

ภาคผนวก ค

ใบรับรองผลการตรวจวิเคราะห์คุณภาพสิ่งแวดล้อม

ภาคผนวก ค-1

คุณภาพอากาศในบรรยากาศ



Analysis / Test Report

Client : Gulf TSC Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Deang, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345410
Date Received : May 29, 2023
Date Reported : Jun 02, 2023
Report Number: 2530854-1

TESTING
No.0042

Page 1 of 1

Sample Description	Air Quality	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
Location	1533007000000					
Date Analysis Commenced	May 31, 2023					
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag					
Sample Number						
2345410-1		May 16 - May 17, 2023	0.057	0.029	756	31
2345410-2		May 17 - May 18, 2023	0.048	0.024	756	30
2345410-3		May 18 - May 19, 2023	0.054	0.027	756	30
2345410-4		May 19 - May 20, 2023	0.056	0.028	756	31
2345410-5		May 20 - May 21, 2023	0.053	0.027	756	31
2345410-6		May 21 - May 22, 2023	0.044	0.028	756	32
2345410-7		May 22 - May 23, 2023	0.057	0.027	756	30
Guideline			0.33	0.12	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B
Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board, No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Jaradrawee Srinukea

Remark :

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

Thanitak.

Approved by

Thanita Kulsiwong
Scientist (4)

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13195-61 / (Email)

S:\Reports_Air Ambient\TDays-rc (10-4544)



Analysis / Test Report

Client : Gulf TSC Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Deang, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345410
Date Received : May 29, 2023
Date Reported : Jun 02, 2023
Report Number: 2630854-2

TESTING
No.0042

Page 1 of 1

Sample Description	Air Quality	1๕๓๓๓
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Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B
Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board, No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Jaradrawee Srinukea

Remark :

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

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Approved by

Thanita Kulsiwong
Scientist (4)

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13195-61 / (Email)

S:\Reports_Air Ambient\TDays-rc (10-4544)



Analysis / Test Report



Client : Gulf TS3 Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasik, Pluak Daeng, Rayong
Thailand 21140

P/O : Project Name : Monitoring EIA

Project Location : GTS3

TESTING
No.0042

Lot ID: 2345410

Date Received : May 29, 2023

Date Reported : Jun 02, 2023

Report Number: 2630854-3

Page 1 of 1

Sample Description	Air Quality	Location	Date Analysis Commenced	Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag	Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
	15000										

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board, No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Jaradrawee Srinuksa

Remark :

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

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Approved by

Thanita Kulsuriwong
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1319461 / ENCL

S. Vagstad, Air Ambient Days 01 (10:45AM)



Analysis / Test Report



Client : Gulf TS3 Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasik, Pluak Daeng, Rayong
Thailand 21140

P/O : Project Name : Monitoring EIA

Project Location : GTS3

TESTING
No.0042

Lot ID: 2345410

Date Received : May 29, 2023

Date Reported : Jun 02, 2023

Report Number: 2630854-4

Page 1 of 1

Sample Description	Air Quality	Location	Date Analysis Commenced	Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag	Sample Number	Sampled Date	Total Suspended Particulate (mg/m ³)	Particulate Matter (PM-10) (mg/m ³)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
	1		May 31, 2023								
2345410-22	May 16 - May 17, 2023							0.055	0.042	756	31
2345410-23	May 17 - May 18, 2023							0.049	0.045	756	30
2345410-24	May 18 - May 19, 2023							0.052	0.038	756	30
2345410-25	May 19 - May 20, 2023							0.053	0.038	756	31
2345410-26	May 20 - May 21, 2023							0.048	0.033	756	31
2345410-27	May 21 - May 22, 2023							0.054	0.034	756	32
2345410-28	May 22 - May 23, 2023							0.046	0.040	756	30
Guideline	0.33							0.12			

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B

Particulate Matter (PM-10) : US EPA 40 CFR Part 50 Appendix J

Guideline : Notification of the National Environmental Board, No.24, 2004 (B.E.2547) dated September 22, 2004

Sampled By : Jaradrawee Srinuksa

Remark :

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S. Vagstad, Air Ambient Days 01 (10:46AM)



Analysis / Test Report

Client: Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasil, Pluak Daeng, Rayong
Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTSS

Lot ID: 2345403

Date Received : May 29, 2023

Date Reported : Jun 03, 2023

Report Number: 2673183-1

Page 1 of 1

Sample Description		Air Quality	
Location	Parameter	Location	Parameter
		ตำบลนาเกลือ	Sulfur Dioxide (ppm)
Measurement Date		Measurement by	
May 16, 2023 - May 23, 2023		Jardawee Sirulaka	

Time		2345403-15	2345403-16	2345403-17	2345403-18	2345403-19	2345403-20	2345403-21
May 16, 2023		May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023
12:00 PM - 01:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004
01:00 PM - 02:00 PM		0.004	0.004	0.004	0.006	0.004	0.004	0.004
02:00 PM - 03:00 PM		0.004	0.004	0.003	0.004	0.004	0.004	0.003
03:00 PM - 04:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.003
04:00 PM - 05:00 PM		0.003	0.004	0.004	0.004	0.004	0.004	0.003
05:00 PM - 06:00 PM		0.003	0.004	0.004	0.004	0.004	0.004	0.003
06:00 PM - 07:00 PM		0.004	0.003	0.003	0.003	0.003	0.004	0.003
07:00 PM - 08:00 PM		0.004	0.003	0.003	0.003	0.003	0.004	0.004
08:00 PM - 09:00 PM		0.004	0.003	0.003	0.003	0.003	0.004	0.004
09:00 PM - 10:00 PM		0.004	0.003	0.003	0.003	0.003	0.004	0.004
10:00 PM - 11:00 PM		0.003	0.003	0.003	0.003	0.003	0.004	0.004
11:00 PM - 12:00 AM		0.003	0.003	0.003	0.004	0.004	0.004	0.004
12:00 AM - 01:00 AM		0.003	0.003	0.003	0.004	0.004	0.004	0.004
01:00 AM - 02:00 AM		0.003	0.003	0.003	0.004	0.004	0.004	0.004
02:00 AM - 03:00 AM		0.003	0.003	0.003	0.003	0.003	0.004	0.004
03:00 AM - 04:00 AM		0.003	0.003	0.003	0.004	0.003	0.003	0.004
04:00 AM - 05:00 AM		0.003	0.003	0.003	0.003	0.003	0.004	0.004
05:00 AM - 06:00 AM		0.003	0.003	0.003	0.003	0.003	0.004	0.004
06:00 AM - 07:00 AM		0.003	0.003	0.003	0.004	0.003	0.003	0.003
07:00 AM - 08:00 AM		0.003	0.003	0.003	0.003	0.003	0.004	0.004
08:00 AM - 09:00 AM		0.003	0.004	0.004	0.004	0.004	0.004	0.004
09:00 AM - 10:00 AM		0.003	0.004	0.004	0.004	0.004	0.004	0.003
10:00 AM - 11:00 AM		0.004	0.004	0.004	0.004	0.004	0.004	0.003
11:00 AM - 12:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004
Average		0.003	0.003	0.003	0.004	0.004	0.004	0.004
1hr - Maximum		0.004	0.004	0.004	0.006	0.004	0.004	0.004
Standard 1hr - Average		0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average		0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).

Reference Method : US EPA Method Part 53 and 58

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Saranya C.

Saranya Chaitamthamrong

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13A03-01/EMAIL

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Analysis / Test Report

Client: Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasil, Pluak Daeng, Rayong
Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTSS

Lot ID: 2345403

Date Received : May 29, 2023

Date Reported : Jun 03, 2023

Report Number: 2630848-1

Page 1 of 1

Sample Description		Air Quality	
Location	Parameter	Location	Parameter
		ตำบลนาเกลือ	Sulfur Dioxide (ppm)
Measurement Date		Measurement by	
May 16, 2023 - May 23, 2023		Jardawee Sirulaka	

Time		2345403-22	2345403-23	2345403-24	2345403-25	2345403-26	2345403-27	2345403-28
May 16, 2023		May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023
09:00 AM - 10:00 AM		0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10:00 AM - 11:00 AM		0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11:00 AM - 12:00 PM		0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12:00 PM - 01:00 PM		0.002	0.001	<0.001	0.001	<0.001	<0.001	<0.001
01:00 PM - 02:00 PM		0.002	0.001	<0.001	0.001	<0.001	<0.001	<0.001
02:00 PM - 03:00 PM		0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
03:00 PM - 04:00 PM		0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
04:00 PM - 05:00 PM		0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
05:00 PM - 06:00 PM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
06:00 PM - 07:00 PM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
07:00 PM - 08:00 PM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
08:00 PM - 09:00 PM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
09:00 PM - 10:00 PM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10:00 PM - 11:00 PM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11:00 PM - 12:00 AM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
12:00 AM - 01:00 AM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
01:00 AM - 02:00 AM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
02:00 AM - 03:00 AM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
03:00 AM - 04:00 AM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
04:00 AM - 05:00 AM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
05:00 AM - 06:00 AM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
06:00 AM - 07:00 AM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
07:00 AM - 08:00 AM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
08:00 AM - 09:00 AM		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Average		0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1hr - Maximum		0.003	0.001	<0.001	0.001	<0.001	<0.001	0.001
Standard 1hr - Average		0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average		0.12	0.12	0.12	0.12	0.12	0.12	0.12

Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).

Reference Method : US EPA Method Part 53 and 58

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Saranya Chaitamthamrong

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345398

Date Received : May 29, 2023
Date Reported : Jun 03, 2023
Report Number: 2673177-1

Page 1 of 1

Sample Description		Air Quality	
Location	Location	Air Quality	
Parameter	Parameter	Air Quality	
Measurement Date	Measurement Date	Air Quality	
Measurement by	Measurement by	Air Quality	
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Approved by
Suranya Chaitumthamrong
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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345398

Date Received : May 29, 2023
Date Reported : Jun 03, 2023
Report Number: 2673179-1

Page 1 of 1

Sample Description		Air Quality	
Location		Tasit Jangwae Sruksa	
Parameter		Nitrogen dioxide (ppm)	
Measurement Date		May 16, 2023 - May 23, 2023	
Measurement by		Jangrawee Sruksa	
		2345398-8	
Time		May 16, 2023	May 17, 2023
10:00 AM - 11:00 AM		0.001	0.001
11:00 AM - 12:00 PM		0.002	0.001
12:00 PM - 01:00 PM		0.002	<0.001
01:00 PM - 02:00 PM		0.007	0.003
02:00 PM - 03:00 PM		0.016	0.006
03:00 PM - 04:00 PM		0.021	0.015
04:00 PM - 05:00 PM		0.012	0.012
05:00 PM - 06:00 PM		0.014	0.009
06:00 PM - 07:00 PM		0.003	0.006
07:00 PM - 08:00 PM		0.003	0.003
08:00 PM - 09:00 PM		0.003	0.001
09:00 PM - 10:00 PM		0.003	<0.001
10:00 PM - 11:00 PM		0.004	0.002
11:00 PM - 12:00 AM		0.005	0.004
12:00 AM - 01:00 AM		0.005	0.006
01:00 AM - 02:00 AM		0.012	0.012
02:00 AM - 03:00 AM		0.017	0.006
03:00 AM - 04:00 AM		0.009	0.004
04:00 AM - 05:00 AM		0.005	0.001
05:00 AM - 06:00 AM		0.004	0.001
06:00 AM - 07:00 AM		0.002	0.002
07:00 AM - 08:00 AM		<0.001	0.002
08:00 AM - 09:00 AM		0.001	<0.001
09:00 AM - 10:00 AM		0.001	<0.001
Average		0.006	0.004
1hr - Maximum		0.021	0.015
Standard 1hr - Average		0.170	0.170
Standard		0.170	0.170
: Notification of the National Environment Board No. 33, 2009 (B.E. 2552).			
Reference Method : US EPA Method Part 50 App. F (Chemiluminescence)			



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Deang, Rayong
Thailand 21140

Lot ID: 2345398
Date Received : May 29, 2023
Date Reported : Jun 03, 2023
Report Number: 2673180-1

P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Page 1 of 1

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-15									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-16									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-17									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-18									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-19									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-20									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-21									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

This above results are valid only for the analysed samples as indicated in the report. The results are not valid for other samples or for other locations without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced or used in full.

Approved by
Saranya Chaitumthong
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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Deang, Rayong
Thailand 21140

Lot ID: 2345398
Date Received : May 29, 2023
Date Reported : Jun 03, 2023
Report Number: 2630845-1

P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Page 1 of 1

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-22									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-23									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-24									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-25									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-26									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-27									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

Sample Description Location	Air Quality ก๊าซในอากาศ	2345398-28									
		May 16, 2023	May 17, 2023	May 18, 2023	May 19, 2023	May 20, 2023	May 21, 2023	May 22, 2023	May 23, 2023	May 24, 2023	May 25, 2023
Parameter	Nitrogen dioxide (ppm)	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001
Measurement Date	May 16, 2023 - May 23, 2023										
Measurement by	Jaradavee Siruksa										

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Approved by
Saranya Chaitumthong
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ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng,
Rayong Thailand 21140

Lot ID : 2345407
Date Received : May 29, 2023
Date Reported : Jun 07, 2023
Report Number : 2630852-1

P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Sample Number : 2345407-1 to 7
Parameter : Wind Speed / Wind Direction
Location : ตำบลนาเกลือ
Sampling Date : May 16 - May 23, 2023
Sampling by : Jaradrawee Sriuksa

Time	May 16 - May 17, 2023		May 17 - May 18, 2023		May 18 - May 19, 2023		May 19 - May 20, 2023		May 20 - May 21, 2023		May 21 - May 22, 2023		May 22 - May 23, 2023								
	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)							
11:00 AM - 12:00 PM	1.4	168.0	SSE	2.7	161.0	SSE	3.7	17.0	NNE	1.7	3.0	N	2.0	230.0	SW	0.3	211.0	SSW	2.5	217.0	SW
12:00 PM - 01:00 PM	1.5	230.0	SW	1.8	210.0	SSW	4.8	108.0	ESE	2.1	67.0	ENE	1.5	124.0	SE	0.9	266.0	W	1.5	196.0	SSW
01:00 PM - 02:00 PM	2.0	281.0	W	2.8	200.0	SSW	2.1	187.0	S	2.1	116.0	ESE	1.9	161.0	SSE	0.7	187.0	S	0.7	208.0	SSW
02:00 PM - 03:00 PM	0.9	207.0	SSW	3.3	233.0	SW	2.2	198.0	SSW	2.4	215.0	SW	1.8	180.0	S	3.7	252.0	WSW	0.2	-	-
03:00 PM - 04:00 PM	0.2	-	-	0.8	235.0	SW	2.5	276.0	W	0.8	167.0	SSE	0.9	203.0	SSW	1.1	189.0	S	0.3	206.0	SSW
04:00 PM - 05:00 PM	0.3	296.0	WNW	0.7	141.0	SE	0.6	299.0	WNW	0.8	147.0	SSE	0.7	189.0	S	2.5	241.0	WSW	0.5	237.0	WSW
05:00 PM - 06:00 PM	1.3	299.0	WNW	0.3	193.0	SSW	0.0	-	-	0.0	-	-	0.0	-	-	2.0	211.0	SSW	0.8	226.0	SW
06:00 PM - 07:00 PM	0.3	114.0	ESE	1.6	173.0	S	0.5	104.0	ESE	2.1	62.0	ENE	0.9	87.0	E	1.2	218.0	SW	0.8	210.0	SSW
07:00 PM - 08:00 PM	0.0	-	-	1.2	32.0	NNE	0.0	-	-	0.9	136.0	SE	0.8	330.0	NNW	1.0	222.0	SW	0.2	-	-
08:00 PM - 09:00 PM	0.0	-	-	0.3	88.0	E	0.1	-	-	0.5	84.0	E	0.0	-	-	0.6	225.0	SW	0.2	-	-
09:00 PM - 10:00 PM	0.2	-	-	0.0	-	-	0.1	-	-	0.2	-	-	0.3	180.0	S	0.6	201.0	SSW	0.0	-	-
10:00 PM - 11:00 PM	0.2	-	-	0.2	-	-	0.2	-	-	0.0	-	-	0.3	37.0	NE	0.0	-	-	0.1	-	-
11:00 PM - 12:00 AM	0.3	213.0	SSW	0.3	80.0	E	0.3	85.0	E	0.5	110.0	ESE	1.0	81.0	E	0.3	214.0	SW	0.1	-	-
12:00 AM - 01:00 AM	0.3	132.0	SE	0.3	109.0	ESE	0.3	122.0	ESE	0.3	127.0	SE	0.2	-	-	0.0	-	-	0.3	206.0	SSW
01:00 AM - 02:00 AM	0.5	107.0	ESE	0.2	-	-	0.2	-	-	0.3	84.0	E	0.2	-	-	0.0	-	-	0.3	173.0	S
02:00 AM - 03:00 AM	0.2	-	-	0.1	-	-	0.0	-	-	0.3	82.0	E	0.3	85.0	E	0.5	177.0	S	0.3	156.0	SSE
03:00 AM - 04:00 AM	0.1	-	-	0.1	-	-	0.8	166.0	SSE	0.5	63.0	ENE	0.1	-	-	0.3	168.0	SSE	0.5	152.0	SSE
04:00 AM - 05:00 AM	0.1	-	-	0.3	68.0	ENE	1.6	278.0	W	0.2	-	-	0.2	-	-	0.3	110.0	ESE	1.2	166.0	S
05:00 AM - 06:00 AM	0.0	-	-	0.0	-	-	1.7	280.0	W	0.0	-	-	0.3	80.0	E	0.4	81.0	E	1.6	137.0	SE
06:00 AM - 07:00 AM	0.0	-	-	2.0	64.0	ENE	0.9	36.0	NE	1.1	71.0	ENE	1.3	71.0	ENE	0.2	-	-	1.0	81.0	E
07:00 AM - 08:00 AM	0.7	102.0	ESE	1.5	85.0	E	3.1	45.0	NE	2.2	68.0	ENE	1.0	102.0	ESE	0.2	-	-	0.3	127.0	SE
08:00 AM - 09:00 AM	0.3	127.0	SE	2.6	97.0	E	2.0	29.0	NNE	3.1	106.0	ESE	0.8	91.0	E	0.7	122.0	ESE	0.5	186.0	S
09:00 AM - 10:00 AM	0.5	217.0	SW	4.0	68.0	ENE	3.4	20.0	NNE	5.3	102.0	ESE	0.6	132.0	SE	1.7	153.0	SSE	0.2	-	-
10:00 AM - 11:00 AM	1.7	219.0	SW	3.5	84.0	E	2.7	350.0	N	2.0	188.0	S	1.5	228.0	SW	2.3	95.0	E	0.2	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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

Approved by

Sarayuth Jitranont
Assistant General Manager



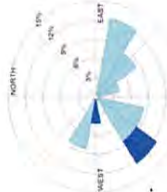
Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng,
Rayong Thailand 21140

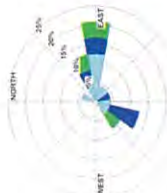
Lot ID : 2345407
Date Received : May 29, 2023
Date Reported : Jun 07, 2023
Report Number : 2630852-1

P/O :
Project Name : Monitoring EIA
Project Location : GTS3

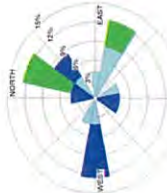
Wind Rose



Date : May 16-17, 2023



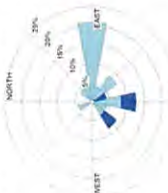
Date : May 17-18, 2023



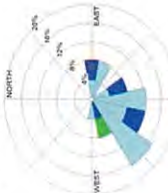
Date : May 18-19, 2023



Date : May 19-20, 2023



Date : May 20-21, 2023



Date : May 21-22, 2023

WS(m/s)	WS(m/s)
> 10.0	6%
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	4.76
1.7-3.3	17.86
0.3-1.7	49.40
Calm	27.98

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Approved by

Sarayuth Jitranont
Assistant General Manager



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng,
Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTSS

Lot ID : 2345407

Date Received : May 29, 2023
Date Reported : Jun 07, 2023
Report Number : 2630852-1

P/O :

Project Name : Monitoring EIA

Project Location : GTSS

Page 1 of 2

Sample Number 2345407-8 to 14

Parameter Wind Speed / Wind Direction

Location ตำบลนาเกลือ อำเภอนาเกลือ จังหวัดสุราษฎร์ธานี

Sampling Date May 16 - May 23, 2023

Sampling by Jaradawee Siruksa

Time	May 16 - May 17, 2023		May 17 - May 18, 2023		May 18 - May 19, 2023		May 19 - May 20, 2023		May 20 - May 21, 2023		May 21 - May 22, 2023		May 22 - May 23, 2023								
	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)							
10:00 AM - 11:00 AM	0.5	26.0	NNE	1.1	276.0	W	0.0	-	0.3	348.0	NNW	3.3	236.0	SW	0.0	-	0.0	-	-	-	
11:00 AM - 12:00 PM	0.6	63.0	ENE	0.7	12.0	NNE	0.6	303.0	WNW	0.4	277.0	W	0.2	-	0.0	-	0.2	-	-	-	
12:00 PM - 01:00 PM	0.5	52.0	NE	1.8	275.0	W	0.9	265.0	W	2.2	254.0	WSW	0.0	-	0.0	-	0.0	-	-	-	
01:00 PM - 02:00 PM	0.0	-	-	0.9	270.0	W	0.8	318.0	NW	0.4	315.0	NW	0.3	346.0	NNW	0.4	72.0	ENE	0.8	60.0	ENE
02:00 PM - 03:00 PM	0.2	-	-	0.6	286.0	WNW	0.6	293.0	WNW	0.1	-	-	0.2	-	0.5	49.0	NE	0.5	44.0	NE	
03:00 PM - 04:00 PM	0.3	320.0	NW	1.5	257.0	WSW	0.2	-	0.0	-	0.0	-	0.6	285.0	WNW	0.9	64.0	ENE	0.7	66.0	ENE
04:00 PM - 05:00 PM	0.2	-	-	0.0	-	-	0.4	291.0	WNW	0.0	-	-	0.5	340.0	NNW	0.7	80.0	E	0.4	59.0	ENE
05:00 PM - 06:00 PM	0.3	37.0	NE	1.0	59.0	ENE	0.0	-	0.1	-	-	-	0.6	62.0	ENE	0.5	67.0	ENE	0.6	18.0	NNE
06:00 PM - 07:00 PM	0.4	37.0	NE	0.4	62.0	ENE	0.0	-	-	0.6	69.0	ENE	0.6	62.0	ENE	0.5	67.0	ENE	0.6	18.0	NNE
07:00 PM - 08:00 PM	0.5	47.0	NE	0.3	56.0	NE	0.6	62.0	ENE	0.3	66.0	ENE	0.6	47.0	NE	0.2	-	-	0.0	-	-
08:00 PM - 09:00 PM	0.0	-	-	0.1	-	-	0.0	-	0.0	-	0.0	-	0.2	-	0.1	-	0.2	-	-	-	-
09:00 PM - 10:00 PM	0.2	-	-	0.1	-	-	0.2	-	0.2	-	0.0	-	0.0	-	0.0	-	0.0	-	-	-	-
10:00 PM - 11:00 PM	0.1	-	-	0.1	-	-	0.3	62.0	ENE	0.0	-	-	0.1	-	0.0	-	0.0	-	-	-	-
11:00 PM - 12:00 AM	0.3	46.0	NE	0.2	-	-	0.3	61.0	ENE	0.4	53.0	NE	0.2	-	0.3	60.0	ENE	0.2	-	-	-
12:00 AM - 01:00 AM	0.3	47.0	NE	0.2	-	-	0.5	41.0	NE	0.0	-	-	0.2	-	0.3	60.0	ENE	0.3	57.0	ENE	ENE
01:00 AM - 02:00 AM	0.2	-	-	0.3	57.0	ENE	0.0	-	0.0	-	0.0	-	0.2	-	0.3	60.0	ENE	0.3	56.0	NE	NE
02:00 AM - 03:00 AM	0.2	-	-	0.3	56.0	NE	0.0	-	0.0	-	0.0	-	0.3	47.0	NE	0.5	59.0	ENE	0.5	56.0	NE
03:00 AM - 04:00 AM	0.1	-	-	0.2	-	-	0.0	-	0.3	27.0	NNE	0.3	47.0	NE	0.1	-	0.1	-	-	-	-
04:00 AM - 05:00 AM	0.1	-	-	0.0	-	-	0.3	339.0	NNW	0.5	27.0	NNE	0.5	47.0	NE	0.1	-	-	0.2	-	-
05:00 AM - 06:00 AM	0.5	47.0	NE	0.0	-	-	0.6	284.0	WNW	0.6	354.0	N	0.1	-	0.6	38.0	NE	0.1	-	-	-
06:00 AM - 07:00 AM	0.3	30.0	NNE	0.6	202.0	SSW	0.6	305.0	NW	0.0	-	-	0.2	-	0.0	-	0.0	-	-	-	-
07:00 AM - 08:00 AM	0.5	31.0	NNE	0.6	16.0	NNE	0.8	223.0	SW	1.2	311.0	NW	0.0	-	0.3	55.0	NE	0.5	31.0	NNE	SSW
08:00 AM - 09:00 AM	0.7	47.0	NE	2.6	156.0	SSE	0.6	323.0	NW	0.2	-	-	0.6	354.0	N	1.4	267.0	W	1.7	210.0	SSW
09:00 AM - 10:00 AM	0.0	-	-	0.7	311.0	NW	1.0	14.0	NNE	1.0	257.0	WSW	0.0	-	0.0	-	0.0	-	-	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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

Approved by

Saryuth Uthranont

Assistant General Manager

Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng,
Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTSS

Lot ID : 2345407

Date Received : May 29, 2023
Date Reported : Jun 07, 2023
Report Number : 2630852-1

P/O :

Project Name : Monitoring EIA

Project Location : GTSS

Page 2 of 2

Wind Rose



Date : May 16-17, 2023



Date : May 17-18, 2023



Date : May 18-19, 2023



Date : May 19-20, 2023



Date : May 20-21, 2023



Date : May 21-22, 2023

WS (m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	0.60
1.7-3.3	2.38
0.3-1.7	50.00
Calm	47.02

Date : May 16-23, 2023

Date : May 16-23, 2023

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

Approved by

Saryuth Uthranont

Assistant General Manager



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassat, Pluak Daeng,
Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Lot ID : 2345407

Date Received : May 29, 2023
Date Reported : Jun 07, 2023
Report Number : 2630852-1

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Sample Number : 2345407-15 to 21

Parameter : Wind Speed / Wind Direction

Location : โรงเรือนเพาะชำ(โรงเรือนกล้วยไม้)

Sampling Date : May 16 - May 23, 2023

Sampling by : Jaradrawee Srinukra

Page 1 of 2

Time	May 16 - May 17, 2023		May 17 - May 18, 2023		May 18 - May 19, 2023		May 19 - May 20, 2023		May 20 - May 21, 2023		May 21 - May 22, 2023		May 22 - May 23, 2023								
	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)							
12:00 PM - 01:00 PM	0.4	225.0	SW	0.0	-	0.2	-	-	0.0	-	0.6	245.0	WSW	0.1	-	-	0.3	40.0	NE	-	
01:00 PM - 02:00 PM	0.3	57.0	ENE	0.0	-	0.0	-	-	0.3	33.0	NNE	0.7	350.0	N	0.1	-	-	0.2	-	-	
02:00 PM - 03:00 PM	0.2	-	-	0.0	-	0.3	290.0	WNW	0.2	-	-	0.7	326.0	NW	0.7	12.0	NNE	0.2	-	-	
03:00 PM - 04:00 PM	0.2	-	-	0.8	10.0	N	0.3	229.0	SW	0.3	333.0	NNW	0.5	346.0	NNW	0.6	224.0	SW	0.6	238.0	WSW
04:00 PM - 05:00 PM	0.5	213.0	SSW	0.0	-	0.1	-	0.3	329.0	NNW	0.3	83.0	E	0.6	149.0	SSE	0.5	233.0	WSW	-	
05:00 PM - 06:00 PM	0.1	-	0.0	-	0.0	-	0.5	188.0	S	0.0	-	0.0	-	0.0	-	0.6	150.0	SSE	0.3	167.0	SSE
06:00 PM - 07:00 PM	0.0	-	0.2	-	-	0.3	140.0	SE	0.1	-	0.4	150.0	SSE	0.7	105.0	ESE	0.3	186.0	S	-	
07:00 PM - 08:00 PM	0.0	-	0.3	143.0	SE	0.3	134.0	SE	0.1	-	-	0.0	-	0.0	-	0.1	-	0.3	179.0	S	
08:00 PM - 09:00 PM	0.2	-	-	0.3	143.0	SE	0.3	229.0	SW	0.0	-	-	0.5	191.0	S	0.1	-	0.3	179.0	S	
09:00 PM - 10:00 PM	0.3	179.0	S	0.1	-	0.1	-	0.5	164.0	SSE	0.7	191.0	S	0.3	190.0	S	0.1	-	-	-	
10:00 PM - 11:00 PM	0.5	179.0	S	0.3	143.0	SE	0.0	-	-	0.4	164.0	SSE	0.5	191.0	S	0.3	198.0	SSW	0.0	-	
11:00 PM - 12:00 AM	0.3	179.0	S	0.2	-	0.0	-	0.3	208.0	SSW	0.5	191.0	S	0.4	153.0	SSE	0.2	-	-	-	
12:00 AM - 01:00 AM	0.3	179.0	S	0.2	-	0.5	45.0	NE	0.3	325.0	NW	0.2	-	0.3	214.0	SW	0.5	179.0	S	-	
01:00 AM - 02:00 AM	0.1	-	0.0	-	0.0	-	0.8	5.0	N	0.0	-	0.2	-	0.3	265.0	W	0.0	-	-	-	
02:00 AM - 03:00 AM	0.2	-	0.2	-	0.0	-	0.0	-	0.0	-	0.0	-	0.3	265.0	W	0.3	179.0	S	-	-	
03:00 AM - 04:00 AM	0.2	-	-	0.3	143.0	SE	0.2	-	0.2	-	0.2	-	0.3	191.0	S	0.5	265.0	W	0.2	-	
04:00 AM - 05:00 AM	0.3	179.0	S	0.3	143.0	SE	0.0	-	0.3	324.0	NW	0.3	191.0	S	0.2	-	0.2	-	-	-	
05:00 AM - 06:00 AM	0.5	87.0	E	0.0	-	0.0	-	0.4	325.0	NW	1.0	330.0	NNW	0.0	-	0.2	-	-	-	-	
06:00 AM - 07:00 AM	0.5	69.0	ENE	1.1	359.0	N	0.7	317.0	NW	0.5	325.0	NW	0.6	107.0	ESE	0.1	-	-	0.3	79.0	F
07:00 AM - 08:00 AM	0.3	69.0	ENE	0.3	268.0	W	1.1	192.0	SSW	0.5	353.0	N	0.5	87.0	E	0.2	-	-	1.5	349.0	N
08:00 AM - 09:00 AM	0.0	-	-	0.0	-	-	1.6	325.0	NW	0.5	200.0	SSW	0.5	115.0	ESE	0.8	203.0	SSW	1.2	303.0	WNW
09:00 AM - 10:00 AM	2.1	333.0	NNW	1.1	320.0	NW	1.0	277.0	W	0.3	292.0	WNW	0.0	-	1.0	341.0	NNW	1.0	342.0	NNW	-
10:00 AM - 11:00 AM	0.0	-	0.5	214.0	SW	1.5	320.0	NW	0.2	-	-	-	0.7	331.0	NNW	0.8	200.0	SSW	-	-	
11:00 AM - 12:00 PM	0.0	-	1.0	283.0	WNW	0.0	-	0.8	284.0	WNW	0.3	178.0	S	0.7	221.0	SW	0.8	143.0	SE	-	

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

The above results are valid only for the analyzed samples as indicated in this report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. A.L.S. Laboratory Group (Thailand) Co., Ltd. strongly recommends that this report is not reproduced except in full.

