

ภาคผนวก ค

ใบรับรองผลการตรวจวัดคุณภาพสิ่งแวดล้อม

คุณภาพอากาศจากแหล่งกำเนิด



Analysis / Test Report

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO202010037
Project Name : Monitoring
Project Location :

Lot ID: 2224270
Date Received : Mar 16, 2022
Date Reported : Mar 23, 2022
Report Number: 2240787-1

TESTING
No.0042

Page 1 of 1

Sample Number	2224270-1
Sampled Date	Mar 16, 2022
Sample Description	Emission from Stationary Source
Location	Bag House Filter No. 1/1 (Dust Collector 205)
Date Analysis Commenced	Mar 17, 2022
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description		Result		Guideline		Method		Testing Location
Analyte	Sampled Time	Unit	LOQ (LOR)	(1)	(2)			
Air Testing								
Total Suspended Particulate	09:30 AM - 10:18 AM	mg/m3	0.5	<0.5	120	16	US EPA Method 5	Rayong

Guideline : (1) Notification of the Ministry of Science Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E.2544 (2001)
(2) Environmental Impact Assessment Report of Kiriu (Thailand) Co., Ltd.

Sampled By : Tinnakorn Kulkhant

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.

Thanitak.

Technical Management

Thanita Kulsurwong
Scientist (1)
โทรศัพท์ 3-323-4-9447

Approved by

Thanitak.

Dej Changchon
Senior Manager
โทรศัพท์ 3-323-4-9442

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Analysis / Test Report

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO202010037
Project Name : Monitoring
Project Location :

Lot ID: 2224288
Date Received : Mar 16, 2022
Date Reported : Mar 23, 2022
Report Number: 2240789-1

TESTING
No.0042

Page 1 of 1

Sample Number	2224288-1
Sampled Date	Mar 16, 2022
Sample Description	Emission from Stationary Source
Location	Bag House Filter No. 1/2 (Dust Collector 204)
Date Analysis Commenced	Mar 17, 2022
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description		Result		Guideline		Method		Testing Location
Analyte	Sampled Time	Unit	LOQ (LOR)	(1)	(2)			
Air Testing								
Total Suspended Particulate	10:25 AM - 11:13 AM	mg/m3	0.5	0.9	120	16	US EPA Method 5	Rayong

Guideline : (1) Notification of the Ministry of Science Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E.2544 (2001)
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Sampled By : Tinnakorn Kulkhant

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Technical Management

Thanita Kulsurwong
Scientist (1)
โทรศัพท์ 3-323-4-9447

Approved by

Thanitak.

Dej Changchon
Senior Manager
โทรศัพท์ 3-323-4-9442

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Analysis / Test Report



TESTING
No.0042

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2224289
Date Received : Mar 16, 2022
Date Reported : Mar 23, 2022
Report Number: 2240791-1

Page 1 of 1

Sample Number	2224289-1
Sampled Date	Mar 16, 2022
Sample Description	Emission from Stationary Source
Location	Bag House Filter No. 1/3 (Dust Collector 203)
Date Analysis Commenced	Mar 17, 2022
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description		Result		Guideline		Method		Testing Location	
Analyte	Sampled Time	Unit	LOD	LOQ	(1)	(2)			
Air Testing									
Total Suspended Particulate	11:20 AM - 12:08 PM	mg/m ³	-	0.5	<0.5	120	16	US EPA, Method 5	Rayong

Guideline : (1) Notification of the Ministry of Science, Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E.2544 (2001)
(2) Environmental Impact Assessment Report of Kiriu (Thailand) Co., Ltd.

Sampled By : Tinnakorn Kulchart

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Technical Management
Thanitak Kulsurwong
Scientist (4)
วณิชญานันท์ 3-323-9-9447

Approved by
Dej Changchua
Senior Manager
วณิชญานันท์ 3-323-9-9442

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Analysis / Test Report



TESTING
No.0042

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2224290
Date Received : Mar 16, 2022
Date Reported : Mar 23, 2022
Report Number: 2240796-1

Page 1 of 1

Sample Number	2224290-1
Sampled Date	Mar 16, 2022
Sample Description	Emission from Stationary Source
Location	Bag House Filter No. 1/4 (Dust Collector 202)
Date Analysis Commenced	Mar 17, 2022
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description		Result		Guideline		Method		Testing Location	
Analyte	Sampled Time	Unit	LOD	LOQ	(1)	(2)			
Air Testing									
Total Suspended Particulate	01:00 PM - 02:00 PM	mg/m ³	-	0.5	<0.5	120	16	US EPA, Method 5	Rayong

Guideline : (1) Notification of the Ministry of Science, Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E.2544 (2001)
(2) Environmental Impact Assessment Report of Kiriu (Thailand) Co., Ltd.

Sampled By : Tinnakorn Kulchart

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Technical Management
Thanitak Kulsurwong
Scientist (4)
วณิชญานันท์ 3-323-9-9447

Approved by
Dej Changchua
Senior Manager
วณิชญานันท์ 3-323-9-9442

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Analysis / Test Report



TESTING
No.0042

Lot ID: 2224296

Date Received : Mar 17, 2022

Date Reported : Mar 24, 2022

Report Number: 22-00832-1

Client: Kiriu (Thailand) Co., Ltd.

300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140

P/O : PO220210037

Project Name : Monitoring

Project Location :

Page 1 of 1

Sample Number 2224296-1

Sampled Date Mar 17, 2022

Sample Description Emission from Stationary Source

Location Bag House Filter No. 1/10 (Dust collector 1500)

Date Analysis Commenced Mar 18, 2022

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

Stack Description									
Ambient Pressure	756	mmHg	Diameter	1.21	m	Oxygen	20.9	%	
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	0.0	%	
Type of Process	Process		Stack Temperature	57.0	°C	Gas Velocity	14.3	m/s	
Type of Fuel	-		Moisture	2.18	%	Flow Rate (Actual O2)	52429	Nm ³ /hr	
Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Method (2)	Testing Location	

Air Testing

Total Suspended Particulate 11:10 AM - 11:58 AM mg/m³ - 0.5 <0.5 120 8 US EPA, Method 5 Rayong

Guideline : (1) Notification of the Ministry of Science Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E.2544 (2001)

(2) Environmental Impact Assessment Report of Kiriu (Thailand) Co., Ltd.

Sampled By : Suphanut Pielpan

Remark :

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Technical Management
Thanitak Kulsuriwong
Scientist (4)
โทรศัพท์ 7-323-9-9447

Approved by

Dej Changchon
Senior Manager
โทรศัพท์ 7-323-9-9442

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Analysis / Test Report



TESTING
No.0042

Lot ID: 2224291

Date Received : Mar 16, 2022

Date Reported : Mar 23, 2022

Report Number: 22-00798-1

Client: Kiriu (Thailand) Co., Ltd.

300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140

P/O : PO220210037

Project Name : Monitoring

Project Location :

Page 1 of 1

Sample Number 2224291-1

Sampled Date Mar 16, 2022

Sample Description Emission from Stationary Source

Location Bag House Filter No. 1/5 (Dust Collector 201)

Date Analysis Commenced Mar 17, 2022

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

Stack Description									
Ambient Pressure	756	mmHg	Diameter	1.16	m	Oxygen	20.9	%	
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	0.0	%	
Type of Process	Process		Stack Temperature	36.0	°C	Gas Velocity	16.5	m/s	
Type of Fuel	-		Moisture	2.90	%	Flow Rate (Actual O2)	58616	Nm ³ /hr	
Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Method (2)	Testing Location	

Air Testing

Total Suspended Particulate 02:10 PM - 03:10 PM mg/m³ - 0.5 <0.5 120 16 US EPA, Method 5 Rayong

Guideline : (1) Notification of the Ministry of Science Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E.2544 (2001)

(2) Environmental Impact Assessment Report of Kiriu (Thailand) Co., Ltd.

Sampled By : Tinnakorn Kutchat

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Technical Management
Thanitak Kulsuriwong
Scientist (4)
โทรศัพท์ 7-323-9-9447

Approved by

Dej Changchon
Senior Manager
โทรศัพท์ 7-323-9-9442

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Analysis / Test Report



TESTING
No.0042

Lot ID: 2224297

Date Received : Mar 17, 2022

Date Reported : Mar 24, 2022

Report Number: 2240635-1

Client : Kiriu (Thailand) Co., Ltd.

300/37 Moo 4, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140

P/O : PO220210037

Project Name : Monitoring

Project Location :

Page 1 of 1

Sample Number	2224297-1
Sampled Date	Mar 17, 2022
Sample Description	Emission from Stationary Source
Location	Bag House Filter No. 4/11 (Dust collector 1600)
Date Analysis Commenced	Mar 18, 2022
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description		Result		Guideline		Method		Testing Location	
Analyte	Unit	LOD	LOQ (LOR)	(1)	(2)				
Air Testing									
Total Suspended Particulate	mg/m ³	0.5	1.50	120	8	US EPA, Method 5		Rayong	

Guideline : (1) Notification of the Ministry of Science Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E. 2544 (2001)

(2) Environmental Impact Assessment Report of Kiriu (Thailand) Co., Ltd.

Sampled By : Suphanut Pisajjan

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Tharitat.

Technical Management

Tharita Kulsirirong
Scientist (4)
โทรศัพท์ 3-323-9-9447

Approved by

Tharitat.

Dej Changchon
Senior Manager
โทรศัพท์ 3-323-9-9442

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Analysis / Test Report



TESTING
No.0042

Lot ID: 2224298

Date Received : Mar 16, 2022

Date Reported : Mar 23, 2022

Report Number: 2240639-1

Client : Kiriu (Thailand) Co., Ltd.

300/37 Moo 4, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140

P/O : PO220210037

Project Name : Monitoring

Project Location :

Page 1 of 1

Sample Number	2224298-1
Sampled Date	Mar 16, 2022
Sample Description	Emission from Stationary Source
Location	Bag House Filter No. 2/1 (Dust Collector 204)
Date Analysis Commenced	Mar 17, 2022
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description		Result		Guideline		Method		Testing Location	
Analyte	Unit	LOD	LOQ (LOR)	(1)	(2)				
Air Testing									
Total Suspended Particulate	mg/m ³	0.5	1.16	120	16	US EPA, Method 5		Rayong	

Guideline : (1) Notification of the Ministry of Science Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E. 2544 (2001)

(2) Environmental Impact Assessment Report of Kiriu (Thailand) Co., Ltd.

Sampled By : Suphanut Pisajjan

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Tharitat.

Technical Management

Tharita Kulsirirong
Scientist (4)
โทรศัพท์ 3-323-9-9447

Approved by

Tharitat.

Dej Changchon
Senior Manager
โทรศัพท์ 3-323-9-9442

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Analysis / Test Report



TESTING
No.0042

Lot ID: 2224299

Date Received : Mar 16, 2022
Date Reported : Mar 23, 2022
Report Number: 2240840-1

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :

Page 1 of 1

Sample Number	2224299-1
Sampled Date	Mar 16, 2022
Sample Description	Emission from Stationary Source
Location	Bag House Filter No. 2/2 (Dust Collector 207)
Date Analysis Commenced	Mar 17, 2022
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description									
Analyte	Sampled Time	Unit	LOQ (LOR)	Result	Guideline		Method	Testing Location	
					(1)	(2)			
Ambient Pressure	756	mmHg		1.16		m	Oxygen	20.9	%
Ambient Temperature	32.0	°C		Circle			Carbon Dioxide	0.0	%
Type of Process	Process			Stack Temperature	48.0	°C	Gas Velocity	18.2	m/s
Type of Fuel	-			Moisture	2.54	%	Flow Rate (Actual O2)	63035	Nm3/hr

Air Testing	
Total Suspended Particulate	02:20 PM - 03:20 PM mg/m3 - 0.5 2.4 120 15 US EPA, Method 5

Guideline : (1) Notification of the Ministry of Science Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E. 2544 (2001)
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Sampled By : Suphanut Pitsilpan

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Technical Management
Thanita Kulsurirong
Scientist (4)
โทรศัพท์ ๖-323-๙-9447

Approved by

Dej Changchon
Senior Manager
โทรศัพท์ ๖-323-๙-9442

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Analysis / Test Report



TESTING
No.0042

Lot ID: 2224300

Date Received : Mar 16, 2022
Date Reported : Mar 23, 2022
Report Number: 2240844-1

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :

Page 1 of 1

Sample Number	2224300-1
Sampled Date	Mar 16, 2022
Sample Description	Emission from Stationary Source
Location	Bag House Filter No. 2/3 (Dust Collector 201)
Date Analysis Commenced	Mar 17, 2022
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one plastic bottle

		Stack Description									
Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline		Method	Testing Location		
						(1)	(2)				
Ambient Pressure	756	mmHg	Diameter		1.16		Oxygen		20.9	%	
Ambient Temperature	32.0	°C	Shape		Circle		Carbon Dioxide		0.0	%	
Type of Process			Stack Temperature		43.0		Gas Velocity		12.3	m/s	
Type of Fuel	-		Moisture		2.44		Flow Rate (Actual O2)		42962	Nm3/hr	

Air Testing	
Total Suspended Particulate	10:20 AM - 11:18 AM mg/m3 - 0.5 0.6 120 16 US EPA, Method 5

Guideline : (1) Notification of the Ministry of Science Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E. 2544 (2001)
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Sampled By : Suphanut Pitsilpan

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Technical Management
Thanita Kulsurirong
Scientist (4)
โทรศัพท์ ๖-323-๙-9447

Approved by

Dej Changchon
Senior Manager
โทรศัพท์ ๖-323-๙-9442

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Analysis / Test Report



TESTING
No.0042

Lot ID: 2224301

Date Received : Mar 16, 2022
Date Reported : Mar 23, 2022
Report Number: 2240849-1

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasik, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :

Page 1 of 1

Sample Number	2224301-1
Sampled Date	Mar 16, 2022
Sample Description	Emission from Stationary Source
Location	Bag House Filter No. 2/4 (Dust Collector 202)
Date Analysis Commenced	Mar 17, 2022
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description		Result		Guideline		Method		Testing Location	
Analyte	Sampled Time	Unit	LOQ (LOR)	(1)	(2)				
Ambient Pressure	756	mmHg	Diameter	0.68	m	Oxygen	20.9	%	
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	0.0	%	
Type of Process	Process	Stack Temperature	49.0	°C	Gas Velocity	15.9	m/s		
Type of Fuel	-	Moisture	2.88	%	Flow Rate (Actual O2)	18648	Nm3/hr		

Analyte	Sampled Time	Unit	LOQ (LOR)	Result	Guideline	Method	Testing Location
Air Testing							
Total Suspended Particulate	11:30 AM - 12:30 PM	mg/m3	0.5	11.9	120	16	US EPA, Method 5

Guideline : (1) Notification of the Ministry of Science Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E.2544 (2001)

(2) Environmental Impact Assessment Report of Kiriu (Thailand) Co., Ltd.

Sampled By : Suphanut Pisilpan

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

Technical Management

Tharitat.

