

## ภาคผนวก ค

### รายงานผลการตรวจวัดคุณภาพสิ่งแวดล้อม

Request No. ATR6609068

Report No. 6609-1186 - 6609-1192

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : วัดมาบชูด  
 RECEIVED DATE : 30/09/2023 SAMPLE NO. : A66091186 - A66091192  
 TESTED DATE : 30/09/2023-04/10/2023 REPORTED DATE : 07/10/2023

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	STD <sup>1</sup>	UNIT
Total Suspended Particulate (TSP)	Gravimetric Method	20-21/09/2023	0.042	0.33	mg/m <sup>3</sup>
		21-22/09/2023	0.033	0.33	mg/m <sup>3</sup>
		22-23/09/2023	0.066	0.33	mg/m <sup>3</sup>
		23-24/09/2023	0.055	0.33	mg/m <sup>3</sup>
		24-25/09/2023	0.043	0.33	mg/m <sup>3</sup>
		25-26/09/2023	0.050	0.33	mg/m <sup>3</sup>
		26-27/09/2023	0.035	0.33	mg/m <sup>3</sup>

## REMARK:

<sup>1</sup> Notification of The National Environmental Board Volume 24 B.E.2547 (2004) Standard for 24-hr Average.

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Tummarut Photankham)

GPS = Sampling at UTM 47P 736823E 1407369N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Miss Thanatporn Klinsohon)

07/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6609068

Report No. 6609-1179 - 6609-1185

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : วัดมาบหลูด  
 RECEIVED DATE : 30/09/2023 SAMPLE NO. : A66091179 - A66091185  
 TESTED DATE : 30/09/2023-04/10/2023 REPORTED DATE : 07/10/2023

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	STD <sup>/1</sup>	UNIT
Particulate matter less than or Equal					
10 micrometers (PM 10)	Gravimetric Method	20-21/09/2023	0.032	0.12	mg/m <sup>3</sup>
		21-22/09/2023	0.026	0.12	mg/m <sup>3</sup>
		22-23/09/2023	0.058	0.12	mg/m <sup>3</sup>
		23-24/09/2023	0.010	0.12	mg/m <sup>3</sup>
		24-25/09/2023	0.033	0.12	mg/m <sup>3</sup>
		25-26/09/2023	0.039	0.12	mg/m <sup>3</sup>
		26-27/09/2023	0.023	0.12	mg/m <sup>3</sup>

## REMARK:

<sup>/1</sup> Notification of The National Environmental Board Volume 24 B.E.2547 (2004) Standard for 24-hr Average.

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Tummarut Photankham)

GPS = Sampling at UTM 47P 736823E 1407369N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Miss Thanatporn Klinsoon)

07/10/2023

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Request No. ATR6609068

Report No. 6609-1193 - 6609-1199

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : วัดมาบขลุค  
 RECEIVED DATE : 30/09/2023 SAMPLE NO. : A66091193 - A66091199  
 TESTED DATE : 30/09/2023-06/10/2023 REPORTED DATE : 07/10/2023

PARAMETER**	TEST METHOD	SAMPLING DATE	RESULT <sup>1</sup>	UNIT
Propylene oxide	NIOSH1612/GC-FID	20-21/09/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		21-22/09/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		22-23/09/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		23-24/09/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		24-25/09/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		25-26/09/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		26-27/09/2023	ND	mg/m <sup>3</sup>
			ND	ppm

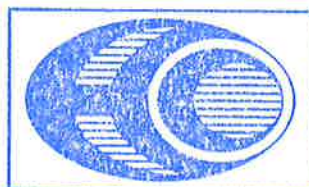
## REMARK:

<sup>1</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Tummarut Photankham)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 736823E 1407369N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsopon)

07/10/2023

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Request No. ATR6610060

Report No. 6610-0909 - 6610-0915

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : วัดมาบขลุค  
 RECEIVED DATE : 26/10/2023 SAMPLE NO. : A66100909 - A66100915  
 TESTED DATE : 26/10/2023-02/11/2023 REPORTED DATE : 06/11/2023

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	STD <sup>/1</sup>	UNIT
Total Suspended Particulate (TSP)	Gravimetric Method	14-15/10/2023	0.054	0.33	mg/m <sup>3</sup>
		15-16/10/2023	0.028	0.33	mg/m <sup>3</sup>
		16-17/10/2023	0.051	0.33	mg/m <sup>3</sup>
		17-18/10/2023	0.054	0.33	mg/m <sup>3</sup>
		18-19/10/2023	0.046	0.33	mg/m <sup>3</sup>
		19-20/10/2023	0.050	0.33	mg/m <sup>3</sup>
		20-21/10/2023	0.039	0.33	mg/m <sup>3</sup>

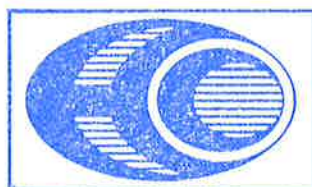
## REMARK:

<sup>/1</sup> Notification of The National Environmental Board Volume 24 B.E.2547 (2004) Standard for 24-hr Average.

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Tummarut Photankham)

GPS = Sampling at UTM 47P 736823E 1407369N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Miss Thanatporn Klinsopon)

06/11/2023

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Request No. ATR6610060

Report No. 6610-0902 - 6610-0908

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : วัดมาบชูด  
 RECEIVED DATE : 26/10/2023 SAMPLE NO. : A66100902 - A66100908  
 TESTED DATE : 26/10/2023-02/11/2023 REPORTED DATE : 06/11/2023

PARAMETER*	TEST METHOD	SAMPLING DATE	RESULT	STD <sup>1</sup>	UNIT
Particulate matter less than or Equal					
10 micrometers (PM 10)	Gravimetric Method	14-15/10/2023	0.039	0.12	mg/m <sup>3</sup>
		15-16/10/2023	0.025	0.12	mg/m <sup>3</sup>
		16-17/10/2023	0.039	0.12	mg/m <sup>3</sup>
		17-18/10/2023	0.044	0.12	mg/m <sup>3</sup>
		18-19/10/2023	0.038	0.12	mg/m <sup>3</sup>
		19-20/10/2023	0.034	0.12	mg/m <sup>3</sup>
		20-21/10/2023	0.025	0.12	mg/m <sup>3</sup>

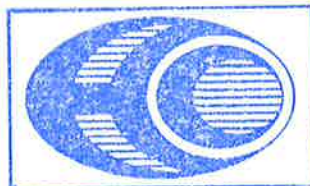
## REMARK:

<sup>1</sup> Notification of The National Environmental Board Volume 24 B.E.2547 (2004) Standard for 24-hr Average.

\* Parameter not have License Registration of Department of Labour Protection and Welfare.

(Sampling By Mr. Tummarut Photankham)

GPS = Sampling at UTM 47P 736823E 1407369N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Miss Thanatporn Klinsoyon)

06/11/2023

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Request No. ATR6610060

Report No. 6610-0916 - 6610-0922

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : วัดมาบขลุค  
 RECEIVED DATE : 26/10/2023 SAMPLE NO. : A66100916 - A66100922  
 TESTED DATE : 26/10/2023-27/10/2023 REPORTED DATE : 06/11/2023

PARAMETER**	TEST METHOD	SAMPLING DATE	RESULT <sup>1</sup>	UNIT
Propylene oxide	NIOSH1612/GC-FID	14-15/10/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		15-16/10/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		16-17/10/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		17-18/10/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		18-19/10/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		19-20/10/2023	ND	mg/m <sup>3</sup>
			ND	ppm
		20-21/10/2023	ND	mg/m <sup>3</sup>
			ND	ppm

## REMARK:

<sup>1</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Tummarut Photankham)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 736823E 1407369N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsohon)

06/11/2023

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Request No. LA66-R0993

Report No. R6609-2482 - R6609-2488

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : วัดมาบขลุค  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model T200 S/N 7866

SAMPLE NO. : 29378-29384  
 SAMPLING DATE : 20-27/09/2023  
 RECEIVED DATE : 27/09/2023  
 REPORTED DATE : 02/10/2023

TIME / DATE	20-21/09/2023	21-22/09/2023	22-23/09/2023	UNIT
10:00 - 11:00 <sup>2</sup>	0.004	0.009	0.006	ppm
11:00 - 12:00	0.003	0.008	0.005	ppm
12:00 - 13:00	0.005	0.008	0.004	ppm
13:00 - 14:00	0.008	0.006	0.004	ppm
14:00 - 15:00	0.006	0.008	0.009	ppm
15:00 - 16:00	0.006	0.005	0.004	ppm
16:00 - 17:00	0.010	0.007	0.005	ppm
17:00 - 18:00	0.014	0.011	0.005	ppm
18:00 - 19:00	0.025	0.018	0.007	ppm
19:00 - 20:00	0.023	0.008	0.009	ppm
20:00 - 21:00	0.019	0.013	0.007	ppm
21:00 - 22:00	0.018	0.014	0.006	ppm
22:00 - 23:00	0.019	0.007	0.009	ppm
23:00 - 00:00	0.013	0.006	0.012	ppm
00:00 - 01:00	0.006	0.008	0.010	ppm
01:00 - 02:00	0.006	0.006	0.006	ppm
02:00 - 03:00	0.008	0.004	0.004	ppm
03:00 - 04:00	0.008	0.003	0.004	ppm
04:00 - 05:00	0.007	0.006	0.005	ppm
05:00 - 06:00	0.005	0.010	0.010	ppm
06:00 - 07:00	0.007	0.013	0.011	ppm
07:00 - 08:00	0.011	0.012	0.009	ppm
08:00 - 09:00	0.011	0.010	0.013	ppm
09:00 - 10:00	0.007	0.006	0.011	ppm
Maximum 1 hr.	0.025	0.018	0.013	ppm
Average 24 hr.	0.010	0.009	0.007	ppm
Standard (1 hr.) <sup>1</sup>	0.17	0.17	0.17	ppm

## REMARK :

<sup>1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>2</sup> Start Time

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
 (Measurement By Mr. Tummarut Photakump)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MS. THANATPORN KLINSOPON)

02/10/2023

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Request No. LA66-R0993

Report No. R6609-2482 - R6609-2488

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : วัดมาบชลุค  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model T200 S/N 7866

SAMPLE NO. : 29378-29384  
 SAMPLING DATE : 20-27/09/2023  
 RECEIVED DATE : 27/09/2023  
 REPORTED DATE : 02/10/2023

TIME / DATE	23-24/09/2023	24-25/09/2023	25-26/09/2023	UNIT
10:00 - 11:00 <sup>2</sup>	0.017	0.006	0.006	ppm
11:00 - 12:00	0.015	0.007	0.005	ppm
12:00 - 13:00	0.013	0.003	0.002	ppm
13:00 - 14:00	0.016	0.001	0.004	ppm
14:00 - 15:00	0.004	0.002	0.009	ppm
15:00 - 16:00	0.002	0.004	0.015	ppm
16:00 - 17:00	0.003	0.004	0.019	ppm
17:00 - 18:00	0.003	0.005	0.015	ppm
18:00 - 19:00	0.006	0.012	0.022	ppm
19:00 - 20:00	0.007	0.015	0.020	ppm
20:00 - 21:00	0.014	0.013	0.017	ppm
21:00 - 22:00	0.019	0.015	0.013	ppm
22:00 - 23:00	0.019	0.014	0.004	ppm
23:00 - 00:00	0.016	0.012	0.003	ppm
00:00 - 01:00	0.012	0.012	0.004	ppm
01:00 - 02:00	0.008	0.010	0.004	ppm
02:00 - 03:00	0.002	0.007	0.004	ppm
03:00 - 04:00	0.002	0.004	0.008	ppm
04:00 - 05:00	0.006	0.002	0.008	ppm
05:00 - 06:00	0.009	0.003	0.006	ppm
06:00 - 07:00	0.010	0.004	0.006	ppm
07:00 - 08:00	0.008	0.006	0.005	ppm
08:00 - 09:00	0.010	0.007	0.004	ppm
09:00 - 10:00	0.007	0.006	0.004	ppm
Maximum 1 hr.	0.019	0.015	0.022	ppm
Average 24 hr.	0.009	0.007	0.009	ppm
Standard (1 hr.) <sup>1</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Phetankhum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

(MS. THANATPORN KLINSOPON)

02/10/2023

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Request No. LA66-R0993

Report No. R6609-2482 - R6609-2488

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : วัดมาบขลุ่ย  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model T200 S/N 7866

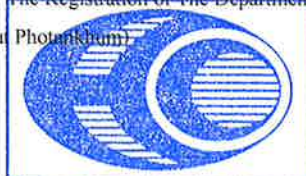
SAMPLE NO. : 29378-29384  
 SAMPLING DATE : 20-27/09/2023  
 RECEIVED DATE : 27/09/2023  
 REPORTED DATE : 02/10/2023

TIME / DATE	26-27/09/2023	UNIT
10:00 - 11:00 <sup>2</sup>	0.006	ppm
11:00 - 12:00	0.005	ppm
12:00 - 13:00	0.003	ppm
13:00 - 14:00	0.002	ppm
14:00 - 15:00	0.005	ppm
15:00 - 16:00	0.004	ppm
16:00 - 17:00	0.005	ppm
17:00 - 18:00	0.003	ppm
18:00 - 19:00	0.004	ppm
19:00 - 20:00	0.003	ppm
20:00 - 21:00	0.002	ppm
21:00 - 22:00	0.001	ppm
22:00 - 23:00	0.001	ppm
23:00 - 00:00	0.002	ppm
00:00 - 01:00	0.002	ppm
01:00 - 02:00	0.002	ppm
02:00 - 03:00	0.002	ppm
03:00 - 04:00	0.002	ppm
04:00 - 05:00	0.003	ppm
05:00 - 06:00	0.005	ppm
06:00 - 07:00	0.011	ppm
07:00 - 08:00	0.012	ppm
08:00 - 09:00	0.010	ppm
09:00 - 10:00	0.009	ppm
Maximum 1 hr.	0.012	ppm
Average 24 hr.	0.004	ppm
Standard (1 hr.) <sup>1</sup>	0.17	ppm

REMARK : <sup>1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>2</sup> Start Time

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works

(Measurement By Mr. Tummaru Photankhum)

Approved By 

(MS. THANATPORN KLINSOPON)

02/10/2023

 บริษัท อีสเทิร์นไทยคอนซัลต์ติ้ง 1992 จำกัด  
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Request No. LA66-R1058

Report No. R6610-I816 - R6610-I822

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC19  
SAMPLE POINT : วัดมาบขลุค  
PARAMETER\* : Nitrogen Dioxide  
DETERMINATION METHOD : Chemiluminescence  
INSTRUMENT : API Model M200E S/N 3999

SAMPLE NO. : 31042-31048  
SAMPLING DATE : 14-21/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 26/10/2023

TIME / DATE	14-15/10/2023	15-16/10/2023	16-17/10/2023	UNIT
09:00 - 10:00 <sup>2</sup>	0.007	0.011	0.012	ppm
10:00 - 11:00	0.016	0.007	0.009	ppm
11:00 - 12:00	0.012	0.004	0.006	ppm
12:00 - 13:00	0.008	0.003	0.006	ppm
13:00 - 14:00	0.006	0.003	0.006	ppm
14:00 - 15:00	0.007	0.003	0.009	ppm
15:00 - 16:00	0.008	0.007	0.009	ppm
16:00 - 17:00	0.008	0.007	0.007	ppm
17:00 - 18:00	0.014	0.006	0.006	ppm
18:00 - 19:00	0.012	0.007	0.016	ppm
19:00 - 20:00	0.013	0.008	0.018	ppm
20:00 - 21:00	0.013	0.008	0.024	ppm
21:00 - 22:00	0.015	0.008	0.022	ppm
22:00 - 23:00	0.015	0.007	0.021	ppm
23:00 - 00:00	0.012	0.005	0.014	ppm
00:00 - 01:00	0.009	0.005	0.016	ppm
01:00 - 02:00	0.007	0.008	0.017	ppm
02:00 - 03:00	0.005	0.009	0.015	ppm
03:00 - 04:00	0.004	0.009	0.013	ppm
04:00 - 05:00	0.005	0.010	0.012	ppm
05:00 - 06:00	0.004	0.008	0.011	ppm
06:00 - 07:00	0.005	0.010	0.011	ppm
07:00 - 08:00	0.006	0.011	0.011	ppm
08:00 - 09:00	0.011	0.011	0.012	ppm
Maximum 1 hr.	0.016	0.011	0.024	ppm
Average 24 hr.	0.009	0.007	0.012	ppm
Standard (1 hr.) <sup>1</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photunkhumb)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

(MS. THANATPORN KLINSOPON)

26/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. LA66-R1058

Report No. R6610-I816 - R6610-I822

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC19  
SAMPLE POINT : วัดมาบขลุค  
PARAMETER\* : Nitrogen Dioxide  
DETERMINATION METHOD : Chemiluminescence  
INSTRUMENT : API Model M200E S/N 3999

SAMPLE NO. : 31042-31048  
SAMPLING DATE : 14-21/10/2023  
RECEIVED DATE : 21/10/2023  
REPORTED DATE : 26/10/2023

TIME / DATE	17-18/10/2023	18-19/10/2023	19-20/10/2023	UNIT
09:00 - 10:00 <sup>1/2</sup>	0.012	0.010	0.016	ppm
10:00 - 11:00	0.013	0.011	0.011	ppm
11:00 - 12:00	0.009	0.013	0.015	ppm
12:00 - 13:00	0.009	0.008	0.007	ppm
13:00 - 14:00	0.006	0.014	0.006	ppm
14:00 - 15:00	0.007	0.014	0.006	ppm
15:00 - 16:00	0.011	0.013	0.012	ppm
16:00 - 17:00	0.009	0.014	0.009	ppm
17:00 - 18:00	0.010	0.019	0.007	ppm
18:00 - 19:00	0.006	0.024	0.012	ppm
19:00 - 20:00	0.005	0.026	0.023	ppm
20:00 - 21:00	0.009	0.023	0.029	ppm
21:00 - 22:00	0.015	0.023	0.026	ppm
22:00 - 23:00	0.012	0.019	0.021	ppm
23:00 - 00:00	0.011	0.017	0.017	ppm
00:00 - 01:00	0.008	0.015	0.014	ppm
01:00 - 02:00	0.009	0.012	0.012	ppm
02:00 - 03:00	0.009	0.009	0.010	ppm
03:00 - 04:00	0.012	0.007	0.007	ppm
04:00 - 05:00	0.008	0.006	0.007	ppm
05:00 - 06:00	0.008	0.012	0.007	ppm
06:00 - 07:00	0.009	0.014	0.011	ppm
07:00 - 08:00	0.008	0.017	0.013	ppm
08:00 - 09:00	0.008	0.019	0.018	ppm
Maximum 1 hr.	0.015	0.026	0.029	ppm
Average 24 hr.	0.009	0.015	0.013	ppm
Standard (1 hr.) <sup>1/1</sup>	0.17	0.17	0.17	ppm

REMARK : <sup>1/1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>1/2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photaknum)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By: 

(MS. THANATPORN KLINSOPON)

26/10/2023

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Request No. LA66-R1058

Report No. R6610-1816 - R6610-1822

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : วัดนาบขลุค  
 PARAMETER\* : Nitrogen Dioxide  
 DETERMINATION METHOD : Chemiluminescence  
 INSTRUMENT : API Model M200E S/N 3999

SAMPLE NO. : 31042-31048  
 SAMPLING DATE : 14-21/10/2023  
 RECEIVED DATE : 21/10/2023  
 REPORTED DATE : 26/10/2023

TIME / DATE	20-21/10/2023	UNIT
09:00 - 10:00 <sup>/2</sup>	0.011	ppm
10:00 - 11:00	0.007	ppm
11:00 - 12:00	0.007	ppm
12:00 - 13:00	0.005	ppm
13:00 - 14:00	0.005	ppm
14:00 - 15:00	0.005	ppm
15:00 - 16:00	0.007	ppm
16:00 - 17:00	0.005	ppm
17:00 - 18:00	0.010	ppm
18:00 - 19:00	0.010	ppm
19:00 - 20:00	0.018	ppm
20:00 - 21:00	0.015	ppm
21:00 - 22:00	0.018	ppm
22:00 - 23:00	0.022	ppm
23:00 - 00:00	0.019	ppm
00:00 - 01:00	0.015	ppm
01:00 - 02:00	0.012	ppm
02:00 - 03:00	0.013	ppm
03:00 - 04:00	0.014	ppm
04:00 - 05:00	0.014	ppm
05:00 - 06:00	0.009	ppm
06:00 - 07:00	0.007	ppm
07:00 - 08:00	0.007	ppm
08:00 - 09:00	0.011	ppm
Maximum 1 hr.	0.022	ppm
Average 24 hr.	0.011	ppm
Standard (1 hr.) <sup>/1</sup>	0.17	ppm