Approved by

Sarayuth Jitranont

Assistant General Manager

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Approved by

Sarayuth Jitranont

Assistant General Manager



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassat, Pluak Daeng,
Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Lot ID : 2345407

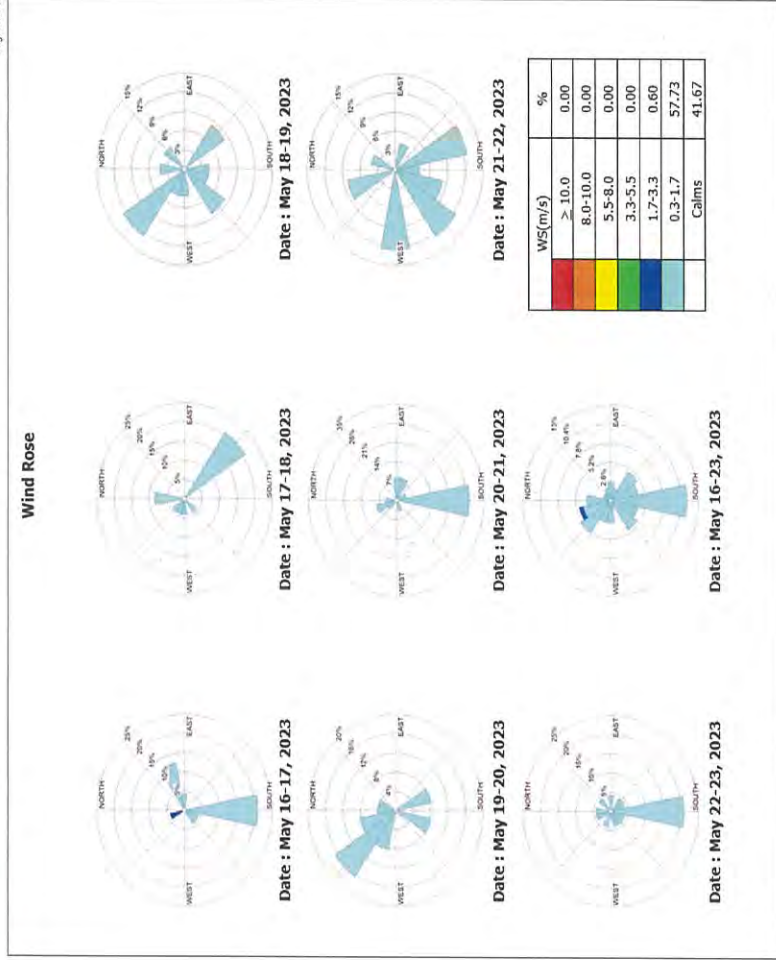
Date Received : May 29, 2023
Date Reported : Jun 07, 2023
Report Number : 2630852-1

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Page 2 of 2





Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Daeng,
Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Sample Number 2345407-22 to 28

Parameter Wind Speed / Wind Direction

Location จ.ระยอง

Sampling Date May 16 - May 23, 2023

Sampling by Jaradawee Siruksa

Analysis / Test Report

Lot ID : 2345407

Date Received : May 29, 2023

Date Reported : Jun 07, 2023

Report Number : 2630852-1

Page 1 of 2

Time	May 16 - May 17, 2023		May 17 - May 18, 2023		May 18 - May 19, 2023		May 19 - May 20, 2023		May 20 - May 21, 2023		May 21 - May 22, 2023		May 22 - May 23, 2023								
	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)							
09:00 AM - 10:00 AM	0.7	183.0	S	0.0	-	2.8	233.0	SW	0.0	-	1.5	264.0	W	1.1	260.0	W	3.0	184.0	S		
10:00 AM - 11:00 AM	0.0	-	-	0.0	-	1.1	216.0	SW	2.4	39.0	NE	1.1	0.0	N	2.8	182.0	S	3.3	152.0	SSE	
11:00 AM - 12:00 PM	1.6	194.0	SSW	0.0	-	0.3	221.0	SW	1.8	32.0	NNE	1.9	38.0	NE	1.2	178.0	S	2.8	177.0	S	
12:00 PM - 01:00 PM	1.0	333.0	NNW	3.1	137.0	SE	0.0	-	1.0	183.0	S	0.0	-	2.0	136.0	SE	1.3	175.0	S		
01:00 PM - 02:00 PM	1.8	203.0	SSW	2.2	153.0	SSE	0.8	137.0	SE	0.9	126.0	SE	0.0	-	1.8	136.0	SE	1.9	145.0	SE	
02:00 PM - 03:00 PM	0.7	124.0	SE	3.5	136.0	SE	0.0	-	0.0	-	0.3	202.0	SSW	0.5	160.0	SSE	2.4	125.0	SE		
03:00 PM - 04:00 PM	1.3	84.0	E	0.0	-	1.2	129.0	SE	0.0	-	0.8	223.0	SW	1.3	148.0	SSE	1.2	137.0	SE		
04:00 PM - 05:00 PM	1.0	52.0	NE	0.0	-	0.0	-	0.6	193.0	SSW	0.5	138.0	SE	1.0	167.0	SSE	1.0	143.0	SE		
05:00 PM - 06:00 PM	3.2	156.0	SSE	0.0	-	0.0	-	0.0	-	0.5	162.0	SSE	1.0	142.0	SE	1.5	138.0	SE			
06:00 PM - 07:00 PM	0.0	-	-	0.0	-	1.5	151.0	SSE	1.0	158.0	SSE	0.0	-	1.2	146.0	SE	2.0	145.0	SE		
07:00 PM - 08:00 PM	0.0	-	-	0.3	140.0	SE	2.5	137.0	SE	0.0	-	0.0	-	0.9	133.0	SE	0.8	131.0	SE		
08:00 PM - 09:00 PM	1.6	173.0	S	0.3	124.0	SE	1.1	140.0	SE	0.0	-	0.2	-	1.3	191.0	S	1.1	127.0	SE		
09:00 PM - 10:00 PM	0.9	193.0	SSW	0.5	122.0	ESE	1.2	137.0	SE	0.6	194.0	SSW	0.3	139.0	SE	0.0	-	0.7	129.0	SE	
10:00 PM - 11:00 PM	0.9	142.0	SE	0.3	139.0	SE	0.9	142.0	SE	0.0	-	0.0	-	0.8	132.0	SE	1.0	152.0	SSE		
11:00 PM - 12:00 AM	0.0	-	-	0.3	172.0	S	0.9	105.0	ESE	0.0	-	0.7	155.0	SSE	0.0	-	0.7	155.0	SSE		
12:00 AM - 01:00 AM	0.7	110.0	ESE	0.2	-	1.5	129.0	SE	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-		
01:00 AM - 02:00 AM	0.0	-	-	0.1	-	1.0	155.0	SSE	0.0	-	0.0	-	0.0	-	1.4	87.0	E	0.7	124.0	SE	
02:00 AM - 03:00 AM	0.0	-	-	0.3	100.0	E	1.3	146.0	SE	0.5	30.0	NNE	0.5	140.0	SE	1.4	86.0	E	1.8	133.0	SE
03:00 AM - 04:00 AM	0.0	-	-	1.7	124.0	SE	0.8	120.0	ESE	1.3	174.0	S	0.3	153.0	SSE	1.0	156.0	SE	1.4	150.0	SSE
04:00 AM - 05:00 AM	2.6	181.0	S	0.0	-	1.5	94.0	E	3.0	128.0	SE	1.4	239.0	WSW	1.5	219.0	SW	2.0	149.0	SSE	
05:00 AM - 06:00 AM	0.4	119.0	ESE	0.7	262.0	W	1.3	232.0	SW	1.6	244.0	WSW	1.7	201.0	SSW	0.7	256.0	WSW	2.8	110.0	ESE
06:00 AM - 07:00 AM	1.4	283.0	NNW	1.1	202.0	SSW	0.0	-	0.5	230.0	SW	0.7	242.0	WSW	3.0	150.0	SSE	1.2	184.0	S	
07:00 AM - 08:00 AM	0.0	-	-	2.5	233.0	SW	0.8	97.0	E	1.2	226.0	SW	1.3	231.0	SW	2.2	218.0	SW	1.3	193.0	SSW
08:00 AM - 09:00 AM	0.4	210.0	SSW	0.0	-	1.3	112.0	ESE	1.4	343.0	NNW	1.2	84.0	E	0.0	-	-	1.5	108.0	ESE	

Reference Method : Cup Anemometer & Anodized Aluminum Vane Method

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

Approved by

Sarayuth Jitranont

Assistant General Manager

Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Daeng,
Rayong Thailand 21140

P/O :

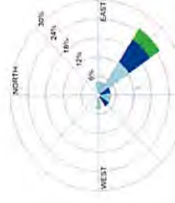
Project Name : Monitoring EIA

Project Location : GTS3

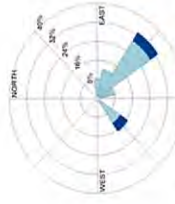
Wind Rose



Date : May 16-17, 2023



Date : May 17-18, 2023



Date : May 18-19, 2023



Date : May 19-20, 2023



Date : May 20-21, 2023



Date : May 21-22, 2023

WS(m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	1.19
1.7-3.3	16.07
0.3-1.7	54.76
Calm	27.98

Date : May 16-23, 2023

Date : May 22-23, 2023

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

Approved by

Sarayuth Jitranont

Assistant General Manager

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Daeng,
Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Sample Number 2345407-22 to 28

Parameter Wind Speed / Wind Direction

Location จ.ระยอง

Sampling Date May 16 - May 23, 2023

Sampling by Jaradawee Siruksa

Analysis / Test Report

Lot ID : 2345407

Date Received : May 29, 2023

Date Reported : Jun 07, 2023

Report Number : 2630852-1

Page 1 of 2

Time	May 16 - May 17, 2023		May 17 - May 18, 2023		May 18 - May 19, 2023		May 19 - May 20, 2023		May 20 - May 21, 2023		May 21 - May 22, 2023		May 22 - May 23, 2023								
	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)	WS (m/s)	WD (deg)							
09:00 AM - 10:00 AM	0.7	183.0	S	0.0	-	2.8	233.0	SW	0.0	-	1.5	264.0	W	1.1	260.0	W	3.0	184.0	S		
10:00 AM - 11:00 AM	0.0	-	-	0.0	-	1.1	216.0	SW	2.4	39.0	NE	1.1	0.0	N	2.8	182.0	S	3.3	152.0	SSE	
11:00 AM - 12:00 PM	1.6	194.0	SSW	0.0	-	0.3	221.0	SW	1.8	32.0	NNE	1.9	38.0	NE	1.2	178.0	S	2.8	177.0	S	
12:00 PM - 01:00 PM	1.0	333.0	NNW	3.1	137.0	SE	0.0	-	1.0	183.0	S	0.0	-	2.0	136.0	SE	1.3	175.0	S		
01:00 PM - 02:00 PM	1.8	203.0	SSW	2.2	153.0	SSE	0.8	137.0	SE	0.9	126.0	SE	0.0	-	1.8	136.0	SE	1.9	145.0	SE	
02:00 PM - 03:00 PM	0.7	124.0	SE	3.5	136.0	SE	0.0	-	0.0	-	0.3	202.0	SSW	0.5	160.0	SSE	2.4	125.0	SE		
03:00 PM - 04:00 PM	1.3	84.0	E	0.0	-	1.2	129.0	SE	0.0	-	0.8	223.0	SW	1.3	148.0	SSE	1.2	137.0	SE		
04:00 PM - 05:00 PM	1.0	52.0	NE	0.0	-	0.0	-	0.6	193.0	SSW	0.5	138.0	SE	1.0	167.0	SSE	1.0	143.0	SE		
05:00 PM - 06:00 PM	3.2	156.0	SSE	0.0	-	0.0	-	0.0	-	0.5	162.0	SSE	1.0	142.0	SE	1.5	138.0	SE			
06:00 PM - 07:00 PM	0.0	-	-	0.0	-	1.5	151.0	SSE	1.0	158.0	SSE	0.0	-	1.2	146.0	SE	2.0	145.0	SE		
07:00 PM - 08:00 PM	0.0	-	-	0.3	140.0	SE	2.5	137.0	SE	0.0	-	0.0	-	0.9	133.0	SE	0.8	131.0	SE		
08:00 PM - 09:00 PM	1.6	173.0	S	0.3	124.0	SE	1.1	140.0	SE	0.0	-	0.2	-	1.3	191.0	S	1.1	127.0	SE		
09:00 PM - 10:00 PM	0.9	193.0	SSW	0.5	122.0	ESE	1.2	137.0	SE	0.6	194.0	SSW	0.3	139.0	SE	0.0	-	0.7	129.0	SE	
10:00 PM - 11:00 PM	0.9	142.0	SE	0.3	139.0	SE	0.9	142.0	SE	0.0	-	0.0	-	0.8	132.0	SE	1.0	152.0	SSE		
11:00 PM - 12:00 AM	0.0	-	-	0.3	172.0	S	0.9	105.0	ESE	0.0	-	0.7	155.0	SSE	0.0	-	0.7	155.0	SSE		
12:00 AM - 01:00 AM	0.7	110.0	ESE	0.2	-	1.5	129.0	SE	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	-		
01:00 AM - 02:00 AM	0.0	-	-	0.1	-	1.0	155.0	SSE	0.0	-	0.0	-	0.0	-	1.4	87.0	E	0.7	124.0	SE	
02:00 AM - 03:00 AM	0.0	-	-	0.3	100.0	E	1.3	146.0	SE	0.5	30.0	NNE	0.5	140.0	SE	1.4	86.0	E	1.8	133.0	SE
03:00 AM - 04:00 AM	0.0	-	-	1.7	124.0	SE	0.8	120.0	ESE	1.3	174.0	S	0.3	153.0	SSE	1.0	156.0	SE	1.4	150.0	SSE
04:00 AM - 05:00 AM	2.6	181.0	S	0.0	-	1.5	94.0	E	3.0	128.0	SE	1.4	239.0	WSW	1.5	219.0	SW	2.0	149.0	SSE	
05:00 AM - 06:00 AM	0.4	119.0	ESE	0.7	262.0	W	1.3	232.0	SW	1.6	244.0	WSW	1.7	201.0	SSW	0.7	256.0	WSW	2.8	110.0	ESE
06:00 AM - 07:00 AM	1.4	283.0	NNW	1.1	202.0	SSW	0.0	-	0.5	230.0	SW	0.7	242.0	WSW	3.0	150.0	SSE	1.2	184.0	S	
07:00 AM - 08:00 AM	0.0	-	-	2.5	233.0	SW	0.8	97.0	E	1.2	226.0	SW	1.3	231.0	SW	2.2	218.0	SW	1.3	193.0	SSW
08:00 AM - 09:00 AM	0.4	210.0	SSW	0.0	-	1.3	112.0	ESE	1.4	343.0	NNW	1.2	84.0	E	0.0	-	-	1.5	108.0	ESE	

Reference Method : Cup Anemometer & Anodized Aluminum Vane Method

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Approved by

Sarayuth Jitranont

Assistant General Manager

ภาคผนวก ค-2

คุณภาพอากาศจากปล่องระบายอากาศ



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Lot ID: 2345493

Date Received : May 18, 2023
Date Reported : May 26, 2023
Report Number : 2631034-1

Page 1 of 1

Sample Number 2345493-1

Sample Description Emission from Stationary Source

Location Ulaa HRSG 11

Measurement Date May 17, 2023

Stack Description									
Ambient Temperature	37	°C	Diameter	3.00	m	Oxygen	13.97	%	
Ambient Pressure	751	mmHg	Shape	Circle		Carbon dioxide	3.91	%	
Type of Process	Combustion		Stack Temperature	124	°C	Gas Velocity	17.42	m/s	
Type of Fuel	Natural Gas		Moisture	6.67	%	Flow Rate	306585	Nm ³ /hr	
Run No.	Sampling Time	Oxygen (%)	Carbon Dioxide (%)	Oxides of Nitrogen (ppm) at Actual O ₂	Sulfur Dioxide (ppm) at Actual O ₂				
1	01:40 PM - 02:00 PM	13.97	3.91	16.67	33.42	0.29	0.58		
2	02:01 PM - 02:21 PM	13.97	3.91	16.84	33.79	0.22	0.44		
3	02:22 PM - 02:42 PM	13.96	3.91	16.75	33.56	0.20	0.40		
Average (ppm)		13.97	3.91	16.75	33.59	0.24	0.47		
Guideline ¹ (ppm)				60			6		
Guideline ² (ppm)				-	120		20		
Result (mg/Nm ³)				31.52	63.19	0.62	1.24		
Emission Rate at Actual O ₂ (g/s)				2.6839			0.0528		
Guideline ¹ (g/s)				7.4			1.0		
Method				US EPA Method 7E			US EPA Method 6C		

Sampled By : Saksit Phaisanphout

Guideline : ¹ Environmental Impact Assessment Report of Gulf TSS Co., Ltd.

² Notification of the Ministry of Natural Resources and Environment, 2010 (B.E. 2553) on Emission Standard from New Power Plants.

Technical Management

Wichan Choonharat
Manager
เวชชาน 7-204-6-6113

Approved by

Sarayu Jitranont
Assistant General Manager
สารยู 7-204-6-4702

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Lot ID: 2345493

Date Received : May 18, 2023
Date Reported : May 26, 2023
Report Number : 2631034-1

Page 1 of 1

Sample Number 2345493-1

Sample Description Emission from Stationary Source

Location Ulaa HRSG 11

Measurement Date May 17, 2023

Stack Description									
Ambient Temperature	37	°C	Diameter	3.00	m	Oxygen	13.97	%	
Ambient Pressure	751	mmHg	Shape	Circle		Carbon dioxide	3.91	%	
Type of Process	Combustion		Stack Temperature	124	°C	Gas Velocity	17.42	m/s	
Type of Fuel	Natural Gas		Moisture	6.67	%	Flow Rate	306585	Nm ³ /hr	
Run No.	Sampling Time	Oxygen (%)	Carbon Dioxide (%)	Carbon Monoxide (ppm) at Actual O ₂	at 7% O ₂				
1	01:40 PM - 02:00 PM	13.97	3.91	0.71	1.42				
2	02:01 PM - 02:21 PM	13.97	3.91	0.75	1.51				
3	02:22 PM - 02:42 PM	13.96	3.91	0.83	1.65				
Average (ppm)		13.97	3.91	0.76	1.53				
Guideline ¹ (ppm)				-	690				
Result (mg/Nm ³)				0.87	1.75				
Emission Rate at Actual O ₂ (g/s)				0.0743					
Method				US EPA Method 10					

Sampled By : Saksit Phaisanphout

Guideline : Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special Part 125 D,
dated December 4, 2006 (B.E. 2549)

Technical Management

Wichan Choonharat
Manager
เวชชาน 7-204-6-6113

Approved by

Sarayu Jitranont
Assistant General Manager
สารยู 7-204-6-4702

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand
21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Page 1 of 2

Lot ID: 2345496

Date Received : May 18, 2023

Date Reported : May 26, 2023

Report Number: 2631037-1

Sample Number

2345496-1

Sampled Date

May 17, 2023

Sample Description

Emission from Stationary Source

Location

Ulaea HRSG 11

Date Analysis Commenced

May 19, 2023

Condition of Sample

Extracted into one filter paper placed in plastic petri dish

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result (1)	Guideline (2)	Method	Testing Location
Air Testing								
Total Suspended Particulate	01:40 PM - 02:28 PM	mg/m ³	-	0.5	<0.5	<0.5	United States Environmental Protection Agency, EPA Method 5	Bangkok

Guideline :

Guideline (1) Environmental Impact Assessment Report of Gulf TSS Co., Ltd.

Guideline (2) Notification of the Ministry of Natural Resources and Environment, 2010 (B.E. 2553) on Emission Standard from New Power Plants.

Technical Management

Orawan R.

Orawan Rakyong

Scientist (3)

หน้างาน 3-204-6-6115

Technical Management

Orawan R.

Orawan Rakyong

Scientist (3)

หน้างาน 3-204-6-6115

Approved by

Kanokorn Anek

Kanokorn Anek

Senior Manager

หน้างาน 3-204-6-6111

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13400-611 EMAIL

S:\Reports\Air Stack_02_361.m (4/27PM)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand
21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Page 2 of 2

Lot ID: 2345496

Date Received : May 18, 2023

Date Reported : May 26, 2023

Report Number: 2631037-1

Sample Number

2345496-1

Sampled Date

May 17, 2023

Sample Description

Emission from Stationary Source

Location

Ulaea HRSG 11

Date Analysis Commenced

May 19, 2023

Condition of Sample

Extracted into one filter paper placed in plastic petri dish

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result (1)	Guideline (2)	Method	Testing Location
Air Testing								
Total Suspended Particulate	01:40 PM - 02:28 PM	g/s	-	-	<0.04	1.8	Calculated	Bangkok

Guideline :

Guideline (1) Environmental Impact Assessment Report of Gulf TSS Co., Ltd.

Guideline (2) Notification of the Ministry of Natural Resources and Environment, 2010 (B.E. 2553) on Emission Standard from New Power Plants.

Sampled By : Saksit Phaisanphit

Remark :

- LOD : Limit of Detection

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

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S:\Reports\Air Stack_02_361.m (4/27PM)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140

Lot ID: 2345495
Date Received : May 17, 2023
Date Reported : May 26, 2023
Report Number : 2631035-1

P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Page 1 of 1

Sample Number : 2345495-1
Sample Description : Emission from Stationary Source
Location : Ilaea HRSG 12
Measurement Date : May 17, 2023

		Stack Description								
Ambient Temperature	37	°C		Diameter	3.00	m		Oxygen	14.22	%
Ambient Pressure	751	mmHg		Shape	Circle			Carbon dioxide	4.10	%
Type of Process	Combustion			Stack Temperature	125	°C		Gas Velocity	18.88	m/s
Type of Fuel	Natural Gas			Moisture	10.04	%		Flow Rate	319617	Nm3/hr



Analysis / Test Report

Client: Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Phrak Deang, Rayong Thailand
21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Lot ID: 2345497

Date Received : May 17, 2023
Date Reported : May 25, 2023
Report Number: 2631038-1

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Page 1 of 2

Sample Number 2345497-1

Sample Date May 17, 2023

Sample Description Emission from Stationary Source

Location Ulaa HSG 12

Date Analysis Commenced May 19, 2023

Condition of Sample Extracted into one filter paper placed in plastic petri dish and one amber plastic bottle

Stack Description									
Ambient Pressure	751	mmHg	3.00	m	Oxygen	14.1	%		
Ambient Temperature	37.0	°C	Circle		Carbon Dioxide	3.8	%		
Type of Process	Combustion	Stack Temperature	125	°C	Gas Velocity	18.9	m/s		
Type of Fuel	Natural Gas	Moisture	9.92	%	Flow Rate (Actual O2)	319946	Nm3/hr		
Analyte	Sampled Time	Unit	LOQ	Result	Guideline	Method			
			(LOR)	(1)	(2)				

Air Testing

Total Suspended Particulate	11:40 AM - 12:28 PM	mg/m3	0.5	<0.5	28	60	United States Environmental Protection Agency, EPA Method 5	Bangkok
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Guideline :

Guideline (1) Environmental Impact Assessment Report of Gulf TSS Co., Ltd.
Guideline (2) Notification of the Ministry of Natural Resources and Environment, 2010 (B.E. 2553) on Emission Standard from New Power Plants.

Technical Management **Savanya C.** Approved by **Kanokkom Anek**
Saranya Chalerthamrong Senior Manager
Scientist (4)
หน้าตลับ 7-204-4-4717

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Analysis / Test Report

Client: Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Phrak Deang, Rayong Thailand
21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Lot ID: 2345497

Date Received : May 17, 2023
Date Reported : May 25, 2023
Report Number: 2631038-1

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Page 2 of 2

Sample Number 2345497-1

Sample Date May 17, 2023

Sample Description Emission from Stationary Source

Location Ulaa HSG 12

Date Analysis Commenced May 19, 2023

Condition of Sample Extracted into one filter paper placed in plastic petri dish and one amber plastic bottle

Stack Description									
Ambient Pressure	751	mmHg	3.00	m	Oxygen	14.1	%		
Ambient Temperature	37.0	°C	Circle		Carbon Dioxide	3.8	%		
Type of Process	Combustion	Stack Temperature	125	°C	Gas Velocity	18.9	m/s		
Type of Fuel	Natural Gas	Moisture	9.92	%	Flow Rate (Actual O2)	319946	Nm3/hr		
Analyte	Sampled Time	Unit	LOQ	Result	Guideline	Method			
			(LOR)	(1)	(2)				

Air Testing

Total Suspended Particulate	11:40 AM - 12:28 PM	g/s	-	<0.04	1.8	-	Calculated	Bangkok
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Guideline :

Guideline (1) Environmental Impact Assessment Report of Gulf TSS Co., Ltd.
Guideline (2) Notification of the Ministry of Natural Resources and Environment, 2010 (B.E. 2553) on Emission Standard from New Power Plants.

Sampled By : Anuvat Mungpal

Remark :

- LOD : Limit of Detection

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

Technical Management **Savanya C.** Approved by **Kanokkom Anek**
Saranya Chalerthamrong Senior Manager
Scientist (4)
หน้าตลับ 7-204-4-4717

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ภาคผนวก ค-3

ระดับเสียงโดยทั่วไป



Analysis / Test Report

TESTING
No.0042

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3
Lot ID: 2345413
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 266795-1

Page 1 of 1

Sample Number	2345413-1
Parameter	Noise (Leq 24 hrs.)
Location	ในชุมชนใกล้เคียง
Measurement Date	May 16 - May 17, 2023
Measurement by	Jaradrawee Siruksa
Sound Level meter	Serial No. 623398

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	61.1	70.8	59.7
03:00 PM - 04:00 PM	69.6	69.6	59.6
04:00 PM - 05:00 PM	60.6	72.7	59.3
05:00 PM - 06:00 PM	60.5	72.0	59.3
06:00 PM - 07:00 PM	60.4	75.3	59.3
07:00 PM - 08:00 PM	60.9	73.0	59.7
08:00 PM - 09:00 PM	60.6	75.7	59.6
09:00 PM - 10:00 PM	60.5	72.9	59.6
10:00 PM - 11:00 PM	60.6	75.2	59.7
11:00 PM - 12:00 AM	60.8	75.5	59.7
12:00 AM - 01:00 AM	60.9	76.6	59.7
01:00 AM - 02:00 AM	60.8	74.5	59.8
02:00 AM - 03:00 AM	60.5	75.1	59.5
03:00 AM - 04:00 AM	60.4	69.1	59.5
04:00 AM - 05:00 AM	60.6	75.7	59.5
05:00 AM - 06:00 AM	60.6	74.1	59.6
06:00 AM - 07:00 AM	62.2	77.5	60.6
07:00 AM - 08:00 AM	62.1	78.2	60.1
08:00 AM - 09:00 AM	61.8	82.8	60.2
09:00 AM - 10:00 AM	61.6	73.2	60.1
10:00 AM - 11:00 AM	61.4	77.9	60.0
11:00 AM - 12:00 PM	60.7	72.9	59.6
12:00 PM - 01:00 PM	60.6	71.0	59.5
01:00 PM - 02:00 PM	61.4	71.2	59.9

Leq Average 24 hrs. (dB(A))	61.0
Lmax (dB(A))	82.8
L90 (dB(A))	59.6
L01 (dB(A))	67.3
Standard (dB(A))	70
Standard (dB(A))	115
Reference Method : ISO 1996-1 and 1996-2	
Standard : 1. ระยะเวลาการตรวจวัดเสียงต้องไม่น้อยกว่า 15 (พ.ย. 2540) สำหรับแหล่งกำเนิดเสียงต่อเนื่อง 2. ระยะเวลาการตรวจวัดเสียงต้องไม่น้อยกว่า 15 (พ.ย. 2540) สำหรับแหล่งกำเนิดเสียงไม่ต่อเนื่อง	
Team No. 2548	
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.	

Tharitat.

Technical Management

Approved by

Supt S

Thantia Kulsumwong
Scientist (4)

Supt Salameh
Section Head

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13430-61/ ENHIL

S. Report_Air Noise rpt (4.88PM)



Analysis / Test Report

TESTING
No.0042

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3
Lot ID: 2345413
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 266796-1

Page 1 of 1

Sample Number	2345413-2
Parameter	Noise (Leq 24 hrs.)
Location	ในชุมชนใกล้เคียง
Measurement Date	May 17 - May 18, 2023
Measurement by	Jaradrawee Siruksa
Sound Level meter	Serial No. 623398

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	61.9	81.1	60.1
03:00 PM - 04:00 PM	60.8	72.5	59.7
04:00 PM - 05:00 PM	60.6	73.5	59.3
05:00 PM - 06:00 PM	60.2	74.9	59.2
06:00 PM - 07:00 PM	60.3	73.3	59.2
07:00 PM - 08:00 PM	60.6	70.7	59.4
08:00 PM - 09:00 PM	60.5	74.9	59.4
09:00 PM - 10:00 PM	60.4	71.7	59.4
10:00 PM - 11:00 PM	60.4	71.7	59.5
11:00 PM - 12:00 AM	59.9	74.5	58.2
12:00 AM - 01:00 AM	58.8	74.6	57.9
01:00 AM - 02:00 AM	59.0	75.7	58.0
02:00 AM - 03:00 AM	58.7	71.2	57.9
03:00 AM - 04:00 AM	58.9	70.9	58.0
04:00 AM - 05:00 AM	59.1	72.9	58.0
05:00 AM - 06:00 AM	59.4	74.4	58.3
06:00 AM - 07:00 AM	60.6	77.7	58.9
07:00 AM - 08:00 AM	61.7	77.2	58.9
08:00 AM - 09:00 AM	61.6	76.7	60.1
09:00 AM - 10:00 AM	61.6	73.9	60.3
10:00 AM - 11:00 AM	61.5	74.7	60.3
11:00 AM - 12:00 PM	61.2	77.9	59.5
12:00 PM - 01:00 PM	61.0	74.0	59.8
01:00 PM - 02:00 PM	62.0	83.3	60.1

Leq Average 24 hrs. (dB(A))	60.6
Lmax (dB(A))	83.3
L90 (dB(A))	59.3
L01 (dB(A))	66.2
Standard (dB(A))	70
Standard (dB(A))	115
Reference Method : ISO 1996-1 and 1996-2	
Standard : 1. ระยะเวลาการตรวจวัดเสียงต้องไม่น้อยกว่า 15 (พ.ย. 2540) สำหรับแหล่งกำเนิดเสียงต่อเนื่อง 2. ระยะเวลาการตรวจวัดเสียงต้องไม่น้อยกว่า 15 (พ.ย. 2540) สำหรับแหล่งกำเนิดเสียงไม่ต่อเนื่อง	
Team No. 2548	
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.	

Tharitat.