Approved by

Dej Changchon

Senior Manager

โทรศัพท์ ๓-323-๙-9442

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ALS Reports_Air Stack_201.rpt (4.49KB)



Analysis / Test Report



TESTING
No.0042

Lot ID: 2224302

Date Received : Mar 16, 2022
Date Reported : Mar 23, 2022
Report Number: 2240852-1

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasik, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :

Page 1 of 1

Sample Number	2224302-1
Sampled Date	Mar 16, 2022
Sample Description	Emission from Stationary Source
Location	Bag House Filter No. 2/5 (Dust Collector 203)
Date Analysis Commenced	Mar 17, 2022
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description		Result		Guideline		Method		Testing Location	
Analyte	Sampled Time	Unit	LOQ (LOR)	(1)	(2)				
Ambient Pressure	756	mmHg	Diameter	0.88	m	Oxygen	20.9	%	
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	0.0	%	
Type of Process	Process	Stack Temperature	45.0	°C	Gas Velocity	11.2	m/s		
Type of Fuel	-	Moisture	2.13	%	Flow Rate (Actual O2)	22582	Nm3/hr		

Analyte	Sampled Time	Unit	LOQ (LOR)	Result	Guideline	Method	Testing Location
Air Testing							
Total Suspended Particulate	01:00 PM - 02:00 PM	mg/m3	0.5	1.5	120	16	US EPA, Method 5

Guideline : (1) Notification of the Ministry of Science Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E.2544 (2001)

(2) Environmental Impact Assessment Report of Kiriu (Thailand) Co., Ltd.

Sampled By : Suphanut Pisilpan

Remark :
- LOD : Limit of Detection
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Technical Management

Tharitat.

Approved by

Dej Changchon

Senior Manager

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Analysis / Test Report

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasi, A.Pluatdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :
TESTING
No.0042
Lot ID: 2224304
Date Received : Mar 18, 2022
Date Reported : Mar 24, 2022
Report Number: 2240657-1

Page 1 of 1

Sample Number 2224304-1
Sampled Date Mar 18, 2022
Sample Description Emission from Stationary Source
Location Bag House Filter No. 27 (Dust Collector 1500,800)
Date Analysis Commenced Mar 19, 2022
Condition of Sample Extracted into one filter paper placed in plastic petri dish and one plastic bottle

Stack Description									
Ambient Pressure	756	mmHg	Diameter	1.20	m	Oxygen	20.9	%	
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	0.0	%	
Type of Process	Process		Stack Temperature	46.0	°C	Gas Velocity	16.0	m/s	
Type of Fuel	-		Moisture	3.10	%	Flow Rate (Actual O2)	58785	Nm ³ /hr	
Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Method (2)	Testing Location	

Air Testing
Total Suspended Particulate 09:40 AM - 10:40 AM mg/m³ 0.5 <0.5 120 15 US EPA, Method 5 Rayong

Guideline : (1) Notification of the Ministry of Science Technology and Environment dated March 9, B.E. 2544 (2001), published in the Royal Government Gazette, Vol. 118 Special Part 37 dated May 8, B.E.2544 (2001)
(2) Environmental Impact Assessment Report of Kiriu (Thailand) Co., Ltd.

Sampled By : Timalorn Kuchart

Remark :

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

Technical Management *Tharitat.* Approved by *Dhamee*
Thamila Kulsurhwong Senior Manager
Scientist (4) ๖๓๒๒๒๒๒๒ ๖-๓๒๓-๙-๙๔๔๗
๖๓๒๒๒๒๒๒ ๖-๓๒๓-๙-๙๔๔๗
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คุณภาพอากาศในบรรยากาศ



Analysis / Test Report

Client: Kintu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2224500
Date Received : Mar 22, 2022
Date Reported : Mar 25, 2022
Report Number: 2240920-1

TESTING
No.0042

Page 1 of 1

Sample Description	Air Quality	Date Analysis Commenced	Condition of Sample	Sampled Date	Total Suspended Particulate (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
Location	Tagarasthazun						
Drawn Into one glass filter paper (8x10 inch) placed in plastic bag							
Sample Number							
2224500-1				Mar 14 - Mar 15, 2022	0.049	756	31
2224500-2				Mar 15 - Mar 16, 2022	0.051	756	31
2224500-3				Mar 16 - Mar 17, 2022	0.045	756	31
2224500-4				Mar 17 - Mar 18, 2022	0.059	756	30
2224500-5				Mar 18 - Mar 19, 2022	0.042	756	30
2224500-6				Mar 19 - Mar 20, 2022	0.052	756	30
2224500-7				Mar 20 - Mar 21, 2022	0.030	756	30
Guideline					0.33	-	-

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix 8

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

Sampled By : Munin Pulsiri

Thanitak

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Thanita Kulsurirong
Scientist (4)

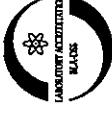
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Analysis / Test Report

Client: Kintu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2224500
Date Received : Mar 22, 2022
Date Reported : Mar 25, 2022
Report Number: 2240920-2

TESTING
No.0042

Page 1 of 1

Sample Description	Air Quality Parameter	Sampled Date	Total Suspended Particulate (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
Location	ท่าอากาศยาน	Mar 23, 2022			
Date Analysis Commenced	Mar 23, 2022				
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag				
Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)	
2224500-8	Mar 14 - Mar 15, 2022	0.047	756	31	
2224500-9	Mar 15 - Mar 16, 2022	0.052	756	31	
2224500-10	Mar 16 - Mar 17, 2022	0.051	756	31	
2224500-11	Mar 17 - Mar 18, 2022	0.043	756	30	
2224500-12	Mar 18 - Mar 19, 2022	0.045	756	30	
2224500-13	Mar 19 - Mar 20, 2022	0.073	756	30	
2224500-14	Mar 20 - Mar 21, 2022	0.036	756	30	
Guideline		0.33	-	-	

Reference Method

Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix 8

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

Sampled By : Munin Pulsiri

Thanitak

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Thanita Kulsurirong
Scientist (4)

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Analysis / Test Report

Client: Kru (Thailand) Co., Ltd.
300/37 Moo 1, T. Thasit, A. Phukdaeng, Rayong Thailand 21140
P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2224500
Date Received : Mar 22, 2022
Date Reported : Mar 25, 2022
Report Number: 2240920-3

Page 1 of 1

Sample Description	Air Quality	Location	Date Analysis Commenced	Condition of Sample	Sample Number	Sampled Date	Total Suspended particulate (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
	อากาศกลางแจ้ง		Mar 23, 2022	Drawn into one glass filter paper (8x10 inch) placed in plastic bag					
					2224500-15	Mar 14 - Mar 15, 2022	0.134	756	31
					2224500-16	Mar 15 - Mar 16, 2022	0.127	756	31
					2224500-17	Mar 16 - Mar 17, 2022	0.118	756	31
					2224500-18	Mar 17 - Mar 18, 2022	0.130	756	30
					2224500-19	Mar 18 - Mar 19, 2022	0.080	756	30
					2224500-20	Mar 19 - Mar 20, 2022	0.097	756	30
					2224500-21	Mar 20 - Mar 21, 2022	0.104	756	30
Guideline							0.33	-	-

Reference Method
Total Suspended Particulate : US EPA 40 CFR Part 50 Appendix B
Guideline : Notification of the National Environmental Board, No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Munin Pulsit

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Approved by
Thanitak.
Thanitak Kulsurimwong
Scientist (4)

ADDRESS 616/10 Moo 5 T. Maenam Kh. A. Phukdaeng Rayong 211 40 Thailand | PHONE +66 0 3304 8555 | FAX +66 0 3304 8556
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ความเร็วและทิศทางการ



Analysis / Test Report

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :

Lot ID : 2224451
Date Received : Mar 22, 2022
Date Reported : Mar 30, 2022
Report Number : 2240910-1

Page 1 of 2

Sample Number : 2224451-1 to 7
Parameter : Wind Speed / Wind Direction
Location : ต.บางกรูด อ.บ้านค่าย จ.ระยอง
Sampling Date : Mar 14 - Mar 21, 2022
Sampling by : มนีน ปุสศิริ

Time	Mar 14 - Mar 15, 2022		Mar 15 - Mar 16, 2022		Mar 16 - Mar 17, 2022		Mar 17 - Mar 18, 2022		Mar 18 - Mar 19, 2022		Mar 19 - Mar 20, 2022		Mar 20 - Mar 21, 2022										
	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)									
08:00 AM - 09:00 AM	0.0	-	0.0	-	0.3	288.0	WNW	1.9	194.0	SSW	1.4	266.0	W	0.0	-	1.2	173.0	S					
09:00 AM - 10:00 AM	0.0	-	0.0	-	0.0	-	1.7	264.0	W	1.4	151.0	SSE	1.2	240.0	WSW	0.9	161.0	SSE	0.0	-			
10:00 AM - 11:00 AM	0.0	-	0.1	-	0.2	-	0.2	-	1.9	163.0	SSE	1.6	255.0	WSW	0.6	240.0	WSW	0.0	-	-			
11:00 AM - 12:00 PM	0.1	-	0.2	-	1.0	202.0	SSW	1.3	163.0	SSE	1.3	288.0	WNW	1.2	198.0	SSW	0.9	169.0	S	-			
12:00 PM - 01:00 PM	1.2	15.0	NNE	1.0	262.0	W	0.0	-	0.9	162.0	SSE	1.0	293.0	WNW	0.4	209.0	SSW	1.5	169.0	S	-		
01:00 PM - 02:00 PM	0.2	-	1.2	287.0	WNW	0.7	221.0	SW	0.0	-	0.0	-	0.7	251.0	WSW	0.2	-	-	-	-			
02:00 PM - 03:00 PM	0.0	-	0.0	-	1.2	204.0	SSW	0.5	227.0	SW	0.6	199.0	SSW	1.6	288.0	WNW	0.0	-	-	-			
03:00 PM - 04:00 PM	0.3	177.0	S	0.0	-	0.6	226.0	SW	0.4	227.0	SW	0.0	-	0.9	264.0	W	0.0	-	-	-			
04:00 PM - 05:00 PM	0.4	158.0	SSE	0.2	-	0.5	229.0	SW	0.0	-	0.7	216.0	SW	1.7	288.0	WNW	0.2	-	-	-			
05:00 PM - 06:00 PM	0.0	-	1.0	254.0	WSW	1.4	237.0	WSW	1.3	291.0	WNW	0.0	-	1.2	202.0	SSW	1.0	239.0	WSW	-			
06:00 PM - 07:00 PM	1.0	187.0	S	0.6	267.0	W	0.0	-	0.8	15.0	NNE	0.4	262.0	W	1.0	250.0	WSW	1.0	239.0	WSW	-		
07:00 PM - 08:00 PM	0.4	190.0	S	0.7	262.0	W	1.0	238.0	WSW	0.8	11.0	N	2.6	287.0	WNW	0.5	256.0	WSW	0.3	242.0	WSW	-	
08:00 PM - 09:00 PM	1.0	186.0	S	0.5	282.0	WNW	0.4	295.0	WNW	1.4	231.0	NNE	1.3	287.0	WNW	0.5	290.0	WNW	0.0	-	-		
09:00 PM - 10:00 PM	2.0	214.0	SW	1.9	284.0	WNW	1.0	293.0	WNW	0.9	177.0	S	0.0	-	0.0	-	0.5	127.0	SE	-	-		
10:00 PM - 11:00 PM	0.6	222.0	SW	1.4	217.0	SW	2.0	240.0	WSW	0.0	-	0.4	257.0	WSW	1.2	251.0	WSW	0.8	182.0	S	-		
11:00 PM - 12:00 AM	1.2	189.0	S	1.9	236.0	SW	0.6	285.0	WNW	0.9	130.0	SE	0.0	-	0.2	-	0.0	-	-	-	-		
12:00 AM - 01:00 AM	0.5	258.0	WSW	1.3	221.0	SE	3.4	187.0	S	0.7	267.0	W	1.4	240.0	WSW	0.3	232.0	SW	-	-	-		
01:00 AM - 02:00 AM	0.8	174.0	S	0.9	208.0	SSW	0.5	134.0	SE	0.9	190.0	S	0.7	262.0	W	0.0	-	0.0	-	-	-		
02:00 AM - 03:00 AM	0.2	-	0.0	-	0.8	172.0	S	0.9	186.0	S	0.9	186.0	S	1.1	282.0	WNW	0.6	296.0	WNW	0.3	319.0	NW	-
03:00 AM - 04:00 AM	0.0	-	0.5	161.0	SSE	0.2	-	1.6	214.0	SW	1.6	284.0	WNW	1.0	265.0	W	0.7	282.0	WNW	-	-	-	
04:00 AM - 05:00 AM	0.2	-	0.4	240.0	WSW	0.0	-	0.0	-	2.2	217.0	SW	0.1	-	1.0	304.0	NW	-	-	-	-		
05:00 AM - 06:00 AM	1.0	288.0	WNW	0.0	-	0.6	12.0	NNE	1.1	189.0	S	0.8	236.0	SW	1.0	198.0	SSW	1.0	200	NNE	-	-	
06:00 AM - 07:00 AM	1.8	293.0	WNW	0.2	-	0.7	297.0	WNW	1.7	258.0	WSW	0.7	221.0	SW	1.0	212.0	SSW	1.3	206.0	SSW	-	-	
07:00 AM - 08:00 AM	0.0	-	1.0	251.0	WSW	0.5	202.0	S	0.5	208.0	SSW	1.1	178.0	W	0.7	231.0	SSW	1.7	231.0	SSW	-	-	

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Saranyuth Jitranont
Assistant General Manager

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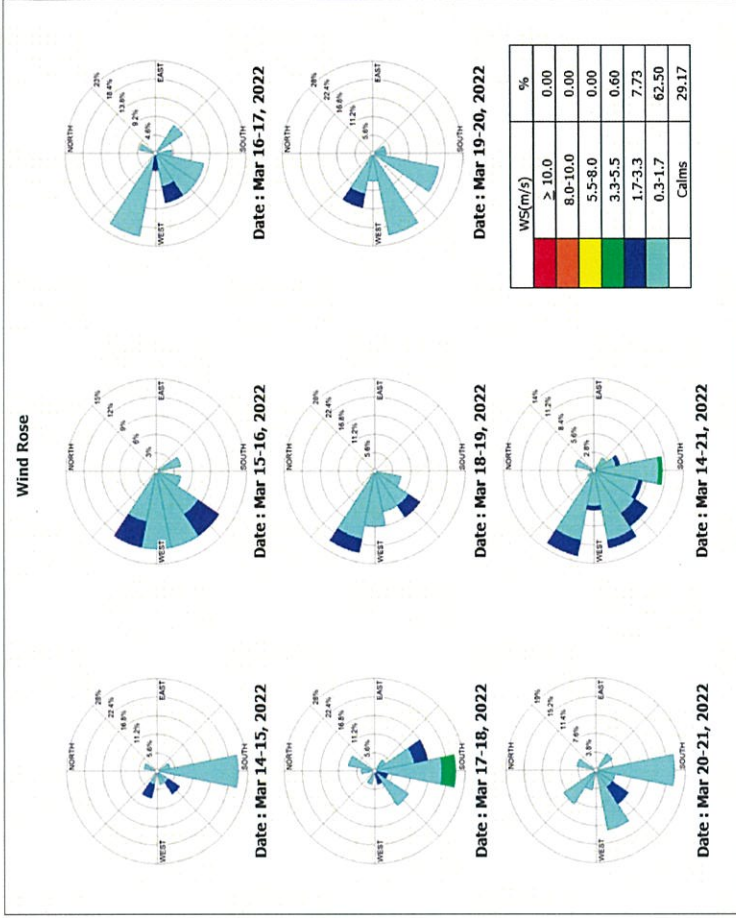


Analysis / Test Report

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :

