloroethane	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
81	Indeno(1,2,3-cd)pyrene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
82	Iron	Digestion, Inductively Coupled Plasma Method ^(7,14)
83	Isophorone	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
84	Lead	1) Digestion, Flame Atomic Absorption Spectrometric Method ^(7,15) 2) Digestion, Inductively Coupled Plasma Method ^(7,14)
85	Manganese	1) Digestion, Flame Atomic Absorption Spectrometric Method ^(7,15) 2) Digestion, Inductively Coupled Plasma Method ^(7,14)
86	Mercury	1) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ⁽¹⁹⁾ 2) Digestion, Inductively Coupled Plasma Method ^(7,14)
87	Methanol	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,21) 2) Equilibrium Headspace, Gas Chromatographic Method ^(11,21)

88 Methoxychlor...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
88	Methoxychlor	1) Ultrasonic Extraction, Gas Chromatographic Method ^(11,22) 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
89	Methyl bromide	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
90	Methylene chloride	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
91	Molybdenum	Digestion, Inductively Coupled Plasma Method ^(2,3)
92	2-Methylphenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
93	2-Methylnaphthalene	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
94	Methyl tert-butyl ether	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,26)
95	Naphthalene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
96	Nickel	1) Digestion, Flame Atomic Absorption Spectrometric Method ^(7,15) 2) Digestion, Inductively Coupled Plasma Method ^(7,14)
97	Nitrobenzene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
98	N-Nitrosodiphenylamine	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
99	N-Nitrosodi-n-propylamine	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
100	PCBs	Soxhlet Extraction, Gas Chromatographic Method ^(10,23)
101	Pentachlorophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽²⁴⁾
102	pH	Electrometric Method ⁽⁴⁾
103	Phenanthrene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)
104	Phenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,27)
105	Pyrene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,27)

106 Selenium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
106	Selenium	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,20]
		2) Digestion, Inductively Coupled Plasma Method ^[7,14]
107	Silver	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15]
		2) Digestion, Inductively Coupled Plasma Method ^[7,14]
108	Styrene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
109	1,1,2,2-Tetrachloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
110	Tetrachloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
111	Toluene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
112	TPH (C ₅ -C ₈)	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
113	TPH (C ₈ -C ₁₆)	1) Soxhlet Extraction, Gas Chromatographic Method ^[10,21]
		2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
114	TPH (C ₁₆ -C ₃₅)	1) Soxhlet Extraction, Gas Chromatographic Method ^[10,21]
		2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,27]
115	1,2,4-Trichlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
116	1,1,1-Trichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
117	1,1,2-Trichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
118	Trichloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
119	2,4,5-Trichlorophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]
120	2,4,6-Trichlorophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,27]

121 1,3,5-Trimethylbenzene...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
121	1,3,5-Trimethylbenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
122	Vanadium	Digestion, Inductively Coupled Plasma Method ^[7,14]
123	Vinyl acetate	Purge and Trap, Gas Chromatographic/Mass spectrometric Method ^[13,26]
124	Vinyl chloride	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
125	m-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
126	o-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
127	p-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
128	Xylene (Total)	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,26]
129	Zinc	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15]
		2) Digestion, Inductively Coupled Plasma Method ^[7,14]

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8. United States...

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ภาคผนวก ข

ใบรับรองความสามารถห้องปฏิบัติการและขอขยายการรับรอง
(Certification of Laboratory Accreditation)



แบบ กมช./สมอ.๒
Form NSC/TISI 2

ใบรับรองเลขที่ 24-LB0026
(Certificate No.)

ใบรับรองระบบงาน

(Certificate of Accreditation)

อาศัยอำนาจตามความในพระราชบัญญัติการมาตรฐานแห่งชาติ พ.ศ. ๒๕๕๑
(By Virtue of National Standardization Act B.E. 2551 (2008))

เลขาธิการสำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม
(Secretary-General, Thai Industrial Standards Institute)

ออกใบรับรองฉบับนี้ให้
(Issues this certificate to)

บริษัท ซีคอต จำกัด ฝ่ายห้องปฏิบัติการทดสอบด้านสิ่งแวดล้อม
(Secot Company Limited, Environmental Laboratory Division)

ตั้งอยู่เลขที่
(Address)

๒๓๙ ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร
(239 Rimklongprapa Road, Bangsue, Bangkok)

ได้รับการรับรองความสามารถ
(Certificate of competence)

ตามมาตรฐานเลขที่ มอก. ๑๗๐๒๕ - ๒๕๖๑
(Standard No. TIS 17025-2561 (2018) (ISO/IEC 17025: 2017))

ข้อกำหนดทั่วไปว่าด้วยความสามารถของ ห้องปฏิบัติการทดสอบและห้องปฏิบัติการสอบเทียบ
(General requirements for the competence of testing and calibration laboratories)

หมายเลขการรับรองที่ ทดสอบ ๐๓๙๔
(Accreditation No. Testing 0394)

โดยมีรายละเอียดสาขาและขอบข่ายใบรับรอง แสดงไว้ใน QR CODE และ www.tisi.go.th
(Details of the scheme and scope of the certificate are shown in QR CODE and www.tisi.go.th)

