

ภาคผนวก ค

ใบรับรองผลการตรวจวิเคราะห์ผลกระทบสิ่งแวดล้อม

คุณภาพอากาศในบรรยากาศ



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612545

Date Received : Feb 25, 2026

Date Reported : Mar 02, 2026

Report Number: 3504377-1

Page 1 of 1

Sample Description Air Quality
Location ชุมชนพุด (GPS 47P 0724381, 1402551)
Parameter Nitrogen dioxide (ppb)
Measurement Date Feb 14, 2026 - Feb 21, 2026
Measurement by Sitpawit Suwannarat

	2612545-1	2612545-2	2612545-3	2612545-4	2612545-5	2612545-6	2612545-7
Time	Feb 14, 2026	Feb 15, 2026	Feb 16, 2026	Feb 17, 2026	Feb 18, 2026	Feb 19, 2026	Feb 20, 2026
02:00 PM - 03:00 PM	0.5	0.7	11.6	4.9	1.9	3.1	2.1
03:00 PM - 04:00 PM	0.4	0.5	10.2	4.2	1.0	2.5	2.1
04:00 PM - 05:00 PM	0.5	1.1	5.1	4.8	0.7	1.6	2.1
05:00 PM - 06:00 PM	0.6	1.7	3.0	4.5	1.1	1.8	2.5
06:00 PM - 07:00 PM	0.3	4.7	1.2	5.2	1.0	1.3	2.8
07:00 PM - 08:00 PM	0.5	3.3	2.1	5.4	0.8	1.5	2.6
08:00 PM - 09:00 PM	0.3	5.6	1.4	7.1	1.0	1.7	1.0
09:00 PM - 10:00 PM	0.5	1.6	1.7	6.6	0.4	1.6	1.4
10:00 PM - 11:00 PM	0.9	1.2	1.1	<0.1	0.4	1.7	1.6
11:00 PM - 12:00 AM	2.1	0.8	1.8	<0.1	0.6	1.9	1.6
12:00 AM - 01:00 AM	1.0	0.7	0.9	0.1	1.2	1.8	1.4
01:00 AM - 02:00 AM	1.8	0.4	0.9	0.5	1.4	2.2	2.4
02:00 AM - 03:00 AM	2.6	0.4	0.3	0.7	1.7	3.2	6.1
03:00 AM - 04:00 AM	4.1	0.4	0.1	2.6	2.9	6.6	7.6
04:00 AM - 05:00 AM	5.4	0.7	0.7	7.4	3.5	7.1	7.5
05:00 AM - 06:00 AM	7.1	3.6	0.5	11.1	3.5	5.0	9.4
06:00 AM - 07:00 AM	9.5	4.2	1.1	8.4	6.3	7.0	8.7
07:00 AM - 08:00 AM	7.4	5.2	1.7	14.5	7.4	9.9	13.8
08:00 AM - 09:00 AM	1.1	5.8	4.7	12.3	6.5	11.9	15.7
09:00 AM - 10:00 AM	2.2	7.0	3.3	10.0	7.0	12.0	15.1
10:00 AM - 11:00 AM	0.9	6.6	5.6	8.0	7.5	12.3	14.1
11:00 AM - 12:00 PM	0.9	6.3	1.6	11.8	9.2	11.7	12.2
12:00 PM - 01:00 PM	0.3	8.2	1.2	11.1	9.0	12.2	15.2
01:00 PM - 02:00 PM	0.1	10.6	3.1	2.9	9.4	2.1	13.3
Average	2.1	3.4	2.7	6.0	3.6	5.2	6.8
1hr - Maximum	9.5	10.6	11.6	14.5	9.4	12.3	15.7
Standard 1hr - Average	120	120	120	120	120	120	120

Standard : Notification of the National Environment Board B.E. 2569.

Reference Method : U.S. Environmental Protection Agency Method Part 50 App. F (Chemiluminescence)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612627

Date Received : Feb 25, 2026

Date Reported : Mar 02, 2026

Report Number: 3504378-1

Page 1 of 1

Sample Description	Air Quality						
Location	ชุมชนบางพลี (GPS 47P 0730823, 1407374)						
Parameter	Nitrogen dioxide (ppb)						
Measurement Date	Feb 14, 2026 - Feb 21, 2026						
Measurement by	Sitpawit Suwannarat						
	2612627-1	2612627-2	2612627-3	2612627-4	2612627-5	2612627-6	2612627-7
Time	Feb 14, 2026	Feb 15, 2026	Feb 16, 2026	Feb 17, 2026	Feb 18, 2026	Feb 19, 2026	Feb 20, 2026
01:00 PM - 02:00 PM	5.0	10.8	8.8	3.9	7.2	13.3	13.9
02:00 PM - 03:00 PM	10.4	2.3	7.0	4.0	8.8	20.3	15.3
03:00 PM - 04:00 PM	6.2	3.8	5.7	3.3	4.2	17.3	22.2
04:00 PM - 05:00 PM	4.0	2.8	3.4	4.2	3.6	5.8	16.3
05:00 PM - 06:00 PM	3.4	2.6	3.6	4.2	5.2	4.4	7.0
06:00 PM - 07:00 PM	4.7	4.4	7.0	5.2	5.6	7.7	5.9
07:00 PM - 08:00 PM	5.8	8.1	12.3	4.8	6.2	12.2	9.4
08:00 PM - 09:00 PM	9.1	8.7	6.9	3.3	10.3	15.2	15.4
09:00 PM - 10:00 PM	11.7	7.5	3.5	2.2	11.7	16.1	11.9
10:00 PM - 11:00 PM	10.7	12.5	3.0	1.9	11.9	20.5	11.9
11:00 PM - 12:00 AM	8.0	11.9	2.9	1.6	6.9	20.8	16.2
12:00 AM - 01:00 AM	3.5	9.6	2.0	1.9	6.4	14.6	18.8
01:00 AM - 02:00 AM	4.1	8.2	1.8	2.9	6.2	9.5	19.9
02:00 AM - 03:00 AM	3.5	6.1	2.1	4.7	4.7	11.3	11.1
03:00 AM - 04:00 AM	4.4	3.8	1.6	2.2	5.0	10.5	11.3
04:00 AM - 05:00 AM	6.5	2.2	1.7	4.8	5.5	12.2	12.5
05:00 AM - 06:00 AM	6.6	2.2	4.7	5.3	10.8	15.2	12.3
06:00 AM - 07:00 AM	11.4	3.5	11.5	8.1	14.8	17.2	15.6
07:00 AM - 08:00 AM	12.7	12.7	14.1	12.6	15.2	20.2	18.8
08:00 AM - 09:00 AM	14.1	11.5	14.2	11.5	16.3	23.0	19.4
09:00 AM - 10:00 AM	10.1	6.8	13.1	7.9	10.1	9.8	8.5
10:00 AM - 11:00 AM	7.3	4.4	17.4	5.6	6.5	5.2	12.1
11:00 AM - 12:00 PM	5.8	3.9	11.8	9.3	7.2	8.7	14.1
12:00 PM - 01:00 PM	9.3	8.3	7.5	4.8	9.3	10.2	11.1
Average	7.4	6.6	7.0	5.0	8.3	13.4	13.8
1hr - Maximum	14.1	12.7	17.4	12.6	16.3	23.0	22.2
Standard 1hr - Average	120	120	120	120	120	120	120

Standard : Notification of the National Environment Board B.E. 2569.

Reference Method : U.S. Environmental Protection Agency Method Part 50 App. F (Chemiluminescence)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

Approved by

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612628

Date Received : Feb 25, 2026

Date Reported : Mar 02, 2026

Report Number: 3504400-1

Page 1 of 1

Sample Description	Air Quality						
Location	ชุมชนชาตฤทธา (GPS 47P 0730051, 1409677)						
Parameter	Nitrogen dioxide (ppb)						
Measurement Date	Feb 14, 2026 - Feb 21, 2026						
Measurement by	Sitpawit Suwannarat						
	2612628-1 Feb 14, 2026	2612628-2 Feb 15, 2026	2612628-3 Feb 16, 2026	2612628-4 Feb 17, 2026	2612628-5 Feb 18, 2026	2612628-6 Feb 19, 2026	2612628-7 Feb 20, 2026
Time							
03:00 PM - 04:00 PM	4.7	5.5	4.2	2.4	6.5	12.1	9.1
04:00 PM - 05:00 PM	3.5	3.6	3.3	3.7	3.6	8.4	10.1
05:00 PM - 06:00 PM	3.1	3.7	3.7	4.0	3.8	5.6	7.6
06:00 PM - 07:00 PM	3.7	5.8	5.3	5.1	4.9	5.1	6.9
07:00 PM - 08:00 PM	4.0	5.9	3.4	5.6	5.5	6.1	6.6
08:00 PM - 09:00 PM	4.8	7.8	6.8	4.7	5.6	7.5	8.1
09:00 PM - 10:00 PM	4.7	8.3	8.3	3.8	6.1	5.4	8.0
10:00 PM - 11:00 PM	5.2	5.8	4.7	2.5	7.6	4.2	6.0
11:00 PM - 12:00 AM	5.4	7.4	2.7	2.1	4.6	2.7	5.0
12:00 AM - 01:00 AM	4.6	5.1	2.4	1.7	2.8	5.1	5.0
01:00 AM - 02:00 AM	2.7	3.7	1.6	0.9	0.8	3.1	4.3
02:00 AM - 03:00 AM	3.2	3.0	1.9	1.2	1.5	2.8	6.2
03:00 AM - 04:00 AM	2.3	3.2	1.8	1.8	7.2	4.0	3.8
04:00 AM - 05:00 AM	3.1	4.0	1.1	0.9	3.4	5.6	5.0
05:00 AM - 06:00 AM	2.9	3.8	1.3	0.4	2.5	5.8	5.2
06:00 AM - 07:00 AM	3.1	4.6	1.5	1.0	5.3	5.5	5.7
07:00 AM - 08:00 AM	2.9	11.4	6.6	2.0	6.5	5.6	9.6
08:00 AM - 09:00 AM	3.2	10.8	5.7	4.4	6.6	8.7	12.4
09:00 AM - 10:00 AM	4.0	10.5	4.4	4.7	6.1	7.3	8.5
10:00 AM - 11:00 AM	3.1	5.6	5.7	4.2	6.1	3.7	4.3
11:00 AM - 12:00 PM	4.3	3.3	8.2	6.9	7.9	2.5	4.0
12:00 PM - 01:00 PM	3.9	3.6	6.3	7.5	3.7	2.1	10.3
01:00 PM - 02:00 PM	5.5	2.9	5.2	4.8	4.3	2.6	9.3
02:00 PM - 03:00 PM	9.0	7.0	3.2	5.3	6.0	4.8	9.1
Average	4.0	5.7	4.1	3.4	5.0	5.3	7.1
1hr - Maximum	9.0	11.4	8.3	7.5	7.9	12.1	12.4
Standard 1hr - Average	120	120	120	120	120	120	120

Standard : Notification of the National Environment Board B.E. 2569.

Reference Method : U.S. Environmental Protection Agency Method Part 50 App. F (Chemiluminescence)

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Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612634

Date Received : Feb 25, 2026

Date Reported : Mar 04, 2026

Report Number: 3504406-1

Page 1 of 1

Sample Description	Air Quality			
Location	ชุมชนพญาน (GPS 47P 0724381, 1402551)			
Date Analysis Commenced	Feb 26, 2026			
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag			
Sample Number	Sampled Date	Sampling Condition		Total Suspended Particulate (ug/m3)
		Pressure (mm Hg)	Temperature (°C)	
2612634-1	Feb 14 - Feb 15, 2026	758	28.8	32.8
2612634-2	Feb 15 - Feb 16, 2026	758	29.3	35.0
2612634-3	Feb 16 - Feb 17, 2026	758	29.5	33.4
2612634-4	Feb 17 - Feb 18, 2026	758	28.3	38.7
2612634-5	Feb 18 - Feb 19, 2026	758	27.7	45.3
2612634-6	Feb 19 - Feb 20, 2026	758	27.9	70.6
2612634-7	Feb 20 - Feb 21, 2026	758	27.8	80.0
Guideline	-	-	-	200

Reference Method

Total Suspended Particulate : United States Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008

Guideline : Notification of the National Environmental Board., 2026 (B.E.2569) dated January 21, 2026.

Sampled By : Sitpawit Suwannarat

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612635

Date Received : Feb 25, 2026

Date Reported : Mar 04, 2026

Report Number: 3504410-1

Page 1 of 1

Sample Description	Air Quality			
Location	ชุมชนนาบขลุ่ย (GPS 47P 0730823, 1407374)			
Date Analysis Commenced	Feb 26, 2026			
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag			
Sample Number	Sampled Date	Sampling Condition		Total Suspended Particulate (ug/m3)
		Pressure (mm Hg)	Temperature (°C)	
2612635-1	Feb 14 - Feb 15, 2026	758	28.8	46.4
2612635-2	Feb 15 - Feb 16, 2026	758	29.3	56.2
2612635-3	Feb 16 - Feb 17, 2026	758	29.5	61.1
2612635-4	Feb 17 - Feb 18, 2026	758	28.3	42.8
2612635-5	Feb 18 - Feb 19, 2026	758	27.7	55.8
2612635-6	Feb 19 - Feb 20, 2026	758	27.9	84.3
2612635-7	Feb 20 - Feb 21, 2026	758	27.8	89.7
Guideline	-	-	-	200

Reference Method

Total Suspended Particulate : United States Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008

Guideline : Notification of the National Environmental Board., 2026 (B.E.2569) dated January 21, 2026.

Sampled By : Sitpawit Suwannarat

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612637

Date Received : Feb 25, 2026

Date Reported : Mar 04, 2026

Report Number: 3504414-1

Page 1 of 1

Sample Description	Air Quality
Location	ถนนพหลโยธิน (GPS 47P 0730051, 1409677)
Date Analysis Commenced	Feb 26, 2026
Condition of Sample	Drawn into one filter paper placed in plastic cassette

Sample Number	Sampled Date	Sampling Condition		Total Suspended Particulate (ug/m3)
		Pressure (mm Hg)	Temperature (°C)	
2612637-1	Feb 14 - Feb 15, 2026	758	28.8	47.8
2612637-2	Feb 15 - Feb 16, 2026	758	29.3	72.7
2612637-3	Feb 16 - Feb 17, 2026	758	29.5	86.8
2612637-4	Feb 17 - Feb 18, 2026	758	28.3	106
2612637-5	Feb 18 - Feb 19, 2026	758	27.7	98.0
2612637-6	Feb 19 - Feb 20, 2026	758	27.9	110
2612637-7	Feb 20 - Feb 21, 2026	758	27.8	101
Guideline	-	-	-	200

Reference Method

Total Suspended Particulate : United States Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008

Guideline : Notification of the National Environmental Board., 2026 (B.E.2569) dated January 21, 2026.

Sampled By : Sitpawit Suwannarat

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612647

Date Received :Feb 25, 2026

Date Reported :Mar 05, 2026

Report Number :3504418-1

Page 1 of 2

Sample Number : 2612647-1 to 7
Parameter : Wind Speed / Wind Direction
Location : ทุ่งขามพญา (GPS 47P 0724381, 1402551)
Sampling Date : Feb 14 - Feb 21, 2026
Sampling by : Sitpawit Suwannarat

Time	Feb 14 - Feb 15, 2026			Feb 15 - Feb 16, 2026			Feb 16 - Feb 17, 2026			Feb 17 - Feb 18, 2026			Feb 18 - Feb 19, 2026			Feb 19 - Feb 20, 2026			Feb 20 - Feb 21, 2026		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
02:00 PM - 03:00 PM	1.2	213.0	SSW	1.8	158.0	SSE	2.0	229.0	SW	1.3	233.0	SW	3.8	193.0	SSW	1.0	217.0	SW	1.5	207.0	SSW
03:00 PM - 04:00 PM	1.8	214.0	SW	3.4	204.0	SSW	3.4	221.0	SW	0.5	168.0	SSE	2.2	175.0	S	1.4	213.0	SSW	0.6	200.0	SSW
04:00 PM - 05:00 PM	0.3	180.0	S	3.6	248.0	WSW	1.9	196.0	SSW	2.9	215.0	SW	1.3	190.0	S	1.9	241.0	WSW	1.2	163.0	SSE
05:00 PM - 06:00 PM	1.9	175.0	S	0.6	215.0	SW	0.7	183.0	S	1.8	235.0	SW	0.9	201.0	SSW	1.1	240.0	WSW	0.6	260.0	W
06:00 PM - 07:00 PM	1.2	198.0	SSW	0.8	314.0	NW	1.2	197.0	SSW	1.8	215.0	SW	1.1	281.0	W	0.5	285.0	WNW	1.0	272.0	W
07:00 PM - 08:00 PM	2.0	222.0	SW	0.9	276.0	W	0.5	209.0	SSW	2.1	208.0	SSW	0.5	268.0	W	0.0	-	-	0.0	-	-
08:00 PM - 09:00 PM	0.6	316.0	NW	0.4	267.0	W	3.2	217.0	SW	0.3	195.0	SSW	0.0	-	-	0.6	7.0	N	0.3	285.0	WNW
09:00 PM - 10:00 PM	0.7	352.0	N	0.0	-	-	0.3	152.0	SSE	2.7	196.0	SSW	0.0	-	-	0.0	-	-	0.0	-	-
10:00 PM - 11:00 PM	0.6	352.0	N	0.0	-	-	1.8	215.0	SW	1.6	210.0	SSW	0.5	342.0	NNW	0.0	-	-	0.0	-	-
11:00 PM - 12:00 AM	0.6	203.0	SSW	0.0	-	-	1.2	236.0	SW	0.6	220.0	SW	0.6	359.0	N	0.3	300.0	WNW	0.0	-	-
12:00 AM - 01:00 AM	0.3	208.0	SSW	0.0	-	-	0.5	202.0	SSW	0.2	-	-	0.5	356.0	N	0.3	2.0	N	0.0	-	-
01:00 AM - 02:00 AM	0.4	211.0	SSW	0.0	-	-	0.6	195.0	SSW	1.3	164.0	SSE	0.0	-	-	0.7	6.0	N	1.0	15.0	NNE
02:00 AM - 03:00 AM	0.6	212.0	SSW	0.0	-	-	0.7	201.0	SSW	0.6	236.0	SW	0.0	-	-	0.0	-	-	0.0	-	-
03:00 AM - 04:00 AM	0.0	-	-	1.4	205.0	SSW	0.8	219.0	SW	0.7	198.0	SSW	0.3	341.0	NNW	0.8	279.0	W	0.0	-	-
04:00 AM - 05:00 AM	0.0	-	-	1.5	214.0	SW	0.6	226.0	SW	0.6	191.0	S	0.0	-	-	0.6	8.0	N	0.0	-	-
05:00 AM - 06:00 AM	0.0	-	-	1.9	194.0	SSW	2.8	241.0	WSW	1.0	162.0	SSE	0.3	359.0	N	0.0	-	-	0.0	-	-
06:00 AM - 07:00 AM	0.3	142.0	SE	0.3	209.0	SSW	0.5	174.0	S	0.3	359.0	N	1.0	38.0	NE	0.0	-	-	0.0	-	-
07:00 AM - 08:00 AM	0.3	268.0	W	2.3	225.0	SW	0.8	190.0	S	0.7	70.0	ENE	1.1	23.0	NNE	0.8	33.0	NNE	0.3	22.0	NNE
08:00 AM - 09:00 AM	0.9	268.0	W	3.6	220.0	SW	1.4	121.0	ESE	0.8	30.0	NNE	0.3	336.0	NNW	2.1	68.0	ENE	0.4	161.0	SSE
09:00 AM - 10:00 AM	1.3	156.0	SSE	0.8	207.0	SSW	1.4	176.0	S	0.8	184.0	S	0.0	-	-	1.4	194.0	SSW	0.8	218.0	SW
10:00 AM - 11:00 AM	1.6	219.0	SW	2.8	210.0	SSW	1.5	153.0	SSE	0.9	272.0	W	1.4	191.0	S	1.1	165.0	SSE	0.6	88.0	E
11:00 AM - 12:00 PM	1.3	287.0	WNW	0.9	163.0	SSE	1.7	180.0	S	1.7	192.0	SSW	1.4	96.0	E	1.4	124.0	SE	1.0	99.0	E
12:00 PM - 01:00 PM	1.0	248.0	WSW	1.0	197.0	SSW	2.2	182.0	S	1.4	138.0	SE	2.0	153.0	SSE	0.8	149.0	SSE	0.6	90.0	E
01:00 PM - 02:00 PM	2.7	199.0	SSW	3.5	203.0	SSW	0.5	333.0	NNW	1.2	170.0	S	3.0	166.0	SSE	1.2	174.0	S	0.5	76.0	ENE

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jitranont
Assistant General Manager



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612647

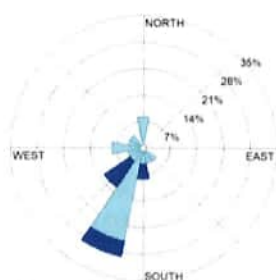
Date Received :Feb 25, 2026

Date Reported :Mar 05, 2026

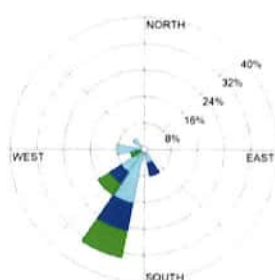
Report Number :3504418-1

Page 2 of 2

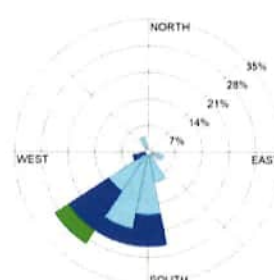
Wind Rose



Date : Feb 14-15, 2026



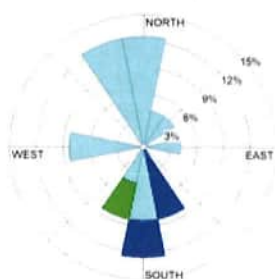
Date : Feb 15-16, 2026



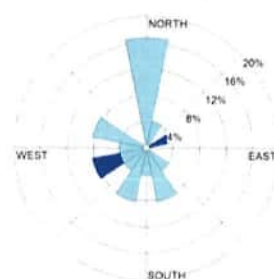
Date : Feb 16-17, 2026



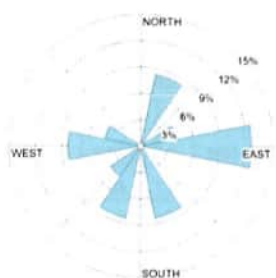
Date : Feb 17-18, 2026



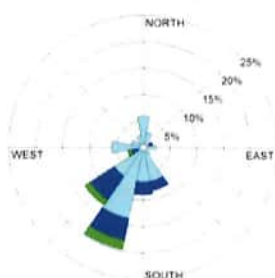
Date : Feb 18-19, 2026



Date : Feb 19-20, 2026



Date : Feb 20-21, 2026



Date : Feb 14-21, 2026

WS (m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	3.57
1.7-3.3	15.48
0.3-1.7	61.91
Calms	19.05

Location : ภูมิขนพูน (GPS 47P 0724381, 1402551)

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Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612650

Date Received :Feb 25, 2026

Date Reported :Mar 05, 2026

Report Number :3504426-1

Page 1 of 2

Sample Number 2612650-1 to 7
Parameter Wind Speed / Wind Direction
Location หนองนาเกลือ (GPS 47P 0730823, 1407374)
Sampling Date Feb 14 - Feb 21, 2026
Sampling by Sitpawit Suwannarat

Time	Feb 14 - Feb 15, 2026			Feb 15 - Feb 16, 2026			Feb 16 - Feb 17, 2026			Feb 17 - Feb 18, 2026			Feb 18 - Feb 19, 2026			Feb 19 - Feb 20, 2026			Feb 20 - Feb 21, 2026		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
01:00 PM - 02:00 PM	0.6	228.0	SW	1.1	189.0	S	1.0	197.0	SSW	1.0	136.0	SE	0.5	136.0	SE	2.0	110.0	ESE	1.4	86.0	E
02:00 PM - 03:00 PM	0.0	-	-	2.0	171.0	S	1.1	133.0	SE	1.2	167.0	SSE	1.2	177.0	S	1.4	106.0	ESE	0.7	132.0	SE
03:00 PM - 04:00 PM	0.0	-	-	1.1	153.0	SSE	0.5	120.0	ESE	0.3	261.0	W	2.4	108.0	ESE	1.0	214.0	SW	1.1	222.0	SW
04:00 PM - 05:00 PM	0.3	0.0	N	0.6	129.0	SE	1.2	165.0	SSE	0.4	236.0	SW	0.2	-	-	0.7	165.0	SSE	0.4	235.0	SW
05:00 PM - 06:00 PM	0.9	356.0	N	0.3	179.0	S	0.3	252.0	WSW	0.4	146.0	SE	0.1	-	-	0.3	231.0	SW	0.7	207.0	SSW
06:00 PM - 07:00 PM	0.0	-	-	0.0	-	-	0.1	-	-	0.5	199.0	SSW	0.3	252.0	WSW	0.0	-	-	0.3	216.0	SW
07:00 PM - 08:00 PM	0.0	-	-	0.0	-	-	0.5	141.0	SE	1.1	232.0	SW	0.0	-	-	0.0	-	-	0.0	-	-
08:00 PM - 09:00 PM	0.4	284.0	WNW	0.0	-	-	0.5	153.0	SSE	0.6	213.0	SSW	0.0	-	-	0.0	-	-	0.0	-	-
09:00 PM - 10:00 PM	0.3	284.0	WNW	0.0	-	-	0.4	208.0	SSW	0.7	171.0	S	0.0	-	-	0.0	-	-	0.0	-	-
10:00 PM - 11:00 PM	0.3	210.0	SSW	0.0	-	-	0.3	189.0	S	0.6	150.0	SSE	0.0	-	-	0.0	-	-	0.0	-	-
11:00 PM - 12:00 AM	0.5	184.0	S	0.0	-	-	0.0	-	-	1.3	172.0	S	0.3	322.0	NW	0.0	-	-	0.0	-	-
12:00 AM - 01:00 AM	0.0	-	-	0.3	261.0	W	0.3	213.0	SSW	0.4	163.0	SSE	0.0	-	-	0.6	349.0	N	0.0	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.3	147.0	SSE	0.0	-	-	0.0	-	-	0.0	-	-
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.5	150.0	SSE	2.1	112.0	ESE	0.0	-	-	0.0	-	-	0.0	-	-
03:00 AM - 04:00 AM	0.0	-	-	0.3	149.0	SSE	0.3	179.0	S	0.9	217.0	SW	0.0	-	-	0.0	-	-	0.0	-	-
04:00 AM - 05:00 AM	0.0	-	-	0.5	134.0	SE	0.0	-	-	0.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-
05:00 AM - 06:00 AM	0.8	349.0	N	0.7	210.0	SSW	1.4	350.0	N	0.4	338.0	NNW	0.0	-	-	0.3	344.0	NNW	0.0	-	-
06:00 AM - 07:00 AM	0.3	356.0	N	0.7	332.0	NNW	0.6	344.0	NNW	1.8	359.0	N	0.0	-	-	0.0	-	-	0.0	-	-
07:00 AM - 08:00 AM	0.4	331.0	NNW	0.0	-	-	0.0	-	-	0.7	359.0	N	0.3	343.0	NNW	0.5	326.0	NW	0.3	352.0	N
08:00 AM - 09:00 AM	0.4	352.0	N	0.5	145.0	SE	2.0	174.0	S	1.1	346.0	NNW	0.9	350.0	N	1.1	76.0	ENE	0.7	193.0	SSW
09:00 AM - 10:00 AM	0.0	-	-	0.6	225.0	SW	0.4	157.0	SSE	0.4	344.0	NNW	0.5	356.0	N	1.1	25.0	NNE	0.7	207.0	SSW
10:00 AM - 11:00 AM	0.8	219.0	SW	0.6	257.0	WSW	1.1	243.0	WSW	0.9	69.0	ENE	1.6	56.0	NE	1.3	76.0	ENE	0.5	169.0	S
11:00 AM - 12:00 PM	1.7	186.0	S	2.9	193.0	SSW	0.5	189.0	S	1.1	240.0	WSW	0.5	155.0	SSE	2.3	80.0	E	1.0	204.0	SSW
12:00 PM - 01:00 PM	1.3	100.0	E	0.9	157.0	SSE	1.2	116.0	ESE	0.3	193.0	SSW	1.8	113.0	ESE	1.7	136.0	SE	0.5	233.0	SW

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Sarayuth Jitranont
Assistant General Manager



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612650

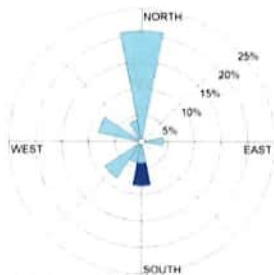
Date Received :Feb 25, 2026

Date Reported :Mar 05, 2026

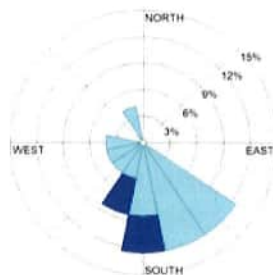
Report Number :3504426-1

Page 2 of 2

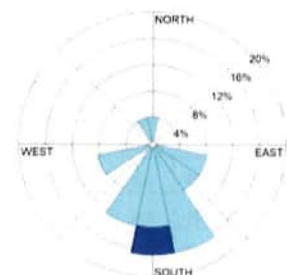
Wind Rose



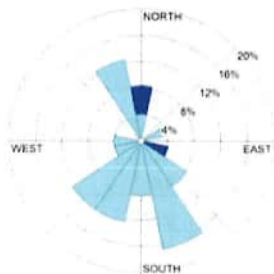
Date : Feb 14-15, 2026



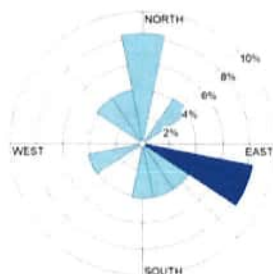
Date : Feb 15-16, 2026



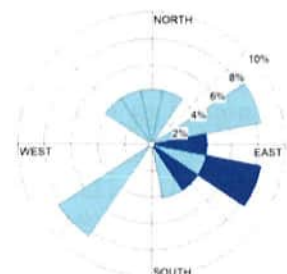
Date : Feb 16-17, 2026



Date : Feb 17-18, 2026



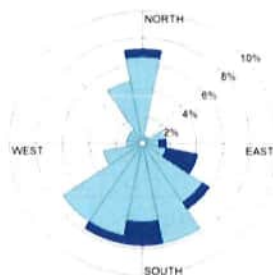
Date : Feb 18-19, 2026



Date : Feb 19-20, 2026



Date : Feb 20-21, 2026



Date : Feb 14-21, 2026

WS (m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	0.00
1.7-3.3	6.55
0.3-1.7	57.14
Calms	36.31

Location : ชุมชนมาบตาพุด (GPS 47P 0730823, 1407374)

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Approved by

Sarayuth Jittranont
Assistant General Manager

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612651
Date Received : Feb 25, 2026
Date Reported : Mar 05, 2026
Report Number : 3505252-1

Page 1 of 2

Sample Number 2612651-1 to 7
Parameter Wind Speed / Wind Direction
Location หนองปรือ (GPS 47P 0730051, 1409677)
Sampling Date Feb 14 - Feb 21, 2026
Sampling by Sitpawit Suwannarat

Time	Feb 14 - Feb 15, 2026			Feb 15 - Feb 16, 2026			Feb 16 - Feb 17, 2026			Feb 17 - Feb 18, 2026			Feb 18 - Feb 19, 2026			Feb 19 - Feb 20, 2026			Feb 20 - Feb 21, 2026		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
03:00 PM - 04:00 PM	0.4	180.0	S	0.3	190.0	S	0.3	251.0	WSW	0.6	280.0	W	0.4	209.0	SSW	0.5	248.0	WSW	0.3	190.0	S
04:00 PM - 05:00 PM	0.6	174.0	S	0.5	221.0	SW	0.6	202.0	SSW	0.0	-	-	0.3	235.0	SW	0.3	187.0	S	0.5	192.0	SSW
05:00 PM - 06:00 PM	0.0	-	-	0.0	-	-	0.7	56.0	NE	0.0	-	-	0.6	173.0	S	0.3	229.0	SW	0.3	248.0	WSW
06:00 PM - 07:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.3	251.0	WSW	0.0	-	-
07:00 PM - 08:00 PM	1.3	287.0	WNW	0.3	282.0	WNW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
08:00 PM - 09:00 PM	0.3	288.0	WNW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
09:00 PM - 10:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
10:00 PM - 11:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
11:00 PM - 12:00 AM	0.0	-	-	0.4	284.0	WNW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
12:00 AM - 01:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
03:00 AM - 04:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
04:00 AM - 05:00 AM	0.0	-	-	0.3	286.0	WNW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
05:00 AM - 06:00 AM	0.0	-	-	0.3	283.0	WNW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
06:00 AM - 07:00 AM	0.0	-	-	0.3	286.0	WNW	0.3	87.0	E	0.4	277.0	W	0.0	-	-	0.0	-	-	0.0	-	-
07:00 AM - 08:00 AM	0.3	222.0	SW	0.5	290.0	WNW	0.3	88.0	E	0.3	18.0	NNE	0.3	106.0	ESE	0.9	148.0	SSE	0.3	277.0	W
08:00 AM - 09:00 AM	0.3	283.0	WNW	0.5	272.0	W	0.6	134.0	SE	0.6	305.0	NW	0.3	90.0	E	2.5	96.0	E	0.3	306.0	NW
09:00 AM - 10:00 AM	1.0	282.0	WNW	0.5	134.0	SE	1.0	215.0	SW	0.7	0.0	N	1.2	131.0	SE	0.3	135.0	SE	0.5	305.0	NW
10:00 AM - 11:00 AM	0.6	178.0	S	0.8	123.0	ESE	0.6	181.0	S	1.0	72.0	ENE	1.4	117.0	ESE	1.3	313.0	NW	1.3	305.0	NW
11:00 AM - 12:00 PM	0.3	163.0	SSE	0.3	171.0	S	0.4	192.0	SSW	0.9	169.0	S	0.3	195.0	SSW	1.0	181.0	S	0.8	310.0	NW
12:00 PM - 01:00 PM	0.3	187.0	S	0.0	-	-	0.5	211.0	SSW	0.6	188.0	S	1.1	188.0	S	0.3	172.0	S	0.6	310.0	NW
01:00 PM - 02:00 PM	0.5	170.0	S	0.5	172.0	S	0.3	175.0	S	0.3	172.0	S	0.3	177.0	S	1.0	176.0	S	0.5	312.0	NW
02:00 PM - 03:00 PM	0.4	171.0	S	0.3	191.0	S	0.3	280.0	W	0.3	197.0	SSW	0.6	172.0	S	1.6	131.0	SE	0.3	320.0	NW

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jittrantont
Assistant General Manager



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612651

Date Received :Feb 25, 2026

Date Reported :Mar 05, 2026

Report Number :3505252-1

Page 2 of 2

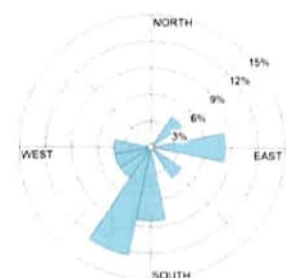
Wind Rose



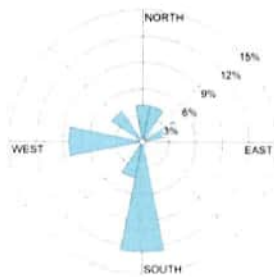
Date : Feb 14-15, 2026



Date : Feb 15-16, 2026



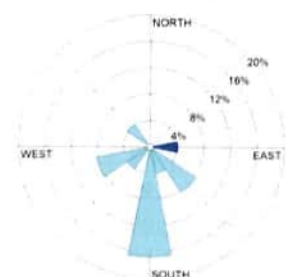
Date : Feb 16-17, 2026



Date : Feb 17-18, 2026



Date : Feb 18-19, 2026



Date : Feb 19-20, 2026



Date : Feb 20-21, 2026



Date : Feb 14-21, 2026

WS (m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	0.00
1.7-3.3	0.60
0.3-1.7	48.21
Calms	51.19

Location : ๔๔๖๖๖๖๖๖๖๖๖๖ (GPS 47P 0730051, 1409677)

The above results are valid only for the analyzed/tested sample(s) as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Sarayuth Jittrantont
Assistant General Manager

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Life Sciences

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ปริมาณสารอินทรีย์ระเหยในบรรยากาศ



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130
P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPYO-TPO Plant

Lot ID: 25114101
Date Received : Jan 06, 2026
Date Reported : Jan 13, 2026
Report Number : 3476747-1C9

Page 1 of 6

Sample Number : 25114101-1
Sampled Date : Jan 05, 2026
Sample Description : Air Quality
Location : กรุงเทพมหานคร (GPS 47P 0726469, 1407406)
Date Analysis Commenced : Jan 07, 2026
Condition of Sample : Drawn into one 6-L Canister, one amber plastic bottle and one sorbent tube, refrigerated
Barometric Pressure : 759 mmHg
Atmospheric Temperature : 30.5 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	05/01/26 - 06/01/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	05/01/26 - 06/01/26	ug/m3	0.05	0.18	5.34	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	05/01/26 - 06/01/26	ug/m3	0.05	0.16	2.04	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	05/01/26 - 06/01/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	05/01/26 - 06/01/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	05/01/26 - 06/01/26	ug/m3	0.30	0.86	2.10	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	05/01/26 - 06/01/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	05/01/26 - 06/01/26	ug/m3	0.60	1.88	4.82	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
HEB : Notification of National Environment Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Prachum Ht Namung Community station has moderate traffic. Normal activity, Clear sky, Nearby school, temple and community

The above results are valid only for the analytical method as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by

Chontichak
Chonticha Subongkoch
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ALS 200 (EN)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130
P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPYO-TPO Plant

Lot ID: 25114101
Date Received : Jan 06, 2026
Date Reported : Jan 13, 2026
Report Number : 3476747-1C9

Page 2 of 6

Sampled By : Satcha Phetsawang
Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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ALS 200 (EN)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130
P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPYO-TPO Plant

Lot ID: 25114101
Date Received : Jan 06, 2026
Date Reported : Jan 13, 2026
Report Number : 3476747-1C9

Page 3 of 6

Sample Number : 25114101-2
Sampled Date : Jan 05, 2026
Sample Description : Air Quality
Location : กรุงเทพมหานคร (GPS 47P 0730823, 1407374)
Date Analysis Commenced : Jan 07, 2026
Condition of Sample : Drawn into one 6-L Canister, one amber plastic bottle and one sorbent tube, refrigerated
Barometric Pressure : 759 mmHg
Atmospheric Temperature : 30.5 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	05/01/26 - 06/01/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	05/01/26 - 06/01/26	ug/m3	0.05	0.18	4.18	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	05/01/26 - 06/01/26	ug/m3	0.05	0.16	1.53	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	05/01/26 - 06/01/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	05/01/26 - 06/01/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	05/01/26 - 06/01/26	ug/m3	0.30	0.86	2.68	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	05/01/26 - 06/01/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	05/01/26 - 06/01/26	ug/m3	0.60	1.88	14.02	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
HEB : Notification of National Environment Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Map Cha Lood Community station has moderate traffic. Normal activity, Clear sky, Nearby temple, school and community

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Approved by

Chontichak
Chonticha Subongkoch
Scientist (3)

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ALS 200 (EN)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130
P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPYO-TPO Plant

Lot ID: 25114101
Date Received : Jan 06, 2026
Date Reported : Jan 13, 2026
Report Number : 3476747-1C9

Page 4 of 6

Sampled By : Satcha Phetsawang
Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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ALS 200 (EN)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Bangchang, Amphur Bangchang, Rayong
Thailand 21130
P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 265877
Date Received : Feb 03, 2026
Date Reported : Feb 11, 2026
Report Number : 3491517-1C9

Page 1 of 6

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	02/02/26 - 03/02/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	02/02/26 - 03/02/26	ug/m3	0.05	0.18	4.44	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	02/02/26 - 03/02/26	ug/m3	0.05	0.16	1.15	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	02/02/26 - 03/02/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	02/02/26 - 03/02/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	02/02/26 - 03/02/26	ug/m3	0.30	0.86	1.45	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	02/02/26 - 03/02/26	ug/m3	1.2	14.0	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	02/02/26 - 03/02/26	ug/m3	0.60	1.88	3.24	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
NEB : Notification of National Environment Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Prachum Mit Banrueng Community station has moderate traffic. Normal activity, Clear sky, Nearby school, temple and community

Approved by

Tanyatom Mongkonjirawut
Supervisor

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E25 220 EN45



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Bangchang, Amphur Bangchang, Rayong
Thailand 21130
P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 265877
Date Received : Feb 03, 2026
Date Reported : Feb 11, 2026
Report Number : 3491517-1C9

Page 3 of 6

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	02/02/26 - 03/02/26	ug/m3	0.20	0.60	<0.60	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	02/02/26 - 03/02/26	ug/m3	0.05	0.18	4.11	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	02/02/26 - 03/02/26	ug/m3	0.05	0.16	1.98	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	02/02/26 - 03/02/26	ug/m3	0.60	1.76	2.26	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	02/02/26 - 03/02/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	02/02/26 - 03/02/26	ug/m3	0.30	0.86	4.44	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	02/02/26 - 03/02/26	ug/m3	1.2	14.0	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	02/02/26 - 03/02/26	ug/m3	0.60	1.88	13.49	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
NEB : Notification of National Environment Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Map Cha Loon Community station has moderate traffic. Normal activity, Clear sky, Nearby temple, school and community

Approved by

Tanyatom Mongkonjirawut
Supervisor

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E25 220 EN45



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Bangchang, Amphur Bangchang, Rayong
Thailand 21130
P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 265877
Date Received : Feb 03, 2026
Date Reported : Feb 11, 2026
Report Number : 3491517-1C9

Page 2 of 6

Sampled By : Ronnachai Moungma
Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	02/02/26 - 03/02/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	02/02/26 - 03/02/26	ug/m3	0.05	0.18	4.44	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	02/02/26 - 03/02/26	ug/m3	0.05	0.16	1.15	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	02/02/26 - 03/02/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	02/02/26 - 03/02/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	02/02/26 - 03/02/26	ug/m3	0.30	0.86	1.45	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	02/02/26 - 03/02/26	ug/m3	1.2	14.0	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	02/02/26 - 03/02/26	ug/m3	0.60	1.88	3.24	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
NEB : Notification of National Environment Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Prachum Mit Banrueng Community station has moderate traffic. Normal activity, Clear sky, Nearby school, temple and community

Approved by

Tanyatom Mongkonjirawut
Supervisor

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E25 220 EN45

Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HHPO-TPO Plant

Lot ID: 265877
Date Received : Feb 03, 2026
Date Reported : Feb 11, 2026
Report Number : 3491517-1C9

Page 5 of 6

Sample Number	265877-3	Page 2 of 2							
Sampled Date	Feb 02, 2026								
Sample Description	Air Quality								
Location	๑๑๑๑๑๑ (GPS 47P 0724371, 1402551)								
Date Analysis Commenced	Feb 04, 2026								
Condition of Sample	Drawn into one 6-L Canister, one amber plastic bottle and one sorbent tube, refrigerated								
Barometric Pressure	756 mmHg								
Atmospheric Temperature	31.7 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	02/02/26 - 03/02/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	PCD	Rayong
Acetaldehyde	02/02/26 - 03/02/26	ug/m3	0.05	0.18	3.97	860	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	PCD	Rayong
Benzene	02/02/26 - 03/02/26	ug/m3	0.05	0.16	1.02	7.6	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	PCD	Rayong
Hexane	02/02/26 - 03/02/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	-	Rayong
Hydrogen Peroxide	02/02/26 - 03/02/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, VIIe	-	Bangkok
Propene (Propylene)	02/02/26 - 03/02/26	ug/m3	0.30	0.86	1.72	No Standard	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	-	Rayong
Propylene Oxide	02/02/26 - 03/02/26	ug/m3	1.2	14.0	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	02/02/26 - 03/02/26	ug/m3	0.60	1.88	5.20	No Standard	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	-	Rayong

Guideline :
 PCB : Notification of National Environment Board, B.E. 2560 (2017)
 PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Pa Yoon Community station has moderate traffic. Normal activity, Care sky, Nearby temple, school and community

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Tanyatorn Mongkonjirawut
Supervisor

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd,
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE-HIPPO-TPQ Plant

Lot ID: 265877
Date Received : Feb 03, 2026
Date Reported : Feb 11, 2026
Report Number : 3491517-1C9

Page 6 of 6

Sampled By : Ronnachai Meungma
Remark :
* LOD : Limit of Detection
* "c" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Sampled By : Rinoachai Meungna Page 6 of 6

Remark :