Lot ID : 2224451
Date Received : Mar 22, 2022
Date Reported : Mar 30, 2022
Report Number : 2240910-1

Page 2 of 2



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Saranyuth Jitranont
Assistant General Manager

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Analysis / Test Report

TESTING
No.0042

Client: Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :
Lot ID: 2224504
Date Received : Mar 22, 2022
Date Reported : Mar 25, 2022
Report Number: 2269999-1

Page 1 of 1

Sample Number	2224504-1		
Parameter	Noise (Leq 24 hrs.)		
Location	จุดวัดเสียงด้านขวา		
Measurement Date	Mar 15 - Mar 16, 2022		
Measurement by	Munin Putsiri		
Sound Level meter	Serial No. 1122567		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	64.2	86.3	60.9
10:00 AM - 11:00 AM	64.5	85.2	61.2
11:00 AM - 12:00 PM	63.6	91.6	61.2
12:00 PM - 01:00 PM	63.5	91.0	61.2
01:00 PM - 02:00 PM	64.0	83.6	61.9
02:00 PM - 03:00 PM	66.1	86.3	63.8
03:00 PM - 04:00 PM	65.4	82.3	63.6
04:00 PM - 05:00 PM	64.4	82.4	62.3
05:00 PM - 06:00 PM	63.3	84.0	60.5
06:00 PM - 07:00 PM	62.3	85.1	60.4
07:00 PM - 08:00 PM	63.7	82.4	62.6
08:00 PM - 09:00 PM	64.8	82.5	63.5
09:00 PM - 10:00 PM	64.8	82.7	63.4
10:00 PM - 11:00 PM	65.3	82.4	63.5
11:00 PM - 12:00 AM	65.7	85.4	63.8
12:00 AM - 01:00 AM	66.0	85.3	63.9
01:00 AM - 02:00 AM	66.2	83.6	64.1
02:00 AM - 03:00 AM	65.5	82.2	63.6
03:00 AM - 04:00 AM	62.7	84.9	61.1
04:00 AM - 05:00 AM	62.2	79.6	61.1
05:00 AM - 06:00 AM	64.5	88.2	61.8
06:00 AM - 07:00 AM	65.5	82.7	63.6
07:00 AM - 08:00 AM	64.7	83.2	63.4
08:00 AM - 09:00 AM	64.4	84.1	63.0

Supt S

Thanitak

Approved by

Technical Management

Support Salimiah
Scientist (4)

Thantia Kulsurivong
Scientist (4)

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S:\Reports\AL Noise\pt (10-564P)



Analysis / Test Report

TESTING
No.0042

Client: Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :
Lot ID: 2224504
Date Received : Mar 22, 2022
Date Reported : Apr 04, 2022
Report Number: 2269000-1

Page 1 of 1

Sample Number	2224504-2			
Parameter	Noise (Leq 24 hrs.)			
Location	จุดวัดเสียงด้านขวา			
Measurement Date	Mar 16 - Mar 17, 2022			
Measurement by	Nunin Putsiri			
Sound Level meter	Serial No. 1122567			
	Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
	09:00 AM - 10:00 AM	63.7	82.7	62.9
	10:00 AM - 11:00 AM	65.0	84.1	63.4
	11:00 AM - 12:00 PM	65.7	86.9	63.7
	12:00 PM - 01:00 PM	65.4	85.7	63.6
	01:00 PM - 02:00 PM	65.1	84.9	63.9
	02:00 PM - 03:00 PM	65.6	86.8	64.0
	03:00 PM - 04:00 PM	65.6	89.1	63.2
	04:00 PM - 05:00 PM	63.5	90.5	61.2
	05:00 PM - 06:00 PM	63.4	89.2	60.9
	06:00 PM - 07:00 PM	62.2	82.7	61.1
	07:00 PM - 08:00 PM	65.1	83.4	63.3
	08:00 PM - 09:00 PM	65.0	83.2	63.2
	09:00 PM - 10:00 PM	65.1	82.4	63.3
	10:00 PM - 11:00 PM	65.2	81.8	63.3
	11:00 PM - 12:00 AM	64.9	83.5	63.2
	12:00 AM - 01:00 AM	64.9	85.2	63.6
	01:00 AM - 02:00 AM	65.4	84.4	63.4
	02:00 AM - 03:00 AM	65.2	83.4	63.4
	03:00 AM - 04:00 AM	64.4	83.1	63.1
	04:00 AM - 05:00 AM	64.3	81.3	63.0
	05:00 AM - 06:00 AM	65.7	89.1	63.5
	06:00 AM - 07:00 AM	65.5	84.1	63.6
	07:00 AM - 08:00 AM	65.6	89.7	63.7
	08:00 AM - 09:00 AM	65.3	88.3	63.3

Thanitak

Supt S

Approved by

Technical Management

Thantia Kulsurivong
Scientist (4)

Support Salimiah
Section Head

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S:\Reports\AL Noise\pt (11-16AM)



Analysis / Test Report



Client: Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2224504
Date Received : Mar 22, 2022
Date Reported : Apr 04, 2022
Report Number: 2269901-1

Page 1 of 1

Sample Number	2224504-3
Parameter	Noise (Leq 24 hrs.)
Location	พื้นที่โรงงานผลิต
Measurement Date	Mar 17 - Mar 18, 2022
Measurement by	Minita Pulit
Sound Level meter	Serial No. 1122567

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	64.6	77.0	63.3
10:00 AM - 11:00 AM	65.4	83.0	63.4
11:00 AM - 12:00 PM	65.4	88.0	63.2
12:00 PM - 01:00 PM	65.4	81.6	63.5
01:00 PM - 02:00 PM	62.7	81.0	62.0
02:00 PM - 03:00 PM	62.7	89.5	60.8
03:00 PM - 04:00 PM	62.3	79.6	61.0
04:00 PM - 05:00 PM	61.7	85.4	60.5
05:00 PM - 06:00 PM	63.9	86.0	62.9
06:00 PM - 07:00 PM	64.3	86.2	62.9
07:00 PM - 08:00 PM	65.0	85.8	63.3
08:00 PM - 09:00 PM	65.8	83.9	63.8
09:00 PM - 10:00 PM	65.8	91.2	63.7
10:00 PM - 11:00 PM	65.5	82.5	63.5
11:00 PM - 12:00 AM	64.8	86.2	63.3
12:00 AM - 01:00 AM	65.1	89.7	63.1
01:00 AM - 02:00 AM	63.9	80.9	62.9
02:00 AM - 03:00 AM	64.4	82.7	63.2
03:00 AM - 04:00 AM	64.3	81.9	63.1
04:00 AM - 05:00 AM	64.4	83.7	63.0
05:00 AM - 06:00 AM	63.6	83.4	62.7
06:00 AM - 07:00 AM	63.7	76.7	62.9
07:00 AM - 08:00 AM	64.8	86.6	63.2
08:00 AM - 09:00 AM	64.4		

Leq Average 24 hrs. (dB(A))	64.4
Lmax (dB(A))	91.2
L90 (dB(A))	63.1
L10 (dB(A))	71.0
Standard (dB(A))	70

Reference Method : ISO 1996-1 and 1996-2
Standard : 1. ใช้มาตรฐานค่าเสียงรบกวนในเวลากลางคืน 15 (พ.ร. 2540) สำหรับโรงงานอุตสาหกรรม
2. ใช้มาตรฐานค่าเสียงรบกวนในเวลากลางวันและกลางคืน 15 (พ.ร. 2540) สำหรับโรงงานอุตสาหกรรม

วันที่ พ.ศ. 2568

Tharitat.

Approved by

Thantia Kulurwong
Scientist (4)

Support Scientist

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S.Vegaporn_Air Noise.pdf (11:18AM)



Analysis / Test Report



Client: Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2224504
Date Received : Mar 22, 2022
Date Reported : Apr 04, 2022
Report Number: 2269902-1

Page 1 of 1

Sample Number	2224504-4
Parameter	Noise (Leq 24 hrs.)
Location	พื้นที่โรงงานผลิต
Measurement Date	Mar 15 - Mar 16, 2022
Measurement by	Minita Pulit
Sound Level meter	Serial No. 509355

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	60.4	83.8	58.7
10:00 AM - 11:00 AM	60.2	77.7	58.3
11:00 AM - 12:00 PM	60.5	81.8	58.7
12:00 PM - 01:00 PM	59.6	80.3	58.4
01:00 PM - 02:00 PM	63.5	93.3	58.9
02:00 PM - 03:00 PM	59.9	84.4	57.5
03:00 PM - 04:00 PM	58.0	77.7	55.9
04:00 PM - 05:00 PM	57.5	86.1	55.6
05:00 PM - 06:00 PM	61.6	82.5	56.8
06:00 PM - 07:00 PM	64.6	87.5	61.2
07:00 PM - 08:00 PM	59.3	74.2	58.3
08:00 PM - 09:00 PM	63.3	85.6	61.1
09:00 PM - 10:00 PM	55.4	80.1	53.9
10:00 PM - 11:00 PM	52.3	69.7	50.8
11:00 PM - 12:00 AM	54.1	81.2	51.7
12:00 AM - 01:00 AM	56.1	76.0	54.4
01:00 AM - 02:00 AM	58.0	89.6	55.2
02:00 AM - 03:00 AM	58.3	91.1	55.2
03:00 AM - 04:00 AM	57.9	81.0	56.2
04:00 AM - 05:00 AM	63.5	92.4	58.2
05:00 AM - 06:00 AM	62.0	87.7	57.9
06:00 AM - 07:00 AM	61.2	79.2	58.3
07:00 AM - 08:00 AM	62.4	81.0	58.8
08:00 AM - 09:00 AM	60.2	80.7	58.0

Leq Average 24 hrs. (dB(A))	60.5
Lmax (dB(A))	93.3
L90 (dB(A))	58.0
L10 (dB(A))	66.1
Standard (dB(A))	70

Reference Method : ISO 1996-1 and 1996-2
Standard : 1. ใช้มาตรฐานค่าเสียงรบกวนในเวลากลางคืน 15 (พ.ร. 2540) สำหรับโรงงานอุตสาหกรรม
2. ใช้มาตรฐานค่าเสียงรบกวนในเวลากลางวันและกลางคืน 15 (พ.ร. 2540) สำหรับโรงงานอุตสาหกรรม

วันที่ พ.ศ. 2568

Tharitat.

Approved by

Thantia Kulurwong
Scientist (4)

Support Scientist

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Analysis / Test Report

Client: Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2224504
Date Received : Mar 22, 2022
Date Reported : Apr 04, 2022
Report Number: 2269003-1

Page 1 of 1

Sample Number	2224504-5		
Parameter	Noise (Leq 24 hrs.)		
Location	จุดวัดถนนหน้า		
Measurement Date	Mar 16 - Mar 17, 2022		
Measurement by	Munin Puihit		
Sound Level meter	Serial No. 509355		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	63.5	89.9	60.5
10:00 AM - 11:00 AM	58.9	80.2	56.6
11:00 AM - 12:00 PM	62.4	90.8	58.7
12:00 PM - 01:00 PM	61.7	86.5	58.4
01:00 PM - 02:00 PM	60.9	80.2	56.8
02:00 PM - 03:00 PM	60.1	79.9	57.5
03:00 PM - 04:00 PM	61.4	79.3	59.0
04:00 PM - 05:00 PM	60.3	79.7	57.5
05:00 PM - 06:00 PM	58.0	79.8	56.2
06:00 PM - 07:00 PM	57.8	76.9	56.0
07:00 PM - 08:00 PM	62.1	71.7	60.0
08:00 PM - 09:00 PM	60.5	81.3	58.2
09:00 PM - 10:00 PM	61.8	86.3	58.5
10:00 PM - 11:00 PM	61.6	84.5	58.6
11:00 PM - 12:00 AM	64.0	86.8	60.1
12:00 AM - 01:00 AM	61.4	86.5	58.9
01:00 AM - 02:00 AM	60.5	82.0	58.5
02:00 AM - 03:00 AM	63.1	87.7	58.9
03:00 AM - 04:00 AM	60.8	78.8	58.9
04:00 AM - 05:00 AM	60.0	77.2	58.4
05:00 AM - 06:00 AM	61.9	74.9	59.7
06:00 AM - 07:00 AM	59.0	75.6	58.1
07:00 AM - 08:00 AM	60.2	84.5	58.1
08:00 AM - 09:00 AM	58.9	76.2	57.9

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Approved by

Supot Salameh

Scientist (4)

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S.Vopont_Air Noise.pdf (11:16AM)



Analysis / Test Report

Client: Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2224504
Date Received : Mar 22, 2022
Date Reported : Apr 04, 2022
Report Number: 2269004-1

Page 1 of 1

Sample Number	2224504-6		
Parameter	Noise (Leq 24 hrs.)		
Location	จุดวัดถนนหน้า		
Measurement Date	Mar 17 - Mar 18, 2022		
Measurement by	Munin Puihit		
Sound Level meter	Serial No. 509355		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	59.8	82.0	57.9
10:00 AM - 11:00 AM	59.3	67.1	58.6
11:00 AM - 12:00 PM	65.3	90.5	60.0
12:00 PM - 01:00 PM	62.8	86.8	59.1
01:00 PM - 02:00 PM	60.5	84.9	58.4
02:00 PM - 03:00 PM	59.7	79.8	57.9
03:00 PM - 04:00 PM	63.3	84.6	59.9
04:00 PM - 05:00 PM	56.7	68.8	55.9
05:00 PM - 06:00 PM	57.8	81.8	56.1
06:00 PM - 07:00 PM	57.2	76.6	56.4
07:00 PM - 08:00 PM	57.7	79.3	56.0
08:00 PM - 09:00 PM	58.2	83.3	55.9
09:00 PM - 10:00 PM	56.6	69.3	55.6
10:00 PM - 11:00 PM	61.0	81.2	57.0
11:00 PM - 12:00 AM	60.2	85.5	56.7
12:00 AM - 01:00 AM	59.7	78.8	57.1
01:00 AM - 02:00 AM	61.5	76.3	59.1
02:00 AM - 03:00 AM	62.3	78.5	58.6
03:00 AM - 04:00 AM	62.1	81.0	56.6
04:00 AM - 05:00 AM	59.4	77.4	56.5
05:00 AM - 06:00 AM	62.8	82.7	59.4
06:00 AM - 07:00 AM	64.3	87.9	60.7
07:00 AM - 08:00 AM	61.0	85.4	58.3
08:00 AM - 09:00 AM	62.7	91.0	59.0

Tharitat.