ออกให้ ณ วันที่ ๖ ธันวาคม พ.ศ. ๒๕๖๖
(Issue date : 6 December B.E. 2566 (2023))

(นายวีระศักดิ์ เพ็งหล่ง)

ผู้อำนวยการสำนักงานคณะกรรมการการมาตรฐานแห่งชาติ
ปฏิบัติราชการแทน

เลขาธิการสำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม



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กระทรวงอุตสาหกรรม สำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม
(Ministry of Industry Thailand, Thai Industrial Standards Institute)



รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ
(Scope of Accreditation for Testing)

ใบรับรองเลขที่ 24-LB0026
(Certification No. 24-LB0026)



ชื่อห้องปฏิบัติการ
(Laboratory Name)

บริษัท ซีคอต จำกัด ฝ่ายห้องปฏิบัติการทดสอบด้านสิ่งแวดล้อม
(Secot Company Limited, Environmental Laboratory Division)

หมายเลขการรับรองที่
(Accreditation No.)

ทดสอบ 0394
(Testing 0394)

ฉบับที่ 03
(Issue No. 03)

ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
(Valid from 15 September B.E.2568 (2025))

ถึงวันที่ 8 กันยายน พ.ศ. 2571
(Until 8 September B.E.2571 (2028))

สถานภาพห้องปฏิบัติการ
(Laboratory status)

☒ถาวร (Permanent) ☐นอกสถานที่ (Site) ☐ชั่วคราว (Temporary)

☐เคลื่อนที่ (Mobile) ☐หลายสถานที่ (Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาสิ่งแวดล้อม (Environmental field)		
1. น้ำและน้ำเสีย (Water and wastewater)	- Heavy metals • Arsenic (As) 0.000 5 mg/L to 0.090 0 mg/L • Arsenic (As) 0.05 mg/L to 4.50 mg/L • Barium (Ba) 0.02 mg/L to 4.50 mg/L • Cadmium (Cd) 0.01 mg/L to 4.50 mg/L • Chromium (Cr) 0.01 mg/L to 4.50 mg/L	- Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th edition, 2023, Part 3030 F and Part 3114 C - Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th edition, 2023, Part 3030 E and Part 3120 B

กระทรวงอุตสาหกรรม สำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม
(Ministry of Industry, Thai Industrial Standards Institute)

หน้า 1/7

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ

(Scope of Accreditation for Testing)

ใบรับรองเลขที่ 24-LB0026

(Certification No. 24-LB0026)



ฉบับที่ 03
(Issue No. 03)

ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
(Valid from 15 September B.E.2568 (2025))

ถึงวันที่ 8 กันยายน พ.ศ. 2571
(Until 8 September B.E.2571 (2028))

สถานภาพห้องปฏิบัติการ
(Laboratory status)

☒ถาวร
(Permanent)

☐นอกสถานที่
(Site)

☐ชั่วคราว
(Temporary)

☐เคลื่อนที่
(Mobile)

☐หลายสถานที่
(Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาสสิ่งแวดล้อม (Environmental field) 1. น้ำและน้ำเสีย (ต่อ) (Water and wastewater) (cont.)	- Heavy metals - Copper (Cu) 0.02 mg/L to 4.50 mg/L - Iron (Fe) 0.05 mg/L to 9.00 mg/L - Lead (Pb) 0.03 mg/L to 4.50 mg/L - Manganese (Mn) 0.01 mg/L to 9.00 mg/L - Nickel (Ni) 0.01 mg/L to 4.50 mg/L - Zinc (Zn) 0.02 mg/L to 9.00 mg/L - Chemical oxygen demand (COD) 10.00 mg/L to 9 000 mg/L	- Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24 th edition, 2023, Part 3030 E and Part 3120 B - Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24 th edition, 2023, Part 5220 D

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ

(Scope of Accreditation for Testing)

ใบรับรองเลขที่ 24-LB0026

(Certification No. 24-LB0026)



ฉบับที่ 03
(Issue No. 03)

ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
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ถึงวันที่ 8 กันยายน พ.ศ. 2571
(Until 8 September B.E.2571 (2028))

สถานภาพห้องปฏิบัติการ
(Laboratory status)

☒ถาวร
(Permanent)

☐นอกสถานที่
(Site)

☐ชั่วคราว
(Temporary)

☐เคลื่อนที่
(Mobile)

☐หลายสถานที่
(Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาสสิ่งแวดล้อม (Environmental field) 2. บริเวณทำงาน (Workplace)	- Total dust 0.10 mg/filter to 2.00 mg/filter - Respirable dust 0.10 mg/filter to 2.00 mg/filter - Benzene 0.70 µg/tube to 420 µg/tube - Toluene 0.70 µg/tube to 420 µg/tube - Total xylenes 1.40 µg/tube to 840 µg/tube - m, p-Xylene 0.70 µg/tube to 420 µg/tube	- NIOSH Manual of Analytical Methods (NMAM), Method 0500, 4 th edition, 15 th August 1994 (Exclude Sampling) - NIOSH Manual of Analytical Methods (NMAM), Method 0600, 4 th edition, 15 th January 1998 (Exclude Sampling) - NIOSH Manual of Analytical Methods (NMAM), Method 1501, 4 th edition, 15 th March 2003 (Exclude Sampling)