- LOQ : Limit of Detection
- "c" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPRO-TPO Plant

Lot ID: 265878
Date Received :Feb 03, 2026
Date Reported :Feb 06, 2026
Report Number :3491527-1

Page 1 of 2

Sample Number	265870-1											Paper 1 of 1
Parameter	Wind Speed / Wind Direction											
Location	อุทยานเขาใหญ่ (GPS 4°P 0730823, 1407374)											
Sampling Date	Feb 02 - Feb 03, 2026											
Sampling by	Ronnachai Moungma											
Time	Feb 02 - Feb 03, 2026											
	WS (m/s)	WD (deg)										
12:00 PM - 01:00 PM	3.2	16.0	N									
01:00 PM - 02:00 PM	0.5	53.0	NE									
02:00 PM - 03:00 PM	5.1	97.0	E									
03:00 PM - 04:00 PM	1.0	134.0	SE									
04:00 PM - 05:00 PM	2.5	108.0	E									
05:00 PM - 06:00 PM	3.0	94.0	E									
06:00 PM - 07:00 PM	0.7	155.0	SSE									
07:00 PM - 08:00 PM	0.0	-	-									
08:00 PM - 09:00 PM	0.1	-	-									
09:00 PM - 10:00 PM	1.1	319.0	N									
10:00 PM - 11:00 PM	0.1	-	-									
11:00 PM - 12:00 AM	0.6	319.0	N									
12:00 AM - 01:00 AM	0.6	354.0	N									
01:00 AM - 02:00 AM	0.8	351.0	N									
02:00 AM - 03:00 AM	1.3	352.0	N									
03:00 AM - 04:00 AM	0.9	0.0	N									
04:00 AM - 05:00 AM	0.0	356.0	N									
05:00 AM - 06:00 AM	0.4	355.0	N									
06:00 AM - 07:00 AM	0.9	357.0	N									
07:00 AM - 08:00 AM	1.5	0.0	N									
08:00 AM - 09:00 AM	1.5	357.0	N									
09:00 AM - 10:00 AM	2.2	354.0	NNW									
10:00 AM - 11:00 AM	1.8	353.0	N									
11:00 AM - 12:00 PM	1.5	354.0	N									

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Sarayuth Jitranont
Assistant General Manager

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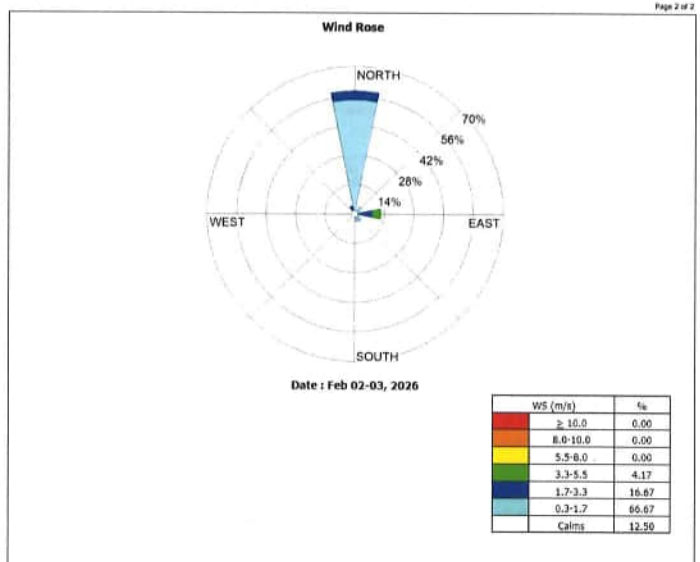
Analysis / Test Report

Client : Dsw Chemical Thailand Ltd,
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
31130

P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : A/E HPHO-TDO Plant

Lot ID: 265878
Date Received :Feb 03, 2026
Date Reported :Feb 06, 2026
Report Number :3491527-1

Page 2 of 2



Location: stuturnusae (GPS 47P 0730823, 14073374)

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Approved by _____
Sarayuth Jittrantont

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2612659
Date Received : Mar 05, 2026
Date Reported : Mar 17, 2026
Report Number : 350435-1C9

Page 1 of 6

Sample Number : 2612659-1
Sampled Date : Mar 04, 2026
Sample Description : Air Quality
Location : กรุงเทพมหานคร (GPS N 12.707927, E 101.084329)
Date Analysis Commenced : Mar 06, 2026
Condition of Sample : Drawn into one 6-L Canister, one amber plastic bottle and one sorbent tube, refrigerated
Barometric Pressure : 757 mmHg
Atmospheric Temperature : 33.4 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOB)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	04/03/26 - 05/03/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	04/03/26 - 05/03/26	ug/m3	0.05	0.18	4.91	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	04/03/26 - 05/03/26	ug/m3	0.05	0.16	0.83	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	04/03/26 - 05/03/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	04/03/26 - 05/03/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	04/03/26 - 05/03/26	ug/m3	0.30	0.86	1.17	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	04/03/26 - 05/03/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	04/03/26 - 05/03/26	ug/m3	0.60	1.88	1.96	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Prachum Hi Bannung Community station has moderate traffic. Normal activity, Clear sky, Nearby school, temple and community

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2612659
Date Received : Mar 05, 2026
Date Reported : Mar 17, 2026
Report Number : 350435-1C9

Page 3 of 6

Sample Number : 2612659-2
Sampled Date : Mar 04, 2026
Sample Description : Air Quality
Location : กรุงเทพมหานคร (GPS N 12.722340, E 101.125769)
Date Analysis Commenced : Mar 06, 2026
Condition of Sample : Drawn into one 6-L Canister, one amber plastic bottle and one sorbent tube, refrigerated
Barometric Pressure : 757 mmHg
Atmospheric Temperature : 34.6 °C

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOB)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	04/03/26 - 05/03/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	04/03/26 - 05/03/26	ug/m3	0.05	0.18	3.25	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	04/03/26 - 05/03/26	ug/m3	0.05	0.16	1.79	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	04/03/26 - 05/03/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	04/03/26 - 05/03/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	04/03/26 - 05/03/26	ug/m3	0.30	0.86	5.58	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	04/03/26 - 05/03/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	04/03/26 - 05/03/26	ug/m3	0.60	1.88	7.84	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Map Cha Loon Community station has moderate traffic. Normal activity, Clear sky, Nearby temple, school and community

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2612659
Date Received : Mar 05, 2026
Date Reported : Mar 17, 2026
Report Number : 350435-1C9

Page 2 of 6

Sampled By : Saknarin Jarasakay

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOB (Limit of Reporting)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2612659
Date Received : Mar 05, 2026
Date Reported : Mar 17, 2026
Report Number : 350435-1C9

Page 4 of 6

Sampled By : Saknarin Jarasakay

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOB (Limit of Reporting)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O :

Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612659

Date Received : Mar 05, 2026
Date Reported : Mar 17, 2026
Report Number : 3504435-1C9

Page 5 of 6

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOB)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	04/03/26 - 05/03/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	PCD	Rayong
Acetaldehyde	04/03/26 - 05/03/26	ug/m3	0.05	0.18	1.12	860	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	PCD	Rayong
Benzene	04/03/26 - 05/03/26	ug/m3	0.05	0.16	0.51	7.6	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	PCD	Rayong
Hexane	04/03/26 - 05/03/26	ug/m3	0.60	1.76	Not Detected	No Standard	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	-	Rayong
Hydrogen Peroxide	04/03/26 - 05/03/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	04/03/26 - 05/03/26	ug/m3	0.30	0.86	<0.86	No Standard	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	-	Rayong
Propylene Oxide	04/03/26 - 05/03/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	04/03/26 - 05/03/26	ug/m3	0.60	1.88	<1.88	No Standard	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	-	Rayong

Guideline :

NEB : Notification of National Environment Board, B.E. 2560 (2017)

PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)

Note : Pa Yoon Community station has moderate traffic, Normal activity, Clear sky, Hearty temple, school and community

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O :

Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612659

Date Received : Mar 05, 2026
Date Reported : Mar 17, 2026
Report Number : 3504435-1C9

Page 6 of 6

Sampled By : Saknarin Jarasak									
Remark :									
- LOD : Limit of Detection									
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)									

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612664

Date Received : Mar 05, 2026
Date Reported : Mar 13, 2026
Report Number : 3504491-1

Page 1 of 2

Sample Number 2612664-1											
Parameter Wind Speed / Wind Direction											
Location กรุงเทพมหานคร (GPS N 12.722340, E 101.125769)											
Sampling Date Mar 04 - Mar 05, 2026											
Sampling by Saknarin Jarasak											
Time	Hour	Min	Sec	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)
11:00 AM - 12:00 PM	11	00	00	2.8	145.0	SE	-	-	-	-	-
12:00 PM - 01:00 PM	12	00	00	0.7	135.0	SE	-	-	-	-	-
01:00 PM - 02:00 PM	1	00	00	2.4	205.0	SSW	-	-	-	-	-
02:00 PM - 03:00 PM	2	00	00	2.0	156.0	SSE	-	-	-	-	-
03:00 PM - 04:00 PM	3	00	00	0.4	221.0	SW	-	-	-	-	-
04:00 PM - 05:00 PM	4	00	00	2.1	234.0	SW	-	-	-	-	-
05:00 PM - 06:00 PM	5	00	00	1.5	190.0	S	-	-	-	-	-
06:00 PM - 07:00 PM	6	00	00	0.5	212.0	SSW	-	-	-	-	-
07:00 PM - 08:00 PM	7	00	00	0.4	130.0	SE	-	-	-	-	-
08:00 PM - 09:00 PM	8	00	00	0.6	157.0	SSE	-	-	-	-	-
09:00 PM - 10:00 PM	9	00	00	0.9	117.0	ESE	-	-	-	-	-
10:00 PM - 11:00 PM	10	00	00	1.0	142.0	SE	-	-	-	-	-
11:00 PM - 12:00 AM	11	00	00	0.4	144.0	SE	-	-	-	-	-
12:00 AM - 01:00 AM	12	00	00	0.9	174.0	S	-	-	-	-	-
01:00 AM - 02:00 AM	1	00	00	1.2	159.0	SSE	-	-	-	-	-
02:00 AM - 03:00 AM	2	00	00	0.6	194.0	SSW	-	-	-	-	-
03:00 AM - 04:00 AM	3	00	00	0.7	208.0	SSW	-	-	-	-	-
04:00 AM - 05:00 AM	4	00	00	0.9	185.0	S	-	-	-	-	-
05:00 AM - 06:00 AM	5	00	00	0.9	194.0	SSW	-	-	-	-	-
06:00 AM - 07:00 AM	6	00	00	0.3	200.0	SSW	-	-	-	-	-
07:00 AM - 08:00 AM	7	00	00	0.8	217.0	SW	-	-	-	-	-
08:00 AM - 09:00 AM	8	00	00	1.2	200.0	SSW	-	-	-	-	-
09:00 AM - 10:00 AM	9	00	00	0.6	195.0	SSW	-	-	-	-	-
10:00 AM - 11:00 AM	10	00	00	2.3	184.0	S	-	-	-	-	-

Reference Method : Cup Anemometer & Anemometer Vane Method

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Saranyut Jittrantont
Assistant General Manager

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

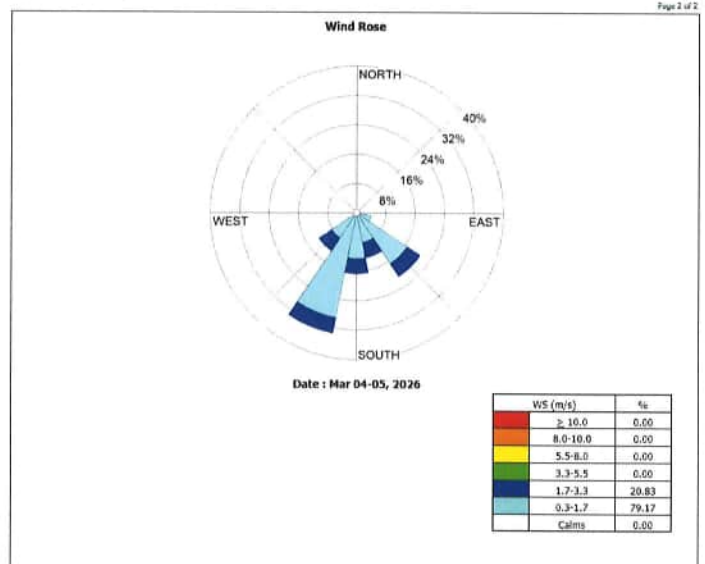
P/O : 4518136203

Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2612664

Date Received : Mar 05, 2026
Date Reported : Mar 13, 2026
Report Number : 3504491-1

Page 2 of 2



Location : กรุงเทพมหานคร (GPS N 12.722340, E 101.125769)

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Assistant General Manager

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2625534
Date Received : Apr 02, 2026
Date Reported : Apr 16, 2026
Report Number : 3534195-1C9

Page 1 of 6

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOQ)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/04/26 - 02/04/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	01/04/26 - 02/04/26	ug/m3	0.05	0.18	7.29	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/04/26 - 02/04/26	ug/m3	0.05	0.16	0.45	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	01/04/26 - 02/04/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	01/04/26 - 02/04/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	01/04/26 - 02/04/26	ug/m3	0.30	0.86	<0.86	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	01/04/26 - 02/04/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	01/04/26 - 02/04/26	ug/m3	0.60	1.88	1.96	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
NEB : Notification of National Environment Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Prachum Hi Bannung Community station has moderate traffic. Normal activity, Cloudy, Nearby school, temple and community

The above results are valid only for the analytical method as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reprinted except in full.

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Tanyatarn Mongkonjirawat
Supervisor

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Page 2 of 6

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOQ)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/04/26 - 02/04/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	01/04/26 - 02/04/26	ug/m3	0.05	0.18	4.55	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/04/26 - 02/04/26	ug/m3	0.05	0.16	0.96	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	01/04/26 - 02/04/26	ug/m3	0.60	1.76	2.04	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	01/04/26 - 02/04/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	01/04/26 - 02/04/26	ug/m3	0.30	0.86	5.70	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	01/04/26 - 02/04/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	01/04/26 - 02/04/26	ug/m3	0.60	1.88	1.88	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
NEB : Notification of National Environment Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Map Cha Loo Community station has moderate traffic. Normal activity, Cloudy, Nearby temple, school and community

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Approved by
Tanyatarn Mongkonjirawat
Supervisor

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2625534
Date Received : Apr 02, 2026
Date Reported : Apr 16, 2026
Report Number : 3534195-1C9

Page 2 of 6

Sampled By : Nantawat Sarin
Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Page 4 of 6

Sampled By : Nantawat Sarin
Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPD Plant

Lot ID: 2625534
Date Received : Apr 02, 2026
Date Reported : Apr 16, 2026
Report Number : 3534195-1C9

Page 5 of 6

Sample Number	2625534-3								Page 3 of 9
Sampled Date	Apr 01, 2026								
Sample Description	Air Quality								
Location	๑๗๖๘๙๔ (GPS N 12.679224, E 101.066117)								
Date Analysis Commenced	Apr 03, 2026								
Condition of Sample	Drawn into one 6-L Canister, one amber plastic bottle and one sorber tube, refrigerated								
Barometric Pressure	757 mmHg								
Atmospheric Temperature	30.2 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	01/04/26 - 02/04/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	01/04/26 - 02/04/26	ug/m3	0.05	0.18	1.12	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	01/04/26 - 02/04/26	ug/m3	0.05	0.16	0.51	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	01/04/26 - 02/04/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	01/04/26 - 02/04/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	01/04/26 - 02/04/26	ug/m3	0.30	0.85	0.85	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	01/04/26 - 02/04/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	01/04/26 - 02/04/26	ug/m3	0.60	1.88	Not Detected	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
NEB : Notification of National Environment Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Pa Yoon Community station has moderate traffic. Normal activity, Cloudy,Nearby temple, school and comunity

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Tanyatom Mongkonjirawat
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025-000 (PAB)

Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HHPO-TPD Plant

Lot ID: 2625534
Date Received : Apr 02, 2026
Date Reported : Apr 16, 2026
Report Number : 3534195-1C9

Page 6 of 6

Sampled By : Hantawati Sarin
Remark :
- LOD : Limit of Detection
- *e* : Lower than LOD (Limit of Quantitation) / LOR (Limit of Reporting)

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Tanyatom Mongkonjirawut
Supervisor

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : ATE_HHPO-TPG Plant.

Lot ID: 2625536
Date Received : Apr 02, 2026
Date Reported : Apr 06, 2026
Report Number : 3534199-1

Page 1 of 2

[illegible]

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

The above results are valid only for the subject (female) described in the text. The results for the rest of the population are not included in any form without written consent from the Laboratory. A.C. Laboratory Group (Thailand) strongly recommends that this report is not reprinted without its full

Approved by _____
Sarayuth Jitranont
Assistant General Manager

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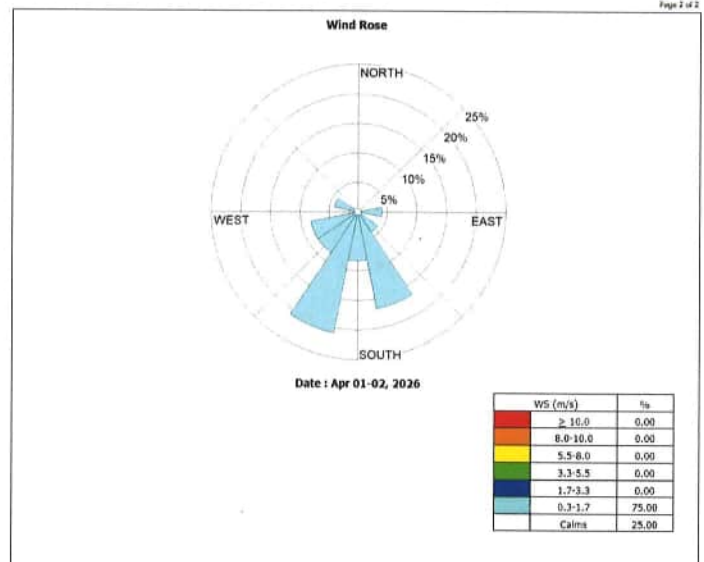
Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE, HPPD-TPO Plant

Lot ID: 2625536
Date Received : Apr 02, 2026
Date Reported : Apr 06, 2026
Report Number : 3534199-1

Page 2 of 2



Location : กรุงเทพมหานคร (GPS N 12.722340, E 101.125769)

The above results are valid only for the unadjusted (unweighted) all-subject analysis. The adjusted (weighted) all-subject analysis is also presented in the report. As part of the impact of cost sharing on the health care system, there is a need to understand the impact of cost sharing on the health care system. The above results are valid only for the unadjusted (unweighted) all-subject analysis. The adjusted (weighted) all-subject analysis is also presented in the report.

Approved by _____
Sarayuth Jittrant
Assistant General Manager

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2635222
Date Received : May 05, 2026
Date Reported : May 16, 2026
Report Number : 3558182-1C9

Page 1 of 6

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	04/05/26 - 05/05/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	04/05/26 - 05/05/26	ug/m3	0.05	0.18	9.92	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	04/05/26 - 05/05/26	ug/m3	0.05	0.16	1.02	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	04/05/26 - 05/05/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	04/05/26 - 05/05/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	04/05/26 - 05/05/26	ug/m3	0.30	0.86	2.48	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	04/05/26 - 05/05/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	04/05/26 - 05/05/26	ug/m3	0.60	1.88	3.32	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
NEB : Notification of National Environment Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Prachum Mit Banrung Community station has moderate traffic. Normal activity, Heavy rain, Nearby school, temple and community.

The above results are valid only for the analytical method(s) as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reprinted except in full.

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Scientist (3)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2635222
Date Received : May 05, 2026
Date Reported : May 16, 2026
Report Number : 3558182-1C9

Page 2 of 6

Sampled By : Adisak Tarsooon

Remark :

- LOD : Limit of Detection
- "n" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2635222
Date Received : May 05, 2026
Date Reported : May 16, 2026
Report Number : 3558182-1C9

Page 3 of 6

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	04/05/26 - 05/05/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	04/05/26 - 05/05/26	ug/m3	0.05	0.18	7.32	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	04/05/26 - 05/05/26	ug/m3	0.05	0.16	1.15	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	04/05/26 - 05/05/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	04/05/26 - 05/05/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	04/05/26 - 05/05/26	ug/m3	0.30	0.86	2.00	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	04/05/26 - 05/05/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	04/05/26 - 05/05/26	ug/m3	0.60	1.88	5.48	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
NEB : Notification of National Environment Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Map Cha Loed Community station has moderate traffic. Normal activity, Heavy rain, Nearby temple, school and community.

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Analysis / Test Report

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10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2635222
Date Received : May 05, 2026
Date Reported : May 16, 2026
Report Number : 3558182-1C9

Page 4 of 6

Sampled By : Adisak Tarsooon

Remark :

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10 Moo 2, Asia Industrial Estate, Tambon Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE HPPO-TPO Plant

Lot ID: 2635222
Date Received : May 05, 2025
Date Reported : May 16, 2025
Report Number : 3558182-1C9

Page 5 of 8

Sample Number	2635222-3									
Sampled Date	May 04, 2026									
Sample Description	Air Quality									
Location	กรุงเทพมหานคร 12.679224, E 101.066117									
Date Analysis Commenced	May 06, 2026									
Condition of Sample	Drawn into one 6-L Canister, one amber plastic bottle and one sorbent tube, refrigerated									
Barometric Pressure	755 mmHg									
Atmospheric Temperature	30.9 °C									
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location	
Air Testing										
1,4-Dichlorobenzene	04/05/26 - 05/05/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong	
Acetaldehyde	04/05/26 - 05/05/26	ug/m3	0.05	0.18	4.83	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong	
Benzene	04/05/26 - 05/05/26	ug/m3	0.05	0.16	2.49	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong	
Hexane	04/05/26 - 05/05/26	ug/m3	0.60	1.76	<1.76	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong	
Hydrogen Peroxide	04/05/26 - 05/05/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok	
Propene (Propylene)	04/05/26 - 05/05/26	ug/m3	0.30	0.86	1.31	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong	
Propylene Oxide	04/05/26 - 05/05/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok	
Toluene	04/05/26 - 05/05/26	ug/m3	0.60	1.88	6.93	No Standard	Based on U.S.	-	Rayong	

Note: Pa Yoon Community station has moderate traffic. Normal activity, Heavy rain, Nearby temple, school and community.

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
19 Moo 2, Asia Industrial Estate, Tambon Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : A/E HPPG-TPO Plant

Lot ID: 2635223
Date Received : May 05, 2026
Date Reported : May 08, 2026
Report Number : 3558185-1

Page 1 of 3

[illegible]

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

The above results are valid only for the steady-state test conditions presented in this report. No part of this report or its contents may be reproduced in any form without written consent from the Laboratory. As S. Lippman & Group (Pvt) Ltd is a trading company, we warrant that this report is not reproduced without its full consent.

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Assistant General Manager

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : A/E HPPO-TPQ Plant

Lot ID: 2635222
Date Received : May 05, 2026
Date Reported : May 16, 2026
Report Number : 3558182-1C9

Page 8 of 8

Remark :

- LOD : Limit of Detection
- "LQ" : Lower than LOD (Limit of Quantitation) / LOR (Limit of Reporting)

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Answered for

Chonticha Subungkoek
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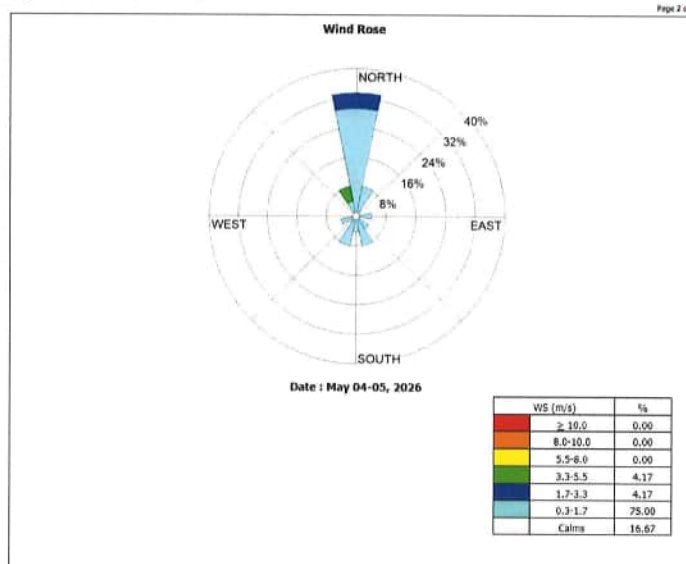
Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21100

P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE HIRDO TPO Plant

Lot ID: 2635223
Date Received :May 05, 2026
Date Reported :May 08, 2026
Report Number :3558185-1

Page 7 of 9



Location : sturururide (GPS N 12.722340, E 101.125769)

The above results are considered for the indicated/boxed sample(s) as evidence in the report. No part of the report can be considered as any form without written consent from The Laboratory. A3 (data may be used) (17/04/2017)

Associated Risks


Sarayuth Jitranont
Assistant General Manager

ADDRESS 616/10 Moo 5 T. Mueang Khu A. Muakdang Rayong 21140 Thailand PHONE +66 0 3304 8555 FAX +66 0 3304 8558



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130
P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2645061
Date Received : Jun 04, 2026
Date Reported : Jun 15, 2026
Report Number : 3578978-1C9

Page 1 of 6

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	02/06/26 - 03/06/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	02/06/26 - 03/06/26	ug/m3	0.05	0.18	7.32	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	02/06/26 - 03/06/26	ug/m3	0.05	0.16	0.38	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	02/06/26 - 03/06/26	ug/m3	0.60	1.76	Not Detected	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	02/06/26 - 03/06/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	02/06/26 - 03/06/26	ug/m3	0.30	0.86	0.96	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	02/06/26 - 03/06/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	02/06/26 - 03/06/26	ug/m3	0.60	1.88	<1.88	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
HEB 2017 : Notification of National Environmental Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Pradium Mt. Banrung Community station has moderate traffic. Normal activity, Light rain, Nearby school, temple and community

Approved by

Orawan R.
Orawan Rakyong
Scientist (3)

The above results are valid only for the analyzed sample(s) as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reprinted or used as full.

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company



R25 JULY 2025



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130
P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2645061
Date Received : Jun 04, 2026
Date Reported : Jun 15, 2026
Report Number : 3578978-1C9

Page 3 of 6

Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	02/06/26 - 03/06/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Acetaldehyde	02/06/26 - 03/06/26	ug/m3	0.05	0.18	4.51	860	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Benzene	02/06/26 - 03/06/26	ug/m3	0.05	0.16	0.58	7.6	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	PCD	Rayong
Hexane	02/06/26 - 03/06/26	ug/m3	0.60	1.76	Not Detected	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Hydrogen Peroxide	02/06/26 - 03/06/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, V16	-	Bangkok
Propene (Propylene)	02/06/26 - 03/06/26	ug/m3	0.30	0.86	2.48	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong
Propylene Oxide	02/06/26 - 03/06/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	02/06/26 - 03/06/26	ug/m3	0.60	1.88	<1.88	No Standard	Based on U.S. Environmental Protection Agency, Compendium Method, TO-15	-	Rayong

Guideline :
HEB 2017 : Notification of National Environmental Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Map Cha Loon Community station has moderate traffic. Normal activity, Light rain, Nearby temple, school and community

Approved by

Orawan R.
Orawan Rakyong
Scientist (3)

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R25 JULY 2025



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130
P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2645061
Date Received : Jun 04, 2026
Date Reported : Jun 15, 2026
Report Number : 3578978-1C9

Page 2 of 6

Sampled By : Satcha Phetsawang
Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

Orawan R.
Orawan Rakyong
Scientist (3)

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company



R25 JULY 2025



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130
P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2645061
Date Received : Jun 04, 2026
Date Reported : Jun 15, 2026
Report Number : 3578978-1C9

Page 4 of 6

Sampled By : Satcha Phetsawang
Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

Orawan R.
Orawan Rakyong
Scientist (3)

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R25 JULY 2025

Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/D :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HIPO-TPO Plant

Lot ID: 2645061
Date Received : Jun 04, 2026
Date Reported : Jun 15, 2026
Report Number : 3578978-1C9

Sample Number	2645061-3								
Sampled Date	Jun 02, 2026								
Sample Description	Air Quality								
Location	๔๕๖๗๘๙ (GPS N 12.679224, E 101.066117)								
Date Analysis Commenced	Jun 04, 2026								
Condition of Sample	Drawn into one 6-L Canister, one amber plastic bottle and one sorbent tube, refrigerated								
Barometric Pressure	754 mmHg								
Atmospheric Temperature	30.2 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOB)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
1,4-Dichlorobenzene	02/06/26 - 03/06/26	ug/m3	0.20	0.60	Not Detected	1100	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	PCD	Rayong
Acetaldehyde	02/06/26 - 03/06/26	ug/m3	0.05	0.18	5.88	860	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	PCD	Rayong
Benzene	02/06/26 - 03/06/26	ug/m3	0.05	0.16	0.38	7.6	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	PCD	Rayong
Hexane	02/06/26 - 03/06/26	ug/m3	0.60	1.76	Not Detected	No Standard	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	-	Rayong
Hydrogen Peroxide	02/06/26 - 03/06/26	ug/m3	0.3	5.0	Not Detected	No Standard	OSHA, VIIc	-	Bangkok
Propene (Propylene)	02/06/26 - 03/06/26	ug/m3	0.30	0.85	<0.85	No Standard	Based on U.S. Environmental Protection Agency, Compendum Method, TO-15	-	Rayong
Propylene Oxide	02/06/26 - 03/06/26	ug/m3	1.2	14	Not Detected	No Standard	Based on NIOSH, 1612	-	Bangkok
Toluene	02/06/26 - 03/06/26	ug/m3	0.60	1.88	<1.88	No Standard	Based on U.S.	-	Rayong

Guideline :
NEB 2017 : Notification of National Environmental Board, B.E. 2560 (2017)
PCD : Notification of the Pollution Control Department, which was published in the Royal Government Gazette Vol. 126 Special Part 13 D dated January 27, B.E. 2552 (2009)
Note : Pa Yoon Community station has moderate traffic. Normal activity, light rain, nearby temple, school and community

The above results are valid only for the analysed/tested sample(s) as indicated in the report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by _____

Orawan R.
Orawan Rakhyong
Scientist (3)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O :
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPQ Plant

Lot ID: 2645061
Date Received : Jun 04, 2026
Date Reported : Jun 15, 2026
Report Number : 3578978-1C9

Sampled By : Satcha Phetsawaeng

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

The above results are valid only for the analysed/tested sample(s) as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. A/L Laboratory Group (Thailand) strongly recommends that this report is not associated, named or sold.

Approved by _____

Orawan R.
Orawan Rakyong
Scientist /33

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RIGHT SOLUTIONS RIGHT PARTS



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
31130

P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : A/E HPRO-TRO Plant

Lot ID: 2645062
Date Received :Jun 04, 2026
Date Reported :Jun 09, 2026
Report Number :3578981-1

Page 1 of 2

Sample Number	2645062-1																							
Parameter	Wind Speed / Wind Direction																							
Location	อุทยานหลวง (GPS N 12.722340, E 101.125769)																							
Sampling Date	Jun 02 - Jun 03, 2026																							
Sampling by	Satcha Phetsawang																							
Time	Jun 02 - Jun 03, 2026		-		-		-		-		-		-		-		-		-		-		-	
	WS (m/s)	WD (deg)																						
11:00 AM - 12:00 PM	0.4	177.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12:00 PM - 01:00 PM	1.2	193.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01:00 PM - 02:00 PM	0.8	194.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
02:00 PM - 03:00 PM	0.5	194.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
03:00 PM - 04:00 PM	1.2	274.0	W	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
04:00 PM - 05:00 PM	0.6	251.0	WSW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
05:00 PM - 06:00 PM	0.4	206.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
06:00 PM - 07:00 PM	0.3	217.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
07:00 PM - 08:00 PM	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
08:00 PM - 09:00 PM	1.0	225.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
09:00 PM - 10:00 PM	0.4	238.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10:00 PM - 11:00 PM	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11:00 PM - 12:00 AM	0.3	301.0	VNW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12:00 AM - 01:00 AM	0.4	265.0	VNW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01:00 AM - 02:00 AM	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
02:00 AM - 03:00 AM	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
03:00 AM - 04:00 AM	0.4	353.0	N	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
04:00 AM - 05:00 AM	1.2	328.0	N/NW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
05:00 AM - 06:00 AM	0.6	339.0	N/NW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
06:00 AM - 07:00 AM	1.3	235.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
07:00 AM - 08:00 AM	1.5	245.0	WSW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
08:00 AM - 09:00 AM	2.2	215.0	SW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
09:00 AM - 10:00 AM	0.8	200.0	SSW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10:00 AM - 11:00 AM	0.6	165.0	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Reference Method : Cup Anemometer & Aerolized Aluminium Vape Method

Approved by _____


Sarayuth Jittrahont
Assistant General Manager

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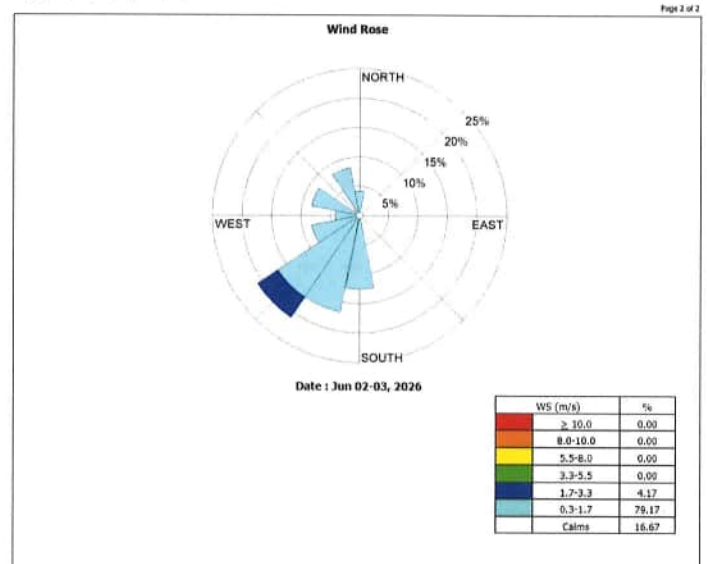


Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21120

P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : A/E HPPD-TPO Plant

Lot ID: 2645062
Date Received : Jun 04, 2026
Date Reported : Jun 09, 2026
Report Number : 3528981-1



Location : **ttusvuvuvua** (GPS N 12.722340, E 101.125769)

Approved by _____


Sarayuth Jitranont
Assistant General Manager

ADDRESS 618/10 Moo 5 T. Maenam Khu A. Nuekdarng Rayong 21140 Thailand PHONE +66 0 3304 8555 FAX +66 0 3304 8556

คุณภาพอากาศจากแหล่งกำเนิด



Analysis / Test Report



TESTING
No.0042

Lot ID: 2613977

Date Received : Feb 20, 2026
Date Reported : Feb 28, 2026
Report Number: 3507772-1

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Sample Number 2613977-1
Sampled Date Feb 20, 2026
Sample Description Emission from Stationary Source
Location TOX1 (ERU Stack) (GPS N 12.704103, E 101.089518)
Date Analysis Commenced Feb 24, 2026
Condition of Sample Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Page 1 of 2

Stack Description

Ambient Pressure	755	mmHg	Diameter	3.00	m	Oxygen	8.3	%
Ambient Temperature	31.3	°C	Shape	Circle		Carbon Dioxide	9.0	%
Type of Process	Combustion		Stack Temperature	203	°C	Gas Velocity	3.2	m/s
Type of Fuel	Natural Gas		Moisture	33.34	%	Flow Rate (Actual O2)	34267	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result at 7 % O ₂	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Total Suspended Particulate	12:00 PM - 12:54 PM	mg/m3	-	0.5	1.5	320	35	U.S. Environmental Protection Agency 40 CFR method 5, Appendix A, December 7, 2020 (Include sampling)	Rayong

Guideline : Guideline

- 1).Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)
- 2).Emission Air Standard according to EIA study of HPPO Plant, Approval Letter No. Tor Sor 1009.8/7196 dated June 09, 2017 (B.E. 2560)

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ๖-323-๔-0029

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ๖-323-๔-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. No part of this report may be reproduced in any form without written consent from the laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company



Analysis / Test Report



TESTING
No.0042

Lot ID: 2613977

Date Received : Feb 20, 2026
Date Reported : Feb 28, 2026
Report Number: 3507772-1

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Sample Number 2613977-1
Sampled Date Feb 20, 2026
Sample Description Emission from Stationary Source
Location TOX1 (ERU Stack) (GPS N 12.704103, E 101.089518)
Date Analysis Commenced Feb 24, 2026
Condition of Sample Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Page 2 of 2

Stack Description

Ambient Pressure	755	mmHg	Diameter	3.00	m	Oxygen	8.3	%
Ambient Temperature	31.3	°C	Shape	Circle		Carbon Dioxide	9.0	%
Type of Process	Combustion		Stack Temperature	203	°C	Gas Velocity	3.2	m/s
Type of Fuel	Natural Gas		Moisture	33.34	%	Flow Rate (Actual O2)	34267	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Total Suspended Particulate *	12:00 PM - 12:54 PM	g/s	-	-	0.013	-	0.52	Calculated	Rayong

Guideline : Guideline

- 1).Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)
- 2).Emission Air Standard according to EIA study of HPPO Plant, Approval Letter No. Tor Sor 1009.8/7196 dated June 09, 2017 (B.E. 2560)

Sampling By : Sittipon Sanachiw ทะเบียนเลขที่ ๖-323-๔-0009

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ ๖-323-๔-0029

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ ๖-323-๔-0001

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RIGHT SOLUTIONS RIGHT PARTNER

8525-209/ EMAIL

S:\Report\Air Stack_2GL.rpt (9:50AM)

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8525-209/ EMAIL

S:\Report\Air Stack_2GL.rpt (9:50AM)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Sample Number 2613978-1
 Sample Date Feb 18, 2026
 Sample Description Emission from Stationary Source
 Location TOX2 (ERU Stack)
 Date Analysis Commenced Feb 19, 2026
 Condition of Sample Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description

Ambient Pressure	758	mmHg	Diameter	3.00	m	Oxygen	7.2	%
Ambient Temperature	30.4	°C	Shape	Circle		Carbon Dioxide	9.6	%
Type of Process	Combustion		Stack Temperature	190	°C	Gas Velocity	3.2	m/s
Type of Fuel	Natural Gas		Moisture	29.81	%	Flow Rate (Actual O2)	36325	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result at 7 %O ₂	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Total Suspended Particulate	11:40 AM - 12:34 PM	mg/m3	-	0.5	<0.5	320	35	U.S. Environmental Protection Agency 40 CFR method 5, Appendix A, December 7, 2020 (Include sampling)	Rayong

Guideline : Guideline

- 1).Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)
- 2).Emission Air Standard according to EIA study of HPPO Plant, Approval Letter No. Tor Sor 1009.8/7196 dated June 09, 2017 (B.E. 2560)



TESTING
No.0042

Lot ID: 2613978

Date Received : Feb 18, 2026

Date Reported : Feb 27, 2026

Report Number: 3507773-1

Page 1 of 2



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Sample Number 2613978-1
 Sample Date Feb 18, 2026
 Sample Description Emission from Stationary Source
 Location TOX2 (ERU Stack)
 Date Analysis Commenced Feb 19, 2026
 Condition of Sample Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description

Ambient Pressure	758	mmHg	Diameter	3.00	m	Oxygen	7.2	%
Ambient Temperature	30.4	°C	Shape	Circle		Carbon Dioxide	9.6	%
Type of Process	Combustion		Stack Temperature	190	°C	Gas Velocity	3.2	m/s
Type of Fuel	Natural Gas		Moisture	29.81	%	Flow Rate (Actual O2)	36325	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result Emission Rate	Guideline (1)	Guideline (2)	Method	Testing Location
Air Testing									
Total Suspended Particulate *	11:40 AM - 12:34 PM	g/s	-	-	<0.005	-	0.52	Calculated	Rayong

Guideline : Guideline

- 1).Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)
- 2).Emission Air Standard according to EIA study of HPPO Plant, Approval Letter No. Tor Sor 1009.8/7196 dated June 09, 2017 (B.E. 2560)

Sampling By : Natthapon Jengwareewong ทะเบียนเลขที่ 3-323-3-0013

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.



TESTING
No.0042

Lot ID: 2613978

Date Received : Feb 18, 2026

Date Reported : Feb 27, 2026

Report Number: 3507773-1

Page 2 of 2

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ 3-323-3-0029

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ 3-323-3-0001

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S:\Reports\Air_Stack_2GL.rpt (1:13PM)

8525-209/ EMAIL

Technical Management

Thanita K.

Thanita Kulsuriwong
Scientist (4)
ทะเบียนเลขที่ 3-323-3-0029

Approved by

D. Changchon

Dej Changchon
Senior Manager
ทะเบียนเลขที่ 3-323-3-0001

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8525-209/ EMAIL

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPPO-TPO Plant

Lot ID: 2613831
Date Received :Feb 20, 2026
Date Reported :Mar 06, 2026
Report Number :3507411-1

Page 1 of 1

Sample Number	2613831-1
Sample Description	Emission from Stationary Source
Location	TOX1 (ERU Stack) (GPS N 12.704103, E 101.089518)
Sampled Date	Feb 20, 2026

Stack Description					
Ambient Temperature	31.3 °C	Diameter	3.00 m	Oxygen	8.29 %
Ambient Pressure	755.2 mmHg	Shape	Circle	Carbon dioxide	9.04 %
Type of Process	Combustion	Stack Temperature	203 °C	Gas Velocity	3.37 m/s
Type of Fuel	Natural Gas	Moisture	33.20 %	Flow Rate	35660 Nm3/hr

Run No.	Sampling Time	Oxygen (%)	Carbon Dioxide (%)	Oxides of Nitrogen (ppm)	
				at Actual O ₂	At 7% O ₂
1	12:00 PM - 12:20 PM	8.35	9.02	12.74	14.11
2	12:21 PM - 12:41 PM	8.20	9.10	13.20	14.45
3	12:42 PM - 01:02 PM	8.32	8.99	13.23	14.61
Average (ppm)		8.29	9.04	13.06	14.39
Guideline ^{1/} (ppm)		-	-	-	200
Guideline ^{2/} (ppm)		-	-	-	72
Result (mg/Nm ³)		-	-	24.57	27.08
Emission Rate at Actual O ₂ (g/s)		-	-	0.243 *	
Guideline ^{2/} (g/s)		-	-	2.0	
Method		US EPA (2017) Method 3A		US EPA (2020) Method 7E	

Guideline : ^{1/}Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)
^{2/}Emission Air Standard according to EIA study of HPPPO Plant, Approval Letter No. Tor Sor 1009.8/7196 dated June 09, 2017 (B.E. 2560)

Remark : - "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte (s) marked * is/ae not included in scope of Accreditation ISO/IEC 17025.

Sampled By

Naratip T.
Naratip Thueakchaikam
RYG Field Services Scientist (1)
ทะเบียนเลขที่ 2-204-2-0003

Approved by

Sarayuth Jitranont
Assistant General Manager
ทะเบียนเลขที่ 2-204-2-0003

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPPO-TPO Plant

Lot ID: 2613835
Date Received :Feb 19, 2026
Date Reported :Mar 06, 2026
Report Number :3507412-1

Page 1 of 1

Sample Number	2613835-1
Sample Description	Emission from Stationary Source
Location	TOX2 (ERU Stack) (GPS N 12.704316, E 101.089885)
Sampled Date	Feb 18, 2026

Stack Description					
Ambient Temperature	30.4 °C	Diameter	3.00 m	Oxygen	7.17 %
Ambient Pressure	757.6 mmHg	Shape	Circle	Carbon dioxide	9.65 %
Type of Process	Combustion	Stack Temperature	190 °C	Gas Velocity	3.14 m/s
Type of Fuel	Natural Gas	Moisture	28.69 %	Flow Rate	36584 Nm3/hr

Run No.	Sampling Time	Oxygen (%)	Carbon Dioxide (%)	Oxides of Nitrogen (ppm)	
				at Actual O ₂	At 7% O ₂
1	11:40 AM - 12:00 PM	7.34	9.51	11.87	12.17
2	12:01 PM - 12:21 PM	7.09	9.72	12.29	12.37
3	12:22 PM - 12:42 PM	7.07	9.73	12.59	12.66
Average (ppm)		7.17	9.65	12.25	12.40
Guideline ^{1/} (ppm)		-	-	-	200
Guideline ^{2/} (ppm)		-	-	-	72
Result (mg/Nm ³)		-	-	23.05	23.32
Emission Rate at Actual O ₂ (g/s)		-	-	0.234 *	
Guideline ^{2/} (g/s)		-	-	2.0	
Method		US EPA (2017) Method 3A		US EPA (2020) Method 7E	

Guideline : ^{1/}Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2549)
^{2/}Emission Air Standard according to EIA study of HPPPO Plant, Approval Letter No. Tor Sor 1009.8/7196 dated June 09, 2017 (B.E. 2560)

Remark : - "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte (s) marked * is/ae not included in scope of Accreditation ISO/IEC 17025.