Technical Management

Approved by

Supt S

Thantia Kulsumwong
Scientist (4)

Supt Salameh
Section Head

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13430-61/ ENHIL

S. Report_Air Noise rpt (4.88PM)



Analysis / Test Report

Client: Gulf TSC Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
Lot ID: 23454113
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667900-1
P/O :
Project Name : Monitoring EIA

Page 1 of 1

Sample Number	2345413-6	Noise (Leq 24 hrs.)	Location	Measurement Date	Measurement by	Sound Level meter	Serial No. 623388	Time			
								Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))	
		Urban (City Center)	Urban (City Center)	May 21 - May 22, 2023	Jaradrawati Sridhara			02:00 PM - 03:00 PM	59.9	74.7	58.8
		Urban (City Center)	Urban (City Center)					03:00 PM - 04:00 PM	61.8	85.2	59.5
		Urban (City Center)	Urban (City Center)					04:00 PM - 05:00 PM	60.0	77.6	59.0
		Urban (City Center)	Urban (City Center)					05:00 PM - 06:00 PM	59.9	79.0	58.6
		Urban (City Center)	Urban (City Center)					06:00 PM - 07:00 PM	59.6	70.8	58.8
		Urban (City Center)	Urban (City Center)					07:00 PM - 08:00 PM	60.0	76.7	58.9
		Urban (City Center)	Urban (City Center)					08:00 PM - 09:00 PM	59.3	72.2	58.5
		Urban (City Center)	Urban (City Center)					09:00 PM - 10:00 PM	59.7	73.6	58.9
		Urban (City Center)	Urban (City Center)					10:00 PM - 11:00 PM	60.2	73.7	59.4
		Urban (City Center)	Urban (City Center)					11:00 PM - 12:00 AM	60.0	75.3	59.3
		Urban (City Center)	Urban (City Center)					12:00 AM - 01:00 AM	59.8	75.7	59.2
		Urban (City Center)	Urban (City Center)					01:00 AM - 02:00 AM	60.0	77.4	59.4
		Urban (City Center)	Urban (City Center)					02:00 AM - 03:00 AM	60.3	72.5	59.6
		Urban (City Center)	Urban (City Center)					03:00 AM - 04:00 AM	60.3	78.3	59.7
		Urban (City Center)	Urban (City Center)					04:00 AM - 05:00 AM	60.8	75.9	59.9
		Urban (City Center)	Urban (City Center)					05:00 AM - 06:00 AM	61.4	85.6	60.0
		Urban (City Center)	Urban (City Center)					06:00 AM - 07:00 AM	62.2	74.6	60.5
		Urban (City Center)	Urban (City Center)					07:00 AM - 08:00 AM	61.8	84.6	60.3
		Urban (City Center)	Urban (City Center)					08:00 AM - 09:00 AM	62.0	78.0	60.7
		Urban (City Center)	Urban (City Center)					09:00 AM - 10:00 AM	62.2	78.7	60.4
		Urban (City Center)	Urban (City Center)					10:00 AM - 11:00 AM	61.9	77.9	60.2
		Urban (City Center)	Urban (City Center)					11:00 AM - 12:00 PM	60.6	70.8	59.5
		Urban (City Center)	Urban (City Center)					12:00 PM - 01:00 PM	61.5	76.8	60.3
		Urban (City Center)	Urban (City Center)					01:00 PM - 02:00 PM	62.7	80.6	60.8

Leq Average 24 hrs. (dB(A))	60.9	
Lmax (dB(A))		85.6
L90 (dB(A))		
L50 (dB(A))	67.1	
L10 (dB(A))		
Standard (dB(A))	70	115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ลักษณะการรบกวนต่อเนื่องยาวนานกว่า 15 (พ.ร. 2540) สำหรับอาคารสาธารณะและอาคารอยู่อาศัย
2. ลักษณะการรบกวนต่อเนื่องยาวนานกว่า 15 (พ.ร. 2540) สำหรับอาคารสาธารณะและอาคารอยู่อาศัย

13 ต.ค. พ.ร. 2548

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

Technical Management	Tharita K.	Approved by	Supt S.
	Thantia Kulsurong Scientist (4)		Supot Salanteh Section Head

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1343D-61/ EMAIL

S:\Reports\Air Noise.mxd (4:59PM)

S:\Reports\Air Mscise.rpt (4 49PM)



Analysis / Test Report

TESTING
No.0042

Lot ID: 2345413

Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667801-1

Client: Gulf TS3 Co., Ltd.

P/O : 224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140

Project Name : Monitoring EIA

Project Location : GTS3

Page 1 of 1

Sample Number	2345413-7
Parameter	Noise (Leq 24 hrs.)
Location	บริเวณใกล้โรงงาน
Measurement Date	May 22 - May 23, 2023
Measurement by	Jaradwee Srinuksa
Sound Level meter	Serial No. 623388

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	62.1	79.9	60.5
03:00 PM - 04:00 PM	61.6	74.0	60.3
04:00 PM - 05:00 PM	61.7	79.0	60.0
05:00 PM - 06:00 PM	60.5	77.2	59.4
06:00 PM - 07:00 PM	60.7	71.6	59.4
07:00 PM - 08:00 PM	61.0	69.7	59.8
08:00 PM - 09:00 PM	60.7	75.0	59.7
09:00 PM - 10:00 PM	60.8	73.4	59.8
10:00 PM - 11:00 PM	61.2	80.8	60.3
11:00 PM - 12:00 AM	61.3	75.5	60.4
12:00 AM - 01:00 AM	61.5	87.2	60.4
01:00 AM - 02:00 AM	61.9	76.6	60.4
02:00 AM - 03:00 AM	61.0	84.0	60.1
03:00 AM - 04:00 AM	61.2	82.0	60.0
04:00 AM - 05:00 AM	61.5	76.1	60.4
05:00 AM - 06:00 AM	61.5	69.0	60.2
06:00 AM - 07:00 AM	62.3	76.8	60.5
07:00 AM - 08:00 AM	61.1	73.0	59.8
08:00 AM - 09:00 AM	61.4	77.9	59.9
09:00 AM - 10:00 AM	62.4	89.0	60.3
10:00 AM - 11:00 AM	61.7	83.2	59.8
11:00 AM - 12:00 PM	60.2	73.4	59.0
12:00 PM - 01:00 PM	61.1	70.4	59.7
01:00 PM - 02:00 PM	61.3	75.8	59.5

Leq Average 24 hrs. (dB(A))	61.4
-----------------------------	------

Lmax (dB(A))	89.0
L90 (dB(A))	60.0
Ldn (dB(A))	

Standard (dB(A))	70
Standard	ISO1996-1 and 1996-2
Reference Method	1. ใช้มาตรฐานการวัดเสียงตามข้อกำหนดของกรมส่งเสริมการค้าระหว่างประเทศ (กรมส่งเสริมการค้าระหว่างประเทศ) 2. ใช้มาตรฐานการวัดเสียงตามข้อกำหนดของกรมส่งเสริมการค้าระหว่างประเทศ (กรมส่งเสริมการค้าระหว่างประเทศ)

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

Technical Management

Tharitat.

Approved by

Supt S.

Thantia Kulsuwong
Scientist (4)

Section Head

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1343-61/PHAL

S. Waporn_Lan Naisa op (1:40PM)



Analysis / Test Report

TESTING
No.0042

Lot ID: 2345413

Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667802-1

Client: Gulf TS3 Co., Ltd.

P/O : 224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140

Project Name : Monitoring EIA

Project Location : GTS3

Page 1 of 1

Sample Number	2345413-8
Parameter	Noise (Leq 24 hrs.)
Location	บริเวณใกล้โรงงาน
Measurement Date	May 16 - May 17, 2023
Measurement by	Jaradwee Srinuksa
Sound Level meter	Serial No. 734221

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	59.8	96.4	51.1
12:00 PM - 01:00 PM	56.7	78.3	51.4
01:00 PM - 02:00 PM	55.5	79.0	50.2
02:00 PM - 03:00 PM	58.2	80.9	51.2
03:00 PM - 04:00 PM	55.3	77.2	50.4
04:00 PM - 05:00 PM	53.8	75.5	50.3
05:00 PM - 06:00 PM	53.0	68.8	50.2
06:00 PM - 07:00 PM	51.6	68.1	49.6
07:00 PM - 08:00 PM	52.8	69.4	51.0
08:00 PM - 09:00 PM	51.9	68.1	50.0
09:00 PM - 10:00 PM	52.2	65.8	51.1
10:00 PM - 11:00 PM	51.3	63.2	50.5
11:00 PM - 12:00 AM	50.8	67.5	49.6
12:00 AM - 01:00 AM	51.1	70.1	49.8
01:00 AM - 02:00 AM	49.5	61.2	47.7
02:00 AM - 03:00 AM	51.9	77.6	50.4
03:00 AM - 04:00 AM	58.5	84.1	52.3
04:00 AM - 05:00 AM	58.4	76.5	50.4
05:00 AM - 06:00 AM	56.4	81.4	51.0
06:00 AM - 07:00 AM	55.5	77.7	50.6
07:00 AM - 08:00 AM	55.0	71.3	50.8
08:00 AM - 09:00 AM	54.5	72.2	49.2
09:00 AM - 10:00 AM	59.1	78.7	52.9
10:00 AM - 11:00 AM	56.2	78.1	52.2

Leq Average 24 hrs. (dB(A))	55.5
-----------------------------	------

Lmax (dB(A))	96.4
L90 (dB(A))	50.4
Ldn (dB(A))	

Standard (dB(A))	115
Standard	ISO1996-1 and 1996-2
Reference Method	1. ใช้มาตรฐานการวัดเสียงตามข้อกำหนดของกรมส่งเสริมการค้าระหว่างประเทศ (กรมส่งเสริมการค้าระหว่างประเทศ) 2. ใช้มาตรฐานการวัดเสียงตามข้อกำหนดของกรมส่งเสริมการค้าระหว่างประเทศ (กรมส่งเสริมการค้าระหว่างประเทศ)

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

Technical Management

Tharitat.

Approved by

Supt S.

Thantia Kulsuwong
Scientist (4)

Section Head

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1343-61/ENAL

S. Waporn_Lan Naisa op (1:30PM)



Analysis / Test Report

TESTING
No.0042

Lot ID: 2345413

Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667803-1

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :
Project Name : Monitoring EIA

Project Location : GTS3

Page 1 of 1

Sample Number	2345413-9
Parameter	Noise (Leq 24 hrs.)
Location	พื้นที่ปฏิบัติงาน
Measurement Date	May 17 - May 18, 2023
Measurement by	Jaradwadee Srinuksa
Sound Level meter	Serial No. 734221

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	56.7	79.7	52.6
12:00 PM - 01:00 PM	61.0	92.3	51.9
01:00 PM - 02:00 PM	54.6	71.9	49.8
02:00 PM - 03:00 PM	57.3	75.4	50.4
03:00 PM - 04:00 PM	54.8	74.7	50.1
04:00 PM - 05:00 PM	52.9	69.7	49.6
05:00 PM - 06:00 PM	54.6	71.3	51.4
06:00 PM - 07:00 PM	53.8	74.5	51.8
07:00 PM - 08:00 PM	53.4	72.7	52.5
08:00 PM - 09:00 PM	54.5	74.4	52.9
09:00 PM - 10:00 PM	53.0	68.1	51.5
10:00 PM - 11:00 PM	51.6	64.5	50.2
11:00 PM - 12:00 AM	52.1	60.8	50.9
12:00 AM - 01:00 AM	50.8	59.9	49.8
01:00 AM - 02:00 AM	50.3	61.6	48.0
02:00 AM - 03:00 AM	52.9	73.4	48.1
03:00 AM - 04:00 AM	56.5	82.2	50.6
04:00 AM - 05:00 AM	57.3	75.4	51.1
05:00 AM - 06:00 AM	56.1	75.4	51.0
06:00 AM - 07:00 AM	53.4	75.9	49.7
07:00 AM - 08:00 AM	55.8	76.5	50.1
08:00 AM - 09:00 AM	55.7	80.5	49.6
09:00 AM - 10:00 AM	60.0	81.8	53.1
10:00 AM - 11:00 AM	53.0	72.7	49.3

Leq Average 24 hrs. (dB(A))	55.5
Lmax (dB(A))	92.3
L90 (dB(A))	50.4
Ldn (dB(A))	
Standard (dB(A))	70
Reference Method : ISO1996-1 and 1996-2	
Standard : 1. ใช้มาตรฐานการประเมินค่าเสียงตามข้อกำหนด 15 (พ.ร.บ. 2540) สำหรับการประเมินค่าเสียงในชุมชน 2. ใช้มาตรฐานการประเมินค่าเสียงตามข้อกำหนด 15 (พ.ร.บ. 2540) สำหรับการประเมินค่าเสียงในชุมชน	
หมายเหตุ : 2548	
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.	

Tharitat.

Technical Management

Thanita Kulsumwong

Scientist (4)

Approved by

Supot Salameah

Section Head

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S. Veerapong, Air Noise rpt (4 50P40)

13430-61/ BM4L



Analysis / Test Report

TESTING
No.0042

Lot ID: 2345413

Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667804-1

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :
Project Name : Monitoring EIA

Project Location : GTS3

Page 1 of 1

Sample Number	2345413-10
Parameter	Noise (Leq 24 hrs.)
Location	พื้นที่ปฏิบัติงาน
Measurement Date	May 18 - May 19, 2023
Measurement by	Jaradwadee Srinuksa
Sound Level meter	Serial No. 734221

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	56.3	80.0	50.9
12:00 PM - 01:00 PM	56.8	81.7	51.4
01:00 PM - 02:00 PM	53.8	77.1	49.5
02:00 PM - 03:00 PM	57.4	80.5	49.7
03:00 PM - 04:00 PM	55.4	80.4	49.3
04:00 PM - 05:00 PM	55.0	81.7	49.6
05:00 PM - 06:00 PM	54.8	78.4	50.3
06:00 PM - 07:00 PM	53.4	74.1	50.3
07:00 PM - 08:00 PM	54.3	68.7	51.2
08:00 PM - 09:00 PM	53.4	69.9	51.8
09:00 PM - 10:00 PM	53.3	71.4	52.1
10:00 PM - 11:00 PM	52.2	68.8	50.3
11:00 PM - 12:00 AM	52.9	70.9	51.8
12:00 AM - 01:00 AM	51.9	66.3	50.2
01:00 AM - 02:00 AM	49.7	65.6	47.9
02:00 AM - 03:00 AM	51.9	71.3	47.7
03:00 AM - 04:00 AM	55.5	82.6	50.3
04:00 AM - 05:00 AM	56.4	72.3	51.7
05:00 AM - 06:00 AM	55.7	73.1	50.7
06:00 AM - 07:00 AM	55.0	79.6	49.8
07:00 AM - 08:00 AM	54.3	74.1	50.0
08:00 AM - 09:00 AM	54.8	80.2	50.1
09:00 AM - 10:00 AM	59.4	81.3	52.0
10:00 AM - 11:00 AM	53.7	76.9	49.9

Leq Average 24 hrs. (dB(A))	54.9
Lmax (dB(A))	82.6
L90 (dB(A))	50.3
Ldn (dB(A))	60.6
Standard (dB(A))	70
Reference Method : ISO1996-1 and 1996-2	
Standard : 1. ใช้มาตรฐานการประเมินค่าเสียงตามข้อกำหนด 15 (พ.ร.บ. 2540) สำหรับการประเมินค่าเสียงในชุมชน 2. ใช้มาตรฐานการประเมินค่าเสียงตามข้อกำหนด 15 (พ.ร.บ. 2540) สำหรับการประเมินค่าเสียงในชุมชน	
หมายเหตุ : 2548	
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.	

Tharitat.

Technical Management

Thanita Kulsumwong

Scientist (4)

Approved by

Supot Salameah

Section Head

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13430-61/ BM4L

S. Veerapong, Air Noise rpt (4 50P40)



Analysis / Test Report

TESTING
No.0042

Lot ID: 2345413

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasil, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667805-1

Page 1 of 1

Sample Number	2345413-11
Parameter	Noise (Leq 24 hrs.)
Location	Test Point 1
Measurement Date	May 19 - May 20, 2023
Measurement by	Jaradrawee Sinukso
Sound Level meter	Serial No. 734221

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	55.7	70.6	51.6
12:00 PM - 01:00 PM	65.9	90.8	51.3
01:00 PM - 02:00 PM	54.2	76.2	49.1
02:00 PM - 03:00 PM	58.3	84.0	50.3
03:00 PM - 04:00 PM	54.1	71.0	49.8
04:00 PM - 05:00 PM	65.7	93.6	48.9
05:00 PM - 06:00 PM	52.9	71.5	49.3
06:00 PM - 07:00 PM	52.5	74.0	49.5
07:00 PM - 08:00 PM	51.3	70.9	49.1
08:00 PM - 09:00 PM	50.9	68.5	49.4
09:00 PM - 10:00 PM	50.7	63.3	49.8
10:00 PM - 11:00 PM	51.0	74.3	49.0
11:00 PM - 12:00 AM	50.8	70.2	49.2
12:00 AM - 01:00 AM	50.2	65.8	48.5
01:00 AM - 02:00 AM	50.3	69.7	47.8
02:00 AM - 03:00 AM	50.9	65.8	47.9
03:00 AM - 04:00 AM	55.7	76.5	49.1
04:00 AM - 05:00 AM	56.0	83.7	49.5
05:00 AM - 06:00 AM	53.2	70.4	48.0
06:00 AM - 07:00 AM	53.5	81.4	47.7
07:00 AM - 08:00 AM	53.9	73.8	49.1
08:00 AM - 09:00 AM	53.5	71.2	47.8
09:00 AM - 10:00 AM	55.5	79.3	48.0
10:00 AM - 11:00 AM	53.3	70.6	47.9

Leq Average 24 hrs. (dB(A))	57.3
Lmax (dB(A))	93.6
L90 (dB(A))	49.1
L5n (dB(A))	

Standard (dB(A)) 115
Reference Method : ISO1996-1 and 1996-2
Standard : 1. ใช้มาตรฐานการวัดเสียงตามข้อกำหนดของ มอก. 15 (พ.ศ. 2540) สำหรับการวัดเสียงรบกวนต่อเนื่อง
2. ใช้มาตรฐานการวัดเสียงตามข้อกำหนดของ มอก. 15 (พ.ศ. 2540) สำหรับการวัดเสียงรบกวนชั่วขณะ
Tasana W.K. 2548
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management : *Thanitak.* Approved by : *Supt S.*
Thanita Kulsuwong Scientist (4) Supt. Salameh Section Head

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



Analysis / Test Report

TESTING
No.0042

Lot ID: 2345413

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasil, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667805-1

Page 1 of 1

Sample Number	2345413-12
Parameter	Noise (Leq 24 hrs.)
Location	Test Point 2
Measurement Date	May 20 - May 21, 2023
Measurement by	Jaradrawee Sinukso
Sound Level meter	Serial No. 734221

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	54.2	69.8	49.1
12:00 PM - 01:00 PM	53.0	69.8	48.4
01:00 PM - 02:00 PM	54.5	82.5	47.5
02:00 PM - 03:00 PM	55.1	80.9	48.8
03:00 PM - 04:00 PM	53.9	77.7	49.3
04:00 PM - 05:00 PM	53.6	75.3	49.0
05:00 PM - 06:00 PM	55.3	81.3	50.3
06:00 PM - 07:00 PM	53.0	72.7	51.2
07:00 PM - 08:00 PM	52.4	66.4	50.9
08:00 PM - 09:00 PM	52.5	73.1	50.6
09:00 PM - 10:00 PM	57.1	82.8	50.9
10:00 PM - 11:00 PM	52.0	61.5	51.2
11:00 PM - 12:00 AM	51.9	61.4	50.6
12:00 AM - 01:00 AM	50.0	59.4	48.6
01:00 AM - 02:00 AM	49.1	60.1	47.8
02:00 AM - 03:00 AM	51.2	78.7	48.0
03:00 AM - 04:00 AM	54.9	87.2	48.2
04:00 AM - 05:00 AM	53.7	76.0	48.0
05:00 AM - 06:00 AM	52.9	77.0	47.6
06:00 AM - 07:00 AM	50.5	66.6	47.1
07:00 AM - 08:00 AM	61.8	77.7	47.3
08:00 AM - 09:00 AM	55.2	82.4	47.6
09:00 AM - 10:00 AM	52.6	69.0	47.7
10:00 AM - 11:00 AM	53.5	69.2	47.2

Leq Average 24 hrs. (dB(A))	54.4
Lmax (dB(A))	87.2
L90 (dB(A))	
L5n (dB(A))	59.2

Standard (dB(A)) 115
Reference Method : ISO1996-1 and 1996-2
Standard : 1. ใช้มาตรฐานการวัดเสียงตามข้อกำหนดของ มอก. 15 (พ.ศ. 2540) สำหรับการวัดเสียงรบกวนต่อเนื่อง
2. ใช้มาตรฐานการวัดเสียงตามข้อกำหนดของ มอก. 15 (พ.ศ. 2540) สำหรับการวัดเสียงรบกวนชั่วขณะ
Tasana W.K. 2548
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management : *Thanitak.* Approved by : *Supt S.*
Thanita Kulsuwong Scientist (4) Supt. Salameh Section Head

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



Analysis / Test Report

TESTING
No.0042

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3
Lot ID: 2345413
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667807-1

Page 1 of 1

Sample Number	2345413-13
Parameter	Noise (Leq 24 hrs.)
Location	Test Point 1
Measurement Date	May 21 - May 22, 2023
Measurement by	Jaradraewee Srinuksa
Sound Level meter	Serial No. 734221

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	54.6	70.8	47.9
12:00 PM - 01:00 PM	62.4	78.1	50.6
01:00 PM - 02:00 PM	54.6	74.0	49.7
02:00 PM - 03:00 PM	54.1	75.1	49.1
03:00 PM - 04:00 PM	53.9	74.0	49.5
04:00 PM - 05:00 PM	54.3	75.9	50.5
05:00 PM - 06:00 PM	53.2	75.4	50.9
06:00 PM - 07:00 PM	53.0	67.8	51.1
07:00 PM - 08:00 PM	52.6	68.9	51.4
08:00 PM - 09:00 PM	52.4	61.2	51.6
09:00 PM - 10:00 PM	52.4	77.6	50.9
10:00 PM - 11:00 PM	52.3	61.5	50.6
11:00 PM - 12:00 AM	51.7	63.4	49.8
12:00 AM - 01:00 AM	50.3	59.7	49.1
01:00 AM - 02:00 AM	51.9	74.2	48.3
02:00 AM - 03:00 AM	55.2	78.4	50.8
03:00 AM - 04:00 AM	57.9	77.3	53.1
04:00 AM - 05:00 AM	57.3	75.7	51.2
05:00 AM - 06:00 AM	54.8	76.2	50.5
06:00 AM - 07:00 AM	53.5	72.2	49.2
07:00 AM - 08:00 AM	55.0	75.5	49.3
08:00 AM - 09:00 AM	61.4	82.4	52.4
09:00 AM - 10:00 AM	54.6	71.8	49.6
10:00 AM - 11:00 AM	57.6	73.5	50.6
Leq Average 24 hrs. (dB(A))	55.8	81.3	50.5
Lmax (dB(A))			
L90 (dB(A))			
Ldn (dB(A))	61.3		
Standard (dB(A))	70		

Reference Method : ISO1996-1 and 1996-2
Standard : 1. มาตรฐานการกำหนดค่าระดับเสียงรบกวนในเวลากลางคืน (พ.ศ. 2540) กำหนดค่าระดับเสียงรบกวนในเวลากลางคืน
2. มาตรฐานการกำหนดค่าระดับเสียงรบกวนในเวลากลางวันและกลางคืน (พ.ศ. 2540) กำหนดค่าระดับเสียงรบกวนในเวลากลางวันและกลางคืน
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management : *Tharitak.*

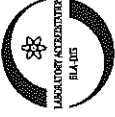
Approved by

Supot Salamech
Scientist (4)
Section Head

Supt S.

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



Analysis / Test Report

TESTING
No.0042

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3
Lot ID: 2345413
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667808-1

Page 1 of 1

Sample Number	2345413-14
Parameter	Noise (Leq 24 hrs.)
Location	Test Point 1
Measurement Date	May 22 - May 23, 2023
Measurement by	Jaradraewee Srinuksa
Sound Level meter	Serial No. 734221

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	57.0	78.5	51.0
12:00 PM - 01:00 PM	56.6	76.1	50.9
01:00 PM - 02:00 PM	57.4	77.2	51.8
02:00 PM - 03:00 PM	56.4	74.5	50.1
03:00 PM - 04:00 PM	56.1	83.5	49.8
04:00 PM - 05:00 PM	53.1	68.4	50.0
05:00 PM - 06:00 PM	53.0	73.5	50.3
06:00 PM - 07:00 PM	53.5	78.2	51.1
07:00 PM - 08:00 PM	52.8	72.5	51.8
08:00 PM - 09:00 PM	52.4	66.7	51.5
09:00 PM - 10:00 PM	53.1	70.3	51.4
10:00 PM - 11:00 PM	52.5	58.0	51.7
11:00 PM - 12:00 AM	52.3	62.1	50.5
12:00 AM - 01:00 AM	50.8	68.5	49.0
01:00 AM - 02:00 AM	53.9	86.1	48.3
02:00 AM - 03:00 AM	56.2	88.7	51.3
03:00 AM - 04:00 AM	59.1	79.8	52.4
04:00 AM - 05:00 AM	56.5	75.6	50.1
05:00 AM - 06:00 AM	54.9	71.7	50.1
06:00 AM - 07:00 AM	58.9	89.9	51.3
07:00 AM - 08:00 AM	52.7	71.7	48.5
08:00 AM - 09:00 AM	58.4	81.0	52.1
09:00 AM - 10:00 AM	53.4	76.0	47.1
10:00 AM - 11:00 AM	53.2	72.2	49.0
Leq Average 24 hrs. (dB(A))	55.4	89.9	50.5
Lmax (dB(A))			
L90 (dB(A))			
Ldn (dB(A))	62.2		
Standard (dB(A))	70		

Reference Method : ISO1996-1 and 1996-2
Standard : 1. มาตรฐานการกำหนดค่าระดับเสียงรบกวนในเวลากลางคืน (พ.ศ. 2540) กำหนดค่าระดับเสียงรบกวนในเวลากลางคืน
2. มาตรฐานการกำหนดค่าระดับเสียงรบกวนในเวลากลางวันและกลางคืน (พ.ศ. 2540) กำหนดค่าระดับเสียงรบกวนในเวลากลางวันและกลางคืน
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management : *Tharitak.*

Approved by

Supot Salamech
Scientist (4)
Section Head

Supt S.

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Analysis / Test Report

TESTING
No.0042

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3
Lot ID: 2345413
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667809-1

Page 1 of 1

Sample Number	2345413-15
Parameter	Noise (Leq 24 hrs.)
Location	พื้นที่อยู่อาศัย
Measurement Date	May 16 - May 17, 2023
Measurement by	Jaradrawee Sriuksa
Sound Level meter	Serial No. 233184

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	52.6	68.0	44.1
02:00 PM - 03:00 PM	53.6	69.0	45.1
03:00 PM - 04:00 PM	54.1	81.2	45.0
04:00 PM - 05:00 PM	51.6	72.1	43.0
05:00 PM - 06:00 PM	49.9	66.1	45.5
06:00 PM - 07:00 PM	48.7	70.6	44.0
07:00 PM - 08:00 PM	46.4	64.0	43.4
08:00 PM - 09:00 PM	52.3	81.1	42.9
09:00 PM - 10:00 PM	46.9	76.0	41.5
10:00 PM - 11:00 PM	45.5	69.9	42.0
11:00 PM - 12:00 AM	44.1	69.2	41.7
12:00 AM - 01:00 AM	47.3	66.3	39.7
01:00 AM - 02:00 AM	47.5	84.0	39.5
02:00 AM - 03:00 AM	46.8	64.1	39.2
03:00 AM - 04:00 AM	52.6	80.9	41.5
04:00 AM - 05:00 AM	54.8	81.0	44.8
05:00 AM - 06:00 AM	52.1	69.1	46.2
06:00 AM - 07:00 AM	52.7	74.0	45.8
07:00 AM - 08:00 AM	50.8	72.0	42.9
08:00 AM - 09:00 AM	51.8	79.7	42.2
09:00 AM - 10:00 AM	52.7	76.9	42.6
10:00 AM - 11:00 AM	49.6	70.1	42.7
11:00 AM - 12:00 PM	47.6	65.3	41.8
12:00 PM - 01:00 PM	50.5	65.6	43.9
Leq Average 24 hrs. (dB(A))	51.0		
Lmax (dB(A))	84.0		
L90 (dB(A))			42.9
Ldn (dB(A))	57.1		
Standard (dB(A))	70		115

Reference Method : ISO1996-1 and 1996-2
Standard : 1. อัตราการรบกวนเสียงในเวลากลางวันและกลางคืนไม่เกิน 55 (พ.ร. 2540) สำหรับพื้นที่อยู่อาศัย
2. อัตราการรบกวนเสียงในเวลากลางคืนไม่เกิน 45 (พ.ร. 2540) สำหรับพื้นที่อยู่อาศัย
Tasani W.K. 2546
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
Tharitat.

Approved by
Tharitat. Kulsurwong
Scientist (4)

Supot Salameeh
Section Head

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



Analysis / Test Report

TESTING
No.0042

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3
Lot ID: 2345413
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667810-1

Page 1 of 1

Sample Number	2345413-16
Parameter	Noise (Leq 24 hrs.)
Location	พื้นที่อยู่อาศัย
Measurement Date	May 17 - May 18, 2023
Measurement by	Jaradrawee Sriuksa
Sound Level meter	Serial No. 233184

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	51.3	80.3	43.7
02:00 PM - 03:00 PM	53.1	82.0	43.9
03:00 PM - 04:00 PM	50.2	70.6	44.8
04:00 PM - 05:00 PM	53.4	81.9	43.2
05:00 PM - 06:00 PM	48.8	68.8	44.5
06:00 PM - 07:00 PM	48.1	67.9	44.0
07:00 PM - 08:00 PM	48.2	73.6	43.8
08:00 PM - 09:00 PM	46.8	71.7	43.1
09:00 PM - 10:00 PM	44.9	66.4	42.2
10:00 PM - 11:00 PM	43.9	61.0	41.3
11:00 PM - 12:00 AM	44.4	61.9	42.5
12:00 AM - 01:00 AM	44.2	64.4	42.1
01:00 AM - 02:00 AM	47.1	69.3	41.0
02:00 AM - 03:00 AM	45.7	68.8	39.8
03:00 AM - 04:00 AM	50.0	68.9	43.1
04:00 AM - 05:00 AM	53.4	76.4	47.1
05:00 AM - 06:00 AM	52.6	75.6	46.3
06:00 AM - 07:00 AM	52.5	73.8	45.6
07:00 AM - 08:00 AM	52.5	73.7	44.6
08:00 AM - 09:00 AM	52.3	80.2	42.7
09:00 AM - 10:00 AM	52.9	77.1	42.8
10:00 AM - 11:00 AM	49.4	69.9	42.5
11:00 AM - 12:00 PM	48.7	66.4	42.9
12:00 PM - 01:00 PM	51.2	71.7	44.3
Leq Average 24 hrs. (dB(A))	50.4		
Lmax (dB(A))	82.0		43.1
L90 (dB(A))			
Ldn (dB(A))	56.3		
Standard (dB(A))	70		115

Reference Method : ISO1996-1 and 1996-2
Standard : 1. อัตราการรบกวนเสียงในเวลากลางวันและกลางคืนไม่เกิน 55 (พ.ร. 2540) สำหรับพื้นที่อยู่อาศัย
2. อัตราการรบกวนเสียงในเวลากลางคืนไม่เกิน 45 (พ.ร. 2540) สำหรับพื้นที่อยู่อาศัย
Tasani W.K. 2546
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
Tharitat.