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ

(Scope of Accreditation for Testing)

ใบรับรองเลขที่ 24-LB0026

(Certification No. 24-LB0026)



ฉบับที่ 03
(Issue No. 03)

ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
(Valid from 15 September B.E.2568 (2025))

ถึงวันที่ 8 กันยายน พ.ศ. 2571
(Until 8 September B.E.2571 (2028))

สถานภาพห้องปฏิบัติการ
(Laboratory status)

☒ถาวร
(Permanent)

☐นอกสถานที่
(Site)

☐ชั่วคราว
(Temporary)

☐เคลื่อนที่
(Mobile)

☐หลายสถานที่
(Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาสีสิ่งแวดล้อม (Environmental field) 2. บริเวณทำงาน (ต่อ) (Workplace) (Cont.) 3. ปล่องระบายอากาศ (Stack)	- o-Xylene 0.70 µg/tube to 420 µg/tube - Sulfur dioxide 1.00 mg/L to 16 000 mg/L - Hydrogen fluoride 5 µg/sample to 400 µg/sample - Hydrogen chloride 5 µg/sample to 400 µg/sample	- NIOSH Manual of Analytical Methods (NMAM), Method 1501, 4th edition, 15th March 2003 (Exclude Sampling) - US.EPA, Code of Federal Regulations, 40 CFR 60 appendix A, Method 6, July 2024 (Exclude Sampling) - WI-7.2-1-22 based on US.EPA, Code of Federal Regulations, 40 CFR 60 appendix A, Method 26, 26A, 2024

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ

(Scope of Accreditation for Testing)

ใบรับรองเลขที่ 24-LB0026

(Certification No. 24-LB0026)



ฉบับที่ 03
(Issue No. 03)

ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
(Valid from 15 September B.E.2568 (2025))

ถึงวันที่ 8 กันยายน พ.ศ. 2571
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สถานภาพห้องปฏิบัติการ
(Laboratory status)

☒ถาวร
(Permanent)

☒นอกสถานที่
(Site)

☐ชั่วคราว
(Temporary)

☐เคลื่อนที่
(Mobile)

☐หลายสถานที่
(Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาสีสิ่งแวดล้อม (Environmental field) 4. บรรยากาศทั่วไป (Ambient air)	- Volatile organic compounds (VOCs) - Chloroethene 0.05 µg/m³ to 51.00 µg/m³ (0.02 ppbv to 20.00 ppbv) 1,3-butadiene 0.04 µg/m³ to 44.00 µg/m³ (0.02 ppbv to 20.00 ppbv) - Bromomethane 0.08 µg/m³ to 77.00 µg/m³ (0.02 ppbv to 20.00 ppbv) - Acrolein 0.05 µg/m³ to 45.00 µg/m³ (0.02 ppbv to 20.00 ppbv) - Acrylonitrile 0.04 µg/m³ to 43.00 µg/m³ (0.02 ppbv to 20.00 ppbv) - Dichloromethane 0.14 µg/m³ to 69.00 µg/m³ 0.04 ppbv to 20.00 ppbv)	- WI-7.2-1-24 based on US EPA, Compendium Method TO-15, EPA/625/R-96/010b, Second edition, January 1999

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ

(Scope of Accreditation for Testing)

ใบรับรองเลขที่ 24-LB0026

(Certification No. 24-LB0026)



ฉบับที่ 03
(Issue No. 03)

ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
(Valid from 15 September B.E.2568 (2025))

ถึงวันที่ 8 กันยายน พ.ศ. 2571
(Until 8 September B.E.2571 (2028))

สถานภาพห้องปฏิบัติการ ☒ ถาวร ☒ นอกสถานที่ ☐ชั่วคราว ☐เคลื่อนที่ ☐หลายสถานที่
(Laboratory status) (Permanent) (Site) (Temporary) (Mobile) (Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาสีสิ่งแวดล้อม (Environmental field) 4. บรรยากาศทั่วไป (ต่อ) (Ambient air) (cont.)	- Volatile organic compounds (VOCs) - Carbon disulfide 0.06 $\mu\text{g}/\text{m}^3$ to 62.00 $\mu\text{g}/\text{m}^3$ (0.02 ppbv to 20.00 ppbv) - Trichloromethane 0.20 $\mu\text{g}/\text{m}^3$ to 97.00 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv) 1,2-dichloroethane 0.08 $\mu\text{g}/\text{m}^3$ to 80.00 $\mu\text{g}/\text{m}^3$ (0.02 ppbv to 20.00 ppbv) - Benzene 0.06 $\mu\text{g}/\text{m}^3$ to 63.00 $\mu\text{g}/\text{m}^3$ (0.02 ppbv to 20.00 ppbv) - Carbon tetrachloride 0.25 $\mu\text{g}/\text{m}^3$ to 125 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv) - Trichloroethylene 0.21 $\mu\text{g}/\text{m}^3$ to 107 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv)	- WI-7.2-1-24 based on US EPA, Compendium Method TO-15, EPA/625/R-96/010b, Second edition, January 1999

