

เอกสารแบบ 26
หนังสือรับรองผลการตรวจวัดคุณภาพสิ่งแวดล้อม



MM-N08



Analysis / Test Report

TESTING
No.0009

Lot ID: 2453179

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapkor, Phichit Thailand 66230
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Page 2 of 35

Sample Number	2453179-2
Sampled Date	May 21, 2024
Sample Description	Air Quality
Location	Ban Dong Long (GPS 47Q 0678206, 1802191)
Date Analysis Commenced	May 29, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure	751 mmHg
Atmospheric Temperature	30.1 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Hydrogen cyanide *	21/05/24 - 22/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PKCAM 116	-	Bangkok
Total Suspended Particulate	21/05/24 - 22/05/24	mg/m ³	-	0.005	0.026	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok	

Guideline :

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

Sampled By : Pongvisit Charoensilp

Remark :

- LOD : Limit of Detection
- "x" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Analysis / Test Report

TESTING
No.0009

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Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapkor, Phichit Thailand 66230
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Project Name : Air Test
Project Location :

Page 1 of 35

Sample Number	2453179-1
Sampled Date	May 20, 2024
Sample Description	Air Quality
Location	Ban Dong Long (GPS 47Q 0678206, 1802191)
Date Analysis Commenced	May 29, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure	751 mmHg
Atmospheric Temperature	36.5 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Hydrogen cyanide *	20/05/24 - 21/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PKCAM 116	-	Bangkok
Total Suspended Particulate	20/05/24 - 21/05/24	mg/m ³	-	0.005	0.056	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok	

Guideline :

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Sampled By : Pongvisit Charoensilp

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Analysis / Test Report

TESTING
No.0009

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

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Sample Number 2453179-4
Sampled Date May 23, 2024
Sample Description Air Quality
Location Ban Dong Long (GPS 47Q 0678206, 1802191)
Date Analysis Commenced May 29, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure 751 mmHg
Atmospheric Temperature 32.4 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Hydrogen cyanide *	23/05/24 - 24/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	Bangkok
Total Suspended Particulate	23/05/24 - 24/05/24	mg/m ³	-	0.005	0.103	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok

Guideline :
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Sampled By : Pongvisit Charoensilp
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No.0009

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

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Sample Number 2453179-3
Sampled Date May 22, 2024
Sample Description Air Quality
Location Ban Dong Long (GPS 47Q 0678206, 1802191)
Date Analysis Commenced May 29, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure 751 mmHg
Atmospheric Temperature 32.5 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Hydrogen cyanide *	22/05/24 - 23/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	Bangkok
Total Suspended Particulate	22/05/24 - 23/05/24	mg/m ³	-	0.005	0.042	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok

Guideline :
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No.0009

Lot ID: 2453179

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapkor, Phichit Thailand 66230
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

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Sample Number	2453179-6								
Sampled Date	May 25, 2024								
Sample Description	Air Quality								
Location	Ban Dong Long (GPS 47Q 0678206, 1802191)								
Date Analysis Commenced	May 29, 2024								
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated								
Barometric Pressure	751 mmHg								
Atmospheric Temperature	33.6 °C								
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Hydrogen cyanide *	25/05/24 - 26/05/24	mg/m3	-	0.10	<0.10	No Standard	Based on NIOSH, PKCAM 116	-	Bangkok
Total Suspended Particulate	25/05/24 - 26/05/24	mg/m3	-	0.005	0.027	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (Include sampling)	NEB No.24 Bangkok	

Guideline :

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

Sampled By : Pongyisit Charoensilp

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Project Name : Air Test
Project Location :

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Sample Number	2453179-5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Sampled By : Pongyisit Charoensilp

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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

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Sample Number	2453179-15
Sampled Date	May 20, 2024
Sample Description	Air Quality
Location	Ban Khao Mor (GPS 47Q 0675723, 1804284)
Date Analysis Commenced	May 29, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure	751 mmHg
Atmospheric Temperature	36.5 °C
Analyte	
Air Testing	
Hydrogen cyanide *	20/05/24 - 21/05/24 mg/m ³ - 0.10 <0.10 No Standard
Total Suspended Particulate	20/05/24 - 21/05/24 mg/m ³ - 0.005 0.038 0.33
	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)

Guideline :
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P/O : 47581
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Report Number : 2990260-1

Project Name : Air Test
Project Location :