REMARK : <sup>/1</sup> Notification of The National Environmental Board Volume 33 B.E. 2552 (2009)<sup>/2</sup> Start Time\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Phatankhura)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MS. THANATPORN KLINSOPON)

26/10/2023

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## Wind Speed & Wind Direction

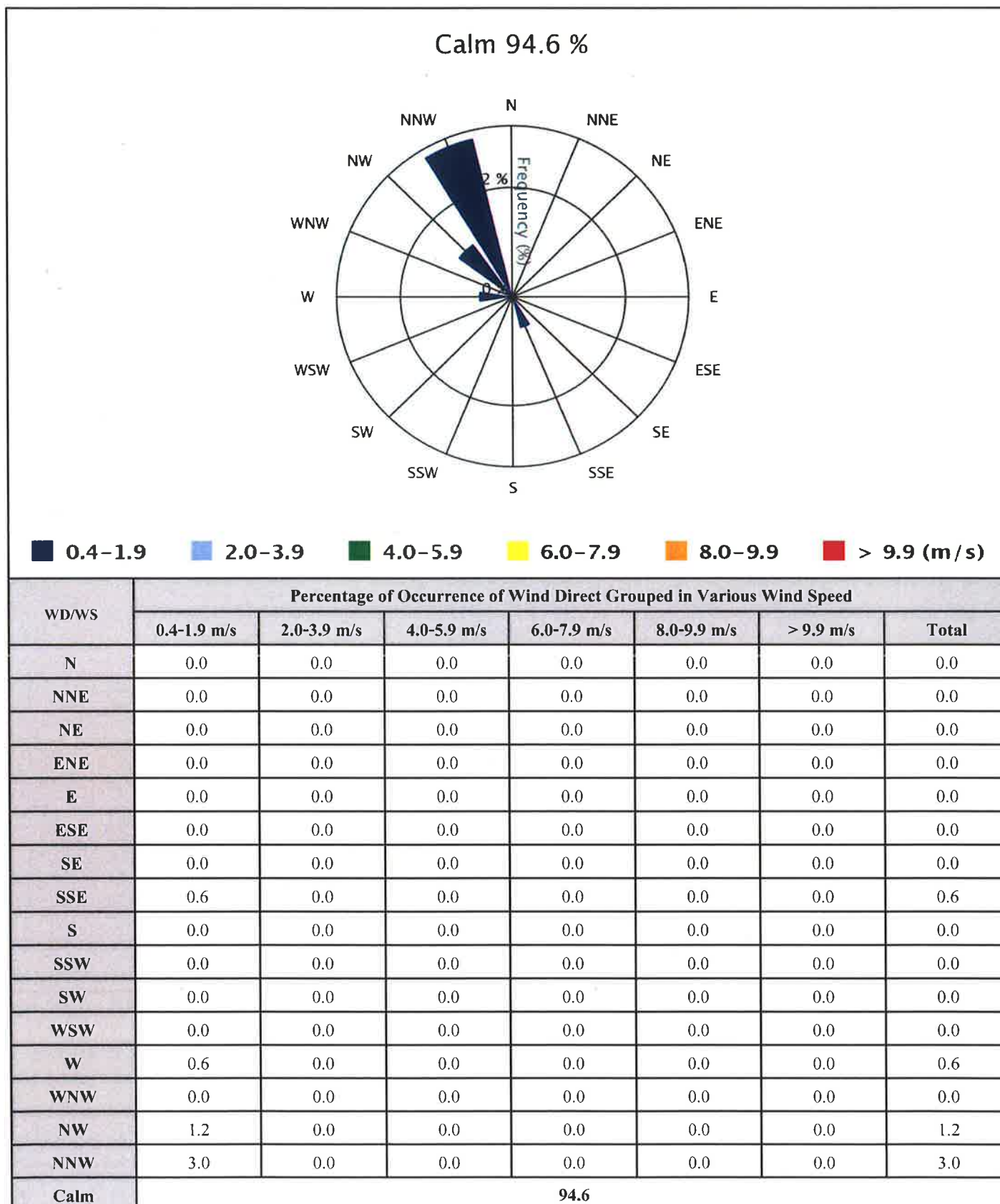
Request No. LA66-R0993

PTT Global Chemical Public Company Limited Branch 19 (GC 19)

Sample No. 29385

Sampling Source : วัดมาบขลุ่ด

Sampling Date : September 20-27, 2023





## Wind Speed &amp; Wind Direction

Request No. LA66-R0993

PTT Global Chemical Public Company Limited Branch 19 (GC 19)

Sample No. 29385

Sampling Source : วัดมาบขลุ่ด

Sampling Date : September 20-27, 2023

Time	September 20-21, 2023		September 21-22, 2023		September 22-23, 2023		September 23-24, 2023		September 24-25, 2023		September 25-26, 2023		September 26-27, 2023	
	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction
10:00-11:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
11:00-12:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
12:00-13:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.4	SSE	0.0	-
13:00-14:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
14:00-15:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
15:00-16:00	0.4	W	0.4	NW	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
16:00-17:00	0.9	NNW	0.4	NNW	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
17:00-18:00	0.4	NW	0.9	NNW	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
18:00-19:00	0.0	-	0.9	NNW	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
19:00-20:00	0.0	-	0.4	NNW	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
20:00-21:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
21:00-22:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
22:00-23:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
23:00-00:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
00:00-01:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
01:00-02:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
02:00-03:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
03:00-04:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
04:00-05:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
05:00-06:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
06:00-07:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
07:00-08:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
08:00-09:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
09:00-10:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-



## Wind Speed &amp; Wind Direction

Request No. LA66-R1058

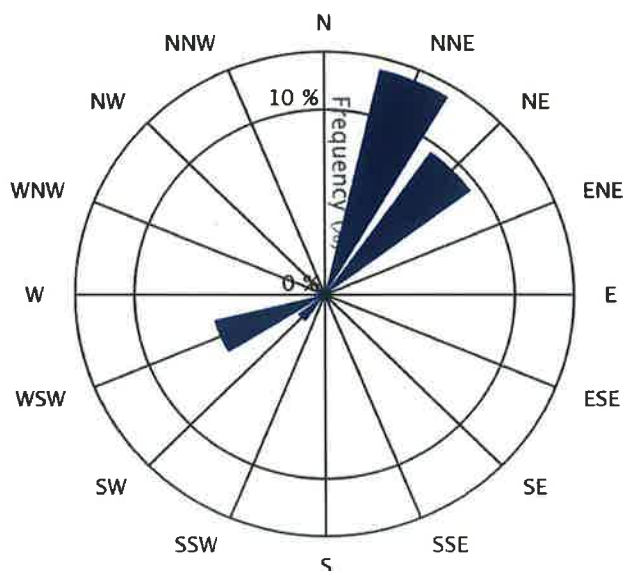
PTT Global Chemical Public Company Limited Branch 19 (GC 19)

Sample No. 31049

Sampling Source : วัดมาบชูด

Sampling Date : October 14-21, 2023

Calm 68.5 %


 0.4-1.9
  2.0-3.9
  4.0-5.9
  6.0-7.9
  8.0-9.9
  > 9.9 (m/s)

WD/WS	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.4-1.9 m/s	2.0-3.9 m/s	4.0-5.9 m/s	6.0-7.9 m/s	8.0-9.9 m/s	> 9.9 m/s	
N	0.6	0.0	0.0	0.0	0.0	0.0	0.6
NNE	12.5	0.0	0.0	0.0	0.0	0.0	12.5
NE	9.5	0.0	0.0	0.0	0.0	0.0	9.5
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.6	0.0	0.0	0.0	0.0	0.0	0.6
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	1.8	0.0	0.0	0.0	0.0	0.0	1.8
WSW	6.0	0.0	0.0	0.0	0.0	0.0	6.0
W	0.6	0.0	0.0	0.0	0.0	0.0	0.6
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Calm	68.5						

## Wind Speed &amp; Wind Direction

Request No. LA66-R1058

PTT Global Chemical Public Company Limited Branch 19 (GC 19)

Sample No. 31049

Sampling Source : วัดนาบขลุ่ย

Sampling Date : October 14-21, 2023

Time	October 14-15, 2023		October 15-16, 2023		October 16-17, 2023		October 17-18, 2023		October 18-19, 2023		October 19-20, 2023		October 20-21, 2023	
	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction
09:00-10:00	0.9	NNE	0.9	NNE	1.3	NE	1.3	NE	0.0	-	0.0	-	0.0	-
10:00-11:00	0.9	NNE	1.3	NNE	0.9	NE	0.9	NE	0.0	-	0.4	SW	0.9	NNE
11:00-12:00	0.9	NNE	0.9	NNE	0.4	NE	0.9	NE	0.9	SSE	0.4	NNE	0.4	NE
12:00-13:00	0.9	N	0.9	NE	0.4	W	0.9	NE	0.0	-	0.4	NNE	0.4	WSW
13:00-14:00	0.4	NNE	0.4	NE	0.4	WSW	0.4	NE	0.0	-	0.0	-	0.4	WSW
14:00-15:00	0.4	WSW	0.9	SW	0.4	WSW	0.4	SW	0.0	-	0.0	-	0.0	-
15:00-16:00	0.0	-	0.4	WSW	0.9	WSW	0.4	WSW	0.0	-	0.0	-	0.0	-
16:00-17:00	0.4	NE	0.0	-	0.9	NNE	0.4	WSW	0.0	-	0.0	-	0.9	NE
17:00-18:00	0.0	-	0.9	NE	0.0	-	0.4	WSW	0.0	-	0.0	-	0.4	NNE
18:00-19:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
19:00-20:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
20:00-21:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
21:00-22:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
22:00-23:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
23:00-00:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
00:00-01:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
01:00-02:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
02:00-03:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-
03:00-04:00	0.0	-	0.4	NNE	0.0	-	0.0	-	0.0	-	0.0	-	0.4	NNE
04:00-05:00	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.4	NNE
05:00-06:00	0.0	-	0.0	-	0.0	-	0.0	-	0.4	NNE	0.0	-	0.0	-
06:00-07:00	0.0	-	0.0	-	0.0	-	0.0	-	0.4	NNE	0.0	-	0.0	-
07:00-08:00	0.0	-	0.0	-	0.4	NNE	0.0	-	0.9	NNE	0.0	-	0.0	-
08:00-09:00	0.9	NNE	0.4	NE	0.9	NE	0.0	-	0.4	NNE	0.0	-	0.0	-

Request No. LA66-0947

Report No. 6610-0088

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-dis:riect, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE POINT : ปล่องของระบบ TO SAMPLE NO. : 04774  
SAMPLING DATE : 25/09/2023 SAMPLING TIME : 10:20-11:00  
RECEIVED DATE : 28/09/2023 REPORTED DATE : 10/10/2023  
TESTED DATE : 28/09/2023-04/10/2023

STACK DESCRIPTION<sup>@</sup>

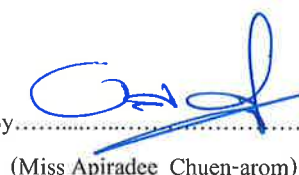
Height :	60.00	m	Type of Process :	Combustion
Diameter :	2.70	m	Type of Fuel :	Natural Gas
Temperature :	450.00	°C	Oxygen Content :	2.28 %
Air Velocity :	8.81	m/s	Barometric Pressure :	753.25 mmHg
Flow rate <sup>/2</sup> :	19.19	m <sup>3</sup> /s	Atmospheric Temperature :	32.00 °C
Moisture Content :	6.90	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>/2</sup>		STD <sup>/1</sup>	UNIT
			2.28 % O <sub>2</sub>	7 % O <sub>2</sub>		
Total Suspended Particulate	Isokinetic, Gravimetric	10:20-11:00	0.2	0.1	320, 113 <sup>/3</sup>	mg/m <sup>3</sup>
(TSP)	(U.S. EPA Method 5)		0.004 <sup>@</sup>	-	2.866 <sup>/3</sup>	g/s

**REMARK:**

- <sup>/1</sup> Notification of The Ministry of Industry B.E. 2549 (2006)
- <sup>/2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- <sup>/3</sup> ค่ากำหนดตามรายงานการประเมินผลกระทบสิ่งแวดล้อม (EIA)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.
- Sampling By Mr. Metee Sukprasert (ว-003-ค-0035)
- GPS = Sampling at UTM 47P 731246E 1406443N

Examined By



(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

10/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

10/10/2023

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Request No. LA66-0947

Report No. 6610-0089

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE POINT : ปล่องของระบบ TO SAMPLE NO. : 04775  
SAMPLING DATE : 25/09/2023 SAMPLING TIME : 10:25-10:30  
RECEIVED DATE : 28/09/2023 REPORTED DATE : 10/10/2023  
TESTED DATE : 28/09/2023-04/10/2023  
STACK DESCRIPTION<sup>@</sup>

Height :	60.00	m	Type of Process :	Combustion
Diameter :	2.70	m	Type of Fuel :	Natural Gas
Temperature :	450.00	°C	Oxygen Content :	2.28 %
Air Velocity :	8.81	m/s	Barometric Pressure :	753.25 mmHg
Flow rate <sup>/2</sup> :	19.19	m <sup>3</sup> /s	Atmospheric Temperature :	32.00 °C
Moisture Content :	6.90	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>/2</sup>		STD <sup>/1</sup>	UNIT
			2.28 % O <sub>2</sub>	7 % O <sub>2</sub>		
Oxides of Nitrogen	Absorption, Phenoldisulfonic	10:25-10:30	11.9	8.9	376, 28.6 <sup>/3</sup>	mg/m <sup>3</sup>
(NO <sub>x</sub> as NO <sub>2</sub> )	Acid (U.S. EPA Method 7)		6.3	4.7	200, 15.2 <sup>/3</sup>	ppm
			0.228 <sup>@</sup>	-	0.725 <sup>/3</sup>	g/s

## REMARK:

- <sup>/1</sup> Notification of The Ministry of Industry B.E. 2549 (2006)
- <sup>/2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- <sup>/3</sup> ค่ากำหนดตามรายงานการประเมินผลกระทบสิ่งแวดล้อม (EIA)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.
- Sampling By Mr. Metee Sukprasert (จ-003-ค-0035)
- GPS = Sampling at UTM 47P 731246E 1406443N

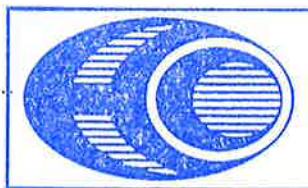
Examined By



(Miss Apiradee Chuen-arom)

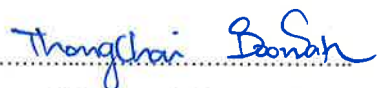
(จ-003-ค-0007)

10/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Mr. Thongchai Boonsak)

(จ-003-ค-0012)

10/10/2023

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Request No. LA66-0947

Report No. 6610-0091

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE POINT : ปล่องของระบบ TO SAMPLE NO. : 04777  
SAMPLING DATE : 25/09/2023 SAMPLING TIME : 10:20-10:50  
RECEIVED DATE : 28/09/2023 REPORTED DATE : 10/10/2023  
TESTED DATE : 28/09/2023-10/10/2023

## STACK DESCRIPTION

Height :	60.00	m	Type of Process :	Combustion
Diameter :	2.70	m	Type of Fuel :	Natural Gas
Temperature :	450.00	°C	Oxygen Content :	2.28 %
Air Velocity :	8.81	m/s	Barometric Pressure :	753.25 mmHg
Flow rate <sup>2</sup> :	19.19	m <sup>3</sup> /s	Atmospheric Temperature :	32.00 °C
Moisture Content :	6.90	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>		STD <sup>1</sup>	UNIT
			2.28 % O <sub>2</sub>	7 % O <sub>2</sub>		
Total Volatile Organic Compounds	U.S.EPA Method 25 A	10:20-10:50	2.95	2.20	- <sup>3</sup>	mg/m <sup>3</sup>
(TVOCs) <sup>4</sup>			1.63	1.22	- <sup>3</sup>	ppm
			0.057	-	2.383 <sup>3</sup>	g/s

## REMARK:

- <sup>1</sup> Notification of The Ministry of Industry B.E. 2549 (2006)
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- <sup>3</sup> ค่ากำหนดตามรายงานการประเมินผลกระทบสิ่งแวดล้อม (EIA)
- <sup>4</sup> Sampling by Eastern Thai Consulting 1992 Co.,Ltd. (Mr. Metee Sukprasert )  
Analysed By SECOT Co.,Ltd.
- GPS = Sampling at UTM 47P 731246E 1406443N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By. Thongchai Boonsak

(Mr. Thongchai Boonsak)

10/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-0947

Report No. 6610-0090

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE POINT : ปล่องของระบบ TO SAMPLE NO. : 04776  
 SAMPLING DATE : 25/09/2023 SAMPLING TIME : 10:20-10:50  
 RECEIVED DATE : 28/09/2023 REPORTED DATE : 10/10/2023  
 TESTED DATE : 28/09/2023-09/10/2023

STACK DESCRIPTION<sup>@</sup>

Height :	60.00	m	Type of Process :	Combustion
Diameter :	2.70	m	Type of Fuel :	Natural Gas
Temperature :	450.00	°C	Oxygen Content :	2.28 %
Air Velocity :	8.81	m/s	Barometric Pressure :	753.25 mmHg
Flow rate <sup>/2</sup> :	19.19	m <sup>3</sup> /s	Atmospheric Temperature :	32.00 °C
Moisture Content :	6.90	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>/2</sup>		STD <sup>/1</sup>	UNIT
			2.28 % O <sub>2</sub>	7 % O <sub>2</sub>		
Carbon monoxide	Non-Dispersive Infrared	10:20-10:50	3.2	2.4	790	mg/m <sup>3</sup>
(CO)	(U.S. EPA Method 10)		2.8	2.1	690	ppm

**REMARK:**

- <sup>/1</sup> Notification of The Ministry of Industry B.E. 2549 (2006)
- <sup>/2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.
- Sampling By Mr. Metee Sukprasert (จ-003-ก-0035)
- GPS = Sampling at UTM 47P 731246E 1406443N

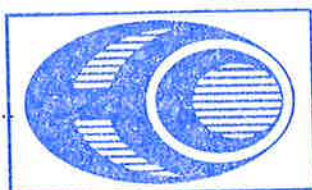
Examined By.....



(Miss Apiradee Chuen-arom)

(จ-003-ค-0007)

10/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....



(Mr. Thongchai Boonsak)

(จ-003-ค-0012)

10/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-1042

Report No. 6611-0129

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE POINT : ปล่อง Liquid Incinerator SAMPLE NO. : 05206  
 SAMPLING DATE : 14/10/2023 SAMPLING TIME : 14:30-15:00  
 RECEIVED DATE : 19/10/2023 REPORTED DATE : 03/11/2023  
 TESTED DATE : 19-26/10/2023

STACK DESCRIPTION<sup>®</sup>

Height :	60.00	m	Type of Process :	Combustion	
Diameter :	2.20	m	Type of Fuel :	Natural Gas	
Temperature :	310.00	°C	Oxygen Content :	10.45	%
Air Velocity :	8.71	m/s	Barometric Pressure :	757.75	mmHg
Flow rate <sup>2</sup> :	15.05	m <sup>3</sup> /s	Atmospheric Temperature :	35.00	°C
Moisture Content :	10.95	%			

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>		STD <sup>1</sup>	UNIT
			10.45 % O <sub>2</sub>	7 % O <sub>2</sub>		
Total Suspended Particulate	Isokinetic, Gravimetric	14:30-15:00	10.9	14.5	35, 28 <sup>3</sup>	mg/m <sup>3</sup>
(TSP)	(U.S. EPA Method 5)		0.164 <sup>®</sup>	-	0.880 <sup>3</sup>	g/s

**REMARK:**

- <sup>1</sup> Notification of The Ministry of Industry B.E. 2545 (2002)
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- <sup>3</sup> ค่ากำหนดตามรายงานการประเมินผลกระทบสิ่งแวดล้อม (EIA)
- <sup>®</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.
- Sampling By Mr.Terapong Naulin (ว-003-ค-0014)
- GPS = Sampling at UTM 47P 731287E 1406416N

Examined By.....