รายละเอียดสาขาและขอบข่ายใบรับรองห้องปฏิบัติการ

(Scope of Accreditation for Testing)

ใบรับรองเลขที่ 24-LB0026

(Certification No. 24-LB0026)



ฉบับที่ 03
(Issue No. 03)

ออกให้ตั้งแต่วันที่ 15 กันยายน พ.ศ. 2568
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สถานภาพห้องปฏิบัติการ ☒ ถาวร ☒ นอกสถานที่ ☐ชั่วคราว ☐เคลื่อนที่ ☐หลายสถานที่
(Laboratory status) (Permanent) (Site) (Temporary) (Mobile) (Multisite)

สาขาการทดสอบ (Field of Testing)	รายการทดสอบ (Parameter)	วิธีทดสอบ (Test Method)
สาขาสีสิ่งแวดล้อม (environmental field) 4. บรรยากาศทั่วไป (ต่อ) (Ambient air) (Cont.)	- Volatile organic compounds (VOCs) 1,2-dichloropropane 0.18 $\mu\text{g}/\text{m}^3$ to 92.00 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv) - Tetrachloroethylene 0.27 $\mu\text{g}/\text{m}^3$ to 135 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv) 1,2-dibromoethane 0.31 $\mu\text{g}/\text{m}^3$ to 153 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv) 1,1,2,2-tetrachloroethane 0.69 $\mu\text{g}/\text{m}^3$ to 137 $\mu\text{g}/\text{m}^3$ (0.10 ppbv to 20.00 ppbv) - Benzyl chloride 0.52 $\mu\text{g}/\text{m}^3$ to 103 $\mu\text{g}/\text{m}^3$ (0.10 ppbv to 20.00 ppbv) 1,4-dichlorobenzene 0.24 $\mu\text{g}/\text{m}^3$ to 120 $\mu\text{g}/\text{m}^3$ (0.04 ppbv to 20.00 ppbv)	- WI-7.2-1-24 based on US EPA, Compendium Method TO-15, EPA/625/R-96/010b, Second edition, January 1999

ภาคผนวก ซ

ใบอนุญาตเป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์
สภาวะการทำงานเกี่ยวกับระดับเสียง และสารเคมี



แบบ กบ.บุญ
นิติบุคคล

กรมสวัสดิการและคุ้มครองแรงงาน

ใบอนุญาต

เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับเสียง

ใบอนุญาตเลขที่ ๐๔๐๓-๐๓-๒๕๖๕-๐๐๔๘

อนุญาตให้ บริษัท ซีคอฟ จำกัด

เลขทะเบียนนิติบุคคล ๐๑๐๕๕๓๖๐๐๐๙๗๖

ตั้งอยู่เลขที่ ๒๓๙ ถนนริมคลองประเวศ แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร

เป็นนิติบุคคลผู้ให้บริการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน ตามกฎกระทรวง กำหนดมาตรฐานในการบริหาร จัดการ และดำเนินการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงานเกี่ยวกับความร้อน แสงสว่าง และเสียง พ.ศ. ๒๕๕๙ ในการตรวจวัดและวิเคราะห์สภาวะการทำงาน เกี่ยวกับระดับเสียง ประกอบกับกฎกระทรวงการขึ้นทะเบียนและการอนุญาตให้บริการเพื่อส่งเสริมความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๖๔ แห่งพระราชบัญญัติความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๕๔ โดยมีบุคลากร จำนวน ๗ ราย และรายการเครื่องมือตรวจวัด จำนวน ๖๕ เครื่อง ดังรายละเอียดแนบท้ายใบอนุญาตนี้

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘

(นายศักดิ์ศิลป์ ตูลาธร)

ผู้ตรวจราชการกรม ปฏิบัติราชการแทน

อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

รายชื่อบุคลากรแนบท้ายใบอนุญาต
เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับเสียง

ของบริษัท ซีคอฟ จำกัด

ใบอนุญาตเลขที่ ๐๔๐๓-๐๓-๒๕๖๕-๐๐๔๘

- | | |
|------------------|---------------|
| ๑. นางสาวสุนันทา | ศิริวัฒนานนท์ |
| ๒. นางสาวกนิษฐา | เจริญเชื้อ |
| ๓. นางสาวอลิษา | คณิวรานนท์ |
| ๔. นางสาวชนิดา | หล้าสาย |
| ๕. นางสาวศลิษา | อินริย์ |
| ๖. นางสาววิระยา | ปัจฉิมบุรณ์ |
| ๗. นายพงศ์ศิริ | จักรแก้ว |

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘

(นายศักดิ์ศิลป์ ตูลาธร)