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Sample Number	2453179-7
Sampled Date	May 26, 2024
Sample Description	Air Quality
Location	Ban Dong Long (GPS 47Q 0678206, 1802191)
Date Analysis Commenced	May 29, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure	751 mmHg
Atmospheric Temperature	33.4 °C
Analyte	
Air Testing	
Hydrogen cyanide *	26/05/24 - 27/05/24 mg/m ³ - 0.10 <0.10 No Standard
Total Suspended Particulate	26/05/24 - 27/05/24 mg/m ³ - 0.005 0.033 0.33
	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)

Guideline :
NEB No.24 : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Pongvisit Charoensilp
Remark :
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Analysis / Test Report

TESTING
No.0009

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetuk, Amphur Thapkor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Page 17 of 35

Sample Number	2453179-17
Sampled Date	May 22, 2024
Sample Description	Air Quality
Location	Ban Khao Mor (GPS 47Q 0675723, 1804284)
Date Analysis Commenced	May 29, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure	751 mmHg
Atmospheric Temperature	31.6 °C
Analyte	
Air Testing	
Hydrogen cyanide *	22/05/24 - 23/05/24 mg/m ³ - 0.10 <0.10 No Standard
Total Suspended Particulate	22/05/24 - 23/05/24 mg/m ³ - 0.005 0.016 0.33
	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)

Guideline :
NEB No.24 : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Pongyisit Charoensilp
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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Page 16 of 35

Sample Number	2453179-16
Sampled Date	May 21, 2024
Sample Description	Air Quality
Location	Ban Khao Mor (GPS 47Q 0675723, 1804284)
Date Analysis Commenced	May 29, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure	751 mmHg
Atmospheric Temperature	30.1 °C
Analyte	
Air Testing	
Hydrogen cyanide *	21/05/24 - 22/05/24 mg/m ³ - 0.10 <0.10 No Standard
Total Suspended Particulate	21/05/24 - 22/05/24 mg/m ³ - 0.005 0.015 0.33
	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)

Guideline :
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Sampled By : Pongyisit Charoensilp
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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

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Lot ID: 2453179
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Page 18 of 35

Sample Number : 2453179-19
Sampled Date : May 24, 2024
Sample Description : Air Quality
Location : Ban Khao Mor (GPS 47Q 0675723, 1804284)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 31.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Hydrogen cyanide *	24/05/24 - 25/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PKCAM 116	-	Bangkok
Total Suspended Particulate	24/05/24 - 25/05/24	mg/m ³	-	0.005	0.018	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok	

Guideline :
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Sampled By : Pongyisit Charoensilp
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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

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Sample Number : 2453179-18
Sampled Date : May 23, 2024
Sample Description : Air Quality
Location : Ban Khao Mor (GPS 47Q 0675723, 1804284)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 31.4 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Hydrogen cyanide *	23/05/24 - 24/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PKCAM 116	-	Bangkok
Total Suspended Particulate	23/05/24 - 24/05/24	mg/m ³	-	0.005	0.012	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok	

Guideline :
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Sampled By : Pongyisit Charoensilp
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Analysis / Test Report

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Lot ID: 2453179

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Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

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Sample Number 2453179-21
Sampled Date May 26, 2024
Sample Description Air Quality
Location Ban Khao Mor (GPS 47Q 0675723, 1804284)
Date Analysis Commenced May 29, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure 751 mmHg
Atmospheric Temperature 32.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Hydrogen cyanide *	26/05/24 - 27/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PKCAM 116	Bangkok
Total Suspended Particulate	26/05/24 - 27/05/24	mg/m ³	-	0.005	0.026	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok

Guideline :

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Sampled By : Pongyisit Charoensilp

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Scientist (3)

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Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Page 20 of 35

Sample Number 2453179-20
Sampled Date May 25, 2024
Sample Description Air Quality
Location Ban Khao Mor (GPS 47Q 0675723, 1804284)
Date Analysis Commenced May 29, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure 751 mmHg
Atmospheric Temperature 33.5 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Hydrogen cyanide *	25/05/24 - 26/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PKCAM 116	Bangkok
Total Suspended Particulate	25/05/24 - 26/05/24	mg/m ³	-	0.005	0.020	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok

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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Lot ID: 2453179

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Sample Number : 2453179-30
Sampled Date : May 21, 2024
Sample Description : Air Quality
Location : Ban Long Du (GPS 47Q 0671962, 1799044)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 30.1 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Hydrogen cyanide *	21/05/24 - 22/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	-	Bangkok
Total Suspended Particulate	21/05/24 - 22/05/24	mg/m ³	-	0.005	0.023	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok	