(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

03/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....



(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

03/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITH OUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-1042

Report No. 6611-0130

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE POINT : ปล่อง Liquid Incinerator  
SAMPLING DATE : 14/10/2023  
RECEIVED DATE : 19/10/2023  
TESTED DATE : 19-26/10/2023  
STACK DESCRIPTION<sup>@</sup>

Height :	60.00	m	Type of Process :	Combustion
Diameter :	2.20	m	Type of Fuel :	Natural Gas
Temperature :	310.00	°C	Oxygen Content :	10.45 %
Air Velocity :	8.71	m/s	Barometric Pressure :	757.75 mmHg
Flow rate <sup>2</sup> :	15.05	m <sup>3</sup> /s	Atmospheric Temperature :	35.00 °C
Moisture Content :	10.95	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>		STD <sup>1</sup>	UNIT
			10.45 % O <sub>2</sub>	7 % O <sub>2</sub>		
Oxides of Nitrogen (NO <sub>x</sub> as NO <sub>2</sub> )	Absorption, Phenoldisulfonic	14:40-14:45	<2.0	<2.7	150, 15.7 <sup>3</sup>	mg/m <sup>3</sup>
	Acid (U.S. EPA Method 7)		<1.0	<1.3	79.7, 8.3 <sup>3</sup>	ppm
			<0.030 <sup>@</sup>	-	0.490 <sup>3</sup>	g/s

## REMARK:

- <sup>1</sup> Notification of The Ministry of Industry B.E. 2545 (2002)
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- <sup>3</sup> ค่ากำหนดตามรายงานการประเมินผลกระทบสิ่งแวดล้อม (EIA)
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.
- Sampling By Mr.Teerapong Naulin (ว-003-ค-0014)
- GPS = Sampling at UTM 47P 731287E 1406416N

Examined By.....

(Miss Apiradee Chuen-arom)

(ว-003-ค-0007)

03/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(Mr. Thongchai Boonsak)

(ว-003-ค-0012)

03/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. LA66-1042

Report No. 6611-0131

## TEST REPORT

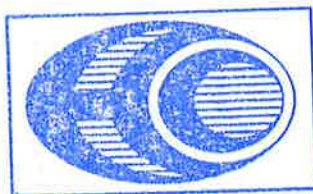
CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE POINT : ปล่อง Liquid Incinerator SAMPLE NO. : 05208  
 SAMPLING DATE : 14/10/2023 SAMPLING TIME : 14:30-15:00  
 RECEIVED DATE : 19/10/2023 REPORTED DATE : 03/11/2023  
 TESTED DATE : 19/10/2023-01/11/2023  
 STACK DESCRIPTION

Height :	60.00	m	Type of Process :	Combustion
Diameter :	2.20	m	Type of Fuel :	Natural Gas
Temperature :	310.00	°C	Oxygen Content :	10.45 %
Air Velocity :	8.71	m/s	Barometric Pressure :	757.75 mmHg
Flow rate <sup>2</sup> :	15.05	m <sup>3</sup> /s	Atmospheric Temperature :	35.00 °C
Moisture Content :	10.95	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>		STD <sup>1</sup>	UNIT
			10.45 % O <sub>2</sub>	7 % O <sub>2</sub>		
Total Volatile Organic Compounds	U.S.EPA Method 25 A	14:30-15:00	5.23	6.96	-, <sup>13</sup>	mg/m <sup>3</sup>
(TVOCs) <sup>4</sup>			2.90	3.86	-, <sup>13</sup>	ppm
			0.079	-	2.989 <sup>13</sup>	g/s

**REMARK:**

- <sup>1</sup> Notification of The Ministry of Industry B.E. 2544 (2002)
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- <sup>3</sup> ค่ากำหนดตามรายงานการประเมินผลกระทบสิ่งแวดล้อม (EIA)
- <sup>4</sup> Sampling by Eastern Thai Consulting 1992 Co.,Ltd. , Mr.Teerapong Naulin  
Analysed By SECOT Co.,Ltd.
- GPS = Sampling at UTM 47P 731287E 1406416N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By... *Thongchai Boonsak*

(Mr. Thongchai Boonsak)

03/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-1042

Report No. 6611-0132

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE POINT : ปล่อง Liquid Incinerator SAMPLE NO. : 05209  
 SAMPLING DATE : 14/10/2023 SAMPLING TIME : 14:30-15:00  
 RECEIVED DATE : 19/10/2023 REPORTED DATE : 03/11/2023  
 TESTED DATE : 19-27/10/2023

STACK DESCRIPTION<sup>@</sup>

Height :	60.00	m	Type of Process :	Combustion
Diameter :	2.20	m	Type of Fuel :	Natural Gas
Temperature :	310.00	°C	Oxygen Content :	10.45 %
Air Velocity :	8.71	m/s	Barometric Pressure :	757.75 mmHg
Flow rate <sup>2</sup> :	15.05	m <sup>3</sup> /s	Atmospheric Temperature :	35.00 °C
Moisture Content :	10.95	%		

PARAMETER	TEST METHOD	TIME	RESULT <sup>2</sup>		STD <sup>1</sup>	UNIT
			10.45 % O <sub>2</sub>	7 % O <sub>2</sub>		
Carbon monoxide	Non-Dispersive Infrared	14:30-15:00	99.1	131.8	790	mg/m <sup>3</sup>
(CO)	(U.S. EPA Method 10)		86.5	115.1	690	ppm

## REMARK:

- <sup>1</sup> Notification of The Ministry of Industry B.E. 2549 (2006)
- <sup>2</sup> Standard Condition (Temperature 25°C, Pressure 760 mmHg) and Dry Basis
- <sup>@</sup> These Data Outside The Scope of The Registration of The Department of Industrial Works.
- Sampling By Mr.Teerapong Naulin (จ-003-ค-0014)
- GPS = Sampling at UTM 47P 731287E 1406416N

Examined By



(Miss Apiradee Chuen-arom)

(จ-003-ค-0007)

03/11/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Mr. Thongchai Boonsak)

(จ-003-ค-0012)

03/11/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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## Test Report

Request No : W6607150

Report No : 6607-1884

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*

Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*

Sampling Source : GC 19\*\*

Sample No : W 66070554

Sample Name : Final Check Basin\*\*

Sampling Date : 05/07/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 11:15 AM\*\*

Sampling Method : Grab\*\*

Received Date : 06/07/2023

Tested Date : 07/07/2023 - 15/07/2023

Reported Date : 15/07/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	7.8	≤500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	< 40	≤750
Oil and Grease *	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site) *		Electrometric Method	7.8	5.5 - 9
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	< 0.005	≤1
Temperature *	°C	Laboratory and Field Method	31	≤45
Total Dissolved Solids #	mg/L	Dried at 180 C (SM:2540C)	158	≤3000
Total Suspended Solids #	mg/L	Dried at 103-105 C (SM:2540D)	5	≤200

Physical Appearance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L(2 Bottle), PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Eastern Industrial Estate (Map ta Phut) , Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant

2. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (จ-003-ก-7280)\*

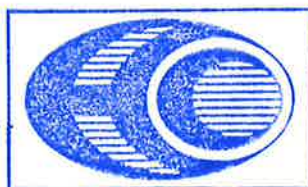
5. \*\* = These data are non laboratory data.

Examined By : .....

(Miss Apiradee Chuen-arom)

(จ-003-ก-4377)

15/07/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By : .....

(Miss Nunnaphat Bakhuntod)

(จ-003-ก-4367)

15/07/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

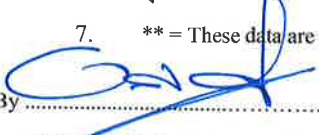
**TEST REPORT**

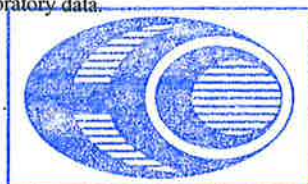
Customer	: PTT Global Chemical Public Company Limited Branch 19**	Sample No.	: W 66070555
Address	: Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150**	Sampling Date	: 05/07/2023**
Sampling Source	: GC 19**	Sampling Time	: 11:10 AM**
Sample Name	: Salt Solution Package**	Received Date	: 06/07/2023
Sampling By	: ETC**	Reported Date	: 15/07/2023
Sampling Method	: Grab**		
Tested Date	: 06/07/2023 – 15/07/2023		


Parameter	Unit	Method	Result	Standard <sup>1/,2</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	< 2.0	≤ 20
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	< 40	≤ 120
Oil and Grease *	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤ 5
pH (on site) *		Electrometric Method	8.4	5.5-9.0
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	0.031	≤ 1
Temperature *	°C	Laboratory and Field Method	36	≤ 40
Total Dissolved Solids *	mg/L	Dried at 180 C (SM:2540C)	16,800	40,080***
Total Suspended Solids #	mg/L	Dried at 103-105 C (SM:2540D)	13	≤ 50

Physical Appearance :  
1. Sample : yellowish, lightly SS  
2. Container : Normal [PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L]

- Remark :
- 1./1 Industrial Effluent Standard , Notification of the Ministry of Industry , B.E. 2560 (2017)
  - 2./2 Notification of the Ministry of Natural Resources and Environmental, B.E. 2559 (2016)
  3. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017
  4. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.
  5. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)\*
  6. \*\*\* ของแข็งละลายน้ำทั้งหมด (Total Dissolved Solids) กรณีระบายแหล่งน้ำที่มีค่าของแข็งละลายน้ำทั้งหมดเกินกว่า 3,000 มิลลิกรัมต่อลิตร ค่าของแข็งละลายน้ำทั้งหมดในน้ำทิ้งที่ระบายได้ต้องมีค่าเกินกว่าค่าของแข็งละลายน้ำทั้งหมดที่มีอยู่ในแหล่งน้ำนั้น ไม่เกิน 5,000 มิลลิกรัมต่อลิตร (คลองบางเบิด บริเวณระยะห่างจากจุดระบายน้ำทิ้งของนิคมอุตสาหกรรมผาแดง 500 เมตร มีค่า Total Dissolved Solids = 35,080 มิลลิกรัมต่อลิตร)
  7. \*\* = These data are non laboratory data.

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
15/07/2023



Approved By   
( Miss Nunnaphat Bakhuntod )  
( ว-003-ค-4367 )  
15/07/2023

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด  
REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
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## Test Report

Request No : W6607150

Report No : 6607-1886

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*

Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*

Sampling Source : GC 19\*\*

Sample No : W 66070556

Sample Name : Cooling Water Blowdown\*\*

Sampling Date : 05/07/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 11:00 AM\*\*

Sampling Method : Grab\*\*

Received Date : 06/07/2023

Tested Date : 07/07/2023 - 15/07/2023

Reported Date : 15/07/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	54	≤750
Oil and Grease *	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site) *		Electrometric Method	7.7	5.5 - 9
Temperature *	°C	Laboratory and Field Method	34	≤45
Total Dissolved Solids #	mg/L	Dried at 180 C (SM:2540C)	916	≤3000
Total Suspended Solids #	mg/L	Dried at 103-105 C (SM:2540D)	8	≤200

Physical Appearance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 0.25 L ]

Remark : 1. /1 Eastern Industrial Estate (Map ta Phut) , Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant

2. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Parkpoom Buasawad (จ-003-ก-7280)\*

5. \*\* = These data are non laboratory data.

Examined By : .....

(Miss Apiradee Chuen-arom)

(จ-003-ก-4377)

15/07/2023



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By : .....

(Miss Nunnaphat Bakhuntod)

(จ-003-ก-4367)

15/07/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

## Test Report

Request No : W6608647

Report No : 6609-0660

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*  
Sampling Source : GC 19\*\* Sample No : W 66082402  
Sample Name : Final Check Basin\*\* Sampling Date : 30/08/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 4:05 PM\*\*  
Sampling Method : Grab\*\* Received Date : 31/08/2023  
Tested Date : 31/08/2023 - 11/09/2023 Reported Date : 11/09/2023

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	7.5	≤500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	63	≤750
Oil and Grease *	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site) *		Electrometric Method	7.7	5.5 - 9
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	0.030	≤1
Temperature *	°C	Laboratory and Field Method	31	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	964	≤3000
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	6	≤200

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L [ 2 Bottle], PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Eastern Industrial Estate (Map ta Phut) , Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant

2. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

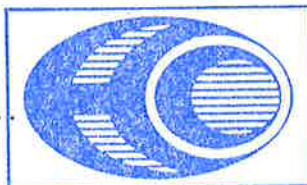
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (จ-003-ค-0016)\*

5. \*\* = These data are non laboratory data.

Examined By : 

(Miss Apiradee Chuen-arom)  
(จ-003-ค-0007)

11/09/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By : 

(Miss Nunnaphat Bakhuntod)  
(จ-003-ค-0005)

11/09/2023

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**TEST REPORT**

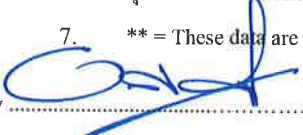
Customer : PTT Global Chemical Public Company Limited Branch 19\*\*  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150\*\*  
Sampling Source : GC 19\*\* Sample No. : W 66082403  
Sample Name : Salt Solution Package\*\* Sampling Date : 30/08/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 4:00 PM\*\*  
Sampling Method : Grab\*\* Received Date : 31/08/2023  
Tested Date : 31/08/2023-11/09/2023 Reported Date : 11/09/2023

Parameter	Unit	Method	Result	Standard <sup>1/,2</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	<2.0	≤ 20
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	< 40	≤ 120
Oil and Grease *	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤ 5
pH (on site) *		Electrometric Method	7.4	5.5-9.0
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	0.047	≤ 1
Temperature *	°C	Laboratory and Field Method	33	≤ 40
Total Dissolved Solids *	mg/L	Dried at 180 degree celsius (SM:2540C)	209	38,360***
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	< 5	≤ 50


Physical Appearance : 1. Sample : lightly SS  
2. Container : Normal [PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L]

Remark : 1./1 Industrial Effluent Standard, Notification of the Ministry of Industry, B.E. 2560 (2017)  
2./2 Notification of the Ministry of Natural Resources and Environmental, B.E. 2559 (2016)  
3. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
4. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
5. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (ว-003-ค-0016)\*  
6. \*\*\* ของแข็งละลายน้ำทั้งหมด (Total Dissolved Solids) กรณีระบายลงแหล่งน้ำที่มีค่าของแข็งละลายน้ำทั้งหมดเกินกว่า 3,000 มิลลิกรัมต่อลิตร ค่าของแข็งละลายน้ำทั้งหมดในน้ำทิ้งที่จะระบายได้ต้องมีค่าเกินกว่าค่าของแข็งละลายน้ำทั้งหมดที่มีอยู่ในแหล่งน้ำนั้นไม่เกิน 5,000 มิลลิกรัมต่อลิตร (คลองบางเบิด บริเวณระยะห่างจากจุดระบายน้ำทิ้งของนิคมอุตสาหกรรมมาบตาพุด 500 เมตร มีค่า Total Dissolved Solids = 33,360 มิลลิกรัมต่อลิตร)

7. \*\* = These data are non laboratory data.

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-0007)  
11/09/2023



Approved By   
( Miss Nunnaphat Bakhuntod )  
( ว-003-ค-0005 )  
11/09/2023

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## Test Report

Request No : W6608647

Report No : 6609-0662


Customer : PTT Global Chemical Public Company Limited Branch 19\*\*  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*  
Sampling Source : GC 19\*\*  
Sample Name : Cooling Water Blowdown\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 31/08/2023 - 11/09/2023

Sample No : W 66082404  
Sampling Date : 30/08/2023\*\*  
Sampling Time : 3:50 PM\*\*  
Received Date : 31/08/2023  
Reported Date : 11/09/2023

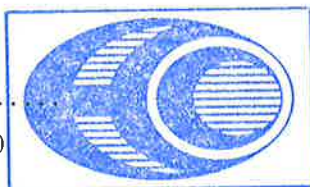
Parameter	Unit	Method	Result	Standard <sup>1</sup>
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	44	≤750
Oil and Grease *	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site) *		Electrometric Method	8.2	5.5 - 9
Temperature *	°C	Laboratory and Field Method	35	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	996	≤3000
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	5	≤200

Physical Apperance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L [ 2 Bottle], PE 1.0 L, PE 1.8 L, G 1.0 L ]


Remark : 1. /1 Eastern Industrial Estate (Map ta Phut) , Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant  
2. # = ISO/IEC 17025:2017 Accredited by DSS, SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.  
3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwuan (จ-003-ค-0016)\*  
5. \*\* = These data are non laboratory data.

Examined By :   
(Miss Apiradee Chuen-arom)  
(จ-003-ค-0007)

11/09/2023



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Approved By :   
(Miss Nunnaphat Bakhuntod)  
(จ-003-ค-0005)

11/09/2023

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## Test Report

Request No : W6609522

Report No : 6610-0071

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*

Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*

Sampling Source : GC 19\*\*

Sample No : W 66091918

Sample Name : Final Check Basin\*\*

Sampling Date : 20/09/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 10:47 AM\*\*

Sampling Method : Grab\*\*

Received Date : 21/09/2023

Tested Date : 21/09/2023 - 28/09/2023

Reported Date : 28/09/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	11.9	≤500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	57	≤750
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	<3.0	≤10
pH (on site) *		Electrometric Method	8.3	5.5 - 9
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	<0.005	≤1
Temperature *	°C	Laboratory and Field Method	33	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	964	≤3000
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	11	≤200

Physical Apperance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L [ 2 Bottle], PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Eastern Industrial Estate (Map ta Phut) , Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-ก-0036)\*

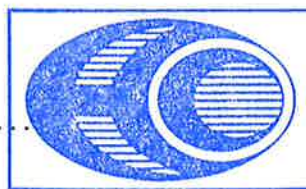
5. \*\* = These data are non laboratory data.

Examined By :

(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

28/09/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By :

(Miss Nunnaphat Bakhuntod)

(จ-003-ก-0005)

28/09/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150\*\*  
Sampling Source : GC 19\*\*  
Sample Name : Salt Solution Package\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 21/09/2023 – 28/09/2023

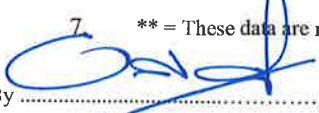
Sample No. : W 66091919  
Sampling Date : 20/09/2023\*\*  
Sampling Time : 10:42 AM\*\*  
Received Date : 21/09/2023  
Reported Date : 28/09/2023

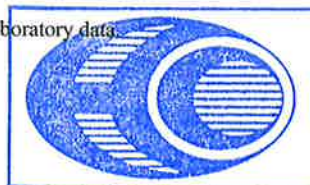
Parameter	Unit	Method	Result	Standard <sup>1/,2</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	<2.0	≤ 20
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	< 40	≤ 120
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤ 5
pH (on site) *		Electrometric Method	8.2	5.5-9.0
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	< 0.005	≤ 1
Temperature *	°C	Laboratory and Field Method	34	≤ 40
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	1,272	35,300***
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	7	≤ 50

Physical Apperance :  
1. Sample : lightly SS  
2. Container : Normal [PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L]

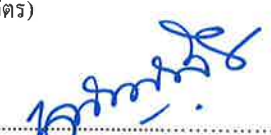
Remark :  
1./1 Industrial Effluent Standard , Notification of the Ministry of Industry , B.E. 2560 (2017)  
2./2 Notification of the Ministry of Natural Resources and Environmental, B.E. 2559 (2016)  
3. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,  
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
4. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
5. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-ค-0036)\*  
6. \*\*\* ของแข็งละลายน้ำทั้งหมด (Total Dissolved Solids) กรณีระบายแหล่งน้ำที่มีค่าของแข็งละลายน้ำทั้งหมดเกินกว่า 3,000 มิลลิกรัมต่อลิตร ค่าของแข็งละลายน้ำทั้งหมดในน้ำทิ้งที่จะระบายได้ต้องมีค่าเกินกว่าค่าของแข็งละลายน้ำทั้งหมดที่มีอยู่ในแหล่งน้ำนั้นไม่เกิน 5,000 มิลลิกรัมต่อลิตร (คลองบางเบิด บริเวณระยะห่างจากจุดระบายน้ำทิ้งของนิคมอุตสาหกรรมผดแดง 500 เมตร มีค่า Total Dissolved Solids = 30,300 มิลลิกรัมต่อลิตร)

\*\* = These data are non laboratory data.