Sampled By

Naratip T.
Naratip Thueakchaikam
RYG Field Services Scientist (1)
ทะเบียนเลขที่ 2-204-2-0003

Approved by

Sarayuth Jitranont
Assistant General Manager
ทะเบียนเลขที่ 2-204-2-0003

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HHPO-TPO Plant

Lot ID: 2613828
Date Received : Feb 20, 2026
Date Reported : Mar 14, 2026
Report Number : 3507405-1

Page 1 of 3

Sample Number 2613828-1
Sampled Date Feb 20, 2026
Sample Description Emission from Stationary Source
Location TOX1 (ERU Stack) (GPS N 12.704103, E 101.089518)
Parameter NOx

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual O2		Corrected Value at 7% O2		Difference
		Start	Stop	CEMs (ppm)	RM (ppm)	CEMs (ppm)	RM (ppm)	
1*	20 Feb 26	11:40	12:00	10.34	12.63	11.48	13.96	2.48
2	20 Feb 26	12:01	12:21	10.73	12.78	11.92	14.14	2.22
3	20 Feb 26	12:22	12:42	11.13	13.23	12.28	14.49	2.21
4	20 Feb 26	12:43	13:03	11.12	13.22	12.29	14.58	2.29
5*	20 Feb 26	13:04	13:24	10.95	13.15	12.11	14.44	2.33
6*	20 Feb 26	13:25	13:45	11.07	13.26	12.18	14.54	2.36
7	20 Feb 26	13:46	14:06	11.37	13.48	12.46	14.72	2.27
8	20 Feb 26	14:07	14:27	11.55	13.56	12.70	14.84	2.14
9	20 Feb 26	14:28	14:48	11.80	13.88	13.00	15.23	2.23
10	20 Feb 26	14:49	15:09	11.82	13.89	13.12	15.37	2.25
11	20 Feb 26	15:10	15:30	12.20	14.24	13.41	15.59	2.19
12	20 Feb 26	15:31	15:51	11.94	13.92	13.26	15.41	2.15
Average						12.71	14.93	2.22
Confidence Coefficient (CC)								0.04
Relative Accuracy (Compared with Emission Standard : 72 ppm) (%)								3.13
Relative Accuracy Criteria ^{1/} (Compared with Emission Standard)								≤ 10%

Reference Method : US EPA Method 7E

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of NOx is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 2 (PS-2) compared with Emission Standard 72 ppm at 7%O2

RA Result is within Criteria

Technical Management
Wichan Choonharat
Manager
วชิรณัฐชัย 204-0-0006

Approved by
Sarayuth Jitrantorn
Assistant General Manager
วชิรณัฐชัย 204-0-0003

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HHPO-TPO Plant

Lot ID: 2613828
Date Received : Feb 20, 2026
Date Reported : Mar 14, 2026
Report Number : 3507405-1

Page 2 of 3

Sample Number 2613828-1
Sampled Date Feb 20, 2026
Sample Description Emission from Stationary Source
Location TOX1 (ERU Stack) (GPS N 12.704103, E 101.089518)
Parameter CO

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual O2		Corrected Value at 7% O2		Difference
		Start	Stop	CEMs (ppm)	RM (ppm)	CEMs (ppm)	RM (ppm)	
1	20 Feb 26	11:40	12:00	0.00	1.32	0.00	1.46	1.46
2*	20 Feb 26	12:01	12:21	0.00	1.81	0.00	2.00	2.00
3*	20 Feb 26	12:22	12:42	0.00	2.39	0.00	2.61	2.61
4*	20 Feb 26	12:43	13:03	0.00	2.01	0.00	2.22	2.22
5	20 Feb 26	13:04	13:24	0.00	1.75	0.00	1.93	1.93
6	20 Feb 26	13:25	13:45	0.00	1.53	0.00	1.68	1.68
7	20 Feb 26	13:46	14:06	0.00	1.38	0.00	1.51	1.51
8	20 Feb 26	14:07	14:27	0.00	1.30	0.00	1.43	1.43
9	20 Feb 26	14:28	14:48	0.00	1.22	0.00	1.34	1.34
10	20 Feb 26	14:49	15:09	0.00	1.10	0.00	1.21	1.21
11	20 Feb 26	15:10	15:30	0.00	1.00	0.00	1.09	1.09
12	20 Feb 26	15:31	15:51	0.00	0.94	0.00	1.04	1.04
Average						0.00	1.41	1.41
Confidence Coefficient (CC)								0.22
Relative Accuracy (Compared with Emission Standard : 690 ppm) (%)								0.24
Relative Accuracy Criteria ^{1/} (Compared with Emission Standard)								≤ 5%

Reference Method : US EPA Method 10

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of CO is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 4 (PS-4) compared with Emission Standard 690 ppm at 7%O2

RA Result is within Criteria

Technical Management
Wichan Choonharat
Manager
วชิรณัฐชัย 204-0-0006

Approved by
Sarayuth Jitrantorn
Assistant General Manager
วชิรณัฐชัย 204-0-0003

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HHPO-TPO Plant

Lot ID: 2613828
Date Received : Feb 20, 2026
Date Reported : Mar 14, 2026
Report Number : 3507405-1

Page 3 of 3

Sample Number 2613828-1
Sampled Date Feb 20, 2026
Sample Description Emission from Stationary Source
Location TOX1 (ERU Stack) (GPS N 12.704103, E 101.089518)
Parameter O2

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual		Difference
		Start	Stop	CEMs (%)	RM (%)	
1*	20 Feb 26	11:40	12:00	8.39	8.32	-0.07
2	20 Feb 26	12:01	12:21	8.39	8.34	-0.05
3*	20 Feb 26	12:22	12:42	8.30	8.21	-0.10
4	20 Feb 26	12:43	13:03	8.33	8.30	-0.02
5*	20 Feb 26	13:04	13:24	8.33	8.25	-0.08
6	20 Feb 26	13:25	13:45	8.27	8.22	-0.04
7	20 Feb 26	13:46	14:06	8.21	8.17	-0.04
8	20 Feb 26	14:07	14:27	8.25	8.20	-0.05
9	20 Feb 26	14:28	14:48	8.29	8.23	-0.06
10	20 Feb 26	14:49	15:09	8.38	8.34	-0.04
11	20 Feb 26	15:10	15:30	8.25	8.20	-0.05
12	20 Feb 26	15:31	15:51	8.38	8.35	-0.03
Average				8.30	8.26	-0.04
Confidence Coefficient (CC)						-
Relative Accuracy (Compared in Actual) (%)						0.04
Relative Accuracy Criteria ^{1/} (%)						≤ 3%

Reference Method : US EPA Method 3A

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of O2 is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 3 (PS-3)

RA Result is within Criteria

Sampled By : Sathaporn Thakorn

Technical Management
Wichan Choonharat
Manager
วชิรณัฐชัย 204-0-0006

Approved by
Sarayuth Jitrantorn
Assistant General Manager
วชิรณัฐชัย 204-0-0003

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HHPO-TPO Plant

Lot ID: 2613828
Date Received : Feb 20, 2026
Date Reported : Mar 14, 2026
Report Number : 3507405-1

Page 1 of 3

Sample Number 2613828-1
Sampled Date Feb 20, 2026
Sample Description Emission from Stationary Source
Location TOX1 (ERU Stack) (GPS N 12.704103, E 101.089518)
Parameter NOx

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual O2		Corrected Value at 7% O2		Difference
		Start	Stop	CEMs (ppm)	RM (ppm)	CEMs (ppm)	RM (ppm)	
1*	20 Feb 26	11:40	12:00	10.34	12.63	11.48	13.96	2.48
2	20 Feb 26	12:01	12:21	10.73	12.78	11.92	14.14	2.22
3	20 Feb 26	12:22	12:42	11.13	13.23	12.28	14.49	2.21
4	20 Feb 26	12:43	13:03	11.12	13.22	12.29	14.58	2.29
5*	20 Feb 26	13:04	13:24	10.95	13.15	12.11	14.44	2.33
6*	20 Feb 26	13:25	13:45	11.07	13.26	12.18	14.54	2.36
7	20 Feb 26	13:46	14:06	11.37	13.48	12.46	14.72	2.27
8	20 Feb 26	14:07	14:27	11.55	13.56	12.70	14.84	2.14
9	20 Feb 26	14:28	14:48	11.80	13.88	13.00	15.23	2.23
10	20 Feb 26	14:49	15:09	11.82	13.89	13.12	15.37	2.25
11	20 Feb 26	15:10	15:30	12.20	14.24	13.41	15.59	2.19
12	20 Feb 26	15:31	15:51	11.94	13.92	13.26	15.41	2.15
Average						12.71	14.93	2.22
Confidence Coefficient (CC)								0.04
Relative Accuracy (Compared with Emission Standard : 72 ppm) (%)								3.13
Relative Accuracy Criteria ^{1/} (Compared with Emission Standard)								≤ 10%

Reference Method : US EPA Method 7E

Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of NOx is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 2 (PS-2) compared with Emission Standard 72 ppm at 7%O2

RA Result is within Criteria

Technical Management
Wichan Choonharat
Manager
วชิรณัฐชัย 204-0-0006

Approved by
Sarayuth Jitrantorn
Assistant General Manager
วชิรณัฐชัย 204-0-0003

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPO-TPO Plant

Lot ID: 2613828
Date Received : Feb 20, 2026
Date Reported : Mar 14, 2026
Report Number : 3507405-1

Page 2 of 3

Sample Number : 2613828-1
Sample Date : Feb 20, 2026
Sample Description : Emission from Stationary Source
Location : TOX1 (ERU Stack) (GPS N 12.704103, E 101.089518)
Parameter : CO

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual O2		Corrected Value at 7% O2		Difference
		Start	Stop	CEMs (ppm)	RM (ppm)	CEMs (ppm)	RM (ppm)	
1	20 Feb 26	11:40	12:00	0.00	1.32	0.00	1.46	1.46
2*	20 Feb 26	12:01	12:21	0.00	1.81	0.00	2.00	2.00
3*	20 Feb 26	12:22	12:42	0.00	2.39	0.00	2.61	2.61
4*	20 Feb 26	12:43	13:03	0.00	2.01	0.00	2.22	2.22
5	20 Feb 26	13:04	13:24	0.00	1.75	0.00	1.93	1.93
6	20 Feb 26	13:25	13:45	0.00	1.53	0.00	1.68	1.68
7	20 Feb 26	13:46	14:06	0.00	1.38	0.00	1.51	1.51
8	20 Feb 26	14:07	14:27	0.00	1.30	0.00	1.43	1.43
9	20 Feb 26	14:28	14:48	0.00	1.22	0.00	1.34	1.34
10	20 Feb 26	14:49	15:09	0.00	1.10	0.00	1.21	1.21
11	20 Feb 26	15:10	15:30	0.00	1.00	0.00	1.09	1.09
12	20 Feb 26	15:31	15:51	0.00	0.94	0.00	1.04	1.04
Average						0.00	1.41	1.41
Confidence Coefficient (CC)								0.22
Relative Accuracy (Compared with Emission Standard : 690 ppm) (%)								0.24
Relative Accuracy Criteria ^{1/} (Compared with Emission Standard)								≤ 5%

Reference Method : US EPA Method 10

Remark : * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of CO is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 4 (PS-4) compared with

Emission Standard 690 ppm at 7%O2

RA Result is within Criteria



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPO-TPO Plant

Lot ID: 2613828
Date Received : Feb 20, 2026
Date Reported : Mar 14, 2026
Report Number : 3507405-1

Page 3 of 3

Sample Number : 2613828-1
Sample Date : Feb 20, 2026
Sample Description : Emission from Stationary Source
Location : TOX1 (ERU Stack) (GPS N 12.704103, E 101.089518)
Parameter : O2

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual		Difference
		Start	Stop	CEMs (%)	RM (%)	
1*	20 Feb 26	11:40	12:00	8.39	8.32	-0.07
2	20 Feb 26	12:01	12:21	8.39	8.34	-0.05
3*	20 Feb 26	12:22	12:42	8.30	8.21	-0.10
4	20 Feb 26	12:43	13:03	8.33	8.30	-0.02
5*	20 Feb 26	13:04	13:24	8.33	8.25	-0.08
6	20 Feb 26	13:25	13:45	8.27	8.22	-0.04
7	20 Feb 26	13:46	14:06	8.21	8.17	-0.04
8	20 Feb 26	14:07	14:27	8.25	8.20	-0.05
9	20 Feb 26	14:28	14:48	8.29	8.23	-0.06
10	20 Feb 26	14:49	15:09	8.38	8.34	-0.04
11	20 Feb 26	15:10	15:30	8.25	8.20	-0.05
12	20 Feb 26	15:31	15:51	8.38	8.35	-0.03
Average				8.30	8.26	-0.04
Confidence Coefficient (CC)						-
Relative Accuracy (Compared in Actual) (%)						0.04
Relative Accuracy Criteria ^{1/} (%)						≤ 1%

Reference Method : US EPA Method 3A

Remark : * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of O2 is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 3 (PS-3)

RA Result is within Criteria

Sampled By : Satnaporn Thakurw

Technical Management : Wichan Choonharat
Manager
วชิณ ช้อนหารัตน์ ๖-204-๐006

Approved by : Sarayuth Jittrant
Assistant General Manager
สรายุทธ จิตร์นต ๖-204-๐003

Technical Management : Wichan Choonharat
Manager
วชิณ ช้อนหารัตน์ ๖-204-๐006

Approved by : Sarayuth Jittrant
Assistant General Manager
สรายุทธ จิตร์นต ๖-204-๐003

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPO-TPO Plant

Lot ID: 2613830
Date Received : Feb 19, 2026
Date Reported : Mar 14, 2026
Report Number : 3507407-1

Page 1 of 3

Sample Number : 2613830-1
Sample Date : Feb 18, 2026
Sample Description : Emission from Stationary Source
Location : TOX2 (ERU Stack) (GPS N 12.704316, E 101.089885)
Parameter : NOx

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual O2		Corrected Value at 7% O2		Difference
		Start	Stop	CEMs (ppm)	RM (ppm)	CEMs (ppm)	RM (ppm)	
1	18 Feb 26	11:35	11:55	14.18	11.87	14.57	12.21	-2.36
2*	18 Feb 26	11:56	12:16	14.61	12.17	14.72	12.29	-2.43
3	18 Feb 26	12:17	12:37	14.96	12.61	15.00	12.63	-2.36
4	18 Feb 26	12:38	12:58	14.41	12.18	14.79	12.48	-2.31
5	18 Feb 26	12:59	13:19	14.42	12.03	14.75	12.34	-2.40
6	18 Feb 26	13:20	13:40	14.63	12.46	14.63	12.48	-2.15
7	18 Feb 26	13:41	14:01	14.23	12.09	14.49	12.30	-2.20
8	18 Feb 26	14:02	14:22	14.41	12.10	14.61	12.31	-2.30
9	18 Feb 26	14:23	14:43	14.64	12.29	14.77	12.38	-2.38
10	18 Feb 26	14:44	15:04	14.42	12.04	14.63	12.25	-2.38
11*	18 Feb 26	15:05	15:25	14.86	12.32	14.96	12.40	-2.55
12*	18 Feb 26	15:26	15:46	14.31	11.85	14.74	12.21	-2.53
Average						14.69	12.38	-2.32
Confidence Coefficient (CC)								0.07
Relative Accuracy (Compared with Emission Standard : 72 ppm) (%)								3.31
Relative Accuracy Criteria ^{1/} (Compared with Emission Standard)								≤ 10%

Reference Method : US EPA Method 7E

Remark : * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of NOx is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 2 (PS-2) compared with

Emission Standard 72 ppm at 7%O2

RA Result is within Criteria

Technical Management : Wichan Choonharat
Manager
วชิณ ช้อนหารัตน์ ๖-204-๐006

Approved by : Sarayuth Jittrant
Assistant General Manager
สรายุทธ จิตร์นต ๖-204-๐003

Technical Management : Wichan Choonharat
Manager
วชิณ ช้อนหารัตน์ ๖-204-๐006

Approved by : Sarayuth Jittrant
Assistant General Manager
สรายุทธ จิตร์นต ๖-204-๐003

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2613830
Date Received : Feb 19, 2026
Date Reported : Mar 14, 2026
Report Number : 3507402-1

Page 3 of 3

Sample Number : 2613830-1
Sampled Date : Feb 18, 2026
Sample Description : Emission from Stationary Source
Location : TOX2 (ERU Stack) (GPS N 12.704316, E 101.089885)
Parameter : O2

Relative Accuracy Test Audit Report

Run No.	Date	Time		Raw Data at Actual		Difference
		Start	Stop	CEMs (%)	RM (%)	
1	18 Feb 26	11:35	11:55	7.37	7.39	0.02
2*	18 Feb 26	11:56	12:16	7.10	7.13	0.03
3	18 Feb 26	12:17	12:37	7.04	7.02	-0.01
4	18 Feb 26	12:38	12:58	7.36	7.34	-0.02
5*	18 Feb 26	12:59	13:19	7.30	7.35	0.05
6	18 Feb 26	13:20	13:40	7.01	7.03	0.02
7	18 Feb 26	13:41	14:01	7.25	7.24	-0.01
8*	18 Feb 26	14:02	14:22	7.18	7.24	0.05
9	18 Feb 26	14:23	14:43	7.12	7.11	-0.01
10	18 Feb 26	14:44	15:04	7.20	7.23	0.03
11	18 Feb 26	15:05	15:25	7.09	7.09	0.00
12	18 Feb 26	15:26	15:46	7.40	7.40	0.01
Average				7.20	7.20	0.00
Confidence Coefficient (CC)						-
Relative Accuracy (Compared in Actual) (%)						0.00
Relative Accuracy Criteria (%)						≤ 1%

Reference Method : US EPA Method 3A

Remark : * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of O2 is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 3 (PS-3)

RA Result is within Criteria

Sampled By : Sathaporn Thakern

Technical Management :
Wichan Choonharat
Manager
โทรศัพท์มือถือ 02-204-810006

Approved by :
Sarayuth Jitranont
Assistant General Manager
โทรศัพท์มือถือ 02-204-810003

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10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2613837
Date Received : Feb 20, 2026
Date Reported : Mar 14, 2026
Report Number : 3507423-1

Page 1 of 2

Sample Number : 2613837-1
Sampled Date : Feb 20, 2026
Sample Description : Emission from Stationary Source
Location : TOX1 (ERU Stack) (GPS N 12.704103, E 101.089518)
Parameter : Flowrate

Relative Accuracy Test Audit Report

Run No.	Date	Time		Flowrate Data		Difference
		Start	Stop	CEMs (Nm3/Hr)	RM (Nm3/Hr)	
1	20 Feb 26	11:50	12:10	35,746	33,759	-1,987
2	20 Feb 26	12:11	12:31	35,488	35,457	-31
3*	20 Feb 26	12:32	12:52	35,778	32,639	-3,139
4	20 Feb 26	12:53	13:13	35,736	36,425	689
5	20 Feb 26	13:14	13:34	35,463	34,723	-740
6	20 Feb 26	13:35	13:55	35,516	37,978	2,462
7	20 Feb 26	13:56	14:16	35,705	36,947	1,242
8	20 Feb 26	14:17	14:37	35,958	36,052	96
9	20 Feb 26	14:38	14:58	36,263	34,337	-1,926
10	20 Feb 26	14:59	15:19	36,431	36,017	-414
11*	20 Feb 26	15:20	15:40	36,228	32,862	-3,366
12*	20 Feb 26	15:41	16:01	36,487	30,717	-5,770
Average				35,812	35,644	-168
Confidence Coefficient (CC)						1.045
Relative Accuracy ^{1/} (Compared with RM) (%)						3.40
Relative Accuracy Criteria (Compared with RM)						≤ 20 %

Reference Method : US EPA Method 2

Remark : * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of Flowrate is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 6 (PS-6)

RA Result is within Criteria

Technical Management :
Wichan Choonharat
Manager
โทรศัพท์มือถือ 02-204-810006

Approved by :
Sarayuth Jitranont
Assistant General Manager
โทรศัพท์มือถือ 02-204-810003

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10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2613837
Date Received : Feb 20, 2026
Date Reported : Mar 14, 2026
Report Number : 3507423-1

Page 2 of 2

Sample Number : 2613837-1
Sampled Date : Feb 18, 2026
Sample Description : Emission from Stationary Source
Location : TOX1 (ERU Stack) (GPS N 12.704103, E 101.089518)
Parameter : Stack Temperature

Relative Accuracy Test Audit Report

Run No.	Date	Time		Temperature Data		Difference
		Start	Stop	CEMs (°C)	RM (°C)	
1*	20 Feb 26	11:50	12:10	207.5	201.9	-5.6
2	20 Feb 26	12:11	12:31	207.3	202.4	-4.9
3	20 Feb 26	12:32	12:52	207.3	203.0	-4.3
4	20 Feb 26	12:53	13:13	207.1	202.6	-4.5
5	20 Feb 26	13:14	13:34	206.9	202.5	-4.4
6	20 Feb 26	13:35	13:55	206.8	202.4	-4.4
7	20 Feb 26	13:56	14:16	207.1	202.8	-4.2
8	20 Feb 26	14:17	14:37	207.4	202.7	-4.8
9	20 Feb 26	14:38	14:58	207.4	202.5	-4.9
10	20 Feb 26	14:59	15:19	207.4	202.7	-4.7
11*	20 Feb 26	15:20	15:40	207.5	202.0	-5.5
12*	20 Feb 26	15:41	16:01	207.9	202.7	-5.2
Average				207.2	202.6	-4.6
Confidence Coefficient (CC)						0.2
Relative Accuracy ^{1/} (Compared with RM) (%)						2.3
Relative Accuracy Criteria (Compared with RM)						≤ 20 %

Reference Method : US EPA Method 2

Remark : * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of Stack Temperature is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 6 (PS-6)

RA Result is within Criteria

Sampled By : Nontachai Uppathamp

Technical Management :
Wichan Choonharat
Manager
โทรศัพท์มือถือ 02-204-810006

Approved by :
Sarayuth Jitranont
Assistant General Manager
โทรศัพท์มือถือ 02-204-810003

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Analysis / Test Report

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10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2613839
Date Received : Feb 19, 2026
Date Reported : Mar 14, 2026
Report Number : 3507428-1

Page 1 of 2

Sample Number : 2613839-1
Sampled Date : Feb 18, 2026
Sample Description : Emission from Stationary Source
Location : TOX2 (ERU Stack) (GPS N 12.704316, E 101.089885)
Parameter : Flowrate

Relative Accuracy Test Audit Report

Run No.	Date	Time		Flowrate Data		Difference
		Start	Stop	CEMs (Nm3/Hr)	RM (Nm3/Hr)	
1	18 Feb 26	11:40	12:00	36,880	36,971	91
2	18 Feb 26	12:01	12:21	36,552	34,224	-2,328
3	18 Feb 26	12:22	12:42	36,664	34,952	-1,712
4	18 Feb 26	12:43	13:03	36,754	38,971	2,217
5*	18 Feb 26	13:04	13:24	36,720	42,555	5,835
6	18 Feb 26	13:25	13:45	36,549	37,788	1,239
7	18 Feb 26	13:46	14:06	36,659	39,082	2,423
8*	18 Feb 26	14:07	14:27	36,508	33,089	-3,419
9	18 Feb 26	14:28	14:48	36,570	35,080	-1,490
10	18 Feb 26	14:49	15:09	36,623	39,125	2,502
11	18 Feb 26	15:10	15:30	36,540	35,037	-1,503
12*	18 Feb 26	15:31	15:51	36,841	32,990	-3,851
Average				36,613	36,803	190
Confidence Coefficient (CC)						1.518
Relative Accuracy ^{1/} (Compared with RM) (%)						4.56
Relative Accuracy Criteria (Compared with RM)						≤ 20 %

Reference Method : US EPA Method 2

Remark : * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of Flowrate is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 6 (PS-6)

RA Result is within Criteria

Technical Management :
Wichan Choonharat
Manager
โทรศัพท์มือถือ 02-204-810006

Approved by :
Sarayuth Jitranont
Assistant General Manager
โทรศัพท์มือถือ 02-204-810003

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPO-TPD Plant

Lot ID: 2613839
Date Received : Feb 19, 2026
Date Reported : Mar 14, 2026
Report Number : 3507428-1

Page 2 of 2

Sample Number : 2613839-1
Sampled Date : Feb 18, 2026
Sample Description : Emission from Stationary Source
Location : TQX (ERU Stack) (GPS N 12.704316, E 101.089885)
Parameter : Stack Temperature

Relative Accuracy Test Audit Report

Run No.	Date	Time		Temperature Data		Difference
		Start	Stop	CEMs (°C)	RH (°C)	
1	18 Feb 26	11:40	12:00	195.3	201.9	6.6
2	18 Feb 26	12:01	12:21	194.5	202.4	7.9
3*	18 Feb 26	12:22	12:42	194.5	203.0	8.5
4	18 Feb 26	12:43	13:03	195.2	202.6	7.4
5	18 Feb 26	13:04	13:24	195.0	202.5	7.5
6	18 Feb 26	13:25	13:45	194.3	202.4	8.1
7*	18 Feb 26	13:46	14:06	194.6	202.8	8.3
8	18 Feb 26	14:07	14:27	194.4	202.7	8.2
9*	18 Feb 26	14:28	14:48	194.1	202.5	8.4
10	18 Feb 26	14:49	15:09	194.7	202.7	7.9
11	18 Feb 26	15:10	15:30	194.7	202.0	7.3
12	18 Feb 26	15:31	15:51	195.0	202.7	7.7
Average				194.8	202.4	7.6
Confidence Coefficient (CC)						8.4
Relative Accuracy ^{1/} (Compared with RH) (%)						4.0
Relative Accuracy Criteria (Compared with RH)						≤ 20 %

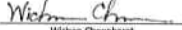
Reference Method : US EPA Method 2

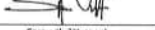
Remark: * Sample with * is a rejected data

^{1/} Relative Accuracy Criteria of Stack Temperature is refer to 40 CFR Part 60 Appendix B : Performance Specification Test 6 (PS-6)

RA Result is within Criteria

Sampled By : Nontachal Upatham

Technical Management 
Wichan Chonharat
Manager
โทรศัพท์มือถือ 7-204-8-0006

Approved by 
Sarayuth Jittrairat
Assistant General Manager
โทรศัพท์มือถือ 7-204-8-0003

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 265892

Date Received : Feb 16, 2026

Date Reported : Feb 25, 2026

Report Number : 3491565-1

Page 2 of 2

Sample Number 265892-2
Sampled Date Feb 16, 2026
Sample Description Air Quality
Location บริเวณพื้นที่อาคาร PO
Date Analysis Commenced Feb 17, 2026
Condition of Sample Drawn into one 10-L air sampling bag and one sorbent tube, refrigerated
Barometric Pressure 757 mmHg
Atmospheric Temperature 31.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Non Methane Hydrocarbon as Propane	09:30 AM - 11:30 AM	ppm	-	0.33	<0.33	No Standard	Total Hydrocarbon Analyzer	-	Rayong
Propylene Oxide	09:30 AM - 11:30 AM	ppm	-	0.10	<0.10	100	NIOSH (1994), 1612	MOL	Bangkok
Total Hydrocarbon as Propane	09:30 AM - 11:30 AM	ppm	-	0.33	0.77	No Standard	Total Hydrocarbon Analyzer	-	Rayong

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Natthapon Jiengwareewong

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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8525-209/ EMAIL



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 265892

Date Received : Feb 16, 2026

Date Reported : Feb 25, 2026

Report Number : 3491565-1

Page 1 of 2

Sample Number 265892-1
Sampled Date Feb 16, 2026
Sample Description Air Quality
Location บริเวณพื้นที่อาคาร PO
Date Analysis Commenced Feb 17, 2026
Condition of Sample Drawn into one 10-L air sampling bag and one sorbent tube, refrigerated
Barometric Pressure 757 mmHg
Atmospheric Temperature 31.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Non Methane Hydrocarbon as Propane	09:40 AM - 11:40 AM	ppm	-	0.33	<0.33	No Standard	Total Hydrocarbon Analyzer	-	Rayong
Propylene Oxide	09:40 AM - 11:40 AM	ppm	-	0.10	<0.10	100	NIOSH (1994), 1612	MOL	Bangkok
Total Hydrocarbon as Propane	09:40 AM - 11:40 AM	ppm	-	0.33	0.73	No Standard	Total Hydrocarbon Analyzer	-	Rayong

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Natthapon Jiengwareewong

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

Thanita K.

Thanita Kulsuriwong
Scientist (4)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2635226

Date Received : May 13, 2026

Date Reported : May 21, 2026

Report Number : 3558191-1

Page 2 of 2

Sample Number 2635226-2
Sampled Date May 12, 2026
Sample Description Air Quality
Location บริเวณผดุงเก็บก๊าซ PO
Date Analysis Commenced May 15, 2026
Condition of Sample Drawn into one 10-L air sampling bag and one sorbent tube, refrigerated
Barometric Pressure 752 mmHg
Atmospheric Temperature 30.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Non Methane Hydrocarbon as Propane	01:50 PM - 03:50 PM	ppm	-	0.33	<0.33	No Standard	Total Hydrocarbon Analyzer	-	Rayong
Propylene Oxide	01:50 PM - 03:50 PM	ppm	-	0.10	<0.10	100	NIOSH (1994), 1612	MOL	Bangkok
Total Hydrocarbon as Propane	01:50 PM - 03:50 PM	ppm	-	0.33	0.70	No Standard	Total Hydrocarbon Analyzer	-	Rayong

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Arnon Phopprathong

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2635226

Date Received : May 13, 2026

Date Reported : May 21, 2026

Report Number : 3558191-1

Page 1 of 2

Sample Number 2635226-1
Sampled Date May 12, 2026
Sample Description Air Quality
Location บริเวณผดุงเก็บก๊าซ PO
Date Analysis Commenced May 15, 2026
Condition of Sample Drawn into one 10-L air sampling bag and one sorbent tube, refrigerated
Barometric Pressure 752 mmHg
Atmospheric Temperature 30.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Non Methane Hydrocarbon as Propane	02:00 PM - 04:00 PM	ppm	-	0.33	<0.33	No Standard	Total Hydrocarbon Analyzer	-	Rayong
Propylene Oxide	02:00 PM - 04:00 PM	ppm	-	0.10	<0.10	100	NIOSH (1994), 1612	MOL	Bangkok
Total Hydrocarbon as Propane	02:00 PM - 04:00 PM	ppm	-	0.33	0.73	No Standard	Total Hydrocarbon Analyzer	-	Rayong

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)

Sampled By : Arnon Phopprathong

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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ระดับเสียงทั่วไป (Leq 24 hrs) บริเวณโรงงาน



Analysis / Test Report



TESTING
No.0042

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HIPO-TPO Plant

Lot ID: 2612681

Date Received : Feb 25, 2026

Date Reported : Mar 04, 2026

Report Number: 3519220-1

Page 1 of 1

Sample Number 2612681-2
Parameter Noise (Leq 24 hrs.)
Location บริเวณพื้นที่ของโรงกลั่นปิโตรเลียม (ห่างจาก ร่น. มัด 45) (GPS 47P 0727136, 1404550)
Measurement Date Feb 17 - Feb 18, 2026
Measurement by Sitpawit Suwannarat
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	48.1	73.2	44.4
12:00 PM - 01:00 PM	48.4	71.9	44.1
01:00 PM - 02:00 PM	47.6	65.7	44.1
02:00 PM - 03:00 PM	55.3	79.9	44.0
03:00 PM - 04:00 PM	55.3	78.3	45.1
04:00 PM - 05:00 PM	51.3	76.2	45.9
05:00 PM - 06:00 PM	51.6	68.3	47.5
06:00 PM - 07:00 PM	51.7	68.9	47.5
07:00 PM - 08:00 PM	52.4	73.6	46.4
08:00 PM - 09:00 PM	48.8	67.5	45.3
09:00 PM - 10:00 PM	47.3	68.7	44.9
10:00 PM - 11:00 PM	47.2	66.2	45.3
11:00 PM - 12:00 AM	46.6	61.7	45.1
12:00 AM - 01:00 AM	46.0	56.7	45.0
01:00 AM - 02:00 AM	50.5	71.8	45.6
02:00 AM - 03:00 AM	47.5	63.7	45.8
03:00 AM - 04:00 AM	47.4	56.3	46.1
04:00 AM - 05:00 AM	47.0	59.5	45.6
05:00 AM - 06:00 AM	53.8	76.5	45.6
06:00 AM - 07:00 AM	54.4	68.5	52.2
07:00 AM - 08:00 AM	54.9	71.1	51.0
08:00 AM - 09:00 AM	53.6	68.8	49.0
09:00 AM - 10:00 AM	53.7	76.9	49.0
10:00 AM - 11:00 AM	53.5	72.2	47.0

Leq Average 24 hrs. (dB(A)) 51.7
Lmax (dB(A)) 79.9
L90 (dB(A)) 45.6
Standard (dB(A)) 70
Reference Method : ISO 1996-1 : 2016
Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานคุณภาพสิ่งแวดล้อมใน
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดมาตรฐานคุณภาพอากาศ และระดับเสียงในโรงงานอุตสาหกรรม
โดยกรม พ.ศ. 2548
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Chontichak
Chonticha Subongkroh
Scientist (3)

Approved by

Supot S
Supot Salamteah
Section Head

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S:\Report\Air Noise\pt (1.58PM)



Analysis / Test Report



TESTING
No.0042

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HIPO-TPO Plant

Lot ID: 2612681

Date Received : Feb 25, 2026

Date Reported : Mar 04, 2026

Report Number: 3519220-1

Page 1 of 1

Sample Number 2612681-4
Parameter Noise (Leq 24 hrs.)
Location บริเวณพื้นที่ของโรงกลั่นปิโตรเลียม (ห่างจาก ร่น. มัด 45) (GPS 47P 0727136, 1404550)
Measurement Date Feb 19 - Feb 20, 2026
Measurement by Sitpawit Suwannarat
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	48.3	64.7	44.8
12:00 PM - 01:00 PM	51.2	76.0	45.0
01:00 PM - 02:00 PM	51.9	74.5	44.6
02:00 PM - 03:00 PM	54.4	78.3	44.5
03:00 PM - 04:00 PM	50.3	70.0	44.8
04:00 PM - 05:00 PM	51.1	73.2	45.7
05:00 PM - 06:00 PM	54.4	70.5	49.4
06:00 PM - 07:00 PM	53.7	68.7	49.6
07:00 PM - 08:00 PM	51.1	69.0	48.2
08:00 PM - 09:00 PM	50.4	65.5	48.5
09:00 PM - 10:00 PM	49.4	62.1	48.4
10:00 PM - 11:00 PM	49.3	62.3	48.5
11:00 PM - 12:00 AM	48.3	67.4	46.9
12:00 AM - 01:00 AM	50.8	68.9	48.1
01:00 AM - 02:00 AM	51.4	69.6	49.3
02:00 AM - 03:00 AM	51.4	58.0	49.7
03:00 AM - 04:00 AM	50.0	57.0	49.5
04:00 AM - 05:00 AM	52.0	68.7	50.2
05:00 AM - 06:00 AM	53.5	73.5	50.1
06:00 AM - 07:00 AM	56.2	70.9	54.3
07:00 AM - 08:00 AM	55.2	70.4	52.1
08:00 AM - 09:00 AM	53.4	70.1	49.3
09:00 AM - 10:00 AM	51.9	73.3	47.9
10:00 AM - 11:00 AM	54.9	76.5	46.8

Leq Average 24 hrs. (dB(A)) 52.4
Lmax (dB(A)) 78.3
L90 (dB(A)) 48.4
Standard (dB(A)) 70
Reference Method : ISO 1996-1 : 2016
Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานคุณภาพสิ่งแวดล้อมใน
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดมาตรฐานคุณภาพอากาศ และระดับเสียงในโรงงานอุตสาหกรรม
โดยกรม พ.ศ. 2548
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Chontichak
Chonticha Subongkroh
Scientist (3)

Approved by

Supot S
Supot Salamteah
Section Head

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S:\Report\Air Noise\pt (2.00PM)



Analysis / Test Report



TESTING
No.0042

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HIPO-TPO Plant

Lot ID: 2612681

Date Received : Feb 25, 2026

Date Reported : Mar 04, 2026

Report Number: 3519221-1

Page 1 of 1

Sample Number 2612681-3
Parameter Noise (Leq 24 hrs.)
Location บริเวณพื้นที่ของโรงกลั่นปิโตรเลียม (ห่างจาก ร่น. มัด 45) (GPS 47P 0727136, 1404550)
Measurement Date Feb 18 - Feb 19, 2026
Measurement by Sitpawit Suwannarat
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	49.7	70.0	44.9
12:00 PM - 01:00 PM	50.6	69.1	44.2
01:00 PM - 02:00 PM	49.8	69.5	44.7
02:00 PM - 03:00 PM	53.1	76.9	43.7
03:00 PM - 04:00 PM	51.1	71.0	44.0
04:00 PM - 05:00 PM	50.3	69.9	45.2
05:00 PM - 06:00 PM	52.1	70.4	47.7
06:00 PM - 07:00 PM	52.5	70.2	48.3
07:00 PM - 08:00 PM	51.0	67.3	47.6
08:00 PM - 09:00 PM	48.9	65.6	47.2
09:00 PM - 10:00 PM	48.3	61.9	47.4
10:00 PM - 11:00 PM	49.0	59.7	47.8
11:00 PM - 12:00 AM	50.9	69.8	48.1
12:00 AM - 01:00 AM	50.9	59.1	49.2
01:00 AM - 02:00 AM	49.4	57.7	48.5
02:00 AM - 03:00 AM	48.4	62.8	47.7
03:00 AM - 04:00 AM	47.8	55.1	47.2
04:00 AM - 05:00 AM	54.1	77.3	48.5
05:00 AM - 06:00 AM	52.7	81.0	49.1
06:00 AM - 07:00 AM	57.9	85.2	51.3
07:00 AM - 08:00 AM	56.6	73.2	51.2
08:00 AM - 09:00 AM	51.7	66.5	47.9
09:00 AM - 10:00 AM	49.3	67.7	46.7
10:00 AM - 11:00 AM	48.7	61.8	46.5

Leq Average 24 hrs. (dB(A)) 51.9
Lmax (dB(A)) 85.2
L90 (dB(A)) 47.5
Standard (dB(A)) 70
Reference Method : ISO 1996-1 : 2016
Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานคุณภาพสิ่งแวดล้อมใน
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดมาตรฐานคุณภาพอากาศ และระดับเสียงในโรงงานอุตสาหกรรม
โดยกรม พ.ศ. 2548
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Chontichak
Chonticha Subongkroh
Scientist (3)

Approved by

Supot S
Supot Salamteah
Section Head

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S:\Report\Air Noise\pt (1.58PM)



Analysis / Test Report



TESTING
No.0042

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPO-TPO Plant

Lot ID: 2612681

Date Received : Feb 25, 2026

Date Reported : Mar 04, 2026

Report Number: 3519224-1

Page 1 of 1

Sample Number 2612681-6
Parameter Noise (Leq 24 hrs.)
Location บริเวณบริเวณโรงงานอุตสาหกรรม (ห่างจาก รถ. นพ. 45) (GPS 47P 0727136, 1404553)
Measurement Date Feb 21 - Feb 22, 2026
Measurement by Sipawit Suwanarat
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	49.8	66.3	46.4
12:00 PM - 01:00 PM	48.7	63.5	45.5
01:00 PM - 02:00 PM	49.7	68.9	46.0
02:00 PM - 03:00 PM	49.5	68.5	46.1
03:00 PM - 04:00 PM	50.9	69.7	46.1
04:00 PM - 05:00 PM	49.1	68.5	45.1
05:00 PM - 06:00 PM	52.8	74.7	45.8
06:00 PM - 07:00 PM	54.4	72.3	48.7
07:00 PM - 08:00 PM	55.6	79.8	45.2
08:00 PM - 09:00 PM	47.4	65.0	45.0
09:00 PM - 10:00 PM	46.0	61.7	44.5
10:00 PM - 11:00 PM	46.3	59.9	44.7
11:00 PM - 12:00 AM	50.1	71.5	44.5
12:00 AM - 01:00 AM	47.3	67.9	44.6
01:00 AM - 02:00 AM	50.0	69.7	45.2
02:00 AM - 03:00 AM	45.1	52.1	44.3
03:00 AM - 04:00 AM	45.6	62.5	44.4
04:00 AM - 05:00 AM	55.7	80.9	44.5
05:00 AM - 06:00 AM	49.7	69.7	44.6
06:00 AM - 07:00 AM	56.3	70.0	52.2
07:00 AM - 08:00 AM	52.3	67.9	48.0
08:00 AM - 09:00 AM	50.4	69.8	46.1
09:00 AM - 10:00 AM	48.2	68.1	45.3
10:00 AM - 11:00 AM	49.8	73.0	45.1

Leq Average 24 hrs. (dB(A))

51.2

Lmax (dB(A))

80.9

L90 (dB(A))

45.2

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

Standard : 1. ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียง 15 (พ.ศ. 2540) (ประกาศกระทรวงมหาดไทยว่าด้วยเสียง)
2. ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียงการจราจร และระดับเสียงที่เกิดจากการจราจร
โดย พ.ร.บ. 2548

Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.