Approved by

Supot Salameh

Scientist (4)

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2224504

Date Received : Mar 22, 2022
Date Reported : Apr 04, 2022
Report Number: 2289005-1



Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :

Page 1 of 1

Sample Number	2224504-7
Parameter	Noise (Leq 24 hrs.)
Location	จุดรับสัญญาณ ฝั่งสวน
Measurement Date	Mar 15 - Mar 16, 2022
Measurement by	Munin Palsiri
Sound Level meter	Serial No. 1122578

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	61.9	96.6	56.9
10:00 AM - 11:00 AM	62.6	85.5	59.2
11:00 AM - 12:00 PM	57.3	72.2	56.3
12:00 PM - 01:00 PM	60.2	86.3	56.1
01:00 PM - 02:00 PM	61.3	90.4	56.2
02:00 PM - 03:00 PM	58.9	77.2	56.7
03:00 PM - 04:00 PM	60.1	79.0	56.3
04:00 PM - 05:00 PM	62.5	87.9	59.1
05:00 PM - 06:00 PM	59.1	78.2	56.3
06:00 PM - 07:00 PM	56.6	75.7	53.7
07:00 PM - 08:00 PM	55.8	84.1	59.1
08:00 PM - 09:00 PM	55.9	76.4	52.4
09:00 PM - 10:00 PM	61.3	83.6	59.1
10:00 PM - 11:00 PM	54.3	64.3	49.3
11:00 PM - 12:00 AM	50.6	79.2	49.5
12:00 AM - 01:00 AM	52.0	74.0	51.8
01:00 AM - 02:00 AM	53.5	87.6	53.1
02:00 AM - 03:00 AM	55.9	89.1	53.3
03:00 AM - 04:00 AM	56.5	88.6	53.5
04:00 AM - 05:00 AM	54.3	79.0	39.2
05:00 AM - 06:00 AM	63.0	76.0	54.0
06:00 AM - 07:00 AM	57.4	77.3	56.0
07:00 AM - 08:00 AM	56.9	85.9	56.0
08:00 AM - 09:00 AM	63.3	85.9	59.4
Leq Average 24 hrs. (dB(A))	59.3		
Lmax (dB(A))	96.6		
L90 (dB(A))			56.0
L01 (dB(A))	64.0		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. มาตรฐานการควบคุมเสียงรบกวนภายในอาคาร 25 (พ.ศ. 2540) สำหรับอาคารประเภทที่พักอาศัย
2. มาตรฐานการควบคุมเสียงรบกวนภายนอกอาคาร 25 (พ.ศ. 2540) สำหรับอาคารประเภทที่พักอาศัย

Technical Management
Tharitat K.

Approved by

Supot Salameh
Section Head

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Analysis / Test Report

TESTING
No.0042

Lot ID: 2224504

Date Received : Mar 22, 2022
Date Reported : Apr 04, 2022
Report Number: 2289006-1



Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :

Page 1 of 1

Sample Number	2224504-8
Parameter	Noise (Leq 24 hrs.)
Location	จุดรับสัญญาณ ฝั่งสวน
Measurement Date	Mar 16 - Mar 17, 2022
Measurement by	Munin Palsiri
Sound Level meter	Serial No. 1122578

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	58.6	81.0	56.3
10:00 AM - 11:00 AM	60.6	89.0	57.1
11:00 AM - 12:00 PM	58.2	77.7	56.2
12:00 PM - 01:00 PM	59.1	80.0	56.7
01:00 PM - 02:00 PM	61.4	91.3	56.7
02:00 PM - 03:00 PM	62.0	84.8	58.2
03:00 PM - 04:00 PM	59.1	77.8	56.8
04:00 PM - 05:00 PM	58.6	80.0	56.4
05:00 PM - 06:00 PM	61.5	85.7	57.1
06:00 PM - 07:00 PM	58.5	81.8	56.7
07:00 PM - 08:00 PM	58.0	75.7	56.7
08:00 PM - 09:00 PM	58.2	75.7	56.3
09:00 PM - 10:00 PM	58.5	79.8	56.7
10:00 PM - 11:00 PM	58.0	75.2	56.4
11:00 PM - 12:00 AM	61.7	76.4	60.1
12:00 AM - 01:00 AM	57.0	73.6	56.1
01:00 AM - 02:00 AM	58.2	82.5	56.1
02:00 AM - 03:00 AM	56.9	74.2	55.9
03:00 AM - 04:00 AM	57.8	80.0	55.9
04:00 AM - 05:00 AM	57.3	65.1	56.6
05:00 AM - 06:00 AM	63.3	88.5	58.0
06:00 AM - 07:00 AM	60.8	84.8	57.6
07:00 AM - 08:00 AM	59.3	76.5	56.6
08:00 AM - 09:00 AM	60.5	88.8	56.7
Leq Average 24 hrs. (dB(A))	59.7		
Lmax (dB(A))	91.3		
L90 (dB(A))			56.7
L01 (dB(A))	66.0		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. มาตรฐานการควบคุมเสียงรบกวนภายในอาคาร 25 (พ.ศ. 2540) สำหรับอาคารประเภทที่พักอาศัย
2. มาตรฐานการควบคุมเสียงรบกวนภายนอกอาคาร 25 (พ.ศ. 2540) สำหรับอาคารประเภทที่พักอาศัย

Technical Management
Tharitat K.

Approved by

Supot Salameh
Section Head

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Analysis / Test Report

Client: Kinnu (Thailand) Co., Ltd.
300/37 Moo 1, T. Thasit, A. Phukdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :
Lot ID: 2224504
Date Received : Mar 22, 2022
Date Reported : Apr 04, 2022
Report Number: 2269007-1

Page 1 of 1

Sample Number	2224504-9
Parameter	Noise (Leq 24 hrs.)
Location	จุดวัดเสียงด้านหน้า
Measurement Date	Mar 17 - Mar 18, 2022
Measurement by	Munin Pulsiri
Sound Level meter	Serial No. 1122578

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	59.5	84.5	56.3
10:00 AM - 11:00 AM	59.1	78.2	56.8
11:00 AM - 12:00 PM	60.6	78.2	58.5
12:00 PM - 01:00 PM	58.3	79.3	56.1
01:00 PM - 02:00 PM	59.7	82.3	56.5
02:00 PM - 03:00 PM	59.0	84.3	56.5
03:00 PM - 04:00 PM	60.3	82.9	56.4
04:00 PM - 05:00 PM	57.4	74.4	56.3
05:00 PM - 06:00 PM	60.1	77.8	57.3
06:00 PM - 07:00 PM	59.6	82.6	56.6
07:00 PM - 08:00 PM	57.7	83.5	54.8
08:00 PM - 09:00 PM	57.3	76.8	54.8
09:00 PM - 10:00 PM	56.0	77.8	54.2
10:00 PM - 11:00 PM	55.8	74.9	54.0
11:00 PM - 12:00 AM	54.3	66.8	53.5
12:00 AM - 01:00 AM	55.8	79.8	54.1
01:00 AM - 02:00 AM	55.2	74.6	54.4
02:00 AM - 03:00 AM	55.7	77.3	54.0
03:00 AM - 04:00 AM	56.2	81.3	53.9
04:00 AM - 05:00 AM	54.6	67.3	53.6
05:00 AM - 06:00 AM	61.2	79.2	54.9
06:00 AM - 07:00 AM	57.7	82.2	54.9
07:00 AM - 08:00 AM	59.1	77.9	56.4
08:00 AM - 09:00 AM	59.4	77.7	56.8
Leq Average 24 hrs. (dB(A))	58.3		
Lmax (dB(A))	84.5		54.9
L90 (dB(A))	63.6		
Ltn (dB(A))	70		
Standard (dB(A))		115	

Reference Method : ISO 1996-1 and 1996-2
Standard : 1. อัตราค่าการรบกวนเสียงตามเกณฑ์มาตรฐานฉบับที่ 15 (พ.ศ. 2540) สำหรับอาคารประเภทที่ 1 (พ.ศ. 2540)
2. อัตราค่าการรบกวนเสียงตามเกณฑ์มาตรฐานฉบับที่ 15 (พ.ศ. 2540) สำหรับอาคารประเภทที่ 2 (พ.ศ. 2540)

Tharitat.

Approved by

Supot Salumthit

Section Head

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4489-23/EMAIL

S:\Reports_Air Noise.rpt (11:19AM)



Analysis / Test Report

Client: Kinnu (Thailand) Co., Ltd.
300/37 Moo 1, T. Thasit, A. Phukdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :
Lot ID: 2224504
Date Received : Mar 22, 2022
Date Reported : Apr 04, 2022
Report Number: 2269008-1

Page 1 of 1

Sample Number	2224504-10
Parameter	Noise (Leq 24 hrs.)
Location	จุดวัดเสียงด้านหน้า
Measurement Date	Mar 15 - Mar 16, 2022
Measurement by	Munin Pulsiri
Sound Level meter	Serial No. 1122579

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	64.3	84.5	61.1
10:00 AM - 11:00 AM	62.9	85.6	60.9
11:00 AM - 12:00 PM	62.0	79.2	60.7
12:00 PM - 01:00 PM	65.4	86.8	61.8
01:00 PM - 02:00 PM	64.4	85.7	61.5
02:00 PM - 03:00 PM	64.4	92.1	61.7
03:00 PM - 04:00 PM	63.8	84.1	61.7
04:00 PM - 05:00 PM	63.5	83.5	61.7
05:00 PM - 06:00 PM	63.3	85.4	61.7
06:00 PM - 07:00 PM	63.2	83.1	61.2
07:00 PM - 08:00 PM	66.3	88.7	63.7
08:00 PM - 09:00 PM	64.9	83.1	63.8
09:00 PM - 10:00 PM	65.4	84.6	63.9
10:00 PM - 11:00 PM	64.4	83.2	63.4
11:00 PM - 12:00 AM	64.6	80.3	63.4
12:00 AM - 01:00 AM	65.6	84.6	63.9
01:00 AM - 02:00 AM	65.0	83.0	64.0
02:00 AM - 03:00 AM	65.5	83.2	63.9
03:00 AM - 04:00 AM	65.0	82.9	63.8
04:00 AM - 05:00 AM	65.3	77.9	64.2
05:00 AM - 06:00 AM	66.4	85.9	64.4
06:00 AM - 07:00 AM	66.4	84.1	64.5
07:00 AM - 08:00 AM	66.5	83.2	64.5
08:00 AM - 09:00 AM	66.2	84.6	64.2
Leq Average 24 hrs. (dB(A))	64.9		
Lmax (dB(A))	92.1		63.6
L90 (dB(A))	71.7		
Ltn (dB(A))	70		
Standard (dB(A))		115	

Reference Method : ISO 1996-1 and 1996-2
Standard : 1. อัตราค่าการรบกวนเสียงตามเกณฑ์มาตรฐานฉบับที่ 15 (พ.ศ. 2540) สำหรับอาคารประเภทที่ 1 (พ.ศ. 2540)
2. อัตราค่าการรบกวนเสียงตามเกณฑ์มาตรฐานฉบับที่ 15 (พ.ศ. 2540) สำหรับอาคารประเภทที่ 2 (พ.ศ. 2540)

Tharitat.

Approved by

Supot Salumthit

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Analysis / Test Report

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
TESTING
No.0042
Lot ID: 2224504
Date Received : Mar 22, 2022
Date Reported : Apr 04, 2022
Report Number: 2269009-1

Sample Number	2224504-11		
Parameter	Noise (Leq 24 hrs.)		
Location	หน้าโรงงาน ฟาร์มสวน		
Measurement Date	Mar 16 - Mar 17, 2022		
Measurement by	Munin Pulsin		
Sound Level meter	Serial No. 1122579		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	66.2	90.2	64.1
10:00 AM - 11:00 AM	68.8	88.8	63.8
11:00 AM - 12:00 PM	65.2	79.1	63.8
12:00 PM - 01:00 PM	65.9	85.0	63.9
01:00 PM - 02:00 PM	66.8	88.5	63.7
02:00 PM - 03:00 PM	66.0	82.1	64.1
03:00 PM - 04:00 PM	66.3	87.4	64.3
04:00 PM - 05:00 PM	65.9	86.2	64.1
05:00 PM - 06:00 PM	65.6	85.4	64.4
06:00 PM - 07:00 PM	66.1	87.3	64.5
07:00 PM - 08:00 PM	66.1	89.6	63.7
08:00 PM - 09:00 PM	64.0	91.0	61.7
09:00 PM - 10:00 PM	63.9	89.7	61.4
10:00 PM - 11:00 PM	63.2	83.2	61.3
11:00 PM - 12:00 AM	61.9	75.8	61.1
12:00 AM - 01:00 AM	63.5	84.6	61.4
01:00 AM - 02:00 AM	63.1	90.0	61.3
02:00 AM - 03:00 AM	62.9	85.9	61.2
03:00 AM - 04:00 AM	62.5	73.5	61.6
04:00 AM - 05:00 AM	65.7	86.7	63.9
05:00 AM - 06:00 AM	65.7	84.6	63.9
06:00 AM - 07:00 AM	66.4	91.7	64.2
07:00 AM - 08:00 AM	66.0	83.0	64.2
08:00 AM - 09:00 AM	65.8	86.7	63.9

Reference Method : ISO 1996-1 and 1996-2
Standard : 1. ปริมาณการรบกวนเสียงตามเกณฑ์มาตรฐาน 15 (พ.ร.บ. 2540) ค่ากำหนดการรบกวนเสียงตามเกณฑ์
2. ปริมาณการรบกวนเสียงตามเกณฑ์มาตรฐาน 15 (พ.ร.บ. 2540) ค่ากำหนดการรบกวนเสียงตามเกณฑ์มาตรฐาน
Tasana M. 2548

Tharitat.

Approved by

Supot Salameh

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Analysis / Test Report

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
TESTING
No.0042
Lot ID: 2224504
Date Received : Mar 22, 2022
Date Reported : Apr 04, 2022
Report Number: 2269010-1

Sample Number	2224504-12		
Parameter	Noise (Leq 24 hrs.)		
Location	หน้าโรงงาน ฟาร์มสวน		
Measurement Date	Mar 17 - Mar 18, 2022		
Measurement by	Munin Palsin		
Sound Level meter	Serial No. 1122579		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	65.2	84.1	63.7
10:00 AM - 11:00 AM	65.3		63.5
11:00 AM - 12:00 PM	64.3	78.9	63.2
12:00 PM - 01:00 PM	65.6	83.9	63.8
01:00 PM - 02:00 PM	65.5	83.7	63.7
02:00 PM - 03:00 PM	65.4	81.9	63.7
03:00 PM - 04:00 PM	65.9	82.9	63.8
04:00 PM - 05:00 PM	65.4	84.0	63.7
05:00 PM - 06:00 PM	65.3	84.9	64.1
06:00 PM - 07:00 PM	65.7	85.2	63.9
07:00 PM - 08:00 PM	65.9	85.7	64.0
08:00 PM - 09:00 PM	65.0	83.6	63.6
09:00 PM - 10:00 PM	64.9	82.8	63.4
10:00 PM - 11:00 PM	64.3	84.2	63.1
11:00 PM - 12:00 AM	64.2	77.2	63.4
12:00 AM - 01:00 AM	65.2	87.1	63.7
01:00 AM - 02:00 AM	64.7	83.2	63.5
02:00 AM - 03:00 AM	65.1	82.4	63.8
03:00 AM - 04:00 AM	64.5	80.2	63.5
04:00 AM - 05:00 AM	64.9	83.7	63.7
05:00 AM - 06:00 AM	66.3	89.6	64.1
06:00 AM - 07:00 AM	66.3	86.8	64.1
07:00 AM - 08:00 AM	66.0	83.8	64.2
08:00 AM - 09:00 AM	65.8	82.8	64.0

Reference Method : ISO 1996-1 and 1996-2
Standard : 1. ปริมาณการรบกวนเสียงตามเกณฑ์มาตรฐาน 15 (พ.ร.บ. 2540) ค่ากำหนดการรบกวนเสียงตามเกณฑ์
2. ปริมาณการรบกวนเสียงตามเกณฑ์มาตรฐาน 15 (พ.ร.บ. 2540) ค่ากำหนดการรบกวนเสียงตามเกณฑ์มาตรฐาน
Tasana M. 2548

Tharitat.