ผู้ตรวจราชการกรม ปฏิบัติราชการแทน

อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

รายการเครื่องมือตรวจวัดแบบท่ายใบอนุญาต
เป็นนิติบุคคลผู้ให้บริการตรวจวัดและวิเคราะห์สภาวะการทำงานเกี่ยวกับระดับเสียง
ของบริษัท ซีคอฟ จำกัด
ใบอนุญาตเลขที่ ๐๔๐๓-๐๓-๒๕๖๕-๐๐๔๘

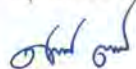
ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
๑	เครื่องวัดเสียง และเครื่องวัดเสียง กระทบหรือเสียงกระแทก	ยี่ห้อ	Cirrus	๑๐
		รุ่น	CR162B	
		Serial No.	G302737	
			G302738	
			G302740	
			G302742	
			G302743	
			G301014	
			G302333	
			G302330	
			G302237	
			G300709	
		มาตรฐาน	IEC 61672-1	
		ยี่ห้อ	Cirrus	๓
		รุ่น	CR162C	
		Serial No.	G300832	
			G300838	๒
			G300841	
		มาตรฐาน	IEC 61672-1	
		ยี่ห้อ	Cirrus	
		รุ่น	CR171B	๑๕
		Serial No.	G303411	
			G303415	
		มาตรฐาน	IEC 61672-1	
		ยี่ห้อ	SCARLET TECH	
		รุ่น	ST-21D	
		Serial No.	820722	
			820723	
			820724	
			820725	
			820726	
			820727	

ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
			820728	
			820729	
			820730	
			820731	
			821078	
			821079	
			821080	
			821081	
			821082	
		มาตรฐาน	IEC 61672	
๒	เครื่องวัดปริมาณเสียงสะสม	ยี่ห้อ	Cirrus	๒๐
		รุ่น	CR110A	
		Serial No.	CB1023	
			CB1025	
			CB1026	
			CB1040	
			CB1041	
			CB1042	
			CB1043	
			CB1047	
			CB1048	๑๐
			CB1049	
			CB1050	
			CB1052	
			CB1053	
			CB1054	
			CB1055	
			CB1056	
			CB1101	
			CB1102	
			CB1103	
			CB1104	
		มาตรฐาน	IEC 61252	๑๐
		ยี่ห้อ	Pulsar	
		รุ่น	Model 22R	

ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
		Serial No.	PB614 PB617 PB618 PB621 PB632 PB636 PB637 PB638 PB643 PB644	
		มาตรฐาน	IEC 61252	
๓	อุปกรณ์ตรวจสอบความถูกต้อง	ยี่ห้อ	Cirrus	๒
		รุ่น	CR:515	
		Serial No.	94296 97097	
		มาตรฐาน	IEC 60942	
๔	อุปกรณ์ตรวจสอบความถูกต้อง (เสียงสะสม)	ยี่ห้อ	Cirrus	๒
		รุ่น	RC:110A	
		Serial No.	95167 95168	
		มาตรฐาน	IEC 60942	๓
		ยี่ห้อ	Pulsar	
		รุ่น	Model 22R	
		Serial No.	79781	
		มาตรฐาน	IEC 60942	

ทั้งนี้ ตั้งแต่วันที่ ๑๗ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๖ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒ มิถุนายน พ.ศ. ๒๕๖๘



(นายศักดิ์ศิลป์ ตูลาธร)

ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน



แบบ กภ.บญ
นิติบุคคล

กรมสวัสดิการและคุ้มครองแรงงาน

ใบอนุญาต

เป็นนิติบุคคลผู้ให้บริการตรวจวัดระดับความเข้มข้นของสารเคมีอันตราย
ในบรรยากาศของสถานที่ทำงานและสถานที่เก็บรักษาสารเคมีอันตราย

ใบอนุญาตเลขที่ ๐๒๐๑-๐๓-๒๕๖๕-๐๐๔๙

อนุญาตให้ บริษัท ซีแอลพี จำกัด

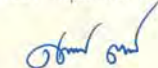
เลขทะเบียนนิติบุคคล ๐๑๐๕๕๓๖๐๐๐๙๗๖

ตั้งอยู่ เลขที่ ๒๓๙ ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร

เป็นนิติบุคคลผู้ให้บริการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน ตามกฎกระทรวง
กำหนดมาตรฐานในการบริหาร จัดการ และดำเนินการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อม
ในการทำงานเกี่ยวกับสารเคมีอันตราย พ.ศ. ๒๕๕๖ ในการเป็นผู้ให้บริการตรวจวัดระดับความเข้มข้น
ของสารเคมีอันตรายในบรรยากาศของสถานที่ทำงานและสถานที่เก็บรักษาสารเคมีอันตราย ประกอบกับ
กฎกระทรวงการขึ้นทะเบียนและการอนุญาตให้บริการเพื่อส่งเสริมความปลอดภัย อาชีวอนามัย และสภาพแวดล้อม
ในการทำงาน พ.ศ. ๒๕๖๔ แห่งพระราชบัญญัติความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน
พ.ศ. ๒๕๕๔ โดยมีบุคลากร จำนวน ๑๕ ราย และรายการเครื่องมือตรวจวัด จำนวน ๕๕ เครื่อง ดังรายละเอียด
แนบท้ายใบอนุญาตนี้