Analysis / Test Report



TESTING
No.0042

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPO-TPO Plant

Lot ID: 2612681

Date Received : Feb 25, 2026

Date Reported : Mar 04, 2026

Report Number: 3519225-1

Page 1 of 1

Sample Number 2612681-7
Parameter Noise (Leq 24 hrs.)
Location บริเวณบริเวณโรงงานอุตสาหกรรม (ห่างจาก รถ. นพ. 45) (GPS 47P 0727136, 1404553)
Measurement Date Feb 22 - Feb 23, 2026
Measurement by Sipawit Suwanarat
Sound Level meter Serial No. 623392

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	47.9	66.3	45.3
12:00 PM - 01:00 PM	46.7	56.8	44.3
01:00 PM - 02:00 PM	47.3	62.1	44.1
02:00 PM - 03:00 PM	53.7	76.7	45.0
03:00 PM - 04:00 PM	46.3	58.4	44.1
04:00 PM - 05:00 PM	47.0	58.6	44.6
05:00 PM - 06:00 PM	51.4	72.0	45.2
06:00 PM - 07:00 PM	53.7	74.4	48.7
07:00 PM - 08:00 PM	53.0	73.2	46.4
08:00 PM - 09:00 PM	47.8	62.5	46.0
09:00 PM - 10:00 PM	45.9	57.3	44.8
10:00 PM - 11:00 PM	46.4	62.0	44.5
11:00 PM - 12:00 AM	51.0	77.2	44.7
12:00 AM - 01:00 AM	48.6	70.4	45.6
01:00 AM - 02:00 AM	46.8	69.5	45.1
02:00 AM - 03:00 AM	46.9	60.6	45.9
03:00 AM - 04:00 AM	49.4	73.0	45.5
04:00 AM - 05:00 AM	53.4	76.4	46.5
05:00 AM - 06:00 AM	52.5	69.1	46.6
06:00 AM - 07:00 AM	58.3	75.9	53.6
07:00 AM - 08:00 AM	57.8	79.7	52.0
08:00 AM - 09:00 AM	51.1	68.4	46.9
09:00 AM - 10:00 AM	48.7	69.9	45.8
10:00 AM - 11:00 AM	48.3	58.3	45.6

Leq Average 24 hrs. (dB(A))

51.7

Lmax (dB(A))

79.7

L90 (dB(A))

45.5

Standard (dB(A))

70

115

Reference Method : ISO 1996-1 : 2016

Standard : 1. ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียง 15 (พ.ศ. 2540) (ประกาศกระทรวงมหาดไทยว่าด้วยเสียง)
2. ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียงการจราจร และระดับเสียงที่เกิดจากการจราจร
โดย พ.ร.บ. 2548

Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Chontichak
Chonticha Subongkroh
Scientist (3)

Approved by

Supot Salemtah
Section Head

Technical Management

Chontichak
Chonticha Subongkroh
Scientist (3)

Approved by

Supot Salemtah
Section Head

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8:25-20H/EMAIL

3 Reports/1 hr Noise (pt / 2:02PM)

Address 616/10 Moo 5 T. Maenam Khu A. Phakdang Rayong 21140 Thailand PHONE +66 0 3304 8555 FAX +66 0 3304 8556
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8:25-20H/EMAIL

3 Reports/1 hr Noise (pt / 2:02PM)

ระดับเสียงทั่วไป (Leq 24 hrs) บริเวณชุมชน



Analysis / Test Report



TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HIPO-TPO Plant

Lot ID: 2612683
Date Received : Feb 25, 2026
Date Reported : Mar 04, 2026
Report Number: 3519246-1

Page 1 of 1

Sample Number 2612683-6
Parameter Noise (Leq 24 hrs.)
Location กรุงเทพมหานคร (กรุงเทพมหานคร) (GPS 47P 0727177, 140H390)
Measurement Date Feb 21 - Feb 22, 2026
Measurement by Stpawit Suwanarat
Sound Level meter Serial No. 623395

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	56.2	83.4	47.4
11:00 AM - 12:00 PM	61.1	93.2	47.3
12:00 PM - 01:00 PM	58.1	83.1	48.3
01:00 PM - 02:00 PM	57.6	83.6	48.3
02:00 PM - 03:00 PM	58.6	82.5	48.8
03:00 PM - 04:00 PM	51.4	72.8	47.6
04:00 PM - 05:00 PM	53.4	74.0	47.1
05:00 PM - 06:00 PM	53.6	78.4	46.9
06:00 PM - 07:00 PM	55.6	81.6	47.1
07:00 PM - 08:00 PM	47.7	56.8	47.0
08:00 PM - 09:00 PM	47.3	56.2	46.8
09:00 PM - 10:00 PM	48.0	59.9	46.9
10:00 PM - 11:00 PM	51.9	74.9	46.9
11:00 PM - 12:00 AM	51.0	74.6	46.7
12:00 AM - 01:00 AM	49.2	65.5	46.8
01:00 AM - 02:00 AM	50.0	74.7	46.6
02:00 AM - 03:00 AM	49.8	73.0	46.6
03:00 AM - 04:00 AM	59.8	83.3	46.5
04:00 AM - 05:00 AM	60.9	83.7	46.3
05:00 AM - 06:00 AM	66.4	85.8	48.3
06:00 AM - 07:00 AM	64.2	85.2	47.3
07:00 AM - 08:00 AM	64.2	85.6	47.4
08:00 AM - 09:00 AM	61.6	84.3	47.1
09:00 AM - 10:00 AM	57.8	82.7	47.3

Leq Average 24 hrs. (dB(A))

Lmax (dB(A))

L90 (dB(A))

Standard (dB(A))

Reference Method : ISO 1996-1 : 2016

Standard : 1. ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียง 15 (พ.ศ. 2540) (ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียง)
2. ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียง (ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียง)
โดยกรม พ.ศ. 2548

Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Chontichak
Chonticha Subangchok
Scientist (I)

Approved by

Supot Salamteh
Section Head

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3/Version1, Air Noise rpt (2 28PM)

8525-200 EMAIL



Analysis / Test Report



TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HIPO-TPO Plant

Lot ID: 2612683
Date Received : Feb 25, 2026
Date Reported : Mar 04, 2026
Report Number: 3519247-1

Page 1 of 1

Sample Number 2612683-7
Parameter Noise (Leq 24 hrs.)
Location กรุงเทพมหานคร (กรุงเทพมหานคร) (GPS 47P 0727177, 140H390)
Measurement Date Feb 22 - Feb 23, 2026
Measurement by Stpawit Suwanarat
Sound Level meter Serial No. 623395

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:00 AM - 11:00 AM	58.7	83.4	47.5
11:00 AM - 12:00 PM	59.3	84.0	47.4
12:00 PM - 01:00 PM	56.9	82.9	47.5
01:00 PM - 02:00 PM	55.3	79.0	47.8
02:00 PM - 03:00 PM	57.2	84.6	47.2
03:00 PM - 04:00 PM	57.7	84.0	46.9
04:00 PM - 05:00 PM	57.8	87.5	46.9
05:00 PM - 06:00 PM	56.9	90.5	47.3
06:00 PM - 07:00 PM	52.4	75.2	47.6
07:00 PM - 08:00 PM	48.0	53.8	47.5
08:00 PM - 09:00 PM	47.5	53.4	47.1
09:00 PM - 10:00 PM	47.3	57.1	46.8
10:00 PM - 11:00 PM	52.1	78.3	46.9
11:00 PM - 12:00 AM	47.3	64.3	46.8
12:00 AM - 01:00 AM	47.5	57.6	47.0
01:00 AM - 02:00 AM	48.5	65.3	47.6
02:00 AM - 03:00 AM	56.4	82.3	47.2
03:00 AM - 04:00 AM	59.5	81.2	48.1
04:00 AM - 05:00 AM	61.3	85.2	47.7
05:00 AM - 06:00 AM	65.7	85.7	49.1
06:00 AM - 07:00 AM	62.3	86.6	49.3
07:00 AM - 08:00 AM	61.8	83.9	47.3
08:00 AM - 09:00 AM	61.8	83.6	47.3
09:00 AM - 10:00 AM	58.8	84.0	47.3

Leq Average 24 hrs. (dB(A))

Lmax (dB(A))

L90 (dB(A))

Standard (dB(A))

Reference Method : ISO 1996-1 : 2016

Standard : 1. ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียง 15 (พ.ศ. 2540) (ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียง)
2. ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียง (ประกาศกระทรวงมหาดไทยว่าด้วยมาตรฐานเสียง)
โดยกรม พ.ศ. 2548

Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Chontichak
Chonticha Subangchok
Scientist (I)

Approved by

Supot Salamteh
Section Head

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3/Version1, Air Noise rpt (2 28PM)

คุณภาพน้ำทิ้ง



Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O :
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 16, 2026
Report Number : 3488984-1

Page 1 of 2

Sample Number	25113888-2					
Sampled Date	Jan 07, 2026 10:20 AM					
Sample Description	Wastewater					
Location	PUL_EQ Tank					
Date Analysis Commenced	Jan 07, 2026					
Condition of Sample	Contained in two glass vials, three amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	1190	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	4258	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	16	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	14	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	3	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	6.8	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	32.3	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1650	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	19	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong

Note : Ambient Temperature is 27.8 degree celcius.

Sampling By : Wanlop Hunchanaow วิไลวรรณ 3-323-4-0038 , Pattarapol Sawangjittam วิไลวรรณ 3-204-4-0002

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Jitsupa P.
Jitsupa Pratuangsuak
Scientist (2)
วิไลวรรณ 3-323-4-0004

Approved by

D. Chongchon
Dej Chongchon
Senior Manager
วิไลวรรณ 3-323-4-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O :
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 15, 2026
Report Number : 3488984-2

Page 1 of 1

Sample Number	25113888-2					
Sampled Date	Jan 07, 2026 10:20 AM					
Sample Description	Wastewater					
Location	PUJ_EQ Tank					
Date Analysis Commenced	Jan 08, 2026					
Condition of Sample	Contained in two glass vials, three amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Organic Compounds						
Propylene oxide	mg/L	-	10	<10	In-house method based on United States Environmental Protection Agency, EPA Method 8015 B	Bangkok
Water Testing						
Methanol	mg/L	-	0.01	95.5	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 24th ed., 2013, part 6200 B	Bangkok

Sampling By : Wanlop Hunchanaow , Pattarapol Sawangjittam

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

Suwimon C.
Suwimon Chaiyavong
Scientist (3)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O :
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 16, 2026
Report Number : 3488984-1

Page 2 of 2

Sample Number							25113888-2
Sampled Date							Jan 07, 2026 10:20 AM
Sample Description							Wastewater
Location							PUL_EQ Tank
Date Analysis Commenced							Jan 07, 2026
Condition of Sample							Contained in two glass vials, three amber glass bottles and three plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)
Analyte							Unit
LOD							LOQ (LOR)
Result							Method
Testing Location							
Water Testing							
BOD (5 days at 20 Degree C)							mg/L
COD							mg/L
Color (at Original pH)							ADMI
Color (at pH 7.0)							ADMI
Oil & Grease							mg/L
pH at 25 degree C							-
Temperature *							Degree C
Total Dissolved Solids Dried at 180 degree C							mg/L
Total Suspended Solids Dried at 103-105 degree C							mg/L

Note : Ambient Temperature is 27.8 degree celcius.

Sampling By : Wanlop Hunchanaow วิไลวรรณ 3-323-4-0038 , Pattarapol Sawangjittam วิไลวรรณ 3-204-4-0002

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Jitsupa P.
Jitsupa Pratuangsuak
Scientist (2)
วิไลวรรณ 3-323-4-0004

Approved by

D. Chongchon
Dej Chongchon
Senior Manager
วิไลวรรณ 3-323-4-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O :
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508105-1

Page 1 of 2

Sample Number	265512-2					
Sampled Date	Feb 05, 2026 10:10 AM					
Sample Description	Wastewater					
Location	PUL_EQ Tank					
Date Analysis Commenced	Feb 05, 2026					
Condition of Sample	Contained in two glass vials, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	933	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	2897	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	22	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	18	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	7	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	7.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	34.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1680	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	17	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong

Note : Ambient Temperature is 32.0 degree celcius.

Sampling By : Wanlop Hunchanaow วิไลวรรณ 3-323-4-0038 , Pattarapol Sawangjittam วิไลวรรณ 3-204-4-0002

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Photchana S.
Photchana Seeda
Scientist (4)
วิไลวรรณ 3-323-4-0028

Approved by

D. Chongchon
Dej Chongchon
Senior Manager
วิไลวรรณ 3-323-4-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

TESTING
No.0042

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508106-1

Page 2 of 2



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508106-2

Page 2 of 2

Sample Number	265512-2					
Sample Date	Feb 05, 2026 10:10 AM					
Sample Description	Wastewater					
Location	PUL_EQ Tank					
Date Analysis Commenced	Feb 06, 2026					
Condition of Sample	Contained in two glass vials, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Organic Compounds						
Propylene oxide	mg/L	-	10	<10	In-house method based on United States Environmental Protection Agency, EPA Method 8015 B	Bangkok
Water Testing						
Methanol	mg/L	-	0.01	479	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok

Note : Ambient Temperature is 32.0 degree celsius.

Sampling By : Wanlop Hunchanaow , Pattarapol Sawangaitam

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

Photchanas

Photchanas Seeda
Scientist (4)
โทรศัพท์ ๖-323-๙-0028

Approved by

D. Chongchon

Dej Chongchon
Senior Manager
โทรศัพท์ ๖-323-๙-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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6275-220 (EN)

S (Report)_AL_NGL rpt (7.39PP)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

TESTING
No.0042

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526460-1

Page 2 of 2

Sample Number	2616230-2					
Sample Date	Mar 04, 2026 10:10 AM					
Sample Description	Wastewater					
Location	PUL_EQ Tank					
Date Analysis Commenced	Mar 04, 2026					
Condition of Sample	Contained in two glass vials, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	560	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	2576	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	13	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	12	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	7.1	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (G)	Rayong
Temperature *	Degree C	-	-	34.5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1930	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	15	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Note : Ambient Temperature is 32.1 degree celsius.

Sampling By : Wanlop Hunchanaow โทรศัพท์ ๖-323-๙-0038 , Thanassorn Namakurua โทรศัพท์ ๖-204-๙-0101

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * : value not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025.

Technical Management

Photchanas

Photchanas Seeda
Scientist (4)
โทรศัพท์ ๖-323-๙-0028

Approved by

D. Chongchon

Dej Chongchon
Senior Manager
โทรศัพท์ ๖-323-๙-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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6275-220 (EN)

S (Report)_AL_NGL rpt (7.39PP)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526460-1

Page 2 of 2

Sample Number	2616230-2					
Sample Date	Mar 04, 2026 10:10 AM					
Sample Description	Wastewater					
Location	PUL_EQ Tank					
Date Analysis Commenced	Mar 04, 2026					
Condition of Sample	Contained in two glass vials, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	560	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	2576	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	13	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	12	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	7.1	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (G)	Rayong
Temperature *	Degree C	-	-	34.5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1930	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	15	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Note : Ambient Temperature is 32.1 degree celsius.

Sampling By : Wanlop Hunchanaow โทรศัพท์ ๖-323-๙-0038 , Thanassorn Namakurua โทรศัพท์ ๖-204-๙-0101

Remark :

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- Sampling is not included in scope of accreditation ISO/IEC 17025.

Technical Management

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Scientist (4)
โทรศัพท์ ๖-323-๙-0028

Approved by

D. Chongchon

Dej Chongchon
Senior Manager
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6275-220 (EN)

S (Report)_AL_NGL rpt (7.39PP)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526460-2

Page 1 of 1

Sample Number	2616230-2					
Sampled Date	Mar 04, 2026 10:10 AM					
Sample Description	Wastewater					
Location	PUL_EQ Tank					
Date Analysis Commenced	Mar 05, 2026					
Condition of Sample	Contained in two glass vials, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Organic Compounds						
Propylene oxide	mg/L	-	10	<10	In-house method based on United States Environmental Protection Agency, EPA Method 8015 B	Bangkok
Water Testing						
Methanol	mg/L	-	0.01	146	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok

Sampling By : Wanlop Huchinaeow , Thanassun Namakumma

Remark :
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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Approved by

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025-202 ENH



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2625138
Date Received : Apr 01, 2026
Date Reported : Apr 09, 2026
Report Number : 3547710-1

Page 2 of 2

Sample Number	2625138-2					
Sampled Date	Apr 01, 2026 9:45 AM					
Sample Description	Wastewater					
Location	PUL_EQ Tank					
Date Analysis Commenced	Apr 02, 2026					
Condition of Sample	Contained in two BOD bottles, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Organic Compounds						
Propylene oxide	mg/L	-	10	<10	In-house method based on United States Environmental Protection Agency, EPA Method 8015 B	Bangkok
Water Testing						
Methanol	mg/L	-	0.01	454	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok

Sampling By : Surawit Narapong , Pattarapol Sawangjalaim

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Approved by

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2625138
Date Received : Apr 01, 2026
Date Reported : Apr 09, 2026
Report Number : 3547710-1

Page 1 of 2

Sample Number	2625138-2					
Sampled Date	Apr 01, 2026 9:45 AM					
Sample Description	Wastewater					
Location	PUL_EQ Tank					
Date Analysis Commenced	Apr 01, 2026					
Condition of Sample	Contained in two BOD bottles, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	576	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	2028	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADHI	-	5	12	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADHI	-	5	11	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	7.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	30.1	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1780	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	16	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Note : Ambient Temperature is 39.2 degree celcius.

Sampling By : Surawit Narapong , Pattarapol Sawangjalaim

Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17020.

Technical Management

Photchanas
Photchanas Seeda
Scientist (4)
โทรศัพท์ 3-323-0028

Approved by

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2625138
Date Received : Apr 01, 2026
Date Reported : Apr 09, 2026
Report Number : 3547710-2

Page 1 of 1

Sample Number	2625138-2					
Sampled Date	Apr 01, 2026 9:45 AM					
Sample Description	Wastewater					
Location	PUL_EQ Tank					
Date Analysis Commenced	Apr 02, 2026					
Condition of Sample	Contained in two BOD bottles, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Organic Compounds						
Propylene oxide	mg/L	-	10	<10	In-house method based on United States Environmental Protection Agency, EPA Method 8015 B	Bangkok
Water Testing						
Methanol	mg/L	-	0.01	454	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok

Sampling By : Surawit Narapong , Pattarapol Sawangjalaim

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Approved by

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Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HPP0-TPO Plant

Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570219-1

Page 1 of 2

Sample Number	2634797-2					Page 1 of 1
Sampled Date	May 06, 2026 9:58 AM					
Sample Description	Wastewater					
Location	PUL_EQ Tank					
Date Analysis Commenced	May 06, 2026					
Condition of Sample	Contained in two glass vials, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	704	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	2850	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	68	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	63	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	4	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	8.4	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (8)	Rayong
Temperature *	Degree C	-	-	30.6	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1450	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	60	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Note : Ambient Temperature is 29.6 degree Celsius.

Sampling By : Arnonwich Wongsachai รหัสประจำตัว 3-323-0-0040, Pattarapol Sawangjaitam รหัสประจำตัว 3-324-0-0002

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Photchanas

Photchanas Seeda
Scientist (4)
รหัสประจำตัว 3-323-0-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager
รหัสประจำตัว 3-323-0-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.
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S/Report/AL_Net_V01 (1-4/2019)



Analysis / Test Report

Lot ID: 2634797

Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570219-2

Page 1 of 2

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HPP0-TPO Plant

Page 1 of 1							
Sample Number	2634797-2						
Sampled Date	May 06, 2026 9:58 AM						
Sample Description	Wastewater						
Location	PUL_EQ Tank						
Date Analysis Commenced	May 08, 2026						
Condition of Sample	Contained in two glass vials, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Organic Compounds							
Propylene oxide	mg/L	-	10	<10	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 8015 B	Rayong
Water Testing							
Methanol	mg/L	-	0.01	238	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Rayong

Guideline :

Note : Ambient Temperature is 29.6 degree Celsius.

Sampling By : Arnonwich Wongsachai , Pattarapol Sawangjaitam

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Approved by

Siriluk P.

Siriluk Bunnak
Section Head

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6275 (24) (MAL)

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S/Report/AL_Net_V01 (1-4/2019)



Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HPP0-TPO Plant

Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570219-1

Page 2 of 2

Page 2 of 6

Note : Ambient Temperature is 29.6 degree Celsius.

Sampling By : Arnonwich Wongsachai รหัสประจำตัว 3-323-0-0040, Pattarapol Sawangjaitam รหัสประจำตัว 3-324-0-0002

Remark :

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- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

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รหัสประจำตัว 3-323-0-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager
รหัสประจำตัว 3-323-0-0001

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S/Report/AL_Net_V01 (1-4/2019)



Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPP0-TPO Plant

Lot ID: 2645084
Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594845-1

Page 1 of 2

Page 1 of 8						
Sample Number	2645084-2					
Sampled Date	Jun 04, 2026 9:40 AM					
Sample Description	Wastewater					
Location	PUL_EQ Tank					
Date Analysis Commenced	Jun 04, 2026					
Condition of Sample	Contained in two glass vials, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	2.0	316	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	2356	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	29	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	26	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Oil & Grease	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	8.1	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (8)	Rayong
Temperature *	Degree C	-	-	38.3	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1750	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	54	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Note : Ambient Temperature is 34.7 degree Celsius.

Sampling By : Nattawut Abthumprormmarat รหัสประจำตัว 3-323-0-0006, Photchanan Inpiak รหัสประจำตัว 3-324-0-0197

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Photchanas

Photchanas Seeda
Scientist (4)
รหัสประจำตัว 3-323-0-0028

Approved by

D. Changchon

Dej Changchon
Senior Manager
รหัสประจำตัว 3-323-0-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.
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6275 (24) (MAL)

RIGHT SOLUTIONS RIGHT PARTNERS

S/Report/AL_Net_V01 (1-4/2019)



Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2645084
Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594045-1

Page 2 of 2



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2645084
Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594045-2

Page 1 of 1

Sample Number	2645084-2						
Sample Date	Jun 04, 2026 9:40 AM						
Sample Description	Wastewater						
Location	PUL_EQ Tank						
Date Analysis Commenced	Jun 05, 2026						
Condition of Sample	Contained in two glass vials, three amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Organic Compounds							
Propylene oxide	mg/L	-	10	<10	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 8015 B	Bangkok
Water Testing							
Methanol	mg/L	-	0.01	202	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6200 B	Bangkok

Guideline :

Note : Ambient Temperature is 34.7 degree Celsius.

Sampling By : Nattawat Athompummarat , Patchanan Inpiak

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

Photchanas
Photchanas Seeda
Scientist (4)
โทรศัพท์ 3-323-4-0028

Approved by

D. Changchon
Dej Changchon
Senior Manager
โทรศัพท์ 3-323-4-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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RIGHT SOLUTIONS RIGHT PARTNERS

6125-200 (ENH)

S:\Report\AL_04_01 (4-1201)

Approved by

Siriluk P.
Siriluk Bunak
Section Head

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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RIGHT SOLUTIONS RIGHT PARTNERS

S:\Report\AL_04_01 (4-1201)



Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O :
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 16, 2026
Report Number : 3488983-1

Page 1 of 3

Sample Number	25113888-1						
Sample Date	Jan 07, 2026 2:10 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Jan 07, 2026						
Condition of Sample	Contained in two glass vials, three amber glass bottles, two BOD bottles and six plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	4.2	≤20	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	46	≤120	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	10	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	9	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Cyanide as CN	mg/L	0.001	0.005	0.006	≤0.2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500-CN (C, I)	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 Degree C	-	-	-	8.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong

Technical Management

Jitsupa P.
Jitsupa Prataungkuk
Scientist (2)
โทรศัพท์ 3-323-4-0004

Approved by

D. Changchon
Dej Changchon
Senior Manager
โทรศัพท์ 3-323-4-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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6125-200 (ENH)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O :
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 16, 2026
Report Number : 3488983-1

Page 2 of 3

Sample Number	25113888-1						
Sample Date	Jan 07, 2026 2:10 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Jan 07, 2026						
Condition of Sample	Contained in two glass vials, three amber glass bottles, two BOD bottles and six plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.005	0.01	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5530 B, D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500 Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	32.6	≤40	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1170	≤3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.2	≤100	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part NHT (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Ambient Temperature is 30.8 degree Celsius.

Sampling By : Wanlop Hunchaisaw โทรศัพท์ 3-323-4-0038 , Patarapol Sawangjittam โทรศัพท์ 3-204-4-0032

Remark :

Technical Management

Jitsupa P.
Jitsupa Prataungkuk
Scientist (2)
โทรศัพท์ 3-323-4-0004

Approved by

D. Changchon
Dej Changchon
Senior Manager
โทรศัพท์ 3-323-4-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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6125-200 (ENH)

S:\Report\AL_04_01 (4-1201)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O :
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant



TESTING

No.0042
Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 16, 2026
Report Number : 3488983-1

Page 3 of 3

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O :
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 15, 2026
Report Number : 3488983-2

Page 1 of 3

Page 1 of 2

Sample Number	25113888-1						
Sampled Date	Jan 07, 2026 2:10 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Jan 09, 2026						
Condition of Sample	Contained in two glass vials, three amber glass bottles, two BOD bottles and six plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
2,4-DDD	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDD	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Aldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

Jitsupa P.
Jitsupa Pratsungsuk
Scientist (2)
โทรศัพท์มือถือ : 0-323-4-0004

Approved by

D. Chongchorn
Dj Chongchorn
Senior Manager
โทรศัพท์มือถือ : 0-323-4-0001

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0575-1281 (THAI)

0575-1281 (ALB) (pt 1 of 3) (EN)

Technical Management

Swimon C.
Swimon Chainuangwut
Scientist (3)
โทรศัพท์มือถือ : 0-204-4-0018

Approved by

Kanokorn Anek
Kanokorn Anek
Assistant General Manager
โทรศัพท์มือถือ : 0-204-4-0004

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0575-1281 (THAI)

0575-1281 (ALB) (pt 2 of 3) (EN)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O :
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 15, 2026
Report Number : 3488983-2

Page 2 of 3

Page 2 of 2

Sample Number	25113888-1						
Sampled Date	Jan 07, 2026 2:10 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Jan 09, 2026						
Condition of Sample	Contained in two glass vials, three amber glass bottles, two BOD bottles and six plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
beta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Chlordane	ug/L	0.02	0.04	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
delta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Dieldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan I	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan II	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

Swimon C.
Swimon Chainuangwut
Scientist (3)
โทรศัพท์มือถือ : 0-204-4-0018

Approved by

Kanokorn Anek
Kanokorn Anek
Assistant General Manager
โทรศัพท์มือถือ : 0-204-4-0004

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0575-1281 (THAI)

0575-1281 (ALB) (pt 3 of 3) (EN)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O :
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 15, 2026
Report Number : 3488983-2

Page 3 of 3

Page 3 of 3

Sample Number	25113888-1						
Sampled Date	Jan 07, 2026 2:10 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Jan 09, 2026						
Condition of Sample	Contained in two glass vials, three amber glass bottles, two BOD bottles and six plastic bottles. Sample containers comply to pretreatment - preservation standards. (APHA / USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Methoxychlor	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of the Ministry of Industry dated June 07, B.E.2550 (2017).

Sampling By : Wanlop Hunchanaow โทรศัพท์มือถือ : 0-323-4-0038, Pattarapol Sawanglaim โทรศัพท์มือถือ : 0-204-4-0002

- Remark :
- LOD : Limit of Detection
 - "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

Swimon C.
Swimon Chainuangwut
Scientist (3)
โทรศัพท์มือถือ : 0-204-4-0018

Approved by

Kanokorn Anek
Kanokorn Anek
Assistant General Manager
โทรศัพท์มือถือ : 0-204-4-0004

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0575-1281 (THAI)

0575-1281 (ALB) (pt 3 of 3) (EN)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O :
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 15, 2026
Report Number : 3488985-3

Page 1 of 1

Sample Number 25113888-1
Sample Date Jan 07, 2026 2:10 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Jan 07, 2026
Condition of Sample Contained in two glass vials, three amber glass bottles, two BOD bottles and six plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-Chlordane	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
gamma-Chlordane	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Hexachlorobenzene	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Merx	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Water Testing Chlorine	mg/L	-	0.01	0.42	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Cl (F)	Rayong
Dissolved Oxygen	mg/L	-	0.1	6.5	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-O (C)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Ambient Temperature is 30.8 degree celcius.

Sampling By : Winlop Hunchainee, Pattarapol Sawiangtarn

Remark :
- LOD : Limit of Detection
- "C" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

Jitsupa P.

Jitsupa Pratuangsuik
Scientist (2)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O :
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 15, 2026
Report Number : 3488985-1

Page 2 of 3

Sample Number 25113888-3
Sample Date Jan 07, 2026 2:10 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Jan 08, 2026
Condition of Sample Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	0.03	≤0.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3112	Bangkok
Nickel	mg/L	0.0003	0.0005	0.004	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	0.0008	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Zinc	mg/L	0.003	0.005	1.01	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Winlop Hunchainee วิมลบุษยทรัพย์ 323-4-0038, Pattarapol Sawiangtarn วิมลบุษยทรัพย์ 3204-4-0002

Remark :
- LOD : Limit of Detection
- "C" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.

Technical Management

Savitree N.

Savitree Naisangiam
Manager
วิมลบุษยทรัพย์ 3204-4-0007

Approved by

Kanokorn Anek

Kanokorn Anek
Assistant General Manager
วิมลบุษยทรัพย์ 3204-4-0004

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O :
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

Sample Number 25113888-3
Sample Date Jan 07, 2026 2:10 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Jan 08, 2026
Condition of Sample Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.005	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.12	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	0.002	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.004	≤2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Technical Management

Savitree N.

Savitree Naisangiam
Manager
วิมลบุษยทรัพย์ 3204-4-0007

Approved by

Kanokorn Anek

Kanokorn Anek
Assistant General Manager
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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O :
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

- Sampling is not included in scope of accreditation ISO/IEC 17025

Sample Number 25113888-3
Sample Date Jan 07, 2026 2:10 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Jan 08, 2026
Condition of Sample Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	0.03	≤0.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3112	Bangkok
Nickel	mg/L	0.0003	0.0005	0.004	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	0.0008	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Zinc	mg/L	0.003	0.005	1.01	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Winlop Hunchainee วิมลบุษยทรัพย์ 323-4-0038, Pattarapol Sawiangtarn วิมลบุษยทรัพย์ 3204-4-0002

Remark :
- LOD : Limit of Detection
- "C" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.

Technical Management

Savitree N.

Savitree Naisangiam
Manager
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Approved by

Kanokorn Anek

Kanokorn Anek
Assistant General Manager
วิมลบุษยทรัพย์ 3204-4-0004

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report



TESTING
No.0009

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O :
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 25113888
Date Received : Jan 07, 2026
Date Reported : Jan 15, 2026
Report Number : 3488985-2

Page 1 of 1

Sample Number	25113888-3						
Sampled Date	Jan 07, 2026 2:10 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Jan 08, 2026						
Condition of Sample	Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	0.15	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3130 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3130 F	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Wanlop Hunchainawee, Pattarapol Sawangjittam

Remark :
- LOD : Limit of Detection
- "x" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked "x" is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Approved by

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Savitree Nongkiam
Manager

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0-Weatrol, AL, B, net (4-4999)



Analysis / Test Report



TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508105-1

Page 1 of 3

Page 1 of 2

Sample Number	265512-1						
Sampled Date	Feb 05, 2026 2:00 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Feb 05, 2026						
Condition of Sample	Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	51	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADN	-	5	9	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADN	-	5	11	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Cyanide as CN	mg/L	0.001	0.005	0.010	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C	-	-	-	8.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong

Technical Management

Photchanas
Photchanas Seeda
Scientist (4)
โทรศัพท์ ๖-323-๖-0028

Approved by

D. Chongchon
Dej Chongchon
Senior Manager
โทรศัพท์ ๖-323-๖-0001

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0125-230-0940

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0-Weatrol, AL, B, net (4-4999)



Analysis / Test Report



TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508105-1

Page 2 of 3

Page 2 of 2

Sample Number	265512-						
Sampled Date	Feb 05, 2026 2:00 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Feb 05, 2026						
Condition of Sample	Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.005	0.01	0.06	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5530 B, D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-52 (C, F)	Rayong
Temperature *	Degree C	-	-	33.1	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	896	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.2	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part 4500 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Ambient Temperature is 31.6 degree Celsius.

Sampling By : Wanlop Hunchainawee, Pattarapol Sawangjittam, วรณัฐ ๖-323-๖-0038, Pattarapol Sawangjittam วรณัฐ ๖-323-๖-0002

Remark :
- LOD : Limit of Detection

Technical Management

Photchanas
Photchanas Seeda
Scientist (4)
โทรศัพท์ ๖-323-๖-0028

Approved by

D. Chongchon
Dej Chongchon
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RIGHT SOLUTIONS RIGHT PARTNER

0-Weatrol, AL, B, net (4-4999)



Analysis / Test Report



TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508105-1

Page 3 of 3

- "x" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked "x" is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

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Scientist (4)
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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508105-2

Page 1 of 3

Sample Number 265512-1
Sample Date Feb 05, 2026 2:00 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Feb 07, 2026
Condition of Sample Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
2,4-DDD	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDD	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Aldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

Siriluk P.

Siriluk Bunnak
Section Head
วณิชกุลศิริ 7-204-0013

Approved by

Karekorn Anek

Karekorn Anek
Assistant General Manager
วณิชกุลศิริ 7-204-0004

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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625-220 (BKK) 625-220 (BKK) 625-220 (BKK)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508105-2

Page 3 of 3

Sample Number 265512-1
Sample Date Feb 05, 2026 2:00 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Feb 07, 2026
Condition of Sample Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Methoxychlor	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Ambient Temperature is 31.6 degree Celsius.

Sampling By : Wanlop Hunchainaw วณิชกุลศิริ 7-323-0038, Pattarapol Sawangjittam วณิชกุลศิริ 7-204-0002

Remark :
- LOD : Limit of Detection
- "nd" : Lower than LOQ (Limit of Quantitation) / LOD (Limit of Reporting)

Technical Management

Siriluk P.

Siriluk Bunnak
Section Head
วณิชกุลศิริ 7-204-0013

Approved by

Karekorn Anek

Karekorn Anek
Assistant General Manager
วณิชกุลศิริ 7-204-0004

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508105-2

Page 2 of 3

Sample Number 265512-1
Sample Date Feb 05, 2026 2:00 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Feb 07, 2026
Condition of Sample Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
beta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Chlordane	ug/L	0.02	0.04	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
delta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Dieldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan I	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan II	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

Siriluk P.

Siriluk Bunnak
Section Head
วณิชกุลศิริ 7-204-0013

Approved by

Karekorn Anek

Karekorn Anek
Assistant General Manager
วณิชกุลศิริ 7-204-0004

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508105-3

Page 1 of 1

Sample Number 265512-1
Sample Date Feb 05, 2026 2:00 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Feb 05, 2026
Condition of Sample Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-Chlordane	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
gamma-Chlordane	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Hexachlorobenzene	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Mirex	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Water Testing							
Chlorine	mg/L	-	0.01	0.33	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-C (F)	Rayong
Dissolved Oxygen	mg/L	-	0.1	7.1	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-C (C)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Ambient Temperature is 31.6 degree Celsius.

Sampling By : Wanlop Hunchainaw วณิชกุลศิริ 7-323-0038, Pattarapol Sawangjittam วณิชกุลศิริ 7-204-0002

Remark :
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- "nd" : Lower than LOQ (Limit of Quantitation) / LOD (Limit of Reporting)

Approved by

Siriluk P.

Siriluk Bunnak
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Analysis / Test Report

TESTING
No.0009

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508107-1

Page 1 of 3

Sample Number 265512-3
Sample Date Feb 05, 2026 2:00 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Feb 06, 2026
Condition of Sample Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.006	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.17	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	0.002	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.0006	≤2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok

Technical Management

Chanatt L.
Chanattagarn Inchoom
Section Head
โทรศัพท์ ๖-204-๙-0008

Approved by

Kanokorn Anek
Kanokorn Anek
Assistant General Manager
โทรศัพท์ ๖-204-๙-0004

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Analysis / Test Report

TESTING
No.0009

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508107-1

Page 2 of 3

Sample Number 265512-3
Sample Date Feb 05, 2026 2:00 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Feb 06, 2026
Condition of Sample Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	0.03	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3112	Bangkok
Nickel	mg/L	0.0003	0.0005	0.005	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	0.0007	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok
Zinc	mg/L	0.003	0.005	1.10	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Wanlop Hunchainow โทรศัพท์ ๖-323-๙-0038 , Pattarapol Sawangjittam โทรศัพท์ ๖-204-๙-0002

Remark :

- LOD : Limit of Detection
- * : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * were not included in scope of Accreditation ISO/IEC 17025.

Technical Management

Chanatt L.
Chanattagarn Inchoom
Section Head
โทรศัพท์ ๖-204-๙-0008

Approved by

Kanokorn Anek
Kanokorn Anek
Assistant General Manager
โทรศัพท์ ๖-204-๙-0004

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Analysis / Test Report

TESTING
No.0009

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508107-1

Page 3 of 3

- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Chanatt L.
Chanattagarn Inchoom
Section Head
โทรศัพท์ ๖-204-๙-0008

Approved by

Kanokorn Anek
Kanokorn Anek
Assistant General Manager
โทรศัพท์ ๖-204-๙-0004

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Analysis / Test Report

TESTING
No.0009

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

Lot ID: 265512
Date Received : Feb 05, 2026
Date Reported : Feb 13, 2026
Report Number : 3508107-2

Page 1 of 1

Sample Number 265512-3
Sample Date Feb 05, 2026 2:00 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Feb 06, 2026
Condition of Sample Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	0.09	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B.3030 F	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Wanlop Hunchainow , Pattarapol Sawangjittam

Remark :

- LOD : Limit of Detection
- * : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * were not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

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Approved by

Chanatt L.
Chanattagarn Inchoom
Section Head

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Analysis / Test Report



TESTING
No.0042

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526459-1

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

Page 1 of 3

Sample Number 2616230-1
Sample Date Mar 04, 2026 3:10 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Mar 04, 2026
Condition of Sample Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOQ)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	38	≤120	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	28	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	28	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Cyanide as CN	mg/L	0.001	0.005	0.007	≤0.2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500-CN (C, I)	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Rayong
pH at 25 degree C		-	-	8.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong

Technical Management

Photchanas
Photchanas Seeda
Scientist (4)
โทรศัพท์ ๖-323-๖0028

Approved by

Dej Changchon
Senior Manager
โทรศัพท์ ๖-323-๖0001

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Analysis / Test Report



TESTING
No.0042

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526459-1

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

Page 3 of 3

LOD : Limit of Detection
" < " : Lower than LOQ (Limit of Quantitation) / LOQ (Limit of Reporting)
Analyte(s) marked * where not included in scope of Accreditation ISO/IEC 17025.
Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Photchanas
Photchanas Seeda
Scientist (4)
โทรศัพท์ ๖-323-๖0028

Approved by

Dej Changchon
Senior Manager
โทรศัพท์ ๖-323-๖0001

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Analysis / Test Report



TESTING
No.0042

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526459-1

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

Page 2 of 3

Sample Number 2616230-1
Sample Date Mar 04, 2026 3:10 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Mar 04, 2026
Condition of Sample Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOQ)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.005	0.01	0.02	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5530 B, D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	0.3	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	32.8	≤40	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	780	≤3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	3.8	≤100	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part NHO (D)	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of The Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Ambient Temperature is 32.3 degree celcius.

Sampling By : Wanlop Hunchaihaow โทรศัพท์ ๖-323-๖0038 , Thanassun Namakunna โทรศัพท์ ๖-204-๖0101

Remark :

Technical Management

Photchanas
Photchanas Seeda
Scientist (4)
โทรศัพท์ ๖-323-๖0028

Approved by

Dej Changchon
Senior Manager
โทรศัพท์ ๖-323-๖0001

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Analysis / Test Report

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526459-2

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant

Page 1 of 3

Sample Number 2616230-1
Sample Date Mar 04, 2026 3:10 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Mar 06, 2026
Condition of Sample Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOQ)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
2,4-DDD	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDD	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Aldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

Suwimon C.
Suwimon Chaiuangrut
Scientist (3)
โทรศัพท์ ๖-204-๖0018

Approved by

Kanokorn Anek
Assistant General Manager
โทรศัพท์ ๖-204-๖0004

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5 (Scope), AL.G. ed. 1 (2019)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526459-2

Page 2 of 3

Sample Number	2616230-1						
Sampled Date	Mar 04, 2026 3:10 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Mar 06, 2026						
Condition of Sample	Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
beta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Chlordane	ug/L	0.02	0.04	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
delta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Dieldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan I	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan II	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

Suwimon C.
Suwimon Chaiungwut
Scientist (3)
วิไลวุฒิธร 3-204-0-0018

Approved by

Kanokorn Anek
Kanokorn Anek
Assistant General Manager
วิไลวุฒิธร 3-204-0-0004

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526459-2

Page 3 of 3

Page 3 of 3

Sample Number	2616230-1						
Sampled Date	Mar 04, 2026 3:10 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Mar 06, 2026						
Condition of Sample	Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor-Epoide	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Methoxychlor	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Wanlop Hunchaiueaw วิไลวุฒิธร 3-323-0-0038 , Thanassun Namakunna วิไลวุฒิธร 3-204-0-0001

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

Suwimon C.
Suwimon Chaiungwut
Scientist (3)
วิไลวุฒิธร 3-204-0-0018

Approved by

Kanokorn Anek
Kanokorn Anek
Assistant General Manager
วิไลวุฒิธร 3-204-0-0004

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526459-3

Page 1 of 1

Sample Number	2616230-1						
Sampled Date	Mar 04, 2026 3:10 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Mar 04, 2026						
Condition of Sample	Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOQ)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-Chlordane	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
gamma-Chlordane	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Hexachlorobenzene	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Mirex	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Water Testing							
Chlorine	mg/L	-	0.01	0.58	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Cl (F)	Rayong
Dissolved Oxygen	mg/L	-	0.1	6.1	No Standard	Standard Methods for the	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Wanlop Hunchaiueaw , Thanassun Namakunna

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

Phatchana S.
Phatchana Seeds
Scientist (4)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant

TESTING
No.0009
Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526461-1

Page 1 of 3

Page 1 of 2

Sample Number	2616230-3						
Sampled Date	Mar 04, 2026 3:10 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Mar 05, 2026						
Condition of Sample	Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.007	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.18	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	0.002	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.001	≤2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-C B	Bangkok
Lead	mg/L	0.0003	0.0005	0.0010	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Technical Management

Savitree N.
Savitree Naisongiam
Manager
วิไลวุฒิธร 3-204-0-0007

Approved by

Kanokorn Anek
Kanokorn Anek
Assistant General Manager
วิไลวุฒิธร 3-204-0-0004

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Analysis / Test Report



TESTING
No.0009

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526461-1

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Page 2 of 3

Sample Number 2616230-3
Sampled Date Mar 04, 2026 3:10 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Mar 05, 2026
Condition of Sample Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Manganese	mg/L	0.0003	0.0005	0.47	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3112	Bangkok
Nickel	mg/L	0.0003	0.0005	0.006	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	0.0007	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Zinc	mg/L	0.003	0.005	1.42	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Wanlop Hunchanaow วัฒนโฒชัย 7-323-4-0038 , Thanasson Namakunna วัฒนโฒชัย 7-204-4-0101

Remark :
LOD : Limit of Detection
"≤" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.

Technical Management

Sawitree N.
Sawitree Naisangiam
Manager
วัฒนโฒชัย 7-204-4-0007

Approved by

Kanokkorn Anek
Assistant General Manager
วัฒนโฒชัย 7-204-4-0004

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Analysis / Test Report



TESTING
No.0009

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526461-2

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Page 1 of 1

Sample Number 2616230-3
Sampled Date Mar 04, 2026 3:10 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Mar 05, 2026
Condition of Sample Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	0.07	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Wanlop Hunchanaow วัฒนโฒชัย 7-323-4-0038 , Thanasson Namakunna วัฒนโฒชัย 7-204-4-0101

Remark :
LOD : Limit of Detection
"≤" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
Sampling is not included in scope of Accreditation ISO/IEC 17025

Approved by

Sawitree N.
Sawitree Naisangiam
Manager

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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5 Ngwara, ALB, sp (1.33PM)



Analysis / Test Report



TESTING
No.0009

Lot ID: 2616230
Date Received : Mar 04, 2026
Date Reported : Mar 12, 2026
Report Number : 3526461-1

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Page 3 of 3

Sampling is not included in scope of Accreditation ISO/IEC 17025

Technical Management

Sawitree N.
Sawitree Naisangiam
Manager
วัฒนโฒชัย 7-204-4-0007

Approved by

Kanokkorn Anek
Assistant General Manager
วัฒนโฒชัย 7-204-4-0004

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5 Ngwara, ALB, sp (1.33PM)



Analysis / Test Report



TESTING
No.0042

Lot ID: 2625138
Date Received : Apr 01, 2026
Date Reported : Apr 09, 2026
Report Number : 3547709-1

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPPO-TPO Plant

Page 1 of 3

Sample Number 2625138-1
Sampled Date Apr 01, 2026 2:20 PM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Apr 01, 2026
Condition of Sample Contained in two BOD bottles, three amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	30	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	14	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	11	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Cyanide as CN	mg/L	0.001	0.005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 CH (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2009	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5320 B	Rayong
pH at 25 degree C	-	-	-	8.5	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong

Technical Management

Photchanas
Photchanas Seeda
Scientist (4)
วัฒนโฒชัย 7-323-4-0028

Approved by

Dej Changchon
Senior Manager
วัฒนโฒชัย 7-323-4-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HFPO-TPO Plant

Lot ID: 2625138
Date Received : Apr 01, 2026
Date Reported : Apr 09, 2026
Report Number : 3547709-1

Page 2 of 3

Sample Number	2625138-1						
Sampled Date	Apr 01, 2026 2:20 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Apr 01, 2026						
Condition of Sample	Contained in two BOD bottles, three amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.005	0.01	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5530 B, D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	0.7	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-52 (C, F)	Rayong
Temperature *	Degree C	-	-	34.4	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1040	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	3.2	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part 4500-D	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Note : Ambient Temperature is 33.2 degree Celsius.

Sampling By : สุรเวท นารอง นวคณวิทย์ 3-323-0011, Pattarapol Sawangjitam นวคณวิทย์ 3-204-0002

Remark :
- LOD : Limit of Detection

Technical Management

Photchanas

Photchanas Seeda
Scientist (4)
นวคณวิทย์ 3-323-0028

Approved by

Dej Changchon

Dej Changchon
Senior Manager
นวคณวิทย์ 3-323-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Life Sciences

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NIGHT SOLUTIONS NIGHT PARTNER

6125-230 (ENGL)

3 (Word), A1, B1, opt (3.33%)



Analysis / Test Report

Lot ID: 2625138

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HFPO-TPO Plant

Date Received : Apr 01, 2026
Date Reported : Apr 09, 2026
Report Number : 3547709-2

Page 1 of 3

Sample Number	2625138-1						
Sampled Date	Apr 01, 2026 2:20 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Apr 04, 2026						
Condition of Sample	Contained in two BOD bottles, three amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
2,4-DDO	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDD	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Aldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

Suwimon C.

Suwimon Chainamwut
Scientist (3)
นวคณวิทย์ 3-204-0018

Approved by

Kanokorn Anek

Kanokorn Anek
Assistant General Manager
นวคณวิทย์ 3-204-0004

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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Life Sciences

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NIGHT SOLUTIONS NIGHT PARTNER

6125-230 (ENGL)

3 (Word), A1, B1, opt (3.33%)

Analysis / Test Report

TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HFPO-TPO Plant

Lot ID: 2625138
Date Received : Apr 01, 2026
Date Reported : Apr 09, 2026
Report Number : 3547709-1

Page 3 of 3

- * - : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * will not be included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17023.