Approved by

Supot Salameh

Section Head

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เส้นระดับเสียง (Noise Contour Map)



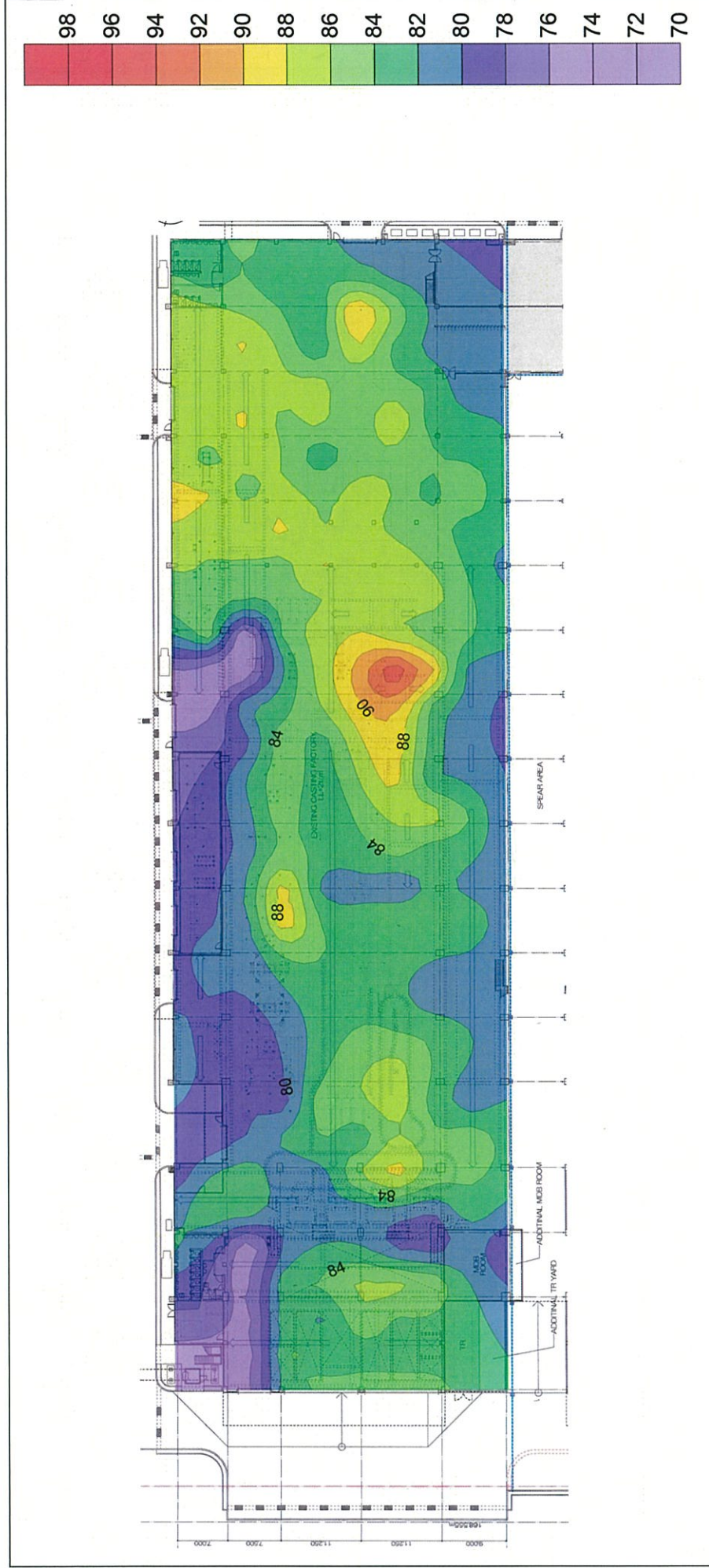
Noise Contour Map

Kiriu (Thailand) Co., Ltd.

Casting 1

Reference Number : Lot 2132420-1

Measurement Date : Nov 23, 2021



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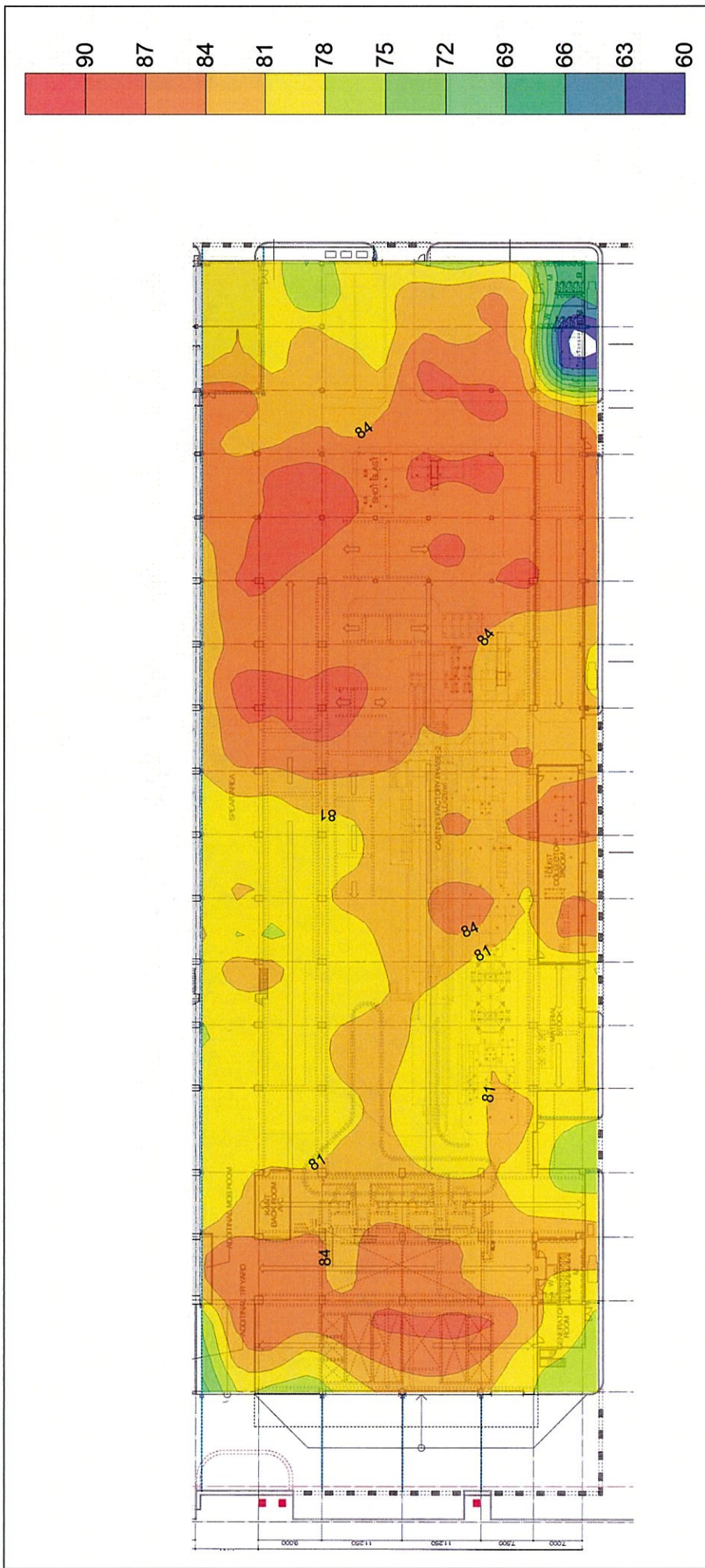
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Reference Number : Lot 2132421-1

Measurement Date : Nov 23, 2021

Casting 2



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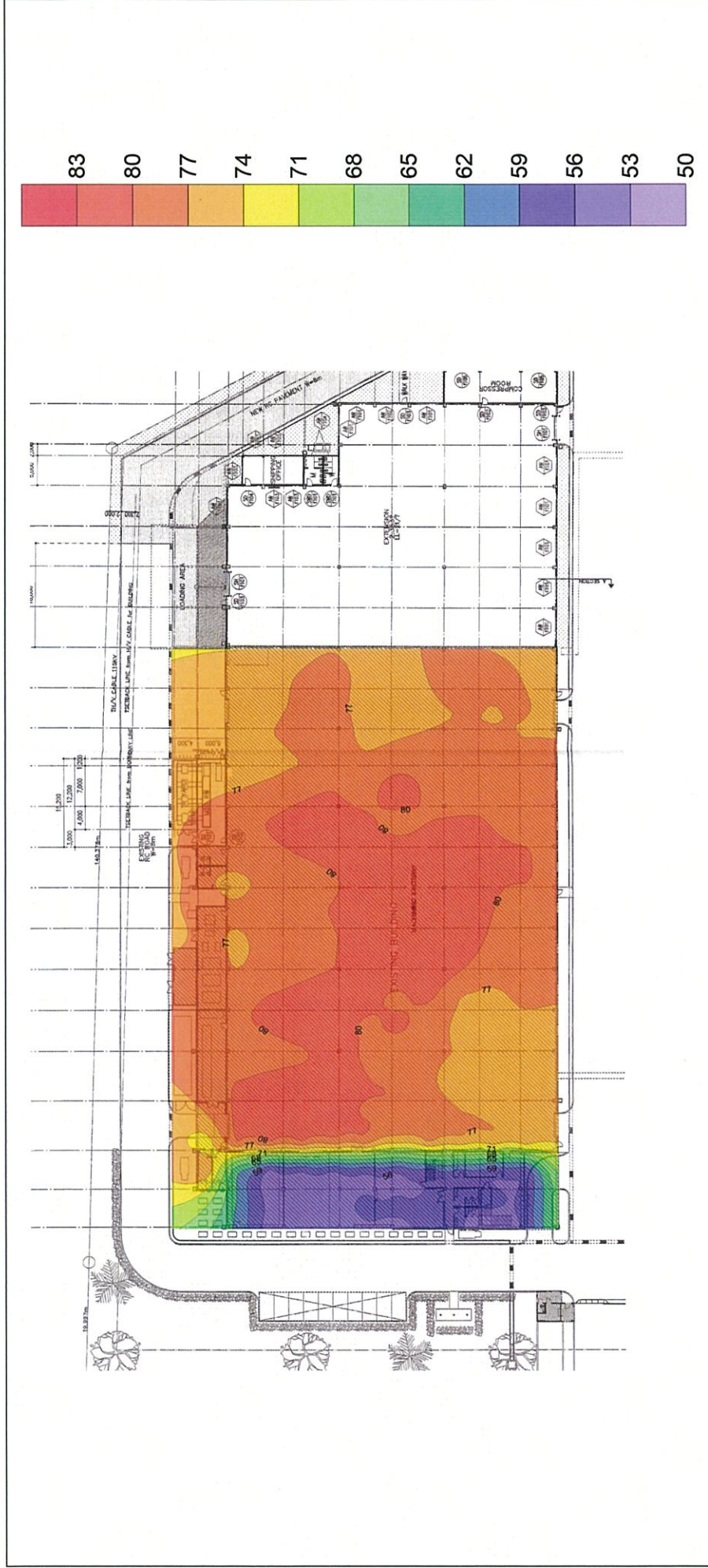
Noise Contour Map

Kiriu (Thailand) Co., Ltd.

Machining

Reference Number : Lot 2132425-1

Measurement Date : Nov 23, 2021



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คุณภาพน้ำทิ้ง



Analysis / Test Report

TESTING
No.0042
Lot ID: 21149763

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : P0211210358
Date Received : Jan 06, 2022
Date Reported : Jan 13, 2022
Project Name : Monitoring
Report Number : 2185159-1
Project Location :

Sample Number : 21149763-1
Sampled Date : Jan 06, 2022 9:15 AM
Sample Description : Wastewater
Location : Effluent
Date Analysis Commenced : Jan 07, 2022
Condition of Sample : Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Page 1 of 1

Analyte : Water Testing
BOD (5 days at 20 Degree C)
COD
Color (at Original pH)
Color (at pH 7.0)
Oil & Grease
pH at 25 degree C
Total Dissolved Solids Dried at 180 degree C
Total Suspended Solids Dried at 103-105 degree C

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
BOD (5 days at 20 Degree C)	mg/L	-	2	77	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	5	260	≤750	APHA (2017), 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	104	≤600	APHA (2017), 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	101	≤600	APHA (2017), 2120 F	Rayong
Oil & Grease	mg/L	-	3	7	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C	-	-	-	7.6	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	408	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	60	≤200	APHA (2017), 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 : Wanlop Hunchaihaow

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

Technical Management : N. Banphat
Approved by : D. Jamsai
Dej Changchon
Senior Manager
yistdunang 7-323-a-9442

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Analysis / Test Report

TESTING
No.0042
Lot ID: 221627

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : P0211210358
Date Received : Feb 02, 2022
Date Reported : Feb 09, 2022
Project Name : Monitoring
Report Number : 2195302-1
Project Location :

Sample Number : 221627-1
Sampled Date : Feb 02, 2022 10:00 AM
Sample Description : Wastewater
Location : Effluent
Date Analysis Commenced : Feb 02, 2022
Condition of Sample : Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Page 1 of 1

Analyte : Water Testing
BOD (5 days at 20 Degree C)
COD
Color (at Original pH)
Color (at pH 7.0)
Oil & Grease
pH at 25 degree C
Total Dissolved Solids Dried at 180 degree C
Total Suspended Solids Dried at 103-105 degree C

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
BOD (5 days at 20 Degree C)	mg/L	-	2	49	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	5	261	≤750	APHA (2017), 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	112	≤600	APHA (2017), 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	108	≤600	APHA (2017), 2120 F	Rayong
Oil & Grease	mg/L	-	3	8	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C	-	-	-	8.0	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	488	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	66	≤200	APHA (2017), 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 : Phibayon Thonglaeng

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

Technical Management : N. Banphat
Approved by : D. Jamsai
Dej Changchon
Senior Manager
yistdunang 7-323-a-9442

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Analysis / Test Report

TESTING
No.0042
Lot ID: 2219242
Date Received : Mar 02, 2022
Date Reported : Mar 09, 2022
Report Number : 2230543-1

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Phuakdaeng, Rayong Thailand 21140
P/O : PO211210358
Project Name : Monitoring
Project Location :

Page 1 of 1

Sample Number	2219242-1						
Sampled Date	Mar 02, 2022 9:25 AM						
Sample Description	Wastewater						
Location	Effluent						
Date Analysis Commenced	Mar 03, 2022						
Condition of Sample	Contained in one amber glass bottle and three plastic bottle, 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	74	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	5	236	≤750	APHA (2017), 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	38	≤600	APHA (2017), 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	37	≤600	APHA (2017), 2120 F	Rayong
Oil & Grease	mg/L	-	3	5	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C	-	-	-	6.6	5.5-9.0	Based on APHA (2017), 4500-H (9)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	636	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	101	≤200	APHA (2017), 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 : Pithaya Thongtong

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

Technical Management

N. Bangpit
Narumon Banchongkitt
Supervisor
โทร: 09-09445-323

Approved by

D. Khuen
Dej Changchon
Senior Manager
โทร: 09-09445-323

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S:\Report\ALS_GL_01 (19.04.19)



Analysis / Test Report

TESTING
No.0042
Lot ID: 2225729
Date Received : Apr 05, 2022
Date Reported : Apr 12, 2022
Report Number : 2243295-1

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Phuakdaeng, Rayong Thailand 21140
P/O : PO211210358
Project Name : Monitoring
Project Location :