Guideline :

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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Lot ID: 2453179

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Sample Number : 2453179-29
Sampled Date : May 20, 2024
Sample Description : Air Quality
Location : Ban Long Du (GPS 47Q 0671962, 1799044)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 36.7 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Hydrogen cyanide *	20/05/24 - 21/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	-	Bangkok
Total Suspended Particulate	20/05/24 - 21/05/24	mg/m ³	-	0.005	0.047	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok	

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Report Number : 2990260-1

Project Name : Air Test
Project Location :

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Lot ID: 2453179
TESTING
No.0009

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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Page 31 of 35

Sample Number : 2453179-32
Sampled Date : May 23, 2024
Sample Description : Air Quality
Location : Ban Long Du (GPS 47Q 0671962, 1799044)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 31.5 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Hydrogen cyanide *	23/05/24 - 24/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	-	Bangkok
Total Suspended Particulate	23/05/24 - 24/05/24	mg/m ³	-	0.005	0.011	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok	

Guideline :
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Lot ID: 2453179
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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

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Sample Number : 2453179-31
Sampled Date : May 22, 2024
Sample Description : Air Quality
Location : Ban Long Du (GPS 47Q 0671962, 1799044)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 31.8 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Hydrogen cyanide *	22/05/24 - 23/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	-	Bangkok
Total Suspended Particulate	22/05/24 - 23/05/24	mg/m ³	-	0.005	0.021	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok	

Guideline :
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Sampled By : Pongvisit Charoensilp

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No.0009

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99 Moo 9, Tambon Khaocheutuk, Amphur Thapkor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1

Lot ID: 2453179

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Sample Number : 2453179-34
Sampled Date : May 25, 2024
Sample Description : Air Quality
Location : Ban Long Du (GPS 47Q 0671962, 1799044)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 33.2 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Hydrogen cyanide *	25/05/24 - 26/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	-	Bangkok
Total Suspended Particulate	25/05/24 - 26/05/24	mg/m ³	-	0.005	0.032	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok	

Guideline :
NEB No.24 : Notification of the National Environmental Board, No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Pongvisit Charoensilp
Remark :
- LOD : Limit of Detection
- "x" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
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Analysis / Test Report

TESTING
No.0009

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapkor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1

Lot ID: 2453179

Page 33 of 35

Sample Number : 2453179-33
Sampled Date : May 24, 2024
Sample Description : Air Quality
Location : Ban Long Du (GPS 47Q 0671962, 1799044)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 32.1 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
Air Testing									
Hydrogen cyanide *	24/05/24 - 25/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	-	Bangkok
Total Suspended Particulate	24/05/24 - 25/05/24	mg/m ³	-	0.005	0.020	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok	

Guideline :
NEB No.24 : Notification of the National Environmental Board, No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Pongvisit Charoensilp
Remark :
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Analysis / Test Report

TESTING
No.0009

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapkor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1

Page 8 of 35

Sample Number	2453179-8
Sampled Date	May 20, 2024
Sample Description	Air Quality
Location	Ban Nong Ra Man (GPS 47Q 0674693, 1802561)
Date Analysis Commenced	May 29, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure	751 mmHg
Atmospheric Temperature	35.5 °C
Analyte	
Air Testing	
Hydrogen cyanide *	20/05/24 - 21/05/24 mg/m ³ - 0.10 <0.10 No Standard
Total Suspended Particulate	20/05/24 - 21/05/24 mg/m ³ - 0.005 0.055 0.33

Guideline :
NEB No.24 : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Pongvisit Charoensilp
Remark :
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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1

Page 35 of 35

Sample Number	2453179-35
Sampled Date	May 26, 2024
Sample Description	Air Quality
Location	Ban Long Du (GPS 47Q 0671962, 1799044)
Date Analysis Commenced	May 29, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure	751 mmHg
Atmospheric Temperature	33.1 °C
Analyte	
Air Testing	
Hydrogen cyanide *	26/05/24 - 27/05/24 mg/m ³ - 0.10 <0.10 No Standard
Total Suspended Particulate	26/05/24 - 27/05/24 mg/m ³ - 0.005 0.031 0.33

Guideline :
NEB No.24 : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Pongvisit Charoensilp
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Analysis / Test Report

TESTING
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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1
Project Location :

Lot ID: 2453179
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1
Project Location :