2625138-1							
Apr 01, 2026 2:20 PM							
Wastewater							
Inspection Manhole							
Apr 04, 2026							
Contained in two BOD bottles, three amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
beta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Chlordane	ug/L	0.02	0.04	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
delta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Dieldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan I	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan II	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Note : Ambient Temperature is 33.2 degree Celsius.

Sampling By : สุรเวท นารอง นวคณวิทย์ 3-323-0011, Pattarapol Sawangjitam นวคณวิทย์ 3-204-0002

Remark :
- LOD : Limit of Detection

Technical Management

Photchanas

Photchanas Seeda
Scientist (4)
นวคณวิทย์ 3-323-0028

Approved by

Dej Changchon

Dej Changchon
Senior Manager
นวคณวิทย์ 3-323-0001

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NIGHT SOLUTIONS NIGHT PARTNER

6125-230 (ENGL)

3 (Word), A1, B1, opt (3.33%)



Analysis / Test Report

Lot ID: 2625138

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HFPO-TPO Plant

Date Received : Apr 01, 2026
Date Reported : Apr 09, 2026
Report Number : 3547709-2

Page 2 of 3

Page 2 of 2

Sample Number	2625138-1						
Sampled Date	Apr 01, 2026 2:20 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Apr 04, 2026						
Condition of Sample	Contained in two BOD bottles, three amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
beta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Chlordane	ug/L	0.02	0.04	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
delta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Dieldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan I	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan II	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

Suwimon C.

Suwimon Chainamwut
Scientist (3)
นวคณวิทย์ 3-204-0018

Approved by

Kanokorn Anek

Kanokorn Anek
Assistant General Manager
นวคณวิทย์ 3-204-0004

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NIGHT SOLUTIONS NIGHT PARTNER

6125-230 (ENGL)

3 (Word), A1, B1, opt (3.33%)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant



TESTING
No.0000
Lot ID: 2625138
Date Received : Apr 01, 2026
Date Reported : Apr 09, 2026
Report Number : 3547211-1

Page 3 of 3

- Sampling is not included in scope of accreditation ISO/IEC 17025



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant



TESTING
No.0000
Lot ID: 2625138
Date Received : Apr 01, 2026
Date Reported : Apr 09, 2026
Report Number : 3547211-2

Page 3 of 3

Page 3 of 4

Sample Number	2625138-3						
Sampled Date	Apr 01, 2026 2:20 PM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Apr 02, 2026						
Condition of Sample	Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	0.04	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Surewit Narapong , Pattarapol Sawangjittam

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOD (Limit of Quantitation) / LOQ (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Chanatt L.
Chanattagarn Inichom
Section Head
โทรศัพท์ ๖-๒๐4-๐008

Approved by

Korakorn Anek
Korakorn Anek
Assistant General Manager
โทรศัพท์ ๖-๒๐4-๐004

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RIGHT SOLUTIONS RIGHT PARTNER

5 (Report), A1, B, pt (S-40P)

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Approved by

Chanatt L.
Chanattagarn Inichom
Section Head

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RIGHT SOLUTIONS RIGHT PARTNER

5 (Report), A1, B, pt (S-40P)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant



TESTING
No.0042
Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570218-1

Page 1 of 3

Page 1 of 2

Sample Number	2634797-1						
Sampled Date	May 06, 2026 11:40 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	May 06, 2026						
Condition of Sample	Contained in two glass vials, two BOD bottles, two amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	63	≤120	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	15	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	14	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Cyanide as CN	mg/L	0.001	0.005	<0.005	≤0.2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500-CH (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	<0.1	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5220 B	Rayong
pH at 25 degree C	-	-	-	8.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Rayong

Technical Management

Photchana S.
Photchana Seede
Scientist (4)
โทรศัพท์ ๖-323-๐028

Approved by

D. Chanchon
Dej Chanchon
Senior Manager
โทรศัพท์ ๖-323-๐001

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RIGHT SOLUTIONS RIGHT PARTNER

5 (Report), A1, B, pt (S-40P)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant



TESTING
No.0042
Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570218-1

Page 2 of 3

Page 2 of 3

Sample Number	2634797-1						
Sampled Date	May 06, 2026 11:40 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	May 06, 2026						
Condition of Sample	Contained in two glass vials, two BOD bottles, two amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.005	0.01	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 5530 B, D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500-52 (C, F)	Rayong
Temperature *	Degree C	-	-	34.8	≤40	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1050	≤3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.8	≤100	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part NH3 (D)	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Ambient Temperature is 33.4 degree Celsius.

Sampling By : Anonwich Wongcharat โทรศัพท์ ๖-323-๐040 , Pattarapol Sawangjittam โทรศัพท์ ๖-323-๐002

Remark :

- LOD : Limit of Detection

Technical Management

Photchana S.
Photchana Seede
Scientist (4)
โทรศัพท์ ๖-323-๐028

Approved by

D. Chanchon
Dej Chanchon
Senior Manager
โทรศัพท์ ๖-323-๐001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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RIGHT SOLUTIONS RIGHT PARTNER

5 (Report), A1, B, pt (S-40P)

5 (Report), A1, B, pt (S-40P)



Analysis / Test Report



TESTING
No.0042

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570218-1

Page 3 of 3

- "u" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570218-2

Page 3 of 3

Sample Number	2634797-1						
Sampled Date	May 06, 2026 11:40 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	May 08, 2026						
Condition of Sample	Contained in two glass vials, two BOD bottles, two amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
2,4-DDD	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDD	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Aldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

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Photchanas Seeda
Scientist (4)
โทรศัพท์ ๖-323-๖0028

Approved by

Dej Changchon
Senior Manager
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Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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5 Report, A.L.S. rpt (3.00PH)

Technical Management

Siriluk P.
Siriluk Bunrak
Section Head
โทรศัพท์ ๖-204-๖0013

Approved by

Kanekorn Anek
Assistant General Manager
โทรศัพท์ ๖-204-๖0004

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5 Report, A.L.S. rpt (3.00PH)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570218-2

Page 3 of 3

Sample Number	2634797-1						
Sampled Date	May 06, 2026 11:40 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	May 08, 2026						
Condition of Sample	Contained in two glass vials, two BOD bottles, two amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
beta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Chlordane	ug/L	0.02	0.04	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
delta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Dieldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan I	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan II	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

Siriluk P.
Siriluk Bunrak
Section Head
โทรศัพท์ ๖-204-๖0013

Approved by

Kanekorn Anek
Assistant General Manager
โทรศัพท์ ๖-204-๖0004

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5 Report, A.L.S. rpt (3.00PH)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HPPD-TPO Plant

Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570218-2

Page 3 of 3

Sample Number	2634797-1						
Sampled Date	May 06, 2026 11:40 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	May 08, 2026						
Condition of Sample	Contained in two glass vials, two BOD bottles, two amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor Epoxide	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Methoxychlor	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Ambient Temperature is 33.4 degree celsius.

Sampling By : Amornwich Wongsachai โทรศัพท์ ๖-323-๖0040, Pattaporn Sawangjalam โทรศัพท์ ๖-204-๖0002

Remark :
- LOD : Limit of Detection
- "u" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

Siriluk P.
Siriluk Bunrak
Section Head
โทรศัพท์ ๖-204-๖0013

Approved by

Kanekorn Anek
Assistant General Manager
โทรศัพท์ ๖-204-๖0004

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5 Report, A.L.S. rpt (3.00PH)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant

Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570218-3

Page 1 of 1

Sample Number	2634797-1						Page 01 of 01
Sampled Date	May 06, 2026 11:40 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	May 06, 2026						
Condition of Sample	Contained in two glass vials, two 800 bottles, two amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-Chlordane	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
gamma-Chlordane	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Hexachlorobenzene	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Mirex	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Water Testing							
Chlorine	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-C (F)	Rayong
Dissolved Oxygen	mg/L	-	0.1	6.6	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-C (C)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Ambient Temperature is 33.4 degree Celsius.

Sampling By : Amonwich Wongasachai, Pattarapol Sawangjaleam

Remark :
- LOD : Limit of Detection
- "x" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

Approved by

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Scientist (1)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant



TESTING

No.0009

Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570220-1

Page 1 of 3

Page 1 of 3

Sample Number	2634797-3						
Sampled Date	May 06, 2026 11:40 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	May 07, 2026						
Condition of Sample	Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.003	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.10	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	0.003	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.0006	≤2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-Cr B	Bangkok
Iron	mg/L	0.003	0.005	0.18	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok

Technical Management

Chanatt L.
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Section Head
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Approved by

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Assistant General Manager
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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant

Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570220-1

Page 2 of 3

Sample Number	2634797-3							Page 2 of 2
Sampled Date	May 06, 2026 11:40 AM							
Sample Description	Wastewater							
Location	Inspection Manhole							
Date Analysis Commenced	May 07, 2026							
Condition of Sample	Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location	
Metals Testing								
Lead	mg/L	0.0003	0.0005	<0.0005	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok	
Manganese	mg/L	0.0003	0.0005	0.07	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok	
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3112	Bangkok	
Nickel	mg/L	0.0003	0.0005	0.004	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok	
Selenium	mg/L	0.0003	0.0005	<0.0005	≤0.02	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok	
Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok	
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok	

Technical Management

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Approved by

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 2634797
Project Name : Water Testing
Project Location : AIE_HIPO-TPO Plant



TESTING

No.0009

Lot ID: 2634797
Date Received : May 06, 2026
Date Reported : May 14, 2026
Report Number : 3570220-1

Page 3 of 3

Page 3 of 3

Sample Number	2634797-3						
Sampled Date	May 06, 2026 11:40 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	May 07, 2026						
Condition of Sample	Contained in two glass vials and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	0.58	≤5.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By : Amonwich Wongasachai vnsdusuan@v-323-e-0004, Pattarapol Sawangjaleam vnsdusuan@v-204-e-0002

Remark :
- LOD : Limit of Detection
- "x" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

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Approved by

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Assistant General Manager
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Analysis / Test Report

TESTING
No.0042

Lot ID: 2645084

Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594844-1Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPO-TPQ Plant

Page 1 of 3

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, part 4500 - O G	Rayong
COD	mg/L	1.5	25	48	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	12	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	10	≤300	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2120 F	Rayong
Cyanide as CN	mg/L	0.001	0.005	<0.005	≤0.2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 CH (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Oil & Grease	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5230 B	Rayong
pH at 25 degree C		-	-	7.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (H)	Rayong

Technical Management

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Photchanas Seeda
Scientist (4)
โทรศัพท์ ๖-323-๖-0028

Approved by

D. Chongchon

Dej Chongchon
Senior Manager
โทรศัพท์ ๖-323-๖-0001

Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. The report shall not be reproduced except in full without the written approval of the laboratory.

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625-036 (P&H)

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2645084

Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594844-1Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPO-TPQ Plant

Page 2 of 3

- "L" : Lower than LOQ (Limit of Quantification) / LOR (Limit of Reporting)
- Analyte(s) marked * were not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Photchanas

Photchanas Seeda
Scientist (4)
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Approved by

D. Chongchon

Dej Chongchon
Senior Manager
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Analysis / Test Report

TESTING
No.0042

Lot ID: 2645084

Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594844-1Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPO-TPQ Plant

Page 2 of 3

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Phenol	mg/L	0.005	0.01	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5330 B, D	Rayong
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-C (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-52 (C, F)	Rayong
Temperature *	Degree C	-	-	34.1	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1160	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	1.9	≤100	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-Norg (C), part 4510 (D)	Rayong
Total Suspended Solids Dried from 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Note : Ambient Temperature is 32.2 degree celsius.

Sampling By : Nattawat Athornprommarat โทรศัพท์ ๖-323-๖-0006, Patchanon Inpiak โทรศัพท์ ๖-204-๖-0197

Remark :

- LOD : Limit of Detection

Technical Management

Photchanas

Photchanas Seeda
Scientist (4)
โทรศัพท์ ๖-323-๖-0028

Approved by

D. Chongchon

Dej Chongchon
Senior Manager
โทรศัพท์ ๖-323-๖-0001

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625-036 (P&H)

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Analysis / Test Report



Lot ID: 2645084

Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594844-2Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPO-TPQ Plant

Page 1 of 3

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
2,4-DDD	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
2,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDD	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDE	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
4,4-DDT	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Aldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

Siriluk P.

Siriluk Bunnak
Section Head
โทรศัพท์ ๖-204-๖-0013

Approved by

Kareem Anek

Kareem Anek
Assistant General Manager
โทรศัพท์ ๖-204-๖-0004

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625-036 (P&H)

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPHO-TPO Plant

Lot ID: 2645084
Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594844-2

Page 2 of 3

Sample Number	2645084-1						
Sampled Date	Jun 04, 2026 11:45 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Jun 06, 2026						
Condition of Sample	Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
beta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Chlordane	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
delta-BHC	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Dieldrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan I	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Endosulfan II	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Technical Management

Siriluk P.

Approved by

Kankorn Anek

Siriluk Bunrak
Section Head
วิธิตูสวาท ๖-204-๐013

Kankorn Anek
Assistant General Manager
วิธิตูสวาท ๖-204-๐004

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S (Report) ALS-01 (4-1899)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPHO-TPO Plant

Lot ID: 2645084
Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594844-2

Page 3 of 3

Page 3 of 3

Sample Number	2645084-1						
Sampled Date	Jun 04, 2026 11:45 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Jun 06, 2026						
Condition of Sample	Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
Endrin	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Heptachlor-Epoxide	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Lindane (gamma-BHC)	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Methoxychlor	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Ambient Temperature is 32.2 degree celsius.

Sampling By : Natawat Athomprommarat วิธิตูสวาท ๖-323-๐006, Patchanon Inprik วิธิตูสวาท ๖-204-๐197

Remark :

- LOD : Limit of Detection
- "u" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

Siriluk P.

Approved by

Kankorn Anek

Siriluk Bunrak
Section Head
วิธิตูสวาท ๖-204-๐013

Kankorn Anek
Assistant General Manager
วิธิตูสวาท ๖-204-๐004

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S (Report) ALS-01 (4-1899)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPHO-TPO Plant

Lot ID: 2645084
Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594844-3

Page 1 of 1

Page 1 of 1

Sample Number	2645084-1						
Sampled Date	Jun 04, 2026 11:45 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Jun 04, 2026						
Condition of Sample	Contained in two BOD bottles, four amber glass bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
alpha-Chlordane	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
gamma-Chlordane	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Hexachlorobenzene	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Mirex	ug/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 6630 D, part 6410 B	Bangkok
Water Testing							
Chlorine	mg/L	-	0.01	<0.01	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-C (F)	Rayong
Dissolved Oxygen	mg/L	-	0.1	6.8	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-C (C)	Rayong

Guideline : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).

Note : Ambient Temperature is 32.2 degree celsius.

Sampling By : Natawat Athomprommarat , Patchanon Inprik

Remark :
- LOD : Limit of Detection
- "u" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

Siriluk P.

Siriluk Bunrak
Section Head

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S (Report) ALS-01 (4-1899)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HPHO-TPO Plant

Lot ID: 2645084
Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594844-1

Page 1 of 3

Page 1 of 3

Sample Number	2645084-3						
Sampled Date	Jun 04, 2026 11:45 AM						
Sample Description	Wastewater						
Location	Inspection Manhole						
Date Analysis Commenced	Jun 08, 2026						
Condition of Sample	Contained in two amber glass bottles and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.005	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.12	≤1.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Chromium	mg/L	0.0003	0.0005	0.003	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.001	≤2.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-C B	Bangkok
Iron	mg/L	0.003	0.005	0.17	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Technical Management

Savitree N.

Approved by

Kankorn Anek

Savitree Naisangam
Manager
วิธิตูสวาท ๖-204-๐007

Kankorn Anek
Assistant General Manager
วิธิตูสวาท ๖-204-๐004

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E25-286 EN45

RIGHT SOLUTIONS RIGHT PARTNERS

S (Report) ALS-01 (4-1899)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant



TESTING
No.0009
Lot ID: 2645084
Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594846-1

Page 2 of 3

Sample Number 2645084-3
Sampled Date Jun 04, 2026 11:45 AM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Jun 08, 2026
Condition of Sample Contained in two amber glass bottles and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Lead	mg/L	0.0003	0.0005	<0.0005	≤0.2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.08	≤5.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 3112	Bangkok
Nickel	mg/L	0.0003	0.0005	0.006	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	0.001	≤0.02	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Technical Management

Savitree N.
Savitree Nolsungiam
Manager
โทรศัพท์ ๖-204-๙-0007

Approved by

Kanokorn Anek
Kanokorn Anek
Assistant General Manager
โทรศัพท์ ๖-204-๙-0004

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025-220-0000



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130
P/O : 4518136126
Project Name : Water Testing
Project Location : AIE_HIPPO-TPO Plant



TESTING
No.0009
Lot ID: 2645084
Date Received : Jun 04, 2026
Date Reported : Jun 12, 2026
Report Number : 3594846-1

Page 3 of 3

Sample Number 2645084-3
Sampled Date Jun 04, 2026 11:45 AM
Sample Description Wastewater
Location Inspection Manhole
Date Analysis Commenced Jun 08, 2026
Condition of Sample Contained in two amber glass bottles and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	1.05	≤5.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Guideline: Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Sampling By : Nattawut Athamprommarat โทรศัพท์ ๖-323-๙-0006 , Patchanon Inpruk โทรศัพท์ ๖-204-๙-0197

Remark:

- LOD : Limit of Detection
- "L" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025.

Technical Management

Savitree N.
Savitree Nolsungiam
Manager
โทรศัพท์ ๖-204-๙-0007

Approved by

Kanokorn Anek
Kanokorn Anek
Assistant General Manager
โทรศัพท์ ๖-204-๙-0004

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025-220-0000

9 (Word), A.L.S. sp. (2.5mm)

ระดับความร้อน



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 265880

Date Received : Feb 16, 2026

Date Reported : Feb 20, 2026

Report Number: 3491537-1

Page 1 of 1

Sample Number 265880-1
Parameter Heat Stress (Sampling Time : 09.50 AM - 11.50 AM)
Measurement Date Feb 16, 2026
Measurement by Natthapon Jiengwareewong
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ TOX (ERU)	120	28.5	26.4	33.9	32.6
Average (WBGT)		28.5			
Guideline WBGT (°C)		32.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

Supot Salamteh
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.
10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong
Thailand 21130
P/O : 4518136203
Project Name : Environmental Quality Monitoring
Project Location : AIE_HPPO-TPO Plant

Lot ID: 2635224

Date Received : May 13, 2026

Date Reported : May 18, 2026

Report Number: 3558186-1

Page 1 of 1

Sample Number 2635224-1
Parameter Heat Stress (Sampling Time : 02.00 PM - 04.00 PM)
Measurement Date May 12, 2026
Measurement by Adisak Tarisoorn
Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : - แผนก : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณหน่วย TOX (ERU)	120	29.3	27.8	33.4	32.0
Average (WBGT)		29.3			
Guideline WBGT (°C)		32.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

Supot Salamteh
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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ระดับเสียงในสถานประกอบการ (Leq 8 hrs)



Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 265882

Date Received : Feb 16, 2026

Date Reported : Feb 20, 2026

Report Number: 3512685-1

Page 1 of 1

Sample Number 265882-2
Parameter Noise (Leq 8 hrs.)
Location Cooling Tower
Measurement Date Feb 16, 2026
Measurement by Natthapon Jiengwareewong

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:37 AM - 10:37 AM	81.0	87.1	80.5
10:37 AM - 11:37 AM	81.0	86.6	80.6
11:37 AM - 12:37 PM	80.5	81.4	80.1
12:37 PM - 01:37 PM	80.8	81.9	80.3
01:37 PM - 02:37 PM	80.7	81.7	80.3
02:37 PM - 03:37 PM	80.7	81.6	80.3
03:37 PM - 04:37 PM	80.6	81.8	80.4
04:37 PM - 05:37 PM	79.8	80.8	79.4

Leq Average 8 hrs. (dB(A))

Lmax (dB(A))

Standard (dB(A))

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

Chontichak

Chonticha Subongkoch
Scientist (3)

Approved by

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Supot Salamteh
Section Head

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 265882

Date Received : Feb 16, 2026

Date Reported : Feb 20, 2026

Report Number: 3512684-1

Page 1 of 1

Sample Number 265882-1
Parameter Noise (Leq 8 hrs.)
Location Compressor Area
Measurement Date Feb 16, 2026
Measurement by Natthapon Jiengwareewong

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:41 AM - 10:41 AM	77.7	80.4	77.3
10:41 AM - 11:41 AM	78.2	91.2	77.1
11:41 AM - 12:41 PM	77.5	79.7	76.9
12:41 PM - 01:41 PM	77.5	89.7	76.9
01:41 PM - 02:41 PM	77.2	79.8	76.8
02:41 PM - 03:41 PM	77.3	80.2	77.0
03:41 PM - 04:41 PM	77.3	91.5	76.9
04:41 PM - 05:41 PM	77.3	89.5	76.7

Leq Average 8 hrs. (dB(A))

Lmax (dB(A))

Standard (dB(A))

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

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Chonticha Subongkoch
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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2635225

Date Received : May 13, 2026

Date Reported : May 16, 2026

Report Number: 3572429-1

Page 1 of 1

Sample Number 2635225-1
Parameter Noise (Leq 8 hrs.)
Location Compressor Area
Measurement Date May 12, 2026
Measurement by Annon Phopprathong

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:19 PM - 03:19 PM	77.0	80.5	76.2
03:19 PM - 04:19 PM	77.3	79.8	76.6
04:19 PM - 05:19 PM	77.3	84.3	76.8
05:19 PM - 06:19 PM	77.3	78.8	76.9
06:19 PM - 07:19 PM	77.6	79.3	77.3
07:19 PM - 08:19 PM	77.6	79.2	77.3
08:19 PM - 09:19 PM	77.7	82.0	77.3
09:19 PM - 10:19 PM	77.7	80.9	77.4

Leq Average 8 hrs. (dB(A))

77.4

Lmax (dB(A))

84.3

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 265882

Date Received : Feb 16, 2026

Date Reported : Feb 20, 2026

Report Number: 3512686-1

Page 1 of 1

Sample Number 265882-3
Parameter Noise (Leq 8 hrs.)
Location TOX Area (ERU)
Measurement Date Feb 16, 2026
Measurement by Natthapon Jiengwareewong

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:49 AM - 10:49 AM	80.3	82.0	79.8
10:49 AM - 11:49 AM	84.2	104.7	80.2
11:49 AM - 12:49 PM	80.8	82.4	80.4
12:49 PM - 01:49 PM	80.9	82.3	80.5
01:49 PM - 02:49 PM	80.9	82.2	80.4
02:49 PM - 03:49 PM	80.8	83.5	80.3
03:49 PM - 04:49 PM	80.6	82.2	80.2
04:49 PM - 05:49 PM	80.7	83.4	80.2

Leq Average 8 hrs. (dB(A))

81.3

Lmax (dB(A))

104.7

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Technical Management

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Chonticha Subongkoch
Scientist (3)

Approved by

Supct S

Supct Salamteh
Section Head

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2635225

Date Received : May 13, 2026

Date Reported : May 16, 2026

Report Number: 3572431-1

Page 1 of 1

Sample Number 2635225-3
Parameter Noise (Leq 8 hrs.)
Location TOX Area (ERU)
Measurement Date May 12, 2026
Measurement by Arnon Phophrathong

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:01 PM - 03:01 PM	80.1	88.3	79.2
03:01 PM - 04:01 PM	80.4	82.6	79.4
04:01 PM - 05:01 PM	80.4	82.7	79.5
05:01 PM - 06:01 PM	80.8	83.0	80.0
06:01 PM - 07:01 PM	80.7	84.8	80.0
07:01 PM - 08:01 PM	80.6	82.6	79.9
08:01 PM - 09:01 PM	80.5	82.6	79.9
09:01 PM - 10:01 PM	80.6	83.8	79.9

Leq Average 8 hrs. (dB(A))

80.5

Lmax (dB(A))

88.3

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Supot Salamteh
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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand 21130

P/O : 4518136203

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2635225

Date Received : May 13, 2026

Date Reported : May 16, 2026

Report Number: 3572430-1

Page 1 of 1

Sample Number 2635225-2
Parameter Noise (Leq 8 hrs.)
Location Cooling Tower
Measurement Date May 12, 2026
Measurement by Arnon Phophrathong

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:01 PM - 03:01 PM	79.4	85.5	79.1
03:01 PM - 04:01 PM	79.4	81.7	79.2
04:01 PM - 05:01 PM	79.5	80.3	79.3
05:01 PM - 06:01 PM	79.6	80.6	79.4
06:01 PM - 07:01 PM	79.8	80.7	79.6
07:01 PM - 08:01 PM	79.9	80.7	79.7
08:01 PM - 09:01 PM	79.9	80.8	79.7
09:01 PM - 10:01 PM	79.9	80.9	79.7

Leq Average 8 hrs. (dB(A))

79.7

Lmax (dB(A))

85.5

Standard (dB(A))

90

140

Reference Method : ISO 1996-1 : 2016

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย
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Analysis / Test Report



TESTING
No.0009

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O :

Project Name : Environmental Quality Monitoring

Project Location: AIE_HPPO-TPO Plant

Lot ID: 2571013

Date Received : Aug 26, 2025

Date Reported : Sep 11, 2025

Report Number : 3397919-2 C9

Page 1 of 1

Sample Number	2571013-1
Sampled Date	Aug 26, 2025 11:00 AM
Sample Description	Groundwater
Location	MW-1 (GW1)
Date Analysis Commenced	Aug 27, 2025
Condition of Sample	Contained in four glass vials, two amber glass bottles and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	<0.005	10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Sampled By : Chainusorn Lertnanthakunchai ทะเบียนเลขที่ ๖-323-๖-0041 , Jakkarin Manwicha ทะเบียนเลขที่ ๖-204-๖-0096

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4516963534

Project Name : Environmental Quality Monitoring

Project Location: AIE_HPPO-TPO Plant

Lot ID: 2571013

Date Received : Aug 26, 2025

Date Reported : Sep 03, 2025

Report Number : 3397923-1

Page 1 of 1

Sample Number	2571013-5
Sampled Date	Aug 26, 2025 11:00 AM
Sample Description	Groundwater
Location	MW-1 (GW1)
Date Analysis Commenced	Aug 27, 2025
Condition of Sample	Contained in one amber glass bottle and one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Copper	mg/L	0.0003	0.0005	0.0005	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Organic Compounds							
Propylene oxide	mg/L	-	10	<10	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 8015 B	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Note :
TPH C5-C8 : Sum of n-Pentane, n-Hexane, n-Heptane and n-Octane
TPH C8-C16 : Sum of n-Nonane, n-Decane, n-Undecane, n-Dodecane, n-Tridecane, n-Tetradecane, n-Pentadecane and n-Hexadecane
TPH C16-C35 : Sum of n-Heptadecane, Pristane, n-Octadecane, n-Nonadecane, n-Eicosane, n-Heneicosane, n-Docosane, n-Tricosane, n-Tetracosane, n-Pentacosane, n-Hexacosane, n-Heptacosane, n-Octacosane, n-Nonacosane, n-Triacontane, n-Hentriacontane, n-Dotriacontane, n-Tritriacontane, n-Tetracontane and n-Pentatriacontane
Integration mode: Peak to Peak

Sampling By : Chainusorn Lertnanthakunchai ทะเบียนเลขที่ ๖-323-๖-0041 , Jakkarin Manwicha ทะเบียนเลขที่ ๖-204-๖-0096

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O :

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant



TESTING
No.0009

Lot ID: 2571013

Date Received : Aug 26, 2025

Date Reported : Sep 11, 2025

Report Number : 3397920-2 C9

Page 1 of 1

Sample Number	2571013-2
Sampled Date	Aug 26, 2025 11:30 AM
Sample Description	Groundwater
Location	MW-6 (GW2)
Date Analysis Commenced	Aug 27, 2025
Condition of Sample	Contained in four glass vials, two amber glass bottles and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/L	0.003	0.005	<0.005	10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Sampled By : Chainusorn Lertnanthakunchai ทะเบียนเลขที่ ๖-323-๖-0041, Jakkarin Manwicha ทะเบียนเลขที่ ๖-204-๖-0096

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- Sampling is not included in scope of accreditation ISO/IEC 17025

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4516963534

Project Name : Environmental Quality Monitoring

Project Location : AIE_HPPO-TPO Plant

Lot ID: 2571013

Date Received : Aug 26, 2025

Date Reported : Sep 03, 2025

Report Number : 3397924-1

Page 1 of 1

Sample Number	2571013-6
Sampled Date	Aug 26, 2025 11:30 AM
Sample Description	Groundwater
Location	MW-6 (GW2)
Date Analysis Commenced	Aug 27, 2025
Condition of Sample	Contained in one amber glass bottle and one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Copper	mg/L	0.0003	0.0005	Not Detected	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Organic Compounds							
Propylene oxide	mg/L	-	10	<10	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 8015 B	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Note :

TPH C5-C8 : Sum of n-Pentane, n-Hexane, n-Heptane and n-Octane

TPH C>8-C16 : Sum of n-Nonane, n-Decane, n-Undecane, n-Dodecane, n-Tridecane, n-Tetradecane, n-Pentadecane and n-Hexadecane

TPH C>16-C35 : Sum of n-Heptadecane, Pristane, n-Octadecane, Phytane, n-Nonadecane, n-Eicosane, n-Heneicosane, n-Docosane, n-Tricosane, n-Tetracosane, n-Pentacosane, n-Hexacosane, n-Heptacosane, n-Octacosane, n-Nonacosane, n-Triacontane, n-Hentriacontane, n-Dotriacontane, n-Tritriacontane, n-Tetracontane and n-Pentatriacontane

Integration mode: Peak to Peak

Sampling By : Chainusorn Lertnanthakunchai ทะเบียนเลขที่ ๖-323-๖-0041, Jakkarin Manwicha ทะเบียนเลขที่ ๖-204-๖-0096

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4515619665

Project Name : Environmental Quality Monitoring

Project Location: AIE_HPPO-TPO Plant

Lot ID: 2469009

Date Received : Jun 19, 2024

Date Reported : Jun 27, 2024

Report Number : 3038610-1

Page 1 of 1

Sample Number 2469009-6
Sampled Date Jun 19, 2024 2:20 PM
Sample Description Soil
Location MW-1 (GW1)
Date Analysis Commenced Jun 20, 2024
Condition of Sample Packed in one plastic bag and two glass bottles, refrigerated

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Copper	mg/kg	-	1.00	3.26	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Organic Compounds							
Propylene Oxide	mg/kg	-	20	<20	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5035 and GC/FID	Bangkok
Physical Parameters							
Moisture	%	-	0.1	5.2	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G	Bangkok

Guideline :

Note : Analysis Results expressed on dry basis

Sampling By : Wanlop Hunchainaow , Pattarapol Sawangjaitam

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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Approved by

Sawitree N.

Sawitree Noisangiam
Manager

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4515619665

Project Name : Environmental Quality Monitoring

Project Location: AIE_HPPO-TPO Plant

Lot ID: 2469009

Date Received : Jun 19, 2024

Date Reported : Jul 05, 2024

Report Number : 3038605-1 C1

Page 1 of 1

Sample Number 2469009-1
Sampled Date Jun 19, 2024 2:20 PM
Sample Description Soil
Location MW-1 (GW1)
Date Analysis Commenced Jun 20, 2024
Condition of Sample Packed in one plastic bag and two glass bottles, refrigerated

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/kg	-	1.00	11.4	1000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Note : Analysis Results expressed on dry basis

Sampling By : Wanlop Hunchainaow ทะเบียนเลขที่ ๖-323-๙-9457 , Pattarapol Sawangjaitam ทะเบียนเลขที่ ๖-204-๙-0002

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

Sawitree N.

Sawitree Noisangiam
Manager

ทะเบียนเลขที่ ๖-204-๙-0007

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager

ทะเบียนเลขที่ ๖-204-๙-0004

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4515619665

Project Name : Environmental Quality Monitoring

Project Location: AIE_HPPO-TPO Plant

Lot ID: 2470038

Date Received : Jun 20, 2024

Date Reported : Jun 28, 2024

Report Number : 3038728-1

Page 1 of 1

Sample Number	2470038-4
Sampled Date	Jun 20, 2024 10:25 AM
Sample Description	Soil
Location	MW-6 (GW2)
Date Analysis Commenced	Jun 21, 2024
Condition of Sample	Packed in one plastic bag, one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Copper	mg/kg	-	1.00	2.31	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Organic Compounds							
Propylene Oxide	mg/kg	-	20	<20	No Standard	In-house method based on United States Environmental Protection Agency, EPA Method 5035 and GC/FID	Bangkok
Physical Parameters							
Moisture	%	-	0.1	7.3	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Note : Analysis Results expressed on dry basis.

Sampling By : Thanasoun Namakunna

Remark :

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Approved by

Sawitree N.

Sawitree Noisangiam
Manager

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Analysis / Test Report

Client : Dow Chemical Thailand Ltd.

10 Moo 2, Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong Thailand
21130

P/O : 4515619665

Project Name : Environmental Quality Monitoring

Project Location: AIE_HPPO-TPO Plant

Lot ID: 2470038

Date Received : Jun 20, 2024

Date Reported : Jul 05, 2024

Report Number : 3038725-1 C1

Page 1 of 1

Sample Number	2470038-1
Sampled Date	Jun 20, 2024 10:25 AM
Sample Description	Soil
Location	MW-6 (GW2)
Date Analysis Commenced	Jun 21, 2024
Condition of Sample	Packed in one plastic bag, one glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Zinc	mg/kg	-	1.00	2.78	1000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of the Ministry of Industry B.E. 2559 (2016) on Soil and Groundwater Contamination Criteria, Monitoring of Soil and Groundwater Quality, Report Submission and Report Preparation of Soil and Groundwater Quality, and Proposal Report of Soil and Groundwater Controlling and Reduction Measures

Note : Analysis Results expressed on dry basis

Sampling By : Thanasoun Namakunna ทะเบียนเลขที่ ๖-204-๖-0101

Remark :

- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Technical Management

Sawitree N.

Sawitree Noisangiam
Manager

ทะเบียนเลขที่ ๖-204-๖-0007

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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ใบรับรองการสอบเทียบเครื่องมือ

CERTIFICATE OF CALIBRATION

[illegible]

Approved by:  Approved by: 
Mr. Jeyaraj Sundararam
Collection Development Manager

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During the 1980s, the United States experienced a period of rapid economic growth, which was largely due to the expansion of the service sector and the high-tech industry. This period of growth was also characterized by a significant increase in the federal deficit, which was primarily due to increased spending on social programs and the military. The federal deficit reached a record high of over \$200 billion in 1986, and it continued to grow throughout the 1990s. This period of economic growth and increasing federal deficit was a major factor in the political and economic challenges that the United States faced in the 1990s.

Age (yr)	Temp and Jitter (°C)	Intercomp (°C)	Age (yr)	Inter (°C)	Age/Inter (yr/°C)
2.000	24.20	24.00	2.00	0.1	0.02
2.015	24.21	24.03	2.1	0.1	0.32
3.015	24.23	24.05	3.1	0.1	0.02
4.020	24.25	24.07	4.1	0.1	0.12
4.04	24.26	24.08	4.2	0.1	0.02
5.01	24.27	24.09	5.1	0.1	0.02
5.01	24.28	24.10	5.2	0.1	0.02
6.01	24.29	24.11	6.1	0.1	0.02
7.01	24.30	24.12	7.1	0.1	0.02
8.01	24.31	24.13	8.1	0.1	0.02
9.01	24.32	24.14	9.1	0.1	0.02
10.01	24.33	24.15	10.1	0.1	0.02
11.01	24.34	24.16	11.1	0.1	0.02
12.01	24.35	24.17	12.1	0.1	0.02
13.01	24.36	24.18	13.1	0.1	0.02
14.01	24.37	24.19	14.1	0.1	0.02
15.01	24.38	24.20	15.1	0.1	0.02
16.01	24.39	24.21	16.1	0.1	0.02
17.01	24.40	24.22	17.1	0.1	0.02

CERTIFICATE OF CALIBRATION

Certificate No. : ECU-00-066	Page 1 of 2 Pages
MEASUREMENT ITEM MANUFACTURER MODEL SERIAL NUMBER CONDITION AS RECEIVED CUSTOMER	1. Metering unit will, Temperature sensor 2. 120 mm, 200 L 3. A0017 4. 001, 70643 5. Metal Pipe 6. A33 Laboratory Equip (Hemlock Co., Ltd) 7. 104 Parkside Rd, Singapore 129157 8. Mr. Kuan Joo Seng, Mr. Kuan Joo Yee, Bangkok 10220 Thailand
ANALYTICAL DATA ANALYST DATE	1. 13.04.2010 2. 13.04.2010 3. 20.04.2010
INSTRUMENTAL CONDITIONS Atmospheric conditions at the laboratory are as follows: Temperature Humidity	23.0 ± 0.5 °C 50.0 ± 0.5 %RH
NOTES: The certificate is valid only for the above-mentioned analytical results of calibration.	
VALIDATION OF RESULTS The following test signs are the responsibility of:	Calibration protocol: The temperature control is well within the certificate number in order to meet 2010 according to calibration. The temperature of the instrument is well within the certificate number. The temperature control is well within the certificate number. Traceability: The instrument is well within the certificate number in order to meet 2010 according to calibration. The temperature of the instrument is well within the certificate number. The temperature control is well within the certificate number.

Certified by:  Approved Signature: 
 Mr. Farid Ibrahim
 NAC, Singapore
 Mr. Farid Ibrahim
 National Audit Commission
 Singapore

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Tel: 604.273.1234 Fax: 604.273.1235
www.jnac.com

Accredited calibration laboratory
ISO/IEC 17025:2017
CALIBRATION 0367

Approved measurement laboratory
Calibration services department

Certificate Number
CND-018-01

Certificate of Calibration

Page 1 of 2 Pages

MEASUREMENT ITEM
MANUFACTURER: [blank]
MODEL/TYPE: [blank]
SERIAL NUMBER: [blank]
DATE/TIME: [blank]
CONNECTION AS REQUIRED: [blank]
CUSTOMER: [blank]

RECEIVED DATE
17 Feb 2024

MEASUREMENT DATE
17 Feb 2024

MEASUREMENT DATA
[Table with 4 columns: Meas, Temp, Humidity, Pressure]

ENVIRONMENTAL CONDITIONS
Ambient conditions in the laboratory are as follows:
Temperature: 22.0 ± 0.5 °C
Relative Humidity: 45 ± 5 %RH
Atmospheric Pressure: 1013.25 ± 0.1 kPa

PLACE OF CALIBRATION
1700 type wind tunnel of J NAC Calibration Services Ltd, Ltd

CALIBRATION CONDITIONS
Wind tunnel cross section: 900 mm²
Flow rate: 100 m/s
Reynolds number: 0.11

PRELIMINARY MEASUREMENT DATA
[Table with 4 columns: Meas, Temp, Humidity, Pressure]

MEASUREMENT RESULTS
The table on next page gives the measured values.

Calculated by: [blank]
Checked by: [blank]

Signature: [blank]

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Page 1 of 2 Pages

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MANUFACTURER: [blank]
MODEL/TYPE: [blank]
SERIAL NUMBER: [blank]
DATE/TIME: [blank]
CONNECTION AS REQUIRED: [blank]
CUSTOMER: [blank]

RECEIVED DATE
17 Feb 2024

MEASUREMENT DATE
17 Feb 2024

MEASUREMENT DATA
[Table with 4 columns: Meas, Temp, Humidity, Pressure]

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Ambient conditions in the laboratory are as follows:
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PLACE OF CALIBRATION
1700 type wind tunnel of J NAC Calibration Services Ltd, Ltd

CALIBRATION CONDITIONS
Wind tunnel cross section: 900 mm²
Flow rate: 100 m/s
Reynolds number: 0.11

PRELIMINARY MEASUREMENT DATA
[Table with 4 columns: Meas, Temp, Humidity, Pressure]

MEASUREMENT RESULTS
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Signature: [blank]

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Signature: [blank]

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MEASUREMENT RESULTS
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Calculated by: [blank]
Checked by: [blank]

Signature: [blank]

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MEASUREMENT RESULTS
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Signature: [blank]

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Globe Home, website, downloads			Report Generated by: HomeSite - 88.90.233.124.00		System: 875, 156038 Print Date: July 6, 2002 15:40:47 AM	
A X, B0, 875, 156038, 000 Transaction Log						
Time	Transaction Date	Activity Performed	Type of Transaction	Operational Information		
July 6, 2002, 15:38:46Z	156038	Access	Success	None		
July 6, 2002, 15:39:28.00Z	156039	Reporting	Success	Report Generated (all entries)		
July 6, 2002, 15:39:59.00Z	156040	Access	Success	Report Generated (none)		
July 6, 2002, 15:40:59.00Z	156041	Access	Success	Report Generated (all entries)		
July 6, 2002, 15:41:27.00Z	156042	Access	Success	Report Generated (none)		
July 6, 2002, 15:41:29.00Z	156043	Access	Success	Report Generated (all entries)		
July 6, 2002, 15:42:03.00Z	156044	Reporting	Success	Report Generated (all entries)		

Date: July 4, 2025 10:49:25 AM
System ID: 6771, 6761130



ANALYTICAL SERVICES INTERNATIONAL
 10000 BAYVIEW AVENUE, SUITE 100, BAYVIEW, ONTARIO M2H 3L9
 TEL: (416) 223-0000 FAX: (416) 223-0001 E-MAIL: info@asi.ca

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 10000 BAYVIEW AVENUE, SUITE 100, BAYVIEW, ONTARIO M2H 3L9
 TEL: (416) 223-0000 FAX: (416) 223-0001 E-MAIL: info@asi.ca

Certificate of Calibration

Customer:

Name: M2 Technology Group (Himal) Ltd., Ltd

Address: 10000 Bayview Avenue, Suite 100, Richmond Hill, Ontario L4B 3N2, Canada

Unit / Item / Calibration Details:

Measurement Item: Air Quality Monitor

Manufacturer: Vaisala Inc.

Model: 200-F10

Serial Number: 149028

EC: 2436-100000

Location of Calibration: ASI - 10000 BAYVIEW AVE. RICHMOND HILL

Calibration Environment and Details:

Temperature: 21.5 ± 0.1 °C

Humidity: 47.0% RH ± 0.5% RH

Reference Device: 100-F10 (NIST)

Reference Date: 17 September 2017

Reference Validity: 18 September 2018

Calibration Results: As per model 200-F10 NIST 100-F10 compliance including all Standard Uncertainty 1 ppm Calibration

Certificate No: 25-18-M207

Report No: REP-2017-0097

Notes:

1. This certificate is valid for the purpose stated.

2. This certificate is valid for the purpose stated.

3. This certificate is valid for the purpose stated.

4. This certificate is valid for the purpose stated.

5. This certificate is valid for the purpose stated.

6. This certificate is valid for the purpose stated.

7. This certificate is valid for the purpose stated.

8. This certificate is valid for the purpose stated.

9. This certificate is valid for the purpose stated.

10. This certificate is valid for the purpose stated.

Calibrated By: [Signature]

Mr. Christopher J. Langford

Senior Calibration Engineer

Approved By: [Signature]

Mr. Paul McMillan

1. Calibration Engineer (Signature Required)

2. Calibration Engineer (Signature Required)

3. Calibration Engineer (Signature Required)

4. Calibration Engineer (Signature Required)

5. Calibration Engineer (Signature Required)

6. Calibration Engineer (Signature Required)

7. Calibration Engineer (Signature Required)

8. Calibration Engineer (Signature Required)

9. Calibration Engineer (Signature Required)

10. Calibration Engineer (Signature Required)

Issue Date: 20 September 2017

Valid Until: 18 September 2018

The article related only to the case addressed. The conditions shall meet requirements of receipt of full editorial action approval of the Association's management (10, 11).



Cert. No.: 25C-HQ

Page: 2 of 3

Condition of calibration result

1. Reference Standard Material:

Material	Serial No.	Certificate No.	Due date
1. Absorbance Standard set	44407	122504	31 May 2026
2. Wavelength Standard set	30730	118120	15 Jan 2026
3. Wavelength Standard set	30730	118121	15 Jan 2026

2. This certificate is valid only to the item calibrated on date and place of calibration.

3. This certificate is traceable to the International System of Unit maintained through:

- Sigma Scientific Ltd.

4. Spectral Bandwidth: 5 nm
Scan Speed: - nm/min

Calibration Results: without adjustment

Wavelength Accuracy

Certified Values of Reference Material (nm)	UVC Reading (nm)	Uncertainty of Measurement (± nm)	Coverage Factor k
419.40	419	0.09	2.03
479.84	480	0.09	2.03
513.75	513	0.09	2.03
537.00	538	0.09	2.03
636.00	638	0.09	2.03
747.61	748	0.09	2.03
807.04	807	0.09	2.03

[illegible]

Date: October 22, 2023 2:01:28 PM
System ID: BAK_END0129_GCS

Page 20/21

[illegible]

Date: October 22, 2025 2:51:58 PM
System ID: BHK_CHOICE_GCS

Page 25 / 25

Lot No.