Approved by
Tharitat. Kulsurwong
Scientist (4)

Supot Salameeh
Section Head

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



TESTING
No.0042

Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3
Lot ID: 2345413
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667811-1

Page 1 of 1

Sample Number	2345413-17
Parameter	Noise (Leq 24 hrs.)
Location	บ้านนาถ้ำขมิ้น
Measurement Date	May 18 - May 19, 2023
Measurement by	Jaradawe Srinuksa
Sound Level meter	Serial No. 233184

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	51.6	67.0	43.1
02:00 PM - 03:00 PM	52.6	68.0	44.1
03:00 PM - 04:00 PM	53.8	80.9	44.7
04:00 PM - 05:00 PM	51.3	76.8	42.7
05:00 PM - 06:00 PM	49.6	65.8	45.2
06:00 PM - 07:00 PM	48.3	70.2	43.6
07:00 PM - 08:00 PM	46.0	63.6	43.0
08:00 PM - 09:00 PM	51.9	80.7	42.5
09:00 PM - 10:00 PM	46.7	75.8	41.3
10:00 PM - 11:00 PM	45.3	69.7	41.8
11:00 PM - 12:00 AM	43.9	69.0	41.5
12:00 AM - 01:00 AM	44.1	66.1	39.5
01:00 AM - 02:00 AM	47.3	83.8	39.3
02:00 AM - 03:00 AM	46.1	63.4	38.5
03:00 AM - 04:00 AM	51.9	80.2	40.8
04:00 AM - 05:00 AM	54.1	80.3	44.1
05:00 AM - 06:00 AM	51.4	68.4	45.5
06:00 AM - 07:00 AM	52.0	73.3	45.1
07:00 AM - 08:00 AM	51.5	72.7	43.6
08:00 AM - 09:00 AM	52.5	80.4	42.9
09:00 AM - 10:00 AM	53.4	77.6	43.3
10:00 AM - 11:00 AM	50.2	70.7	43.3
11:00 AM - 12:00 PM	48.2	65.9	42.4
12:00 PM - 01:00 PM	51.1	66.2	44.5

Leq Average 24 hrs. (dB(A))	50.7
Lmax (dB(A))	83.8
L90 (dB(A))	43.0
Ldn (dB(A))	
Standard (dB(A))	70
Reference Method : ISO1996-1 and 1996-2	
Standard : 1. ใช้เกณฑ์การประเมินค่าเสียงตามข้อกำหนด มอก. 15 (พ.ศ. 2540) สำหรับอาคารโรงงานอุตสาหกรรมในเขตเมือง 2. ใช้เกณฑ์การประเมินค่าเสียงตามข้อกำหนด มอก. 15 (พ.ศ. 2540) สำหรับอาคารโรงงานอุตสาหกรรมในเขตชนบท	
18 กรกฎาคม 2548	
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.	

Technical Management : *Tharitat.* Scientist (4)
Approved by : *Supt S.* Supot Salamech Section Head

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RIGHT SOLUTIONS EVALUATE WHAT COUNTS



TESTING
No.0042

Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3
Lot ID: 2345413
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667812-1

Page 1 of 1

Sample Number	2345413-18
Parameter	Noise (Leq 24 hrs.)
Location	บ้านนาถ้ำขมิ้น
Measurement Date	May 19 - May 20, 2023
Measurement by	Jaradawe Srinuksa
Sound Level meter	Serial No. 233184

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	51.9	80.9	44.3
02:00 PM - 03:00 PM	53.7	82.6	44.5
03:00 PM - 04:00 PM	50.8	71.2	45.4
04:00 PM - 05:00 PM	54.0	82.5	43.8
05:00 PM - 06:00 PM	49.4	69.4	45.1
06:00 PM - 07:00 PM	48.3	68.1	44.2
07:00 PM - 08:00 PM	48.4	73.8	44.0
08:00 PM - 09:00 PM	47.0	71.9	43.3
09:00 PM - 10:00 PM	45.1	66.6	42.4
10:00 PM - 11:00 PM	44.1	61.2	41.5
11:00 PM - 12:00 AM	44.5	62.0	42.6
12:00 AM - 01:00 AM	44.3	64.5	42.2
01:00 AM - 02:00 AM	47.2	69.4	41.1
02:00 AM - 03:00 AM	46.0	69.1	40.1
03:00 AM - 04:00 AM	50.3	69.2	43.4
04:00 AM - 05:00 AM	53.7	76.7	47.4
05:00 AM - 06:00 AM	52.9	75.9	46.6
06:00 AM - 07:00 AM	52.8	74.1	45.9
07:00 AM - 08:00 AM	52.1	73.3	44.2
08:00 AM - 09:00 AM	51.9	79.8	42.3
09:00 AM - 10:00 AM	52.5	76.7	42.4
10:00 AM - 11:00 AM	49.0	69.5	42.1
11:00 AM - 12:00 PM	48.3	66.0	42.5
12:00 PM - 01:00 PM	50.8	71.3	43.9

Leq Average 24 hrs. (dB(A))	50.6
Lmax (dB(A))	82.6
L90 (dB(A))	
Ldn (dB(A))	56.5
Standard (dB(A))	70
Reference Method : ISO1996-1 and 1996-2	
Standard : 1. ใช้เกณฑ์การประเมินค่าเสียงตามข้อกำหนด มอก. 15 (พ.ศ. 2540) สำหรับอาคารโรงงานอุตสาหกรรมในเขตเมือง 2. ใช้เกณฑ์การประเมินค่าเสียงตามข้อกำหนด มอก. 15 (พ.ศ. 2540) สำหรับอาคารโรงงานอุตสาหกรรมในเขตชนบท	
18 กรกฎาคม 2548	
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.	

Technical Management : *Tharitat.* Scientist (4)
Approved by : *Supt S.* Supot Salamech Section Head

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2345413

Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667813-1

Client: Gulf TS3 Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Page 1 of 1

Sample Number	2345413-19
Parameter	Noise (Leq 24 hrs.)
Location	พื้นที่ก่อสร้าง
Measurement Date	May 20 - May 21, 2023
Measurement by	Jaradawee Srinuksa
Sound Level meter	Serial No. 233184

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	52.2	67.6	43.7
02:00 PM - 03:00 PM	53.2	68.6	44.7
03:00 PM - 04:00 PM	54.4	81.5	45.3
04:00 PM - 05:00 PM	51.9	77.4	43.3
05:00 PM - 06:00 PM	50.6	66.8	46.2
06:00 PM - 07:00 PM	49.3	71.2	44.6
07:00 PM - 08:00 PM	47.0	64.6	44.0
08:00 PM - 09:00 PM	52.9	81.7	43.5
09:00 PM - 10:00 PM	47.7	76.8	42.3
10:00 PM - 11:00 PM	45.5	69.9	42.0
11:00 PM - 12:00 PM	44.1	69.2	41.7
12:00 AM - 01:00 AM	44.3	66.3	39.7
01:00 AM - 02:00 AM	47.5	84.0	39.5
02:00 AM - 03:00 AM	46.3	63.6	38.7
03:00 AM - 04:00 AM	52.1	80.4	41.0
04:00 AM - 05:00 AM	54.5	80.7	44.5
05:00 AM - 06:00 AM	51.8	68.8	45.9
06:00 AM - 07:00 AM	52.4	73.7	45.5
07:00 AM - 08:00 AM	51.9	73.1	44.0
08:00 AM - 09:00 AM	52.9	80.8	43.3
09:00 AM - 10:00 AM	52.6	76.8	42.5
10:00 AM - 11:00 AM	49.4	69.9	42.5
11:00 AM - 12:00 PM	47.4	65.1	41.6
12:00 PM - 01:00 PM	50.3	65.4	43.7
Leq Average 24 hrs. (dB(A))	51.0		
Lmax (dB(A))	84.0		43.3
L90 (dB(A))			
Ldn (dB(A))	56.9		
Standard (dB(A))	70		115

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ใช้มาตรฐานการวัดและประเมินค่าเสียงตามข้อกำหนดของกรมส่งเสริมการค้าระหว่างประเทศ (พ.ร.บ. 2540) สำหรับอาคารพาณิชย์และโรงงานอุตสาหกรรม
2. ใช้มาตรฐานการวัดและประเมินค่าเสียงตามข้อกำหนดของกรมส่งเสริมการค้าระหว่างประเทศ (พ.ร.บ. 2540) สำหรับอาคารพาณิชย์และโรงงานอุตสาหกรรม
Tasit n.s. 2546
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Tharitat.

Technical Management

Approved by

Supt S

Thantia Kulsriwong
Scientist (4)

Supot Salameeh
Section Head

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RIGHT SOLUTIONS THAILAND PRACTICES

1303-61/ENAL

S.Vapornat_Air Noise pr (4.52PM)



Analysis / Test Report

TESTING
No.0042

Lot ID: 2345413

Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667814-1

Client: Gulf TS3 Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Page 1 of 1

Sample Number	2345413-20
Parameter	Noise (Leq 24 hrs.)
Location	พื้นที่ก่อสร้าง
Measurement Date	May 21 - May 22, 2023
Measurement by	Jaradawee Srinuksa
Sound Level meter	Serial No. 233184

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	53.1	82.1	45.5
02:00 PM - 03:00 PM	54.9	83.8	45.7
03:00 PM - 04:00 PM	52.0	72.4	46.6
04:00 PM - 05:00 PM	55.2	83.7	45.0
05:00 PM - 06:00 PM	50.6	70.6	46.3
06:00 PM - 07:00 PM	48.9	68.7	44.8
07:00 PM - 08:00 PM	49.0	74.4	44.6
08:00 PM - 09:00 PM	47.6	72.5	43.9
09:00 PM - 10:00 PM	45.7	67.2	43.0
10:00 PM - 11:00 PM	44.7	61.8	42.1
11:00 PM - 12:00 AM	45.4	62.9	43.5
12:00 AM - 01:00 AM	45.2	65.4	43.1
01:00 AM - 02:00 AM	48.1	70.3	42.0
02:00 AM - 03:00 AM	46.9	70.0	41.0
03:00 AM - 04:00 AM	51.2	70.1	44.3
04:00 AM - 05:00 AM	54.8	77.8	48.5
05:00 AM - 06:00 AM	54.0	72.0	47.7
06:00 AM - 07:00 AM	53.9	75.2	47.0
07:00 AM - 08:00 AM	53.2	74.4	45.3
08:00 AM - 09:00 AM	53.0	80.9	43.4
09:00 AM - 10:00 AM	52.9	77.1	42.8
10:00 AM - 11:00 AM	49.4	69.9	42.5
11:00 AM - 12:00 PM	48.7	66.4	42.9
12:00 PM - 01:00 PM	51.2	71.7	44.3
Leq Average 24 hrs. (dB(A))	51.5		
Lmax (dB(A))	83.8		44.3
L90 (dB(A))			
Ldn (dB(A))	57.6		
Standard (dB(A))	70		115

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ใช้มาตรฐานการวัดและประเมินค่าเสียงตามข้อกำหนดของกรมส่งเสริมการค้าระหว่างประเทศ (พ.ร.บ. 2540) สำหรับอาคารพาณิชย์และโรงงานอุตสาหกรรม
2. ใช้มาตรฐานการวัดและประเมินค่าเสียงตามข้อกำหนดของกรมส่งเสริมการค้าระหว่างประเทศ (พ.ร.บ. 2540) สำหรับอาคารพาณิชย์และโรงงานอุตสาหกรรม
Tasit n.s. 2546
Remark : The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Tharitat.

Technical Management

Approved by

Supt S

Thantia Kulsriwong
Scientist (4)

Supot Salameeh
Section Head

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RIGHT SOLUTIONS THAILAND PRACTICES

1303-61/ENAL

S.Vapornat_Air Noise pr (4.52PM)



Analysis / Test Report

TESTING
No.0042

Client : Gulf TSI Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53
Lot ID: 2345413
Date Received : May 29, 2023
Date Reported : May 31, 2023
Report Number: 2667815-1

Page 1 of 1

Sample Number	2345413-21
Parameter	Noise (Leq 24 hrs.)
Location	บริเวณศาลา
Measurement Date	May 22 - May 23, 2023
Measurement by	Jaradrawee Srukka
Sound Level meter	Serial No. 233184

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	52.6	68.0	44.1
02:00 PM - 03:00 PM	53.6	69.0	45.1
03:00 PM - 04:00 PM	54.8	81.9	45.7
04:00 PM - 05:00 PM	52.3	77.8	43.7
05:00 PM - 06:00 PM	51.0	67.2	46.6
06:00 PM - 07:00 PM	49.7	71.6	45.0
07:00 PM - 08:00 PM	47.4	65.0	44.4
08:00 PM - 09:00 PM	52.7	81.5	43.3
09:00 PM - 10:00 PM	47.5	76.6	42.1
10:00 PM - 11:00 PM	45.3	69.7	41.8
11:00 PM - 12:00 AM	43.9	69.0	41.5
12:00 AM - 01:00 AM	44.1	66.1	39.5
01:00 AM - 02:00 AM	47.3	83.8	39.3
02:00 AM - 03:00 AM	47.3	64.6	39.7
03:00 AM - 04:00 AM	53.1	81.4	42.0
04:00 AM - 05:00 AM	55.5	81.7	45.5
05:00 AM - 06:00 AM	52.8	69.8	46.9
06:00 AM - 07:00 AM	53.4	74.7	46.5
07:00 AM - 08:00 AM	52.9	74.1	45.0
08:00 AM - 09:00 AM	53.9	81.8	44.3
09:00 AM - 10:00 AM	52.2	76.4	42.1
10:00 AM - 11:00 AM	49.0	69.5	42.1
11:00 AM - 12:00 PM	47.0	64.7	41.2
12:00 PM - 01:00 PM	49.9	65.0	43.3
Leq Average 24 hrs. (dB(A))	51.5		
Lmax (dB(A))		83.8	
L90 (dB(A))			43.3
Ldn (dB(A))	57.6		
Standard (dB(A))	70		115

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงมหาดไทย เรื่องมาตรฐานสิ่งแวดล้อมทางบก (พ.ศ. 2540) ค่ากำหนดมาตรฐานระดับเสียงโดยทั่วไป
2. ประกาศกระทรวงสาธารณสุข เรื่องกำหนดการประเมินผลกระทบจากเสียงระดับเสียงที่เกิดจากโรงงานอุตสาหกรรม
รายงาน ม.ร. 2548

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

Technical Management

Thanitak.

Thanita Kulsriwong
Scientist (4)

Approved by

Supt S.

Supot Salameeth
Section Head

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51430-61/ FAX

51430-61/ Air Noise test (4.53PM)

ภาคผนวก ค-4

คุณภาพน้ำทิ้งจากระบบการผลิต



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location: GT53

TESTING
No.0042
Lot ID: 22154223
Date Received : Jan 04, 2023
Date Reported : Jan 12, 2023
Report Number : 2530658-1

Page 1 of 2

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2	<2	≤500	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Color (at Original pH)	ADMT	-	5	11	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMT	-	5	10	≤600	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease *	mg/L	-	3	3	≤10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *	-	-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 1500 - H (B)	Rayong
Temperature *	Degree C	-	-	28.6	≤45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	528	≤3000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant
Sampling By : Pathompong Komsawat รหัสประจำตัว 3-323-9-9468

Remark :
* LOD : Limit of Detection

Technical Management
N. Banphit
Narumon Banphongkit
Supervisor
รหัสประจำตัว 3-323-9-9445

Approved by
D. Chongchon
Dej Chongchon
Senior Manager
รหัสประจำตัว 3-323-9-9442

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1408 647 EMAIL S.1408@ALS.CO.TH (11.55AM)

Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location: GT53

TESTING
No.0042
Lot ID: 22154223
Date Received : Jan 04, 2023
Date Reported : Jan 12, 2023
Report Number : 2530658-1

Page 2 of 2

- * "-" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- * Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- * The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
N. Banphit
Narumon Banphongkit
Supervisor
รหัสประจำตัว 3-323-9-9445

Approved by
D. Chongchon
Dej Chongchon
Senior Manager
รหัสประจำตัว 3-323-9-9442

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1408 647 EMAIL S.1408@ALS.CO.TH (11.55AM)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

TESTING
No.0042
Lot ID: 2310359
Date Received : Feb 06, 2023
Date Reported : Feb 13, 2023
Report Number : 2553644-1

Page 1 of 2

Sample Number	2310359-1
Sample Date	Feb 06, 2023 10:30 AM
Sample Description	Wastewater
Location	ในพื้นที่โรงงาน
Date Analysis Commenced	Feb 06, 2023
Condition of Sample	Contained in one amber glass bottle and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOB)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Color (at Original pH)	ADMI	-	5	16	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	15	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease *	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5320 B	Rayong
pH at 25 degree C *		-	-	7.7	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	32.5	≤45	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	80	≤3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant
Sampling By : Narurat thammamaso รหัสดูงานที่ 7-323-9-9477

Remark :
* LOD : Limit of Detection

Technical Management
N. Bangkit
Narumon Banthongkit
Supervisor
รหัสดูงานที่ 7-323-9-9445

Approved by
D. Jinnai
Dej Changchon
Senior Manager
รหัสดูงานที่ 7-323-9-9442

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



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

TESTING
No.0042
Lot ID: 2310359
Date Received : Feb 06, 2023
Date Reported : Feb 13, 2023
Report Number : 2553644-1

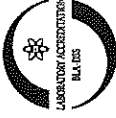
Page 2 of 2

- * <L : Lower than LOQ (Limit of Quantitation) / LOD (Limit of Reporting)
- * Analyte(s) marked * (are not included in scope of Accreditation ISO/IEC 17025.
- * The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
N. Bangkit
Narumon Banthongkit
Supervisor
รหัสดูงานที่ 7-323-9-9445

Approved by
D. Jinnai
Dej Changchon
Senior Manager
รหัสดูงานที่ 7-323-9-9442

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



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0042
Lot ID: 2324198
Date Received : Mar 08, 2023
Date Reported : Mar 15, 2023
Report Number : 2585906-1

Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0042
Lot ID: 2324198
Date Received : Mar 08, 2023
Date Reported : Mar 15, 2023
Report Number : 2585906-1

Page 1 of 2

Page 2 of 2

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Color (at Original pH)	ADMI	-	5	5	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	5	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease *	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *	-	-	-	7.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1500 - H (B)	Rayong
Temperature *	Degree C	-	-	34.0	≤45	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	61.2	≤3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2510 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Pathompong Kornsawat รหัสประจำตัว ๗-323-๙-9468

Remark :

- LOD : Limit of Detection

Technical Management
N. Banphit
Narumon Banchoangkit
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Approved by
D. Chanchon
Dej Chanchon
Senior Manager
รหัสประจำตัว ๗-323-๙-9442

Technical Management
N. Banphit
Narumon Banchoangkit
Supervisor
รหัสประจำตัว ๗-323-๙-9445

Approved by
D. Chanchon
Dej Chanchon
Senior Manager
รหัสประจำตัว ๗-323-๙-9442

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S. Watanai, ALG Co., Ltd. (11.3544)

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S. Watanai, ALG Co., Ltd. (11.3544)



Analysis / Test Report

TESTING
No.0042
Lot ID: 2335519
Date Received : Apr 03, 2018
Date Reported : Apr 10, 2018
Report Number : 2608121-1

Page 1 of 2

Sampled Date: Apr 03 2022 10:40 AM

DATE	TIME	LOCATION	REMARKS
10/15/2023	10:43 AM	WY 002	WY 002, 2023 10:43 AM

Sample Description	Wastewater
1. Sewage	1. Sewage
2. Industrial effluent	2. Industrial effluent
3. Surface water	3. Surface water
4. Groundwater	4. Groundwater
5. Rainwater	5. Rainwater
6. Drinking water	6. Drinking water
7. Wastewater treatment plant effluent	7. Wastewater treatment plant effluent
8. Desalinated water	8. Desalinated water
9. Recycled water	9. Recycled water
10. Other	10. Other

Location
 ปอพักน้ำผึ้งรวม

Date Analysis Commenced Apr 03, 2023

Analysis	11/14	1/15	Results	Calculation /	Method	Position
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Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Color (at Original pH)	ADMT	-	5	9	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMT	-	5	8	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease *	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	7.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	35.5	≤45	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	64	≤3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Remark :

• LOD : Limit of Detection

1000

V. Danylova

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Naruman Banchong

Supervisor

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Analysis / Test Report

TESTING
No.0042
Lot ID: 2335519
Date Received : Apr 03, 2023
Date Reported : Apr 10, 2023
Report Number : 2608121-1

Page 2 of 2

22/51 - paymen (5) 22/51

- The laboratory has been accepted as an accredited laboratory complying with the

Technical Management

V. D. D.

Narumon Banchong

Supervisor

พระปณณเลขที่ 7-323-๑-9445

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0042
Lot ID: 2345546
Date Received : May 03, 2023
Date Reported : May 12, 2023
Report Number : 2631145-1 C5

Page 1 of 2

Sample Number	2345546-1						
Sampled Date	May 03, 2023 10:20 AM						
Sample Description	Wastewater						
Location	ใกล้ตู้พักแรม						
Date Analysis Commenced	May 03, 2023						
Condition of Sample	Contained in two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Color (at Original pH)	ADMI	-	5	7	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	6	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease *	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	36.4	≤45	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	116	≤3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant
Sampled By : Narunak thammakaro , Panupong Manit

Remark :
- LOD : Limit of Detection

Technical Management
N. Banphit
Narumon Banchongkit
Supervisor
โทรศัพท์ 3-323-9-9445

Approved by
D. Chingchon
Dej Chingchon
Senior Manager
โทรศัพท์ 3-323-9-9442

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0042
Lot ID: 2345546
Date Received : May 03, 2023
Date Reported : May 12, 2023
Report Number : 2631145-1 C5

Page 2 of 2

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

Technical Management
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Narumon Banchongkit
Supervisor
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Approved by
D. Chingchon
Dej Chingchon
Senior Manager
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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140

P/O : Monitoring EIA

Project Name : Monitoring EIA

Project Location : GT53

TESTING
No.0042
Lot ID: 2356635

Date Received : Jun 02, 2023

Date Reported : Jun 10, 2023

Report Number : 2655078-1

Page 1 of 2

Sample Number	2356635-1
Sample Date	Jun 02, 2023 10:35 AM
Sample Description	Wastewater
Location	UeMinhKhet
Date Analysis Commenced	Jun 02, 2023
Condition of Sample	Contained in one amber glass bottle and two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
Color (at Original pH)	ADMI	-	5	11	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	10	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Oil & Grease *	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	7.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	34.9	≤45	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	116	≤3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2510 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2510 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central

wastewater Treatment Plant

Sampling By : Nannat thammassaro นันทธามสาร

Remark :

Technical Management

N. Banpait

Nannat Banchoangkit
Supervisor
นันทธามสาร 7-323-9-9445

Approved by

D. Chongdon

Dej Chongdon
Senior Manager
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31-00-07/1440

S. Waporn (AL) Co. (P) (1-0194)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140

P/O : Monitoring EIA

Project Name : Monitoring EIA

Project Location : GT53

TESTING
No.0042
Lot ID: 2356635

Date Received : Jun 02, 2023

Date Reported : Jun 10, 2023

Report Number : 2655078-1

Page 2 of 2

- LOD : Limit of Detection
- "<" : lower than LOQ (Unit of Quantitation) / LOR (Unit of Reporting)
- Analyte(s) marked * : Is/are not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

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RIGHT SOLUTIONS RIGHT PARTNER

31-00-07/1440

S. Waporn (AL) Co. (P) (1-0194)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location: GTSS

TESTING
No.0042
Lot ID: 2345546
Date Received : May 03, 2023
Date Reported : May 12, 2023
Report Number : 2631145-1

Page 1 of 2

Sample Number	2345546-1
Sample Date	May 03, 2023 10:20 AM
Sample Description	Wastewater
Location	น้ำทิ้งจากโรงงาน
Date Analysis Commenced	May 03, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤500	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	<25	≤750	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	7	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	6	≤600	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	0.007	≤0.2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	0.2	≤1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Oil & Grease *	mg/L	-	3	<3	≤10	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *		-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Phenol	mg/L	0.005	0.01	0.02	≤1	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong

Technical Management : N. Banphit
Supervisor : Narumon Banchoangkit
wattana 7-323-a-9445
Approved by : D. Jamsri
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Senior Manager
wattana 7-323-a-9442

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location: GTSS

TESTING
No.0042
Lot ID: 2345546
Date Received : May 03, 2023
Date Reported : May 12, 2023
Report Number : 2631145-1

Page 2 of 2

Sample Number	2345546-1
Sample Date	May 03, 2023 10:20 AM
Sample Description	Wastewater
Location	น้ำทิ้งจากโรงงาน
Date Analysis Commenced	May 03, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	-	36.4	≤45	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	116	≤3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	<1.0	≤100	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NHR3 (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant
Sampling By : Narumon Banchoangkit 7-323-a-9477, Panupong Manit wattana 7-204-a-8600
Remark :
• LOD : Limit of Detection
• *C* : Lower than LOQ (Limit of Quantization) / LOR (Limit of Reporting)
• Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
• The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management : N. Banphit
Supervisor : Narumon Banchoangkit
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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTES

TESTING
No.0009
Lot ID: 2345546
Date Received : May 03, 2023
Date Reported : May 12, 2023
Report Number : 2631145-2

Page 1 of 5

Sample Number	2345546-1
Sample Date	May 03, 2023 10:20 AM
Sample Description	Wastewater
Location	โรงงานน้ำตาล
Date Analysis Commenced	May 05, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	<0.0005	≤0.25	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.03	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.002	≤2.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3500 Cr 6	Bangkok
Lead	mg/L	0.0003	0.0005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.18	≤5.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3112	Bangkok

Technical Management
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Savitree Nongiam
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Approved by
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Senior Manager
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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTES

TESTING
No.0009
Lot ID: 2345546
Date Received : May 03, 2023
Date Reported : May 12, 2023
Report Number : 2631145-2

Page 2 of 5

Sample Number	2345546-1
Sample Date	May 03, 2023 10:20 AM
Sample Description	Wastewater
Location	โรงงานน้ำตาล
Date Analysis Commenced	May 05, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

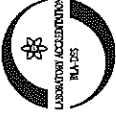
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.0008	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	Not Detected	≤0.02	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.04	≤5.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Pesticides - Organochlorine Group							
2,4-DOD *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method: STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6530 D, part 6410 B	Bangkok
2,4-DDE *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method: STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6530 D, part 6410 B	Bangkok
2,4-DDT *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method: STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6530 D, part 6410 B	Bangkok

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Savitree Nongiam
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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0009
Lot ID: 2345546
Date Received : May 03, 2023
Date Reported : May 12, 2023
Report Number : 2631145-2

Page 3 of 5

Sample Number	2345546-1
Sampled Date	May 03, 2023 10:20 AM
Sample Description	Wastewater
Location	เขื่อนลำนางรอง
Date Analysis Commenced	May 05, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
4,4-DDD *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
4,4-DDE *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
4,4-DDT *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Aldrin *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
alpha-BHC *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
beta-BHC *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

Technical Management

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Savitree Nongsangam
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Approved by

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Kanokkom Anek
Senior Manager
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5, Suphontulaj, 101, 101 (1-2024)

Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0009
Lot ID: 2345546
Date Received : May 03, 2023
Date Reported : May 12, 2023
Report Number : 2631145-2

Page 4 of 5

Sample Number	2345546-1
Sampled Date	May 03, 2023 10:20 AM
Sample Description	Wastewater
Location	เขื่อนลำนางรอง
Date Analysis Commenced	May 05, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
Chlordane *	ug/L	0.02	0.04	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
delta-BHC *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Dieldrin *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Endosulfan I *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Endosulfan II *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Erdrin *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

Technical Management

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13100-61/PMAL

RIGHT SOLUTIONS

5, Suphontulaj, 101, 101 (1-2024)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

TESTING
No.0009
Lot ID: 2345546
Date Received : May 03, 2023
Date Reported : May 12, 2023
Report Number : 2631145-2

Page 5 of 5

Sample Number	2345546-1
Sample Date	May 03, 2023 10:20 AM
Sample Description	Wastewater
Location	พื้นที่น้ำทิ้ง
Date Analysis Commenced	May 05, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOB)	Result	Guideline / Specification	Method	Testing Location
Pesticides - Organochlorine Group							
Hepachlor *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Hepachlor-Epoxyde *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Lindane (gamma-BHC) *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Methoxychlor *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant
Sampling By : Narunat Thammamano รหัสประจำตัว 3-323-9-9477 , Panupong Manik รหัสประจำตัว 3-204-3-8600

Remark :
- LOD : Limit of Detection
- <C< : Lower than LOQ (Limit of Quantitation) / LOB (Limit of Reporting)
- Analytical method : HPLC not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management
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Approved by
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1300 437 0400

S:\Report\AL_GL_0511-4-2024

Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

TESTING
No.0042
Lot ID: 2345546
Date Received : May 03, 2023
Date Reported : May 12, 2023
Report Number : 2631145-3

Page 1 of 2

Sample Number	2345546-1
Sample Date	May 03, 2023 10:20 AM
Sample Description	Wastewater
Location	พื้นที่น้ำทิ้ง
Date Analysis Commenced	May 04, 2023
Condition of Sample	Contained in two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOB)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Iron	mg/L	0.003	0.005	0.23	≤10.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Silver	mg/L	0.0003	0.0005	Not Detected	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Pesticides - Organochlorine Group							
alpha-Chlordane *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
gamma-Chlordane *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Hexachlorobenzene *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Hirrex *	ug/L	0.01	0.02	Not Detected	Not Detected	In-house method : STM 04-101 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

Water Testing

Approved by

N. Bangpit

Narumon Banchongkitt
Supervisor

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Taset, Puak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GTS3

TESTING
No.0042
Lot ID: 2345546
Date Received : May 03, 2023
Date Reported : May 12, 2023
Report Number: 2631145-3

Page 2 of 2

Sample Number	2345546-1						
Sampled Date	May 03, 2023 10:20 AM						
Sample Description	Wastewater						
Location	ตำบลน้ำพอง						
Date Analysis Commenced	May 04, 2023						
Condition of Sample	Contained in two glass vials, three amber glass bottles and ten plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Anionic Surfactant as MBAS *	mg/L	0.015	0.05	0.06	≤30	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3540 B, C	Bangkok
Chloride as Cl *	mg/L	0.5	1	68	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (D)	Rayong
Fluoride	mg/L	0.05	0.2	<0.2	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-F (C)	Rayong
Odour *				Odourless	Non Objectionable	TSS, 257-259	Rayong

Guideline : Notification of the Industrial Estate Authority of Thailand No.76, B.E. 2560 : Criteria of wastewater characteristic from factory discharge to central wastewater Treatment Plant

Sampling By : Narunt thammassaro , Panupong Manit

Remark :
LOD : Limit of Detection
" < " : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
Analyte(s) marked * : Is/are not included in scope of Accreditation ISO/IEC 17025.
[A] : Analysis conducted by ALS Laboratory Group (Thailand) Co., Ltd. Bangkok Branch, DSS Accreditation No. 0009.
The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Approved by
N. Banphit
Nanman Banchoangkit
Supervisor

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ภาคผนวก ค-5

คุณภาพน้ำที่ระบายจากหอหล่อเย็น



Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GTSS

Analysis / Test Report

TESTING
No.0042
Lot ID: 22154224
Date Received : Jan 04, 2023
Date Reported : Jan 12, 2023
Report Number : 2530669-1

Page 1 of 1

Sample Number	22154224-1
Sampled Date	Jan 04, 2023 10:09 AM
Sample Description	Wastewater
Location	uaññññññññññ
Date Analysis Commenced	Jan 04, 2023
Condition of Sample	Contained in one BOD bottle and four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing							
BOD (5 days at 20 degree C)	mg/L	-	2	<2	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3210 B	Rayong
Color (at Original pH)	ADMI	-	5	19	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	17	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
pH at 25 degrees C *	-	-	8.2	5.5-9.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 -H (B)	Rayong
Temperature *	Degree C	-	27.4	≤40	≤34	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	940	≤1300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TSS Co., Ltd.