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Sample Number	2453179-10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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Guideline :
NEB No.24 : Notification of the National Environmental Board, No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Pongyisit Charoensilp
Remark :
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Analysis / Test Report

TESTING
No.0009

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapkor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1
Project Location :

Lot ID: 2453179
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1
Project Location :

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Sample Number	2453179-9							
Sampled Date	May 21, 2024							
Sample Description	Air Quality							
Location	Ban Nong Ra Man (GPS 47Q 0674693, 1802561)							
Date Analysis Commenced	May 29, 2024							
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated							
Barometric Pressure	751 mmHg							
Atmospheric Temperature	30.1 °C							
Analyte	Sampled Date/Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Hydrogen cyanide *	21/05/24 - 22/05/24	mg/m3	-	0.10	<0.10	No Standard	Based on NIOSH, P8CAM 116	Bangkok
Total Suspended Particulate	21/05/24 - 22/05/24	mg/m3	-	0.005	0.021	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (Include sampling)	NEB No.24 Bangkok

Guideline :
NEB No.24 : Notification of the National Environmental Board, No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Pongyisit Charoensilp
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Analysis / Test Report

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No.0009

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99 Moo 9, Tambon Khaocheutuk, Amphur Thapkor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1

Lot ID: 2453179

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Sample Number	2453179-12
Sampled Date	May 24, 2024
Sample Description	Air Quality
Location	Ban Nong Ra Man (GPS 47Q 0674693, 1802561)
Date Analysis Commenced	May 29, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure	751 mmHg
Atmospheric Temperature	31.6 °C
Analyte	
Air Testing	
Hydrogen cyanide *	24/05/24 - 25/05/24 mg/m ³ - 0.10 <0.10 No Standard
Total Suspended Particulate	24/05/24 - 25/05/24 mg/m ³ - 0.005 0.035 0.33
	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)

Guideline :
NEB No.24 : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Pongyisit Charoensilp
Remark :
- LOD : Limit of Detection
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Analysis / Test Report

TESTING
No.0009

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99 Moo 9, Tambon Khaocheutuk, Amphur Thapkor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1

Lot ID: 2453179

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Sample Number	2453179-11
Sampled Date	May 23, 2024
Sample Description	Air Quality
Location	Ban Nong Ra Man (GPS 47Q 0674693, 1802561)
Date Analysis Commenced	May 29, 2024
Condition of Sample	Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure	751 mmHg
Atmospheric Temperature	31.7 °C
Analyte	
Air Testing	
Hydrogen cyanide *	23/05/24 - 24/05/24 mg/m ³ - 0.10 <0.10 No Standard
Total Suspended Particulate	23/05/24 - 24/05/24 mg/m ³ - 0.005 0.021 0.33
	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)

Guideline :
NEB No.24 : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Pongyisit Charoensilp
Remark :
- LOD : Limit of Detection
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Analysis / Test Report

TESTING
No.0009

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapkor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Page 14 of 35

Lot ID: 2453179
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Page 13 of 35

Sample Number 2453179-13
Sampled Date May 25, 2024
Sample Description Air Quality
Location Ban Nong Ra Man (GPS 47Q 0674693, 1802561)
Date Analysis Commenced May 29, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure 751 mmHg
Atmospheric Temperature 33.6 °C

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing							
Hydrogen cyanide *	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PKCAM 116	Bangkok
Total Suspended Particulate	mg/m ³	-	0.005	0.036	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok

Guideline :
NEB No.24 : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Pongyisit Charoensilp
Remark :
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Analysis / Test Report

TESTING
No.0009

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1

Lot ID: 2453179

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Sample Number : 2453179-23
Sampled Date : May 21, 2024
Sample Description : Air Quality
Location : Ban Klong Sai Yang Rong (GPS 47Q 0676116, 1798785)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 30.1 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Hydrogen cyanide *	21/05/24 - 22/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	Bangkok
Total Suspended Particulate	21/05/24 - 22/05/24	mg/m ³	-	0.005	0.022	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok

Guideline :
NEB No.24 : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Porngyist Charoensilp
Remark :
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Analysis / Test Report

TESTING
No.0009

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Project Name : Air Test
Report Number : 2990260-1

Lot ID: 2453179

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Sample Number : 2453179-22
Sampled Date : May 20, 2024
Sample Description : Air Quality
Location : Ban Klong Sai Yang Rong (GPS 47Q 0676116, 1798785)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 36.8 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Hydrogen cyanide *	20/05/24 - 21/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	Bangkok
Total Suspended Particulate	20/05/24 - 21/05/24	mg/m ³	-	0.005	0.036	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok

Guideline :
NEB No.24 : Notification of the National Environmental Board. No.24, 2004 (B.E.2547) dated September 22, 2004
Sampled By : Porngyist Charoensilp
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Analysis / Test Report

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No.0009

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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Lot ID: 2453179

Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Page 25 of 35

Sample Number 2453179-25
Sampled Date May 23, 2024
Sample Description Air Quality
Location Ban Klong Sai Yang Rong (GPS 47Q 0676116, 1798785)
Date Analysis Commenced May 29, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure 751 mmHg
Atmospheric Temperature 31.9 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Hydrogen cyanide *	23/05/24 - 24/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	Bangkok
Total Suspended Particulate	23/05/24 - 24/05/24	mg/m ³	-	0.005	0.011	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok

Guideline :

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

Sampled By : Pongyisit Charoensilp

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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Lot ID: 2453179

Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

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Sample Number 2453179-24
Sampled Date May 22, 2024
Sample Description Air Quality
Location Ban Klong Sai Yang Rong (GPS 47Q 0676116, 1798785)
Date Analysis Commenced May 29, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure 751 mmHg
Atmospheric Temperature 32.1 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Hydrogen cyanide *	22/05/24 - 23/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	Bangkok
Total Suspended Particulate	22/05/24 - 23/05/24	mg/m ³	-	0.005	0.014	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok

Guideline :

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

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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Lot ID: 2453179

Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Page 27 of 35

Sample Number : 2453179-27
Sampled Date : May 25, 2024
Sample Description : Air Quality
Location : Ban Klong Sai Yang Rong (GPS 47Q 0676116, 1798785)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 33.7 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Hydrogen cyanide *	25/05/24 - 26/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	Bangkok
Total Suspended Particulate	25/05/24 - 26/05/24	mg/m ³	-	0.005	0.023	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok

Guideline :

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

Sampled By : Pongyisit Charoensilp

Remark :

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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Project Name : Air Test
Project Location :

Lot ID: 2453179

Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number : 2990260-1

Page 26 of 35

Sample Number : 2453179-26
Sampled Date : May 24, 2024
Sample Description : Air Quality
Location : Ban Klong Sai Yang Rong (GPS 47Q 0676116, 1798785)
Date Analysis Commenced : May 29, 2024
Condition of Sample : Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one amber plastic bottle, refrigerated
Barometric Pressure : 751 mmHg
Atmospheric Temperature : 32.6 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline Testing Location
Air Testing								
Hydrogen cyanide *	24/05/24 - 25/05/24	mg/m ³	-	0.10	<0.10	No Standard	Based on NIOSH, PRCAM 116	Bangkok
Total Suspended Particulate	24/05/24 - 25/05/24	mg/m ³	-	0.005	0.019	0.33	In - house method : STM 04-051 based on U.S. Environmental Protection Agency 40 CFR, method 50, Appendix B, revised as of July 1, 2008 (include sampling)	NEB No.24 Bangkok

Guideline :

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

Sampled By : Pongyisit Charoensilp

Remark :

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Analysis / Test Report

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P/O : 47581
Date Received : May 30, 2024
Date Reported : Jun 05, 2024
Report Number: 2990253-1

Project Name : Air Test
Project Location :