2018101-1

SYSTEM CALIBRATION BIAS AND DRIFT DATA

Client Dow Chemical Thailand Ltd. Location Task Operator TAT 38/11 Speed
Date 33 TAT 38 Barry J.

Q₁ ANALYZER Explosive Conc. (%) = 13.93 Span (%) = 25

	Initial Values		Final Values		
	System Calibration Response	System Cal Bias [% of Span]	System Calibration Response	System Cal Bias [% of Span]	Diff [% of Span]
Zero Gas	0.03	0.04	0.03	0.04	0.00
Urethane Gas	18.94	16.16	16.11	8.26	-0.86

Q₂ ANALYZER Explosive Conc. (ppm) = 33.88 Span (ppm) = 182

	Initial Values		Final Values		
	System Calibration Response	System Cal Bias [% of Span]	System Calibration Response	System Cal Bias [% of Span]	Diff [% of Span]
Zero Gas	0.02	0.02	0.02	0.02	0.00
Urethane Gas	81.03	80.63	82.06	80.81	-0.22

Calibrated by

Barry J.

Narep Thuanthumchai

RVD Field Services (Suzuki) Ltd.

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DOI 10.1002/jbm.b.30051



EMISSION TEST RESULT

Client	Dow Chemical Thailand Ltd.	Run #	1
Date	28 Feb 25	Location	TOR1 (RNU Block)
Start Time	12:00	Test Operator	Narey T.
SO ₂ Analyzer Model	TELEDYNE API 300EH	Flash Time	12.28
NO _x Analyzer Model	TELEDYNE API 300EH	Serial No.	774
CO/CO ₂ Analyzer Model	-	Serial No.	-

Time (min)	SO ₂ (%)	CO ₂ (%)	NO _x (ppm)	SO ₂ (ppm)	CO (ppm)	Remark
12:02	8.44	8.92	12.15	-	-	-
12:03	8.45	8.93	12.17	-	-	-
12:04	8.45	8.93	12.18	-	-	-
12:05	8.46	8.94	12.19	-	-	-
12:06	8.46	8.94	12.20	-	-	-
12:07	8.46	8.94	12.21	-	-	-
12:08	8.46	8.94	12.22	-	-	-
12:09	8.46	8.94	12.23	-	-	-
12:10	8.46	8.94	12.24	-	-	-
12:11	8.46	8.94	12.25	-	-	-
12:12	8.46	8.94	12.26	-	-	-
12:13	8.46	8.94	12.27	-	-	-
12:14	8.46	8.94	12.28	-	-	-
12:15	8.46	8.94	12.29	-	-	-
12:16	8.46	8.94	12.30	-	-	-
12:17	8.46	8.94	12.31	-	-	-
12:18	8.46	8.94	12.32	-	-	-
12:19	8.46	8.94	12.33	-	-	-
12:20	8.46	8.94	12.34	-	-	-
12:21	8.46	8.94	12.35	-	-	-
12:22	8.46	8.94	12.36	-	-	-
12:23	8.46	8.94	12.37	-	-	-
12:24	8.46	8.94	12.38	-	-	-
12:25	8.46	8.94	12.39	-	-	-
12:26	8.46	8.94	12.40	-	-	-
12:27	8.46	8.94	12.41	-	-	-
12:28	8.46	8.94	12.42	-	-	-
12:29	8.46	8.94	12.43	-	-	-
12:30	8.46	8.94	12.44	-	-	-
12:31	8.46	8.94	12.45	-	-	-
12:32	8.46	8.94	12.46	-	-	-
12:33	8.46	8.94	12.47	-	-	-
12:34	8.46	8.94	12.48	-	-	-
12:35	8.46	8.94	12.49	-	-	-
12:36	8.46	8.94	12.50	-	-	-
12:37	8.46	8.94	12.51	-	-	-
12:38	8.46	8.94	12.52	-	-	-
12:39	8.46	8.94	12.53	-	-	-
12:40	8.46	8.94	12.54	-	-	-
12:41	8.46	8.94	12.55	-	-	-
12:42	8.46	8.94	12.56	-	-	-
12:43	8.46	8.94	12.57	-	-	-
12:44	8.46	8.94	12.58	-	-	-
12:45	8.46	8.94	12.59	-	-	-
12:46	8.46	8.94	12.60	-	-	-
12:47	8.46	8.94	12.61	-	-	-
12:48	8.46	8.94	12.62	-	-	-
12:49	8.46	8.94	12.63	-	-	-
12:50	8.46	8.94	12.64	-	-	-
12:51	8.46	8.94	12.65	-	-	-
12:52	8.46	8.94	12.66	-	-	-
12:53	8.46	8.94	12.67	-	-	-
12:54	8.46	8.94	12.68	-	-	-
12:55	8.46	8.94	12.69	-	-	-
12:56	8.46	8.94	12.70	-	-	-
12:57	8.46	8.94	12.71	-	-	-
12:58	8.46	8.94	12.72	-	-	-
12:59	8.46	8.94	12.73	-	-	-
13:00	8.46	8.94	12.74	-	-	-
13:01	8.46	8.94	12.75	-	-	-
13:02	8.46	8.94	12.76	-	-	-
13:03	8.46	8.94	12.77	-	-	-
13:04	8.46	8.94	12.78	-	-	-
13:05	8.46	8.94	12.79	-	-	-
13:06	8.46	8.94	12.80	-	-	-
13:07	8.46	8.94	12.81	-	-	-
13:08	8.46	8.94	12.82	-	-	-
13:09	8.46	8.94	12.83	-	-	-
13:10	8.46	8.94	12.84	-	-	-
13:11	8.46	8.94	12.85	-	-	-
13:12	8.46	8.94	12.86	-	-	-
13:13	8.46	8.94	12.87	-	-	-
13:14	8.46	8.94	12.88	-	-	-
13:15	8.46	8.94	12.89	-	-	-
13:16	8.46	8.94	12.90	-	-	-
13:17	8.46	8.94	12.91	-	-	-
13:18	8.46	8.94	12.92	-	-	-
13:19	8.46	8.94	12.93	-	-	-
13:20	8.46	8.94	12.94	-	-	-
13:21	8.46	8.94	12.95	-	-	-
13:22	8.46	8.94	12.96	-	-	-
13:23	8.46	8.94	12.97	-	-	-
13:24	8.46	8.94	12.98	-	-	-
13:25	8.46	8.94	12.99	-	-	-
13:26	8.46	8.94	13.00	-	-	-
13:27	8.46	8.94	13.01	-	-	-
13:28	8.46	8.94	13.02	-	-	-
13:29	8.46	8.94	13.03	-	-	-
13:30	8.46	8.94	13.04	-	-	-
13:31	8.46	8.94	13.05	-	-	-
13:32	8.46	8.94	13.06	-	-	-
13:33	8.46	8.94	13.07	-	-	-
13:34	8.46	8.94	13.08	-	-	-
13:35	8.46	8.94	13.09	-	-	-
13:36	8.46	8.94	13.10	-	-	-
13:37	8.46	8.94	13.11	-	-	-
13:38	8.46	8.94	13.12	-	-	-
13:39	8.46	8.94	13.13	-	-	-
13:40	8.46	8.94	13.14	-	-	-
13:41	8.46	8.94	13.15	-	-	-
13:42	8.46	8.94	13.16	-	-	-
13:43	8.46	8.94	13.17	-	-	-
13:44	8.46	8.94	13.18	-	-	-
13:45	8.46	8.94	13.19	-	-	-
13:46	8.46	8.94	13.20	-	-	-
13:47	8.46	8.94	13.21	-	-	-
13:48	8.46	8.94	13.22	-	-	-
13:49	8.46	8.94	13.23	-	-	-
13:50	8.46	8.94	13.24	-	-	-
13:51	8.46	8.94	13.25	-	-	-
13:52	8.46	8.94	13.26	-	-	-
13:53	8.46	8.94	13.27	-	-	-
13:54	8.46	8.94	13.28	-	-	-
13:55	8.46	8.94	13.29	-	-	-
13:56	8.46	8.94	13.30	-	-	-
13:57	8.46	8.94	13.31	-	-	-
13:58	8.46	8.94	13.32	-	-	-
13:59	8.46	8.94	13.33	-	-	-
14:00	8.46	8.94	13.34	-	-	-
14:01	8.46	8.94	13.35	-	-	-
14:02	8.46	8.94	13.36	-	-	-
14:03	8.46	8.94	13.37	-	-	-
14:04	8.46	8.94	13.38	-	-	-
14:05	8.46	8.94	13.39	-	-	-
14:06	8.46	8.94	13.40	-	-	-
14:07	8.46	8.94	13.41	-	-	-
14:08	8.46	8.94	13.42	-	-	-
14:09	8.46	8.94	13.43	-	-	-
14:10	8.46	8.94	13.44	-	-	-
14:11	8.46	8.94	13.45	-	-	-
14:12	8.46	8.94	13.46	-	-	-
14:13	8.46	8.94	13.47	-	-	-
14:14	8.46	8.94	13.48	-	-	-
14:15	8.46	8.94	13.49	-	-	-
14:16	8.46	8.94	13.50	-	-	-
14:17	8.46	8.94	13.51	-	-	-
14:18	8.46	8.94	13.52	-	-	-
14:19	8.46	8.94	13.53	-	-	-
14:20	8.46	8.94	13.54	-	-	-
14:21	8.46	8.94	13.55	-	-	-
14:22	8.46	8.94	13.56	-	-	-
14:23	8.46	8.94	13.57	-	-	-
14:24	8.46	8.94	13.58	-	-	-
14:25	8.46	8.94	13.59	-	-	-
14:26	8.46	8.94	13.60	-	-	-
14:27	8.46	8.94	13.61	-	-	-
14:28	8.46	8.94	13.62	-	-	-
14:29	8.46	8.94	13.63	-	-	-
14:30	8.46	8.94	13.64	-	-	-
14:31	8.46	8.94	13.65	-	-	-
14:32	8.46	8.94	13.66	-	-	-
14:33	8.46	8.94	13.67	-	-	-
14:34	8.46	8.94	13.68	-	-	-
14:35	8.46	8.94	13.69	-	-	-
14:36	8.46	8.94	13.70	-	-	-
14:37	8.46	8.94	13.71	-	-	-
14:38	8.46	8.94	13.72	-	-	-
14:39	8.46	8.94	13.73	-	-	-
14:40	8.46	8.94	13.74	-	-	-
14:41	8.46	8.94	13.75	-	-	-
14:42	8.46	8.94	13.76	-	-	-
14:43	8.46	8.94	13.77	-	-	-
14:44	8.46	8.94	13.78	-	-	-
14:45	8.46	8.94	13.79	-	-	-
14:46	8.46	8.94	13.80	-	-	-
14:47	8.46	8.94	13.81	-	-	-
14:48	8.46	8.94	13.82	-	-	-
14:49	8.46	8.94	13.83	-	-	-
14:50	8.46	8.94	13.84	-	-	-
14:51	8.46	8.94	13.85	-	-	-
14:52	8.46	8.94	13.86	-	-	-
14:53	8.46	8.94	13.87	-	-	-
14:54	8.46	8.94	13.88	-	-	-
14:55	8.46	8.94	13.89	-	-	-
14:56	8.46	8.94	13.90	-	-	-
14:57	8.46	8.94	13.91	-	-	-
14:58	8.46	8.94	13.92	-	-	-
14:59	8.46	8.94	13.93	-	-	-
15:00	8.46	8.94	13.94	-	-	-
15:01	8.46	8.94	13.95	-	-	-
15:02	8.46	8.94	13.96	-	-	-
15:03	8.46	8.94	13.97	-	-	-
15:04	8.46	8.94	13.98	-	-	-
15:05	8.46	8.94	13.99	-	-	-
15:06	8.46	8.94	14.00	-	-	-
15:07	8.46	8.94	14.01	-	-	-
15:08	8.46	8.94	14.02	-	-	-
15:09	8.46	8.94	14.03	-	-	-
15:10	8.46	8.94	14.04	-	-	-
15:11	8.46	8.94	14.05	-	-	-
15:12	8.46	8.94	14.06	-	-	-
15:13	8.46	8.94	14.07	-	-	-
15:14	8.46	8.94	14.08	-	-	-
15:15	8.46	8.94	14.09	-	-	-
15:16	8.46	8.94	14.10	-	-	-
15:17	8.46	8.94	14.11	-	-	-
15:18	8.46	8.94	14.12	-	-	-
15:19	8.46	8.94	14.13	-	-	-
15:20	8.46	8.94	14.14	-	-	-
15:21	8.46	8.94	14.15	-	-	-
15:22	8.46	8.94	14.16	-	-	-
15:23	8.46	8.94	14.17	-	-	-
15:24	8.46	8.94	14.18	-	-	-
15:25	8.46	8.94	14.19	-	-	-
15:26	8.46	8.94	14.20	-	-	-
15:27	8.46	8.94	14.21	-	-	-
15:28	8.46	8.94	14.22	-	-	-
15:29	8.46	8.94	14.23	-	-	-
15:30	8.46	8.94	14.24	-	-	-
15:31	8.46	8				

Cert. No. : ACL2603
Job No. : YC08AC0053
Page : 8 of 8Cert. No. : ACL2611
Page : 1 of 8

Calibration Certificate

Equipment : SOUND LEVEL METER
Manufacturer : JBL
Model : NL-42A (Microphone UC-52 / Pre-amplifier H1-34)
Serial No. : 0692191 / 199481 / 26431
H1 No. : RYC 150618

Condition As Found : GOOD

Customer : ALS LABORATORY GROUP (THAILAND) CO., LTD.
104 PHATTHANAKAN RD, PHATTHANAKAN ROAD,
KHUANG PHATTHANAKAN, KHUANG SUAN LUANG,
BANGKOK, 10250 THAILAND.

Location : -
Ambient Temperature : (23.0 ± 3) °C
Pressure : (101.3 ± 1) kPa
Relative Humidity : (50.0 ± 20) %

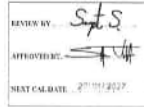
Received Date : 12 JANUARY 2026
Calibration Date : 28-30 JANUARY 2026
Date of Issue : 02 FEBRUARY 2026

Calibrated by : Nattakorn Pongpattana

Approved by :

(Nittan Sittawong)

This certificate is issued in accordance with the requirements of ISO/IEC 17025 standard, may not be reproduced
other than in full, except with the prior written approval of the local of Calibration Laboratory.



10. Peak C sound level

Number of cycle in test signal	Anticipated Value (dB)	Measured Value, Lepeak (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	130.0	130.0	0.0	±2.0
One	133.4	133.4	0.0	±2.0

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	133.0	133.0	0.0	±2.0
Positive half cycle	135.4	135.4	-0.3	±2.0
Negative half cycle	132.8	133.1	-0.3	±2.0

11. Overload indication

Measured value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Positive one-half cycle	135.4	±1.5
Negative one-half cycle	132.8	±1.5

12. High level stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	132.0	132.0	0.0	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k = 2$
or any value following calculation, providing a level of confidence of approximately 95 %

End of Calibration Certificate

Cert. No. : ACL2611
Job No. : YC08AC0058
Page : 3 of 8

Summary of Measurement Result :

Parameter	Uncertainty (dB)	Maximum-permitted uncertainty of measurement (dB)
1. Absolute sensitivity	0.2	N/A
2. Self-generated noise	0.2	N/A
3. Acoustical signal tests of frequency weightings		
125 Hz	0.3	0.6
1000 Hz	0.3	0.6
5000 Hz	0.3	0.7
4. Electrical signal tests of frequency weightings		
For 10 Hz to 4 kHz	0.3	0.6
For >4 kHz to 10 kHz	0.3	0.7
For >10 kHz to 20 kHz	0.3	1.0
5. Frequency and time weightings at 1 kHz	0.2	0.2
6. Long-term stability	0.3	0.1
7. Level linearity on the reference level range	0.2	0.3
8. Level linearity including the level range control	0.2	0.3
9. Tone burst response	0.3	0.3
10. Peak C sound level	0.2	0.35
11. Overload indication	0.2	0.25
12. High level stability	0.1	0.1

Cert. No. : ACL2611
Job No. : YC08AC0058
Page : 4 of 8

Result of calibration :

1. Absolute sensitivity

Reference Acoustic Signal (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
93.9 (93.9)	93.9	0.0	±0.3

2. Self-generated noise

2.1 Normal test

Measured Value (dB)
17.1

2.2 The microphone of the sound level meter was replaced by electrical signal input device.

Frequency Weighting	Weighting (dB)
A-weight	12.9
C-weight	17.9
Flat	24.3

3. Acoustical signal tests of frequency weightings

Main free-field acoustic response at a level of 64 dB

Frequency (Hz)	Deviated from various frequency weighting response (dB)	Acceptance Limits
125	0.3	±1.5
1000	0.2	±1.0
5000	1.1	±2.0

Cert. No. : ACL2611
Job No. : YC08AC0058
Page : 2 of 8

Calibration Procedure : CP-AC-01

Calibration Method :

This equipment was calibrated by follow on ISO 61672-3 (2013) Standard for sound level meter (SLM).
The SLM had been in Annual and Electrical signal tests of frequency weighting with Ambient chamber and Reference
Standard Instruments.
For test results of each item was made by observation of each measurement display and also with SLM's display.

Condition of this result of calibration :

1. Reference Standard Instruments :

Instrument	Model	Serial No.	Cert. No.	Due Date
Waveform Generator	33210A	MY49017078	CF-0011-23	11-03-26
Waveform Generator	33311B	MY32302742	CF-0012-23	11-03-26
Digital Multimeter	33461A	MY32302104	FEL-10P-240224	22-03-26
Digital Multimeter	33461A	MY32302078	EL-10P-230224	22-03-26
Digital Multimeter	34461A	MY60074272	CA20231203A	18-03-26
Programmable Attenuator	MAX-1020	42100114	CF-0006-23	11-03-26
Condenser Microphone	9103	2997990	AA-1003-25	19-03-26
Measuring Amplifier	NA-0241	35560485	AA-3003-25	19-03-26

2. This result of calibration was found accurate in check of data and plans of calibration for this calibrated item only.

3. This certificate is traceable to the international system of unit maintained at :

3.1 National Institute of Metrology (Thailand).

3.2 Thailand Institute of Scientific and Technological Research (TISTR).

3.3 Electrical and Electronics Institute (EEI).

Cert. No. : ACL2611
Job No. : YC08AC0058
Page : 5 of 8

4. Electrical signal tests of frequency weightings

Weighting network response with reference to 1 kHz

Frequency (Hz)	Flat	C-weight	A-weight	Acceptance Limits
63	-0.1	-0.1	0.0	±2.0
125	0.0	0.0	0.0	±1.5
250	0.0	0.0	0.1	±1.5
500	0.0	0.0	0.0	±1.5
1000	0.0	0.0	0.0	±1.0
2000	0.0	0.0	0.0	±2.0
4000	0.0	0.0	0.0	±2.0
8000	0.0	0.1	0.1	±2.0

5. Frequency and time weightings at 1 kHz

5.1 Frequency weightings at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.2
C-weight	94.0	94.0	0.0	±0.2
Flat	94.0	94.0	0.0	±0.2

5.2 Time weighting at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	94.0	94.0	0.0	±0.3
Slow	94.0	94.0	0.0	±0.3
Imp	94.0	94.0	0.0	±0.3

6. Long-term stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.3

Cert. No. : ACL2611
Job No. : YC08AC0058
Page : 6 of 8

7. Level linearity on the reference level range

Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
137.0	137.0	0.0	±1.2
136.0	136.0	0.0	±1.3
135.0	135.0	0.0	±1.3
134.0	134.0	0.0	±1.3
133.0	133.0	0.0	±1.3
132.0	132.0	0.0	±1.3
131.0	131.0	0.0	±1.3
129.0	129.0	0.0	±1.3
125.0	125.0	0.0	±1.4
119.0	119.0	0.0	±1.2
115.0	115.0	0.0	±1.1
109.0	109.0	0.0	±1.1
104.0	104.0	0.0	±1.1
99.0	99.0	0.0	±1.1
94.0	94.0	0.0	±1.1
89.0	89.0	0.0	±1.1
84.0	84.0	0.0	±1.1
79.0	79.0	0.0	±1.1
74.0	74.0	0.0	±1.1
69.0	69.0	0.0	±1.1
64.0	64.0	0.0	±1.1
59.0	59.0	0.0	±1.1
54.0	54.0	0.0	±1.1
49.0	49.0	0.0	±1.1
44.0	44.0	0.0	±1.1
39.0	39.0	0.0	±1.1
34.0	34.0	0.0	±1.1
29.0	29.0	0.0	±1.1
24.0	24.0	0.0	±1.1
19.0	19.0	0.0	±1.1
14.0	14.0	0.0	±1.1
9.0	9.0	0.0	±1.1
4.0	4.0	0.0	±1.1

Cert. No. : ACL2611
Job No. : YC08AC0058
Page : 7 of 8

8. Level linearity including the level range control

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	94.0	94.0	0.0	±1.1

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	29.0	29.0	-0.1	±1.1

9. Tone burst response

Time Weighting	Tone burst duration, T _b (ms)	Cycle	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	0.25	1	106.0	107.9	-0.1	1.3 ± 2.0
	2	8	117.0	117.0	0.0	1.0 ± 2.5
	200	800	134.0	134.0	0.0	±1.0
Slow	2	8	103.0	103.0	0.0	1.0 ± 3.0
	200	800	127.0	127.0	0.0	±1.0
IMP	0.25	1	99.0	98.9	-0.1	1.3 ± 3.0
	2	8	106.0	106.0	0.0	1.0 ± 2.5
	200	800	129.0	129.0	0.0	±1.0

Cert. No. : ACL2611
Job No. : YC08AC0058
Page : 8 of 8

10. Peak C sound level

Number of cycle in test signal	Anticipated Value (dB)	Measured Value, Lepeak (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	130.0	130.0	0.0	±2.0
One	133.4	133.4	0.0	±2.0

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	133.0	133.0	0.0	±2.0
Positive half cycle	135.4	135.2	-0.2	±2.0
Negative half cycle	132.8	133.2	-0.2	±2.0

11. Overload indication

Measured value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Positive one-half cycle	135.4	±1.5
Negative one-half cycle	132.8	±1.5

12. High level stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	132.0	132.0	0.0	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k = 2$
or any value following calculation, providing a level of confidence of approximately 95 %

End of Calibration Certificate

Cert. No. : ACL26112
Page : 1 of 8

Calibration Certificate

Equipment: SOUND LEVEL METER
Manufacturer: RION
Model: NL-42A / Microphone UC-52 / Pre-amplifier NH-24
Serial No.: 0862394 / 198641 / 26427
ID No.: RYG JS6019

Condition As Found : GOOD

Customer: ALS LABORATORY GROUP (THAILAND) CO., LTD.
104 PHATHANAKAN 40, PHATHANAKAN ROAD,
KHUANG PHATHANAKAN, KHUANG SUAN LUANG,
BANGKOK, 10250 THAILAND.

Location: -
Ambient Temperature: (23.0 ± 3) °C
Pressure: (101.3 ± 1.3) kPa
Relative Humidity: (50.0 ± 2.0) %

Received Date: 12 JANUARY 2026
Calibration Date: 28-30 JANUARY 2026
Date of Issue: 02 FEBRUARY 2026

Calibrated by: Nadeem Prapin

Approved by: Nadeem Prapin
(Nadeem Prapin)

This certificate is issued in accordance with the requirements of ISO/IEC 17025 standard, may not be reproduced
other than in full, except with the prior written approval of the head of Calibration Laboratory.

Calibration Procedure : CP-AC-01

Calibration Method :

This equipment was calibrated by following IEC 61672-3 (2013) Standard for sound level meter (SLM).
The SLM test results to Acoustical and Electrical signal tests of frequency weighting with A-weighted chamber and Reference
Standard Instruments.
For test results of each item were made by observation of each instrument display and also with SLM display.

Condition of this result of calibration :

1. Reference Standard Instruments :

Instrument	Model	Serial No.	Cert. No.	Due Date
Waveform Generator	33210A	MY10017078	IEF-001-25	11-FEB-26
Waveform Generator	33511B	MY10017078	IEF-002-25	11-FEB-26
Digital Multimeter	33461A	MY10017078	IEF-003-26	22-APR-26
Digital Multimeter	33461A	MY10017078	IEF-004-26	22-APR-26
Digital Multimeter	33461A	MY10017078	CA2003170A	11-MAR-26
Programmable Attenuator	33431A	MY10017078	IEF-005-26	11-FEB-26
Condenser Microphone	4108	2977000	AA-100-25	19-FEB-26
Measuring Amplifier	NA-42EAL	3456695	AA-102-25	19-FEB-26

2. This result of calibration was found accurate as shown in due and only of calibration for this calibrated item only.

3. This certificate is traceable to the international system of unit maintained at :

- National Institute of Metrology (Thailand).
- Thailand Institute of Scientific and Technological Research (TISTR).
- Physical And Electronics Institute (PEI).

Cert. No. : ACL26112
Job No. : VCBAC0058
Page : 2 of 8Cert. No. : ACL26112
Job No. : VCBAC0058
Page : 3 of 8

Summary of Measurement Result :

Parameter	Uncertainty (dB)	Maximum-permitted uncertainty of measurement (dB)
1. Absolute sensitivity	0.2	N/A
2. Self-generated noise	0.2	N/A
3. Acoustical signal tests of frequency weightings		
125 Hz	0.3	0.6
1000 Hz	0.3	0.6
8000 Hz	0.3	0.7
4. Electrical signal tests of frequency weightings		
For 10 Hz to 4 kHz	0.3	0.6
For 4 kHz to 10 kHz	0.3	0.7
For 10 kHz to 20 kHz	0.3	1.0
5. Frequency and time weightings at 1 kHz	0.2	0.2
6. Long-term stability	0.1	0.1
7. Level linearity on the reference level range	0.2	0.3
8. Level linearity including the level range control	0.2	0.3
9. Time burst response	0.2	0.3
10. Peak C-weighted level	0.2	0.35
11. Overload indication	0.2	0.25
12. High level stability	0.1	0.1

Cert. No. : ACL26112
Job No. : VCBAC0058
Page : 4 of 8

Result of calibration :

1. Absolute sensitivity

Reference Acoustic Signal (dB)	Measured Value (dB)	Deviation (dB)	Acceptance Limit (dB)
93.9 (93.9)	93.9	0.0	±0.3

2. Self-generated noise

2.1 Normal test

Measured Value (dB)
14.8

2.2 The microphone of the sound level meter was replaced by electrical signal input device.

Frequency Weighting	Weighting (dB)
A-weight	10.4
C-weight	17.1
Flat	22.9

3. Acoustical signal tests of frequency weightings

Meter free field acoustic response at a level of 93 dB

Frequency (Hz)	Flat	C-weight	A-weight	Acceptance Limit
125	0.4	0.4	0.4	±1.5
1000	0.1	0.1	0.1	±1.0
8000	-0.3	-0.4	-0.3	±1.0

Cert. No. : ACL26112
Job No. : VCBAC0058
Page : 7 of 8

8. Level linearity including the level range control

Range	Anticipated Value (dB)	Measured Value (dB)	Deviation Value (dB)	Acceptance Limit (dB)
130	93.0	94.0	0.0	±1.3

Range	Anticipated Value (dB)	Measured Value (dB)	Deviation Value (dB)	Acceptance Limit (dB)
130	26.0	26.9	-0.1	±1.1

9. Time burst response

Time Weighting	Time burst duration, t _b (ms)	Cycle	Anticipated Value (dB)	Measured Value (dB)	Deviation Value (dB)	Acceptance Limit (dB)
Flat	0.25	1	108.0	107.9	-0.1	±1.5 ; 5.0
	2	9	117.0	117.0	0.0	±1.6 ; 2.5
	200	800	134.0	134.0	0.0	±1.6
Slow	2	2	108.0	108.0	0.0	±1.6 ; 5.0
	200	100	127.0	127.0	0.0	±1.6
	0.25	1	99.0	99.0	-0.1	±1.5 ; 5.0
BB	2	8	108.0	108.0	0.0	±1.6 ; 2.5
	200	800	126.0	126.0	0.0	±1.6

Cert. No. : ACL26112
Job No. : VCBAC0058
Page : 8 of 8

10. Peak C-weighted level

Number of cycle	Anticipated Value (dB)	Measured Value, typical (dB)	Deviation Value (dB)	Acceptance Limit (dB)
10 test signal	130.0	130.0	0.0	±2.0
Continuous	130.0	130.0	0.0	±2.0
Over	130.1	130.1	-0.1	±2.0

Number of cycle	Anticipated Value (dB)	Measured Value (dB)	Deviation Value (dB)	Acceptance Limit (dB)
10 test signal	130.0	130.0	0.0	±2.0
Continuous	130.0	130.0	0.0	±2.0
Negative half cycle	130.0	130.0	0.0	±2.0
Positive half cycle	130.0	130.0	0.0	±2.0

11. Overload indication

Measured value (dB)	Deviation Value (dB)	Acceptance Limit (dB)
Positive one-half cycle	0.0	±1.5
Negative one-half cycle	0.0	±1.5

12. High level stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviation Value (dB)	Acceptance Limit (dB)
A-weight	132.0	132.0	0.0	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k=2$
or half value following calculation, providing a level of confidence of approximately 95 %

End of Calibration Certificate

Cert. No. : ACL26112
Page : 1 of 8

Calibration Certificate

Equipment: SOUND LEVEL METER
Manufacturer: RION
Model: NL-42A / Microphone UC-52 / Pre-amplifier NH-24
Serial No.: 0862394 / 198641 / 26427
ID No.: RYG JS6020

Condition As Found : GOOD

Customer: ALS LABORATORY GROUP (THAILAND) CO., LTD.
104 PHATHANAKAN 40, PHATHANAKAN ROAD,
KHUANG PHATHANAKAN, KHUANG SUAN LUANG,
BANGKOK, 10250 THAILAND.

Location: -
Ambient Temperature: (23.0 ± 3) °C
Pressure: (101.3 ± 1.3) kPa
Relative Humidity: (50.0 ± 2.0) %

Received Date: 12 JANUARY 2026
Calibration Date: 28-30 JANUARY 2026
Date of Issue: 02 FEBRUARY 2026

Calibrated by: Nadeem Prapin

Approved by: Nadeem Prapin
(Nadeem Prapin)

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Cert. No. : ACL36863
Job No. : VCBAC0652
Pages : 6 of 8

7. Level linearity on the reference level range

Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limit (dB)
132.0	132.0	0.0	±1.1
136.0	136.0	0.0	±1.1
135.0	135.0	0.0	±1.1
134.0	134.0	0.0	±1.1
133.0	133.0	0.0	±1.1
132.0	132.0	0.0	±1.1
131.0	131.0	0.0	±1.1
129.0	129.0	0.0	±1.1
125.0	125.0	0.0	±1.1
119.0	119.0	0.0	±1.1
114.0	114.0	0.0	±1.1
109.0	109.0	0.0	±1.1
104.0	104.0	0.0	±1.1
99.0	99.0	0.0	±1.1
94.0	94.0	0.0	±1.1
89.0	89.0	0.0	±1.1
84.0	84.0	0.0	±1.1
79.0	79.0	0.0	±1.1
74.0	74.0	0.0	±1.1
69.0	69.0	0.0	±1.1
64.0	64.0	0.0	±1.1
59.0	59.0	0.0	±1.1
54.0	54.0	0.0	±1.1
49.0	49.0	0.0	±1.1
44.0	44.0	0.0	±1.1
39.0	39.0	0.0	±1.1
34.0	34.0	0.0	±1.1
29.0	29.0	0.0	±1.1
24.0	24.0	0.0	±1.1
19.0	19.0	0.0	±1.1
14.0	14.0	0.0	±1.1

Page 6

Cert. No. : ACL36863
Job No. : VCBAC0652
Pages : 7 of 8

8. Level linearity including the level range control

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limit (dB)
130	94.0	94.0	0.0	±1.1

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limit (dB)
130	29.0	29.0	0.0	±1.1

9. Time burst response

Time Weighting	Time burst duration, Th (ms)	Cycle	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limit (dB)
Fast	0.25	1	108.0	107.9	-0.1	±5.5
	2	8	117.0	117.0	0.0	±0.1
	200	800	134.0	134.0	0.0	±1.0
Slow	2	8	108.0	108.0	0.0	±5.5
	200	800	127.6	127.6	0.0	±1.0
	0.25	1	99.0	98.8	-0.2	±5.5
SEL	2	8	108.0	108.0	0.0	±5.5
	200	800	128.0	128.0	0.0	±1.0

Page 7

Cert. No. : ACL36863
Job No. : VCBAC0652
Pages : 8 of 8

10. Peak C sound level

Number of cycle in test signal	Anticipated Value (dB)	Measured Value, L _{peak} (dB)	Deviated Value (dB)	Acceptance Limit (dB)
Continuous	130.0	130.0	0.0	±1.0
One	133.4	133.4	0.0	±1.0

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limit (dB)
Continuous	133.0	133.0	0.0	±1.0
Positive half cycle	133.4	133.7	+0.3	±1.0
Negative half cycle	133.4	133.2	-0.2	±1.0

11. Overload indication

Measured value (dB)	Deviated Value (dB)	Acceptance Limit (dB)
Positive one half cycle	133.4	±1.8
Negative one half cycle	133.4	±1.8

12. High level stability

Frequency Weighting	S.M Display at initial (dB)	S.M Display at final (dB)	Deviated Value (dB)	Acceptance Limit (dB)
A-weight	137.0	137.0	0.0	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor $k=2$ or any value following calculation providing a level of confidence of approximately 95 %

End of Calibration Certificate

Page 8

400-807-1111 (toll-free), 0-2026-8888 (Bangkok), 0-2026-8888 (Nonthaburi)
Tel: +66 24323832 Email: calibration@sitp.ac.thCert. No. : ACL36869
Page : 1 of 8

Calibration Certificate

Equipment : SOUND LEVEL METER
Manufacturer : HORN
Model : NL-42 / Microphone UC-52 / Pre-amplifier NPL-24
Serial No. : 0097552 / 110354 / 72890
ID No. : BKK-P50877

Condition As Found : GOOD

Customer : ALS LABORATORY GROUP (THAILAND) CO., LTD.
104 PHATTANAKAN 40, PHATTANAKAN ROAD,
KHUANG PHATTANAKAN, KHUANG PHATTANAKAN,
BANGKOK, 10250 THAILAND

Location :
Ambient Temperature : (23.0 ± 3) °C
Pressure : (101.3 ± 3) kPa
Relative Humidity : (50.0 ± 20) %

Received Date : 12 JANUARY 2026
Calibration Date : 27 JANUARY 2026
Date of Issue : 28 JANUARY 2026

REVIEW BY : [Signature]
APPROVED BY : [Signature]
NEXT CAL DATE : 26/01/27

Calibrated by : Nattakorn Pichaporn

Approved by : [Signature]
(Nitin Srihawan)

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Cert. No. : ACL36869
Job No. : VCBAC0657
Page : 4 of 8

Result of calibration :

1. Absolute sensitivity

Reference Acoustic Signal (dB)	Measured Value (dB)	Deviation (dB)	Acceptance Limit (dB)
93.9 (13.94)	93.9	0.0	±0.3

2. Self-generated noise

2.1 Normal test

Measured Value (dB)
16.0

2.2 The microphone of the sound level meter was replaced by electrical signal input device.

Frequency Weighting (dB)	Weighting
A-weight	11.2
C-weight	17.5
Flat	33.2

3. Acoustical signal tests of frequency weightings

Mean free field acoustic response at a level of 94 dB

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limit
125	0.5	0.5	0.6	± 1.2
1000	0.1	0.1	0.1	± 1.0
4000	-0.3	-0.3	-0.7	± 2.0

Page 4

Cert. No. : ACL36869
Job No. : VCBAC0657
Page : 5 of 8

4. Electrical signal tests of frequency weightings

Weighting network response with relative to 1 kHz.

Frequency (Hz)	Deviation from various frequency weighting response curve (dB)			
	Flat	C-weight	A-weight	Acceptance Limits
63	0.0	-0.1	-0.1	±2.0
125	0.0	0.0	0.0	±1.5
250	0.0	0.0	0.0	±1.5
500	0.0	0.0	0.0	±1.5
1000	0.0	0.0	0.0	±1.0
2000	0.0	0.0	0.0	±2.0
4000	0.0	0.0	0.0	±3.0
8000	0.0	0.1	0.1	±5.0

5. Frequency and time weightings at 1 kHz

5.1 Frequency weightings at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limit (dB)
A-weight	91.0	91.0	0.0	±0.3
C-weight	91.0	91.0	0.0	±0.2
Flat	91.0	91.0	0.0	±0.2

5.2 Time weighting at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limit (dB)
Fast	91.0	91.0	0.0	±0.3
Slow	91.0	91.0	0.0	±0.3
Long	91.0	91.0	0.0	±0.3

6. Long-term stability

Frequency Weighting	S.M Display at initial (dB)	S.M Display at final (dB)	Deviated Value (dB)	Acceptance Limit (dB)
A-weight	91.0	91.0	0.0	±0.3

Page 5

Cert. No. : ACL36869
Job No. : VCBAC0657
Page : 6 of 8

7. Level linearity on the reference level range

Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limit (dB)
127.0	127.0	0.0	±1.1
126.0	126.0	0.0	±1.1
125.0	125.0	0.0	±1.1
124.0	124.0	0.0	±1.1
123.0	123.0	0.0	±1.1
122.0	122.0	0.0	±1.1
121.0	121.0	0.0	±1.1
120.0	120.0	0.0	±1.1
119.0	119.0	0.0	±1.1
118.0	118.0	0.0	±1.1
117.0	117.0	0.0	±1.1
116.0	116.0	0.0	±1.1
115.0	115.0	0.0	±1.1
114.0	114.0	0.0	±1.1
113.0	113.0	0.0	±1.1
112.0	112.0	0.0	±1.1
111.0	111.0	0.0	±1.1
110.0	110.0	0.0	±1.1
109.0	109.0	0.0	±1.1
108.0	108.0	0.0	±1.1
107.0	107.0	0.0	±1.1
106.0	106.0	0.0	±1.1
105.0	105.0	0.0	±1.1
104.0	104.0	0.0	±1.1
103.0	103.0	0.0	±1.1
102.0	102.0	0.0	±1.1
101.0	101.0	0.0	±1.1
100.0	100.0	0.0	±1.1
99.0	99.0	0.0	±1.1
98.0	98.0	0.0	±1.1
97.0	97.0	0.0	±1.1
96.0	96.0	0.0	±1.1
95.0	95.0	0.0	±1.1
94.0	94.0	0.0	±1.1
93.0	93.0	0.0	±1.1
92.0	92.0	0.0	±1.1
91.0	91.0	0.0	±1.1
90.0	90.0	0.0	±1.1
89.0	89.0	0.0	±1.1
88.0	88.0	0.0	±1.1
87.0	87.0	0.0	±1.1
86.0	86.0	0.0	±1.1
85.0	85.0	0.0	±1.1
84.0	84.0	0.0	±1.1
83.0	83.0	0.0	±1.1
82.0	82.0	0.0	±1.1
81.0	81.0	0.0	±1.1
80.0	80.0	0.0	±1.1
79.0	79.0	0.0	±1.1
78.0	78.0	0.0	±1.1
77.0	77.0	0.0	±1.1
76.0	76.0	0.0	±1.1
75.0	75.0	0.0	±1.1

Page 6

Cert. No. : ACL36074
Job No. : VCGAC0053
Page : 2 of 8

Calibration Procedure: CP-AC-01

Calibration Method :

This equipment was calibrated by follow on IEC-61073-3 (2013) Standard for sound level meter (SLM).
The SLM had tests to Acoustical and Electrical signal tests of frequency weighting with Acoustic chamber and Reference Standard Instruments.
For test results of each item were made by observation of each Instruments display and also with SLM's display.

Condition of this result of calibration :

1. Reference Standard Instruments :

Instrument	Model	Serial No.	Cert. No.	Due Date
Waveform Generator	MS210A	MY41011076	IF-0011-25	11-FEB-26
Waveform Generator	13311H	MY3210742	EF-0012-25	11-FEB-26
Digital Multimeter	33401A	MY3210804	EEL-0P-240208	22-APR-26
Digital Multimeter	33401A	MY32120070	EEL-0P-230208	22-APR-26
Digital Multimeter	33401A	MY36012475	C/20251206A	18-MAR-26
Programmable Attenuator	MAF-1050	C2100114	EF-0006-25	11-FEB-26
Condenser Microphone	8190	287-0000	AA-1002-23	19-FEB-26
Measuring Amplifier	NA-42KA1	34502495	AA-1002-23	19-FEB-26

2. This result of calibration was found accurate as shown on item and place of calibration for this calibrated item only.
3. This certificate is traceable to the International system of unit contained at :

- 3.1 National Institute of Metrology (Thailand).
3.2 Thailand Institute of Scientific and Technological Research (TISTR).
3.3 Electrical and Electronic Institute (IEE).

Cert. No. : ACL36074
Job No. : VCGAC0053
Page : 5 of 8

4. Electrical signal tests of frequency weightings

Weighting network response with reference to 1 kHz.

Frequency (Hz)	Flat	C-weight	A-weight	Acceptance Limits
43	0.0	0.0	0.0	±2.0
125	0.0	0.0	0.0	±1.5
250	0.0	0.0	0.0	±1.5
500	0.0	0.0	0.0	±1.5
1000	0.0	0.0	0.0	±1.0
2000	0.0	0.1	0.0	±2.0
4000	0.0	0.0	0.0	±3.0
8000	0.0	0.1	0.1	±3.0

5. Frequency and time weightings at 1 kHz

5.1 Frequency weightings at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.2
C-weight	94.0	94.0	0.0	±0.2
Flat	94.0	94.0	0.0	±0.2

5.2 Time weighting at 1 kHz

Frequency Weighting	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	94.0	94.0	0.0	±0.1
Slow	94.0	94.0	0.0	±0.1
Log	94.0	94.0	0.0	±0.1

6. Long-term stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	94.0	94.0	0.0	±0.3

Cert. No. : ACL36074
Job No. : VCGAC0053
Page : 8 of 8

10. Peak C sound level

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	130.0	130.0	0.0	±1.0
One	137.4	137.4	0.0	±3.0

Number of cycle in test signal	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Continuous	133.0	133.0	0.0	±2.0
Positive half cycle	135.4	135.4	-0.1	±2.0
Negative half cycle	135.4	135.4	-0.2	±2.0

11. Overload indication

Measured value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Positive	0.1	±1.5
Negative	0.1	±1.5

12. High level stability

Frequency Weighting	SLM Display at initial (dB)	SLM Display at final (dB)	Deviated Value (dB)	Acceptance Limits (dB)
A-weight	137.0	137.0	0.0	±0.3

The reported uncertainty is based on a standard uncertainty multiplied by coverage factor k = 2.
or by any value following evaluation, providing a level of confidence of approximately 95 %

End of Calibration Certificate

Cert. No. : ACL36074
Job No. : VCGAC0053
Page : 3 of 8

Summary of Measurement Result :

Parameter	Uncertainty (dB)	Maximum permitted uncertainty of measurement (dB)
1. Absolute sensitivity	0.3	N/A
2. Full generated noise	0.2	N/A
3. Acoustical signal tests of frequency weightings		
125 Hz	0.3	0.6
2000 Hz	0.3	0.6
8000 Hz	0.3	0.7
4. Electrical signal tests of frequency weightings		
For 10 Hz to 4 kHz	0.3	0.6
For > 4 kHz to 10 kHz	0.3	0.7
For > 10 kHz to 20 kHz	0.3	1.0
5. Frequency and time weightings at 1 kHz	0.2	0.2
6. Long-term stability	0.1	0.1
7. Level linearity on the reference level range	0.2	0.3
8. Time burst response	0.2	0.3
9. Peak C sound level	0.2	0.35
11. Overload indication	0.2	0.25
12. High level stability	0.1	0.1

Cert. No. : ACL36074
Job No. : VCGAC0053
Page : 6 of 8

7. Level linearity on the reference level range

Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
137.0	137.0	0.0	±1.1
136.0	136.0	0.0	±1.1
135.0	135.0	0.0	±1.1
134.0	134.0	0.0	±1.1
133.0	133.0	0.0	±1.1
132.0	132.0	0.0	±1.1
131.0	131.0	0.0	±1.1
129.0	129.0	0.0	±1.1
128.0	128.0	0.0	±1.1
119.0	119.0	0.0	±1.1
114.0	114.0	0.0	±1.1
109.0	109.0	0.0	±1.1
104.0	104.0	0.0	±1.1
99.0	99.0	0.0	±1.1
94.0	94.0	0.0	±1.1
89.0	89.0	0.0	±1.1
84.0	84.0	0.0	±1.1
79.0	79.0	0.0	±1.1
74.0	74.0	0.0	±1.1
69.0	69.0	0.0	±1.1
64.0	64.0	0.0	±1.1
59.0	59.0	0.0	±1.1
54.0	54.0	0.0	±1.1
49.0	49.0	0.0	±1.1
44.0	44.0	0.0	±1.1
39.0	39.0	0.0	±1.1
34.0	33.9	-0.1	±1.1
29.0	29.9	-0.1	±1.1
24.0	24.9	-0.1	±1.1
19.0	19.9	-0.1	±1.1
14.0	14.9	-0.1	±1.1
9.0	9.9	-0.1	±1.1

Cert. No. : 25CH7001
Page : 1 of 3

Certificate of Calibration

This Certificate was issued to replace to the Certificate No 25CH7001

Equipment:	pH Meter
Manufacturer:	Mettler Toledo
Model:	SevenExcellence
Serial No.:	B834291445
ID No.:	RYQ-EN0152
Condition As-Received:	Used item
Received Date:	12 June 2025
Calibration Date:	18 June 2025
Reference:	2506-0407D8C-2
Submitted by:	ALS Laboratory Group (Thailand) Co., Ltd.