ทั้งนี้ ตั้งแต่วันที่ ๑๔ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๓ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒๗ พฤษภาคม พ.ศ. ๒๕๖๘



(นายศักดิ์ศิลป์ ตูลาธร)

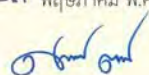
ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

รายชื่อบุคลากรแนบท้ายใบอนุญาต
 เป็นนิติบุคคลผู้ให้บริการตรวจวัดระดับความเข้มข้นของสารเคมีอันตรายในบรรยากาศของสถานที่ทำงาน
 และสถานที่เก็บรักษาสารเคมีอันตราย
 ของบริษัท ซีคอน จำกัด
 ใบอนุญาตเลขที่ ๐๒๐๑-๐๓-๒๕๖๕-๐๐๔๔

- | | |
|--------------------|-------------|
| ๑. นายชิดพล | สมประสงค์ |
| ๒. นายอนิวัฒน์ | พิมพ์นนา |
| ๓. นายศิวนนท์ | กุลวงษ์ |
| ๔. นายธนโชติ | ช่างหล่อ |
| ๕. นายกิตติพงศ์ | ตะเกิงสุข |
| ๖. นายจิรวุฒิ | โคตรคำหาญ |
| ๗. นายศุภกิจ | ติ่มมูกา |
| ๘. นางสาวทิพย์สุดา | วรรณการ |
| ๙. นายธนาวุฒิ | ด้วนแสง |
| ๑๐. นางสาวศลิษา | อินริย์ |
| ๑๑. นางสาววิระยา | ปัจฉิมบุรณ์ |
| ๑๒. นายณัฐดนัย | กฤษณะโสม |
| ๑๓. นายณัฐชัย | ไชยโคตร |
| ๑๔. นายพงศ์ศิริ | จักรแก้ว |
| ๑๕. นายอรรถชัย | นวนนิม |

ทั้งนี้ ตั้งแต่วันที่ ๑๔ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๓ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒๓ พฤษภาคม พ.ศ. ๒๕๖๘



(นายศักดิ์ศิลป์ ตูลาธร)

ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
 อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

รายการเครื่องมือตรวจวัดแนบท้ายใบอนุญาต
 เป็นนิติบุคคลผู้ให้บริการตรวจวัดระดับความเข้มข้นของสารเคมีอันตรายในบรรยากาศของสถานที่ทำงาน
 และสถานที่เก็บรักษาสารเคมีอันตราย
 ของบริษัท ซีคอน จำกัด
 ใบอนุญาตเลขที่ ๐๒๐๑-๐๓-๒๕๖๕-๐๐๔๔

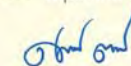
ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
๑	เครื่องมือเก็บตัวอย่างอากาศ (Personal Air Sampling Pump)	ยี่ห้อ รุ่น Serial No.	Sensidyne Gilian BDX II 20190401002 20190401003 20190401006 20190401007 20190401008 20190401013 20190401014 20190401015 20190401019 20190504021 20190504022 20190504023 20190504025 20190504027 20190504028 20190504029 20190504032 20190504034 20190504039 20190504040 20190504042 20190504044 20210602054 20210602055 20210701039 20210701078 20210701079 20210701081	๔๖

ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
	เครื่องมือเก็บตัวอย่างอากาศ (ต่อ) (Personal Air Sampling Pump)		20210701082 20210701086 20210701093 20210904100 20211201089 20211201090 20220104039 20220104042 20220104045 20220104086 20220104087 20220104088 20220104089 20220104090 20220104098 20220104099 20220104100 20220104104	
		ยี่ห้อ รุ่น Serial No.	SKC Pocket Pump TOUCH 220-1000TC 221217 221218 221219 221222 221245	๕
		ยี่ห้อ รุ่น Serial No.	Mesa Labs Defender 520-L 160100	๑
		ยี่ห้อ รุ่น Serial No.	Mesa Labs Defender 520-H 114069	๑
		ยี่ห้อ รุ่น Serial No.	SKC Chek-mate 375-0550 N 22552891	๑

ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
	เครื่องมือและอุปกรณ์สำหรับ ปรับความถูกต้อง (ต่อ) (Pump calibrator)	ยี่ห้อ รุ่น Serial No.	SKC Chek-mate 375-00205 N 21552177	๑

ทั้งนี้ ตั้งแต่วันที่ ๑๔ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๓ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒๓ พฤษภาคม พ.ศ. ๒๕๖๘



(นายศักดิ์ศิลป์ ตูลาธร)

ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน



แบบ ก.บ.บญ
นิติบุคคล

กรมสวัสดิการและคุ้มครองแรงงาน

ใบอนุญาต

เป็นนิติบุคคลผู้ให้บริการวิเคราะห์ระดับความเข้มข้นของสารเคมีอันตราย
ในบรรยากาศของสถานที่ทำงานและสถานที่เก็บรักษาสารเคมีอันตราย