Sampling By : Pathompong Komsawat รหัสผู้ตรวจ 3-323-9-9468, Jakkarin Manwicha รหัสผู้ตรวจ 3-204-9-8587

Remark :
* LOD : Limit of Detection
* "C" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
* Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
This laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

N. Banphat
Naumn Banphongkiet
Supervisor
รหัสผู้ตรวจ 3-323-9-9445

Approved by

D. Jamsai
Dej Changchion
Senior Manager
รหัสผู้ตรวจ 3-323-9-9442

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Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GTSS

Analysis / Test Report

Lot ID: 22154224
Date Received : Jan 04, 2023
Date Reported : Jan 12, 2023
Report Number : 2530669-2

Page 1 of 1

Sample Number	22154224-1
Sampled Date	Jan 04, 2023 10:09 AM
Sample Description	Wastewater
Location	uaññññññññññ
Date Analysis Commenced	Jan 05, 2023
Condition of Sample	Contained in one BOD bottle and four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing							
Calcium	mg/L	0.003	0.005	4.62	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Magnesium	mg/L	0.003	0.005	1.42	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
SAR	-	-	3.56	No Standard	0-10	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Sodium	mg/L	0.003	0.005	6.19	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
Chlorite	mg/L	0.05	0.1	Not Detected	No Standard	In-house method : STM 04-063 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen	mg/L	-	0.1	8.2	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TSS Co., Ltd.

Sampling By : Pathompong Komsawat รหัสผู้ตรวจ 3-323-9-9468, Jakkarin Manwicha รหัสผู้ตรวจ 3-204-9-8587

Remark :
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* "C" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by

N. Banphat
Naumn Banphongkiet
Supervisor

Approved by

N. Banphat
Naumn Banphongkiet
Supervisor

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Analysis / Test Report

Client : Gulf TSC Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTSS

TESTING
No.0042
Lot ID: 2310360
Date Received : Feb 06, 2023
Date Reported : Feb 14, 2023
Report Number : 2553645-1

Page 1 of 1

Sample Number	Sample Date	Sample Description	Location	Date Analysis Commenced	Condition of Sample
2310360-1	Feb 06, 2023 10:20 AM	Wastewater	โรงงานผลิต	Feb 06, 2023	Contained in one BOD bottle and four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Color (at Original pH)	ADMI	-	5	18	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	18	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
pH at 25 degree C *	-	-	7.5	5.5-9.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	30.1	≤40	≤34	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	700	≤1300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TSC Co., Ltd.

Sampling By : Narurat thammassaro รหัสผู้ตรวจ : 323-a-9477 , Samart Khumpluee รหัสผู้ตรวจ : 204-a-7830

Remark :

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- "<" : Lower than LOD (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.
- This laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

N. Banphit
Narumon Banphongthit
Supervisor
รหัสผู้ตรวจ : 323-a-9445

Approved by

D. Jansin
Dej Changchon
Senior Manager
รหัสผู้ตรวจ : 323-a-9442

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Analysis / Test Report

Client : Gulf TSC Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTSS

Lot ID: 2310360
Date Received : Feb 06, 2023
Date Reported : Feb 14, 2023
Report Number : 2553645-2

Page 1 of 1

Sample Number	Sample Date	Sample Description	Location	Date Analysis Commenced	Condition of Sample
2310360-1	Feb 06, 2023 10:20 AM	Wastewater	โรงงานผลิต	Feb 07, 2023	Contained in one BOD bottle and four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing							
Calcium	mg/L	0.003	3.22	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Magnesium	mg/L	0.003	1.00	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
SAR	-	-	3.95	No Standard	0-10	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Sodium	mg/L	0.003	5.74	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
Chlorite	mg/L	0.05	0.1	Not Detected	No Standard	In-house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen	mg/L	-	7.8	No Standard	≥4	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TSC Co., Ltd.

Sampling By : Narurat thammassaro รหัสผู้ตรวจ : 323-a-9477 , Samart Khumpluee รหัสผู้ตรวจ : 204-a-7830

Remark :

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

Approved by

Savitree N.
Savitree Noisangam
Manager

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Analysis / Test Report

Client : Gulf TSC Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2324199

Date Received : Mar 08, 2023
Date Reported : Mar 16, 2023
Report Number : 2355910-2

Page 1 of 1

Sample Number	2324199-1			
Sample Date	Mar 08, 2023 10:10 AM			
Sample Description	Wastewater			
Location	UaRindiwaiadu			
Date Analysis Commenced	Mar 09, 2023			
Condition of Sample	Contained in one BOD bottle and four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)			
Physical Property	Yellow, some odour, solid and turbid			

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
Calcium	mg/L	0.003	0.005	4.59	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Magnesium	mg/L	0.003	0.005	1.31	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
SAR	-	-	-	4.67	No Standard	0-10	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Sodium	mg/L	0.003	0.005	8.03	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing								
Chloride	mg/L	0.05	0.1	Not Detected	No Standard	≤1.0	In-house method : STM 04-061 based on United States Environmental Protection Agency, 1995, EPA Method 300.1	Bangkok
Dissolved Oxygen	mg/L	-	0.1	7.0	No Standard	≥4	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1900-D (C)	Rayong

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TSC Co., Ltd.

Sampling By : Pathompong Kongsawat วิสณุณานนท์ 3-323-9-9468, Jakkarin Hanwicha วิสณุณานนท์ 3-204-9-8587

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

Sawitree N.

Approved by
Sawitree Nongkham
Manager

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Analysis / Test Report

Client : Gulf TSC Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

TESTING
No.0042
Lot ID: 2335523

Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608124-1

Page 1 of 1

Sample Number	2335523-1			
Sample Date	Apr 03, 2023 10:32 AM			
Sample Description	Wastewater			
Location	UaRindiwaiadu			
Date Analysis Commenced	Apr 03, 2023			
Condition of Sample	Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA, USEPA)			

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Color (at Original pH)	ADMI	-	5	20	≤300	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	18	≤300	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
pH at 25 degree C *	-	-	-	7.9	5.5-9.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.8	≤40	≤34	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1088	≤3000	≤1300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TSC Co., Ltd.

Sampling By : Pathompong Kongsawat วิสณุณานนท์ 3-323-9-9468, Samart Klumphaee วิสณุณานนท์ 3-204-9-7830

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

N. Banphit

Approved by
Nimnon Banthongkit
Supervisor
visnuwanat 3-323-9-9445

D. Chongchon

Approved by
Dej Chongchon
Senior Manager
visnuwanat 3-323-9-9442

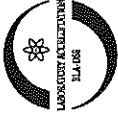
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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0009
Lot ID: 2335523
Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608124-2

Page 1 of 1

Sample Number	2335523-1
Sampled Date	Apr 03, 2023 10:32 AM
Sample Description	Wastewater
Location	พื้นที่หน้าเขื่อน
Date Analysis Commenced	Apr 04, 2023
Condition of Sample	Contained in one 800 ml bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing							
Calcium	mg/L	0.003	4.88	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Magnesium	mg/L	0.003	1.49	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
SAR *	-	-	5.12	No Standard	0-10	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Sodium	mg/L	0.003	9.13	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
Chloride *	mg/L	0.05	0.1	Not Detected	No Standard	In-house method : STM 04-061 based on United States Environmental Protection Agency, 1993, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.8	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1900-D (C)	Rayong

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TSS Co., Ltd.

Sampling By : Palbompang Komsawat รหัสประจำตัว ๖-323-๙-9468 , Samart Khumplakke รหัสประจำตัว ๖-204-๙-7830

Remark :

- LOD : Limit of Detection

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

- Analytical method * is/are not included in scope of Accreditation ISO/IEC 17025.

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

Chanatt L.

Approved by
Chanabagam Inthorn
Supervisor

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S. Marnam, Lab. 200, rm 1 (3-27th fl)

Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0042
Lot ID: 2345571
Date Received : May 03, 2023
Date Reported : May 15, 2023
Report Number : 2631171-1 CS-1

Page 1 of 1

Sample Number	2345571-1
Sampled Date	May 03, 2023 10:00 AM
Sample Description	Wastewater
Location	พื้นที่หน้าเขื่อน
Date Analysis Commenced	May 03, 2023
Condition of Sample	Contained in one 800 ml bottle, two glass vials, three amber glass bottles and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 210 B	Rayong
Color (at Original pH)	ADMI	-	5	21	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	20	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
pH at 25 degree C *	-	-	7.2	5.5-9.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	33.1	<40	<34	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	676	<3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TSS Co., Ltd.

Sampled By : Narunon thammassaro รหัสประจำตัว ๖-323-๙-9445

Remark :

- LOD : Limit of Detection

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

- Analytical method * is/are not included in scope of Accreditation ISO/IEC 17025.

N. Ban-yai

Technical Management
Narunon Banthongjit
Supervisor
รหัสประจำตัว ๖-323-๙-9445

Approved by

D. Chongchon

Senior Manager
รหัสประจำตัว ๖-323-๙-9442

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GTSS3

Lot ID: 2356649
Date Received : Jun 02, 2023
Date Reported : Jun 10, 2023
Report Number : 2655069-1

Page : of 2

Sample Number	235649-1
Sampled Date	Jun 02, 2023 10:15 AM
Sample Description	Wastewater
Location	hahin-haaidu
Date Analysis Commenced	Jun 02, 2023
Condition of Sample	Contained in one BOD bottle and four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
300D (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O G	Rayong
Color (at Original pH)	ADMI	-	5	24	≤300	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	22	≤300	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
pH at 25 degree C *	-	-	-	8.0	5.5-9.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	32.6	≤40	≤34	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	1088	≤3000	≤1300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong

Total Suspended Solids Dried at 103-105 degree C	mg/L	5	23	≤50	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2012, and 2540 D.	Rayong
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Guideline : Guideline (1) : Efficient standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and

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

Guideline (2) : Environmental Impact Assessment Report of Gulf TS3 Co., Ltd.

Sampling By : Narunat thammassaro โทรศัพท์ 7-323-4-9477 , Panupong Manit โทรศัพท์ 7-204-4-8600

Remark:

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

- Analyte(s) marked * is/are not included in scope of Accreditation ISO/IEC 17025.

V. Baumgart

Technical Management

Narumon Banchongkit
Dej Changchon

Supervisor	Senior Manager
1	2
3	4
5	6
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97	98
99	100

СНЧБ-Б-СЗ-Б ИТУПОН:Н
 М:ВНПНБМН 3-323-Н-2442

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TESTING

Lot ID: 2356649
Date Received : Jun 02, 2023
Date Reported : Jun 10, 2023
Report Number : 2655099-1

Page 2 of 2



Lot ID: 2356649
Date Received : Jun 02, 2023
Date Reported : Jun 12, 2023
Report Number : 2655099-2

Page 1 of 1

Sample Number		2356649-1						
Sample Date	Jun 02, 2023 10:15 AM							
Sample Description	Wastewater							
Location	unahihweaufu							
Date Analysis Commenced	Jun 06, 2023							
Condition of Sample	Contained in one BOD bottle and four plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
Calcium	meq/L	0.003	0.005	4.55	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Magnesium	meq/L	0.003	0.005	1.37	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
BAR	-	-	-	4.94	No Standard	0-10	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Sodium	meq/L	0.003	0.005	8.50	No Standard	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing								
Chloride	mg/L	0.05	0.1	Not Detected	No Standard	≤1.0	In-house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen	mg/L	-	0.1	7.5	No Standard	≥4	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 459B-C (O ₂)	Rayong

Guideline: Guideline (1): Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park by Notification of The Ministry of Industry dated June 07, B.E.2550 (2017). Guideline (2): Environmental Impact Assessment Report of Gulf TSK Co., Ltd

Sampling By : Narurat thammasaro หมายเลข 7-223-9-9477 , Panupong Manit หมายเลข 7-204-9-8600

Remark: :

- LOD
- $\frac{\text{Limit of Detection}}{\text{Limit of Quantitation}}$
- $\frac{\text{LOQ}}{\text{LOD}}$

Approved by _____

Dej Changchon
Senior Manager

7-373-B-0447

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[illegible]

Approved by

Lee Noisangnam
Manager

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GTSS

TESTING
No.0042
Lot ID: 2345571
Date Received : May 03, 2023
Date Reported : May 15, 2023
Report Number : 2631171-1 CS-2

Page 1 of 2

Sample Number	2345571-1
Sampled Date	May 03, 2023 10:00 AM
Sample Description	Wastewater
Location	ลำน้ำชีน้ำฝั้น
Date Analysis Commenced	May 03, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOQ (LOD)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing							
BOD (5 days at 20 Degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
COD	mg/L	1.5	25	29	≤120	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	21	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	20	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2120 F	Rayong
Cyanide as CN *	mg/L	0.001	0.005	Not Detected	≤0.2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (C, E)	Rayong
Formaldehyde	mg/L	0.03	0.1	Not Detected	≤1.0	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Rayong
Oil & Grease *	mg/L	-	3	3	≤5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Rayong
pH at 25 degree C *	-	-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 -H (B)	Rayong
Phenol	mg/L	0.005	0.01	0.01	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5530 D	Rayong

Technical Management
N. Banphit
Narumon Banchongkit
Supervisor
โทรศัพท์ 3-323-9-9445

Approved by
D. Chuanphon
Dei Chuanphon
Senior Manager
โทรศัพท์ 3-323-9-9442

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GTSS

TESTING
No.0042
Lot ID: 2345571
Date Received : May 03, 2023
Date Reported : May 15, 2023
Report Number : 2631171-1 CS-2

Page 2 of 2

Sample Number	2345571-1
Sampled Date	May 03, 2023 10:00 AM
Sample Description	Wastewater
Location	ลำน้ำชีน้ำฝั้น
Date Analysis Commenced	May 03, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOQ (LOD)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing							
Residual Free Chlorine *	mg/L	-	0.1	<0.1	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Cl (F)	Rayong
Sulfide *	mg/L	-	0.5	<0.5	≤1.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-S2 (C, F)	Rayong
Temperature *	Degree C	-	33.1	≤40	≤34	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	676	≤1300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Kjeldahl Nitrogen as N	mg/L	-	1.0	<1.0	≤100	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-Norg (C), part NBS (D)	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤50	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TS3 Co., Ltd.

Sampled By : Narurat thannamasro, Panupong Manit

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

Technical Management
N. Banphit
Narumon Banchongkit
Supervisor
โทรศัพท์ 3-323-9-9445

Approved by
D. Chuanphon
Dei Chuanphon
Senior Manager
โทรศัพท์ 3-323-9-9442

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Plak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0009
Lot ID: 2345571
Date Received : May 03, 2023
Date Reported : May 15, 2023
Report Number : 2631171-2 CS-2

Page 1 of 5

Sample Number	2345571-1
Sample Date	May 03, 2023 10:00 AM
Sample Description	Wastewater
Location	ใกล้พื้นที่ขุด
Date Analysis Commenced	May 05, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LDB)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
Arsenic	mg/L	0.0003	0.0005	0.003	≤0.25	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Barium	mg/L	0.0003	0.0005	0.27	≤1.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.03	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.009	≤2.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.25	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.0005	≤0.20	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.46	≤5.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury *	mg/L	0.0001	0.0005	Not Detected	≤0.005	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok

Technical Management
Savitree N.
Savitree Nisongjiam
Manager
หน้าตึก 7-204-3-4709

Approved by
Kanokorn Anek
Kanokorn Anek
Senior Manager

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Plak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0009
Lot ID: 2345571
Date Received : May 03, 2023
Date Reported : May 15, 2023
Report Number : 2631171-2 CS-2

Page 2 of 5

Sample Number	2345571-1
Sample Date	May 03, 2023 10:00 AM
Sample Description	Wastewater
Location	ใกล้พื้นที่ขุด
Date Analysis Commenced	May 05, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LDB)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
Nickel	mg/L	0.0003	0.0005	0.008	≤1.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	0.0005	≤0.02	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	≤0.75	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.42	≤5.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Pesticides - Organochlorine Group								
2,4-DDD *	ug/L	0.01	0.02	Not Detected	≤0.03	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
2,4-DDE *	ug/L	0.01	0.02	Not Detected	≤0.01	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
2,4-DDT *	ug/L	0.01	0.02	Not Detected	≤0.01	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

Technical Management
Savitree N.
Savitree Nisongjiam
Manager
หน้าตึก 7-204-3-4709

Approved by
Kanokorn Anek
Kanokorn Anek
Senior Manager

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Analysis / Test Report

TESTING

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluk Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location: GTSS

Lot ID: 2345571
Date Received : May 03, 2023
Date Reported : May 15, 2023
Report Number : 2631171-2 C5-2

Page 3 of 5

Sample Number	2345571-1
Sample Date	May 03, 2023 10:00 AM
Sample Description	Wastewater
Location	ในถังเก็บน้ำเสีย
Date Analysis Commenced	May 05, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
4,4-DDD *	ug/L	0.01	0.02	Not Detected	≤0.01	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
4,4-DDE *	ug/L	0.01	0.02	Not Detected	≤0.01	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
4,4-DDT *	ug/L	0.01	0.02	Not Detected	≤0.01	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Aldrin *	ug/L	0.01	0.02	Not Detected	≤0.02	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
alpha-BHC *	ug/L	0.01	0.02	Not Detected	≤0.02	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
beta-BHC *	ug/L	0.01	0.02	Not Detected	≤0.1	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Chlordane *	ug/L	0.02	0.04	Not Detected	≤0.1	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

Technical Management

Savitree N.
Savitree Nongsam
Manager

Approved by

Kanokorn Anek
Senior Manager

โทรศัพท์ 1-204-4-4709

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RIGHT SOLUTIONS RIGHT PEOPLE RIGHT TIME

13206-01/THAI

Analysis / Test Report

TESTING

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluk Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location: GTSS

Lot ID: 2345571
Date Received : May 03, 2023
Date Reported : May 15, 2023
Report Number : 2631171-2 C5-2

Page 4 of 5

Sample Number	2345571-1
Sample Date	May 03, 2023 10:00 AM
Sample Description	Wastewater
Location	ในถังเก็บน้ำเสีย
Date Analysis Commenced	May 05, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
delta-BHC *	ug/L	0.01	0.02	Not Detected	≤0.1	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Dieldrin *	ug/L	0.01	0.02	Not Detected	≤0.02	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Endosulfan I *	ug/L	0.01	0.02	Not Detected	≤0.1	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Endosulfan II *	ug/L	0.01	0.02	Not Detected	≤0.1	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Eindrin *	ug/L	0.01	0.02	Not Detected	≤0.10	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Heptachlor *	ug/L	0.01	0.02	Not Detected	≤0.02	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Heptachlor-Epoxide *	ug/L	0.01	0.02	Not Detected	≤0.02	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

Technical Management

Savitree N.
Savitree Nongsam
Manager

Approved by

Kanokorn Anek
Senior Manager

โทรศัพท์ 1-204-4-4709

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RIGHT SOLUTIONS RIGHT PEOPLE RIGHT TIME

13206-01/THAI



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Daeng, Rayong
Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GT53

TESTING
No.0009

Lot ID: 2345571

Date Received : May 03, 2023

Date Reported : May 15, 2023

Report Number : 2631171-2 CS-2

Page 5 of 5

Sample Number	2345571-1
Sample Date	May 03, 2023 10:00 AM
Sample Description	Wastewater
Location	ในพื้นที่โรงงาน
Date Analysis Commenced	May 05, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOB)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Pesticides - Organochlorine Group								
Lindane (gamma-BHC) *	ug/L	0.01	0.02	Not Detected	≤0.10	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok
Methoxychlor *	ug/L	0.01	0.02	Not Detected	≤0.1	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6630 D, part 6410 B	Bangkok

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TSS Co., Ltd.

Sampled By : Narurat Thammasaro , Panupong Manit

Remark :

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

Technical Management

Sawitree N.

Sawitree Nisangiam
Manager

โทร 09-00000000 7-204-0-4709

Approved by

Kanokorn Anok

Senior Manager

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1319541 / DMAL



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Daeng, Rayong
Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GT53

Lot ID: 2345571

Date Received : May 03, 2023

Date Reported : May 15, 2023

Report Number : 2631171-3 CS-2

Page 1 of 1

Sample Number	2345571-1
Sample Date	May 03, 2023 10:00 AM
Sample Description	Wastewater
Location	ในพื้นที่โรงงาน
Date Analysis Commenced	May 04, 2023
Condition of Sample	Contained in one BOD bottle, two glass vials, three amber glass bottles and nine plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOB)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Water Testing								
Odour	-	-	-	Odourless	No Standard	No Standard	T15, 257-2549	Rayong

Guideline : Guideline (1) : Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).
Guideline (2) : Environmental Impact Assessment Report of Gulf TSS Co., Ltd.

Sampled By : Narurat Thammasaro , Panupong Manit

Remark :

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

Approved by

Sawitree N.

Sawitree Nisangiam
Manager

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ภาคผนวก ค-6

คุณภาพน้ำผิวดิน



Analysis / Test Report

TESTING
No.0042
Lot ID: 2335525

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Daeng, Rayong
Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTES

Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

TESTING
No.0042
Lot ID: 2335525

Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

Analysis / Test Report

TESTING
No.0042
Lot ID: 2335525

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Pluak Daeng, Rayong
Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location: GTES

Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

Page 1 of 12

Page 2 of 12

Sample Number 2335525-1
Sampled Date Apr 03, 2023 1:28 PM
Sample Description Surface water
Location น่านน้ำในตึกอุตสาหกรรม 200 units
Date Analysis Commenced Apr 03, 2023
Condition of Sample Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
⁽⁴⁾ Calcium	mg/L	0.003	0.005	1.70	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
⁽⁴⁾ Magnesium	mg/L	0.003	0.005	0.43	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
⁽⁴⁾ SAR *	-	-	-	2.30	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
⁽⁴⁾ Sodium	mg/L	0.003	0.005	2.37	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
BOD *	mg/L	-	2	3.4	≤4	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	In-house method : STM 04-061 based on United States Environmental Protection Agency, 1993, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	3.9	≥2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
pH at 25 degree C	-	-	-	7.5	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	31.1	Not Change from natural condition	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong

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Approved by

N. Banphit

Narumon Banchoangkit
Supervisor

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Approved by

N. Banphit

Narumon Banchoangkit
Supervisor

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

Lot ID: 2335525
Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

Lot ID: 2335525
Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

Lot ID: 2335525
Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Phrak Daeng, Rayong
Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GT53

TESTING
No.0042
Lot ID: 2335525

Date Received : Apr 03, 2023

Date Reported : Apr 11, 2023

Report Number : 2608128-1

Page 3 of 12

Sample Number	2335525-2
Sample Date	Apr 03, 2023 1:50 PM
Sample Description	Surface water
Location	เขาสัตตัง วัดเขาหลวง 200 ม.ต
Date Analysis Commenced	Apr 03, 2023
Condition of Sample	Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOQ)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
(A) Calcium	mg/L	0.003	0.005	0.90	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
(A) Magnesium	mg/L	0.003	0.005	0.31	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
(A) SAR *	-	-	-	1.38	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
(A) Sodium	mg/L	0.003	0.005	1.07	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
BOD *	mg/L	-	2	<2	≤4	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	In-house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.4	≥2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
pH at 25 degree C	-	-	-	7.5	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.8	Not Change from natural condition	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong

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Approved by

N. Bangphit

Narumon Bandhongkitt
Supervisor

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1349461 (PAB)

S. Vongthai, ALG (ref: 41494)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Phrak Daeng, Rayong
Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GT53

TESTING
No.0042
Lot ID: 2335525

Date Received : Apr 03, 2023

Date Reported : Apr 11, 2023

Report Number : 2608128-1

Page 4 of 12

Sample Number	2335525-2
Sample Date	Apr 03, 2023 1:50 PM
Sample Description	Surface water
Location	เขาสัตตัง วัดเขาหลวง 200 ม.ต
Date Analysis Commenced	Apr 03, 2023
Condition of Sample	Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOQ)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	166	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	12	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act, B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n: Change from Natural condition not more than 3 degree C

Sampling By : Palhornpong Komseawat, Samant Khumplee

Remark :

- LOD : Limit of Detection
- LOQ : Lower than LOQ (Limit of Quantification) / LOR (Limit of Reporting)
- Analyte(s) method : Is/are not included in scope of Accreditation ISO/IEC 17025.
- (A) Analysis conducted by ALS Laboratory Group (Thailand) Co., Ltd. Bangkok Branch, DSS Accreditation No. 0069.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Approved by

N. Bangphit

Narumon Bandhongkitt
Supervisor

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1349461 (PAB)

S. Vongthai, ALG (ref: 41494)



Analysis / Test Report

Client : Gulf TES Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluk Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0042
Lot ID: 2335525
Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

Page 5 of 12

Sample Number	2335525-3
Sampled Date	Apr 03, 2023 2:10 PM
Sample Description	Surface water
Location	เขื่อนท่าอากาศยานสุวรรณภูมิ 200 เมตร
Date Analysis Commenced	Apr 03, 2023
Condition of Sample	Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
[M] Calcium	mg/L	0.003	0.005	2.18	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
[M] Magnesium	mg/L	0.003	0.005	0.63	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
[M] SAR *	-	-	-	2.85	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
[M] Sodium	mg/L	0.003	0.005	3.38	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
BOD *	mg/L	-	2	<2	≤4	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	In-house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.3	≥2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
pH at 25 degree C	-	-	-	7.4	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	32.8	Not Change from natural condition	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong

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Approved by

N. Banphit

Narumon Banchoangkit
Supervisor

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RIGHT SOLUTIONS (THAILAND) P. CO., LTD.

1308542 (THAI)

S. Wipatani, ANGL (T. 4. 10PM)



Analysis / Test Report

Client : Gulf TES Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluk Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0042
Lot ID: 2335525
Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

Page 6 of 12

Sample Number	2335525-3
Sampled Date	Apr 03, 2023 2:10 PM
Sample Description	Surface water
Location	เขื่อนท่าอากาศยานสุวรรณภูมิ 200 เมตร
Date Analysis Commenced	Apr 03, 2023
Condition of Sample	Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	432	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	31	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act, B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n: Change from Natural condition not more than 3 degree C

Sampling By : Pathompong Komsawat, Samart Khumkhee

Remark :

- LOD : Limit of Detection
- LOR : Limit of Quantization / LOQ (Limit of Reporting)
- << : Lower than LOQ
- Analyte(s) marked * : Value not included in scope of Accreditation ISO/IEC 17025
- [M] Analysis conducted by ALS Laboratory Group (Thailand) Co., Ltd. Bangkok Branch, DSS Accreditation No. 0009.
- The Laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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Approved by

N. Banphit

Narumon Banchoangkit
Supervisor

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RIGHT SOLUTIONS (THAILAND) P. CO., LTD.

1308542 (THAI)

S. Wipatani, ANGL (T. 4. 10PM)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0042
Lot ID: 2335525

Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

Page 7 of 12

Sample Number	2335525-4
Sample Date	Apr 03, 2023 2:45 PM
Sample Description	Surface water
Location	แนวชายฝั่งทางด้านหน้าพื้นที่ 200 เมตร
Date Analysis Commenced	Apr 03, 2023
Condition of Sample	Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
(14) Calcium	mg/L	0.003	0.005	1.48	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
(14) Magnesium	mg/L	0.003	0.005	0.45	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
(14) SAR *	-	-	-	2.58	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
(14) Sodium	mg/L	0.003	0.005	2.54	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
BOD *	mg/L	-	2	2.1	≤4	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	In-house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	7.5	≥2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 O (C)	Rayong
pH at 25 degree C	-	-	-	7.6	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (8)	Rayong
Temperature *	Degree C	-	-	33.8	Not Change from natural condition	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong

The above results are valid only for the analyzed/tested sample(s) as indicated in the report. The results are not valid for any other sample(s) without written consent from the Laboratory. ALS Laboratory Group (Thailand) strongly recommends that this report is not reproduced except in full.