Ambient Temperature : (25 ± 2.5) °C
Relative Humidity : (50 ± 15) %
Calibration Procedure :
- In-house method
- CP-CHB by direct measurement with DC voltage standard and direct measurement with verified reference material (CRM)
- CP-CHB by comparison with temperature standard

Calibrated by: Walailak, Brittan
Approved by: *Signature*
Accepted Signature

() Chaleri Wiewanjan
() Pongpan Papan
() Sathit Manngmal
Issue Date: 1 July 2025

The uncertainty is for a confidence probability of approximately 95%

This certificate may not be reproduced other than in full, except with the prior written approval of the head of Calibration Services, Equipment Calibration and Testing Services.

Cert. No. : ACL36074
Job No. : VCGAC0053
Page : 4 of 8

Result of calibration :

1. Absolute sensitivity

Reference Acoustic Signal (dB)	Measured Value (dB)	Deviation (dB)	Acceptance Limit (dB)
93.9 (0.94)	93.9	0.0	±0.3

2. Self-generated noise

2.1 Manual test

Measured Value (dB)
14.8

2.2 The microphone of the sound level meter was regulated by electrical signal input device.

Frequency Weighting	Weighting (dB)
A-weight	11.3
C-weight	18.0
Flat	23.9

3. Acoustical signal tests of frequency weightings

Mean free-field acoustic response at a level of 94 dB

Frequency (Hz)	Flat	C-weight	A-weight	Acceptance Limits
125	0.0	0.1	0.1	±1.5
1000	-0.1	0.0	0.0	±1.0
8000	1.1	1.2	1.2	±3.0

Cert. No. : ACL36074
Job No. : VCGAC0053
Page : 7 of 8

8. Level linearity including the level range control

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	91.0	91.0	0.0	±1.1

Range	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
130	28.0	28.9	-0.1	±1.1

9. Time burst response

Time Weighting	Time burst duration, T_b (ms)	Cycle	Anticipated Value (dB)	Measured Value (dB)	Deviated Value (dB)	Acceptance Limits (dB)
Fast	0.25	1	105.0	107.9	-0.1	-1.5; +3.0
	?	2	117.0	117.0	0.0	1.0; -2.3
	?	800	134.0	134.1	0.1	±0.0
Slow	?	8	108.0	108.0	0.0	1.0; ±3.0
	0.25	800	127.0	127.0	0.0	±1.0
	?	8	108.0	108.0	0.0	1.0; -2.3
SEL	?	800	129.0	129.0	0.0	±1.0

Cert. No. : 25CH7001
Page : 2 of 3

Condition of this application result

1. Reference Standard Instrument

Instrument	Serial No.	ID No.	Cert. No.	Due Date
1) Document Process Calibrator	5403048	13URC116	24E159	25 Aug 2025
2) Ref. Standard Thermometer	482054	110EC344	24T57	14 July 2025

- The measurement result is traceable to SI through Technology Promotion Association (Thailand - Japan).
- The measurement results are traceable to SI through RM-HM-15164-01.00
- The measurement results are traceable to SI through CPA chain Ltd.
- ANSI-ISO National Accreditation Board. Accredited No. AN-1635

Buffer Solution	Manufacturer	Lot No.	Exp. date
pH 4.005	CPA chem	1056555	15 Jan 2027
pH 7.002	High-Purity GmbH	030320	03 Oct 2026
pH 10.010	CPA chem	1056558	15 Jan 2026

3. The certificate is valid only to the item calibrated on date and place of calibration.

Calibration Results

Parameter: mV Measurement

Performing standard curve by Document Process Calibrator at pH (4.3, 10)

Unit Under Calibration	Nominal Value	Standard Voltage Input	Actual Reading	Uncertainty of Measurement (mV)	Coverage Factor
pH Meter	4.000	177.48	177.3	4.000	0.058
	7.000	0.00	-0.1	7.000	0.058
	10.000	-177.48	-177.5	10.000	0.058





Certificate of Testing

Cert.No.: 257W15
Page: 1 of 2

Equipment: DO Meter
Manufacturer: VSI
Model: 5000-115V
Serial No.: 15E102795
ID No.: RYO_EN0032
Received Date: 17 January 2025
Test Date: 26 January 2025
Reference: 2501-060050-1
Submitted by: ALS Laboratory Group (Thailand) Co., Ltd.
(Rajabong Branch)
616/10 Moo 5, T.Maanmuang, A.Phuakdaeng,
Rajabong 21140, Thailand
Laboratory Condition: Temperature (25 ± 5) °C
Humidity (50 ± 20) %
Test Procedure: In-house method CP-CH
by Comparison Technique with Acid Modification Method
Tested by: Wutthichai Sathian
Approved by:
Approved Signatory
() Pongthepa Tamayakul
() Pongthepa Tamayakul
(✓) Sathian, Manojit
Issue Date: 21 January 2025



Certificate of Calibration

Cert.No.: 257W15
Page: 2 of 2

1. Reference Standard Instruments:
This certificate is traceable to the International System of Unit through the reference standards
laboratory of Industrial Calibration Center, Technology Promotion Association (Thailand-Japan).

Instruments	Serial No.	ID No.	Certificate No.	Due Date
1. Bursts	130B10	110RC001	230C1172	22 Mar 2025
2. Balance	14233021	110RC001	24MM131	04 July 2025

2. Standard Material:
Material: Sodium Thiosulfate 5-Hydrate AR
Manufacturer: KEMALUS
Lot No.: 220312447
Assay: 99.6%

Result:		Dissolved Oxygen Meter Adjustment With Air 100 %	
Dissolved Oxygen Probe No.: 15E10464			
Titration Method (Acid Modification Method)		DO Meter Reading (mg/L)	Standard Deviation (mg/L)
6.20		6.23	0.0034

This report was certified only for the instrument we tested. It is allowable to use for study
intend to use for advertising and other purpose is prohibited. This report may not be reproduced
other in full without written approval of the laboratory.

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Certificate of Calibration

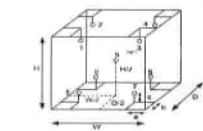
Cert.No.: 257M401
Page: 1 of 3

Equipment: Low Temp. Incubator
Manufacturer: Memmert
Model: BP750
Serial No.: V818 0084
ID No.: RYO_EN0154
Submitted by: ALS Laboratory Group (Thailand) Co., Ltd. Rajabong Branch
616/10 Moo 5, T.Maanmuang, A.Phuakdaeng,
Rajabong 21140, Thailand
Location: BOD Room
Received Order: 18 March 2025
Calibration Date: 18 March 2025
Ambient Temperature: (25 ± 10) °C
Relative Humidity: (50 ± 30) %
AC Line Voltage: (220 ± 22) V
Calibrated by: Preacha Waiha
Approved by:
Approved Signatory
() Chaitit Watanwong
() Sathian, Manojit
(✓) Chaitit Watanwong
Issue Date: 31 March 2026

The uncertainties are for a confidence probability of approximately 95%
This certificate may not be reproduced other than in full, except with the prior written
Approval of the head of Corporate Services 3, Equipment Calibration and Testing Services



Equipment: Low Temp. Incubator
Condition As-Received: New Item
Reference: 2503-0520G-2
Procedure Used:
Calibration was conducted using calibration procedure CP-D102 based on TIA G-29 according to direct
measurement method with Data Acquisition which connected with Resistance Temperature Detector (RTD).
The temperature scale used was based on ITS-90.
Condition of this result of calibration:
1. Reference standard instrument:
Instrument: Serial No. Cert. No. Traceability Due Date
1) Data Acquisition MY45023932 25M121 TPA 27 Jul 2026
2. This certificate is valid only for the item calibrated on date and place of calibration.
3. This measurement result is traceable to the International System of Unit maintained through:
Remark: TPA Technology Promotion Association (Thailand - Japan)
Result of Calibration: () Without Adjustment
Function of UUC: Temperature Source
Fresh air setting: Not Available



Probe Installation Details: Dimension of Chamber:
a = 10 cm D = 6 cm
b = 10 cm W = 1.0 m
c = 10 cm H = 1.2 m
Capacity = 0.72 m³

Environment during calibration	
Beginning	Finished
Temp (°C)	23 21
REL. Humid. (%)	37 33
AC Supply (VHz)	220 221
Position	
1	19-16RTD-01
2	19-16RTD-02
3	19-16RTD-03
4	19-16RTD-04
5	19-16RTD-05
6	19-16RTD-06
7	21-16RTD-07
8	19-16RTD-08
9 (ref.)	19-16RTD-09



Equipment: Low Temp. Incubator
Condition As-Received: New Item
Reference: 2503-0520G-2
Result of Calibration: () Without Adjustment
Function of UUC: Temperature Source
Fresh air setting: Not Available

Calibration Point (°C)	UUC Setting (°C)	UUC Reading (°C)	Temperature stability (°C)	Temperature uniformity (°C)	Overall Coverage (°C)	Coverage Factor A
20.0	20.0	20.0	0.019	0.19	0.34	2
Measured Temperature (°C)						
1	2	3	4	5	6	7
20.0	20.185	20.132	20.303	20.140	20.003	20.054
19.993	20.000	20.163	0.30			

Average: The average of 30 values in each position.
Temperature stability: One-half of the greatest maximum difference of measured temperature at any one sensor.
Temperature uniformity: The maximum difference of measured temperatures at any sensors and the measured temperature at the reference location, which are observed at the same time or at as close an observation time as possible to determine the temperature pattern or homogeneity within the chamber under steady-state condition.
Overall Variation: The Difference of the maximum and minimum measured temperatures throughout observation.
UUC: Unit Under Calibration.
Note: The reported uncertainty of measurement was included stability and excluded uniformity.
The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor k, providing a level of confidence of approximately 95%.

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Certificate of Calibration

Cert.No.: 25030608
Page: 1 of 2

Equipment: Bursts
Capacity: 50 mL
Serial No.:
ID No.: RYO_EN0216
Manufacturer: Wing
Made in: Germany
Submitted by: ALS Laboratory Group (Thailand) Co., Ltd.
Rajabong Branch
616/10 Moo 5, T.Maanmuang, A.Phuakdaeng,
Rajabong 21140, Thailand
Ambient Temperature: (20 ± 2.0) °C
Relative Humidity: (50 ± 10) %
Barometric Pressure: 753 mmHg
Calibration Procedure: ASTM E 842 - 01
Calibrated by: Suda Rattanab
Approved by:
Approved Signatory
() Pongthepa Tamayakul
(✓) Chaitit Watanwong
Issue Date: 19 September 2023

The uncertainties are for a confidence probability of approximately 95%
This certificate may not be reproduced other than in full, except with the prior written
Approval of the head of Corporate Services 3, Equipment Calibration and Testing Services



Equipment: Bursts
Received Date: 18 September 2025
Condition As-Received: Used Item
Calibration Date: 18 September 2025
Reference: 2509-05A050-3

Cert.No.: 25030608
Page: 2 of 2

Condition of this result of calibration:
1. Reference Standard Instruments:
Instrument: Serial No. ID No. Certificate No. Traceability Due date
1) Balance AP205 8134208712 140RC007 25M1201 TPA 10 July 2026
2) Humidity/Burst/Temp. MHB-3815D AM 42259 140EC016 2101010 TPA 14 Aug 2026
3) Digital Thermometer H4130 230003535 140EC013 2501740 TPA 17 Jan 2026
This measurement result is traceable to SI Unit.
2. The certificate is valid only for the item calibrated on date and place of calibration.
3. True value is converted to true value at the standard temperature of 20 °C

Nominal capacity (mL)	Reading (mL)	Uncertainty (mL)	k Factor
10	10.0284	0.0082	2.00
25	25.0145	0.0087	2.00
50	49.9932	0.010	2.00

Remark: mL = cm³

The reported uncertainty of measurement was based on a standard uncertainty multiplied by a coverage factor k, providing a level of confidence of approximately 95%.

-00-

SARTORIUS



Accredited by
NSC-TISI-TIS 17025
Calibration 0426

Calibration certificate

Calibration Certificate No. 268C0064

Object: Electronic non-automatic weighing instrument
Manufacturer: Sartorius
Type: NCE2245-2500-U
Serial / QM Ident. no.: 3810139 / RYO_EN0163
Customer: ALS Laboratory Group (Thailand) Co., Ltd. (Rajabong Branch)
616/10 Moo 5, T.Maanmuang, A.Phuakdaeng,
Rajabong 21140, Thailand
Order no.: 276578
Number of pages: 4
Date of calibration: 03 Feb 2026
This calibration certificate may not be reproduced other than in full, except with the permission of NSC-TISI-TIS 17025 and the issuing laboratory. Calibration certificates without signature are not valid.
The user is obliged to have the object recalibrated at appropriate intervals.

REVIEW BY:
APPROVED BY:
NEXT CAL DATE: 03/02/27

Date of issue: 03 Feb 2026 Approval of the Calibration Certificate Person in charge

Mr. Chaitit Watanwong

Chaitit Watanwong

Calibration certificate No. 268C0064
Calibration Certificate

Calibration object

Single range instrument

Model: NCE2245-2500-U
Serial Number: 3810139
QM Ident. no / Inventory no: RYO_EN0163 / —

Maximum capacity (Max. load): 220 000 g
Measured up to: 220 000 g
Scale interval: 0.0001 g

Place of calibration

Address: According to page 1
Department / Cost center: Laboratory Department / —
Building / Floor: — / 1st Floor
Room: Balance Room
Maximum temperature variation at place of calibration: 5 K

Calibration procedure

EURAMET Calibration Guide No. 18, Version 4.0 (11/2015) - Guidelines on the Calibration of Non-Automatic Weighing Instruments

Test equipment

Test equipment type	Test equipment ID	Valid until
Thermometer	Teles 17661 N720743 (Traceable to SI unit through ENTECH)	18 Nov 2026
Test weight set OIML R111 E2	Certificate No. M25081495 E2 (Traceable to SI unit through TCS)	19 Aug 2027

Certificate No. T250873 Page 1 of 4

Certificate of Calibration

Equipment : Chamber (Cooling Room)
Manufacturer : KOLDTECH
Model : KM 320
Serial No. : TBN-1012061/05
Customer Code : BKK_EI0167
ID No. : T2463A3
Customer : ALS Laboratory Group (Thailand) Co., Ltd.
104 Phatthanan 40, Phatthanan Rd., Khwaeng Phatthanan,
Khet Suan Luang, Bangkok 10250
Customer Location : Laboratory Room
Date of Receipt : 28 May 2025
Calibrated By : Aliphong Rongrat (Technician)
Approved By : Bounchai Surisayawong (Site Calibration Manager)
Date of Issue : 19 JUN 2025

The uncertainties are for a confidence probability of approximately 95%.

This Certificate is issued in accordance with the conditions of accreditation granted by the Thai Laboratory Accreditation Scheme which has assessed the measurement capability of the laboratory and its traceability to recognized national standards and to the units of measurement realized at the corresponding national standard laboratory. This certificate may not be reproduced other than in full except with the prior written approval of the Metrology Center.

FNU-TU01 0127-03-08

Certificate No. T250873 Page 4 of 4

Calibration Report

Measurement Results

Calibration Point	Average Standard Reading at each position (°C)									
	TN01	TN02	TN03	TN04	TN05	TN06	TN07	TN08	TN09	TN10
10	2.95	2.95	2.95	2.97	3.16	3.50	3.40	3.03	3.14	2.84
	TN10	TN09	TN08	TN07	TN06	TN05	TN04	TN03	TN02	TN01
	2.19	3.06	3.46	2.91						

Chamber (Cooling Room)	Temperature Distribution						
	Reading (°C)	Average (°C)	Stability (±°C)	Uniformity (°C)	Uncertainty (±°C)	Coverage Factor k	
10	2.8	2.8	0.4	3.11	1.20	1.30	2.94

The calibration results apply only to the above calibrated item.

The results of test are based on average as shown on date and place of test only.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k which for a distribution, providing a level of confidence of approximately 95%.

Approved By: [Signature]

FNU-TU01 0023-03-08

Service Confirmation Number: 00037113

Service Confirmation Date: 23.05.2024

Service Instrument

Model	Model Description	Serial Number	System Results	Parent Asset
919-05	ICP-OES 5100/5110 System			
5100				
5100				
5100				
5100				
5100				
5100				
5100				
5100				
5100				

Service Item

Item	Service/Part #	Description	Qty	Endowment	Service Start	Service End
1000	EOG	Enrollment Operational Qualification	1.00	Agreement Endowment 100 % covered	22.05.2024	23.05.2024
1010	001000100	Service ICP-OES Wavelength calibration 5 ppm	1.00	Agreement Endowment 100 % covered		
1020	0100 1001	Calibration blank solution type P002	1.00	Agreement Endowment 100 % covered		

Additional Information

Certificate No. T250873

Calibration Report

Page 1 of 4

Equipment : Chamber (Cooling Room)
Date of Calibration : 4 June 2025
Environment : Temperature : 23.4-24.9 °C
Line Voltage : 221.4-230.2 V
Relative Humidity : 55 - 65 %RH

Condition of this result of calibration :
1. This equipment was calibrated by using 16 standard thermocouples type T into the chamber, the other one standard thermocouples type T into the ambient temperature measurement. The calibration was done in accordance with ISO 17025 (based on ASTM E145-94 (Reapproved 2001) and AS2353-1996). All data show below were final values and the initial data from customer request. The temperature scale used was based on ITS-90.
2. Reference Standard Instrument :
Instrument Model Instrument No. Certificate No. Due Date
TC TYPE T TN01-TN100 T240004 3 December 2025
TC TYPE T TN101-TN110 T240004 3 December 2025
DATA LOGGER 34979A T21 T240004 3 December 2025
3. This certificate is traceable to : National Institute of Metrology (Thailand) through Metrological Center (ISO 17025-TIS 17025 CALIBRATION 024).
4. Condition of calibrated item : good
Equipment Description :
Type Constant 2 Hour 20 Minute At 3 °C
Fresh Air-Stopper : ☐ Open ☐ Min ☐ Median ☐ Max
☐ Close
☒ Not Available
5. Adjustment :
(X) without adjustment () after adjustment

Approved By: [Signature]

FNU-TU01 0127-03-08

Scientist Instrument

Performance Verification Certificate for Mercury Analyzer

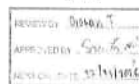
PRODUCT ID : Quicktrace M-8000, Teledyne Leeman Labs
Equipment ID : BKK_EL0128 Mercury Analyzer
B/N : US22133003
BKK_EL0129 Autosampler
B/N : 052222A060
Customer Name : ALS Laboratory Group (Thailand) Co., Ltd.
Address : 104 Soi Petcha 40, Pattana Rd. Suan Luang, Suan Luang Bangkok 10250 Thailand
Date of Qualified : November 27, 2025
Next Due date : November 27, 2026
This certifies for products which was performed in acceptable criteria specifications
Autosampler & Sample Introduction : PASSED
Analyzer : PASSED
Gas Liquid Separator & Dryer : PASSED
CVAFS Detector : PASSED
Electronics/Mechanical : PASSED
Data station/PC : PASSED
Analytical test : PASSED

Provided by

Scientist Instrument Co., Ltd.
113 Moo 8 (Klong Krui 44, Klong Krui Road)
Klong Krui, Samut, Bangkok 10250 Thailand

Certified by : [Signature]
Thunaphol Sakdany
Service Engineer

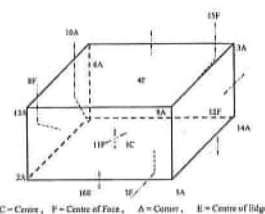
BKK_EL0128



Certificate No. T250873

Calibration Report

Page 3 of 4



1C = TN01	12F = TN102
2A = TN02	13A = TN103
3A = TN03	14A = TN104
4F = TN04	12F = TN105
5A = TN05	14E = TN106
6A = TN06	
7F = TN07	
8F = TN08	
9A = TN09	
10A = TN100	
11F = TN101	

Approved By: [Signature]

FNU-TU01 0127-03-08

BKK_EL0037

Agilent Technologies

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1100 Sukhumvit Road, Sukhumvit 11
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Tel: +66 2 616 1111
Fax: +66 2 616 1112
Email: agilent@agilent.com
Website: www.agilent.com/thailand

Customer Contact

ALS Laboratory Group (Thailand) Co., Ltd.
104 Soi Petcha 40, Pattana Rd. Suan Luang, Suan Luang Bangkok 10250 Thailand
Tel: +66 8 255 8551
Email: als@als.co.th
Website: www.als.co.th

SERVICE REPORT

Customer Purchase Order Number : 20231013
Customer Number : 20231013
Service Request : Service Request Date :
Service Order : 00037113
Service Confirmation : 00037113

Service by

ALS Laboratory Group (Thailand) Co., Ltd.
104 Soi Petcha 40, Pattana Rd. Suan Luang, Suan Luang Bangkok 10250 Thailand
Tel: +66 8 255 8551
Email: als@als.co.th
Website: www.als.co.th

REVIEW BY : [Signature]
APPROVED BY : [Signature]
NEXT CAL DATE : 27 Nov 2026

Direct Inquiries to

Contact Name : [Signature]
Contact Email : als@agilent.com
Contact Telephone : +66 2 616 1111
Contact Fax : +66 2 616 1112

Location

Name :
City :
Country :
State :

Agilent Technologies Thailand Limited

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Page 3 of 3

ภาคผนวก จ

สำเนาหนังสืออนุญาตขึ้นทะเบียนห้องปฏิบัติการ

วิเคราะห์เอกชน

ที่ อก ๐๓๓๐(๑)/ ๑๖ ๑๖ ๘



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๒๐ พฤศจิกายน ๒๕๖๖

เรื่อง ค่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

เรียน กรรมการผู้จัดการ บริษัท เอนเอเอส แล็บอราทอรี จำกัด (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และขอสมัครสมาชิกของห้องปฏิบัติการวิเคราะห์เอกชน ลงวันที่ ๔ สิงหาคม ๒๕๖๖

- สิ่งที่ส่งมาด้วย ๑. รายชื่อผู้ควบคุมดูแลห้องปฏิบัติการวิเคราะห์ จำนวน ๓ ฉบับ
๒. รายชื่อเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๕ ฉบับ
๓. ขอบข่ายสารเคมีที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๓๑ ฉบับ

ตามหนังสือที่อ้างถึง บริษัท เอนเอเอส แล็บอราทอรี จำกัด (ประเทศไทย) จำกัด ขอต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน เลขทะเบียน ๖-๒๐๔๔-๑-๐๐๐๑๓ ขอพัฒนาการ ๔๐ ถนนพัฒนาการ แขวงพัฒนาการ เขตสวนหลวง กรุงเทพมหานคร ต่อกรมโรงงานอุตสาหกรรม นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้บริษัท เอนเอเอส แล็บอราทอรี จำกัด (ประเทศไทย) จำกัด ค่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน โดยต้องประกอบดังนี้

- ก. ผู้ควบคุมดูแลห้องปฏิบัติการวิเคราะห์ จำนวน ๖ ราย ตามสิ่งที่ส่งมาด้วย ๑
ข. เจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ ๕๘๓ ราย ตามสิ่งที่ส่งมาด้วย ๒
ค. ขอบข่ายสารเคมีที่ได้รับขึ้นทะเบียนในวิเคราะห์ในน้ำเสีย น้ำใต้ดิน อากาศเสีย สิ่งปฏิกูล หรือวัสดุที่ไม่ใช้แล้ว และดิน ตามสิ่งที่ส่งมาด้วย ๓

หนังสือฉบับนี้จะหมดอายุในวันที่ ๒ กันยายน ๒๕๖๗ หากประสงค์จะต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน ให้ยื่นคำขอต่ออายุพร้อมเอกสารประกอบคำขอต่อกรมโรงงานอุตสาหกรรม ภายใน ๓๐ วัน ก่อนวันสิ้นสุดของหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน ทั้งนี้ สามารถยื่นคำขอผ่านระบบอิเล็กทรอนิกส์ได้ทั้งนี้เข้าใช้ระบบโรงงานอุตสาหกรรม

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายศิระ จันทน์เกิด)

นักวิทยาศาสตร์ชำนาญการ วิชาการเกษตร
ผู้อำนวยการศูนย์สนับสนุนบริการและพัฒนา
ปฏิบัติการทางเคมีและชีวเคมี กรมโรงงานอุตสาหกรรม

กองวิจัยและเตือนภัยมลพิษทางโรงงาน

กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบและทะเบียนห้องปฏิบัติการ

โทร. ๐ ๒๕๖๐ ๖๓๑๖ ต่อ ๒๑๑๐-๕

โทรสาร ๐ ๒๕๖๐ ๖๓๑๖ ต่อ ๒๑๑๐

ไปรษณีย์อิเล็กทรอนิกส์ saraban@div.mail.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



สิ่งที่ส่งมาด้วย ๒

เอกสารแนบท้ายหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

บริษัท เอนเอเอส แล็บอราทอรี จำกัด (ประเทศไทย) จำกัด เลขทะเบียน ๖-๒๐๔๔

ที่ อก ๐๓๓๐(๑)/ ๑๖ ๑๖ ๘ ลงวันที่ ๒๐ พฤศจิกายน ๒๕๖๖

ข. เจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๕๘๓ ราย

๑) นายจันทน์เกิด ศิริคุณวัฒน์	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๐๑
๒) นายภัทรพล ล่วงใจธรรม	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๐๒
๓) นายธนธิ์ เตชะชัยคำ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๐๓
๔) นายศิริโชค พงษ์ประสม	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๐๔
๕) นายณัฐเดช ศิวะพร	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๐๕
๖) นางสาวจิตตา ใจสุธรรม	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๐๖
๗) นางสาวสวาทิ น้อยเสียม	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๐๗
๘) นางสาวณัฐกัญญา อัมขันธ์	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๐๘
๙) นางสาววันวิมล สายสิงห์	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๐๙
๑๐) นางสาววันวิมล สมบูรณ์	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๑๐
๑๑) นางสาวศรียา เตชะจันทร์	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๑๑
๑๒) นางสาวณัฐพร มงคลจิราวัฒน์	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๑๒
๑๓) นางสาวศิริลักษณ์ จันทน์	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๑๓
๑๔) นายณพพงศ์ จันทน์	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๑๔
๑๕) นายณพพงศ์ โสมภย์	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๑๕
๑๖) นายณพพงศ์ จันทน์	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๑๖
๑๗) นางสาวณพวิมล แก้วรัตน์	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๑๗
๑๘) นางสาวณพวิมล ชัยเรืองวุฒิ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๑๘
๑๙) นางสาวสุภาวดี ชัยเรืองวุฒิ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๑๙
๒๐) นางสาวณพวิมล ชัยเรืองวุฒิ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๒๐
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3/11

๓๖) นางสาวจุฬารัตน์...

๓๖) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๓๖
๓๗) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๓๗
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๕๔) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๕๔
๕๕) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๕๕
๕๖) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๕๖
๕๗) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๕๗
๕๘) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๕๘
๕๙) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๕๙
๖๐) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๖๐
๖๑) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๖๑
๖๒) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๖๒
๖๓) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๖๓
๖๔) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๖๔
๖๕) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๖๕
๖๖) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๖๖
๖๗) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๖๗
๖๘) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๖๘
๖๙) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๖๙
๗๐) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๗๐
๗๑) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๗๑
๗๒) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๗๒
๗๓) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๗๓
๗๔) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๗๔
๗๕) นางสาวจุฬารัตน์ โนนสันเทียะ	ทะเบียนเลขที่ ๖-๒๐๔๔-๑-๐๐๗๕

3/11

๗๖) นายประเสริฐ...

ลำดับที่	สารเคมี	วิธีการตรวจ
19	Copper	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
20	Cyanide	Distillation, Colorimetric Method ⁽⁴⁾
21	2,4'-DDD	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
22	4,4'-DDD	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
23	2,4'-DDE	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
24	4,4'-DDE	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
25	2,4'-DDT	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
26	4,4'-DDT	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
27	Dieldrin	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
28	Endosulfan Sulfate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
29	Endosulfan I	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
30	Endosulfan II	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
31	Endrin	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
32	Endrin Aldehyde	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
33	Formaldehyde	Distillation, Colorimetric Method ⁽⁴⁾
34	Free Chlorine	1) DPD Ferrous Titrimetric Method ⁽⁴⁾ 2) DPD Colorimetric Method ⁽⁴⁾
35	Heptachlor	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
36	Heptachlor Epoxide	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
37	Hexavalent Chromium	Colorimetric Method ⁽⁴⁾
38	3-Hydroxycarbofuran	High-Performance Liquid Chromatographic Method ⁽⁴⁾
39	Lead	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾

40 Manganese...

ลำดับที่	สารเคมี	วิธีการตรวจ
40	Manganese	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
41	Mercury	1) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
42	Methiocarb	High-Performance Liquid Chromatographic Method ⁽⁴⁾
43	Methoxychlor	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
44	Methomyl	High-Performance Liquid Chromatographic Method ⁽⁴⁾
45	Nickel	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
46	Oil & Grease	1) Liquid-Liquid, Partition-Gravimetric Method ⁽⁴⁾ 2) Soxhlet Extraction Method ⁽⁴⁾
47	Oxamyl	High-Performance Liquid Chromatographic Method ⁽⁴⁾
48	Propoxur	High-Performance Liquid Chromatographic Method ⁽⁴⁾
49	pH	Electrometric Method ⁽⁴⁾
50	Phenols	1) Distillation, Chloroform Extraction Method ⁽⁴⁾ 2) Distillation, Direct Photometric Method ⁽⁴⁾
51	Selenium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
52	Sulfide	Iodometric Method ⁽⁴⁾
53	Temperature	Laboratory and Field Methods ⁽⁴⁾
54	Total Dissolved Solids	Dried at 180 °C ⁽⁴⁾
55	Total Kjeldahl Nitrogen	Semi-Micro Kjeldahl Method ⁽⁴⁾
56	Total Phosphorous	Digestion, Colorimetric Method ⁽⁴⁾
57	Total Suspended Solids	Dried from 103-105 °C ⁽⁴⁾
58	Toxaphene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
59	Trivalent Chromium	1) Digestion, Inductively Coupled Plasma Method; Colorimetric Method; Calculation ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method; Colorimetric Method; Calculation ⁽⁴⁾
60	Zinc	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾

น้ำโคลน...

น้ำโคลน จำนวน 126 รายการ

ลำดับที่	สารเคมี	วิธีการตรวจ
1	Acenaphthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
2	Acetone	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
3	Aldrin	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
4	Anthracene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
5	Antimony	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
6	Arsenic	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
7	Atrazine	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
8	Barium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
9	Benz(a)anthracene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
10	Benzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
11	Benzo(b)fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
12	Benzo(k)fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
13	Benzoic Acid	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
14	Benzo(a)pyrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
15	Benzo(g,h,i)perylene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
16	Beryllium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
17	Bis(2-chloroethyl)ether	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾

18 Bis(2-ethylhexyl)phthalate...

ลำดับที่	สารเคมี	วิธีการตรวจ
18	Bis(2-ethylhexyl)phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
19	Bromodichloromethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
20	Bromoform	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
21	Butanol	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
22	Butyl benzyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
23	Cadmium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
24	Carbazole	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
25	Carbon disulfide	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
26	Carbon tetrachloride	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
27	Chlordane	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
28	p-Chloroaniline	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
29	Chlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
30	Chlorodibromomethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
31	Chloroform	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
32	2-Chlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
33	Chromium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
34	Chromium (III)	1) Digestion, Inductively Coupled Plasma Method; Colorimetric Method; Calculation ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method; Colorimetric Method; Calculation ⁽⁴⁾
35	Chromium (VI)	Colorimetric Method ⁽⁴⁾

36 Chrysene...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
36	Chrysene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
37	Cyanide	Distillation, Colorimetric Method ⁽⁴⁾
38	2,4-D	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
39	DDD	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
40	DDE	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
41	DDT	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
42	Dibenz(a,h)anthracene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
43	Di-n-Butyl Phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
44	1,2-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
45	1,3-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
46	1,4-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
47	3,3-Dichlorobenzidine	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
48	1,1-Dichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
49	1,2-Dichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
50	1,1-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
51	cis-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
52	trans-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
53	2,4-Dichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
54	1,2-Dichloropropane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
55	1,3-Dichloropropane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾

56 1,3-Dichloropropene...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
56	1,3-Dichloropropene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
57	Dieldrin	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
58	Diethyl Phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
59	2,4-Dimethylphenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
60	2,4-Dinitrophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
61	2,4-Dinitrotoluene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
62	2,6-Dinitrotoluene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
63	Di-n-octyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
64	Endosulfan	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
65	Endrin	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
66	Ethylbenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
67	Fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
68	Fluorene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
69	Heptachlor	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
70	Heptachlor epoxide	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
71	Hexachlorobenzene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
72	Hexachloro-1,3-butadiene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
73	n-Hexane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
74	α-HCH	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
75	β-HCH	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾

76 γ-HCH...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
76	γ-HCH	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
77	Hexachlorocyclopentadiene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
78	Hexachloroethane	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
79	Indeno(1,2,3-cd)pyrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
80	Isophorone	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
81	Lead	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
82	Manganese	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
83	Mercury	1) Digestion, Cold Vapor Atomic Absorption Spectrometric Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
84	Methanol	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
85	Methoxychlor	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
86	Methyl bromide	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
87	Methylene chloride	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
88	2-Methylphenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
89	2-Methylnaphthalene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
90	Methyl tert-butyl Ether	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
91	Naphthalene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
92	Nickel	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
93	Nitrobenzene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾

94 N-Nitrosodiphenylamine...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
94	N-Nitrosodiphenylamine	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
95	N-Nitrosodi-n-Propylamine	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
96	Polychlorinated Biphenyls - PCB 1016 - PCB 1221 - PCB 1232 - PCB 1242 - PCB 1248 - PCB 1254 - PCB 1260	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
97	Pentachlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
98	pH	Electrometric Method ⁽⁴⁾
99	Phenanthrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
100	Phenol	1) Distillation, Chloroform Extraction Method ⁽⁴⁾ 2) Distillation, Direct Photometric Method ⁽⁴⁾ 3) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
101	Pyrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
102	Selenium	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
103	Silver	1) Digestion, Inductively Coupled Plasma Method ⁽⁴⁾ 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽⁴⁾
104	Styrene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
105	1,1,2,2-Tetrachloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
106	Tetrachloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
107	Toluene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
108	Toxaphene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾
109	TPH (C ₈ -C ₁₄)	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ⁽⁴⁾⁽²⁸⁾

110 TPH (C₈-C₁₄)...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
110	TPH (C ₁₀ -C ₁₆)	Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^{9,22}
111	TPH (C ₁₀ -C ₁₆)	Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^{9,22}
112	1,2,4-Trichlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
113	1,1,1-Trichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
114	1,1,2-Trichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
115	Trichloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
116	2,4,5-Trichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
117	2,4,6-Trichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
118	1,3,5-Trimethylbenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
119	Vanadium	1) Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
120	Vinyl acetate	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
121	Vinyl chloride	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
122	m-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
123	o-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
124	p-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
125	Xylene (Total)	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ⁴⁰
126	Zinc	1) Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰

ขาดแคลน...

ขาดแคลน (ปล่องรวมรวม) จำนวน 28 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Antimony	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
2	Arsenic	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
3	Beryllium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
4	Cadmium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
5	Carbon Monoxide	1) Instrumental Analyzer Method ⁴⁰ 2) Sampling Bag Non-Dispersive Infrared Method ⁴⁰
6	Chlorine	1) Absorption Sampling, Ion Chromatographic Method ⁴⁰ 2) Isokinetic Sampling, Ion Chromatographic Method ⁴⁰
7	Chromium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
8	Cobalt	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
9	Copper	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
10	Cresol	Absorption Sampling, Gas Chromatographic Method ⁴⁰
11	Dioxins	Isokinetic Sampling ⁴⁰
12	Hydrogen Chloride	1) Absorption Sampling, Ion Chromatographic Method ⁴⁰ 2) Isokinetic Sampling, Ion Chromatographic Method ⁴⁰
13	Hydrogen Fluoride	1) Absorption Sampling, Ion Chromatographic Method ⁴⁰ 2) Isokinetic Sampling, Ion Chromatographic Method ⁴⁰
14	Hydrogen Sulfide	Absorption Sampling, Iodometric Method ⁴⁰

15 Lead...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
15	Lead	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
16	Manganese	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
17	Mercury	1) Isokinetic Sampling, Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Cold-Vapor Atomic Fluorescence Spectrometric Method ⁴⁰
18	Nickel	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
19	Opacity	Ringelmann's Method ⁴⁰
20	Oxides of Nitrogen	1) Absorption Sampling, Phenoldisulfonic Acid Method ⁴⁰ 2) Absorption Sampling, Alkaline Permanganate/Colorimetric Method ⁴⁰ 3) Instrumental Analyzer Method ⁴⁰
21	Selenium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
22	Sulfur Dioxide	1) Absorption Sampling, Barium-Thorin Titrimetric Method ⁴⁰ 2) Instrumental Analyzer Method ⁴⁰
23	Sulfuric Acid	Isokinetic Sampling, Barium-Thorin Titrimetric Method ⁴⁰
24	Tellurium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
25	Tin	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
26	Total Suspended Particulate	1) Isokinetic Sampling, Gravimetric Method ⁴⁰ 2) Paired Train, Isokinetic Sampling, Gravimetric Method ⁴⁰

27 Vanadium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
27	Vanadium	1) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ⁴⁰ 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁴⁰
28	Xylene	Absorption Sampling, Gas Chromatographic Method ⁴⁰

สิ่งปฏิกูลหรือวัสดุที่ไม่ใช้แล้ว จำนวน 35 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aldrin	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^{1,9,24} 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^{10,24} 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^{11,24}
2	Antimony	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^{1,14} 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^{1,17} 3) Digestion, Inductively Coupled Plasma Method ^{7,14} 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^{7,17}
3	Arsenic	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^{1,14} 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^{1,17} 3) Digestion, Inductively Coupled Plasma Method ^{7,14} 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^{7,17}
4	Barium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^{1,14} 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^{1,17} 3) Digestion, Inductively Coupled Plasma Method ^{7,14} 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^{7,17}

5 Beryllium...

ลำดับที่	ตามหลัก	วิธีวิเคราะห์
5	Beryllium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,4,14) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,4,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,14) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,17)
6	Cadmium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,4,14) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,4,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,14) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,17)
7	Chlordane	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,24) 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,24) 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,24)
8	Chromium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,4,14) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,4,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,14) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,17)
9	Chromium (III)	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method; Waste Extraction, Colorimetric Method; Calculation Method ^(1,4,14,19) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method; Waste Extraction, Colorimetric Method; Calculation Method ^(1,4,17,19) 3) Digestion, Inductively Coupled Plasma Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^(7,14,19) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^(7,14,17,19)

10 Chromium (VI)

ลำดับที่	สารมลพิษ	วิธีการตรวจ
10	Chromium (VI)	1) Waste Extraction, Colorimetric Method ^{(1),(19)} 2) Alkaline Digestion, Colorimetric Method ^{(1),(19)}
11	Cobalt	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^{(1),(14)} 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^{(1),(17)} 3) Digestion, Inductively Coupled Plasma Method ^{(7),(4)} 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^{(7),(17)}
12	Copper	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^{(1),(14)} 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^{(1),(17)} 3) Digestion, Inductively Coupled Plasma Method ^{(7),(4)} 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^{(7),(17)}
13	2,4-D	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^{(1),(9),(4)} 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^{(10),(2)} 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^{(1),(2)}
14	DDD	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^{(1),(9),(4)} 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^{(10),(2)} 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^{(1),(2)}
15	DDE	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^{(1),(9),(4)} 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^{(10),(2)} 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^{(1),(2)}
16	DDT	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^{(1),(9),(4)}

2) Soxhlet...

สารเคมี	สารพิษ	วิธีตรวจหา
17	Dieldrin	2) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽¹⁾⁽²⁾⁽³⁾ 3) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽¹⁾⁽²⁾⁽³⁾
18	Endrin	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽¹⁾⁽²⁾⁽³⁾ 2) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽¹⁾⁽²⁾⁽³⁾ 3) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽¹⁾⁽²⁾⁽³⁾
19	Heptachlor	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽¹⁾⁽²⁾⁽³⁾ 2) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽¹⁾⁽²⁾⁽³⁾ 3) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽¹⁾⁽²⁾⁽³⁾
20	Lead	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ⁽¹⁾⁽⁴⁾⁽⁵⁾ 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ⁽¹⁾⁽⁴⁾⁽⁷⁾ 3) Digestion, Inductively Coupled Plasma Method ⁽¹⁾⁽⁴⁾ 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ⁽¹⁾⁽⁷⁾
21	Lindane	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ⁽¹⁾⁽²⁾⁽³⁾ 2) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽¹⁾⁽²⁾⁽³⁾ 3) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ⁽¹⁾⁽²⁾⁽³⁾

22 Mercury...

ลำดับที่	สารมลพิษ	วิธีการทาง
22	Mercury	1) Waste Extraction, Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^(1,A,20) 2) Waste Extraction, Digestion, Cold-Vapor Atomic Fluorescence Spectrometric Method ^(1,A,30) 3) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ⁽²⁰⁾ 4) Digestion, Cold-Vapor Atomic Fluorescence Spectrometric Method ⁽²⁰⁾ 5) Thermal Decomposition Amalgamation and Atomic Absorption Spectrometric Method ⁽²¹⁾
23	Methoxychlor	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,20) 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,20) 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,20)
24	Mirex	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,20) 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,20) 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,20)
25	Molybdenum	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,A,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(11,A,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
26	Nickel	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,A,16) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(11,A,17) 3) Digestion, Inductively Coupled Plasma Method ^(7,16) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
27	Polychlorinated biphenyls (PCBs) - Aroclor 1016 - Aroclor 1221 - Aroclor 1232 - Aroclor 1242 - Aroclor 1248 - Aroclor 1254 - Aroclor 1260	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,20) 2) Soxhlet Extraction, Gas Chromatographic Method ^(10,20) 3) Automated Soxhlet Extraction, Gas Chromatographic Method ^(11,20)

- 2-Chlorobiphenyl...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
28	- 2-Chlorobiphenyl - 2,3-Dichlorobiphenyl - 2,2',5'-Trichlorobiphenyl - 2,4',5'-Trichlorobiphenyl - 2,2',3,5'-Tetrachlorobiphenyl - 2,2',5,5'-Tetrachlorobiphenyl - 2,3',4,4'-Tetrachlorobiphenyl - 2,2',3,4,5'-Pentachlorobiphenyl - 2,2',4,5,5'-Pentachlorobiphenyl - 2,3',4',6-Pentachlorobiphenyl - 2,2',3,4,4',5'-Hexachlorobiphenyl - 2,2',3,4,5,5'-Hexachlorobiphenyl - 2,2',3,5,5',6'-Hexachlorobiphenyl - 2,2',4,4',5,5'-Hexachlorobiphenyl - 2,2',3,3',4,4',5'-Heptachlorobiphenyl - 2,2',3,4,4',5,5'-Heptachlorobiphenyl - 2,2',3,4,4',5,6'-Heptachlorobiphenyl - 2,2',3,4',5,5',6'-Heptachlorobiphenyl - 2,2',3,3',4,4',5,5',6'-Nonachlorobiphenyl Pentachlorophenol	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,24) 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24) Electrometric Method ^(13,24) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(14,17) 5) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(15,17) 6) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(16,17) 7) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(17,17)
29	pH	
30	Selenium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,14) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(14,17) 3) Digestion, Inductively Coupled Plasma Method ^(15,17) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(16,17)

31 Silver...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
31	Silver	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,14) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(14,17) 3) Digestion, Inductively Coupled Plasma Method ^(15,17) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(16,17)
32	Thallium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,14) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(14,17) 3) Digestion, Inductively Coupled Plasma Method ^(15,17) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(16,17)
33	Toxaphene	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^(1,9,24) 2) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 3) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
34	Vanadium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,14) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(14,17) 3) Digestion, Inductively Coupled Plasma Method ^(15,17) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(16,17)
35	Zinc	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,14) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(14,17) 3) Digestion, Inductively Coupled Plasma Method ^(15,17) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(16,17)

ดิน...