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ค-0007)  
28/09/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Miss Nunnaphat Bakhuntod )  
( จ-003-ค-0005 )  
28/09/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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## Test Report

Request No : W6609522

Report No : 6610-0073

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*  
Sampling Source : GC 19\*\* Sample No : W 66091920  
Sample Name : Cooling Water Blowdown\*\* Sampling Date : 20/09/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 10:36 AM\*\*  
Sampling Method : Grab\*\* Received Date : 21/09/2023  
Tested Date : 21/09/2023 - 27/09/2023 Reported Date : 27/09/2023

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	41	≤750
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site) *		Electrometric Method	7.3	5.5 - 9
Temperature *	°C	Laboratory and Field Method	33	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	976	≤3000
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	< 5	≤200

Physical Appearance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Eastern Industrial Estate (Map ta Phut) , Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Pornpinan Viriyakusolkul (จ-003-ก-0036)\*

5. \*\* = These data are non laboratory data.

Examined By : 

(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

27/09/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By : 

(Miss Nunnaphat Bakhuntod)

(จ-003-ก-0005)

27/09/2023

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## Test Report

Request No : W6610308

Report No : 6611-0609

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*

Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*

Sampling Source : GC 19\*\*

Sample No : W 66101114

Sample Name : Final Check Basin\*\*

Sampling Date : 11/10/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 2:35 PM\*\*

Sampling Method : Grab\*\*

Received Date : 12/10/2023

Tested Date : 12/10/2023 - 20/10/2023

Reported Date : 20/10/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	10.8	≤500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	55	≤750
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site) *		Electrometric Method	8.3	5.5 - 9
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	< 0.005	≤1
Temperature *	°C	Laboratory and Field Method	30	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	732	≤3000
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	12	≤200

Physical Apperance : 1. Sample : green, lightly SS

2. Container : Normal [ PE 0.5 L [ 2 Bottle], PE 1.0 L, PE 1.8 L, G 0.25 L ]

Remark : 1. /1 Eastern Industrial Estate (Map ta Phut) , Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwuan (จ-003-ค-0016)\*

5. \*\* = These data are non laboratory data.

Examined By : 

(Miss Apiradee Chuen-arom)

(จ-003-ค-0007)

20/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By : 

(Miss Nunnaphat Bakhuntod)

(จ-003-ค-0005)

20/10/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6610308

Report No : 6611-0610

**TEST REPORT**

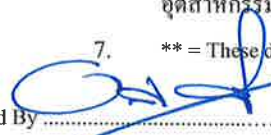
Customer : PTT Global Chemical Public Company Limited Branch 19\*\*  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150\*\*  
Sampling Source : GC 19\*\* Sample No. : W 66101115  
Sample Name : Salt Solution Package\*\* Sampling Date : 11/10/2023\*\*  
Sampling By : ETC\*\* Sampling Time : 2:25 PM\*\*  
Sampling Method : Grab\*\* Received Date : 12/10/2023  
Tested Date : 12/10/2023 – 20/10/2023 Reported Date : 20/10/2023

Parameter	Unit	Method	Result	Standard <sup>1/,2</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	3.4	≤ 20
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	< 40	≤ 120
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤ 5
pH (on site) *		Electrometric Method	8.3	5.5-9.0
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	< 0.005	≤ 1
Temperature *	°C	Laboratory and Field Method	30	≤ 40
Total Dissolved Solids *	mg/L	Dried at 180 degree celsius (SM:2540C)	10,120	36,540***
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	15	≤ 50

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L]


Remark : 1./1 Industrial Effluent Standard , Notification of the Ministry of Industry , B.E. 2560 (2017)  
2./2 Notification of the Ministry of Natural Resources and Environmental, B.E. 2559 (2016)  
3. @ = ISO/IEC 17025:2017 Accredited by TISI, # = ISO/IEC 17025:2017 Accredited by DSS,  
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
4. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
5. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwan (ว-003-ค-0016)\*  
6. \*\*\* ของแข็งละลายน้ำทั้งหมด (Total Dissolved Solids) กรณีระบายลงแหล่งน้ำที่มีค่าของแข็งละลายน้ำทั้งหมดเกินกว่า 3,000 มิลลิกรัมต่อลิตร ค่าของแข็งละลายน้ำทั้งหมดในน้ำทิ้งที่จะระบายได้ต้องมีค่าเกินกว่าค่าของแข็งละลายน้ำทั้งหมดที่มีอยู่ในแหล่งน้ำนั้นไม่เกิน 5,000 มิลลิกรัมต่อลิตร (คลองบางเบิด บริเวณระยะห่างจากจุดระบายน้ำทิ้งของนิคมอุตสาหกรรมผาแดง 500 เมตร มีค่า Total Dissolved Solids = 31,540 มิลลิกรัมต่อลิตร)

7. \*\* = These data are non laboratory data

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-0007)  
20/10/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Miss Nunnaphat Bakhuntod )  
( ว-003-ค-0005 )  
20/10/2023

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## Test Report

Request No : W6610308

Report No : 6611-0611

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*

Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*

Sampling Source : GC19 Propylene Oxide Plant\*\*

Sample No : W 66101116

Sample Name : Cooling Water Blowdown\*\*

Sampling Date : 11/10/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 2:15 PM\*\*

Sampling Method : Grab\*\*

Received Date : 12/10/2023

Tested Date : 12/10/2023 - 20/10/2023

Reported Date : 20/10/2023

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	46	≤750
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site) *		Electrometric Method	8.0	5.5 - 9
Temperature *	°C	Laboratory and Field Method	33	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	1,022	≤3000
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	5	≤200

Physical Apperance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L [ 2 Bottle], PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Eastern Industrial Estate (Map ta Phut) , Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Songpon Phiwuan (จ-003-ค-0016)\*

5. \*\* = These data are non laboratory data.

Examined By : .....

(Miss Apiradee Chuen-arom)

(จ-003-ค-0007)

20/10/2023



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Approved By : .....

(Miss Nunnaphat Bakhuntod)

(จ-003-ค-0005)

20/10/2023

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## Test Report

Request No : W6612003

Report No : 6612-0264

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*

Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*

Sampling Source : GC 19\*\*

Sample No : W 66120003

Sample Name : Final Check Basin\*\*

Sampling Date : 30/11/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 10:50 AM\*\*

Sampling Method : Grab\*\*

Received Date : 01/12/2023

Tested Date : 01/12/2023 - 06/12/2023

Reported Date : 06/12/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	2.0	≤500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	< 40	≤750
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site) *		Electrometric Method	6.9	5.5 - 9
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	< 0.005	≤1
Temperature *	°C	Laboratory and Field Method	29	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	123	≤3000
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	14	≤200

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L [ 2 Bottle], PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Eastern Industrial Estate (Map ta Phut) , Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant

2. @ = ISO/IEC 17025:2017 Accredited by TISI, # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Janthanee Saiphan (จ-003-ค-0018)\*

5. \*\* = These data are non laboratory data.

Examined By : .....

(Miss Apiradee Chuen-arom)

(จ-003-ค-0007)

06/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By : .....

(Miss Nunnaphat Bakhuntod)

(จ-003-ค-0005)

06/12/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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Request No : W6612003

Report No : 6612-0265

**TEST REPORT**

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150\*\*  
Sampling Source : GC 19\*\*  
Sample Name : Salt Solution Package\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 01/12/2023 – 06/12/2023

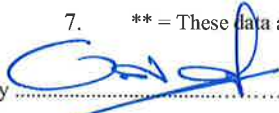
Sample No. : W 66120004  
Sampling Date : 30/11/2023\*\*  
Sampling Time : 10:30 AM\*\*  
Received Date : 01/12/2023  
Reported Date : 06/12/2023

Parameter	Unit	Method	Result	Standard <sup>1,2</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	< 2.0	≤ 20
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	< 40	≤ 120
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤ 5
pH (on site) *		Electrometric Method	8.5	5.5-9.0
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	< 0.005	≤ 1
Temperature *	°C	Laboratory and Field Method	32	≤ 40
Total Dissolved Solids *	mg/L	Dried at 180 degree celsius (SM:2540C)	11,820	38,400***
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	29	≤ 50


Physical Appearance :  
1. Sample : slightly - gray, lightly SS  
2. Container : Normal [PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L]

Remark :  
1./1 Industrial Effluent Standard , Notification of the Ministry of Industry , B.E. 2560 (2017)  
2./2 Notification of the Ministry of Natural Resources and Environmental, B.E. 2559 (2016)  
3. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,  
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
4. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
5. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Janthanee Saiphan (จ-003-ค-0018)\*  
6. \*\*\* ของแข็งละลายน้ำทั้งหมด (Total Dissolved Solids) กรณีระบายลงแหล่งน้ำที่มีค่าของแข็งละลายน้ำทั้งหมดเกินกว่า 3,000 มิลลิกรัมต่อลิตร ค่าของแข็งละลายน้ำทั้งหมดในน้ำทิ้งที่จะระบายได้ต้องมีค่าเกินกว่าค่าของแข็งละลายน้ำทั้งหมดที่มีอยู่ในแหล่งน้ำนั้นไม่เกิน 5,000 มิลลิกรัมต่อลิตร (คลองบางเบิด บริเวณระยะห่างจากจุดระบายน้ำทิ้งของนิคมอุตสาหกรรมผาแดง 500 เมตร มีค่า Total Dissolved Solids = 33,400 มิลลิกรัมต่อลิตร)

7. \*\* = These data are non laboratory data.

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ค-0007)  
06/12/2023



Approved By   
( Miss Nunnaphat Bakhuntod )  
( จ-003-ค-0005 )  
06/12/2023

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## Test Report

Request No : W6612003

Report No : 6612-0266

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*

Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*

Sampling Source : GC 19\*\*

Sample No : W 66120005

Sample Name : Cooling Water Blowdown\*\*

Sampling Date : 30/11/2023\*\*

Sampling By : ETC\*\*

Sampling Time : 10:40 AM\*\*

Sampling Method : Grab\*\*

Received Date : 01/12/2023

Tested Date : 01/12/2023 - 06/12/2023

Reported Date : 06/12/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	43	≤ 750
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤ 10
pH (on site) *		Electrometric Method	7.8	5.5 - 9
Temperature *	°C	Laboratory and Field Method	31	≤ 45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	638	≤ 3000
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	5	≤ 200

Physical Apperance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L [ 2 Bottle], PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Eastern Industrial Estate (Map ta Phut) , Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Miss Janthanee Saiphan (จ-003-ท-0018)\*

5. \*\* = These data are non laboratory data.

Examined By : 

(Miss Apiradee Chuen-arom)  
(จ-003-ท-0007)

06/12/2023



Approved By : 

(Miss Nunnaphat Bakhuntod)  
(จ-003-ท-0005)

06/12/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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## Test Report


Customer : PTT Global Chemical Public Company Limited Branch 19\*\*  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*  
Sampling Source : GC 19\*\*  
Sample Name : Final Check Basin\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 07/12/2023 - 13/12/2023

Request No : W6612137  
Report No : 6612-0806  
Sample No : W 66120516  
Sampling Date : 06/12/2023\*\*  
Sampling Time : 10:55 AM\*\*  
Received Date : 07/12/2023  
Reported Date : 13/12/2023


Parameter	Unit	Method	Result	Standard <sup>1</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	8.7	≤500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	48	≤750
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site) *		Electrometric Method	8.1	5.5 - 9
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	< 0.005	≤1
Temperature *	°C	Laboratory and Field Method	31	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	392	≤3000
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	17	≤200

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L [ 2 Bottle], PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Eastern Industrial Estate (Map ta Phut), Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant  
2. @ = ISO/IEC 17025:2017 Accredited by TISI, # = ISO/IEC 17025:2017 Accredited by DSS,  
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.  
3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ก-0031)\*  
5. \*\* = These data are non laboratory data.

Examined By :   
(Miss Apiradee Chuen-arom)  
(จ-003-ก-0007)  
13/12/2023



Approved By :   
(Miss Nunnaphat Bakhuntod)  
(จ-003-ก-0005)  
13/12/2023

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Request No : W6612137

Report No : 6612-0807

**TEST REPORT**

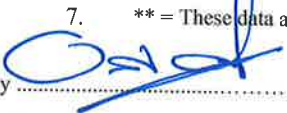
Customer	: PTT Global Chemical Public Company Limited Branch 19**	Sample No.	: W 66120517
Address	: Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150**	Sampling Date	: 06/12/2023**
Sampling Source	: GC 19**	Sampling Time	: 10:47 AM**
Sample Name	: Salt Solution Package**	Received Date	: 07/12/2023
Sampling By	: ETC**	Reported Date	: 18/12/2023
Sampling Method	: Grab**		
Tested Date	: 07/12/2023 – 18/12/2023		

Parameter	Unit	Method	Result	Standard <sup>1/,2</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	< 2.0	≤ 20
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	< 40	≤ 120
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤ 5
pH (on site) *		Electrometric Method	8.6	5.5-9.0
Phenol *	mg/L	Distillation, Direct Photometric Method (SM:5530B,D)	0.031	≤ 1
Temperature *	°C	Laboratory and Field Method	33	≤ 40
Total Dissolved Solids *	mg/L	Dried at 180 degree celsius (SM:2540C)	14,520	34,740***
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	10	≤ 50

Physical Appearance :  
1. Sample : yellowish, lightly SS  
2. Container : Normal [PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L]


Remark :  
1./1 Industrial Effluent Standard , Notification of the Ministry of Industry , B.E. 2560 (2017)  
2./2 Notification of the Ministry of Natural Resources and Environmental, B.E. 2559 (2016)  
3. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,  
SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017  
4. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.  
5. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ค-0031)\*  
6. \*\*\* ของแข็งละลายน้ำทั้งหมด (Total Dissolved Solids) กรณีระบายลงแหล่งน้ำที่มีค่าของแข็งละลายน้ำทั้งหมดเกินกว่า 3,000 มิลลิกรัมต่อลิตร ค่าของแข็งละลายน้ำทั้งหมดในน้ำทิ้งที่จะระบายได้ต้องมีค่าเกินกว่าค่าของแข็งละลายน้ำทั้งหมดที่มีอยู่ในแหล่งน้ำนั้น ไม่เกิน 5,000 มิลลิกรัมต่อลิตร (คลองบางเบิด บริเวณระยะห่างจากจุดระบายน้ำทิ้งของนิคมอุตสาหกรรมผาแดง 500 เมตร มีค่า Total Dissolved Solids = 29,740 มิลลิกรัมต่อลิตร)

7. \*\* = These data are non laboratory data.

Examined By   
( Miss Apiradee Chuen-arom )  
(จ-003-ค-0007)  
18/12/2023



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Approved By   
( Miss Nunnaphat Bakhuntod )  
( จ-003-ค-0005 )  
18/12/2023

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## Test Report

Customer : PTT Global Chemical Public Company Limited Branch 19\*\*  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150\*\*  
Sampling Source : GC 19 \*\*  
Sample Name : Cooling Water Blowdown\*\*  
Sampling By : ETC\*\*  
Sampling Method : Grab\*\*  
Tested Date : 07/12/2023 - 13/12/2023

Request No : W6612137

Report No : 6612-0808

Sample No : W 66120518  
Sampling Date : 06/12/2023\*\*  
Sampling Time : 10:36 AM\*\*  
Received Date : 07/12/2023  
Reported Date : 13/12/2023

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Biochemical Oxygen Demand #	mg/L	5-Day BOD Test, Membrane Electrode Method (SM:5210B)	< 2.0	≤500
Chemical Oxygen Demand #	mg/L	Closed Reflux, Titrimetric Method (SM:5220C)	< 40	≤750
Oil and Grease @	mg/L	Partition-Gravimetric Method (SM:5520B)	< 3.0	≤10
pH (on site) *		Electrometric Method	8.6	5.5 - 9
Temperature *	°C	Laboratory and Field Method	34	≤45
Total Dissolved Solids #	mg/L	Dried at 180 degree celsius (SM:2540C)	772	≤3000
Total Suspended Solids #	mg/L	Dried at 103-105 degree celsius (SM:2540D)	< 5	≤200

Physical Apperance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L, PE 1.0 L, PE 1.8 L, G 1.0 L ]

Remark : 1. /1 Eastern Industrial Estate (Map ta Phut) , Maximum levels for Wastewater Discharging to Central Wastewater Treatment Plant

2. @ = ISO/IEC 17025:2017 Accredited by TISI., # = ISO/IEC 17025:2017 Accredited by DSS,

SM = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017.

3. Miss Apiradee Chuen-arom is Section Head / Miss Nunnaphat Bakhuntod is Technical Management.

4. \* = Test Report/Sampling marked Not Accredited, Sampling By Mr. Supharerk Phatklang (จ-003-ก-0031)\*

5. \*\* = These data are non laboratory data.

Examined By : 

(Miss Apiradee Chuen-arom)

(จ-003-ก-0007)

13/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By : 

(Miss Nunnaphat Bakhuntod)

(จ-003-ก-0005)

13/12/2023

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Request No. W6607151

Report No. 6608-0614

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 19  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
Sampling Source : GC 19 Sample No. : W 66070557  
Sample Name : ทิศเหนือของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
Sampling By : ETC Sampling Time : 11:30 AM  
Sampling Method : Grab Received Date : 06/07/2023  
Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
pH (on site)		Electrometric Method	6.7	6.5-9.2 ***

Physical Appearance : 1. Sample : yellow, lightly SS

2. Container : Normal [ PE 0.5 L, G 1.0 L]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. \*\*\* ค่า pH จากจุดเก็บตัวอย่างบ่อท้ายน้ำกับจุดเก็บตัวอย่างบ่อเหนือน้ำที่เปลี่ยนแปลงจะต้องไม่เกินหนึ่งระดับ  
และไม่อยู่นอกช่วงค่าเกณฑ์อนุ โคมสูงสุดของมาตรฐาน คุณภาพน้ำบาดาลที่ให้บริการ  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. GPS = Sampling at 47 P 731228 E 1406508 N

Examined By



( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

04/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



( Miss Nunnaphat Bakhuntod )

(ว-003-ค-4367)

04/08/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No. W6607151

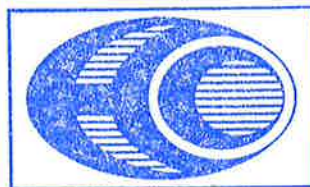
Report No. 6608-0614

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 19  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
Sampling Source : GC 19 Sample No. : W 66070557  
Sample Name : ทิศเหนือของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
Sampling By : ETC Sampling Time : 11:30 AM  
Sampling Method : Grab Received Date : 06/07/2023  
Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Temperature	°C	Laboratory and Field Method	31	-

Physical Apperance : 1. Sample : yellow, lightly SS  
2. Container : Normal [ PE 0.5 L, G 1.0 L]  
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. GPS = Sampling at 47 P 731228 E 1406508 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom)

04/08/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. W6607151

Report No. 6608-0614

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 19  
 Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 Sampling Source : GC 19  
 Sample Name : ทิศเหนือของพื้นที่โครงการ (น้ำใต้ดิน)  
 Sampling By : ETC  
 Sampling Method : Grab  
 Tested Date : 06/07/2023 – 04/08/2023

Sample No. : W 66070557  
 Sampling Date : 05/07/2023  
 Sampling Time : 11:30 AM  
 Received Date : 06/07/2023  
 Reported Date : 04/08/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Acetone	mg/L	Purge-and-Trap / GC – MS	Not Detected	≤ 230
Ethylbenzene	mg/L	Purge-and-Trap / GC – MS	Not Detected	≤ 2.0

Physical Apperance : 1. Sample : yellow, lightly SS  
 2. Container : Normal [ PE 0.5 L, G 1.0 L]

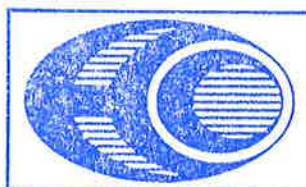
Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017., Part 6200B.  
 3. Sampling By Mr. Parkpoom Buasawad (ว-003-ก-7280)  
 4. MDL = Method Detection Limit (MDL of Acetone = 0.00100 mg/L, MDL of Ethylbenzene = 0.00025 mg/L )  
 5. GPS = Sampling at 47 P 731228 E 1406508 N

Examined By.....