Approved by
Narumon Bandhongkitt
Supervisor

N. Bandhongkitt

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RIGHT SOLUTIONS (RIGHT PART) TESTER

S:\Report\AL_QC\pt (4.1624)

13490-61/0404



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong
Thailand 21140

P/O :
Project Name : Monitoring EIA
Project Location : GT53

TESTING
No.0042
Lot ID: 2335525

Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

Page 8 of 12

Sample Number	2335525-4
Sample Date	Apr 03, 2023 2:45 PM
Sample Description	Surface water
Location	แนวชายฝั่งทางด้านหน้าพื้นที่ 200 เมตร
Date Analysis Commenced	Apr 03, 2023
Condition of Sample	Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Dissolved Solids Dried at degree C	mg/L	-	5	330	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	64	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act, B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
n: Change from Natural condition not more than 3 degree C
Sampling By : Pathompong Komsawat , Samart Klumphae

- Remark :
- LOD : Limit of Detection
 - LOR : Lower than LOQ (Limit of Quantitation) / LOR (Unit of Reporting)
 - Analytical method : Not included in scope of Accreditation ISO/IEC 17025.
 - (A) Analysis conducted by ALS Laboratory Group (Thailand) Co., Ltd. Bangkok Branch, DSS Accreditation No. 0069.
 - The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Approved by

N. Bandhongkitt

Narumon Bandhongkitt
Supervisor

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RIGHT SOLUTIONS (RIGHT PART) TESTER

13490-61/0404

S:\Report\AL_QC\pt (4.1624)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Task, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTSS

TESTING
No.0042
Lot ID: 2335525
Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

Page 9 of 12

Sample Number	2335525-5
Sampled Date	Apr 03, 2023 3:05 PM
Sample Description	Surface water
Location	ชายฝั่งทะเลด้านทิศเหนือของท่าเรืออุตสาหกรรมมาบตาพุด ระยะทาง 2 กม.
Date Analysis Commenced	Apr 03, 2023
Condition of Sample	Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
^(A) Calcium	mg/L	0.003	0.005	1.01	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
^(A) Magnesium	mg/L	0.003	0.005	0.32	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
^(A) SAR *	-	-	-	1.70	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
^(A) Sodium	mg/L	0.003	0.005	1.38	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
BOD *	mg/L	-	2	3.3	≤4	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rayong
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	In-house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	8.6	≥2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rayong
pH at 25 degree C	-	-	-	8.8	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rayong
Temperature *	Degree C	-	-	33.8	Not Change from natural condition	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Rayong

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

Approved by

N. Banphit

Narumon Banchoangkit
Supervisor

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13135-612 (FNAE)

5. Report_LAB_Gr.mpt (4.10Ppt)

Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Task, Pluak Daeng, Rayong
Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTSS

TESTING
No.0042
Lot ID: 2335525
Date Received : Apr 03, 2023
Date Reported : Apr 11, 2023
Report Number : 2608128-1

Page 10 of 12

Sample Number	2335525-5
Sampled Date	Apr 03, 2023 3:05 PM
Sample Description	Surface water
Location	ชายฝั่งทะเลด้านทิศเหนือของท่าเรืออุตสาหกรรมมาบตาพุด ระยะทาง 2 กม.
Date Analysis Commenced	Apr 03, 2023
Condition of Sample	Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	170	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	40	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act, B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n: Change from Natural condition not more than 3 degree C

Sampling By : Palhompont Komsawat , Samart Khumpluee

- Remarks :
- LOD : Limit of Detection
 - LOQ : Lower than LOQ (Limit of Quantitation) / LOQ (Limit of Reporting)
 - < : Analyte(s) marked - is/are not included in scope of Accreditation ISO/IEC 17025.
 - [A] Analysis conducted by ALS Laboratory Group (Thailand) Co., Ltd. Bangkok Branch, QMS Accreditation No. 0009.
 - The Laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Approved by

N. Banphit

Narumon Banchoangkit
Supervisor

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RIGHT SOLUTIONS

13135-612 (FNAE)

5. Report_LAB_Gr.mpt (4.10Ppt)



Analysis / Test Report

TESTING
No.0042

15525
: Apr 03, 2023
: Apr 11, 2023
: 2608128-1

Sample Number	2335325-6						
Sample Date	Apr 03, 2023 3:25 PM						
Sample Description	Surface water						
Location	အာရှဆူသွေးမြစ်၊ အနောက်ဘက်ကမ်း၊ မြန်မာနိုင်ငံ၊ ရန်ကုန်၊ ၄ ကီလိုမီတာ						
Date Analysis Commenced	Apr 03, 2023						
Condition of Sample	Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
^[M] Calcium	mg/L	0.003	0.005	1.01	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
^[M] Magnesium	mg/L	0.003	0.005	0.32	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
^[M] SAR *	-	-	-	1.51	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
^[M] Sodium	mg/L	0.003	0.005	1.23	No Standard	In-house method : STM 05-014 based on United States Environmental Protection Agency, 1994, EPA Method 200.7	Bangkok
Water Testing							
BOD *	mg/L	-	2	3.0	≤4	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B	Rangpying
Chlorite *	mg/L	0.05	0.1	Not Detected	No Standard	In-house method : STM 04-061 based on United States Environmental Protection Agency, 1999, EPA Method 300.1	Bangkok
Dissolved Oxygen *	mg/L	-	0.1	6.7	≥2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Rangpying
pH at 25 degree C		-	-	8.0	5.0-9.0	In-house method : STM 02-005 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Rangpying
Temperature *	Degree C	-	-	32.7	Not Change from natural condition	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B.	Rangpying

above results are valid only for the analyzed/tested sample(s) as indicated in the report. No part of this report or certificate may be reproduced in any form without written consent from the Laboratory. ALS Laboratory Group (Thailand) Ltd. 11/11/2563

Approved by

V. Brunkit

Narumon Banchong
Supervisor

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13430-617 FMAP

5: \Reports\ AT GL.rpt (4:16:57PM)



State 1, Tasik, Piuak Daeng, Rayong

Analysis / Test Report

TESTING
No.0042

5525
: Apr 03, 2023
: Apr 11, 2023
: 2609128-1

.....

Sample Number	2335525-6						
Sample Date	Apr 03, 2023 3:25 PM						
Sample Description	Surface water						
Location	สถานีวัดคุณภาพน้ำ ทางรถไฟสายธนบุรีกมที่ 4 นนทบุรี						
Date Analysis Commenced	Apr 03, 2023						
Condition of Sample	Contained in one BOD bottle and four plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	158	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	47	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Rayong

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation Quality Act, B.E.2535; published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)

n*: Change from Natural condition not more than 3 degree C
Sampling By : Pathompong Komsawat , Samart Khumplilee

Introduction: A 40-Point

Remark :

• LOD : Limit of Detection

[illegible]

- ANALYSES/INSTRUMENTS - IS/IR/MS NOT INCLUDED IN SCOPE OF ACCREDITATION ISO/IEC 17025.
- (FAC) - ANALYTICAL INSTRUMENTS AND TESTS: 81 F-1 instruments: CEMTECH, FISHKILL, BROWN, DSC, AEROSOLATION, MFC, 00000

- [A] Analysis conducted by ALS Laboratory Group (11211810); Co., full bearing brand, USS ALD EDITION 110. 0009.
- The laboratory has been accredited with the ISO/IEC 17025.

Figure 1 The effect of the number of nodes on the performance of the proposed algorithm.

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Approved by

N. Bandyopadhyay

**Narumon Banchongkit
Supervisor**

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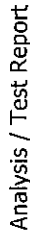
13470-61/ EXAR

5: \Reports\ AT GL.rpt (4:16:57PM)

S:\Projects\All_GL_Fit (4:16PM)

ภาคผนวก ค-7

ระดับเสียงภายในสถานประกอบการ



Page 1 of 1

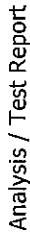
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7. $\frac{1}{2} \log \frac{1}{2}$ 7.5

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DNA, RNA, PCR, RT-PCR, qPCR

SVReportSV Air Force 101 (8.39 AM)



Page 1 of 1

[illegible]

LEA AVERAGE OF 115. (000A//)

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13430-61/ EMAIL

S:\Reports\Air Noise rpt (8.39AM)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasil, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTSS

Lot ID: 2328433

Date Received : Mar 17, 2023

Date Reported : Mar 23, 2023

Report Number: 2599310-1

Page 1 of 1

Sample Number	2328433-3		
Parameter	Noise (Leq 8 hrs.)		
Location	พื้นที่ Gas Metering		
Measurement Date	Mar 15, 2023		
Measurement by	Jondrawee Siroksa		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:42 AM - 10:42 AM	64.7	80.7	63.5
10:42 AM - 11:42 AM	64.9	77.0	64.3
11:42 AM - 12:42 PM	64.5	73.6	63.9
12:42 PM - 01:42 PM	64.6	73.2	64.1
01:42 PM - 02:42 PM	64.7	73.7	64.1
02:42 PM - 03:42 PM	65.9	78.9	64.5
03:42 PM - 04:42 PM	70.3	79.0	65.7
04:42 PM - 05:42 PM	66.6	74.5	65.4

Technical Management : *Thanitak* Approved by : *Supt S.*

Scientist (4) : *Supot Salameeh* Section Head

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RIGHT SOLUTIONS

1320-61/ENAL

SS (Report)_Air Noise (p. 8 of 8)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasil, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTSS

Lot ID: 2328433

Date Received : Mar 17, 2023

Date Reported : Mar 23, 2023

Report Number: 2599311-1

Page 1 of 1

Sample Number	2328433-4				
Parameter	Noise (Leq 8 hrs.)				
Location	พื้นที่ Gas Turbine Accessories System (ผังกาสูบระบบ GTG 11 และ GTG12)				
Measurement Date	Mar 15, 2023				
Measurement by	Jondrawee Siroksa				
Time		Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))	
09:33 AM - 10:33 AM		76.6	77.7	76.2	
10:33 AM - 11:33 AM		76.3	77.2	76.0	
11:33 AM - 12:33 PM		76.3	77.5	75.9	
12:33 PM - 01:33 PM		76.3	77.7	76.0	
01:33 PM - 02:33 PM		76.4	77.6	76.0	
02:33 PM - 03:33 PM		76.8	78.2	76.4	
03:33 PM - 04:33 PM		77.4	79.6	76.6	
04:33 PM - 05:33 PM		77.7	79.3	77.2	

Technical Management : *Thanitak* Approved by : *Supt S.*

Scientist (4) : *Supot Salameeh* Section Head

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1320-61/ENAL

SS (Report)_Air Noise (p. 8 of 8)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Lot ID: 2328433

Date Received : Mar 17, 2023

Date Reported : Mar 23, 2023

Report Number: 2599312-1

Page 1 of 1

Sample Number	2328433-5		
Parameter	Noise (Leq 8 hrs.)		
Location	ว๊าน Steam Turbine Generator		
Measurement Date	Mar 15, 2023		
Measurement by	Jaradrawee Srinuksa		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:30 AM - 10:30 AM	83.0	92.3	82.1
10:30 AM - 11:30 AM	83.0	85.2	82.4
11:30 AM - 12:30 PM	82.9	84.6	82.4
12:30 PM - 01:30 PM	83.1	85.3	82.5
01:30 PM - 02:30 PM	83.1	92.4	82.2
02:30 PM - 03:30 PM	83.0	84.7	82.5
03:30 PM - 04:30 PM	83.2	85.4	82.6
04:30 PM - 05:30 PM	83.1	92.4	82.2

Technical Management

Tharitat K.

Approved by

Supt S

Thantia Kulsumwong
Scientist (4)

Supot Salameh
Section Head

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13:30-6/ ENAL

S. Vajrapati, Air Noise rpt (8-11AM)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTS3

Lot ID: 2328433

Date Received : Mar 17, 2023

Date Reported : Mar 23, 2023

Report Number: 2599313-1

Page 1 of 1

Sample Number	2328433-6		
Parameter	Noise (Leq 8 hrs.)		
Location	Wafra Steam Turbine Lube Oil Skid		
Measurement Date	Mar 15, 2023		
Measurement by	Jaradrawee Srinuksa		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:50 AM - 10:50 AM	73.7	85.6	72.9
10:50 AM - 11:50 AM	74.0	76.1	73.1
11:50 AM - 12:50 PM	73.6	76.1	72.8
12:50 PM - 01:50 PM	73.2	75.7	72.2
01:50 PM - 02:50 PM	72.4	76.1	71.9
02:50 PM - 03:50 PM	72.8	78.1	72.2
03:50 PM - 04:50 PM	76.0	80.9	74.8
04:50 PM - 05:50 PM	75.5	76.9	75.0

Technical Management

Tharitat K.

Approved by

Supt S

Thantia Kulsumwong
Scientist (4)

Supot Salameh
Section Head

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13:30-6/ ENAL

S. Vajrapati, Air Noise rpt (8-11AM)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

Lot ID: 2345503

P/O : 224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
Date Received : May 19, 2023
Date Reported : May 25, 2023
Report Number: 2661645-1

Project Name : Monitoring EIA
Project Location : GTS3

Page 1 of 1

Sample Number	2345503-1			
Parameter	Noise (Leq 8 hrs.)			
Location	ใกล้ Cooling Tower			
Measurement Date	May 17, 2023			
Measurement by	Thitipong Buddaeng			
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))	
09:25 AM - 10:25 AM	80.6	81.1	80.5	
10:25 AM - 11:25 AM	80.3	81.0	79.9	
11:25 AM - 12:25 PM	79.7	80.2	79.5	
12:25 PM - 01:25 PM	79.5	80.0	79.3	
01:25 PM - 02:25 PM	79.4	79.8	79.3	
02:25 PM - 03:25 PM	79.3	79.8	79.2	
03:25 PM - 04:25 PM	79.2	79.7	79.1	
04:25 PM - 05:25 PM	79.1	79.6	79.0	

Technical Management

Tharitat.

Thanita Kulsuwong
Scientist (4)

Approved by

Supt S

Supot Salameh
Section Head

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S:\Reports\Air Noise pr (9-22AM)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.

Lot ID: 2345503

P/O : 224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
Date Received : May 19, 2023
Date Reported : May 25, 2023
Report Number: 2661646-1

Project Name : Monitoring EIA
Project Location : GTS3

Page 1 of 1

Sample Number	2345503-2			
Parameter	Noise (Leq 8 hrs.)			
Location	Ultra Boiler Feed Pump			
Measurement Date	May 17, 2023			
Measurement by	Thitipong Buddaeng			
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))	
09:22 AM - 10:22 AM	80.9	87.3	80.4	
10:22 AM - 11:22 AM	80.6	95.3	80.2	
11:22 AM - 12:22 PM	80.4	81.9	80.2	
12:22 PM - 01:22 PM	80.6	84.1	80.3	
01:22 PM - 02:22 PM	80.5	82.2	80.2	
02:22 PM - 03:22 PM	80.6	93.0	80.2	
03:22 PM - 04:22 PM	80.5	82.3	80.1	
04:22 PM - 05:22 PM	80.5	81.9	80.2	

Technical Management

Tharitat.

Thanita Kulsuwong
Scientist (4)

Approved by

Supt S

Supot Salameh
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S:\Reports\Air Noise pr (9-23AM)



Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
Lot ID: 2345503
Date Received : May 19, 2023
Date Reported : May 25, 2023
Report Number: 2661647-1

P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Page 1 of 1

Sample Number	2345503-3			
Parameter	Noise (Leq 8 hrs.)			
Location	Utility Gas Metering			
Measurement Date	May 17, 2023			
Measurement by	Thitpong Budaeng			
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))	
09:23 AM - 10:23 AM	64.1	78.3	63.4	
10:23 AM - 11:23 AM	64.1	78.8	63.3	
11:23 AM - 12:23 PM	63.9	80.2	63.1	
12:23 PM - 01:23 PM	63.8	78.7	63.2	
01:23 PM - 02:23 PM	64.5	78.4	63.4	
02:23 PM - 03:23 PM	64.6	79.0	63.7	
03:23 PM - 04:23 PM	63.9	78.4	63.3	
04:23 PM - 05:23 PM	63.5	78.0	62.9	

Technical Management
Tharitat.
Scientist (4)

Approved by
Supt S.

Section Head
Supt Salameh

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Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
Lot ID: 2345503
Date Received : May 19, 2023
Date Reported : May 25, 2023
Report Number: 2661648-1

P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Page 1 of 1

Sample Number	2345503-4		
Parameter	Noise (Leq 8 hrs.)		
Location	บริเวณ Gas Turbine Accessories System (ใกล้ทางเข้าทาง GTG 11 และ GTG12)		
Measurement Date	May 17, 2023		
Measurement by	Thitpong Budaeng		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:20 AM - 10:20 AM	76.6	77.4	76.3
10:20 AM - 11:20 AM	76.5	83.2	76.0
11:20 AM - 12:20 PM	76.1	77.1	75.7
12:20 PM - 01:20 PM	76.1	77.2	75.7
01:20 PM - 02:20 PM	76.2	77.5	75.8
02:20 PM - 03:20 PM	76.3	86.6	75.9
03:20 PM - 04:20 PM	76.3	77.9	75.9
04:20 PM - 05:20 PM	76.4	77.8	75.9

Technical Management
Tharitat.
Scientist (4)

Approved by
Supt S.

Section Head
Supt Salameh

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ภาคผนวก ค-8

ความร้อนภายในสถานประกอบการ



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng,
Rayong Thailand 21140

P/O :
Project Name : Monitoring EIA

Project Location : GTSS

Lot ID: 2328457

Date Received : Mar 17, 2023

Date Reported : Mar 21, 2023

Report Number: 2592783-1

Page 1 of 4

Sample Number	2328457-1
Parameter	Heat Stress (Sampling Time : 10.00 AM -12.00 PM)
Measurement Date	Mar 15, 2023
Measurement by	Nathapon Jengwareeong
Location	บริเวณ 1 หลัง (บริเวณ 1 หลัง : - : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ Condenser Exhaust Unit	120	27.7	24.8	34.5	33.9
Average (WBGT)		27.7			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

- Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
- Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

Supot Salimth
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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3 Reports_Lat Heat.pdf (2.627K)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasit, Pluak Daeng,
Rayong Thailand 21140

P/O :
Project Name : Monitoring EIA

Project Location : GTSS

Lot ID: 2328457

Date Received : Mar 17, 2023

Date Reported : Mar 21, 2023

Report Number: 2592783-1

Page 2 of 4

Sample Number	2328457-2
Parameter	Heat Stress (Sampling Time : 10.00 AM -12.00 PM)
Measurement Date	Mar 15, 2023
Measurement by	Nathapon Jengwareeong
Location	บริเวณ 1 หลัง (บริเวณ 1 หลัง : - : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณ Condenser Exhaust Unit	120	28.5	25.1	36.5	35.8
Average (WBGT)		28.5			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

- Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
- Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

Supot Salimth
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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3 Reports_Lat Heat.pdf (2.527K)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasek, Puak Daeng,
Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

Lot ID: 2328457
Date Received : Mar 17, 2023
Date Reported : Mar 21, 2023
Report Number: 2592783-1

Page 3 of 4

Sample Number	2328457-3
Parameter	Heat Stress (Sampling Time : 10.00 AM -12.00 PM)
Measurement Date	Mar 15, 2023
Measurement by	Natthapon Jengwarewong
Location	โรงงาน 1 หลัง (ผ้า-ขนานใหญ่) : - อุณหภูมิ : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
โรงงาน Generator	120	27.9	24.3	36.7	35.7
Average (WBGT)		27.9			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

- Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
- Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise B.E.2559

Technical Management

Supt S.
Supt Salamtah
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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13430-61 / EMAIL

S. Weaporn, Air Heat ref (2.592783)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasek, Puak Daeng,
Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

Lot ID: 2328457
Date Received : Mar 17, 2023
Date Reported : Mar 21, 2023
Report Number: 2592783-1

Page 4 of 4

Sample Number	2328457-4
Parameter	Heat Stress (Sampling Time : 10.00 AM -12.00 PM)
Measurement Date	Mar 15, 2023
Measurement by	Natthapon Jengwarewong
Location	โรงงาน 1 หลัง (ผ้า-ขนานใหญ่) : - อุณหภูมิ : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
โรงงาน Gas Turbine	120	27.5	24.6	34.7	33.7
Average (WBGT)		27.5			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

- Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
- Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise B.E.2559

Technical Management

Supt S.
Supt Salamtah
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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S. Weaporn, Air Heat ref (2.592783)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng,
Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345510
Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number: 2631056-1

Page 1 of 4

Sample Number 2345510-1
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date May 17, 2023
Measurement by Noranon Tathongkham
Location อุบลราชธานี 1 ชั่วโมง (ค่ามาตรฐาน อุณหภูมิ : - อุณหภูมิ : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
อุบลราชธานี Exhaust Unit	120	31.1	28.0	39.1	36.5
Average (WBGT)		31.1			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

- Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
- Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E. 2559

Technical Management

Supt S.

Supot Salantich
Section Head

Approved by

Wichan Choonharat

Wichan Choonharat
Assistant Manager

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S. Wipaporn, Air Heat ref (14259)



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng,
Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345510
Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number: 2631056-1

Page 2 of 4

Sample Number 2345510-2
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date May 17, 2023
Measurement by Noranon Tathongkham
Location อุบลราชธานี 1 ชั่วโมง (ค่ามาตรฐาน อุณหภูมิ : - อุณหภูมิ : -)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
อุบลราชธานี Exhaust Unit	120	30.8	28.0	37.5	36.5
Average (WBGT)		30.8			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

- Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
- Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E. 2559

Technical Management

Supt S.

Supot Salantich
Section Head

Approved by

Wichan Choonharat

Wichan Choonharat
Assistant Manager

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13130-61 / EMAIL

S. Wipaporn, Air Heat ref (14259)



Analysis / Test Report

Client: Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Phatthana Chai, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTSS

Lot ID: 2345510

Date Received : May 19, 2023

Date Reported : May 23, 2023

Report Number: 2631056-1

Page 3 of 4

Sample Number	2345510-3
Parameter	Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date	May 17, 2023
Measurement by	Norranon Taibhongkham
Location	โรงงาน 1 ส่วน (ค่า-อุณหภูมิ) หน่วย : -

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
โรงงาน Generator	120	30.2	27.6	37.1	34.9
Average (WBGT)		30.2			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

Supt S.

Supot Salmitih
Section Head

Approved by

Wichm Chomharat

Wichan Chomharat
Assistant Manager

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13430-01 / EMAIL

5 Viroonchai, Ar Heel (P) (P) 2560



Analysis / Test Report

Client: Gulf TSS Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tassit, Phatthana Chai, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Project Location : GTSS

Lot ID: 2345510

Date Received : May 19, 2023

Date Reported : May 23, 2023

Report Number: 2631056-1

Page 4 of 4

Sample Number	2345510-4
Parameter	Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date	May 17, 2023
Measurement by	Norranon Taibhongkham
Location	โรงงาน 1 ส่วน (ค่า-อุณหภูมิ) หน่วย : -

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
โรงงาน Gas Turbine	120	29.3	27.1	34.8	33.9
Average (WBGT)		29.3			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

Guideline:

1. Notification of Department Labour Protection and Welfare on the Criteria and Procedures for Measurement and Analysis of Working Conditions in relation to Heat, Light or Noise Levels, including Duration and Types of Business that must perform (B.E. 2561)
2. Ministerial Regulation on Prescribing of Standard for Administration and Management of Occupational Safety, Health and Environment in relation to Heat, Light and Noise, B.E.2559

Technical Management

Supt S.

Supot Salmitih
Section Head

Approved by

Wichm Chomharat

Wichan Chomharat
Assistant Manager

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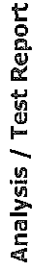
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ภาคผนวก ค-9

แสงสว่างภายในสถานประกอบการ



Lot ID: 2328465

Date Received : Mar 21, 2022
Date Reported : Mar 24, 2022
Report Number : 2601596-1

Project Name : Monitoring EIA
Project Location : GTS3

2 j o i n e d

Layout No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Illuminance (Lux)	Guideline Limit	Comment		
					Spot	Average	Spot/Min		
1	Spot - Administration Building : 1st Floor : 1st Admin. 1	15 Mar 2023	Day time	1	330	-	300-400	Pass	
2	Spot - Administration Building : 1st Floor : 1st Admin. 1	15 Mar 2023	Day time	1	478	-	400-500	Pass	
3	Spot - Administration Building : 1st Floor : 1st Admin. 2	15 Mar 2023	Day time	1	569	-	400-500	Pass	
4	Spot - Administration Building : 1st Floor : 1st Operation Manager	15 Mar 2023	Day time	1	570	-	400-500	Pass	
5	Spot - Administration Building : 1st Floor : 1st EHS	15 Mar 2023	Day time	1	434	-	400-500	Pass	
6	Spot - Administration Building : 1st Floor : 1st EHS Manager	15 Mar 2023	Day time	1	522	-	400-500	Pass	
7	Spot - Administration Building : 1st Floor : 1st Admin. Manager	15 Mar 2023	Day time	1	476	-	400-500	Pass	
8	Spot - Administration Building : 1st Floor : 1st Plant Manager	15 Mar 2023	Day time	1	510	-	400-500	Pass	
9	Spot - Administration Building : 1st Floor : 1st IT	15 Mar 2023	Day time	1	468	-	400-500	Pass	
10	Spot - Administration Building : 1st Floor : 1st Admin. 1	15 Mar 2023	Day time	1	433	-	400-500	Pass	
11	Spot - Administration Building : 1st Floor : 1st Admin. 2	15 Mar 2023	Day time	1	582	-	400-500	Pass	
12.1	Area - Administration Building : 1st Floor : Area 1	15 Mar 2023	Day time	1	616	510.8	50	100	Pass
12.2	Area - Administration Building : 1st Floor : Area 2	15 Mar 2023	Day time	2	414				
12.3	Area - Administration Building : 1st Floor : Area 3	15 Mar 2023	Day time	3	426				
12.4	Area - Administration Building : 1st Floor : Area 4	15 Mar 2023	Day time	4	539				
12.5	Area - Administration Building : 1st Floor : Area 5	15 Mar 2023	Day time	5	221				
12.6	Area - Administration Building : 1st Floor : Area 6	15 Mar 2023	Day time	6	849				
13.1	Area - Administration Building : 1st Floor : Area 7	15 Mar 2023	Day time	1	290	303.5	150	300	Pass
13.2	Area - Administration Building : 1st Floor : Area 8	15 Mar 2023	Day time	2	317				

Technical Management

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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S.1 Research Literature



Lot ID: 2328465

Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601596-1

Project Name	: Monitoring EIA
Project Location	: GTS3

Page 2 of 2

[illegible]

Measurement by: Natthapon Jengjaisaewong Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline: Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 3RD dated February 21, B.E.2561 (2018).

Technical Management

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Phrak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

Lot ID: 2328472
Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601601-1

Page 1 of 2

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot/Area No.	Spot	Illuminance (Lux)	Guideline Limit	Comment
Area - CCR : Control Building : 1st Floor : Switchgear Room								
1.1	2328472-1	15 Mar 2023	Day time	1	500	304.1	100	200
1.2	2328472-2	15 Mar 2023	Day time	2	401			Pass
1.3	2328472-3	15 Mar 2023	Day time	3	453			
1.4	2328472-4	15 Mar 2023	Day time	4	390			
1.5	2328472-5	15 Mar 2023	Day time	5	202			
1.6	2328472-6	15 Mar 2023	Day time	6	178			
1.7	2328472-7	15 Mar 2023	Day time	7	412			
1.8	2328472-8	15 Mar 2023	Day time	8	244			
1.9	2328472-9	15 Mar 2023	Day time	9	300			
1.10	2328472-10	15 Mar 2023	Day time	10	252			
1.11	2328472-11	15 Mar 2023	Day time	11	200			
1.12	2328472-12	15 Mar 2023	Day time	12	251			
1.13	2328472-13	15 Mar 2023	Day time	13	138			
1.14	2328472-14	15 Mar 2023	Day time	14	342			
1.15	2328472-15	15 Mar 2023	Day time	15	548			
1.16	2328472-16	15 Mar 2023	Day time	16	470			
1.17	2328472-17	15 Mar 2023	Day time	17	344			
1.18	2328472-18	15 Mar 2023	Day time	18	320			
1.1	2328472-19	15 Mar 2023	Night time	1	435	345.3	100	200
1.2	2328472-20	15 Mar 2023	Night time	2	356			Pass
1.3	2328472-21	15 Mar 2023	Night time	3	419			
1.4	2328472-22	15 Mar 2023	Night time	4	452			
1.5	2328472-23	15 Mar 2023	Night time	5	237			
1.6	2328472-24	15 Mar 2023	Night time	6	159			
1.7	2328472-25	15 Mar 2023	Night time	7	363			
1.8	2328472-26	15 Mar 2023	Night time	8	235			
1.9	2328472-27	15 Mar 2023	Night time	9	359			
1.10	2328472-28	15 Mar 2023	Night time	10	470			
1.11	2328472-29	15 Mar 2023	Night time	11	278			
1.12	2328472-30	15 Mar 2023	Night time	12	288			
1.13	2328472-31	15 Mar 2023	Night time	13	290			
1.14	2328472-32	15 Mar 2023	Night time	14	350			

Technical Management : *Supt S.* **Approved by** : *Wichan Choonharat*
Supt. Salamech Section Head Assistant Manager

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Phrak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

Lot ID: 2328472
Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601601-1

Page 2 of 2

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot/Area No.	Spot	Illuminance (Lux)	Guideline Limit	Comment
Area - CCR : Control Building : 1st Floor : Switchgear Room								
1.15	2328472-33	15 Mar 2023	Night time	15	433			
1.16	2328472-34	15 Mar 2023	Night time	16	569			
1.17	2328472-35	15 Mar 2023	Night time	17	347			
1.18	2328472-36	15 Mar 2023	Night time	18	343			
Area - CCR : Control Building : 1st Floor : Warehouse								
2.1	2328472-37	15 Mar 2023	Day time	1	629	474.0	50	100
2.2	2328472-38	15 Mar 2023	Day time	2	591			Pass
2.3	2328472-39	15 Mar 2023	Day time	3	346			
2.4	2328472-40	15 Mar 2023	Day time	4	330			
2.1	2328472-41	15 Mar 2023	Night time	1	615	413.0	50	100
2.2	2328472-42	15 Mar 2023	Night time	2	606			Pass
2.3	2328472-43	15 Mar 2023	Night time	3	276			
2.4	2328472-44	15 Mar 2023	Night time	4	155			

Measurement by : Nathapong Jirngwarewong Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 390 dated February 21 B.E.2561 (2018)

Technical Management : *Supt S.* **Approved by** : *Wichan Choonharat*
Supt. Salamech Section Head Assistant Manager

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Taat, Pluak Daeng, Rayong Thailand 21140
P/O :
Date Received : Mar 21, 2023
Date Reported : Jun 27, 2023
Report Number : 2601603-1 Rev. No.1
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2328473

Date Received : Mar 21, 2023
Date Reported : Jun 27, 2023
Report Number : 2601603-1 Rev. No.1

Page 1 of 2

Layer	Reference No.	Measurement Date	Measurement Time	Spot / Area No.	Illuminance (Lux)	Spot / Min	Average	Guideline Limit	Comment
Spot - CCR : Control Building : 3rd Floor : Control GTS4 No.1									
3	2328473-5	15 Mar 2023	Day time	1	501	-	400-500	-	Pass
3	2328473-6	15 Mar 2023	Night time	1	497	-	400-500	-	Pass
Spot - CCR : Control Building : 3rd Floor : Control GTS4 No.2									
4	2328473-7	15 Mar 2023	Day time	1	444	-	400-500	-	Pass
4	2328473-8	15 Mar 2023	Night time	1	422	-	400-500	-	Pass
Spot - CCR : Control Building : 3rd Floor : DCS									
5	2328473-9	15 Mar 2023	Day time	1	575	-	400-500	-	Pass
5	2328473-10	15 Mar 2023	Night time	1	550	-	400-500	-	Pass
Spot - CCR : Control Building : 3rd Floor : Information									
6	2328473-11	15 Mar 2023	Day time	1	411	-	300-400	-	Pass
6	2328473-12	15 Mar 2023	Night time	1	412	-	300-400	-	Pass
Spot - CCR : Control Building : 3rd Floor : Information									
7	2328473-13	15 Mar 2023	Day time	1	621	-	300-400	-	Pass
7	2328473-14	15 Mar 2023	Night time	1	592	-	300-400	-	Pass
Spot - CCR : Control Building : 3rd Floor : Information									
8	2328473-15	15 Mar 2023	Day time	1	710	-	400-500	-	Pass
Spot - CCR : Control Building : 3rd Floor : Information									
9	2328473-16	15 Mar 2023	Day time	1	682	-	400-500	-	Pass
Spot - CCR : Control Building : 3rd Floor : Information									
10	2328473-17	15 Mar 2023	Day time	1	596	-	400-500	-	Pass
10	2328473-18	15 Mar 2023	Night time	1	637	-	400-500	-	Pass
Spot - CCR : Control Building : 3rd Floor : Information									
11	2328473-19	15 Mar 2023	Day time	1	415	-	400-500	-	Pass
Spot - CCR : Control Building : 3rd Floor : Information									
12	2328473-20	15 Mar 2023	Day time	1	540	-	400-500	-	Pass
12	2328473-21	15 Mar 2023	Night time	1	570	-	400-500	-	Pass
Spot - CCR : Control Building : 3rd Floor : Information									
13	2328473-22	15 Mar 2023	Day time	1	571	-	400-500	-	Pass
13	2328473-23	15 Mar 2023	Night time	1	569	-	400-500	-	Pass

Technical Management

Suppt. Salameh
Section Head

Approved by

Wichan Chonhant
Assistant Manager

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13/05/61/EPAL

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Taat, Pluak Daeng, Rayong Thailand 21140
P/O :
Date Received : Mar 21, 2023
Date Reported : Jun 27, 2023
Report Number : 2601603-1 Rev. No.1
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2328473

Date Received : Mar 21, 2023
Date Reported : Jun 27, 2023
Report Number : 2601603-1 Rev. No.1

Page 2 of 2

Layer	Reference No.	Measurement Date	Measurement Time	Spot / Area No.	Illuminance (Lux)	Spot / Min	Average	Guideline Limit	Comment
Area - CCR : Control Building : 3rd Floor : Information									
14.1	2328473-24	15 Mar 2023	Day time	1	320	414.8	50	100	Pass
14.2	2328473-25	15 Mar 2023	Day time	2	693				
14.3	2328473-26	15 Mar 2023	Day time	3	212				
14.4	2328473-27	15 Mar 2023	Day time	4	314				
14.5	2328473-28	15 Mar 2023	Day time	5	535				
14.1	2328473-29	15 Mar 2023	Night time	1	393	511.6	50	100	Pass
14.2	2328473-30	15 Mar 2023	Night time	2	748				
14.3	2328473-31	15 Mar 2023	Night time	3	351				
14.4	2328473-32	15 Mar 2023	Night time	4	451				
14.5	2328473-33	15 Mar 2023	Night time	5	615				
Area - CCR : Control Building : 3rd Floor : Information									
15.1	2328473-34	15 Mar 2023	Day time	1	1,309	842.5	50	100	Pass
15.2	2328473-35	15 Mar 2023	Day time	2	376				
15.1	2328473-36	15 Mar 2023	Night time	1	172	191.5	50	100	Pass
15.2	2328473-37	15 Mar 2023	Night time	2	211				

Measurement by : Natthapon Jangwarewong Personnel of ALS Laboratory Group (Thailand) Co., Ltd.