ดิน จำนวน 125 รายการ

ลำดับที่	สารเคมี	วิธีวิเคราะห์
1	Acenaphthene	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
2	Acetone	1) Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,23) 2) Equilibrium Headspace, Gas Chromatographic/Mass Spectrometric Method ⁽¹³⁾
3	Aldrin	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
4	Anthracene	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
5	Antimony	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
6	Arsenic	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
7	Atrazine	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
8	Barium	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
9	Benz(a)anthracene	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
10	Benzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,23)

11 Benzo(b)fluoranthene

ลำดับที่	สารเคมี	วิธีวิเคราะห์
11	Benzo(b)fluoranthene	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
12	Benzo(k)fluoranthene	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
13	Benzoic acid	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
14	Benzo(a)pyrene	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
15	Benzo(g,h,i)perylene	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
16	Beryllium	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
17	Bis(2-chloroethyl)ether	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
18	Bis(2-ethylhexyl)phthalate	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
19	Bromodichloromethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,23)
20	Bromoform	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,23)
21	Butanol	Equilibrium Headspace, Gas Chromatographic/Mass Spectrometric Method ^(13,23)
22	Butyl Benzyl Phthalate	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)

23 Cadmium...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
23	Cadmium	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
24	Carbazole	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
25	Carbon Disulfide	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
26	Carbon tetrachloride	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
27	Chlordane	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
28	p-Chloroaniline	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
29	Chlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
30	Chlorodibromomethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
31	Chloroform	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
32	2-Chlorophenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
33	Chromium	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
34	Chromium (III)	1) Digestion, Inductively Coupled Plasma Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^(7,8,16,19) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^(7,8,17,19)
35	Chromium (VI)	Alkaline Digestion, Colorimetric Method ^(8,18)

36 Chrysene...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
36	Chrysene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
37	Cyanide	Extraction, Distillation, Colorimetric Method ^(7,28,29)
38	2,4-D	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
39	DDD	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
40	DDE	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
41	DDT	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
42	Dibenz(a,h)anthracene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
43	Di-n-Butyl Phthalate	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
44	1,2-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
45	1,3-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
46	1,4-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
47	3,3-Dichlorobenzidine	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
48	1,1-Dichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)

49 1,2-Dichloroethane...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
49	1,2-Dichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
50	1,1-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
51	cis-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
52	trans-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
53	2,4-Dichlorophenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
54	1,2-Dichloropropane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
55	1,3-Dichloropropane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
56	1,3-Dichloropropene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
57	Dieldrin	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
58	Diethyl Phthalate	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
59	2,4-Dimethylphenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
60	2,4-Dinitrophenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
61	2,4-Dinitrotoluene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
62	2,6-Dinitrotoluene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)

63 Di-n-Octyl Phthalate...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
63	Di-n-Octyl Phthalate	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
64	Endosulfan	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
65	Endrin	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
66	Ethylbenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
67	Fluoranthene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
68	Fluorene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
69	Heptachlor	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
70	Heptachlor epoxide	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
71	Hexachlorobenzene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
72	Hexachloro-1,3-butadiene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
73	n-Hexane	1) Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25) 2) Equilibrium Headspace, Gas Chromatographic/ Mass Spectrometric Method ⁽¹¹⁾

73 n-Hexane...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
74	α -HCH	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
75	β -HCH	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
76	γ -HCH	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
77	Hexachlorocyclopentadiene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
78	Hexachloroethane	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
79	Indeno(1,2,3-cd)pyrene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
80	Isophorone	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
81	Lead	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
82	Manganese	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
83	Mercury	1) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ⁽²⁰⁾ 2) Thermal Decomposition, Amalgamation, and Atomic Absorption Spectrophotometry ⁽²¹⁾ 3) Digestion, Cold-Vapor Atomic Fluorescence Spectrometric Method ⁽²⁰⁾

84 Methanol...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
84	Methanol	1) Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25) 2) Equilibrium Headspace, Gas Chromatographic/ Mass Spectrometric Method ^(13,25)
85	Methoxychlor	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
86	Methyl Bromide	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
87	Methylene Chloride	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
88	2-methylphenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
89	2-Methylnaphthalene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
90	Methyl tert-Butyl Ether	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
91	Naphthalene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
92	Nickel	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
93	Nitrobenzene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
94	N-Nitrosodiphenylamine	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
95	N-Nitrosodi-n-propylamine	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)

96 Polychlorinated biphenyls (PCBs)

ลำดับที่	สารเคมี	วิธีวิเคราะห์
96	Polychlorinated biphenyls (PCBs) - Aroclor 1016 - Aroclor 1221 - Aroclor 1232 - Aroclor 1242 - Aroclor 1248 - Aroclor 1254 - Aroclor 1260 - 2-Chlorobiphenyl - 2,2',3,5'-Tetrachlorobiphenyl - 2,2',5,5'-Tetrachlorobiphenyl - 2,3',4,4'-Tetrachlorobiphenyl - 2,2',3,4,5'-Pentachlorobiphenyl - 2,2',4,5,5'-Pentachlorobiphenyl - 2,3,3',4,6-Pentachlorobiphenyl - 2,2',3,4,4',5'-Hexachlorobiphenyl - 2,2',3,4,5,5'-Hexachlorobiphenyl - 2,2',3,5,5',6'-Hexachlorobiphenyl - 2,2',4,4',5,5'-Hexachlorobiphenyl - 2,2',3,3',4,4',5'-Heptachlorobiphenyl - 2,2',3,4,4',5,5'-Heptachlorobiphenyl - 2,2',3,4,4',5,6'-Heptachlorobiphenyl - 2,2',3,4',5,5',6'-Heptachlorobiphenyl - 2,2',3,3',4,4',5,6'-Nonachlorobiphenyl	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
97	Pentachlorophenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
98	Phenanthrene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)

99 Phenol...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
99	Phenol	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
100	Pyrene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
101	Selenium	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
102	Silver	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(7,17)
103	Styrene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
104	1,1,2,2-Tetrachloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
105	Tetrachloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
106	Toluene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
107	Toxaphene	1) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(10,26) 2) Automated Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^(11,24)
108	TPH (C ₈ -C ₆)	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
109	TPH (C ₈ -C ₁₆)	1) Automated Extraction, Gas Chromatographic Method ^(12,23) 2) Solvent Extraction, Gas Chromatographic Method ^(12,23) 3) Ultrasonic Extraction, Gas Chromatographic Method ^(12,23)
110	TPH (C ₁₆ -C ₃₃)	1) Automated Extraction, Gas Chromatographic Method ^(12,23) 2) Solvent Extraction, Gas Chromatographic Method ^(12,23) 3) Ultrasonic Extraction, Gas Chromatographic Method ^(12,23)
111	1,2,4-Trichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
112	1,1,1-Trichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
113	1,1,2-Trichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)
114	Trichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^(15,25)

115 2,4,5-Trichlorophenol...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
115	2,4,5-Trichlorophenol	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
116	2,4,6-Trichlorophenol	1) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(10,24) 2) Automated Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^(11,24)
117	1,3,5-Trimethylbenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,23)
118	Vanadium	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)
119	Vinyl Acetate	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,23)
120	Vinyl Chloride	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,23)
121	m-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,23)
122	o-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,23)
123	p-Xylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,23)
124	Xylene (Total)	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^(13,23)
125	Zinc	1) Digestion, Inductively Coupled Plasma Method ^(7,14) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(7,17)

เอกสารอ้างอิง

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- กระทรวงอุตสาหกรรม, ประกาศกระทรวงอุตสาหกรรม, พ.ศ. 2549, เรื่อง กำหนดค่าปริมาณขั้นต่ำที่เจือปนในอากาศที่ระบายออกจากปล่องของหม้อน้ำโรงสีข้าวที่ใช้แก๊สเป็นเชื้อเพลิง, ราชกิจจานุเบกษา, 4 ธันวาคม 2549, เล่มที่ 123 ตอนพิเศษ 125 ง.
- สมาคมวิศวกรรมสิ่งแวดล้อมแห่งประเทศไทย, คู่มือวิเคราะห์น้ำเสีย, พิมพ์ครั้งที่ 4, กรุงเทพฯ: เรือนแก้วการพิมพ์, 2547.
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ที่ สก ๐๑๑๐(๑) ๔๔ ๒๒

กรมโรงงานอุตสาหกรรม
เลขที่ ๖๒๖/๒๕๖๖
กระทรวงอุตสาหกรรม

๒๕ มิถุนายน ๒๕๖๖

เรื่อง เปลี่ยนแปลงผลการประเมินปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอนเอเอส แล็บราทอรี่ กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอประเมิน/ข้อมูลเปลี่ยนแปลงผลการประเมินผลการปฏิบัติการวิเคราะห์ตามเลขที่ สร.ร.ที่ ๒๔ มีนาคม ๒๕๖๖

ตามที่คำขอที่อ้างถึง บริษัท เอนเอเอส แล็บราทอรี่ กรุ๊ป (ประเทศไทย) จำกัด ขอประเมินผลการปฏิบัติการวิเคราะห์ตามเลขที่ สร.ร.ที่ ๒๔ มีนาคม ๒๕๖๖ และขอเปลี่ยนแปลงผลการประเมินผลการปฏิบัติการวิเคราะห์ตามเลขที่ สร.ร.ที่ ๒๔ มีนาคม ๒๕๖๖

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว มีความเห็นดังนี้

๑. ให้ยกเลิกเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๓ ราย

- | | |
|-------------------------|-------------------------------|
| ๑) นางสาวพรนิตา ทุมมา | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๒) นายอภิชาติ สุทธิ | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๓) นางสาวศุภรดา ปิ่นมณี | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |

๒. ให้เพิ่มเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์ตามจำนวน ๑๒ ราย

- | | |
|--------------------------|-------------------------------|
| ๑) นางสาวฐิติมา พันธุ์ | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๒) นางสาวณิชาภัทรา สายคำ | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๓) นางสาวณิชาภัทรา สายคำ | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๔) นายอำนาจ จันทนา | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๕) นายณัฐพล ปิณฑุวงศ์ | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๖) นายณัฐพล ทรัพย์ | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๗) นายวิรัตน์ ฝอยสวน | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๘) นายณัฐพล ทรัพย์ | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๙) นายณัฐพล ทรัพย์ | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๑๐) นายณัฐพล ทรัพย์ | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๑๑) นายณัฐพล ทรัพย์ | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |
| ๑๒) นายณัฐพล ทรัพย์ | ประเมินผลวันที่ ๖-๒๐๑๔-๙-๐๐๒๕ |

อนึ่ง หนังสือฉบับนี้...

อนึ่ง หนังสือฉบับนี้จะส่งมอบให้แก่มหาวิทยาลัยราชภัฏวชิรเวศน์เพื่อปฏิบัติภารกิจตามที่มอบหมาย
ในวันที่ ๒ กันยายน ๒๕๖๕

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายพรศ ก่อเกียรติ)
รองอธิบดี ปฏิบัติราชการแทน
อธิบดีกรมส่งเสริมการค้าระหว่างประเทศ

กองวิจัยและพัฒนาผลิตภัณฑ์โรงงาน
กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบผลิตภัณฑ์และทะเบียนห้องปฏิบัติการ
โทร. ๐ ๒๕๓๐ ๖๓๒๒ ต่อ ๒๑๐๓-๕
โทรสาร ๐ ๒๕๓๐ ๖๓๒๒ ต่อ ๒๑๐๓-๕
ไปรษณีย์อิเล็กทรอนิกส์ sarabang@div.mai.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวไกล ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



ที่ กค ๐๓๑๐(๑)/ ๓๑ ๕ ๐

กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๑๐ เมษายน ๒๕๖๕

เรื่อง ยกเลิกบุคลากรของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และขอคืนสารเคมีของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๒ เมษายน ๒๕๖๕

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ๖-๒๐๕๔ สถานที่ย้ายเลขที่ ๑๐๕ ของพัฒนาการ ๔๐ ถนนพัฒนาการ แขวงพัฒนาการ
เขตสวนหลวง กรุงเทพมหานคร ขอยกเลิกบุคลากร ความละเอียดแจ้งแล้ว นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้ยกเลิกเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์
จำนวน ๒ ราย ได้แก่

- | | |
|-----------------------|-----------------------------|
| ๑) นายธิติพงศ์ บัวแดง | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๒) นายมงคล ผลาทิพย์ | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |

จึงเรียนมาเพื่อทราบ

(นายธีรภัทร อิศรากร ณ อยุธยา)
รองอธิบดี ปฏิบัติราชการแทน
อธิบดีกรมส่งเสริมการค้าระหว่างประเทศ

กองวิจัยและพัฒนาผลิตภัณฑ์โรงงาน
กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบผลิตภัณฑ์และทะเบียนห้องปฏิบัติการ
โทร. ๐ ๒๕๓๐ ๖๓๒๒ ต่อ ๒๑๐๓-๕
โทรสาร ๐ ๒๕๓๐ ๖๓๒๒ ต่อ ๒๑๐๓-๕
ไปรษณีย์อิเล็กทรอนิกส์ sarabang@div.mai.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวไกล ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



ที่ กค ๐๓๑๐(๑)/ ๓๑ ๖ ๘ ๑

กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๑๕ ธันวาคม ๒๕๖๓

เรื่อง ยกเลิกบุคลากรของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และขอคืนสารเคมีของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๒ ธันวาคม ๒๕๖๓

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ๖-๒๐๕๔ สถานที่ย้ายเลขที่ ๑๐๕ ของพัฒนาการ ๔๐ ถนนพัฒนาการ แขวงพัฒนาการ
เขตสวนหลวง กรุงเทพมหานคร ขอยกเลิกบุคลากร ความละเอียดแจ้งแล้ว นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้ยกเลิกเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์
จำนวน ๘ ราย ได้แก่

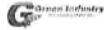
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|-------------------------------|-----------------------------|
| ๑) นายประจักษ์ วรณชัย | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๒) นายจิรพันธุ์ จาละออย | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๓) นายธีรพัฒน์ คำคำ | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๔) นางสาวอรุณ คำสิงห์ | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๕) นายกิตติพงศ์ แซ่ลี | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๖) นายจิรเมธ ประเสริฐศิริพงศ์ | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๗) นายธีรพงษ์ มณฑาทอง | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๘) นางสาวจตุรพร กระจำนัง | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายธีรภัทร อิศรากร ณ อยุธยา)
รองอธิบดี ปฏิบัติราชการแทน
อธิบดีกรมส่งเสริมการค้าระหว่างประเทศ

กองวิจัยและพัฒนาผลิตภัณฑ์โรงงาน
กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบผลิตภัณฑ์และทะเบียนห้องปฏิบัติการ
โทร. ๐ ๒๕๓๐ ๖๓๒๒ ต่อ ๒๑๐๓-๕
โทรสาร ๐ ๒๕๓๐ ๖๓๒๒ ต่อ ๒๑๐๓-๕
ไปรษณีย์อิเล็กทรอนิกส์ sarabang@div.mai.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวไกล ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



ที่ กค ๐๓๑๐(๑)/ ๓๑ ๖ ๘ ๑

กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๐๕ มิถุนายน ๒๕๖๕

เรื่อง เปลี่ยนแปลงบุคลากรของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และขอคืนสารเคมีของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๓ พฤษภาคม ๒๕๖๕

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ๖-๒๐๕๔ สถานที่ย้ายเลขที่ ๑๐๕ ของพัฒนาการ ๔๐ ถนนพัฒนาการ แขวงพัฒนาการ
เขตสวนหลวง กรุงเทพมหานคร ขอเปลี่ยนแปลงบุคลากร ความละเอียดแจ้งแล้ว นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้เพิ่มเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน
จำนวน ๓๓ ราย ได้แก่

- | | |
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| ๑) นายอนุชา มั่นยืน | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๒) นายธีรพงศ์ แสนสาร | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๓) นายเอกวิทย์ บุณยศิริ | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๔) นายพิษานันท์ อินทริ | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๕) นายศุภวรรณ แก้วกันหา | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๖) นายวิกรม มีศิริ | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๗) นายกนกนันท์ คำจันทร์ | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๘) นายธีรวิทย์ มีโพธิ์ | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๙) นายธีรพงษ์ ศรีคำแหง | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๑๐) นายอภิสิทธิ์ ศรีคงแก้ว | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |
| ๑๑) ว่าที่ร้อยตรี ภาณุพงศ์ แสนศิริ | ทะเบียนเลขที่ ๖-๒๐๕๔-๑-๐๑๒๐ |

อนึ่ง หนังสือฉบับนี้จะส่งมอบให้แก่มหาวิทยาลัยราชภัฏวชิรเวศน์เพื่อปฏิบัติภารกิจตามที่มอบหมาย
ในวันที่ ๒ กันยายน ๒๕๖๕

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายธีรภัทร อิศรากร ณ อยุธยา)
รองอธิบดี ปฏิบัติราชการแทน
อธิบดีกรมส่งเสริมการค้าระหว่างประเทศ

กองวิจัยและพัฒนาผลิตภัณฑ์โรงงาน
กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบผลิตภัณฑ์และทะเบียนห้องปฏิบัติการ
โทร. ๐ ๒๕๓๐ ๖๓๒๒ ต่อ ๒๑๐๓-๕
โทรสาร ๐ ๒๕๓๐ ๖๓๒๒ ต่อ ๒๑๐๓-๕
ไปรษณีย์อิเล็กทรอนิกส์ sarabang@div.mai.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวไกล ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



ที่ อก ๐๓๓๐(๓)/ ๖๕๐๘



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๒๑ สิงหาคม ๒๕๖๔

เรื่อง เปลี่ยนแปลงสารมลพิษที่วิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๒๗ มิถุนายน ๒๕๖๔

สิ่งที่ส่งมาด้วย เอกสารแนบท้ายหนังสือเปลี่ยนแปลงสารมลพิษที่วิเคราะห์

บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด จำนวน ๖ แผ่น

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการวิเคราะห์เอกชน เลขทะเบียน ๖-๒๐๙ สถานที่ตั้งเลขที่ ๑๐๔ ซอยพัฒนาการ ๔๐ ถนนพัฒนาการ แขวงพัฒนาการ เขตสวนหลวง กรุงเทพมหานคร ขอเปลี่ยนแปลงสารมลพิษที่วิเคราะห์ ต่อกรมโรงงานอุตสาหกรรม นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด เพิ่มขอบข่ายชนิดสารมลพิษที่วิเคราะห์ในน้ำได้ดังนี้ สิ่งปฏิกูลและวัสดุที่ไม่ใช้แล้ว และดิน ตามสิ่งที่ส่งมาด้วย

อนึ่ง หนังสือฉบับนี้จะสิ้นสุดอายุรั้งหากยังไม่ได้ยื่นขอขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
ในวันที่ ๒ กันยายน ๒๕๖๔

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นางสาวปัทมวรรณ คุณประเสริฐ)
ผู้อำนวยการกองประเมินและควบคุมโรงงาน
ปฏิบัติราชการแทนอธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเฝ้าระวังมลพิษโรงงาน

กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบมลพิษและทะเบียนห้องปฏิบัติการ

โทร. ๐ ๒๕๓๐ ๖๓๒๒ ต่อ ๒๑๐๓-๕

โทรสาร ๐ ๒๕๓๐ ๖๓๒๒ ต่อ ๒๑๕๙

ไปรษณีย์อิเล็กทรอนิกส์ saraban@dlw.mail.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



เอกสารแนบท้ายหนังสือเปลี่ยนแปลงสารมลพิษที่วิเคราะห์

บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

เลขทะเบียน ๖-๒๐๙

ที่ อก ๐๓๓๐(๓)/ ๖๕๐๘

ลงวันที่ ๒๑ สิงหาคม ๒๕๖๔

ขอบข่ายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๔๐ รายการ

น้ำได้ดิน จำนวน ๔ รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aluminum	Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,3,6)
2	Copper	Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,3,6)
3	Iron	Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,3,6)
4	Molybdenum	Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,3,6)

สิ่งปฏิกูลหรือวัสดุที่ไม่ใช้แล้ว จำนวน 17 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Antimony	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7)
2	Arsenic	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7)
3	Barium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7)

๒๑
Beryllium

- ๒ -

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
4	Beryllium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7)
5	Cadmium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7)
6	Chromium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7)
7	Chromium (III)	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method; Waste Extraction, Colorimetric Method; Calculation Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method; Waste Extraction, Colorimetric Method; Calculation Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^(1,5,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^(1,5,7)
8	Cobalt	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7)

3) Digestion...

- ๓ -

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
9	Copper	3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7) 1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7)
10	Lead	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7)
11	Molybdenum	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7)
12	Nickel	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7)
13	Selenium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(1,6) 4) Digestion, Inductively Coupled Plasma/ Mass Spectrometric Method ^(1,7)

๒๑
Silver...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
14	Silver	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(4,6) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
15	Thallium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(4,6) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
16	Vanadium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(4,6) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
17	Zinc	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^(1,3,6) 2) Waste Extraction, Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(1,3,7) 3) Digestion, Inductively Coupled Plasma Method ^(4,6) 4) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)

ดิน จำนวน 19 รายการ

ลำดับที่	สารเคมี	วิธีวิเคราะห์
1	Aluminum	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
2	Antimony	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)

3 Arsenic...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
3	Arsenic	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
4	Barium	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
5	Beryllium	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
6	Cadmium	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
7	Chromium	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
8	Chromium (III)	1) Digestion, Inductively Coupled Plasma Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^(4,5,6,8) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^(4,5,7,8)
9	Copper	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
10	Iron	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
11	Lead	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
12	Manganese	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
13	Molybdenum	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
14	Nickel	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)

15 pH...

ลำดับที่	สารเคมี	วิธีวิเคราะห์
15	pH	Electrometric Method ⁽⁹⁾
16	Selenium	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
17	Silver	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
18	Vanadium	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)
19	Zinc	1) Digestion, Inductively Coupled Plasma Method ^(4,6) 2) Digestion, Inductively Coupled Plasma/Mass Spectrometric Method ^(4,7)

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ที่ อก ๐๓๐๐(๑)๘๐ ๑ ๑

กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๔๐๐

๒๖ กันยายน ๒๕๖๘

เรื่อง เปลี่ยนแปลงบุคลากร ชื่อตัวและชื่อสกุลของบุคลากร

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบริวอรี่ กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และขอสมัครขอรับปฏิบัติกรวิธีวิเคราะห์เอกชน ลงวันที่ ๒๑ สิงหาคม ๒๕๖๘

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบริวอรี่ กรุ๊ป (ประเทศไทย) จำกัดขอรับปฏิบัติกรวิธีวิเคราะห์เอกชน เลขทะเบียน ๖-๒๐๔๔ สถานที่ตั้งเลขที่ ๑๐๔๔ ขอพัฒนาการ ๔๐ ถนนพัฒนาการ แขวงพัฒนาการ เขตสวนหลวง กรุงเทพมหานคร ขอเปลี่ยนแปลงบุคลากร ชื่อตัวและชื่อสกุลของบุคลากร ต่อกรมโรงงานอุตสาหกรรม นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว มีความเห็นดังนี้

๑. ให้ยกเลิกเจ้าหน้าที่ประจำห้องปฏิบัติการวิธีวิเคราะห์ จำนวน ๒ ราย

๑) นางสาวพาดิ คุณนาม ทะเบียนเลขที่ ๖-๒๐๔๔-๖-๐๑๓๔๔

๒) นางสาวอณิศา เทียนคำ ทะเบียนเลขที่ ๖-๒๐๔๔-๖-๐๑๓๔๔

๒. ให้เปลี่ยนชื่อตัวและชื่อสกุลของเจ้าหน้าที่ประจำห้องปฏิบัติการวิธีวิเคราะห์ จากเดิม นายอาทิตย์ ศรีเสน เป็น นายรัฐธีร์ ทวีจิราพรณ์ ทะเบียนเลขที่ ๖-๒๐๔๔-๖-๐๑๓๔๔

อนึ่ง หนังสือฉบับนี้จะสิ้นอายุพร้อมหนังสือต่ออายุไว้กับทะเบียนห้องปฏิบัติการวิธีวิเคราะห์เอกชน ในวันที่ ๒ กันยายน ๒๕๖๙

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นางสาวพิมพ์พรณ คุณประเสริฐ)
ผู้อำนวยการกองบริหารและพัฒนาโรงงานอุตสาหกรรม
ปลัดกระทรวงอุตสาหกรรม

กองวิจัยและพัฒนากิจการโรงงาน

กลุ่มมาตรฐานวิธีกรวิธีวิเคราะห์ทดสอบผลิตภัณฑ์และทะเบียนห้องปฏิบัติการ

โทร. ๐ ๒๕๓๐ ๖๓๒๒ ถึง ๒๕๓๐ ๕

โทรสาร ๐ ๒๕๓๐ ๖๓๒๒ ถึง ๒๕๓๐ ๕

ไปรษณีย์อิเล็กทรอนิกส์ sarabangadivw.mail.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"





๐๘ สิงหาคม ๒๕๖๓

เรื่อง ขอย้ายฐานที่ตั้งโรงงานขึ้นทะเบียนโรงงานอุตสาหกรรม

เรียน กรรมการผู้พิจารณา บริษัท เอสแอลเอส แอสโซซิเอตส์ จำกัด (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงข้อมูลการ และชนิดสารเคมีของห้องปฏิบัติการวิเคราะห์
เอกชน ลงวันที่ ๒๘ พฤษภาคม ๒๕๖๓

สิ่งที่ส่งมาด้วย เอกสารแนบท้ายหนังสือขอขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
บริษัท เอสแอลเอส แอสโซซิเอตส์ จำกัด (ประเทศไทย) จำกัด จำนวน ๓ แผ่น

ตามคำขอที่อ้างถึง บริษัท เอสแอลเอส แอสโซซิเอตส์ จำกัด (ประเทศไทย) จำกัด ขอต่ออายุ
หนังสือขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน เลขทะเบียน ๖๓๒๓ สถานะที่เดิมที่ ๒๒๐/๑๐ หมู่ที่ ๕
ตำบลแม่ไม้ใหญ่ อำเภอปลวกแดง จังหวัดระยอง ต่อกรมโรงงานอุตสาหกรรม นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้บริษัท เอสแอลเอส แอสโซซิเอตส์ จำกัด (ประเทศไทย)
จำกัด ต่ออายุหนังสือขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน โดยมีองค์ประกอบดังนี้

ก. ผู้ควบคุมห้องปฏิบัติการวิเคราะห์เอกชน

- | | |
|------------------------|----------------------------|
| ๑) นายเดช ช้างงาม | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๒) นายสุวิทย์ นริวัณ | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๒ |
| ๓) นายสุพจน์ สดลสิทธิ์ | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |

ข. เจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน

- | | |
|----------------------------|----------------------------|
| ๑) นายณัฐพงษ์ เพ็ญธรรม | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๒ |
| ๒) นางสาวกัญญ์พรรัตน์ วัชร | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๒ |
| ๓) นางสาวจุฑามาศ ธีระพงษ์ | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๔) นางสาวกัญญา ประดิษฐ์ | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๕) นายสุวิทย์ คุ้มภัย | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๖) นายณัฐพงษ์ ออมธรรม | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๗) นายจักรกฤษณ์ | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๘) นายสุวิทย์ สุวรรณรัตน์ | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๙) นายสุวิทย์ เสนาธิ์ | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๑๐) นายสุวิทย์ เสนา | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๑๑) นายสุวิทย์ นราพันธ์ | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๑๒) นายสุวิทย์ เจริญวงศ์ | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๑๓) นายสุวิทย์ บุญชื่น | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๑๔) นายสุวิทย์ วงศ์อินทร์ | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |
| ๑๕) นายสุวิทย์ โพธิ์ทอง | ทะเบียนเลขที่ ๖-๒๒๓-๙-๐๐๐๓ |

๑๖) นายณัฐพงษ์...

๕๒) นายพชร...

เอกสารแนบท้ายหนังสือเปลี่ยนแปลงสารเคมีของห้องปฏิบัติการวิเคราะห์เอกชน
บริษัท เอสแอลเอส แอสโซซิเอตส์ จำกัด เลขทะเบียน ๖-๒๒๓
ที่ อก ๐๒๒๐/ ๗ ๕๓ ๘ ลงวันที่ ๐๘ สิงหาคม ๒๕๖๓

ขอขยายสารเคมีที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๒๔ รายการ
น้ำเสีย จำนวน ๑๔ รายการ

ลำดับ ที่	สารเคมี	วิธีวิเคราะห์
1	Biochemical Oxygen Demand	1) 5-Day BOD Test, Membrane Electrode Method ⁽²⁾ 2) 5-Day BOD Test, Azide Modification Method ⁽²⁾
2	Chemical Oxygen Demand	1) Open Reflux, Titrimetric Method ⁽²⁾ 2) Closed Reflux, Colorimetric Method ⁽²⁾ 3) Closed Reflux, Titrimetric Method ⁽²⁾
3	Color	ASCM Weighted-Ordinate Spectrophotometric Method ⁽²⁾
4	Cyanide	Distillation, Colorimetric Method ⁽²⁾
5	Formaldehyde	Distillation, Colorimetric Method ⁽¹⁾
6	Free Chlorine	DPD Ferrous Titrimetric Method ⁽²⁾
7	Oil and Grease	Liquid-Liquid, Partition-Gravimetric Method ⁽²⁾
8	pH	Electrometric Method ⁽²⁾
9	Phenols	1) Distillation, Chloroform Extraction Method ⁽²⁾ 2) Distillation, Direct Photometric Method ⁽²⁾
10	Sulfide	ZnS Precipitation, Iodometric Method ⁽²⁾
11	Temperature	Field Method ⁽¹⁾
12	Total Dissolved Solids	Dried at 180 °C ⁽²⁾
13	Total Kjeldahl Nitrogen	Semi Macro Kjeldahl Method ⁽²⁾
14	Total Suspended Solids	Dried at 103-105 °C ⁽²⁾

น้ำดื่ม จำนวน 3 รายการ

ลำดับ ที่	สารเคมี	วิธีวิเคราะห์
1	Cyanide	Distillation, Colorimetric Method ⁽²⁾
2	pH	Electrometric Method ⁽²⁾
3	Phenols	Distillation, Direct Photometric Method ⁽²⁾

อากาศ...

ศูนย์วิจัยและประเมินผลพิษวิทยาภาคตะวันออก
โทร. ๐ ๒๓๑๓ ๒๐๕๔ ต่อ ๕๐๐๓-๖
อีเมล: gic@doe.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวไกล ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



ตรวจวิเคราะห์ (ปล่อยระบาย) จำนวน 7 รายการ

ลำดับ ที่	สารเคมี	วิธีวิเคราะห์
1	Carbon Monoxide	1) Sampling Bag, Non-Dispersive Infrared Method ^[9] 2) Instrumental Analyzer Method ^[9]
2	Hydrogen Sulfide	Absorption Sampling, Iodometric Method ^[9]
3	Opacity	Ringelmanns Method ^[5,6]
4	Oxide of Nitrogen	1) Absorption Sampling, Phenoldisulfonic Acid Method ^[9] 2) Instrumental Analyzer Method ^[10]
5	Sulfur Dioxide	1) Absorption Sampling, Barium-Thorin Titrimetric Acid Method ^[9] 2) Instrumental Analyzer Method ^[11]
6	Sulfuric Acid	Isokinetic Sampling, Barium - Titrimetric Method ^[6]
7	Total Suspended Particulate	Isokinetic Sampling, Gravimetric Method ^[7]

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4. กระทรวงอุตสาหกรรม, ประกาศกระทรวงอุตสาหกรรม, พ.ศ. 2549, เรื่อง กำหนดค่าปริมาณเขม่าควันที่เจือปนในอากาศที่ระบายออกจากปล่องของหม้อน้ำของโรงงาน, ราชกิจจานุเบกษา, 4 ธันวาคม 2549, เล่มที่ 123 ตอนพิเศษ 125ก
5. United States Environmental Protection Agency, Standards of Performance for New Stationary Sources, 40 CFR 60, Appendix A, 2017.
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7. United States...

7. United States Environmental Protection Agency, Standards of Performance for New Stationary Sources, 40 CFR 60, Appendix A, 2020.
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11. United States Environmental Protection Agency, Determination of Sulfur dioxide Emission from Stationary Sources; Instrumental Analyzer Procedure, 40 CFR 60, Appendix A Method 6C, 2017.

ที่ อภ ๐๓๒๐/ ๑๐ ๐๕ ๕



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๑๕ ตุลาคม ๒๕๖๕

เรื่อง แก้ไขรายชื่อเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบริทอรี่ กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง หนังสือ บริษัท เอแอลเอส แลบริทอรี่ กรุ๊ป (ประเทศไทย) จำกัด เลขที่ EHV 2024/005 ลงวันที่ ๓๐ สิงหาคม ๒๕๖๔

ตามที่หนังสือที่อ้างถึง บริษัท เอแอลเอส แลบริทอรี่ กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการวิเคราะห์เอกชน เลขทะเบียน ๖-๒๒๓ สถานที่ตั้งเลขที่ ๖๑๖/๓๐ หมู่ที่ ๕ ตำบลแม่ป่าดู่ อำเภอปรังมาต จังหวัดระยอง ขอแก้ไขชื่อเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน เนื่องจากมีความคลาดเคลื่อน ความละเอียดแจ้งแล้ว นั้น

กรมโรงงานอุตสาหกรรม ได้รับทราบและดำเนินการแก้ไขรายชื่อเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน จำนวน ๕ ราย ตามที่แจ้งเรียบร้อยแล้ว เบื้องต้น

- ลำดับที่ ๒๔ นางพจนมา สีดา
- ลำดับที่ ๒๕ นางสาวธนิศา กุลสุริวงศ์
- ลำดับที่ ๓๐ นายณฐิชา สูงภัก
- ลำดับที่ ๓๖ นายสุทธิศักดิ์ โชติพัฒน์
- ลำดับที่ ๔๐ นายกันตณ มณีสัมพันธ์

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายพรยศ กลิ่นกรอง)
อธิบดีกรมโรงงานอุตสาหกรรม
สำนักงานโรงงานอุตสาหกรรม

ศูนย์วิจัยและพัฒนาสิ่งแวดล้อมพิษโรงงานภาคตะวันออก
โทร. ๐ ๓๒๓๓ ๖๐๕๔ ต่อ ๕๐๐๐-๒
ไปรษณีย์อิเล็กทรอนิกส์ eivw@div.mail.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



ที่ อภ ๐๓๒๐(๑)/ ๕ ๒ ๕ ๖



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๒๐ พฤษภาคม ๒๕๖๕

เรื่อง ขาดเอกสารของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบริทอรี่ กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงเอกสาร และขอคืนสารเคมีของห้องปฏิบัติการวิเคราะห์เอกชน ลงวันที่ ๓๐ เมษายน ๒๕๖๔

ตามที่คำขอที่อ้างถึง บริษัท เอแอลเอส แลบริทอรี่ กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการวิเคราะห์เอกชน เลขทะเบียน ๖-๒๒๓ สถานที่ตั้งเลขที่ ๖๑๖/๓๐ หมู่ที่ ๕ ตำบลแม่ป่าดู่ อำเภอปรังมาต จังหวัดระยอง ขอเลิกเอกสาร ความละเอียดแจ้งแล้ว นั้น

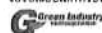
กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้ออกเลิกเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน จำนวน ๓ ราย ได้แก่ นายปรามาศ สัตยาคุณ ทะเบียนเลขที่ ๖-๒๒๓-๖-๐๐๕๓๔

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายประณต สารภักดิ์)
ผู้อำนวยการวิจัยและพัฒนาสิ่งแวดล้อมพิษโรงงาน
ศูนย์วิจัยและพัฒนาสิ่งแวดล้อมพิษโรงงาน

ศูนย์วิจัยและพัฒนาสิ่งแวดล้อมพิษโรงงานภาคตะวันออก
โทร. ๐ ๓๒๓๓ ๖๐๕๔ ต่อ ๕๐๐๐-๒
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ที่ อก ๐๓๑๐(๓)/ ๕๕๐๕



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๒๗ พฤษภาคม ๒๕๖๕

เรื่อง เปลี่ยนแปลงชื่อ-สกุลบุคลากรของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๑๕ พฤษภาคม ๒๕๖๔

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ๖-๓๒๓ สถานที่ตั้งเลขที่ ๖๑๖/๑๐ หมู่ที่ ๕ ตำบลแม่ไม้ อำเภอปลวกแดง
จังหวัดระยอง ขอเปลี่ยนแปลงชื่อ-สกุลบุคลากร ความละเอียดแจ้งแล้ว นั้น

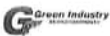
กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้เปลี่ยนแปลงชื่อ-สกุลบุคลากร จำนวน ๑ ราย
จากนายธนสิทธิ์ วงศ์ไชย เป็น นายอมรวิทย์ วงศ์ไชย

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายประคม คำพงษ์)
ผู้อำนวยการกองอนามัยสิ่งแวดล้อมและปัจจัยเสี่ยง
ปฎิบัติราชการแทนอธิบดีกรมโรงงานอุตสาหกรรม

ศูนย์วิจัยและเตือนภัยมลพิษโรงงานภาคตะวันออก
โทร. ๐ ๒๓๓๓ ๖๐๕๙ ต่อ ๕๐๐๑-๒
ไปรษณีย์อิเล็กทรอนิกส์ eirw@dlw.mail.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



เอกสารแนบท้ายหนังสือเปลี่ยนแปลงสารมลพิษที่วิเคราะห์
บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด เลขทะเบียน ๖-๓๒๓
ที่ อก ๐๓๑๐(๓)/ ๕๕๖๕ ลงวันที่ ๐๒ ธันวาคม ๒๕๖๕

ขอข่ายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๒๓ รายการ

น้ำเสีย จำนวน 13 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Arsenic	Digestion, Inductively Coupled Plasma Method
2	Barium	Digestion, Inductively Coupled Plasma Method
3	Cadmium	Digestion, Inductively Coupled Plasma Method
4	Chromium	Digestion, Inductively Coupled Plasma Method
5	Copper	Digestion, Inductively Coupled Plasma Method
6	Hexavalent Chromium	Colorimetric Method
7	Lead	Digestion, Inductively Coupled Plasma Method
8	Manganese	Digestion, Inductively Coupled Plasma Method
9	Mercury	Digestion, Cold-Vapor Atomic Absorption Spectrometric Method
10	Nickel	Digestion, Inductively Coupled Plasma Method
11	Selenium	Digestion, Inductively Coupled Plasma Method
12	Trivalent Chromium	Calculation
13	Zinc	Digestion, Inductively Coupled Plasma Method

น้ำใต้ดิน จำนวน 20 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aluminum	Digestion, Inductively Coupled Plasma Method
2	Antimony	Digestion, Inductively Coupled Plasma Method
3	Arsenic	Digestion, Inductively Coupled Plasma Method
4	Barium	Digestion, Inductively Coupled Plasma Method
5	Beryllium	Digestion, Inductively Coupled Plasma Method
6	Cadmium	Digestion, Inductively Coupled Plasma Method
7	Chromium	Digestion, Inductively Coupled Plasma Method
8	Chromium (III)	Calculation
9	Chromium (VI)	Colorimetric Method
10	Copper	Digestion, Inductively Coupled Plasma Method

ที่ อก ๐๓๑๐(๓)/ ๕๕๖๕



กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ แขวงทุ่งพญาไท
เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

๐๒ ธันวาคม ๒๕๖๕

เรื่อง เปลี่ยนแปลงสารมลพิษที่วิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๑๓ ตุลาคม ๒๕๖๔

สิ่งที่ส่งมาด้วย เอกสารแนบท้ายหนังสือเปลี่ยนแปลงสารมลพิษที่วิเคราะห์

บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด จำนวน ๒ แผ่น

ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ๖-๓๒๓ สถานที่ตั้งเลขที่ ๖๑๖/๑๐ หมู่ที่ ๕ ตำบลแม่ไม้ อำเภอปลวกแดง
จังหวัดระยอง ขอเปลี่ยนแปลงสารมลพิษที่วิเคราะห์ ต้องการโรงงานอุตสาหกรรม นั้น

กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด
เพิ่มขอข่ายชนิดสารมลพิษที่วิเคราะห์ในน้ำเสีย และน้ำใต้ดิน ตามสิ่งที่ส่งมาด้วย

อนึ่ง หนังสือฉบับนี้ส่งมอบพร้อมหนังสือต่ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
ในวันที่ ๒๕ มิถุนายน ๒๕๖๕

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นางสาวปัทมวรรณ คุณประเสริฐ)
ผู้อำนวยการกองอนามัยสิ่งแวดล้อมและปัจจัยเสี่ยง
ปฎิบัติราชการแทนอธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเตือนภัยมลพิษโรงงาน
ศูนย์วิจัยและเตือนภัยมลพิษโรงงานภาคตะวันออก
โทร. ๐ ๒๓๓๓ ๖๐๕๙ ต่อ ๕๐๐๑-๒
ไปรษณีย์อิเล็กทรอนิกส์ eirw@dlw.mail.go.th



"อุตสาหกรรมก้าวไกล ประเทศไทยก้าวหน้า ร่วมกันพัฒนา อุตสาหกรรมสีเขียว"



-๒-

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
11	Iron	Digestion, Inductively Coupled Plasma Method
12	Lead	Digestion, Inductively Coupled Plasma Method
13	Manganese	Digestion, Inductively Coupled Plasma Method
14	Mercury	Digestion Cold-Vapor Atomic Absorption Spectrometric Method
15	Molybdenum	Digestion, Inductively Coupled Plasma Method
16	Nickel	Digestion, Inductively Coupled Plasma Method
17	Selenium	Digestion, Inductively Coupled Plasma Method
18	Silver	Digestion, Inductively Coupled Plasma Method
19	Vanadium	Digestion, Inductively Coupled Plasma Method
20	Zinc	Digestion, Inductively Coupled Plasma Method

เอกสารอ้างอิง

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๐๖ มีนาคม ๒๕๖๕

เรื่อง เปลี่ยนแปลงบุคลากรของห้องปฏิบัติการวิเคราะห์

เรียน กรรมการผู้จัดการ บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารเคมีของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๖ กุมภาพันธ์ ๒๕๖๔ตามคำขอที่อ้างถึง บริษัท เอแอลเอส แลบบอราทอรี กรุ๊ป (ประเทศไทย) จำกัด ห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ว-๓๒๓ สถานที่ตั้งเลขที่ ๖๑๖/๑๐ หมู่ที่ ๕ ตำบลแม่ไม้ผู้ อำเภอปลวกแดง
จังหวัดระยอง ขอเปลี่ยนแปลงบุคลากร ความละเอียดแจ้งแล้ว นั้นกรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้เพิ่มเจ้าหน้าที่ห้องปฏิบัติการวิเคราะห์เอกชน
จำนวน ๗ ราย ได้แก่

๑) นายอนวัช คงปลีก	ทะเบียนเลขที่ ว-๓๕๓-จ-๐๐๖๓
๒) นายธนธิป อธิวุฒตา	ทะเบียนเลขที่ ว-๓๕๓-จ-๐๐๖๔
๓) นายเฉลิมชัย บุญจุบ	ทะเบียนเลขที่ ว-๓๕๓-จ-๐๐๖๕
๔) นางสาววิจิตรว งามสมัย	ทะเบียนเลขที่ ว-๓๕๓-จ-๐๐๖๖
๕) นางสาวลลิตา คำสมัย	ทะเบียนเลขที่ ว-๓๕๓-จ-๐๐๖๗
๖) นางสาวปัทมา ชูดีโนน	ทะเบียนเลขที่ ว-๓๕๓-จ-๐๐๖๘
๗) นายปฏิญญา ปามองหา	ทะเบียนเลขที่ ว-๓๕๓-จ-๐๐๖๙

อนึ่ง หนังสือฉบับนี้จะสิ้นอายุพร้อมหนังสือต่ออายุวันขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

ในวันที่ ๒๘ มิถุนายน ๒๕๖๕

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

(นายศิระ จินทรจิตร)

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ปฏิบัติการและเฝ้าระวังมลพิษโรงงานอุตสาหกรรม

กองวิจัยและเตือนภัยมลพิษโรงงาน

ศูนย์วิจัยและเตือนภัยมลพิษโรงงานภาคตะวันออก

โทร. ๐ ๓๓๓๓ ๖๐๕๙ ต่อ ๕๐๐๓-๖

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