( Miss Apiradee Chuen-arom )

(ว-003-ก-4377)

04/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

( Miss Nunnaphat Bakhuntod )

(ว-003-ก-4367)

04/08/2023

REPORTED TESTS REFER TO SUBMITTED SAMPLES ONLY  
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Request No. W6607151

Report No. 6608-0614

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 19  
 Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 Sampling Source : GC 19 Sample No. : W 66070557  
 Sample Name : ทิศเหนือของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
 Sampling By : ETC Sampling Time : 11:30 AM  
 Sampling Method : Grab Received Date : 06/07/2023  
 Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter ***	Unit	Method	Result	Standard <sup>1)</sup>
Total Petroleum Hydrocarbons				
- TPH (C <sub>5</sub> -C <sub>8</sub> )	mg/L	5030 C /8260 D	ND	≤ 1.4
- Pentane				
- Benzene				
- Toluene				
- m,p-Xylene				
- o-Xylene				
- Ethylbenzene				
- TPH (C <sub>8</sub> -C <sub>16</sub> )	mg/L	3510 C/8015 D	ND	≤ 1.7
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Apperance : 1. Sample : yellow, lightly SS  
 2. Container : Normal [ PE 0.5 L, G 1.0 L]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (๖-003-๓-7280))  
 3. \*\*\* Tested by SECOT Co.,Ltd. (๖-239)  
 4. ND = non-detectable [ MDL of TPH (C<sub>5</sub>-C<sub>8</sub>) = < 0.003 mg/L, TPH (C<sub>8</sub>-C<sub>16</sub>) = < 0.025 mg/L,  
 TPH (C<sub>16</sub>-C<sub>35</sub>) = < 0.050 mg/L ]  
 5. GPS = Sampling at 47 P 731228 E 1406508 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By

( Miss Apiradee Chuen-arom )

04/08/2023

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Request No. W6607151

Report No. 6608-0614

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 19  
 Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 Sampling Source : GC 19 Sample No. : W 66070557  
 Sample Name : ทิศเหนือของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
 Sampling By : ETC Sampling Time : 11:30 AM  
 Sampling Method : Grab Received Date : 06/07/2023  
 Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter ***	Unit	Method	Result	Standard <sup>1</sup>
Total Petroleum Hydrocarbons				
- TPH (C <sub>&gt;16</sub> -C <sub>35</sub> )	mg/L	3510 C/8015 D	ND	≤ 0.1
- n-Octadecane				
- n-Eicosane				
- n-Docosane				
- n-Tetracosane				
- n-Hexacosane				
- n-Octacosane				
- n-Triacontane				
- n-Dotriacontane				
- n-Tetratriacontane				
- Pentatriacontane				

Physical Appearance : 1. Sample : yellow, lightly SS  
 2. Container : Normal [ PE 0.5 L, G 1.0 L]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (ว-003-ค-7280))  
 3. \*\*\* Tested by SECOT Co.,Ltd. (ว-239)  
 4. ND = non-detectable [ MDL of TPH (C<sub>5</sub>-C<sub>8</sub>) = < 0.003 mg/L, TPH (C<sub>>8</sub>-C<sub>16</sub>) = < 0.025 mg/L,  
 TPH (C<sub>>16</sub>-C<sub>35</sub>) = < 0.050 mg/L ]  
 5. GPS = Sampling at 47 P 731228 E 1406508 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By .....

( Miss Apiradee Chuen-arom )

04/08/2023

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Request No. W6607151

Report No. 6608-0616

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 19  
 Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 Sampling Source : GC 19 Sample No. : W 66070559  
 Sample Name : ทิศตะวันตกเฉียงใต้ของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
 Sampling By : ETC Sampling Time : 12:00 PM  
 Sampling Method : Grab Received Date : 06/07/2023  
 Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter	Unit	Method	Result	Standard <sup>/l</sup>
pH (on site)		Electrometric Method	6.5	6.5-9.2 ***

Physical Appearance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L, G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. \*\*\* ค่า pH จากจุดเก็บตัวอย่างบ่อท้ายน้ำกับจุดเก็บตัวอย่างบ่อเหนือพื้นที่เปลี่ยนแปลงจะต้องไม่เกินหนึ่งระดับและไม่อยู่นอกช่วงค่าเกณฑ์อนุ โดมสูงสุดของมาตรฐาน คุณภาพน้ำบาดาลที่ใ้บริ โภค  
 3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
 4. GPS = Sampling at 47 P 730877 E 1406047 N

Examined By

( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

04/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

( Miss Nunnaphat Bakhuntod )

(ว-003-ค-4367)

04/08/2023

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Request No. W6607151

Report No. 6608-0616

## TEST REPORT

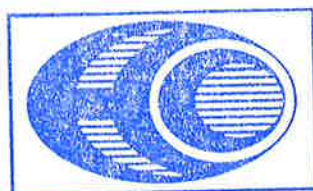
Customer : PTT Global Chemical Public Company Limited Branch 19  
 Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 Sampling Source : GC 19 Sample No. : W 66070559  
 Sample Name : ทิศตะวันตกเฉียงใต้ของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
 Sampling By : ETC Sampling Time : 12:00 PM  
 Sampling Method : Grab Received Date : 06/07/2023  
 Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Temperature	°C	Laboratory and Field Method	32	-

Physical Appearance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L, G 1.0 L]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
 3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
 4. GPS = Sampling at 47 P 730877 E 1406047 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By

( Miss Apiradee Chuen-arom)

04/08/2023

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Request No. W6607151

Report No. 6608-0616

## TEST REPORT

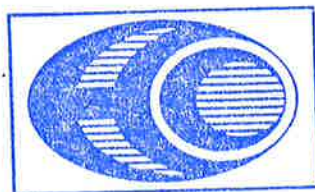
Customer : PTT Global Chemical Public Company Limited Branch 19  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
Sampling Source : GC 19  
Sample Name : ทิศตะวันตกเฉียงใต้ของพื้นที่โครงการ (น้ำใต้ดิน)  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 06/07/2023 – 04/08/2023  
Sample No. : W 66070559  
Sampling Date : 05/07/2023  
Sampling Time : 12:00 PM  
Received Date : 06/07/2023  
Reported Date : 04/08/2023

Parameter	Unit	Method	Result	Standard <sup>1)</sup>
Acetone	mg/L	Purge-and-Trap / GC – MS	Not Detected	≤ 230
Ethylbenzene	mg/L	Purge-and-Trap / GC – MS	Not Detected	≤ 2.0

Physical Appearance : 1. Sample : yellowish, lightly SS  
2. Container : Normal [ PE 0.5 L, G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017., Part 6200B.  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. MDL = Method Detection Limit ( MDL of Acetone = 0.00100 mg/L, MDL of Ethylbenzene = 0.00025 mg/L )  
5. GPS = Sampling at 47 P 730877 E 1406047 N

Examined By.....  
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
04/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....  
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-4367)  
04/08/2023

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Request No. W6607151

Report No. 6608-0616

## TEST REPORT

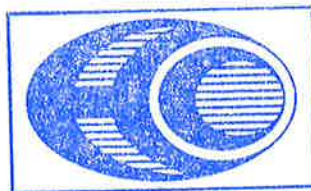
Customer : PTT Global Chemical Public Company Limited Branch 19  
 Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 Sampling Source : GC 19 Sample No. : W 66070559  
 Sample Name : ทิศตะวันตกเฉียงใต้ของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
 Sampling By : ETC Sampling Time : 12:00 PM  
 Sampling Method : Grab Received Date : 06/07/2023  
 Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter ***	Unit	Method	Result	Standard <sup>1</sup>
Total Petroleum Hydrocarbons				
- TPH (C <sub>5</sub> -C <sub>8</sub> )	mg/L	5030 C /8260 D	ND	≤ 1.4
- Pentane				
- Benzene				
- Toluene				
- m,p-Xylene				
- o-Xylene				
- Ethylbenzene				
- TPH (C <sub>8</sub> -C <sub>16</sub> )	mg/L	3510 C/8015 D	ND	≤ 1.7
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Apperance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L, G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (ว-003-ค-7280))  
 3. \*\*\* Tested by SECOT Co.,Ltd. (ว-239)  
 4. ND = non-detectable [ MDL of TPH (C<sub>5</sub>-C<sub>8</sub>) = < 0.003 mg/L, TPH (C<sub>8</sub>-C<sub>16</sub>) = < 0.025 mg/L,  
 TPH (C<sub>16</sub>-C<sub>35</sub>) = < 0.050 mg/L ]  
 5. GPS = Sampling at 47 P 730877 E 1406047 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

04/08/2023

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Request No. W6607151

Report No. 6608-0616

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 19  
 Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 Sampling Source : GC 19 Sample No. : W 66070559  
 Sample Name : ทิศตะวันตกเฉียงใต้ของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
 Sampling By : ETC Sampling Time : 12:00 PM  
 Sampling Method : Grab Received Date : 06/07/2023  
 Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter ***	Unit	Method	Result	Standard <sup>1/</sup>
Total Petroleum Hydrocarbons				
- TPH (C <sub>&gt;16</sub> -C <sub>35</sub> )	mg/L	3510 C/8015 D	ND	≤ 0.1
- n-Octadecane				
- n-Eicosane				
- n-Docosane				
- n-Tetracosane				
- n-Hexacosane				
- n-Octacosane				
- n-Triacontane				
- n-Dotriacontane				
- n-Tetratriacontane				
- Pentatriacontane				

Physical Appearance : 1. Sample : yellowish, lightly SS

2. Container : Normal [ PE 0.5 L, G 1.0 L]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)

2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (ว-003-ค-7280))

3. \*\*\* Tested by SECOT Co.,Ltd. (ว-239)

4. ND = non-detectable [ MDL of TPH (C<sub>5</sub>-C<sub>8</sub>) = < 0.003 mg/L, TPH (C<sub>>8</sub>-C<sub>16</sub>) = < 0.025 mg/L,  
 TPH (C<sub>>16</sub>-C<sub>35</sub>) = < 0.050 mg/L ]

5. GPS = Sampling at 47 P 730877 E 1406047 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By 

( Miss Apiradee Chuen-arom )

04/08/2023

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Request No. W6607151

Report No. 6608-0615

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 19  
 Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 Sampling Source : GC 19 Sample No. : W 66070558  
 Sample Name : ทิศตะวันออกของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
 Sampling By : ETC Sampling Time : 12:20 PM  
 Sampling Method : Grab Received Date : 06/07/2023  
 Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
pH (on site)		Electrometric Method	6.6	6.5-9.2 ***

Physical Apperance : 1. Sample : yellow, turbid

2. Container : Normal [ PE 0.5 L, G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. \*\*\* ค่า pH จากจุดเก็บตัวอย่างบ่อท้ายน้ำกับจุดเก็บตัวอย่างบ่อเหนือน้ำที่เปลี่ยนแปลงจะต้องไม่เกินหนึ่งระดับและไม่อยู่นอกช่วงค่าเกณฑ์อนุ โคมสูงสุดของมาตรฐาน คุณภาพน้ำบาดาลที่ให้บริการ  
 3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
 4. GPS = Sampling at 47 P 731433 E 1406036 N

Examined By.....

( Miss Apiradee Chuen-arom )

(ว-003-ค-4377)

04/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

( Miss Nunnaphat Bakhuntod )

(ว-003-ค-4367)

04/08/2023

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Request No. W6607151

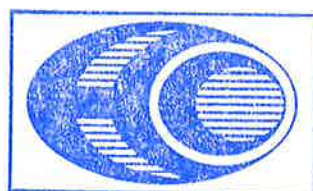
Report No. 6608-0615

## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 19  
 Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 Sampling Source : GC 19 Sample No. : W 66070558  
 Sample Name : ทิศตะวันออกของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
 Sampling By : ETC Sampling Time : 12:20 PM  
 Sampling Method : Grab Received Date : 06/07/2023  
 Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter	Unit	Method	Result	Standard <sup>1/</sup>
Temperature	°C	Laboratory and Field Method	33	-

Physical Apperance : 1. Sample : yellow, turbid  
 2. Container : Normal [ PE 0.5 L, G 1.0 L]  
 Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
 2. Parameter Outside The Scope of The Registration of Department of Industrial Works  
 3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
 4. GPS = Sampling at 47 P 731433 E 1406036 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

( Miss Apiradee Chuen-arom)

04/08/2023

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Request No. W6607151

Report No. 6608-0615

## TEST REPORT


Customer : PTT Global Chemical Public Company Limited Branch 19  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
Sampling Source : GC 19  
Sample Name : ทิศตะวันออกของพื้นที่โครงการ (น้ำใต้ดิน)  
Sampling By : ETC  
Sampling Method : Grab  
Tested Date : 06/07/2023 – 04/08/2023

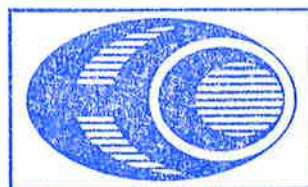
Sample No. : W 66070558  
Sampling Date : 05/07/2023  
Sampling Time : 12:20 PM  
Received Date : 06/07/2023  
Reported Date : 04/08/2023

Parameter	Unit	Method	Result	Standard <sup>1</sup>
Acetone	mg/L	Purge-and-Trap / GC – MS	Not Detected	≤ 230
Ethylbenzene	mg/L	Purge-and-Trap / GC – MS	Not Detected	≤ 2.0


Physical Apperance : 1. Sample : yellow, turbid  
2. Container : Normal [ PE 0.5 L, G 1.0 L]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd Edition, 2017., Part 6200B.  
3. Sampling By Mr. Parkpoom Buasawad (ว-003-ค-7280)  
4. MDL = Method Detection Limit ( MDL of Acetone = 0.00100 mg/L, MDL of Ethylbenzene = 0.00025 mg/L )  
5. GPS = Sampling at 47 P 731433 E 1406036 N

Examined By   
( Miss Apiradee Chuen-arom )  
(ว-003-ค-4377)  
04/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By   
( Miss Nunnaphat Bakhuntod )  
(ว-003-ค-4367)  
04/08/2023

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Request No. W6607151

Report No. 6608-0615

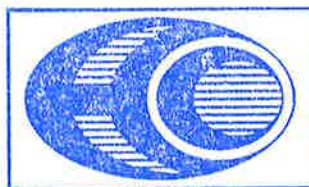
## TEST REPORT

Customer : PTT Global Chemical Public Company Limited Branch 19  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
Sampling Source : GC 19 Sample No. : W 66070558  
Sample Name : ทิศตะวันออกของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
Sampling By : ETC Sampling Time : 12:20 PM  
Sampling Method : Grab Received Date : 06/07/2023  
Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter ***	Unit	Method	Result	Standard <sup>1/</sup>
Total Petroleum Hydrocarbons				
- TPH (C <sub>5</sub> -C <sub>8</sub> )	mg/L	5030 C /8260 D	ND	≤ 1.4
- Pentane				
- Benzene				
- Toluene				
- m,p-Xylene				
- o-Xylene				
- Ethylbenzene				
- TPH (C <sub>8</sub> -C <sub>16</sub> )	mg/L	3510 C/8015 D	ND	≤ 1.7
- n-Nonane				
- n-Decane				
- n-Dodecane				
- n-Tetradecane				
- n-Hexadecane				

Physical Apperance : 1. Sample : yellow, turbid  
2. Container : Normal [ PE 0.5 L, G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (๖-003-๓-7280))  
3. \*\*\* Tested by SECOT Co.,Ltd. (๖-239)  
4. ND = non-detectable [ MDL of TPH (C<sub>5</sub>-C<sub>8</sub>) = < 0.003 mg/L, TPH (C<sub>8</sub>-C<sub>16</sub>) = < 0.025 mg/L,  
TPH (C<sub>16</sub>-C<sub>33</sub>) = < 0.050 mg/L ]  
5. GPS = Sampling at 47 P 731433 E 1406036 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



( Miss Apiradee Chuen-arom )

04/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. W6607151

Report No. 6608-0615

## TEST REPORT

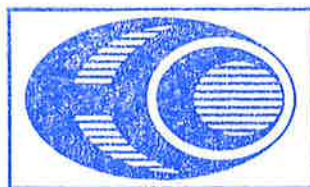
Customer : PTT Global Chemical Public Company Limited Branch 19  
Address : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
Sampling Source : GC 19 Sample No. : W 66070558  
Sample Name : ทิศตะวันออกของพื้นที่โครงการ (น้ำใต้ดิน) Sampling Date : 05/07/2023  
Sampling By : ETC Sampling Time : 12:20 PM  
Sampling Method : Grab Received Date : 06/07/2023  
Tested Date : 06/07/2023 – 04/08/2023 Reported Date : 04/08/2023

Parameter ***	Unit	Method	Result	Standard <sup>1</sup>
Total Petroleum Hydrocarbons				
- TPH (C <sub>&gt;16</sub> -C <sub>35</sub> )	mg/L	3510 C/8015 D	ND	≤ 0.1
- n-Octadecane				
- n-Eicosane				
- n-Docosane				
- n-Tetracosane				
- n-Hexacosane				
- n-Octacosane				
- n-Triacontane				
- n-Dotriacontane				
- n-Tetratriacontane				
- Pentatriacontane				

Physical Appearance : 1. Sample : yellow, turbid

2. Container : Normal [ PE 0.5 L, G 1.0 L ]

Remark : 1. /1 Soil and Groundwater Contamination Standard, Notification of the Ministry of Industry , B.E. 2559 (2016)  
2. Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Parkpoom Buasawad (๖-003-๓-7280))  
3. \*\*\* Tested by SECOT Co.,Ltd. (๖-239)  
4. ND = non-detectable [ MDL of TPH (C<sub>5</sub>-C<sub>8</sub>) = < 0.003 mg/L, TPH (C<sub>>8</sub>-C<sub>16</sub>) = < 0.025 mg/L,  
TPH (C<sub>>16</sub>-C<sub>35</sub>) = < 0.050 mg/L ]  
5. GPS = Sampling at 47 P 731433 E 1406036 N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Examined By .....