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21, B.E.2561 (2018)

Note : This Analysis test report is issued to supersede report No. 2601603-1 Date Reported : Mar 24, 2023 due to revise analytical information.

Technical Management

Suppt. Salameh
Section Head

Approved by

Wichan Chonhant
Assistant Manager

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2328474
Date Received : Mar 21, 2023
Date Reported : Jun 27, 2023
Report Number : 2601605-1 Rev. No.1

Page 1 of 2

Day out No.	Reference Number	Measurement Date	Measurement Time	Spot/Area No.	Illuminance (Lux) Spot	Average	Spot/Min	Guideline Limit	Comment
Area - Electrical Building : 2 : Battery Room									
1.1	2328474-1	15 Mar 2023	Day time	1	334	288.0	100	200	Pass
1.2	2328474-2	15 Mar 2023	Day time	2	242				
1.1	2328474-3	15 Mar 2023	Night time	1	374	310.0	100	200	Pass
1.2	2328474-4	15 Mar 2023	Night time	2	246				
Area - Electrical Building : 2 : Electrical Room									
2.1	2328474-5	15 Mar 2023	Day time	1	630	1,166	100	200	Pass
2.2	2328474-6	15 Mar 2023	Day time	2	327				
2.3	2328474-7	15 Mar 2023	Day time	3	659				
2.4	2328474-8	15 Mar 2023	Day time	4	1,034				
2.5	2328474-9	15 Mar 2023	Day time	5	1,036				
2.6	2328474-10	15 Mar 2023	Day time	6	746				
2.7	2328474-11	15 Mar 2023	Day time	7	1,661				
2.8	2328474-12	15 Mar 2023	Day time	8	1,770				
2.9	2328474-13	15 Mar 2023	Day time	9	1,638				
2.10	2328474-14	15 Mar 2023	Day time	10	1,339				
2.11	2328474-15	15 Mar 2023	Day time	11	1,341				
2.12	2328474-16	15 Mar 2023	Day time	12	831				
2.13	2328474-17	15 Mar 2023	Day time	13	536				
2.14	2328474-18	15 Mar 2023	Day time	14	873				
2.15	2328474-19	15 Mar 2023	Day time	15	2,060				
2.16	2328474-20	15 Mar 2023	Day time	16	2,190				
2.17	2328474-21	15 Mar 2023	Day time	17	231				
2.18	2328474-22	15 Mar 2023	Day time	18	250				
2.1	2328474-23	15 Mar 2023	Night time	1	236	276.6	100	200	Pass
2.2	2328474-24	15 Mar 2023	Night time	2	256				
2.3	2328474-25	15 Mar 2023	Night time	3	496				
2.4	2328474-26	15 Mar 2023	Night time	4	243				
2.5	2328474-27	15 Mar 2023	Night time	5	136				
2.6	2328474-28	15 Mar 2023	Night time	6	241				

Technical Management : *Supt S*
Support : Suwit S
Section Head

Approved by : *Wichan Choonharat*
Assistant Manager

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2328474
Date Received : Mar 21, 2023
Date Reported : Jun 27, 2023
Report Number : 2601605-1 Rev. No.1

Page 2 of 2

Day out No.	Reference Number	Measurement Date	Measurement Time	Spot/Area No.	Illuminance (Lux) Spot	Average	Spot/Min	Guideline Limit	Comment
Area - Electrical Building : 2 : Electrical Room									
2.7	2328474-29	15 Mar 2023	Night time	7	263				
2.8	2328474-30	15 Mar 2023	Night time	8	257				
2.9	2328474-31	15 Mar 2023	Night time	9	318				
2.10	2328474-32	15 Mar 2023	Night time	10	387				
2.11	2328474-33	15 Mar 2023	Night time	11	288				
2.12	2328474-34	15 Mar 2023	Night time	12	276				
2.13	2328474-35	15 Mar 2023	Night time	13	320				
2.14	2328474-36	15 Mar 2023	Night time	14	316				
2.15	2328474-37	15 Mar 2023	Night time	15	257				
2.16	2328474-38	15 Mar 2023	Night time	16	209				
2.17	2328474-39	15 Mar 2023	Night time	17	198				
2.18	2328474-40	15 Mar 2023	Night time	18	139				
Area - Electrical Building : 2 : ควบคุมไฟฟ้า									
3.1	2328474-41	15 Mar 2023	Day time	1	17,200	13,155	50	100	Pass
3.2	2328474-42	15 Mar 2023	Day time	2	9,110				
3.1	2328474-43	15 Mar 2023	Night time	1	108	131.5	50	100	Pass
3.2	2328474-44	15 Mar 2023	Night time	2	155				
Area - Electrical Building : 2 : ควบคุมไฟฟ้า									
4.1	2328474-45	15 Mar 2023	Day time	1	105	127.5	50	100	Pass
4.2	2328474-46	15 Mar 2023	Day time	2	150				

Measurement by : Natchapon Jengwarempong Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)
Note : This Analysis test report is resubmitted to supersede report No. 2601605-1 Date Reported : Mar 24, 2023 due to revise analytical information.

Technical Management : *Supt S*
Support : Suwit S
Section Head

Approved by : *Wichan Choonharat*
Assistant Manager

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Taat, Phrak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

Lot ID: 2328475
Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601607-1

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Spot	Illuminance (Lux)	Spot/Min	Average	Guideline Limit	Comment
Spot - Electrical Building : ชั้น 3 : Switchgear										
1	2328475-1	15 Mar 2023	Day time	1	522	-	300-400	-	-	Pass
1	2328475-2	15 Mar 2023	Night time	1	504	-	300-400	-	-	Pass
Area - Electrical Building : ชั้น 3 : ครัวและห้องโถง										
2.1	2328475-3	15 Mar 2023	Day time	1	217	159.0	50	100	100	Pass
2.2	2328475-4	15 Mar 2023	Day time	2	101					
2.1	2328475-5	15 Mar 2023	Night time	1	130	106.0	50	100	100	Pass
2.2	2328475-6	15 Mar 2023	Night time	2	82					

Measurement by : Natharon Jengwarewong Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management
Suport Salomteah
Section Head

Approved by
Wichan Choonharat
Assistant Manager

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13/05/61 E/04E

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Taat, Phrak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GT53

Lot ID: 2328476
Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601610-1

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Spot	Illuminance (Lux)	Spot/Min	Average	Guideline Limit	Comment
Area - Switchyard Control Building Plan : GT53 : Battery Room										
1.1	2328476-1	15 Mar 2023	Day time	1	541	573.5	100	200	200	Pass
1.2	2328476-2	15 Mar 2023	Day time	2	606					
1.1	2328476-3	15 Mar 2023	Night time	1	555	527.5	100	200	200	Pass
1.2	2328476-4	15 Mar 2023	Night time	2	500					
Area - Switchyard Control Building Plan : GT53 : Substation GT53										
2.1	2328476-5	15 Mar 2023	Day time	1	277	478.3	100	200	200	Pass
2.2	2328476-6	15 Mar 2023	Day time	2	300					
2.3	2328476-7	15 Mar 2023	Day time	3	647					
2.4	2328476-8	15 Mar 2023	Day time	4	689					
2.1	2328476-9	15 Mar 2023	Night time	1	405	355.0	100	200	200	Pass
2.2	2328476-10	15 Mar 2023	Night time	2	279					
2.3	2328476-11	15 Mar 2023	Night time	3	534					
2.4	2328476-12	15 Mar 2023	Night time	4	202					
Spot - Switchyard Control Building Plan : GT53 : Switchgear										
3	2328476-13	15 Mar 2023	Day time	1	351	-	300-400	-	-	Pass
3	2328476-14	15 Mar 2023	Night time	1	338	-	300-400	-	-	Pass
Area - Switchyard Control Building Plan : GT53 : Switchyard Control Room										
4.1	2328476-15	15 Mar 2023	Day time	1	111	518.5	100	200	200	Pass
4.2	2328476-16	15 Mar 2023	Day time	2	230					
4.3	2328476-17	15 Mar 2023	Day time	3	653					
4.4	2328476-18	15 Mar 2023	Day time	4	1,080					
4.1	2328476-19	15 Mar 2023	Night time	1	121	303.8	100	200	200	Pass
4.2	2328476-20	15 Mar 2023	Night time	2	204					
4.3	2328476-21	15 Mar 2023	Night time	3	513					
4.4	2328476-22	15 Mar 2023	Night time	4	377					
Area - Switchyard Control Building Plan : GT54 : Battery Room										
5.1	2328476-23	15 Mar 2023	Day time	1	503	525.5	100	200	200	Pass
5.2	2328476-24	15 Mar 2023	Day time	2	548					
5.1	2328476-25	15 Mar 2023	Night time	1	502	490.5	100	200	200	Pass
5.2	2328476-26	15 Mar 2023	Night time	2	479					

Technical Management
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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Phrak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2328476
Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601610-1

Lay out		Reference	Measurement	Measurement	Spot /Area	Illuminance (Lux)	Guideline Limit	Comment
No.	No.	Number	Date	Time	No.	Spot	Average	
Area - Switchyard Control Building Plan : GTS4 : Substation GTS4								
6.1	2328476-27	15 Mar 2023	Day time	1	939	513.0	100	200
6.2	2328476-28	15 Mar 2023	Day time	2	660			Pass
6.3	2328476-29	15 Mar 2023	Day time	3	242			
6.4	2328476-30	15 Mar 2023	Day time	4	211			
6.1	2328476-31	15 Mar 2023	Night time	1	464	356.8	100	200
6.2	2328476-32	15 Mar 2023	Night time	2	567			Pass
6.3	2328476-33	15 Mar 2023	Night time	3	220			
6.4	2328476-34	15 Mar 2023	Night time	4	176			
Spot - Switchyard Control Building Plan : GTS4 : Switchgear								
7	2328476-35	15 Mar 2023	Day time	1	423	-	300-400	-
7	2328476-36	15 Mar 2023	Night time	1	390	-	300-400	-
Area - Switchyard Control Building Plan : GTS4 : Switchyard Control Room								
8.1	2328476-37	15 Mar 2023	Day time	1	1,310	701.0	100	200
8.2	2328476-38	15 Mar 2023	Day time	2	706			Pass
8.3	2328476-39	15 Mar 2023	Day time	3	420			
8.4	2328476-40	15 Mar 2023	Day time	4	368			
8.1	2328476-41	15 Mar 2023	Night time	1	534	471.3	100	200
8.2	2328476-42	15 Mar 2023	Night time	2	603			Pass
8.3	2328476-43	15 Mar 2023	Night time	3	401			
8.4	2328476-44	15 Mar 2023	Night time	4	347			

Measurement by : Nathaporn Jitwongwong Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management
Support
Section Head

Approved by
Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Phrak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2328477
Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601613-1

Lay out		Reference	Measurement	Measurement	Spot /Area	Illuminance (Lux)	Guideline Limit	Comment
No.	No.	Number	Date	Time	No.	Spot	Average	
Spot - Water Treatment Control Building : Fire Pump								
1	2328477-1	15 Mar 2023	Day time	1	1,749	-	300-400	-
1	2328477-2	15 Mar 2023	Day time	2	1,952	-	300	
1	2328477-3	15 Mar 2023	Day time	3	2,085	-	200	
1	2328477-4	15 Mar 2023	Night time	1	336	-	300-400	-
Spot - Water Treatment Control Building : Laboratory 1 (Fume Hood)								
2	2328477-5	15 Mar 2023	Day time	1	550	-	400-500	-
2	2328477-6	15 Mar 2023	Night time	1	541	-	400-500	-
Spot - Water Treatment Control Building : Laboratory 2 (Water Table)								
3	2328477-7	15 Mar 2023	Day time	1	668	-	400-500	-
3	2328477-8	15 Mar 2023	Night time	1	601	-	400-500	-
Spot - Water Treatment Control Building : Office Laboratory								
4	2328477-9	15 Mar 2023	Day time	1	543	-	400-500	-
4	2328477-10	15 Mar 2023	Night time	1	569	-	400-500	-
Spot - Water Treatment Control Building : Water Treatment								
5	2328477-11	15 Mar 2023	Day time	1	623	-	300-400	-
5	2328477-12	15 Mar 2023	Night time	1	598	-	300-400	-

Measurement by : Nathaporn Jitwongwong Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management
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Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTSS

Lot ID: 2328478
Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601615-1

Page 1 of 3

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Illuminance (Lux)	Spot	Average	Spot/Min	Average	Comment
Spot - Workshop and Warehouse : 2nd Floor : ห้องปฏิบัติการ										
1	2328478-1	15 Mar 2023	Day time	1	411	-	300-400	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st ME 1										
4	2328478-2	15 Mar 2023	Day time	1	459	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st ME 2										
5	2328478-3	15 Mar 2023	Day time	1	524	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st ME 3										
6	2328478-4	15 Mar 2023	Day time	1	422	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st ME 4										
7	2328478-5	15 Mar 2023	Day time	1	452	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st MI 1										
8	2328478-6	15 Mar 2023	Day time	1	439	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st MI 2										
9	2328478-7	15 Mar 2023	Day time	1	457	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st MI 3										
10	2328478-8	15 Mar 2023	Day time	1	418	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st MI 4										
11	2328478-9	15 Mar 2023	Day time	1	450	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st MM 1										
12	2328478-10	15 Mar 2023	Day time	1	420	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st MM 2										
13	2328478-11	15 Mar 2023	Day time	1	415	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st MM 3										
14	2328478-12	15 Mar 2023	Day time	1	414	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st MM 4										
15	2328478-13	15 Mar 2023	Day time	1	432	-	400-500	-	-	Pass
Spot - Workshop and Warehouse : 2nd Floor : 1st MM Manager										
16	2328478-14	15 Mar 2023	Day time	1	423	-	400-500	-	-	Pass
Area - Workshop and Warehouse : 2nd Floor : วัยเฝ้าดู 2										
17.1	2328478-15	15 Mar 2023	Day time	1	751	591.3	50	100	-	Pass
17.2	2328478-16	15 Mar 2023	Day time	2	648	-	-	-	-	-
17.3	2328478-17	15 Mar 2023	Day time	3	375	-	-	-	-	-

Technical Management

Supot Salamlah
Section Head

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Wichan Chonharat
Assistant Manager

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5. Report is split up



Analysis / Test Report

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTSS

Lot ID: 2328478
Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601615-1

Page 2 of 3

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Illuminance (Lux)	Spot	Average	Spot/Min	Average	Comment
Area - Workshop and Warehouse : 2nd Floor : ห้องปฏิบัติการ 2										
18.1	2328478-18	15 Mar 2023	Day time	1	121	113.5	50	100	-	Pass
18.2	2328478-19	15 Mar 2023	Day time	2	106	-	-	-	-	-
Area - Workshop and Warehouse : 2nd Floor : ห้องปฏิบัติการ 2										
19.1	2328478-20	15 Mar 2023	Day time	1	96	109.5	50	100	-	Pass
19.2	2328478-21	15 Mar 2023	Day time	2	123	-	-	-	-	-
Area - Workshop and Warehouse : 2nd Floor : ห้องปฏิบัติการ 3										
20.1	2328478-22	15 Mar 2023	Day time	1	404	392.0	150	300	-	Pass
20.2	2328478-23	15 Mar 2023	Day time	2	380	-	-	-	-	-
Area - Workshop and Warehouse : 2nd Floor : ห้องปฏิบัติการ 4										
21.1	2328478-24	15 Mar 2023	Day time	1	333	340.5	50	100	-	Pass
21.2	2328478-25	15 Mar 2023	Day time	2	348	-	-	-	-	-
Area - Workshop and Warehouse : 2nd Floor : ห้องปฏิบัติการ 5										
22.1	2328478-26	15 Mar 2023	Day time	1	740	924.2	150	300	-	Pass
22.2	2328478-27	15 Mar 2023	Day time	2	771	-	-	-	-	-
22.3	2328478-28	15 Mar 2023	Day time	3	646	-	-	-	-	-
22.4	2328478-29	15 Mar 2023	Day time	4	941	-	-	-	-	-
22.5	2328478-30	15 Mar 2023	Day time	5	931	-	-	-	-	-
22.6	2328478-31	15 Mar 2023	Day time	6	1,516	-	-	-	-	-
Area - Workshop and Warehouse : 2nd Floor : ห้องปฏิบัติการ W/H										
23.1	2328478-32	15 Mar 2023	Day time	1	963	861.5	25	50	-	Pass
23.2	2328478-33	15 Mar 2023	Day time	2	760	-	-	-	-	-

Technical Management

Supot Salamlah
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Approved by

Wichan Chonharat
Assistant Manager

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1340-411 EIMAE

5. Report is split up



Analysis / Test Report

Client : Gulf TSC Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasil, Phrak Deang, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2328478
Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601615-1

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Illuminance (Lux)		Guideline Limit		Comment
					Spot	Average	Spot/Min	Average	
Area - Workshop and Warehouse : 2nd Floor : Store									
24.1	2328478-34	15 Mar 2023	Day time	1	939	848.5	50	100	Pass
24.2	2328478-35	15 Mar 2023	Day time	2	864				
24.3	2328478-36	15 Mar 2023	Day time	3	787				
24.4	2328478-37	15 Mar 2023	Day time	4	858				
24.5	2328478-38	15 Mar 2023	Day time	5	1,298				
24.6	2328478-39	15 Mar 2023	Day time	6	985				
24.7	2328478-40	15 Mar 2023	Day time	7	899				
24.8	2328478-41	15 Mar 2023	Day time	8	934				
24.9	2328478-42	15 Mar 2023	Day time	9	907				
24.10	2328478-43	15 Mar 2023	Day time	10	1,322				
24.11	2328478-44	15 Mar 2023	Day time	11	1,061				
24.12	2328478-45	15 Mar 2023	Day time	12	1,100				
24.13	2328478-46	15 Mar 2023	Day time	13	380				
24.14	2328478-47	15 Mar 2023	Day time	14	341				
24.15	2328478-48	15 Mar 2023	Day time	15	599				
24.16	2328478-49	15 Mar 2023	Day time	16	302				

Measurement by : Natthapon Jongsareewong Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management
Supt S.
Supt Sornjit
Section Head

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Assistant Manager

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Analysis / Test Report

Client : Gulf TSC Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasil, Phrak Deang, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2328479
Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601617-1

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Illuminance (Lux)		Guideline Limit	Comment
					Spot	Average		
Area - Workshop and Warehouse : Ground Floor : Store ชั้น 1								
1.1	2328479-1	15 Mar 2023	Day time	1	303	297.2	50	100
1.2	2328479-2	15 Mar 2023	Day time	2	300			Pass
1.3	2328479-3	15 Mar 2023	Day time	3	251			
1.4	2328479-4	15 Mar 2023	Day time	4	200			
1.5	2328479-5	15 Mar 2023	Day time	5	382			
1.6	2328479-6	15 Mar 2023	Day time	6	320			
1.7	2328479-7	15 Mar 2023	Day time	7	255			
1.8	2328479-8	15 Mar 2023	Day time	8	400			
1.9	2328479-9	15 Mar 2023	Day time	9	217			
1.10	2328479-10	15 Mar 2023	Day time	10	266			
1.11	2328479-11	15 Mar 2023	Day time	11	360			
1.12	2328479-12	15 Mar 2023	Day time	12	345			
1.13	2328479-13	15 Mar 2023	Day time	13	218			
1.14	2328479-14	15 Mar 2023	Day time	14	366			
1.15	2328479-15	15 Mar 2023	Day time	15	279			
1.16	2328479-16	15 Mar 2023	Day time	16	293			
Area - Workshop and Warehouse : Ground Floor : โรงรถ W/H								
2.1	2328479-17	15 Mar 2023	Day time	1	1,065	671.5	50	100
2.2	2328479-18	15 Mar 2023	Day time	2	278			Pass
Area - Workshop and Warehouse : Ground Floor : โรงรถ W/H ชั้น 1								
3.1	2328479-19	15 Mar 2023	Day time	1	3,400	2,114	50	100
3.2	2328479-20	15 Mar 2023	Day time	2	828			Pass
Area - Workshop and Warehouse : Ground Floor : โรงรถ ชั้น 1								
4.1	2328479-21	15 Mar 2023	Day time	1	220	306.3	50	100
4.2	2328479-22	15 Mar 2023	Day time	2	268			Pass
4.3	2328479-23	15 Mar 2023	Day time	3	324			
4.4	2328479-24	15 Mar 2023	Day time	4	366			
4.5	2328479-25	15 Mar 2023	Day time	5	326			
4.6	2328479-26	15 Mar 2023	Day time	6	334			

Technical Management
Supt S.
Supt Sornjit
Section Head

Approved by
Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasil, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2328479
Date Received : Mar 21, 2023
Date Reported : Mar 24, 2023
Report Number : 2601617-1

Lay out		Reference	Measurement	Measurement	Spot /Area	Illuminance (Lux)	Guideline Limit	Comment
No.	No.		Date	Time	No.	Spot	Average	Spot/Min
Area - Workshop and Warehouse : Ground Floor : ห้อง Tool Room (AC 1-3)								
5.1	2328479-27	15 Mar 2023	Day time	747	1	747	716.3	50 100
5.2	2328479-28	15 Mar 2023	Day time	2	676			Pass
5.3	2328479-29	15 Mar 2023	Day time	3	726			
Spot - Workshop and Warehouse : Ground Floor : ห้อง W/H Office 1 TS3								
6	2328479-30	15 Mar 2023	Day time	1	513		-	400-500 -
Spot - Workshop and Warehouse : Ground Floor : ห้อง W/H Office 2 TS4								
7	2328479-31	15 Mar 2023	Day time	1	545		-	400-500 -
Spot - Workshop and Warehouse : Ground Floor : ห้อง Calibration ห้องปฏิบัติการ								
8	2328479-32	15 Mar 2023	Day time	1	456		-	400-500 -
Area - Workshop and Warehouse : Ground Floor : ห้องปฏิบัติการห้องน้ำดื่ม								
9.1	2328479-33	15 Mar 2023	Day time	1	618		552.8	150 300
9.2	2328479-34	15 Mar 2023	Day time	2	575			Pass
9.3	2328479-35	15 Mar 2023	Day time	3	658			
9.4	2328479-36	15 Mar 2023	Day time	4	372			
9.5	2328479-37	15 Mar 2023	Day time	5	502			
9.6	2328479-38	15 Mar 2023	Day time	6	464			
9.7	2328479-39	15 Mar 2023	Day time	7	442			
9.8	2328479-40	15 Mar 2023	Day time	8	784			
9.9	2328479-41	15 Mar 2023	Day time	9	560			

Measurement by : Natthapon Jirongwarewong Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management
Supt S
Supt Salanth
Section Head

Approved by
Wichan Choonharat
Assistant Manager

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5. Reports digital



Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasil, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345511
Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657729-1

Lay out		Reference	Measurement	Measurement	Spot /Area	Illuminance (Lux)	Guideline Limit	Comment
No.	No.		Date	Time	No.	Spot	Average	Spot/Min
Spot - Administration Building : 1st Floor : ห้องปฏิบัติการ								
1	2345511-1	17 May 2023	Day time	1	306		-	300-400 -
Spot - Administration Building : 1st Floor : ห้อง Admin. 1								
2	2345511-2	17 May 2023	Day time	1	418		-	400-500 -
Spot - Administration Building : 1st Floor : ห้อง Admin. 2								
3	2345511-3	17 May 2023	Day time	1	491		-	400-500 -
Spot - Administration Building : 1st Floor : ห้อง Operation Manager								
4	2345511-4	17 May 2023	Day time	1	471		-	400-500 -
Spot - Administration Building : 1st Floor : ห้อง EHS								
5	2345511-5	17 May 2023	Day time	1	445		-	400-500 -
Spot - Administration Building : 1st Floor : ห้อง EHS Manager								
6	2345511-6	17 May 2023	Day time	1	903		-	400-500 -
Spot - Administration Building : 1st Floor : ห้อง Admin. Manager								
7	2345511-7	17 May 2023	Day time	1	405		-	400-500 -
Spot - Administration Building : 1st Floor : ห้อง Plant Manager								
8	2345511-8	17 May 2023	Day time	1	412		-	400-500 -
Spot - Administration Building : 1st Floor : ห้อง IT								
9	2345511-9	17 May 2023	Day time	1	415		-	400-500 -
Spot - Administration Building : 1st Floor : ห้อง Admin. 1								
10	2345511-10	17 May 2023	Day time	1	502		-	400-500 -
Spot - Administration Building : 1st Floor : ห้อง Admin. 2								
11	2345511-11	17 May 2023	Day time	1	475		-	400-500 -
Area - Administration Building : 1st Floor : ห้องประชุม								
12.1	2345511-12	17 May 2023	Day time	1	535		308.8	50 100
12.2	2345511-13	17 May 2023	Day time	2	169			
12.3	2345511-14	17 May 2023	Day time	3	376			
12.4	2345511-15	17 May 2023	Day time	4	264			
12.5	2345511-16	17 May 2023	Day time	5	311			
12.6	2345511-17	17 May 2023	Day time	6	198			
Area - Administration Building : 1st Floor : ห้องปฏิบัติการ								
13.1	2345511-18	17 May 2023	Day time	1	309		306.5	150 300
13.2	2345511-19	17 May 2023	Day time	2	304			

Technical Management
Supt S
Supt Salanth
Section Head

Approved by
Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Lot ID: 2345511

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Phrak Deang, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657729-1

Page 2 of 2

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Spot	Illuminance (Lux)	Guideline Limit	Comment
Area - Administration Building : 1st Floor : 1st Floor : 1st Floor								
15.1	2345511-20	17 May 2023	Day time	1	205	338.7	150	300
15.2	2345511-21	17 May 2023	Day time	2	226			Pass
15.3	2345511-22	17 May 2023	Day time	3	261			
15.4	2345511-23	17 May 2023	Day time	4	310			
15.5	2345511-24	17 May 2023	Day time	5	422			
15.6	2345511-25	17 May 2023	Day time	6	438			
15.7	2345511-26	17 May 2023	Day time	7	320			
15.8	2345511-27	17 May 2023	Day time	8	324			
15.9	2345511-28	17 May 2023	Day time	9	336			
15.10	2345511-29	17 May 2023	Day time	10	411			
15.11	2345511-30	17 May 2023	Day time	11	421			
15.12	2345511-31	17 May 2023	Day time	12	398			
Area - Administration Building : 1st Floor : 1st Floor								
16.1	2345511-32	17 May 2023	Day time	1	375	352.0	150	300
16.2	2345511-33	17 May 2023	Day time	2	344			Pass
16.3	2345511-34	17 May 2023	Day time	3	343			
16.4	2345511-35	17 May 2023	Day time	4	346			
Area - Administration Building : 1st Floor : 1st Floor								
17.1	2345511-36	17 May 2023	Day time	1	354	421.3	150	300
17.2	2345511-37	17 May 2023	Day time	2	491			Pass
17.3	2345511-38	17 May 2023	Day time	3	346			
17.4	2345511-39	17 May 2023	Day time	4	494			

Measurement by : Noranon Tathongkham Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management
Support Section Head

Approved by

Wichan Choonharat
Assistant Manager

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5 (Report) Light-14



Analysis / Test Report

Lot ID: 2345514

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Phrak Deang, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657734-1

Page 1 of 2

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Spot	Illuminance (Lux)	Guideline Limit	Comment
Area - CCR : Control Building : 1st Floor : Switchgear Room								
1.1	2345514-1	17 May 2023	Day time	1	237	255.3	100	200
1.2	2345514-2	17 May 2023	Day time	2	274			Pass
1.3	2345514-3	17 May 2023	Day time	3	266			
1.4	2345514-4	17 May 2023	Day time	4	281			
1.5	2345514-5	17 May 2023	Day time	5	275			
1.6	2345514-6	17 May 2023	Day time	6	219			
1.7	2345514-7	17 May 2023	Day time	7	231			
1.8	2345514-8	17 May 2023	Day time	8	244			
1.9	2345514-9	17 May 2023	Day time	9	246			
1.10	2345514-10	17 May 2023	Day time	10	251			
1.11	2345514-11	17 May 2023	Day time	11	261			
1.12	2345514-12	17 May 2023	Day time	12	241			
1.13	2345514-13	17 May 2023	Day time	13	246			
1.14	2345514-14	17 May 2023	Day time	14	232			
1.15	2345514-15	17 May 2023	Day time	15	271			
1.16	2345514-16	17 May 2023	Day time	16	266			
1.17	2345514-17	17 May 2023	Day time	17	274			
1.18	2345514-18	17 May 2023	Day time	18	280			
1.1	2345514-19	17 May 2023	Night time	1	349	315.4	100	200
1.2	2345514-20	17 May 2023	Night time	2	282			Pass
1.3	2345514-21	17 May 2023	Night time	3	284			
1.4	2345514-22	17 May 2023	Night time	4	322			
1.5	2345514-23	17 May 2023	Night time	5	160			
1.6	2345514-24	17 May 2023	Night time	6	209			
1.7	2345514-25	17 May 2023	Night time	7	311			
1.8	2345514-26	17 May 2023	Night time	8	327			
1.9	2345514-27	17 May 2023	Night time	9	348			
1.10	2345514-28	17 May 2023	Night time	10	315			
1.11	2345514-29	17 May 2023	Night time	11	366			
1.12	2345514-30	17 May 2023	Night time	12	374			
1.13	2345514-31	17 May 2023	Night time	13	219			
1.14	2345514-32	17 May 2023	Night time	14	364			

Technical Management
Support Section Head

Approved by

Wichan Choonharat
Assistant Manager

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5 (Report) Light-14



Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657734-1
Project Name : Monitoring EIA
Project Location : GT53

Lot ID: 2345514

Page 2 of 2

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Spot	Illuminance (Lux)	Guideline Limit	Comment
Area - CCR : Control Building : 1st Floor : Switchgear Room								
1.15	2345514-33	17 May 2023	Night time	15	319			
1.16	2345514-34	17 May 2023	Night time	16	394			
1.17	2345514-35	17 May 2023	Night time	17	364			
1.18	2345514-36	17 May 2023	Night time	18	371			
Area - CCR : Control Building : 1st Floor : ควบคุมไฟฟ้า								
2.1	2345514-37	17 May 2023	Day time	1	250	231.0	50	100
2.2	2345514-38	17 May 2023	Day time	2	212			Pass
2.1	2345514-39	17 May 2023	Night time	1	352	313.5	50	100
2.2	2345514-40	17 May 2023	Night time	2	275			Pass