ใบอนุญาตเลขที่ ๐๒๐๒-๐๓-๒๕๖๕-๐๐๓๔

อนุญาตให้ บริษัท ซีคอบ จำกัด

เลขทะเบียนนิติบุคคล ๐๑๐๕๕๓๖๐๐๐๙๗๖

ตั้งอยู่ เลขที่ ๒๓๙ ถนนวิมลคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร

เป็นนิติบุคคลผู้ให้บริการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน ตามกฎกระทรวง
กำหนดมาตรฐานในการบริหาร จัดการ และดำเนินการด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อม
ในการทำงานเกี่ยวกับสารเคมีอันตราย พ.ศ. ๒๕๕๖ ในการเป็นผู้ให้บริการวิเคราะห์ระดับความเข้มข้น
ของสารเคมีอันตรายในบรรยากาศของสถานที่ทำงานและสถานที่เก็บรักษาสารเคมีอันตราย ประกอบกับ
กฎกระทรวงการขึ้นทะเบียนและการอนุญาตให้บริการเพื่อส่งเสริมความปลอดภัย อาชีวอนามัย และสภาพแวดล้อม
ในการทำงาน พ.ศ. ๒๕๖๔ แห่งพระราชบัญญัติความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน
พ.ศ. ๒๕๕๔ โดยมีบุคลากร จำนวน ๑๐ ราย และรายการเครื่องมือวิเคราะห์ จำนวน ๙ เครื่อง ดังรายละเอียด
แนบท้ายใบอนุญาตนี้

ทั้งนี้ ตั้งแต่วันที่ ๑๔ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๓ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒๓ พฤษภาคม พ.ศ. ๒๕๖๘

(นายศักดิ์ศิลป์ ตูลาธร)

ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

รายชื่อบุคลากรแนบท้ายใบอนุญาต

เป็นนิติบุคคลผู้ให้บริการวิเคราะห์ระดับความเข้มข้นของสารเคมีอันตรายในบรรยากาศของสถานที่ทำงาน
และสถานที่เก็บรักษาสารเคมีอันตราย

ของบริษัท ซีคอบ จำกัด

ใบอนุญาตเลขที่ ๐๒๐๒-๐๓-๒๕๖๕-๐๐๓๔

๑. นางสาววิสา	ภูวสรเพ็ชญ์
๒. นางอารยา	ทิพย์รักษ์
๓. นางสาวศิริวรรณ	ฉิมสง่า
๔. นางสาวสุรทัย	เทียนเตี้ย
๕. นางสาวพรนภา	บุตรธรรม
๖. นางสาวธารณี	อาจปลิว
๗. นางสาวเจนิสตา	ก๊วยอ่อน
๘. นางสาวจุฑารัตน์	แจ่มเรือน
๙. นางสาวสุดาพร	สุนทร
๑๐. นางสาวปวีศา	มากักดี

ทั้งนี้ ตั้งแต่วันที่ ๑๔ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๓ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒๓ พฤษภาคม พ.ศ. ๒๕๖๘

(นายศักดิ์ศิลป์ ตูลาธร)

ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

รายการเครื่องมือวิเคราะห์แบบท้ายใบอนุญาต
 เป็นนิติบุคคลผู้ให้บริการวิเคราะห์ระดับความเข้มข้นของสารเคมีอันตรายในบรรยากาศของสถานที่ทำงาน
 และสถานที่เก็บรักษาสารเคมีอันตราย
 ของบริษัท ซีค่อท จำกัด
 ใบอนุญาตเลขที่ ๐๒๐๒-๐๓-๒๕๖๕-๐๐๓๔

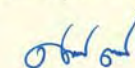
ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
๑	Atomic Absorption Spectrophotometer (AAS)	ยี่ห้อ รุ่น Serial No.	Perkin Elmer PinAAcle 900T PTDS23051001	๑
๒	Inductively Coupled Plasma (ICP-OES)	ยี่ห้อ รุ่น Serial No.	Agilent 5110 MY16230003	๑
๓	Gas Chromatograph Flame Ionization Detector (GC-FID)	ยี่ห้อ รุ่น Serial No.	Agilent 7890 B CN 15346147	๑
		ยี่ห้อ รุ่น Serial No.	Agilent 7890 A US10943001	๑
๔	Ion Chromatography	ยี่ห้อ รุ่น Serial No.	Dionex ICS-1000 04090295	๑
๕	Electronic Balance	ยี่ห้อ รุ่น Serial No.	Sartorius ME5, 6 digits SWB26602268	๑
		ยี่ห้อ รุ่น Serial No.	Mettler Toledo AG245, 5 digits 1117293916	๑
		ยี่ห้อ รุ่น Serial No.	Mettler Toledo AB204-S, 4 digits 1123163292	๑

-๒-

ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
๖	UV/Vis Spectrophotometer	ยี่ห้อ รุ่น Serial No.	Thermo Scientific GENESYS 150 UV-Vis 9A5Y332022	๑

ทั้งนี้ ตั้งแต่วันที่ ๑๔ มิถุนายน พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๓ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒๓ พฤษภาคม พ.ศ. ๒๕๖๘



(นายศักดิ์ศิลป์ ทูลาธร)
 ผู้ตรวจราชการกรม ปฏิบัติราชการแทน
 อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