( Miss Apiradee Chuen-arom )

04/08/2023

Request No. LA66-R0845

Report No. R6608-4647

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : GC19  
SAMPLE POINT : บริเวณริมรั้วโรงงานด้านทิศตะวันตก  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
DETERMINATION METHOD : ISO 1996-1:2016  
INSTRUMENT : Integrated Sound Level Meter  
S/N 01120947 : Class 1

SAMPLE NO. : 25811  
MEASURING DATE : 11-12/08/2023  
RECEIVED DATE : 18/08/2023  
REPORTED DATE : 22/08/2023

TIME \ DATE	11-12/08/2023 ( $L_{eq}$ )	11-12/08/2023 ( $L_{max}$ )	11-12/08/2023 ( $L_{90}$ )	UNIT
10:00 - 11:00 <sup>/3</sup>	59.5	67.6	58.7	dB(A)
11:00 - 12:00	59.6	63.3	58.7	dB(A)
12:00 - 13:00	59.4	63.0	58.5	dB(A)
13:00 - 14:00	59.3	63.4	58.3	dB(A)
14:00 - 15:00	59.6	63.0	58.7	dB(A)
15:00 - 16:00	59.5	65.0	58.6	dB(A)
16:00 - 17:00	60.1	71.0	59.0	dB(A)
17:00 - 18:00	60.1	68.6	59.2	dB(A)
18:00 - 19:00	60.2	67.4	59.3	dB(A)
19:00 - 20:00	61.4	85.8	59.2	dB(A)
20:00 - 21:00	59.4	91.3	57.5	dB(A)
21:00 - 22:00	57.2	72.0	56.1	dB(A)
22:00 - 23:00	56.1	59.4	55.2	dB(A)
23:00 - 00:00	58.8	67.5	55.1	dB(A)
00:00 - 01:00	56.7	65.4	55.1	dB(A)
01:00 - 02:00	58.0	66.2	55.7	dB(A)
02:00 - 03:00	57.0	66.9	56.0	dB(A)
03:00 - 04:00	59.0	62.8	58.1	dB(A)
04:00 - 05:00	58.9	61.9	58.0	dB(A)
05:00 - 06:00	58.8	62.3	57.8	dB(A)
06:00 - 07:00	58.6	62.6	57.6	dB(A)
07:00 - 08:00	58.8	62.1	57.9	dB(A)
08:00 - 09:00	58.8	64.9	57.8	dB(A)
09:00 - 10:00	59.3	70.2	58.3	dB(A)
$L_{eq}$ 24 hr.	59.1	-	-	dB(A)
$L_{dn}$	64.8	-	-	dB(A)
Maximum	-	91.3	-	dB(A)
Standard	70 <sup>/1</sup> , 70 <sup>/2</sup>	115 <sup>/1</sup> , 115 <sup>/2</sup>	-	dB(A)

REMARK : <sup>/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)\* Parameter Outside The Scope of The Regulation of The Department of Industrial Works  
(Measurement By Mr. Tummarut Photakham)<sup>/3</sup> Start Time

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By 

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-R0845

Report No. R6608-4648

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : GC19  
SAMPLE POINT : บริเวณริมรั้วโรงงานด้านทิศตะวันตก  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
DETERMINATION METHOD : ISO 1996-1:2016  
INSTRUMENT : Integrated Sound Level Meter  
S/N 01120947 : Class 1

SAMPLE NO. : 25812  
MEASURING DATE : 12-13/08/2023  
RECEIVED DATE : 18/08/2023  
REPORTED DATE : 22/08/2023

TIME \ DATE	12-13/08/2023 ( $L_{eq}$ )	12-13/08/2023 ( $L_{max}$ )	12-13/08/2023 ( $L_{90}$ )	UNIT
10:00 - 11:00 <sup>1/3</sup>	59.5	67.6	58.5	dB(A)
11:00 - 12:00	59.5	63.0	58.4	dB(A)
12:00 - 13:00	59.6	65.0	58.5	dB(A)
13:00 - 14:00	59.9	63.7	59.0	dB(A)
14:00 - 15:00	59.9	63.6	59.0	dB(A)
15:00 - 16:00	59.8	67.1	58.9	dB(A)
16:00 - 17:00	60.0	63.1	59.1	dB(A)
17:00 - 18:00	60.1	69.0	59.2	dB(A)
18:00 - 19:00	60.0	77.3	59.2	dB(A)
19:00 - 20:00	59.6	72.1	59.0	dB(A)
20:00 - 21:00	60.2	69.0	59.5	dB(A)
21:00 - 22:00	59.4	63.1	58.9	dB(A)
22:00 - 23:00	58.7	64.1	58.2	dB(A)
23:00 - 00:00	58.9	64.9	58.4	dB(A)
00:00 - 01:00	58.8	69.6	58.3	dB(A)
01:00 - 02:00	59.0	66.2	58.4	dB(A)
02:00 - 03:00	58.8	69.7	57.8	dB(A)
03:00 - 04:00	58.9	67.1	57.8	dB(A)
04:00 - 05:00	58.9	62.6	57.9	dB(A)
05:00 - 06:00	59.0	64.3	58.0	dB(A)
06:00 - 07:00	59.2	63.0	58.3	dB(A)
07:00 - 08:00	59.0	66.2	58.1	dB(A)
08:00 - 09:00	59.3	62.1	58.5	dB(A)
09:00 - 10:00	59.4	68.3	58.6	dB(A)
$L_{eq}$ 24 hr.	59.4	-	-	dB(A)
$L_{dn}$	65.4	-	-	dB(A)
Maximum	-	77.3	-	dB(A)
Standard	70 <sup>1/1</sup> , 70 <sup>2/2</sup>	115 <sup>1/1</sup> , 115 <sup>2/2</sup>	-	dB(A)

REMARK : <sup>1/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>1/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Phataramma)<sup>1/3</sup> Start Time

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

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Request No. LA66-R0845

Report No. R6608-4649

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : GC19  
SAMPLE POINT : บริเวณริมรั้วโรงงานด้านทิศตะวันตก  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
DETERMINATION METHOD : ISO 1996-1:2016  
INSTRUMENT : Integrated Sound Level Meter  
S/N 01120947 : Class 1

SAMPLE NO. : 25813  
MEASURING DATE : 13-14/08/2023  
RECEIVED DATE : 18/08/2023  
REPORTED DATE : 22/08/2023

TIME \ DATE	13-14/08/2023 ( $L_{eq}$ )	13-14/08/2023 ( $L_{max}$ )	13-14/08/2023 ( $L_{90}$ )	UNIT
10:00 - 11:00 <sup>/3</sup>	59.4	65.1	58.5	dB(A)
11:00 - 12:00	59.4	67.4	58.5	dB(A)
12:00 - 13:00	59.3	64.3	58.3	dB(A)
13:00 - 14:00	59.1	64.3	58.1	dB(A)
14:00 - 15:00	59.7	63.7	58.7	dB(A)
15:00 - 16:00	59.6	63.1	58.7	dB(A)
16:00 - 17:00	59.5	65.5	58.6	dB(A)
17:00 - 18:00	59.9	68.3	58.9	dB(A)
18:00 - 19:00	59.9	66.1	59.0	dB(A)
19:00 - 20:00	59.8	63.2	59.0	dB(A)
20:00 - 21:00	59.8	65.5	59.0	dB(A)
21:00 - 22:00	59.7	63.0	59.0	dB(A)
22:00 - 23:00	59.7	64.7	59.1	dB(A)
23:00 - 00:00	59.5	66.9	59.0	dB(A)
00:00 - 01:00	58.9	66.4	58.2	dB(A)
01:00 - 02:00	59.2	68.0	58.5	dB(A)
02:00 - 03:00	59.2	67.5	58.4	dB(A)
03:00 - 04:00	59.3	62.4	58.5	dB(A)
04:00 - 05:00	59.1	64.7	58.3	dB(A)
05:00 - 06:00	59.1	62.2	58.4	dB(A)
06:00 - 07:00	58.8	66.0	58.1	dB(A)
07:00 - 08:00	58.5	61.5	57.9	dB(A)
08:00 - 09:00	58.4	65.9	57.7	dB(A)
09:00 - 10:00	58.6	67.4	57.9	dB(A)
$L_{eq}$ 24 hr.	59.3	-	-	dB(A)
$L_{dn}$	65.6	-	-	dB(A)
Maximum	-	68.3	-	dB(A)
Standard	70 <sup>/1</sup> , 70 <sup>/2</sup>	115 <sup>/1</sup> , 115 <sup>/2</sup>	-	dB(A)

REMARK : <sup>/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)

\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Phoonkhump)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

<sup>/3</sup> Start TimeApproved By: 

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

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Request No. LA66-R0845

Report No. R6608-4650

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : GC19  
SAMPLE POINT : บริเวณริมรั้วโรงงานด้านทิศตะวันตก  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
DETERMINATION METHOD : ISO 1996-1:2016  
INSTRUMENT : Integrated Sound Level Meter  
S/N 01120947 : Class 1

SAMPLE NO. : 25814  
MEASURING DATE : 14-15/08/2023  
RECEIVED DATE : 18/08/2023  
REPORTED DATE : 22/08/2023

TIME \ DATE	14-15/08/2023 ( $L_{eq}$ )	14-15/08/2023 ( $L_{max}$ )	14-15/08/2023 ( $L_{90}$ )	UNIT
10:00 - 11:00 <sup>/3</sup>	59.2	86.7	58.1	dB(A)
11:00 - 12:00	59.6	63.5	58.7	dB(A)
12:00 - 13:00	59.8	63.3	58.9	dB(A)
13:00 - 14:00	59.7	63.6	58.7	dB(A)
14:00 - 15:00	59.9	66.1	59.0	dB(A)
15:00 - 16:00	59.9	63.4	59.0	dB(A)
16:00 - 17:00	59.9	64.2	59.1	dB(A)
17:00 - 18:00	60.0	67.8	59.2	dB(A)
18:00 - 19:00	60.1	63.2	59.3	dB(A)
19:00 - 20:00	60.1	63.5	59.3	dB(A)
20:00 - 21:00	59.9	68.0	59.2	dB(A)
21:00 - 22:00	59.9	66.9	59.2	dB(A)
22:00 - 23:00	59.7	63.1	59.0	dB(A)
23:00 - 00:00	59.3	62.0	58.5	dB(A)
00:00 - 01:00	59.4	67.0	58.7	dB(A)
01:00 - 02:00	59.6	70.3	59.0	dB(A)
02:00 - 03:00	59.6	64.1	58.9	dB(A)
03:00 - 04:00	59.6	62.8	58.8	dB(A)
04:00 - 05:00	59.4	62.6	58.7	dB(A)
05:00 - 06:00	59.2	67.4	58.5	dB(A)
06:00 - 07:00	59.0	66.1	58.4	dB(A)
07:00 - 08:00	58.7	62.2	58.0	dB(A)
08:00 - 09:00	58.8	61.3	58.1	dB(A)
09:00 - 10:00	58.8	66.3	58.1	dB(A)
$L_{eq}$ 24 hr.	59.6	-	-	dB(A)
$L_{dn}$	65.9	-	-	dB(A)
Maximum	-	86.7	-	dB(A)
Standard	70 <sup>/1</sup> , 70 <sup>/2</sup>	115 <sup>/1</sup> , 115 <sup>/2</sup>	-	dB(A)

REMARK : <sup>/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>/2</sup> Notification of Ministry of the Industry B.E. 2542 (2005)\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummaru Phrakham)<sup>/3</sup> Start Time

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

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Request No. LA66-R0845

Report No. R6608-4651

## TEST REPORT


CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : GC19  
SAMPLE POINT : บริเวณริมรั้วโรงงานด้านทิศตะวันตก  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
DETERMINATION METHOD : ISO 1996-1:2016  
INSTRUMENT : Integrated Sound Level Meter  
S/N 01120947 : Class 1

SAMPLE NO. : 25815  
MEASURING DATE : 15-16/08/2023  
RECEIVED DATE : 18/08/2023  
REPORTED DATE : 22/08/2023

TIME \ DATE	15-16/08/2023 ( $L_{eq}$ )	15-16/08/2023 ( $L_{max}$ )	15-16/08/2023 ( $L_{90}$ )	UNIT
10:00 - 11:00 <sup>/3</sup>	59.0	69.6	58.3	dB(A)
11:00 - 12:00	59.3	63.3	58.4	dB(A)
12:00 - 13:00	60.0	64.4	59.0	dB(A)
13:00 - 14:00	60.1	67.7	58.9	dB(A)
14:00 - 15:00	60.1	64.8	59.1	dB(A)
15:00 - 16:00	60.2	63.9	59.3	dB(A)
16:00 - 17:00	60.5	74.4	59.5	dB(A)
17:00 - 18:00	60.7	79.7	59.5	dB(A)
18:00 - 19:00	60.2	65.9	59.4	dB(A)
19:00 - 20:00	60.3	79.4	59.3	dB(A)
20:00 - 21:00	59.8	71.2	59.1	dB(A)
21:00 - 22:00	60.0	68.1	58.9	dB(A)
22:00 - 23:00	60.1	68.4	59.3	dB(A)
23:00 - 00:00	60.3	66.6	59.6	dB(A)
00:00 - 01:00	60.9	63.4	60.3	dB(A)
01:00 - 02:00	60.8	63.5	60.0	dB(A)
02:00 - 03:00	60.6	65.0	60.0	dB(A)
03:00 - 04:00	60.5	70.3	59.8	dB(A)
04:00 - 05:00	59.6	64.0	58.9	dB(A)
05:00 - 06:00	59.6	78.9	58.6	dB(A)
06:00 - 07:00	59.0	69.2	58.3	dB(A)
07:00 - 08:00	59.3	67.4	58.2	dB(A)
08:00 - 09:00	59.2	67.5	58.4	dB(A)
09:00 - 10:00	59.8	65.8	59.1	dB(A)
$L_{eq}$ 24 hr.	60.0	-	-	dB(A)
$L_{dn}$	66.6	-	-	dB(A)
Maximum	-	79.7	-	dB(A)
Standard	70 <sup>/1</sup> , 70 <sup>/2</sup>	115 <sup>/1</sup> , 115 <sup>/2</sup>	-	dB(A)

REMARK : <sup>/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarat Phumkhun)<sup>/3</sup> Start Time

Approved By

  
(MRS. WANPEN LHAOCHINDAWAT)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

22/08/2023

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-R0845

Report No. R6608-4652

## TEST REPORT


CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : GC19  
SAMPLE POINT : บริเวณริมรั้วโรงงานด้านทิศตะวันตก  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
DETERMINATION METHOD : ISO 1996-1:2016  
INSTRUMENT : Integrated Sound Level Meter  
S/N 01120947 : Class 1

SAMPLE NO. : 25816  
MEASURING DATE : 16-17/08/2023  
RECEIVED DATE : 18/08/2023  
REPORTED DATE : 22/08/2023

TIME \ DATE	16-17/08/2023 ( $L_{eq}$ )	16-17/08/2023 ( $L_{max}$ )	16-17/08/2023 ( $L_{90}$ )	UNIT
10:00 - 11:00 <sup>/3</sup>	60.4	62.9	59.8	dB(A)
11:00 - 12:00	60.1	62.9	59.3	dB(A)
12:00 - 13:00	59.9	64.4	59.2	dB(A)
13:00 - 14:00	60.3	69.5	59.5	dB(A)
14:00 - 15:00	61.1	65.5	60.1	dB(A)
15:00 - 16:00	61.2	65.5	60.2	dB(A)
16:00 - 17:00	61.2	64.8	60.2	dB(A)
17:00 - 18:00	61.2	68.2	60.3	dB(A)
18:00 - 19:00	61.4	84.1	60.5	dB(A)
19:00 - 20:00	60.9	80.6	60.1	dB(A)
20:00 - 21:00	60.2	71.0	59.5	dB(A)
21:00 - 22:00	60.4	63.3	59.7	dB(A)
22:00 - 23:00	60.4	63.1	59.7	dB(A)
23:00 - 00:00	59.1	76.8	58.4	dB(A)
00:00 - 01:00	59.6	81.1	58.8	dB(A)
01:00 - 02:00	60.2	63.4	59.5	dB(A)
02:00 - 03:00	60.0	63.9	59.4	dB(A)
03:00 - 04:00	60.3	72.1	59.7	dB(A)
04:00 - 05:00	60.8	64.4	60.3	dB(A)
05:00 - 06:00	60.8	64.8	60.3	dB(A)
06:00 - 07:00	59.7	73.9	59.0	dB(A)
07:00 - 08:00	58.7	80.5	57.9	dB(A)
08:00 - 09:00	59.0	75.4	58.3	dB(A)
09:00 - 10:00	59.5	62.6	58.7	dB(A)
$L_{eq}$ 24 hr.	60.3	-	-	dB(A)
$L_{dn}$	66.6	-	-	dB(A)
Maximum	-	84.1	-	dB(A)
Standard	70 <sup>/1</sup> , 70 <sup>/2</sup>	115 <sup>/1</sup> , 115 <sup>/2</sup>	-	dB(A)

REMARK : <sup>/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>/2</sup> Notification of Ministry of the Industry B.E. 2548-120033\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Phatthacharn)

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

<sup>/3</sup> Start TimeApproved By: 

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-R0845

Report No. R6608-4653

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong 21150  
SAMPLE SOURCE : GC19  
SAMPLE POINT : บริเวณริมรั้วโรงงานด้านทิศตะวันตก  
PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  24 hr.,  $L_{max}$ ,  $L_{90}$  &  $L_{dn}$   
DETERMINATION METHOD : ISO 1996-1:2016  
INSTRUMENT : Integrated Sound Level Meter  
S/N 01120947 : Class 1

SAMPLE NO. : 25817  
MEASURING DATE : 17-18/08/2023  
RECEIVED DATE : 18/08/2023  
REPORTED DATE : 22/08/2023

TIME \ DATE	17-18/08/2023 ( $L_{eq}$ )	17-18/08/2023 ( $L_{max}$ )	17-18/08/2023 ( $L_{90}$ )	UNIT
10:00 - 11:00 <sup>/3</sup>	59.1	71.2	58.5	dB(A)
11:00 - 12:00	59.8	71.0	59.3	dB(A)
12:00 - 13:00	60.3	63.9	59.8	dB(A)
13:00 - 14:00	60.0	64.2	59.6	dB(A)
14:00 - 15:00	60.8	68.5	59.8	dB(A)
15:00 - 16:00	60.5	71.5	59.6	dB(A)
16:00 - 17:00	61.0	65.2	60.1	dB(A)
17:00 - 18:00	61.1	64.5	60.3	dB(A)
18:00 - 19:00	61.1	66.2	60.2	dB(A)
19:00 - 20:00	60.6	70.6	59.9	dB(A)
20:00 - 21:00	60.2	80.4	59.5	dB(A)
21:00 - 22:00	59.6	79.1	58.9	dB(A)
22:00 - 23:00	59.4	74.0	58.9	dB(A)
23:00 - 00:00	59.3	63.0	58.9	dB(A)
00:00 - 01:00	59.6	64.4	59.3	dB(A)
01:00 - 02:00	59.4	63.1	59.1	dB(A)
02:00 - 03:00	59.2	61.1	58.9	dB(A)
03:00 - 04:00	59.6	62.0	59.3	dB(A)
04:00 - 05:00	60.0	61.6	59.5	dB(A)
05:00 - 06:00	59.8	62.0	59.3	dB(A)
06:00 - 07:00	59.3	61.9	58.9	dB(A)
07:00 - 08:00	59.1	61.1	58.7	dB(A)
08:00 - 09:00	59.5	61.3	59.0	dB(A)
09:00 - 10:00	59.0	61.3	58.6	dB(A)
$L_{eq}$ 24 hr.	59.9	-	-	dB(A)
$L_{dn}$	66.0	-	-	dB(A)
Maximum	-	80.4	-	dB(A)
Standard	$70^{/1}, 70^{/2}$	$115^{/1}, 115^{/2}$	-	dB(A)

REMARK : <sup>/1</sup> Notification of Office of The National Environmental Board Volume 15 B.E. 2540 (1997)<sup>/2</sup> Notification of Ministry of the Industry B.E. 2548 (2005)\* Parameter Outside The Scope of The Registration of The Department of Industrial Works  
(Measurement By Mr. Tummarut Phrakumorn)

บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By   
(MRS. WANPEN LHAOCHINDAWAT)<sup>/3</sup> Start Time

22/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. ATR6608027

Report No. 6608-0341

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : Oxidation Section  
 SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080341  
 RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:00-10:00  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 22/08/2023-31/08/2023  
 Serial No. 218413 REPORTED DATE : 31/08/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Cumene	Sorbent Adsorption, Gas	< 0.72	245	mg/m <sup>3</sup>
	Chromatography/NIOSH1501	< 0.15	50	ppm

**REMARK:**<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

GPS = Sampling at UTM 47P 731088E 1406270N

Examined By

(Miss Thanatporn Klinsoyon)

31/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

31/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6612005

Report No. 6612-0127

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : Oxidation Section  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120127  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 10:03-11:03  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 04/12/2023-07/12/2023  
 Serial No. 218406 REPORTED DATE : 09/12/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1/</sup>	UNIT
Cumene	Sorbent Adsorption, Gas	< 0.72	245	mg/m <sup>3</sup>
	Chromatography/NIOSH1501	< 0.15	50	ppm