Page 1 of 1

Sample Number	2225729-1						
Sampled Date	Apr 05, 2022 9:55 AM						
Sample Description	Wastewater						
Location	Effluent						
Date Analysis Commenced	Apr 06, 2022						
Condition of Sample	Contained in one amber glass bottle and three 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	142	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	5	303	≤750	APHA (2017), 5220 D	Rayong
Color (at Original pH)	ADMI	-	5	150	≤600	APHA (2017), 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	5	148	≤600	APHA (2017), 2120 F	Rayong
Oil & Grease	mg/L	-	3	10	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C	-	-	-	7.7	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	368	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	64	≤200	APHA (2017), 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 : Tinsat Wongpichai

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

Technical Management

N. Bangpit
Narumon Banchongkitt
Supervisor
โทร: 09-09445-323

Approved by

D. Khuen
Dej Changchon
Senior Manager
โทร: 09-09445-323

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Analysis / Test Report

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T. Thasit, A. Plukdaeng, Rayong Thailand 21140
P/O : PO21120358
Project Name : Monitoring
Project Location :
TESTING
No.0042
Lot ID: 2238428
Date Received : May 04, 2022
Date Reported : May 11, 2022
Report Number : 2270814-1

Page 1 of 1

Sample Number	2238428-1
Sample Date	May 04, 2022 9:20 AM
Sample Description	Wastewater
Location	Effluent
Date Analysis Commenced	May 05, 2022
Condition of Sample	Contained in three plastic bottles and one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	Result	Guideline / Specification	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	66	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	251	≤750	APHA (2017), 5220 D	Rayong
Color (at Original pH)	ADMI	-	91	≤600	APHA (2017), 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	91	≤600	APHA (2017), 2120 F	Rayong
Oil & Grease	mg/L	-	8	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C	-	-	7.5	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	320	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	57	≤200	APHA (2017), 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 : Pittaya Thongdaeng

Remark :

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

Technical Management

N. Banphit

Approved by

D. Chanchon

Dej Chanchon
Senior Manager
โทรศัพท์ 7-323-9-9442

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5/Report_LAB_GLP (1-07/19)



Analysis / Test Report

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T. Thasit, A. Plukdaeng, Rayong Thailand 21140
P/O : PO21120358
Project Name : Monitoring
Project Location :
TESTING
No.0042
Lot ID: 2255397
Date Received : Jun 01, 2022
Date Reported : Jun 09, 2022
Report Number : 2307244-1

Page 1 of 1

Sample Number	2255397-1
Sample Date	Jun 01, 2022 11:00 AM
Sample Description	Wastewater
Location	Effluent
Date Analysis Commenced	Jun 01, 2022
Condition of Sample	Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (APHA / USEPA)

Analyte	Unit	LOD	Result	Guideline / Specification	Method	Testing Location
Water Testing						
BOD (5 days at 20 Degree C)	mg/L	-	42	≤500	APHA (2017), 5210 B	Rayong
COD	mg/L	1.5	117	≤750	APHA (2017), 5220 D	Rayong
Color (at Original pH)	ADMI	-	57	≤600	APHA (2017), 2120 F	Rayong
Color (at pH 7.0)	ADMI	-	59	≤600	APHA (2017), 2120 F	Rayong
Oil & Grease	mg/L	-	<3	≤10	Based on APHA (2017), 5520 B	Rayong
pH at 25 degree C	-	-	7.5	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Total Dissolved Solids Dried at 180 degree C	mg/L	-	316	≤3000	APHA (2017), 2540 C	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	46	≤200	APHA (2017), 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 : Tanasit Wongsaichai

Remark :

- LOD : Limit of Detection
- "C" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analyte(s) marked * ignore 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

Approved by

D. Chanchon

Dej Chanchon
Senior Manager
โทรศัพท์ 7-323-9-9442

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5/Report_LAB_GLP (1-20/19)

ระดับความร้อนในสถานประกอบการ



Analysis / Test Report

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Piakkdaeng, Rayong Thailand 21140
P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2214847
Date Received : Feb 25, 2022
Date Reported : Mar 01, 2022
Report Number: 2224448-1

Page 1 of 3

Sample Number	2214847-1					
Parameter	Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)					
Measurement Date	Feb 25, 2022					
Measurement by	Supot Salameh					
Location	ปฏิบัติงาน 1 ชั่วโมง (ก่อนและหลังการตาก : Melting)					
Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)	
พื้นที่ตากแดด 14.2	120	28.4	26.1	33.9	33.8	
Average (WBGT)	28.4					
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



Analysis / Test Report

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Piakkdaeng, Rayong Thailand 21140
P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2214847
Date Received : Feb 25, 2022
Date Reported : Mar 01, 2022
Report Number: 2224448-1

Page 2 of 3

Sample Number	2214847-2					
Parameter	Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)					
Measurement Date	Feb 25, 2022					
Measurement by	Supot Silamthah					
Location	ปฏิบัติงาน 1 ชั่วโมง (ก่อนและหลังการตาก : Core Melting)					
Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)	
พื้นที่ตากแดด Shell Core 44.1	120	25.9	23.5	31.4	31.3	
Average (WBGT)	25.9					
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

Supot S.
Supot Salameh
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

Technical Management

Supot S.
Supot Salameh
Section Head

Approved by

Wichan Choonharat
Wichan Choonharat
Assistant Manager

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S Report_Air Heat (123PM)



Analysis / Test Report

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2214847
Date Received : Feb 25, 2022
Date Reported : Mar 01, 2022
Report Number: 2224448-1

Page 3 of 3

Sample Number	2214847-3					
Parameter	Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)					
Measurement Date	Feb 25, 2022					
Measurement by	Supot Salameeth					
Location	ชั้นที่ 1 ชั้น (ห้องประชุม) อุปกรณ์วัดอุณหภูมิ : Core Moxing)					
Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)	
พื้นที่ภายใน Shell Core #2	120	26.1	23.8	31.3	31.2	
Average (WBGT)	26.1					
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

Supot Salameeth
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2227716
Date Received : Mar 02, 2022
Date Reported : Mar 04, 2022
Report Number: 2247032-1

Page 1 of 1

Sample Number	2227716-1					
Parameter	Heat Stress (Sampling Time : 09.00 AM - 11.00 AM)					
Measurement Date	Mar 02, 2022					
Measurement by	Supot Salameeth					
Location	บริเวณภายใน 1 ชั้น (ห้องประชุม) อุปกรณ์วัดอุณหภูมิ : Melting)					
Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)	
พื้นที่ภายในห้อง 1	120	28.1	25.8	33.3	33.2	
Average (WBGT)	28.1					
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

Supot Salameeth
Section Head

Approved by

Wichan Choonharat
Assistant Manager

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Analysis / Test Report

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2244336
Date Received : May 12, 2022
Date Reported : May 17, 2022
Report Number: 2283484-1

Page 1 of 4

Sample Number	2244336-1
Parameter	Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date	May 11, 2022
Measurement by	Supot Salameh
Location	ปฏิบัติงาน 1 ชั้น (ผ้า-ขนาดเล็ก) บริเวณ : อาคาร 1 ชั้น (อาคาร)
Location	
Duration (min)	120
WBGT (°C)	30.1
NWB (°C)	27.8
GT (°C)	35.6
DB (°C)	35.4
Average (WBGT)	30.1
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

Supot S.

Supot Salameh
Section Head

Approved by

Wichan Choonharat

Wichan Choonharat
Assistant Manager

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S. Reports_Air Heat ref (1 02796)



Analysis / Test Report

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P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2244336
Date Received : May 12, 2022
Date Reported : May 17, 2022
Report Number: 2283484-1

Page 2 of 4

Sample Number	2244336-2
Parameter	Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date	May 11, 2022
Measurement by	Supot Salameh
Location	ปฏิบัติงาน 1 ชั้น (ผ้า-ขนาดเล็ก) บริเวณ : อาคาร 1 ชั้น (อาคาร)
Location	
Duration (min)	120
WBGT (°C)	30.3
NWB (°C)	28.0
GT (°C)	35.8
DB (°C)	35.7
Average (WBGT)	30.3
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 S.

Supot Salameh
Section Head

Approved by

Wichan Choonharat

Wichan Choonharat
Assistant Manager

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S. Reports_Air Heat ref (1 02796)



Analysis / Test Report

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T:Thesit, A:Phuakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244336
Date Received : May 12, 2022
Date Reported : May 17, 2022
Report Number: 2283484-1

Page 1 of 4

Sample Number	2244336-3
Parameter	Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date	May 11, 2022
Measurement by	Supot Salmitich
Location	บริเวณงาน 1 ชั้น (ด้านหน้าอาคาร ห้องฝึกอบรม : Core Making)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
พื้นที่ภายใน Shell Core 14.1	120	29.7	27.5	34.7	34.5
Average (WBGT)		29.7			
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 S.

Supot Salmitich
Section Head

Approved by

Wichan Choonharat

Wichan Choonharat
Assistant Manager

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S: Reports_Air Mail ref (1.05946)



Analysis / Test Report

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T:Thesit, A:Phuakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244336
Date Received : May 12, 2022
Date Reported : May 17, 2022
Report Number: 2283484-1

Page 4 of 4

Sample Number	2244336-4
Parameter	Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)
Measurement Date	May 11, 2022
Measurement by	Supot Salmitich
Location	บริเวณงาน 1 ชั้น (ด้านหน้าอาคาร ห้องฝึกอบรม : Core Making)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
พื้นที่ภายใน Shell Core 14.2	120	29.4	27.2	34.5	34.5
Average (WBGT)		29.4			
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 S.

Supot Salmitich
Section Head

Approved by

Wichan Choonharat

Wichan Choonharat
Assistant Manager

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S: Reports_Air Mail ref (1.05946)

คุณภาพอากาศในสถานประกอบการ



Analysis / Test Report

Client : Kinn (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2214853
Date Received : Feb 25, 2022
Date Reported : Mar 21, 2022
Report Number : 2224453-1

Page 1 of 4

Sample Number	2214853-8
Sampled Date	Feb 25, 2022
Sample Description	Air Quality
Location	พื้นที่ภายใน ส.2
Personal Sampling	บุคลากรในสถานที่
Date Analysis Commenced	Mar 02, 2022
Condition of Sample	Drawn into one filter paper placed in plastic cassette
Barometric Pressure	758 mmHg
Atmospheric Temperature	31.0 °C
Analyte	
Air Testing	
Silica (Quartz)	09:00 AM - 12:00 PM mg/m ³ - 0.02 <0.020 0.025 (R) NIOSH (2003), 7500 MOL Bangkok

Guideline :
MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)
Sampled By : Sittichai Kaewket
Remark :
- LOD : Limit of Detection
- "c" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by


Sarat Mongkoljirawit
Scientist (4)

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Analysis / Test Report

Client : Kinn (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2214853
Date Received : Feb 25, 2022
Date Reported : Mar 21, 2022
Report Number : 2224453-1

Page 2 of 4

Sample Number	2214853-10
Sampled Date	Feb 25, 2022
Sample Description	Air Quality
Location	พื้นที่ภายใน ส.2
Personal Sampling	บุคลากรในสถานที่
Date Analysis Commenced	Mar 02, 2022
Condition of Sample	Drawn into one filter paper placed in plastic cassette
Barometric Pressure	758 mmHg
Atmospheric Temperature	31.0 °C
Analyte	
Air Testing	
Silica (Quartz)	08:45 AM - 11:45 AM mg/m ³ - 0.02 <0.020 0.025 (R) NIOSH (2003), 7500 MOL Bangkok

Guideline :
MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)
Sampled By : Sittichai Kaewket
Remark :
- LOD : Limit of Detection
- "c" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by


Sarat Mongkoljirawit
Scientist (4)

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300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :
Lot ID: 2214853
Date Received : Feb 25, 2022
Date Reported : Mar 21, 2022
Report Number : 222453-1

Page 4 of 4

Sample Number	2214853-12							
Sampled Date	Feb 25, 2022							
Sample Description	Air Quality							
Location	ฟาร์มเลี้ยงวัว sa.2							
Personal Sampling	ไม่พบสารอันตราย							
Date Analysis Commenced	Mar 02, 2022							
Condition of Sample	Drawn into one filter paper placed in plastic cassette							
Barometric Pressure	758 mmHg							
Atmospheric Temperature	31.0 °C							
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Testing Location
Air Testing								
Silica (Quartz)	08:40 AM - 11:40 AM	mg/m3	-	0.02	<0.020	0.025 (R)	NIOSH (2003), 7500	MOL Bangkok

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

Sampled By : Sitthida Kaewket

Remark :

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



Analysis / Test Report

Client : Kiri (Thailand) Co., Ltd.
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P/O : P0220210037
Project Name : Monitoring
Project Location :
Lot ID: 2214853
Date Received : Feb 25, 2022
Date Reported : Mar 21, 2022
Report Number : 222453-2

Page 1 of 4

Sample Number	2214853-2						
Sampled Date	Feb 25, 2022						
Sample Description	Air Quality						
Location	ฟาร์มเลี้ยงวัว sa.2						
Date Analysis Commenced	Mar 02, 2022						
Condition of Sample	Drawn into one filter paper placed in plastic cassette						
Barometric Pressure	758 mmHg						
Atmospheric Temperature	31.0 °C						
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Silica (Quartz)	09:00 AM - 12:00 PM	mg/m3	-	0.02	<0.020	NIOSH (2003), 7500	Bangkok

Sampled By : Sitthida Kaewket

Remark :

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

Approved by

Sararat Mongkoltipirawat
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2214853
Date Received : Feb 25, 2022
Date Reported : Mar 21, 2022
Report Number : 222453-2

Page 2 of 4

Sample Number	2214853-4
Sample Date	Feb 25, 2022
Sample Description	Air Quality
Location	พื้นที่สวนหิน ๓.2
Date Analysis Commenced	Mar 02, 2022
Condition of Sample	Drawn into one filter paper placed in plastic cassette
Barometric Pressure	758 mmHg
Atmospheric Temperature	31.0 °C
Analyte	
Air Testing	
Silica (Quartz)	
Unit	mg/m3
LOD	-
LOQ (LOR)	0.02
Result	0.022
Method	NIOSH (2003), 7500
Testing Location	Bangkok

Sampled By : Siritchai Kaewkit

Remark :

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

Approved by

Saimat Mongkoljirawit
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2214853
Date Received : Feb 25, 2022
Date Reported : Mar 21, 2022
Report Number : 222453-2

Page 3 of 4

Sample Number	2214853-5
Sample Date	Feb 25, 2022
Sample Description	Air Quality
Location	พื้นที่สวนหิน ๓.1
Date Analysis Commenced	Mar 02, 2022
Condition of Sample	Drawn into one filter paper placed in plastic cassette
Barometric Pressure	758 mmHg
Atmospheric Temperature	31.0 °C
Analyte	
Air Testing	
Silica (Quartz)	
Unit	mg/m3
LOD	-
LOQ (LOR)	0.02
Result	<0.020
Method	NIOSH (2003), 7500
Testing Location	Bangkok

Sampled By : Siritchai Kaewkit

Remark :

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

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2214853
Date Received : Feb 25, 2022
Date Reported : Mar 21, 2022
Report Number : 2224453-2

Page 4 of 4

Sample Number	Sampled Date	Sample Description	Location	Date Analysis Commenced	Condition of Sample	Barometric Pressure	Atmospheric Temperature	Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
2214853-6	Feb 25, 2022	Air Quality	พื้นที่งานก่อสร้าง ๖.2	Mar 02, 2022	Drawn into one filter paper placed in plastic cassette	758 mmHg	31.0 °C	Air Testing	08:40 AM - 11:40 AM	mg/m3	-	0.02	<0.020	NIOSH (2003), 7500	Bangkok
Sampled By : Sitichai Kaewkiet															

Remark :

- LOD : Limit of Detection
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Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2227720
Date Received : Mar 02, 2022
Date Reported : Mar 25, 2022
Report Number : 2247041-1

Page 1 of 2

Sample Number	Sampled Date	Sample Description	Location	Date Analysis Commenced	Condition of Sample	Barometric Pressure	Atmospheric Temperature	Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
2227720-1	Mar 02, 2022	Air Quality	พื้นที่งาน ๖.1	Mar 07, 2022	Drawn into one filter paper placed in plastic cassette	758 mmHg	31.0 °C	Air Testing	09:00 AM - 12:00 PM	mg/m3	-	0.02	<0.020	NIOSH (2003), 7500	Bangkok
Sampled By : Sitichai Kaewkiet															

Remark :

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Saranya Chalermlhamong
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2227720
Date Received : Mar 02, 2022
Date Reported : Mar 25, 2022
Report Number: 2247041-1

Page 2 of 2

Sample Number	2227720-2								
Sampled Date	Mar 02, 2022								
Sample Description	Air Quality								
Location	พื้นที่สวนหวี 34.1								
Date Analysis Commenced	Mar 07, 2022								
Condition of Sample	Drawn into one filter paper placed in plastic cassette								
Barometric Pressure	758 mmHg								
Atmospheric Temperature	31.0 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Method		Testing Location	
Air Testing									
Silica (Quartz)	09:00 AM - 12:00 PM	mg/m3	-	0.02	<0.020	NIOSH (2003), 7500		Bangkok	

Sampled By : Sitichai Kaewket

Remark :

- LOD : Limit of Detection
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Saranya C.