ที่ รง ๐๕๐๔/ ๗๖๕๒



กรมสวัสดิการและคุ้มครองแรงงาน
ถนนมิตรไมตรี ดินแดง กรุงเทพฯ ๑๐๔๐๐

๒๐ สิงหาคม ๒๕๖๘

เรื่อง การขอเพิ่มเติมเครื่องมือวิเคราะห์ระดับความเข้มข้นของสารเคมีอันตรายในบรรยากาศของสถานที่ทำงาน และสถานที่เก็บรักษาสารเคมีอันตราย

เรียน กรรมการผู้จัดการบริษัท ซีคोट จำกัด

อ้างถึง หนังสือบริษัท ซีคोट จำกัด ที่ ชค. (๒) ๐๐๒๔/๒๕๖๘ ลงวันที่ ๑๘ มิถุนายน ๒๕๖๘

สิ่งที่ส่งมาด้วย รายการเครื่องมือ (เพิ่มเติม) แนบท้ายใบอนุญาตเป็นนิติบุคคลผู้ให้บริการวิเคราะห์ระดับความเข้มข้นของสารเคมีอันตรายฯ ลงวันที่ ๒๐ สิงหาคม พ.ศ. ๒๕๖๘ จำนวน ๑ ชุด

ตามหนังสือที่อ้างถึง บริษัท ซีคोट จำกัด ขออนุมัติเพิ่มเติมเครื่องมือวิเคราะห์ระดับความเข้มข้นของสารเคมีอันตรายในบรรยากาศของสถานที่ทำงานและสถานที่เก็บรักษาสารเคมีอันตราย จำนวน ๑ เครื่อง สำหรับการเป็นผู้ให้บริการวิเคราะห์ระดับความเข้มข้นของสารเคมีอันตรายฯ ตามกฎกระทรวงการขึ้นทะเบียน และการอนุญาตให้บริการเพื่อส่งเสริมความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงาน พ.ศ. ๒๕๖๔ เพื่อให้กรมสวัสดิการและคุ้มครองแรงงานพิจารณา ความละเอียดแจ้งแล้ว นั้น

กรมสวัสดิการและคุ้มครองแรงงานพิจารณาแล้วเห็นว่า เครื่องมือวิเคราะห์ระดับความเข้มข้นของสารเคมีอันตรายฯ ที่ขออนุมัติเพิ่มเติม เป็นไปตามกฎกระทรวงการขึ้นทะเบียนและการอนุญาตให้บริการ เพื่อส่งเสริมความปลอดภัยฯ ประกอบกับกฎกระทรวงกำหนดมาตรฐานในการบริหาร จัดการ และดำเนินการ ด้านความปลอดภัย อาชีวอนามัย และสภาพแวดล้อมในการทำงานเกี่ยวกับสารเคมีอันตราย พ.ศ. ๒๕๕๖ จึงอนุมัติให้บริษัท ซีคोट จำกัด เพิ่มเติมเครื่องมือวิเคราะห์ระดับความเข้มข้นของสารเคมีอันตรายฯ ดังกล่าว รายละเอียดปรากฏตามสิ่งที่ส่งมาด้วย ทั้งนี้ ขอให้บริษัทฯ ปฏิบัติตามกฎกระทรวงการขึ้นทะเบียนและการอนุญาต ให้บริการเพื่อส่งเสริมความปลอดภัยฯ อย่างเคร่งครัด

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายศักดิ์ศิลป์ ดุลาธร)

รองอธิบดี ปฏิบัติราชการแทน

อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน

กองความปลอดภัยแรงงาน

โทรศัพท์ ๐ ๒๔๔๘ ๔๑๒๘ - ๓๙ ต่อ ๗๐๖

ไปรษณีย์อิเล็กทรอนิกส์ Safetyofficer@labour.mail.go.th

รายการเครื่องมือ (เพิ่มเติม)

แนบท้ายใบอนุญาตเป็นนิติบุคคลผู้ให้บริการวิเคราะห์ระดับความเข้มข้นของสารเคมีอันตราย

ในบรรยากาศของสถานที่ทำงานและสถานที่เก็บรักษาสารเคมีอันตราย

ของบริษัท ซีคोट จำกัด

ใบอนุญาตเลขที่ ๐๒๐๒-๐๓-๒๕๖๕-๐๐๓๔

ลำดับที่	รายการเครื่องมือ	รายละเอียด		จำนวน (เครื่อง)
๑.	CO Gas Detector	ยี่ห้อ รุ่น Serial No.	Q-Trak 7575 7575X2017002	๑

ทั้งนี้ ตั้งแต่วันที่ ๒๐ สิงหาคม พ.ศ. ๒๕๖๘ ถึงวันที่ ๑๓ มิถุนายน พ.ศ. ๒๕๗๑

ให้ไว้ ณ วันที่ ๒๐ สิงหาคม พ.ศ. ๒๕๖๘

(นายศักดิ์ศิลป์ ดุลาธร)

รองอธิบดี ปฏิบัติราชการแทน

อธิบดีกรมสวัสดิการและคุ้มครองแรงงาน