**REMARK:**<sup>1/</sup> Notification of The Department of Labour Protection and Welfare B.E.2550 (2017), Concentration Limits of Hazardous Chemicals.\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and  
No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

GPS = Sampling at UTM 47F 731088E 1406270N

Examined By

(Miss Thanatporn Klinsopon)

09/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

09/12/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. ATR6608027

Report No. 6608-0342

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : Expoxidation Section  
 SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080342  
 RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:30-10:30  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 22/08/2023-31/08/2023  
 Serial No. 218411 REPORTED DATE : 31/08/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Cumene	Sorbent Adsorption, Gas	< 0.72	245	mg/m <sup>3</sup>
	Chromatography/NIOSH1501	< 0.15	50	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

GPS = Sampling at UTM 47P 731244E 1406145N

Examined By

(Miss Thanatporn Klinsopon)

31/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

31/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6612005

Report No. 6612-0128

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : Epoxidation Section  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120128  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 09:52-10:52  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 04/12/2023-07/12/2023  
 Serial No. 218413 REPORTED DATE : 09/12/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Cumene	Sorbent Adsorption, Gas	< 0.72	245	mg/m <sup>3</sup>
	Chromatography/NIOSH1501	< 0.15	50	ppm

**REMARK:**<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

GPS = Sampling at UTM 47P 731244E 1406145N

Examined By

(Miss Thanatporn Klinsopon)

09/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

09/12/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6608027

Report No. 6608-0343

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : Expoxidation Section  
 SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080343  
 RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:30-10:30  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 22/08/2023-31/08/2023  
 Serial No. 218411 REPORTED DATE : 31/08/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Acetone	Sorbent Adsorption, Gas	< 13.17	2,400	mg/m <sup>3</sup>
	Chromatography/NIOSH 2555	< 5.54	1,000	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

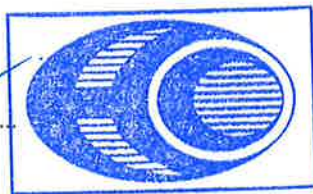
(Sampling By Mr. Suttha Songthaninai)

GPS = Sampling at UTM 47P 731244E 1406145N

Examined By

(Miss Thanatporn Klinsopon)

31/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

31/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6612005

Report No. 6612-0129

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : Epoxidation Section  
SAMPLING DATE : 30/11/2023  
RECEIVED DATE : 04/12/2023  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min  
Serial No. 218445

SAMPLE NO. : A66120129  
SAMPLING TIME : 09:52-10:52  
TESTED DATE : 04/12/2023-07/12/2023  
REPORTED DATE : 09/12/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Acetone	Sorbent Adsorption, Gas	< 13.17	2,400	mg/m <sup>3</sup>
	Chromatography/NIOSH 2555	< 5.54	1,000	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and  
No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

GPS = Sampling at UTM 47P 731244E 1406145N

Examined By

(Miss Thanatporn Klinsoon)

09/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

09/12/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6608027

Report No. 6608-0344

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : Expoxidation Section  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080344  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:30-10:20  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 22/08/2023-02/09/2023  
Serial No. 218411 REPORTED DATE : 02/09/2023

PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>/2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 731244E 1406145N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsopon)

02/09/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. ATR6612005

Report No. 6612-0130

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : Epoxidation Section  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120130  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 09:52-10:42  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 04/12/2023-18/12/2023  
 Serial No. 218385 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

**REMARK:**<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Singto)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 731244E 1406145N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoyon)

18/12/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
 THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6608027

Report No. 6608-0345

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : C3-PO Purification Section  
 SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080345  
 RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:30-10:30  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 22/08/2023-31/08/2023  
 Serial No. 218444 REPORTED DATE : 31/08/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Cumene	Sorbent Adsorption, Gas	< 0.72	245	mg/m <sup>3</sup>
	Chromatography/NIOSH1501	< 0.15	50	ppm

## REMARK:

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Suttha Songthaninai)

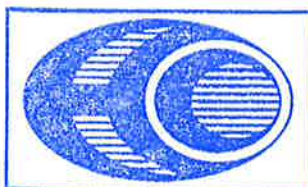
GPS = Sampling at UTM 47P 731204E 1406197N

Examined By



(Miss Thanatporn Klinsoon)

31/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By



(Mr. Kawee Suthasub)

31/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. ATR6612005

Report No. 6612-0131

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : C3-PO Purification Section  
SAMPLING DATE : 30/11/2023  
RECEIVED DATE : 04/12/2023  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min  
Serial No. 218444

SAMPLE NO. : A66120131  
SAMPLING TIME : 09:54-10:54  
TESTED DATE : 04/12/2023-07/12/2023  
REPORTED DATE : 09/12/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Cumene	Sorbent Adsorption, Gas	< 0.72	245	mg/m <sup>3</sup>
	Chromatography/NIOSH1501	< 0.15	50	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

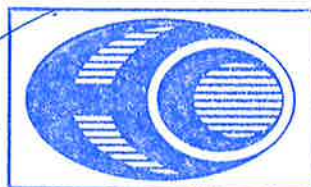
(Sampling By Mr. Witchawan Singto)

GPS = Sampling at UTM 47P 731204E 1406197N

Examined By

(Miss Thanatporn Klinsopon)

09/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

09/12/2023

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6608027

Report No. 6608-0346

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : C3-PO Purification Section  
 SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080346  
 RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:30-10:30  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 22/08/2023-31/08/2023  
 Serial No. 218444 REPORTED DATE : 31/08/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Acetone	Sorbent Adsorption, Gas	< 13.17	2,400	mg/m <sup>3</sup>
	Chromatography/NIOSH 2555	< 5.54	1,000	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

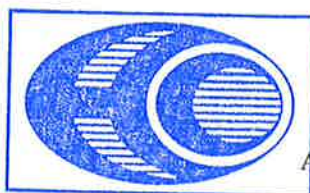
(Sampling By Mr. Suttha Songthaninai)

GPS = Sampling at UTM 47P 731204E 1406197N

Examined By

(Miss Thanatporn Klinsopon)

31/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

31/08/2023

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 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6612005

Report No. 6612-0132

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : C3-PO Purification Section  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120132  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 09:54-10:54  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 04/12/2023-07/12/2023  
 Serial No. 218412 REPORTED DATE : 09/12/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Acetone	Sorbent Adsorption, Gas	< 13.17	2,400	mg/m <sup>3</sup>
	Chromatography/NIOSH 2555	< 5.54	1,000	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

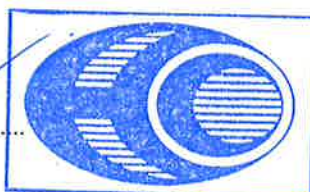
(Sampling By Mr. Witchawan Singto)

GPS = Sampling at UTM 47P 731204E 1406197N

Examined By

(Miss Thanatporn Klinsopon)

09/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

09/12/2023

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Request No. ATR6608027

Report No. 6608-0347

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : C3-PO Purification Section  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080347  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:30-10:20  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 22/08/2023-02/09/2023  
Serial No. 218444 REPORTED DATE : 02/09/2023

PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>/2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 731204E 1406197N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoyon)

02/09/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. ATR6612005

Report No. 6612-0133

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : C3-PO Purification Section  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120133  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 09:54-10:44  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 04/12/2023-18/12/2023  
 Serial No. 218402 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>/2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Singto)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 731204E 1406197N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsonpon)

18/12/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. ATR6608027

Report No. 6608-0348

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : Hydrogenation Section  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080348  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:10-10:10  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 22/08/2023-31/08/2023  
Serial No. 20211102105 REPORTED DATE : 31/08/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Cumene	Sorbent Adsorption, Gas	< 0.72	245	mg/m <sup>3</sup>
	Chromatography/NIOSH1501	< 0.15	50	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and  
No.0202-03-2564-0005.

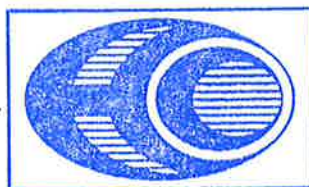
(Sampling By Mr. Suttha Songthaninai)

GPS = Sampling at UTM 47P 731204E 1406213N

Examined By

(Miss Thanatporn Klinsopon)

31/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

31/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6612005

Report No. 6612-0134

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : Hydrogenation Section  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120134  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 09:57-10:57  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 04/12/2023-07/12/2023  
 Serial No. 218403 REPORTED DATE : 09/12/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Cumene	Sorbent Adsorption, Gas	< 0.72	245	mg/m <sup>3</sup>
	Chromatography/NIOSH1501	< 0.15	50	ppm

**REMARK:**<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

GPS = Sampling at UTM 47P 731204E 1406213N

Examined By

(Miss Thanatporn Klinsopon)

09/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

09/12/2023

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Request No. ATR6608027

Report No. 6608-0349

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : PO Purification Section  
 SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080349  
 RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:15-10:15  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 22/08/2023-31/08/2023  
 Serial No. 218405 REPORTED DATE : 31/08/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Acetone	Sorbent Adsorption, Gas	< 13.17	2,400	mg/m <sup>3</sup>
	Chromatography/NIOSH 2555	< 5.54	1,000	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

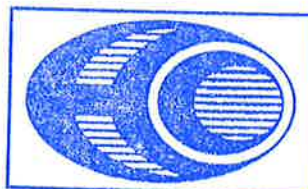
(Sampling By Mr. Suttha Songthaninai)

GPS = Sampling at UTM 47P 731136E 1406237N

Examined By

(Miss Thanatporn Klinsopon)

31/08/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(Mr. Kawee Suthasub)

31/08/2023

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WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. ATR6612005

Report No. 6612-0135

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : PO Purification Section  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120135  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 10:01-11:01  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.05 L/min TESTED DATE : 04/12/2023-07/12/2023  
 Serial No. 218432 REPORTED DATE : 09/12/2023

PARAMETER*	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Acetone	Sorbent Adsorption, Gas	< 13.17	2,400	mg/m <sup>3</sup>
	Chromatography/NIOSH 2555	< 5.54	1,000	ppm

**REMARK:**<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008 and No.0202-03-2564-0005.

(Sampling By Mr. Witchawan Singto)

GPS = Sampling at UTM 47P 731136E 1406237N

Examined By .....

(Miss Thanatporn Klinsoon)

09/12/2023



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By .....

(Mr. Kawee Suthasub)

09/12/2023

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Request No. ATR6608027

Report No. 6608-0350

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : PO Purification Section  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080350  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:15-10:05  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 22/08/2023-02/09/2023  
Serial No. 218405 REPORTED DATE : 02/09/2023

PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>/2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 731136E 1406237N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By



(Miss Thanatporn Klinson)

02/09/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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Request No. ATR6612005

Report No. 6612-0136

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : PO Purification Section  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120136  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 10:01-10:51  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.10 L/min TESTED DATE : 04/12/2023-18/12/2023  
 Serial No. 218383 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

**REMARK:**<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>/2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Singto)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 731136E 1406237N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoopon)

18/12/2023

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Request No. ATR6608027

Report No. 6608-0351

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : Tank Farm 1 (TK-1460)  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080351  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:05-10:05  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.20 L/min TESTED DATE : 22/08/2023-24/08/2023  
Serial No. 20150302005 REPORTED DATE : 24/08/2023

PARAMETER**	TEST METHOD	RESULT	UNIT
Total Volatile Organic Compounds (TVOCs)	GC - FID	1.25	ppm

## REMARK:

\*\* Parameter not have License Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co., Ltd.

GPS = Sampling at UTM 47P 730981E 1406187N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoon)

24/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6612005

Report No. 6612-0137

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : Tank Farm 1 (TK-1460)  
SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120137  
RECEIVED DATE : 04/12/2023 SAMPLING TIME : 10:08-11:08  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.20 L/min TESTED DATE : 04/12/2023-18/12/2023  
Serial No. 20180903076 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT	UNIT
Total Volatile Organic Compounds (TVOCs)	GC - FID	0.93	ppm

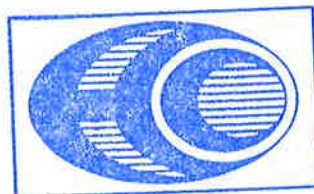
## REMARK:

\*\* Parameter not have Licens: Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Singto)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 730981E 1406187N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsopon)

18/12/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. ATR6608027

Report No. 6608-0352

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : Tank Farm 2 (TK-1456)  
SAMPLING DATE : 17/08/2023  
RECEIVED DATE : 22/08/2023  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.20 L/min  
Serial No. 20160502020

SAMPLE NO. : A66080352  
SAMPLING TIME : 09:05-10:05  
TESTED DATE : 22/08/2023-24/08/2023  
REPORTED DATE : 24/08/2023

PARAMETER**	TEST METHOD	RESULT	UNIT
Total Volatile Organic Compounds (TVOCs)	GC - FID	1.13	ppm

## REMARK:

\*\* Parameter not have License Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co., Ltd.

GPS = Sampling at UTM 47P 731017E 1406244N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoon)

24/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL  
WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6612005

Report No. 6612-0138

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : Tank Farm 2 (TK-1456)  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120138  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 10:16-11:16  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.20 L/min TESTED DATE : 04/12/2023-18/12/2023  
 Serial No. 20040902003 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT	UNIT
Total Volatile Organic Compounds (TVOCs)	GC - FID	0.71	ppm

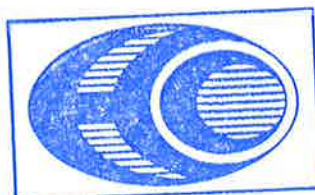
**REMARK:**

\*\* Parameter not have License Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Singto)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 731017E 1406244N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoyon)

18/12/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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 WITHOUT THE WRITTEN APPROVAL LABORATORY



Request No. ATR6608027

Report No. 6608-0353

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : Tank Farm 3 (TK-1693)  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080353  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:35-10:35  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.20 L/min TESTED DATE : 22/08/2023-24/08/2023  
Serial No. 20180903092 REPORTED DATE : 24/08/2023

PARAMETER**	TEST METHOD	RESULT	UNIT
Total Volatile Organic Compounds (TVOCs)	GC - FID	1.26	ppm

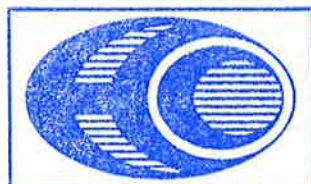
**REMARK:**

\*\* Parameter not have License Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 731342E 1406131N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoon)

24/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

THIS REPORT SHALL NOT REPRODUCED EXCEPT IN FULL

WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6612005

Report No. 6612-0139

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : Tank Farm 3 (TK-1693)  
SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120139  
RECEIVED DATE : 04/12/2023 SAMPLING TIME : 09:43-10:43  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.20 L/min TESTED DATE : 04/12/2023-18/12/2023  
Serial No. 20180903081 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT	UNIT
Total Volatile Organic Compounds (TVOCs)	GC - FID	0.70	ppm

**REMARK:**

\*\* Parameter not have License Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Singto)

Analysed By SECOT Co.,Ltd

GPS = Sampling at UTM 47P 731342E 1406131N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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Examined By.....

(Miss Thanatporn Klinsopon)

18/12/2023

Request No. ATR6608027

Report No. 6608-0354

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : Tank Farm 4 (TK-5402)  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080354  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 09:05-10:05  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.20 L/min TESTED DATE : 22/08/2023-24/08/2023  
Serial No. 20180903081 REPORTED DATE : 24/08/2023

PARAMETER**	TEST METHOD	RESULT	UNIT
Total Volatile Organic Compounds (TVOCs)	GC - FID	1.09	ppm

## REMARK:

\*\* Parameter not have License Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co., Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co., Ltd.

GPS = Sampling at UTM 47P 730961E 1406269N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsohon)

24/08/2023

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Request No. ATR6612005

Report No. 6612-0140

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : Tank Farm 4 (TK-5402)  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120140  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 10:12-11:12  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.20 L/min TESTED DATE : 04/12/2023-18/12/2023  
 Serial No. 20100401018 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT	UNIT
Total Volatile Organic Compounds (TVOCs)	GC - FID	0.73	ppm

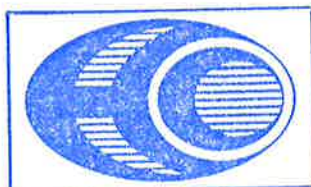
**REMARK:**

\*\* Parameter not have License Registration of Department of Labour Protection and Welfare.

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Singio)

Analysed By SECOT Co.,Ltd.

GPS = Sampling at UTM 47P 730961E 1406269N



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsopon)

18/12/2023

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Request No. ATR6608027

Report No. 6608-0355

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : พนักงานที่ปฏิบัติงานในพื้นที่เสี่ยงในกระบวนการผลิต (คุณภัทรพล นุ่มนัม)  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080355  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 07:00-19:00  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.01 L/min TESTED DATE : 22/08/2023-02/09/2023  
Serial No. 218445 REPORTED DATE : 02/09/2023

PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>/2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr, Suttha Songthaninai)

Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By

(Miss Thanatporn Klinsonpon)

02/09/2023

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Request No. ATR6608027

Report No. 6608-0356

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : พนักงานที่ปฏิบัติงานในพื้นที่เสี่ยงในกระบวนการผลิต (คุณวัฒน์ชัย สุวรรณเมฆ)  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080356  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 07:00-19:00  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.01 L/min TESTED DATE : 22/08/2023-02/09/2023  
Serial No. 218391 REPORTED DATE : 02/09/2023

PARAMETER**	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	0.73	240	mg/m <sup>3</sup>
		0.31	100	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By

(Miss Thanatporn Klinsoon)

02/09/2023

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Request No. ATR6608027

Report No. 6608-0357

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : พนักงานที่ปฏิบัติงานในพื้นที่เสี่ยงในกระบวนการผลิต (คุณอรรรณ โกวิท สิงห์โตทอง)  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080357  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 07:00-19:00  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.01 L/min TESTED DATE : 22/08/2023-02/09/2023  
Serial No. 218388 REPORTED DATE : 02/09/2023

PARAMETER**	TEST METHOD	RESULT	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	0.37	240	mg/m <sup>3</sup>
		0.16	100	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co.,Ltd



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoapon)

02/09/2023

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WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. ATR6608027

Report No. 6608-0358

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : พนักงานที่ปฏิบัติงานในพื้นที่เสี่ยงในกระบวนการผลิต (คุณพงษ์นรินทร์ ลีตานา)  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080358  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 07:00-19:00  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.01 L/min TESTED DATE : 22/08/2023-02/09/2023  
Serial No. 218385 REPORTED DATE : 02/09/2023

PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>/2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsonpon)

02/09/2023

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Request No. ATR6608027

Report No. 6608-0359

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : พนักงานที่ปฏิบัติงานในพื้นที่เสี่ยงในกระบวนการผลิต (คุณวีระวร อรรถสังข์)  
SAMPLING DATE : 17/08/2023 SAMPLE NO. : A66080359  
RECEIVED DATE : 22/08/2023 SAMPLING TIME : 07:00-19:00  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.01 L/min TESTED DATE : 22/08/2023-02/09/2023  
Serial No. 218383 REPORTED DATE : 02/09/2023

PARAMETER**	TEST METHOD	RESULT	STD <sup>1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	0.34	240	mg/m <sup>3</sup>
		0.14	100	ppm

## REMARK:

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Suttha Songthaninai)

Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Examined By

(Miss Thanatporn Klinsoon)

02/09/2023

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Request No. ATR6612005

Report No. 6612-0141

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : พนักงานที่ปฏิบัติงานในพื้นที่เสี่ยงในกระบวนการผลิต (คุณนวกาศ์ แสงสุรินทร์)  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120141  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.01 L/min TESTED DATE : 04/12/2023-18/12/2023  
 Serial No. 218405 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>/2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Singto)

Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....