Measurement by : Noranon Taitongkham Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

Supt S.
Supt Salameh
Section Head

Approved by

Wichan Chonbharat
Wichan Chonbharat
Assistant Manager

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5 Reports Lightest



Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657735-1
Project Name : Monitoring EIA
Project Location : GT53

Lot ID: 2345515

Page 1 of 2

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Spot	Illuminance (Lux)	Guideline Limit	Comment
Spot - CCR : Control Building : 3rd Floor : Control GT53 No.1								
1	2345515-1	17 May 2023	Day time	1	414	-	400-500	-
1	2345515-2	17 May 2023	Night time	1	402	-	400-500	-
Spot - CCR : Control Building : 3rd Floor : Control GT53 No.2								
2	2345515-3	17 May 2023	Day time	1	403	-	400-500	-
2	2345515-4	17 May 2023	Night time	1	408	-	400-500	-
Spot - CCR : Control Building : 3rd Floor : Control GT54 No.1								
3	2345515-5	17 May 2023	Day time	1	439	-	400-500	-
3	2345515-6	17 May 2023	Night time	1	448	-	400-500	-
Spot - CCR : Control Building : 3rd Floor : Control GT54 No.2								
4	2345515-7	17 May 2023	Day time	1	434	-	400-500	-
4	2345515-8	17 May 2023	Night time	1	405	-	400-500	-
Spot - CCR : Control Building : 3rd Floor : DCS								
5	2345515-9	17 May 2023	Day time	1	494	-	400-500	-
5	2345515-10	17 May 2023	Night time	1	488	-	400-500	-
Spot - CCR : Control Building : 3rd Floor : ควบคุมการจราจร								
6	2345515-11	17 May 2023	Day time	1	306	-	300-400	-
6	2345515-12	17 May 2023	Night time	1	305	-	300-400	-
Spot - CCR : Control Building : 3rd Floor : ควบคุมการจราจรและสัญญาณ								
7	2345515-13	17 May 2023	Day time	1	481	-	300-400	-
7	2345515-14	17 May 2023	Night time	1	472	-	300-400	-
Spot - CCR : Control Building : 3rd Floor : ควบคุมการจราจร								
8	2345515-15	17 May 2023	Day time	1	617	-	400-500	-
Spot - CCR : Control Building : 3rd Floor : ควบคุมการจราจร								
9	2345515-16	17 May 2023	Day time	1	505	-	400-500	-
Spot - CCR : Control Building : 3rd Floor : ควบคุมการจราจร								
10	2345515-17	17 May 2023	Day time	1	474	-	400-500	-
10	2345515-18	17 May 2023	Night time	1	547	-	400-500	-
Spot - CCR : Control Building : 3rd Floor : ควบคุมการจราจร								
11	2345515-19	17 May 2023	Day time	1	561	-	400-500	-
Spot - CCR : Control Building : 3rd Floor : ควบคุมการจราจร								
12	2345515-20	17 May 2023	Day time	1	511	-	400-500	-
12	2345515-21	17 May 2023	Night time	1	507	-	400-500	-

Technical Management

Supt S.
Supt Salameh
Section Head

Approved by

Wichan Chonbharat
Wichan Chonbharat
Assistant Manager

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5 Reports Lightest



Analysis / Test Report

Lot ID: 2345515

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Date Received : May 19, 2023
Date Reported : May 23, 2023
Project Name : Monitoring EIA
Project Location : GTS3
Report Number : 2657735-1

Page 2 of 2											
Layout No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Spot	Area	Spot /Area No.	Spot	Area	Spot /Area No.	Spot
Spot - CCR : Control Building : 3rd Floor : 3rd Shift Leader GTS4											
13	2345515-22	17 May 2023	Day time	1	490	-	400-500	-	400-500	-	Pass
13	2345515-23	17 May 2023	Night time	1	495	-	400-500	-	400-500	-	Pass
Area - CCR : Control Building : 3rd Floor : 3rd Shift Leader GTS4											
14.1	2345515-24	17 May 2023	Day time	1	228	451.2	50	100	50	100	Pass
14.2	2345515-25	17 May 2023	Day time	2	648						
14.3	2345515-26	17 May 2023	Day time	3	549						
14.4	2345515-27	17 May 2023	Day time	4	618						
14.5	2345515-28	17 May 2023	Day time	5	213						
14.1	2345515-29	17 May 2023	Night time	1	358	324.2	50	100	50	100	Pass
14.2	2345515-30	17 May 2023	Night time	2	363						
14.3	2345515-31	17 May 2023	Night time	3	356						
14.4	2345515-32	17 May 2023	Night time	4	307						
14.5	2345515-33	17 May 2023	Night time	5	237						
Area - CCR : Control Building : 3rd Floor : 3rd Shift Leader GTS4											
15.1	2345515-34	17 May 2023	Day time	1	914	631.0	50	100	50	100	Pass
15.2	2345515-35	17 May 2023	Day time	2	348						
15.1	2345515-36	17 May 2023	Night time	1	148	150.0	50	100	50	100	Pass
15.2	2345515-37	17 May 2023	Night time	2	152						

Measurement by : Nonaroon Tathongkham Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2561 (2018), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

Suppt. S
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Lot ID: 2345516

Client : Gulf TSS Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Date Received : May 19, 2023
Date Reported : May 26, 2023
Project Name : Monitoring EIA
Project Location : GTS3
Report Number : 2663875-1

Page 1 of 2											
Layout No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Spot	Area	Spot /Area No.	Spot	Area	Spot /Area No.	Spot
Area - Electrical Building : 2nd Floor : Battery Room											
1.1	2345516-1	17 May 2023	Day time	1	361	316.5	100	200	100	200	Pass
1.2	2345516-2	17 May 2023	Day time	2	272						
1.1	2345516-3	17 May 2023	Night time	1	212	200.0	100	200	100	200	Pass
1.2	2345516-4	17 May 2023	Night time	2	188						
Area - Electrical Building : 2nd Floor : Electrical Room											
2.1	2345516-5	17 May 2023	Day time	1	1704	1,355	100	200	100	200	Pass
2.2	2345516-6	17 May 2023	Day time	2	1,044						
2.3	2345516-7	17 May 2023	Day time	3	879						
2.4	2345516-8	17 May 2023	Day time	4	981						
2.5	2345516-9	17 May 2023	Day time	5	1,196						
2.6	2345516-10	17 May 2023	Day time	6	391						
2.7	2345516-11	17 May 2023	Day time	7	2,540						
2.8	2345516-12	17 May 2023	Day time	8	2,520						
2.9	2345516-13	17 May 2023	Day time	9	1,756						
2.10	2345516-14	17 May 2023	Day time	10	2,060						
2.11	2345516-15	17 May 2023	Day time	11	460						
2.12	2345516-16	17 May 2023	Day time	12	1,019						
2.13	2345516-17	17 May 2023	Day time	13	1,700						
2.14	2345516-18	17 May 2023	Day time	14	1,514						
2.15	2345516-19	17 May 2023	Day time	15	849						
2.16	2345516-20	17 May 2023	Day time	16	599						
2.17	2345516-21	17 May 2023	Day time	17	1,461						
2.18	2345516-22	17 May 2023	Day time	18	1,714						
2.1	2345516-23	17 May 2023	Night time	1	358	252.3	100	200	100	200	Pass
2.2	2345516-24	17 May 2023	Night time	2	189						
2.3	2345516-25	17 May 2023	Night time	3	198						
2.4	2345516-26	17 May 2023	Night time	4	247						
2.5	2345516-27	17 May 2023	Night time	5	300						
2.6	2345516-28	17 May 2023	Night time	6	209						
2.7	2345516-29	17 May 2023	Night time	7	229						
2.8	2345516-30	17 May 2023	Night time	8	275						
2.9	2345516-31	17 May 2023	Night time	9	315						

Technical Management

Suppt. S
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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13190-61/TH01

S:\Report\13190-61



Analysis / Test Report

Lot ID: 2345516

Client : Gulf TS3 Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasei, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Date Received : May 19, 2023

Date Reported : May 26, 2023

Report Number : 2663875-1

Project Location : GTS3

Page 2 of 2

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Spot	Illuminance (Lux)	Guideline Limit	Comment
Area - Electrical Building : ชั้น 2 : Electrical Room								
2.10	2345516-32	17 May 2023	Night time	10	161			
2.11	2345516-33	17 May 2023	Night time	11	190			
2.12	2345516-34	17 May 2023	Night time	12	246			
2.13	2345516-35	17 May 2023	Night time	13	314			
2.14	2345516-36	17 May 2023	Night time	14	331			
2.15	2345516-37	17 May 2023	Night time	15	188			
2.16	2345516-38	17 May 2023	Night time	16	300			
2.17	2345516-39	17 May 2023	Night time	17	248			
2.18	2345516-40	17 May 2023	Night time	18	244			
Area - Electrical Building : ชั้น 1 : ครัวสุกี้								
3.1	2345516-41	17 May 2023	Day time	1	7,210	6,860	50	100
3.2	2345516-42	17 May 2023	Day time	2	6,510			Pass
3.1	2345516-43	17 May 2023	Night time	1	92	121.0	50	100
3.2	2345516-44	17 May 2023	Night time	2	150			Pass
Area - Electrical Building : ชั้น 2 : ครัวสุกี้								
4.1	2345516-45	17 May 2023	Day time	1	101	105.0	50	100
4.2	2345516-46	17 May 2023	Day time	2	109			Pass

Measurement by : Noranon Taibhongkham Personnel of ALS Laboratory Group (Thailand) Co., Ltd.

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018).

Note : This Analysis test report is issued to supersede report No.2657741-1 Date Reported : May 23, 2023 due to revise analytical information

Technical Management

Supt S.

Supt Salomah
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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1349 61 / PMA

5 Reports/Report



Analysis / Test Report

Lot ID: 2345517

Client : Gulf TS3 Co., Ltd.

224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasei, Pluak Daeng, Rayong Thailand 21140

P/O :

Project Name : Monitoring EIA

Date Received : May 19, 2023

Date Reported : May 23, 2023

Report Number : 2657742-1

Project Location : GTS3

Page 1 of 1

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Spot	Illuminance (Lux)	Guideline Limit	Comment
Spot - Electrical Building : ชั้น 3 : Switchgear								
1	2345517-1	17 May 2023	Day time	1	421	-	300-400	-
1	2345517-2	17 May 2023	Night time	1	364	-	300-400	-
Area - Electrical Building : ชั้น 3 : ครัวสุกี้								
2.1	2345517-3	17 May 2023	Day time	1	180	151.0	50	100
2.2	2345517-4	17 May 2023	Day time	2	122			Pass
2.1	2345517-5	17 May 2023	Night time	1	162	135.5	50	100
2.2	2345517-6	17 May 2023	Night time	2	109			Pass

Measurement by : Noranon Taibhongkham Personnel of ALS Laboratory Group (Thailand) Co., Ltd.

Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

Supt S.

Supt Salomah
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345518
Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657745-1

Page 1 of 2

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Illuminance (Lux)	Spot	Average	Spot/Min	Average	Guideline Limit	Comment
Area - Switchyard Control Building Plan : GTS3 : Battery Room											
1.1	2345518-1	17 May 2023	Day time	1	206	201.0	100	200		200	Pass
1.2	2345518-2	17 May 2023	Day time	2	196						
1.1	2345518-3	17 May 2023	Night time	1	204	201.0	100	200		200	Pass
1.2	2345518-4	17 May 2023	Night time	2	198						
Area - Switchyard Control Building Plan : GTS3 : Substation GTS3											
2.1	2345518-5	17 May 2023	Day time	1	421	308.8	100	200		200	Pass
2.2	2345518-6	17 May 2023	Day time	2	404						
2.3	2345518-7	17 May 2023	Day time	3	305						
2.4	2345518-8	17 May 2023	Day time	4	105						
2.1	2345518-9	17 May 2023	Night time	1	163	237.3	100	200		200	Pass
2.2	2345518-10	17 May 2023	Night time	2	266						
2.3	2345518-11	17 May 2023	Night time	3	353						
2.4	2345518-12	17 May 2023	Night time	4	167						
Spot - Switchyard Control Building Plan : GTS3 : Switchgear											
3	2345518-13	17 May 2023	Day time	1	305	-	300-400	-		-	Pass
3	2345518-14	17 May 2023	Night time	1	314	-	300-400	-		-	Pass
Area - Switchyard Control Building Plan : GTS3 : Switchyard Control Room											
4.1	2345518-15	17 May 2023	Day time	1	637	365.5	100	200		200	Pass
4.2	2345518-16	17 May 2023	Day time	2	468						
4.3	2345518-17	17 May 2023	Day time	3	246						
4.4	2345518-18	17 May 2023	Day time	4	111						
4.1	2345518-19	17 May 2023	Night time	1	324	328.8	100	200		200	Pass
4.2	2345518-20	17 May 2023	Night time	2	318						
4.3	2345518-21	17 May 2023	Night time	3	323						
4.4	2345518-22	17 May 2023	Night time	4	350						
Area - Switchyard Control Building Plan : GTS4 : Battery Room											
5.1	2345518-23	17 May 2023	Day time	1	357	347.5	100	200		200	Pass
5.2	2345518-24	17 May 2023	Day time	2	338						
5.1	2345518-25	17 May 2023	Night time	1	340	358.5	100	200		200	Pass
5.2	2345518-26	17 May 2023	Night time	2	377						

Technical Management

Supt S

Supot Salimiah
Section Head

Approved by

Wichan Choonharat

Wichan Choonharat
Assistant Manager

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5 Reports/Update



Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345518
Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657745-1

Page 2 of 2

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Illuminance (Lux)	Spot	Average	Spot/Min	Average	Guideline Limit	Comment
Area - Switchyard Control Building Plan : GTS4 : Substation GTS4											
6.1	2345518-27	17 May 2023	Day time	1	602	361.0	100	200		200	Pass
6.2	2345518-28	17 May 2023	Day time	2	477						
6.3	2345518-29	17 May 2023	Day time	3	200						
6.4	2345518-30	17 May 2023	Day time	4	165						
6.1	2345518-31	17 May 2023	Night time	1	340	327.5	100	200		200	Pass
6.2	2345518-32	17 May 2023	Night time	2	316						
6.3	2345518-33	17 May 2023	Night time	3	257						
6.4	2345518-34	17 May 2023	Night time	4	397						
Spot - Switchyard Control Building Plan : GTS4 : Switchgear											
7	2345518-35	17 May 2023	Day time	1	345	-	300-400	-		-	Pass
7	2345518-36	17 May 2023	Night time	1	389	-	300-400	-		-	Pass
Area - Switchyard Control Building Plan : GTS4 : Switchyard Control Room											
8.1	2345518-37	17 May 2023	Day time	1	272	370.3	100	200		200	Pass
8.2	2345518-38	17 May 2023	Day time	2	438						
8.3	2345518-39	17 May 2023	Day time	3	351						
8.4	2345518-40	17 May 2023	Day time	4	420						
8.1	2345518-41	17 May 2023	Night time	1	366	409.5	100	200		200	Pass
8.2	2345518-42	17 May 2023	Night time	2	378						
8.3	2345518-43	17 May 2023	Night time	3	470						
8.4	2345518-44	17 May 2023	Night time	4	424						

Measurement by : Noranon Tathongkham Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

Supt S

Supot Salimiah
Section Head

Approved by

Wichan Choonharat

Wichan Choonharat
Assistant Manager

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31830-617 (FAR)

5 Reports/Update



Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345519
Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657746-1

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Illuminance (Lux)		Guideline Limit		Comment
					Spot	Average	Spot/Min	Average	
Spot - Water Treatment Control Building : Fire Pump									
1	2345519-1	17 May 2023	Day time	1	755	-	300-400	-	Pass
1	2345519-2	17 May 2023	Night time	1	311	-	300-400	-	Pass
Spot - Water Treatment Control Building : Laboratory 1 (Fume Hood)									
2	2345519-3	17 May 2023	Day time	1	409	-	400-500	-	Pass
2	2345519-4	17 May 2023	Night time	1	449	-	400-500	-	Pass
Spot - Water Treatment Control Building : Laboratory 2 (Water Table)									
3	2345519-5	17 May 2023	Day time	1	503	-	400-500	-	Pass
3	2345519-6	17 May 2023	Night time	1	465	-	400-500	-	Pass
Spot - Water Treatment Control Building : Office Laboratory									
4	2345519-7	17 May 2023	Day time	1	403	-	400-500	-	Pass
4	2345519-8	17 May 2023	Night time	1	425	-	400-500	-	Pass
Spot - Water Treatment Control Building : Water Treatment									
5	2345519-9	17 May 2023	Day time	1	591	-	300-400	-	Pass
5	2345519-10	17 May 2023	Night time	1	649	-	300-400	-	Pass

Measurement by : Norraon Tahongkham Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

Supt S.
Supt Salameh
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Approved by

Wichan Chonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345520
Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657752-1

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot /Area No.	Illuminance (Lux)		Guideline Limit	Comment	
					Spot	Average			
1	Spot - Workshop and Warehouse : 2nd Floor : โรงงานชั้น 2								
	2345520-1	17 May 2023	Day time	1	363	-	300-400	Pass	
4	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน ME 1								
	2345520-2	17 May 2023	Day time	1	420	-	400-500	Pass	
5	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน ME 2								
	2345520-3	17 May 2023	Day time	1	444	-	400-500	Pass	
6	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน ME 3								
	2345520-4	17 May 2023	Day time	1	413	-	400-500	Pass	
7	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน ME 4								
	2345520-5	17 May 2023	Day time	1	415	-	400-500	Pass	
8	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน ME 1								
	2345520-6	17 May 2023	Day time	1	402	-	400-500	Pass	
9	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน ME 2								
	2345520-7	17 May 2023	Day time	1	404	-	400-500	Pass	
10	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน ME 3								
	2345520-8	17 May 2023	Day time	1	408	-	400-500	Pass	
11	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน ME 4								
	2345520-9	17 May 2023	Day time	1	411	-	400-500	Pass	
12	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน MM 1								
	2345520-10	17 May 2023	Day time	1	405	-	400-500	Pass	
13	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน MM 2								
	2345520-11	17 May 2023	Day time	1	407	-	400-500	Pass	
14	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน MM 3								
	2345520-12	17 May 2023	Day time	1	408	-	400-500	Pass	
15	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน MM 4								
	2345520-13	17 May 2023	Day time	1	419	-	400-500	Pass	
16	Spot - Workshop and Warehouse : 2nd Floor : โรงงาน MM Manager								
	2345520-14	17 May 2023	Day time	1	445	-	400-500	Pass	
Area - Workshop and Warehouse : 2nd Floor : โรงงาน ME 2									
17.1	2345520-15	17 May 2023	Day time	1	396	346.0	50	100	Pass
17.2	2345520-16	17 May 2023	Day time	2	367				
17.3	2345520-17	17 May 2023	Day time	3	275				

Technical Management

Supt S.
Supt Salameh
Section Head

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Wichan Chonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Phrak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345520
Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657752-1

Lay out		Reference	Measurement	Measurement	Spot /Area	Illuminance (Lux)	Guideline Limit	Comment
No.	No.		Date	Time	No.	Spot	Average	
Area - Workshop and Warehouse : 2nd Floor : โรงงานชั้น 2								
18.1	2345520-18	17 May 2023	Day time	Day time	1	103	108.0	50 100 Pass
18.2	2345520-19	17 May 2023	Day time	Day time	2	113		
Area - Workshop and Warehouse : 2nd Floor : โรงงานชั้น 2								
19.1	2345520-20	17 May 2023	Day time	Day time	1	92	106.5	50 100 Pass
19.2	2345520-21	17 May 2023	Day time	Day time	2	121		
Area - Workshop and Warehouse : 2nd Floor : โรงงานชั้น 2								
20.1	2345520-22	17 May 2023	Day time	Day time	1	326	333.0	150 300 Pass
20.2	2345520-23	17 May 2023	Day time	Day time	2	340		
Area - Workshop and Warehouse : 2nd Floor : โรงงานชั้น 2								
21.1	2345520-24	17 May 2023	Day time	Day time	1	273	262.5	50 100 Pass
21.2	2345520-25	17 May 2023	Day time	Day time	2	252		
Area - Workshop and Warehouse : 2nd Floor : โรงงานชั้น 2								
22.1	2345520-26	17 May 2023	Day time	Day time	1	437	429.0	150 300 Pass
22.2	2345520-27	17 May 2023	Day time	Day time	2	481		
22.3	2345520-28	17 May 2023	Day time	Day time	3	462		
22.4	2345520-29	17 May 2023	Day time	Day time	4	411		
22.5	2345520-30	17 May 2023	Day time	Day time	5	361		
22.6	2345520-31	17 May 2023	Day time	Day time	6	422		
Area - Workshop and Warehouse : 2nd Floor : โรงงานชั้น W/H								
23.1	2345520-32	17 May 2023	Day time	Day time	1	511	428.5	25 50 Pass
23.2	2345520-33	17 May 2023	Day time	Day time	2	346		

Technical Management

Supt S
Supt Salimiah
Section Head

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Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TS3 Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Phrak Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345520
Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657752-1

Lay out		Reference	Measurement	Measurement	Spot /Area	Illuminance (Lux)	Guideline Limit	Comment
No.	No.		Date	Time	No.	Spot	Average	
Area - Workshop and Warehouse : 2nd Floor : Store								
24.1	2345520-34	17 May 2023	Day time	Day time	1	210	736.3	50 100 Pass
24.2	2345520-35	17 May 2023	Day time	Day time	2	339		
24.3	2345520-36	17 May 2023	Day time	Day time	3	670		
24.4	2345520-37	17 May 2023	Day time	Day time	4	1,060		
24.5	2345520-38	17 May 2023	Day time	Day time	5	718		
24.6	2345520-39	17 May 2023	Day time	Day time	6	489		
24.7	2345520-40	17 May 2023	Day time	Day time	7	1,320		
24.8	2345520-41	17 May 2023	Day time	Day time	8	611		
24.9	2345520-42	17 May 2023	Day time	Day time	9	744		
24.10	2345520-43	17 May 2023	Day time	Day time	10	668		
24.11	2345520-44	17 May 2023	Day time	Day time	11	811		
24.12	2345520-45	17 May 2023	Day time	Day time	12	998		
24.13	2345520-46	17 May 2023	Day time	Day time	13	1,042		
24.14	2345520-47	17 May 2023	Day time	Day time	14	911		
24.15	2345520-48	17 May 2023	Day time	Day time	15	600		
24.16	2345520-49	17 May 2023	Day time	Day time	16	589		

Measurement by : Noranon Taibhongkham Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 39D dated February 21 B.E.2561 (2018)

Technical Management

Supt S
Supt Salimiah
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TSC Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluek Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345521

Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657754-1

Page 1 of 2

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot/Area No.	Illuminance (Lux)	Spot	Average	Spot/Min	Limit	Average	Comment
Area - Workshop and Warehouse : Ground Floor : Store 4/1											
1.1	2345521-1	17 May 2023	Day time	1	342	384.1	50	100	Pass		
1.2	2345521-2	17 May 2023	Day time	2	386						
1.3	2345521-3	17 May 2023	Day time	3	487						
1.4	2345521-4	17 May 2023	Day time	4	410						
1.5	2345521-5	17 May 2023	Day time	5	461						
1.6	2345521-6	17 May 2023	Day time	6	312						
1.7	2345521-7	17 May 2023	Day time	7	402						
1.8	2345521-8	17 May 2023	Day time	8	344						
1.9	2345521-9	17 May 2023	Day time	9	416						
1.10	2345521-10	17 May 2023	Day time	10	400						
1.11	2345521-11	17 May 2023	Day time	11	361						
1.12	2345521-12	17 May 2023	Day time	12	349						
1.13	2345521-13	17 May 2023	Day time	13	401						
1.14	2345521-14	17 May 2023	Day time	14	441						
1.15	2345521-15	17 May 2023	Day time	15	402						
1.16	2345521-16	17 May 2023	Day time	16	391						
Area - Workshop and Warehouse : Ground Floor : Warehouse W/H											
2.1	2345521-17	17 May 2023	Day time	1	721	610.0	50	100	Pass		
2.2	2345521-18	17 May 2023	Day time	2	499						
Area - Workshop and Warehouse : Ground Floor : Warehouse W/H Turf											
3.1	2345521-19	17 May 2023	Day time	1	990	1,028	50	100	Pass		
3.2	2345521-20	17 May 2023	Day time	2	1,066						
Area - Workshop and Warehouse : Ground Floor : Warehouse 1											
4.1	2345521-21	17 May 2023	Day time	1	331	266.7	50	100	Pass		
4.2	2345521-22	17 May 2023	Day time	2	292						
4.3	2345521-23	17 May 2023	Day time	3	287						
4.4	2345521-24	17 May 2023	Day time	4	150						
4.5	2345521-25	17 May 2023	Day time	5	268						
4.6	2345521-26	17 May 2023	Day time	6	272						

Technical Management

Supt S

Supt Salameh
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Gulf TSC Co., Ltd.
224 Moo 3, WHA Eastern Seaboard Industrial Estate 1, Tasi, Pluek Daeng, Rayong Thailand 21140
P/O :
Project Name : Monitoring EIA
Project Location : GTS3

Lot ID: 2345521

Date Received : May 19, 2023
Date Reported : May 23, 2023
Report Number : 2657754-1

Page 2 of 2

Lay out No.	Reference Number	Measurement Date	Measurement Time	Spot/Area No.	Illuminance (Lux)	Spot	Average	Spot/Min	Limit	Average	Comment
Area - Workshop and Warehouse : Ground Floor : Warehouse 1											
5.1	2345521-27	17 May 2023	Day time	1	348	374.3	50	100	Pass		
5.2	2345521-28	17 May 2023	Day time	2	344						
5.3	2345521-29	17 May 2023	Day time	3	431						
Spot - Workshop and Warehouse : Ground Floor : Warehouse 1 T53											
6	2345521-30	17 May 2023	Day time	1	406	-	400-500	-	Pass		
Spot - Workshop and Warehouse : Ground Floor : Warehouse 2 T54											
7	2345521-31	17 May 2023	Day time	1	439	-	400-500	-	Pass		
Spot - Workshop and Warehouse : Ground Floor : Warehouse 2 T54											
8	2345521-32	17 May 2023	Day time	1	404	-	400-500	-	Pass		
Area - Workshop and Warehouse : Ground Floor : Warehouse 2 T54											
9.1	2345521-33	17 May 2023	Day time	1	415	382.2	150	300	Pass		
9.2	2345521-34	17 May 2023	Day time	2	411						
9.3	2345521-35	17 May 2023	Day time	3	469						
9.4	2345521-36	17 May 2023	Day time	4	386						
9.5	2345521-37	17 May 2023	Day time	5	382						
9.6	2345521-38	17 May 2023	Day time	6	418						
9.7	2345521-39	17 May 2023	Day time	7	355						
9.8	2345521-40	17 May 2023	Day time	8	349						
9.9	2345521-41	17 May 2023	Day time	9	255						

Measurement by : Niranon Takhongkham Personnel of ALS Laboratory Group (Thailand) Co., Ltd.
Guideline : Notification of Department of Labour Protection and Welfare, B.E.2560 (2017) dated November 27, B.E.2560 (2017), and published in the Royal Government Gazette, Vol.135, Part 390 dated February 21 B.E.2561 (2018)

Technical Management

Supt S

Supt Salameh
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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ภาคผนวก ค-10

แผนผังแสดงเส้นระดับเสียง (Noise Contour Map)



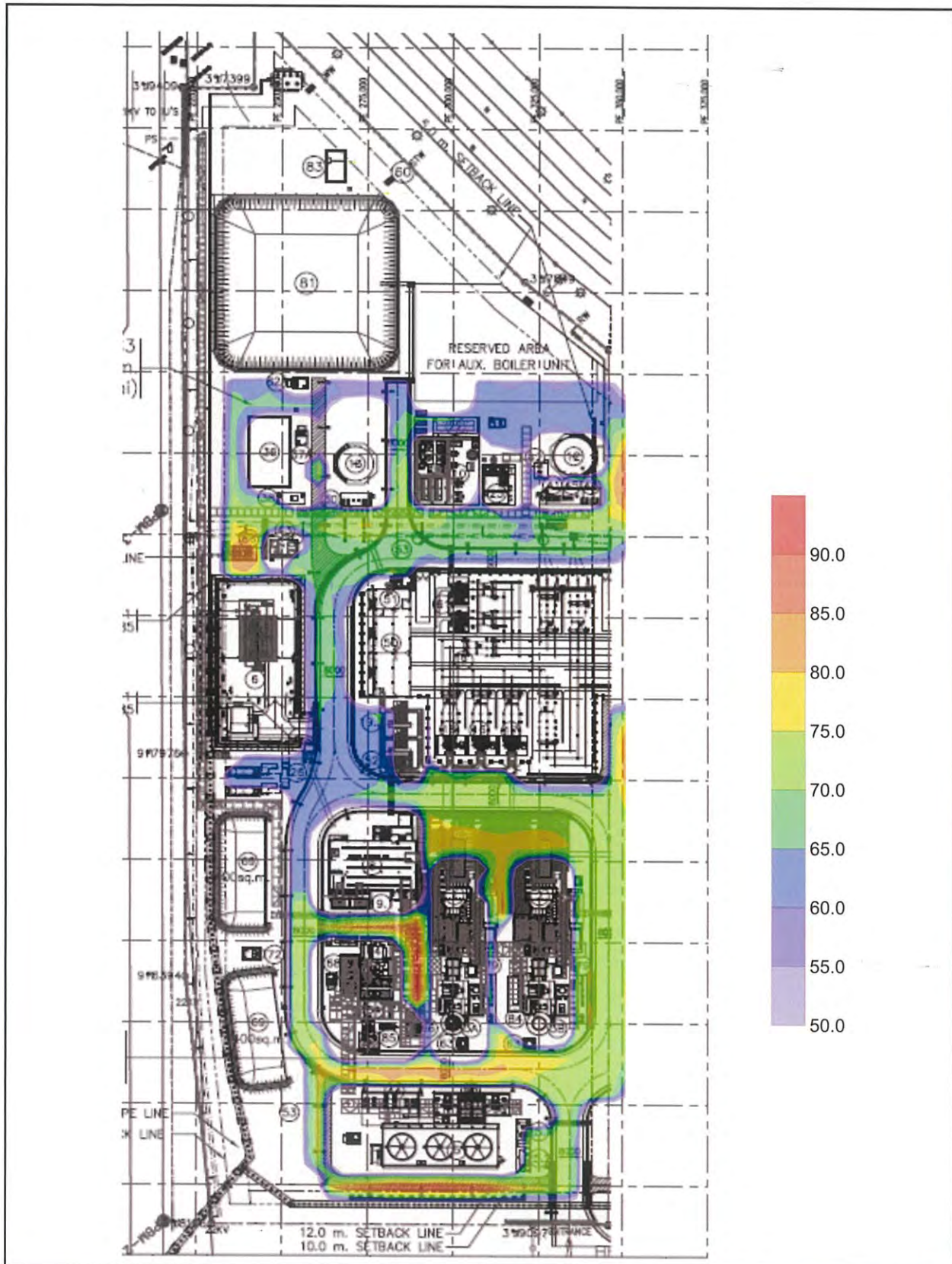
Noise Contour Map

Name Project : Gulf TS3 Co., Ltd.

บริเวณพื้นที่โรงไฟฟ้าตลิ่ง 3

Reference Number : Lot 20133809-1

Measurement Date : Aug 25, 2021



ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250, Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197

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