Saranya Chakraborty
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2227720
Date Received : Mar 02, 2022
Date Reported : Mar 25, 2022
Report Number: 2247041-2

Page 1 of 2

Sample Number	2227720-3								
Sampled Date	Mar 02, 2022								
Sample Description	Air Quality								
Location	พื้นที่สวนหวี 50.1								
Personal Sampling	ภาคพื้นดิน								
Date Analysis Commenced	Mar 07, 2022								
Condition of Sample	Drawn into one filter paper placed in plastic cassette								
Barometric Pressure	758 mmHg								
Atmospheric Temperature	31.0 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Silica (Quartz)	09:00 AM - 12:00 PM	mg/m3	-	0.02	<0.020	0.025 (R)	NIOSH (2003), 7500	MOL	Bangkok

Guideline :

MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3,

BLE, 2560 (2017)

Sampled By : Sitichai Kaewket

Remark :

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Saranya C.

Saranya Chakraborty
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2227720
Date Received : Mar 02, 2022
Date Reported : Mar 25, 2022
Report Number : 2247041-2

Page 2 of 2

Sample Number	2227720-4
Sampled Date	Mar 02, 2022
Sample Description	Air Quality
Location	พื้นที่อุตสาหกรรม ๙.1
Personal Sampling	ภาชนะเก็บตัวอย่าง
Date Analysis Commenced	Mar 07, 2022
Condition of Sample	Drawn into one filter paper placed in plastic cassette
Barometric Pressure	758 mmHg
Atmospheric Temperature	31.0 °C
Analyte	
Air Testing	
Silica (Quartz)	Unit mg/m3 - 0.02
Result	<0.020
LOQ (LOR)	0.02
Guideline Limit	0.025 (R)
Method	NIOSH (2003), 7500
Testing Location	MOL Bangkok

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

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

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Saranya Chalemitthamrong
Scientist (4)

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P/O : PO220410400
Project Name : Monitoring
Project Location :
Lot ID: 2252099
Date Received : May 03, 2022
Date Reported : May 27, 2022
Report Number : 2259961-1

Page 1 of 2

Sample Number	2252099-1
Sampled Date	May 03, 2022
Sample Description	Air Quality
Location	Shot Blast No.182
Personal Sampling	ภาชนะเก็บตัวอย่าง
Date Analysis Commenced	May 03, 2022
Condition of Sample	Drawn into one filter paper placed in plastic cassette
Barometric Pressure	757 mmHg
Atmospheric Temperature	29.0 °C
Analyte	
Air Testing	
Silica (Quartz)	Unit mg/m3 - 0.02
Result	<0.020
LOQ (LOR)	0.02
Guideline Limit	0.025 (R)
Method	NIOSH (2003), 7500
Testing Location	MOL Bangkok

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

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

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P/O : PO220410400
Project Name : Monitoring
Project Location :
Lot ID: 2252099
Date Received : May 03, 2022
Date Reported : May 27, 2022
Report Number : 2259961-1

Page 2 of 2

Sample Number	2252099-2	Sampled Date/Time	May 03, 2022	Unit	mg/m ³	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Sample Description	Air Quality	Shot blast No.1&2									
Location	Shot blast No.1&2										
Date Analysis Commenced	May 03, 2022										
Condition of Sample	Drawn into one filter paper placed in plastic cassette										
Barometric Pressure	757 mmHg										
Atmospheric Temperature	29.0 °C										
Analyte											
Air Testing											
Silica (Quartz)		01:20 PM - 04:20 PM		mg/m ³	-	0.02	<0.020	No Standard	NIOSH (2003), 7500	-	Bangkok

Guideline:

Sampled By : Nantawat Sarin

Remark :

- LOD : Limit of Detection

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

Approved by

Saraya C.

Saraya Chalerthamrong
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1

Page 1 of 12

Sample Number	2244337-1	Sampled Date/Time	May 11, 2022	Unit	mg/m ³	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Sample Description	Air Quality										
Location	รฟท.บริเวณ ss.1										
Date Analysis Commenced	May 13, 2022										
Condition of Sample	Drawn into one filter paper placed in plastic cassette										
Barometric Pressure	756 mmHg										
Atmospheric Temperature	32.0 °C										
Analyte											
Air Testing											
Silica (Quartz)		09:00 AM - 12:00 PM		mg/m ³	-	0.02	<0.020	0.025 (R)	NIOSH (2003), 7500	-	Bangkok

Guideline:

Note : This Analysis test report is reissued to supersede report No. 2283487-1 Reported : Jun 09, 2022 due to revise guideline/specification

Sampled By : Rattachai Moungma

Remark :

- LOD : Limit of Detection

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

Approved by

Saraya C.

Saraya Chalerthamrong
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1
Page 2 of 12

Sample Number	2244337-2								
Sampled Date	May 11, 2022								
Sample Description	Air Quality								
Location	วัดบ้านนา ๙.2								
Date Analysis Commenced	May 13, 2022								
Condition of Sample	Drawn into one filter paper placed in plastic cassette								
Barometric Pressure	756 mmHg								
Atmospheric Temperature	32.0 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Silica (Quartz)	09:00 AM - 12:00 PM	mg/m3	-	0.02	<0.020	0.025 (R)	NIOSH (2003), 7500	MOL	Bangkok

Guideline :

Note : This Analysis test report is reissued to supersede report No. 2283487-1 Reported : Jun 09, 2022 due to revise guideline/specification

Sampled By : Romnachai Moungma

Remark :

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

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Savanya C.
Savanya Chaleemthamrong
Scientist (4)

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NIGHT SOLUTIONS NIGHT PARTNER

4499-237 EMAIL



Analysis / Test Report

Client : Kiriu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Phuakdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1
Page 3 of 12

Sample Number	2244337-3								
Sampled Date	May 11, 2022								
Sample Description	Air Quality								
Location	ฟาร์มสุกรม ๙.1								
Date Analysis Commenced	May 13, 2022								
Condition of Sample	Drawn into one filter paper placed in plastic cassette								
Barometric Pressure	756 mmHg								
Atmospheric Temperature	32.0 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Silica (Quartz)	09:00 AM - 12:00 PM	mg/m3	-	0.02	<0.020	0.025 (R)	NIOSH (2003), 7500	-	Bangkok

Guideline :

Note : This Analysis test report is reissued to supersede report No. 2283487-1 Reported : Jun 09, 2022 due to revise guideline/specification

Sampled By : Romnachai Moungma

Remark :

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

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Savanya Chaleemthamrong
Scientist (4)

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NIGHT SOLUTIONS NIGHT PARTNER

4499-237 EMAIL



Analysis / Test Report

Client : Kintu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1

Page 4 of 12

Sample Number	2244337-1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Guideline :

Note : This Analysis test report is reissued to supersede report No. 2283487-1 Reported : Jun 09, 2022 due to revise guideline/specification

Sampled By : Romnachal Moungma

Remark :

- LOD : Limit of Detection
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Approved by
Sarinya Chalermtithamrong
Scientist (4)

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Analysis / Test Report

Client : Kintu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : P0220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1

Page 5 of 12

Sample Number	2244337-5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Guideline :

Note : This Analysis test report is reissued to supersede report No. 2283487-1 Reported : Jun 09, 2022 due to revise guideline/specification

Sampled By : Romnachal Moungma

Remark :

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

Approved by
Sarinya Chalermtithamrong
Scientist (4)

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Analysis / Test Report

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T:Thasit, A:Phukdaeng, Rayong Thailand 21140
P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1

Page 5 of 12

Sample Number	224337-6								
Sampled Date	May 11, 2022								
Sample Description	Air Quality								
Location	พื้นที่สวนสาธารณะ 53.2								
Date Analysis Commenced	May 13, 2022								
Condition of Sample	Drawn into one filter paper placed in plastic cassette								
Barometric Pressure	756 mmHg								
Atmospheric Temperature	32.0 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Silica (Quartz)	09:00 AM - 12:00 PM	mg/m3	-	0.02	<0.020	0.025 (R)	NIOSH (2003), 7500	MOL	Bangkok

Guideline :

Note : This Analysis test report is resubmitted to supersede report No. 2283487-1 Reported : Jun 09, 2022 due to revise guideline/specification

Sampled By : Ronnachai Mungma

Remark :

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

Savanya C.

Approved by

Saranya Chalermsathornong
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1

Page 7 of 12

Sample Number	2244337-7								
Sampled Date	May 11, 2022								
Sample Description	Air Quality								
Location	สวนสาธารณะ 53.1								
Personal Sampling	อุปกรณ์ 4 เรียง								
Date Analysis Commenced	May 13, 2022								
Condition of Sample	Drawn into one filter paper placed in plastic cassette								
Barometric Pressure	756 mmHg								
Atmospheric Temperature	32.0 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location	
Air Testing									
Silica (Quartz)	09:00 AM - 12:00 PM	mg/m3	-	0.02	<0.020	0.025 (R)	NIOSH (2003), 7500	MOL	Bangkok

Guideline :

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

Note : This Analysis test report is resubmitted to supersede report No. 2283487-1 Reported : Jun 09, 2022 due to revise guideline/specification

Sampled By : Ronnachai Mungma

Remark :

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Savanya C.

Approved by

Saranya Chalermsathornong
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1
Page 6 of 12

Sample Number	2244337-8							
Sampled Date	May 11, 2022							
Sample Description	Air Quality							
Location	พื้นที่ภายใน ส.2							
Personal Sampling	60480 uara							
Date Analysis Commenced	May 13, 2022							
Condition of Sample	Drawn into one filter paper placed in plastic cassette							
Barometric Pressure	756 mmHg							
Atmospheric Temperature	32.0 °C							
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Silica (Quartz)	09:00 AM - 12:00 PM	mg/m3	-	0.02	<0.020	0.025 (R)	NIOSH (2003), 7500	MOL Bangkok

Guideline :
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Sampled By : Ronnachai Moungma

Remark :
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Approved by
Savanya C.
Saranya Chakemthamrong
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1
Page 9 of 12

Sample Number	2244337-9							
Sampled Date	May 11, 2022							
Sample Description	Air Quality							
Location	พื้นที่ภายใน ส.1							
Personal Sampling	ภาชนะเก็บ 60 ลิตร							
Date Analysis Commenced	May 13, 2022							
Condition of Sample	Drawn into one filter paper placed in plastic cassette							
Barometric Pressure	756 mmHg							
Atmospheric Temperature	32.0 °C							
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Testing Location
Air Testing								
Silica (Quartz)	09:00 AM - 12:00 PM	mg/m3	-	0.02	<0.020	0.025 (R)	NIOSH (2003), 7500	MOL Bangkok

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

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

Approved by
Savanya C.
Saranya Chakemthamrong
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1

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Sample Number	2244337-10
Sampled Date	May 11, 2022
Sample Description	Air Quality
Location	พื้นที่อุตสาหกรรม sa.2
Personal Sampling	ภาชนะเก็บตัวอย่าง
Date Analysis Commenced	May 13, 2022
Condition of Sample	Drawn into one filter paper placed in plastic cassette
Barometric Pressure	756 mmHg
Atmospheric Temperature	32.0 °C
Analyte	
Air Testing	
Silica (Quartz)	Unit mg/m ³ LOD 0.02 Result <0.020 Guideline Limit 0.025 (R) Method NIOSH (2003), 7500 Testing Location Bangkok

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

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

Approved by
Sanyu C.
Sanyu Chalerthamrong
Scientist (4)

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1

Page 11 of 12

Sample Number	2244337-11
Sampled Date	May 11, 2022
Sample Description	Air Quality
Location	พื้นที่อุตสาหกรรม sa.1
Personal Sampling	ภาชนะเก็บตัวอย่าง
Date Analysis Commenced	May 13, 2022
Condition of Sample	Drawn into one filter paper placed in plastic cassette
Barometric Pressure	756 mmHg
Atmospheric Temperature	32.0 °C
Analyte	
Air Testing	
Silica (Quartz)	Unit mg/m ³ LOD 0.02 Result <0.020 Guideline Limit 0.025 (R) Method NIOSH (2003), 7500 Testing Location Bangkok

Guideline :
MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)
Note : This Analysis test report is issued to supersede report No. 2283487-1 Reported : Jun 09, 2022 due to revise guideline/specification
Sampled By : Romachal Moungma

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

Approved by
Sanyu C.
Sanyu Chalerthamrong
Scientist (4)

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Analysis / Test Report

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P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2244337
Date Received : May 12, 2022
Date Reported : Jun 14, 2022
Report Number : 2283487-1 Rev. No.1
Page 12 of 12

Sample Number	2244337-12
Sampled Date	May 11, 2022
Sample Description	Air Quality
Location	พื้นที่บริเวณสวน ร.2
Personal Sampling	บุคลากรในเขต
Date Analysis Commenced	May 13, 2022
Condition of Sample	Drawn into one filter paper placed in plastic cassette
Barometric Pressure	756 mmHg
Atmospheric Temperature	32.0 °C
Analyte	Sampled Date/Time
Air Testing	Unit
Silica (Quartz)	mg/m3
	09:00 AM - 12:00 PM
	0.02
	0.025 (R)
	NIOSH (2003), 7500
	MOL
	Bangkok

Guideline :
MOL : Announcement of the Department of Labour Protection and Welfare on Threshold Limit Values of Hazardous Chemical Substances Dated August 3, B.E. 2560 (2017)
Note : This Analysis test report is resubmitted to supersede report No. 2283487-1 Reported : Jun 09, 2022 due to revise guideline/specification
Sampled By : Romsachai Moungrima
Remark :
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- "x" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

Approved by : *Savanya C.*
Savanya Chalerthamrong
Scientist (4)

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Analysis / Test Report

Client: Kintu (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO2020210037
Project Name : Monitoring
Project Location :
Lot ID: 2214862
Date Received : Feb 25, 2022
Date Reported : Mar 02, 2022
Report Number: 2248499-1

Page 1 of 1

Sample Number	2214862-2		
Parameter	Noise (Leq 8 hrs.)		
Location	จุดตรวจวัด 51.2		
Measurement Date	Feb 25, 2022		
Measurement by	Kanitaphon Maneesumpan		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:00 AM - 10:00 AM	88.3	108.8	80.1
10:00 AM - 11:00 AM	84.7	101.9	79.9
11:00 AM - 12:00 PM	86.9	107.6	78.5
12:00 PM - 01:00 PM	86.9	108.1	78.8
01:00 PM - 02:00 PM	85.5	103.2	79.1
02:00 PM - 03:00 PM	88.4	108.8	79.3
03:00 PM - 04:00 PM	84.8	105.8	79.4
04:00 PM - 05:00 PM	85.1	102.8	78.7

Turn back to the measurement point for the measurement of the noise level.