(Miss Thanatporn Klinson)

18/12/2023

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Request No. ATR6612005

Report No. 6612-0142

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
SAMPLE SOURCE : GC 19  
SAMPLE NAME : พนักงานที่ปฏิบัติงานในพื้นที่เสี่ยงในกระบวนการผลิต (คุณฐิติกร เทิงสูงเนิน)  
SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120142  
RECEIVED DATE : 04/12/2023 SAMPLING TIME : 07:00-19:00  
SAMPLING INSTRUMENT : Personal Pump Flow rate 0.01 L/min TESTED DATE : 04/12/2023-18/12/2023  
Serial No. 218411 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>/2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Singto)

Analysed By SECOT Co.,Ltd

Examined By.....

(Miss Thanatporn Klinsoon)

18/12/2023

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Request No. ATR6612005

Report No. 6612-0143

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : พนักงานที่ปฏิบัติงานในพื้นที่เสี่ยงในกระบวนการผลิต (อุตสาหกรรมปิโตรเคมี)  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120143  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.01 L/min TESTED DATE : 04/12/2023-18/12/2023  
 Serial No. 218388 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT <sup>/2</sup>	STD <sup>/1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

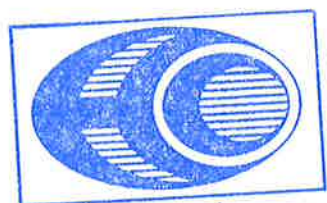
## REMARK:

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>/2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Singto)

Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Examined By

(Miss Thanatporn Klinsohon)

18/12/2023

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Request No. ATR6612005

Report No. 6612-0144

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : พนักงานที่ปฏิบัติงานในพื้นที่เสี่ยงในกระบวนการผลิต (อุณหภูมิเคช เยียดยัด)  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120144  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.01 L/min TESTED DATE : 04/12/2023-18/12/2023  
 Serial No. 218391 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

## REMARK:

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Sing'o)

Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoon)

18/12/2023

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Request No. ATR6612005

Report No. 6612-0145

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC 19  
 SAMPLE NAME : พนักงานที่ปฏิบัติงานในพื้นที่เสี่ยงในกระบวนการผลิต (คุณพิชัย ศรีชัย)  
 SAMPLING DATE : 30/11/2023 SAMPLE NO. : A66120145  
 RECEIVED DATE : 04/12/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Personal Pump Flow rate 0.01 L/min TESTED DATE : 04/12/2023-18/12/2023  
 Serial No. 218408 REPORTED DATE : 18/12/2023

PARAMETER**	TEST METHOD	RESULT <sup>2</sup>	STD <sup>1</sup>	UNIT
Propylene Oxide	NIOSH 1612/GC-FID	ND	240	mg/m <sup>3</sup>
		ND	100	ppm

## REMARK:

<sup>1</sup> Notification of The Department of Labour Protection and Welfare B.E.2560 (2017), Concentration Limits of Hazardous Chemicals.<sup>2</sup> ND = Non detectable : When detection limit of Propylene Oxide is less than 0.10 mg/m<sup>3</sup> or 0.05 ppm.

\*\* Parameter have License Registration of Department of Labour Protection and Welfare No.0201-03-2564-0008

Sampling By Eastern Thai Consulting 1992 Co.,Ltd., (Mr. Witchawan Singio)

Analysed By SECOT Co.,Ltd.



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Examined By.....

(Miss Thanatporn Klinsoon)

18/12/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY  
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 WITHOUT THE WRITTEN APPROVAL LABORATORY

Request No. LA66-R0841

Report No. R6608-4600

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC12-Polyethylene Plant  
 SAMPLE POINT : Air Compressors  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  12 hr. &  $L_{max}$  SAMPLE NO. : 25763  
 DETERMINATION METHOD : ISO 11202:2010 MEASURING DATE : 17/08/2023  
 INSTRUMENT : Integrated Sound Level Meter ; RECEIVED DATE : 18/08/2023  
 S/N 00222594 : Class 2 REPORTED DATE : 22/08/2023

MEASURING TIME	RESULT		UNIT
	$L_{eq}$ 1 hr.	$L_{max}$	
09:00-10:00	84.2	86.2	dB(A)
10:00-11:00	84.1	86.2	dB(A)
11:00-12:00	84.1	86.2	dB(A)
12:00-13:00	84.9	87.0	dB(A)
13:00-14:00	84.6	87.2	dB(A)
14:00-15:00	84.2	86.1	dB(A)
15:00-16:00	84.0	86.1	dB(A)
16:00-17:00	83.0	98.5	dB(A)
17:00-18:00	84.8	87.6	dB(A)
18:00-19:00	84.8	88.4	dB(A)
19:00-20:00	84.9	87.1	dB(A)
20:00-21:00	84.6	87.0	dB(A)
$L_{eq}$ 12 hr.	84.4	—	dB(A)
Standard	$87^{/1}$	$140^{/1}, 115^{/2}$	dB(A)

REMARK : <sup>/1</sup> Notification of The Ministry of Industry B.E. 2546 (2003)<sup>/2</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)

\* Measurement By Ms. Savita Kittinoavarat



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

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Request No. LA66-R0841

Report No. R6608-4599

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : C3 Recycle Compressors  
 PARAMETER\* :  $L_{eq}$  1 hr.,  $L_{eq}$  12 hr. &  $L_{max}$  SAMPLE NO. : 25762  
 DETERMINATION METHOD : ISO 11202:2010 MEASURING DATE : 17/08/2023  
 INSTRUMENT : Integrated Sound Level Meter ; RECEIVED DATE : 18/08/2023  
 S/N 00322745 : Class 2 REPORTED DATE : 22/08/2023

MEASURING TIME	RESULT		UNIT
	$L_{eq}$ 1 hr.	$L_{max}$	
09:00-10:00	84.0	85.5	dB(A)
10:00-11:00	84.1	85.6	dB(A)
11:00-12:00	84.1	85.6	dB(A)
12:00-13:00	84.3	84.9	dB(A)
13:00-14:00	84.4	84.6	dB(A)
14:00-15:00	84.1	85.6	dB(A)
15:00-16:00	84.2	85.8	dB(A)
16:00-17:00	84.3	85.0	dB(A)
17:00-18:00	84.4	84.9	dB(A)
18:00-19:00	84.2	86.0	dB(A)
19:00-20:00	84.2	85.8	dB(A)
20:00-21:00	84.4	84.7	dB(A)
$L_{eq}$ 12 hr.	84.2	—	dB(A)
Standard	$87^{/1}$	$140^{/1}, 115^{/2}$	dB(A)

**REMARK :** <sup>/1</sup> Notification of The Ministry of Industry B.E. 2546 (2003)

<sup>/2</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)

\* Measurement By Ms. Savita Kittinoavarat



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

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Request No. LA66-R0858

Report No. R6608-5433

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift A (Morning Shift) (คุณทัศนเทพ รัตนโสภณ ID 26008180)  
 MEASURING DATE : 22/08/2023 SAMPLE NO. : 26599  
 RECEIVED DATE : 23/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB1500 REPORTED DATE : 28/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	77.7	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	90.7	115 <sup>/3</sup>	dB(A)
12 Hour dose	28.00	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	79.5	85 <sup>/1</sup>	dB(A)

**REMARK :**

- <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Jutarat Suksaget)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

28/08/2023

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Request No. LA66-R0858

Report No. R6608-5434

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift A (Morning Shift) (ศูนย์ฯพฤษภูมิ วิจัยโท ID 26008179)  
 MEASURING DATE : 22/08/2023 SAMPLE NO. : 26600  
 RECEIVED DATE : 23/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB1499 REPORTED DATE : 28/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	79.4	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	101.7	115 <sup>/3</sup>	dB(A)
12 Hour dose	41.00	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	81.1	85 <sup>/1</sup>	dB(A)

**REMARK :**

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Jutarat Suksaget)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

28/08/2023

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Request No. LA66-R0858

Report No. R6608-5435

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift A (Morning Shift) (คุณมานะชัย โชติมณี ID 26009931)  
 MEASURING DATE : 22/08/2023 SAMPLE NO. : 26601  
 RECEIVED DATE : 23/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB1498 REPORTED DATE : 28/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	80.6	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	97.8	115 <sup>/3</sup>	dB(A)
12 Hour dose	54.00	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	82.3	85 <sup>/1</sup>	dB(A)

**REMARK :** <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Jutarat Suksaget)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

28/08/2023

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Request No. LA66-R0858

Report No. R6608-5436

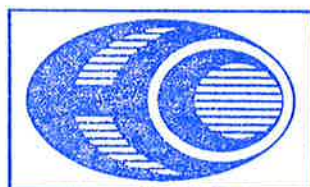
## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift A (Morning Shift) (คุณเจริญพงษ์ เกษไช ID 26008178)  
 MEASURING DATE : 22/08/2023 SAMPLE NO. : 26602  
 RECEIVED DATE : 23/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB1497 REPORTED DATE : 28/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	76.5	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	92.6	115 <sup>/3</sup>	dB(A)
12 Hour dose	21.00	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	78.2	85 <sup>/1</sup>	dB(A)

**REMARK :**

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Jutarat Suksaget)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

28/08/2023

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Request No. LA66-R0858

Report No. R6608-5437

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift A (Morning Shift) (คุณธีระเดช แสงเดช ID 26008020)  
 MEASURING DATE : 22/08/2023 SAMPLE NO. : 26603  
 RECEIVED DATE : 23/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB1365 REPORTED DATE : 28/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	73.2	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	86.0	115 <sup>/3</sup>	dB(A)
12 Hour dose	10.00	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	75.0	85 <sup>/1</sup>	dB(A)

**REMARK :** <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Jutarat Suksaget)



Approved By

(MRS. WANPEN LHAOCHINDAWAT)

28/08/2023

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Request No. LA66-R0841

Report No. R6608-4591

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift B (Morning Shift) (คุณภัทรพล นุ่มนึ่ง ID 26008019)  
 MEASURING DATE : 17/08/2023 SAMPLE NO. : 25754  
 RECEIVED DATE : 18/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0956 REPORTED DATE : 22/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	77.3	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	93.6	115 <sup>/3</sup>	dB(A)
12 Hour dose	25.20	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	79.0	85 <sup>/1</sup>	dB(A)

**REMARK :**

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

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Request No. LA66-R0841

Report No. R6608-4593

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift B (Morning Shift) (คุณพจน์รินทร์ ลีตานา ID 26008175)  
 MEASURING DATE : 17/08/2023 SAMPLE NO. : 25756  
 RECEIVED DATE : 18/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0958 REPORTED DATE : 22/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	81.8	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	93.8	115 <sup>/3</sup>	dB(A)
12 Hour dose	71.90	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	83.6	85 <sup>/1</sup>	dB(A)

**REMARK :**

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

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Request No. LA66-R0980

Report No. R6609-2189

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift B (Morning Shift) (คุณอรรรตโกวิท สิงห์โตทอง ID 26008182)  
 MEASURING DATE : 22/09/2023 SAMPLE NO. : 29078  
 RECEIVED DATE : 22/09/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0957 REPORTED DATE : 25/09/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	58.9	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	79.0	115 <sup>/3</sup>	dB(A)
12 Hour dose	0.37	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	60.7	85 <sup>/1</sup>	dB(A)

**REMARK :**

- <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)
- <sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998
- <sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)
- <sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate
- \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
(Measurement By Ms. Savita Kittinoavarat)



Approved By

(MRS. WANPEN LHAOCHINDAWAT)

25/09/2023

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

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Request No. LA66-R0980

Report No. R6609-2190

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift B (Morning Shift) (คุณวีระวร อรรถสังข์ ID 26008173)  
 MEASURING DATE : 22/09/2023 SAMPLE NO. : 29079  
 RECEIVED DATE : 22/09/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0955 REPORTED DATE : 25/09/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	80.3	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	105.2	115 <sup>/3</sup>	dB(A)
12 Hour dose	51.20	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	82.1	85 <sup>/1</sup>	dB(A)

**REMARK :**

- <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)
- <sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998
- <sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)
- <sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate
- \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
(Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

25/09/2023

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Request No. LA66-R1222

Report No. R6612-0468

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift B (Morning Shift) (คุณวัฒนชัย สุวรรณเมฆ ID 26008185)  
 MEASURING DATE : 07/12/2023 SAMPLE NO. : 34313  
 RECEIVED DATE : 07/12/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB1365 REPORTED DATE : 11/12/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	76.3	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	91.9	115 <sup>/3</sup>	dB(A)
12 Hour dose	20.40	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	78.1	85 <sup>/1</sup>	dB(A)

**REMARK :** <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

11/12/2023

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Request No. LA66-R0841

Report No. R6608-4595

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift C (Morning Shift) (คุณสมบัติ ศรีย ID 26008018)  
 MEASURING DATE : 18/08/2023 SAMPLE NO. : 25758  
 RECEIVED DATE : 18/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0955 REPORTED DATE : 22/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	67.2	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	88.2	115 <sup>/3</sup>	dB(A)
12 Hour dose	2.50	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	69.0	85 <sup>/1</sup>	dB(A)

**REMARK :**

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

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Request No. LA66-R0841

Report No. R6608-4596

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift C (Morning Shift) (ถนนวาศัยแสงสุรินทร์ ID 26008183)  
 MEASURING DATE : 18/08/2023 SAMPLE NO. : 25759  
 RECEIVED DATE : 18/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0957 REPORTED DATE : 22/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	65.0	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	91.1	115 <sup>/3</sup>	dB(A)
12 Hour dose	1.50	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	66.8	85 <sup>/1</sup>	dB(A)

**REMARK :**

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

REPORTED TEST REFER TO SUBMITTED SAMPLES ONLY

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Request No. LA66-R0841

Report No. R6608-4597

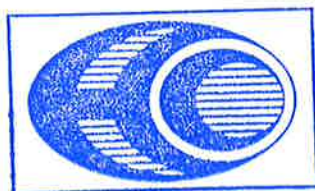
## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift C (Morning Shift) (คุณสมบัติวัสดุ ID 26008174)  
 MEASURING DATE : 18/08/2023 SAMPLE NO. : 25760  
 RECEIVED DATE : 18/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0954 REPORTED DATE : 22/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	60.2	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	84.0	115 <sup>/3</sup>	dB(A)
12 Hour dose	0.50	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	62.0	85 <sup>/1</sup>	dB(A)

**REMARK :**

- <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)
- <sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998
- <sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)
- <sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate
- \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
(Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

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Request No. LA66-R0841

Report No. R6608-4598

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift C (Morning Shift) (คุณฐิติกร เทิงสูงเนิน ID 26008177)  
 MEASURING DATE : 18/08/2023 SAMPLE NO. : 25761  
 RECEIVED DATE : 18/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0956 REPORTED DATE : 22/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	80.9	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	95.1	115 <sup>/3</sup>	dB(A)
12 Hour dose	58.10	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	82.6	85 <sup>/1</sup>	dB(A)

**REMARK :**

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

22/08/2023

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Request No. LA66-R1203

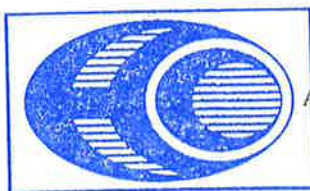
Report No. R6612-0078

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift C (Morning Shift) (คุณภาพพิเศษ เยียดยัด ID 26008176)  
 MEASURING DATE : 30/11/2023 SAMPLE NO. : 33987  
 RECEIVED DATE : 30/11/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0640 REPORTED DATE : 04/11/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	77.5	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	95.4	115 <sup>/3</sup>	dB(A)
12 Hour dose	26.50	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	79.2	85 <sup>/1</sup>	dB(A)

**REMARK :** <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Savita Kittinoavarat)



Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

04/11/2023

บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด  
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Request No. LA66-R0858

Report No. R6608-5438

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift D (Morning Shift) (ถนนสุขุมวิท ประสานมิตร ID 26008171)  
 MEASURING DATE : 23/08/2023 SAMPLE NO. : 26604  
 RECEIVED DATE : 23/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB1498 REPORTED DATE : 28/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	82.8	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	98.7	115 <sup>/3</sup>	dB(A)
12 Hour dose	90.00	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	84.5	85 <sup>/1</sup>	dB(A)

**REMARK :**

- <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)
- <sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998
- <sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)
- <sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate
- \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
(Measurement By Ms. Jutarat Suksaget)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

28/08/2023

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Request No. LA66-R0858

Report No. R6608-5440

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift D (Morning Shift) (คุณนารากร สุดสายตา ID 26008186)  
 MEASURING DATE : 23/08/2023 SAMPLE NO. : 26606  
 RECEIVED DATE : 23/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB1499 REPORTED DATE : 28/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	66.2	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	91.5	115 <sup>/3</sup>	dB(A)
12 Hour dose	2.00	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	68.0	85 <sup>/1</sup>	dB(A)

**REMARK :** <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Jutarat Suksaget)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By

(MRS. WANPEN LHAOCHINDAWAT)

28/08/2023

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Request No. LA66-R0858

Report No. R6608-5442

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift D (Morning Shift) (คุณภาพวัสดุ อินนังแท่น ID 26008189)  
 MEASURING DATE : 23/08/2023 SAMPLE NO. : 26608  
 RECEIVED DATE : 23/08/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB1365 REPORTED DATE : 28/08/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	58.0	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	86.6	115 <sup>/3</sup>	dB(A)
12 Hour dose	0.30	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	59.8	85 <sup>/1</sup>	dB(A)

**REMARK :**

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Jutarat Suksaget)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

28/08/2023

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Request No. LA66-R0980

Report No. R6609-2186

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift D (Morning Shift) (จุดตรวจวัดแสงกระจ่าย ID 26008173)  
 MEASURING DATE : 21/09/2023 SAMPLE NO. : 29075  
 RECEIVED DATE : 22/09/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0958 REPORTED DATE : 25/09/2023

PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	75.5	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	95.9	115 <sup>/3</sup>	dB(A)
12 Hour dose	16.70	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	77.2	85 <sup>/1</sup>	dB(A)

**REMARK :**

<sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....

(MRS. WANPEN LHAOCHINDAWAT)

25/09/2023

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Request No. LA66-R0980

Report No. R6609-2187

## TEST REPORT

CUSTOMER : PTT Global Chemical Public Company Limited Branch 19  
 ADDRESS : Noen Phra Sub-district, Mueang Rayong District, Rayong, 21150  
 SAMPLE SOURCE : GC19  
 SAMPLE POINT : บริเวณพื้นที่กระบวนการผลิต Shift D (Morning Shift) (คุณสมบัติ คำภาพงษ์ ID 26008172)  
 MEASURING DATE : 21/09/2023 SAMPLE NO. : 29076  
 RECEIVED DATE : 22/09/2023 SAMPLING TIME : 07:00-19:00  
 SAMPLING INSTRUMENT : Noise dosimeter : S/N CB0957 REPORTED DATE : 25/09/2023

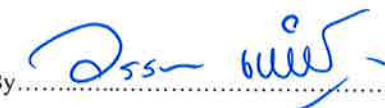
PARAMETER*	RESULT	STANDARD	UNIT
Time weighted average level (12-hr TWA) <sup>#</sup>	69.8	83 <sup>/1</sup>	dB(A)
L <sub>max</sub> 12 hr	89.4	115 <sup>/3</sup>	dB(A)
12 Hour dose	4.50	100 <sup>/2</sup>	%
Time weighted average level (8-hr TWA) <sup>#</sup>	71.5	85 <sup>/1</sup>	dB(A)

**REMARK :** <sup>/1</sup> Notification of The Department of Labour Protection and Welfare B.E. 2561 (2018)  
<sup>/2</sup> Standard of National Institute for Occupational Safety and Health, Occupational Noise Exposure Revised Criteria 1998  
<sup>/3</sup> Regulation of The Ministry of Labour B.E. 2559 (2016)  
<sup>#</sup> Based on Criteria 85 dB(A) ; 3 dB Exchange Rate  
 \* Parameter have License Registration of Department of Labour Protection and Welfare No. 0403-03-2564-0009  
 (Measurement By Ms. Savita Kittinoavarat)



บริษัท อีสเทิร์นไทยคอนซัลติ้ง 1992 จำกัด

Approved By.....



(MRS. WANPEN LHAOCHINDAWAT)

25/09/2023

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