Technical Management

Tharitat.

Thanita Kulsurwong
Scientist (4)

Approved by

Supt S.

Supot Salmitheh
Section Head

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P/O : PO2020210037
Project Name : Monitoring
Project Location :
Lot ID: 2214862
Date Received : Feb 25, 2022
Date Reported : Mar 02, 2022
Report Number: 2248491-1

Page 1 of 1

Sample Number	2214862-4		
Parameter	Noise (Leq 8 hrs.)		
Location	หน้าประตู 51.2		
Measurement Date	Feb 25, 2022		
Measurement by	Kanitaphon Maneesumpan		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:58 AM - 09:58 AM	82.9	91.7	80.8
09:58 AM - 10:58 AM	83.3	91.5	81.0
10:58 AM - 11:58 AM	82.9	91.8	80.6
11:58 AM - 12:58 PM	82.8	92.4	80.6
12:58 PM - 01:58 PM	83.5	94.2	81.0
01:58 PM - 02:58 PM	82.8	92.7	80.3
02:58 PM - 03:58 PM	82.8	93.4	80.5
03:58 PM - 04:58 PM	82.7	91.6	80.4

Turn back to the measurement point for the measurement of the noise level.

Technical Management

Tharitat.

Thanita Kulsurwong
Scientist (4)

Approved by

Supt S.

Supot Salmitheh
Section Head

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Project Name : Monitoring
Project Location :
Lot ID: 2214862
Date Received : Feb 25, 2022
Date Reported : Mar 02, 2022
Report Number: 2248452-1

Page 1 of 1

Sample Number	2214862-5
Parameter	Noise (Leq 8 hrs.)
Location	พื้นที่ตามแผนงาน 5.1
Measurement Date	Feb 25, 2022
Measurement by	Kantaphon Naneesampan
Time	
08:55 AM - 09:55 AM	89.3
09:55 AM - 10:55 AM	89.3
10:55 AM - 11:55 AM	91.7
11:55 AM - 12:55 PM	91.1
12:55 PM - 01:55 PM	91.5
01:55 PM - 02:55 PM	89.7
02:55 PM - 03:55 PM	89.6
03:55 PM - 04:55 PM	89.3
Leq Average 8 hrs. (dB(A))	89.9
Lmax (dB(A))	109.3
Standard (dB(A))	90
Reference Method	: ISO 1996-1 and 1996-2
Standard	: กรมควบคุมมลพิษ (ประเทศไทย) ใช้มาตรฐานของกรมควบคุมมลพิษ

Turn this result into a form for the environmental impact assessment report.

Technical Management

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Approved by

Supt S.

Support Scientist (4)
Section Head

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P/O : PO20210037
Project Name : Monitoring
Project Location :
Lot ID: 2214862
Date Received : Feb 25, 2022
Date Reported : Mar 02, 2022
Report Number: 2248453-1

Page 1 of 1

Sample Number	2214862-6
Parameter	Noise (Leq 8 hrs.)
Location	พื้นที่ตามแผนงาน 5.2
Measurement Date	Feb 25, 2022
Measurement by	Kantaphon Naneesampan
Time	
08:37 AM - 09:37 AM	89.3
09:37 AM - 10:37 AM	88.4
10:37 AM - 11:37 AM	87.5
11:37 AM - 12:37 PM	88.7
12:37 PM - 01:37 PM	87.9
01:37 PM - 02:37 PM	87.7
02:37 PM - 03:37 PM	87.3
03:37 PM - 04:37 PM	87.5
Leq Average 8 hrs. (dB(A))	88.1
Lmax (dB(A))	112.0
Standard (dB(A))	90
Reference Method	: ISO 1996-1 and 1996-2
Standard	: กรมควบคุมมลพิษ (ประเทศไทย) ใช้มาตรฐานของกรมควบคุมมลพิษ

Turn this result into a form for the environmental impact assessment report.

Technical Management

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Approved by

Supt S.

Support Scientist (4)
Section Head

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2227731
Date Received : Mar 02, 2022
Date Reported : Mar 08, 2022
Report Number: 2251374-1

Page 1 of 1

Sample Number	2227731-1		
Parameter	Noise (Leq 8 hrs.)		
Location	พื้นที่ภายใน ร.1		
Measurement Date	Mar 02, 2022		
Measurement by	Sittichai Kaewkit		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:12 AM - 10:12 AM	86.8	108.6	78.6
10:12 AM - 11:12 AM	88.2	107.3	80.8
11:12 AM - 12:12 PM	83.2	104.0	76.7
12:12 PM - 01:12 PM	88.8	108.2	77.9
01:12 PM - 02:12 PM	87.2	106.2	78.9
02:12 PM - 03:12 PM	88.1	107.4	78.4
03:12 PM - 04:12 PM	88.6	107.1	80.8
04:12 PM - 05:12 PM	88.9	108.3	78.0

Technical Management

Tharitat.

Tharita Kulburiwong
Scientist (4)

Approved by

Supt S.

Supt Salameh
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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 2227731
Date Received : Mar 02, 2022
Date Reported : Mar 08, 2022
Report Number: 2251375-1

Page 1 of 1

Sample Number	2227731-2		
Parameter	Noise (Leq 8 hrs.)		
Location	พื้นที่ภายใน ร.1		
Measurement Date	Mar 02, 2022		
Measurement by	Sittichai Kaewkit		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:50 AM - 09:50 AM	85.8	93.5	81.2
09:50 AM - 10:50 AM	85.7	92.3	80.2
10:50 AM - 11:50 AM	83.0	91.7	78.5
11:50 AM - 12:50 PM	85.6	93.1	78.5
12:50 PM - 01:50 PM	84.6	91.5	80.0
01:50 PM - 02:50 PM	85.1	93.9	79.9
02:50 PM - 03:50 PM	84.6	92.2	78.9
03:50 PM - 04:50 PM	85.3	92.8	78.2

Technical Management

Tharitat.

Tharita Kulburiwong
Scientist (4)

Approved by

Supt S.

Supt Salameh
Section Head

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S:\Reports\Air Noise pr (10.53AM)



Analysis / Test Report

Client : Kiri (Thailand) Co., Ltd.
300/37 Moo 1, T.Thasit, A.Pluakdaeng, Rayong Thailand 21140
P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2244339
Date Received : May 12, 2022
Date Reported : May 19, 2022
Report Number: 2312848-1

Page 1 of 1

Sample Number	2244339-1
Parameter	Noise (Leq 8 hrs.)
Location	พื้นที่ภายใน s.u.1
Measurement Date	May 11, 2022
Measurement by	Ronniachal Moungma

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:15 AM - 10:15 AM	85.4	103.1	76.3
10:15 AM - 11:15 AM	84.7	103.8	76.3
11:15 AM - 12:15 PM	84.2	104.6	76.1
12:15 PM - 01:15 PM	86.5	104.1	77.4
01:15 PM - 02:15 PM	84.7	102.9	76.3
02:15 PM - 03:15 PM	86.3	103.5	78.2
03:15 PM - 04:15 PM	82.2	104.9	75.7
04:15 PM - 05:15 PM	82.8	103.2	74.7
Leq Average 8 hrs. (dB(A))	84.8		
Lmax (dB(A))	104.9		
Standard (dB(A))	90	140	

Reference Method : ISO 9966-1 and 1996-2
Standard : กรุงเทพมหานครกำหนดค่ามาตรฐานเสียงในอาคารสำหรับสถานประกอบการ
ตามมาตรฐานกำหนดค่ามาตรฐานเสียงในอาคารสำหรับสถานประกอบการ พ.ศ.๒๕๖๑

Technical Management

Tharitak.

Approved by

Supt S.

Thantia Kulsirirong

Scientist (4)

Supot Salameeh

Section Head

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P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2244339
Date Received : May 12, 2022
Date Reported : May 19, 2022
Report Number: 2312849-1

Page 1 of 1

Sample Number	2244339-2
Parameter	Noise (Leq 8 hrs.)
Location	พื้นที่ภายใน s.u.2
Measurement Date	May 11, 2022
Measurement by	Ronniachal Moungma

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:04 AM - 10:04 AM	86.2	109.1	80.0
10:04 AM - 11:04 AM	87.4	109.3	80.3
11:04 AM - 12:04 PM	86.8	105.1	79.8
12:04 PM - 01:04 PM	88.1	108.5	79.7
01:04 PM - 02:04 PM	86.6	109.5	80.4
02:04 PM - 03:04 PM	88.6	109.7	80.8
03:04 PM - 04:04 PM	88.4	109.6	80.4
04:04 PM - 05:04 PM	87.2	94.1	82.8
Leq Average 8 hrs. (dB(A))	87.5		
Lmax (dB(A))	109.6		
Standard (dB(A))	90	140	

Reference Method : ISO 9966-1 and 1996-2
Standard : กรุงเทพมหานครกำหนดค่ามาตรฐานเสียงในอาคารสำหรับสถานประกอบการ
ตามมาตรฐานกำหนดค่ามาตรฐานเสียงในอาคารสำหรับสถานประกอบการ พ.ศ.๒๕๖๑

Technical Management

Tharitak.

Approved by

Supt S.

Thantia Kulsirirong

Scientist (4)

Supot Salameeh

Section Head

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Analysis / Test Report

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 22443339
Date Received : May 12, 2022
Date Reported : May 19, 2022
Report Number: 2312850-1

Page 1 of 1

Sample Number	2244339-3		
Parameter	Noise (Leq 8 hrs.)		
Location	Auditorium ๙๐.1		
Measurement Date	May 11, 2022		
Measurement by	Romachal Moungma		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:05 AM - 10:05 AM	83.4	93.0	80.4
10:05 AM - 11:05 AM	84.4	92.1	80.1
11:05 AM - 12:05 PM	83.3	91.5	79.0
12:05 PM - 01:05 PM	84.1	91.7	79.4
01:05 PM - 02:05 PM	83.4	92.5	80.2
02:05 PM - 03:05 PM	84.5	92.6	80.4
03:05 PM - 04:05 PM	83.5	95.6	80.7
04:05 PM - 05:05 PM	84.5	93.3	81.0

Technical Management

Tharitat.

Thantia Kulsurwong
Scientist (4)

Approved by

Supt S.

Supot Salmitheh
Section Head

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P/O : PO220210037
Project Name : Monitoring
Project Location :
Lot ID: 22443339
Date Received : May 12, 2022
Date Reported : May 19, 2022
Report Number: 2312851-1

Page 1 of 1

Sample Number	2244339-4		
Parameter	Noise (Leq 8 hrs.)		
Location	พื้นที่ภายใน ๙๔.2		
Measurement Date	May 11, 2022		
Measurement by	Romachal Moungma		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:05 AM - 10:05 AM	84.2	95.1	80.8
10:05 AM - 11:05 AM	85.0	91.1	80.7
11:05 AM - 12:05 PM	85.2	92.5	80.1
12:05 PM - 01:05 PM	84.8	93.8	80.4
01:05 PM - 02:05 PM	83.0	93.9	79.6
02:05 PM - 03:05 PM	83.8	91.9	79.5
03:05 PM - 04:05 PM	84.0	91.3	78.9
04:05 PM - 05:05 PM	83.6	92.6	79.2

Technical Management

Tharitat.

Thantia Kulsurwong
Scientist (4)

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Supt S.

Supot Salmitheh
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P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2244339
Date Received : May 12, 2022
Date Reported : May 19, 2022
Report Number: 2312852-1

Page 1 of 1

Sample Number	2244339-5		
Parameter	Noise (Leq 8 hrs.)		
Location	พื้นที่ทางตอนใต้ของ ร.2		
Measurement Date	May 11, 2022		
Measurement by	Ronnachai Moungma		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:07 AM - 09:07 AM	88.0	103.8	85.2
09:07 AM - 10:07 AM	89.3	110.2	78.7
10:07 AM - 11:07 AM	81.1	101.4	78.1
11:07 AM - 12:07 PM	81.9	97.7	79.1
12:07 PM - 01:07 PM	87.0	107.3	84.0
01:07 PM - 02:07 PM	87.8	103.6	85.0
02:07 PM - 03:07 PM	89.1	110.0	78.5
03:07 PM - 04:07 PM	87.6	103.4	84.8
Leq Average 8 hrs. (dB(A))	87.3		
Lmax (dB(A))	110.2		
Standard (dB(A))	90		
Reference Method	: ISO 1996-1 and 1996-2		
Standard	: กรมควบคุมมลพิษของประเทศไทย เรื่อง การกำหนดค่ามาตรฐานเสียง Turntable การวัดค่าเสียงในพื้นที่สาธารณะตามมาตรฐานของกรมควบคุมมลพิษ		

Turntable การวัดค่าเสียงในพื้นที่สาธารณะตามมาตรฐานของกรมควบคุมมลพิษ

Technical Management

Tharitat.

Thanita Kulsurwong
Scientist (4)

Approved by

Supt S.

Supt Salameh
Section Head

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P/O : PO202010037
Project Name : Monitoring
Project Location :
Lot ID: 2244339
Date Received : May 12, 2022
Date Reported : May 19, 2022
Report Number: 2312853-1

Page 1 of 1

Sample Number	2244339-6		
Parameter	Noise (Leq 8 hrs.)		
Location	พื้นที่ทางตอนใต้ของ ร.2		
Measurement Date	May 11, 2022		
Measurement by	Ronnachai Moungma		
Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:15 AM - 09:15 AM	87.2	100.7	83.4
09:15 AM - 10:15 AM	87.2	101.1	83.8
10:15 AM - 11:15 AM	86.4	100.4	83.8
11:15 AM - 12:15 PM	88.4	101.4	83.8
12:15 PM - 01:15 PM	89.3	103.1	84.7
01:15 PM - 02:15 PM	87.5	102.2	83.7
02:15 PM - 03:15 PM	88.7	106.4	83.8
03:15 PM - 04:15 PM	89.4	100.0	84.7

Turntable การวัดค่าเสียงในพื้นที่สาธารณะตามมาตรฐานของกรมควบคุมมลพิษ

Technical Management

Tharitat.

Thanita Kulsurwong
Scientist (4)

Approved by

Supt S.

Supt Salameh
Section Head

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