Page 1 of 1

Lot ID: 2453174

Sample Description		Air Quality									
Location		Ban Dong Long (GPS 47Q 0678206, 1802191)									
Parameter		Nitrogen dioxide (ppm)									
Measurement Date		May 20, 2024 - May 27, 2024									
Measurement by		Vanch Phairipit									
Time		2453174-1	2453174-2	2453174-3	2453174-4	2453174-5	2453174-6	2453174-7			
		May 20, 2024	May 21, 2024	May 22, 2024	May 23, 2024	May 24, 2024	May 25, 2024	May 26, 2024			
01:00 PM - 02:00 PM		0.005	0.005	0.004	0.004	0.002	0.002	0.004	0.004	0.004	
02:00 PM - 03:00 PM		0.003	0.004	0.006	0.005	0.002	0.002	0.003	0.003	0.003	
03:00 PM - 04:00 PM		0.002	0.003	0.007	0.004	0.002	0.002	0.002	0.003	0.003	
04:00 PM - 05:00 PM		0.002	0.002	0.005	0.004	0.002	0.002	0.002	0.003	0.003	
05:00 PM - 06:00 PM		0.002	0.002	0.003	0.003	0.002	0.002	0.002	0.002	0.003	
06:00 PM - 07:00 PM		<0.001	0.003	0.002	0.002	0.002	0.003	0.001	0.006	0.006	
07:00 PM - 08:00 PM		0.001	0.003	0.001	0.002	0.003	0.001	0.006	0.006	0.006	
08:00 PM - 09:00 PM		0.003	0.003	0.002	0.003	0.006	0.002	0.002	0.006	0.006	
09:00 PM - 10:00 PM		0.003	0.004	0.003	0.003	0.005	0.004	0.005	0.005	0.005	
10:00 PM - 11:00 PM		0.004	0.004	0.003	0.006	0.001	0.002	0.002	0.002	0.005	
11:00 PM - 12:00 AM		0.003	0.004	0.003	0.005	<0.001	0.006	0.005	0.005	0.005	
12:00 AM - 01:00 AM		0.002	0.002	0.002	0.002	<0.001	0.003	0.005	0.005	0.005	
01:00 AM - 02:00 AM		0.001	0.002	0.001	<0.001	0.007	0.002	0.002	0.002	0.005	
02:00 AM - 03:00 AM		0.001	0.002	<0.001	<0.001	0.008	0.002	0.002	0.006	0.006	
03:00 AM - 04:00 AM		<0.001	0.003	<0.001	<0.001	0.006	0.002	0.002	0.005	0.005	
04:00 AM - 05:00 AM		<0.001	0.002	0.001	0.002	0.006	0.002	0.002	0.004	0.004	
05:00 AM - 06:00 AM		<0.001	0.002	<0.001	0.005	0.004	0.003	0.003	0.004	0.004	
06:00 AM - 07:00 AM		<0.001	0.003	0.002	0.009	0.003	0.004	0.004	<0.001	<0.001	
07:00 AM - 08:00 AM		0.002	0.002	0.002	0.009	0.002	0.004	0.002	0.002	0.002	
08:00 AM - 09:00 AM		0.002	0.002	0.003	0.008	0.002	0.002	0.002	0.004	0.004	
09:00 AM - 10:00 AM		0.006	0.004	0.006	0.006	0.002	0.003	0.003	0.003	0.003	
10:00 AM - 11:00 AM		0.007	0.006	0.004	0.004	0.002	0.006	0.002	0.006	0.002	
11:00 AM - 12:00 PM		0.006	0.003	0.004	0.003	0.003	0.004	0.002	0.002	0.002	
12:00 PM - 01:00 PM		0.006	0.004	0.004	0.003	0.003	0.003	0.002	0.003	0.002	
Average		0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.004	
1hr - Maximum		0.007	0.006	0.007	0.009	0.008	0.006	0.006	0.006	0.006	
Standard 1hr - Average		0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	
Standard Reference		: Notification of the National Environment Board No. 33, 2009 (B.E. 2552).									
Reference Method		: US EPA Method Part 50 App. F (Chemiluminescence)									

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Analysis / Test Report

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P/O : 47581
Date Received : May 28, 2024
Date Reported : Jun 05, 2024
Report Number: 2990260-1

Project Name : Air Test
Project Location :

Page 28 of 35

Sample Description		Air Quality									
Location		Ban Klong Sai Yang Rong (GPS 47Q 0676116, 1798785)									
Parameter		Air Quality									
Measurement by		Air Quality									
Time		2453179-28	2453179-29	2453179-30	2453179-31	2453179-32	2453179-33	2453179-34	2453179-35	2453179-36	2453179-37
		May 26, 2024	May 26, 2024	May 26, 2024	May 26, 2024	May 26, 2024	May 26, 2024	May 26, 2024	May 26, 2024	May 26, 2024	May 26, 2024
01:00 PM - 02:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
02:00 PM - 03:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
03:00 PM - 04:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
04:00 PM - 05:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
05:00 PM - 06:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
06:00 PM - 07:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
07:00 PM - 08:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
08:00 PM - 09:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
09:00 PM - 10:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
10:00 PM - 11:00 PM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
11:00 PM - 12:00 AM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
12:00 AM - 01:00 AM		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Average		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
1hr - Maximum		0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007
Standard 1hr - Average		0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170
Standard		Notification of the National Environment Board No. 33, 2009 (B.E. 2552).									
Reference Method		US EPA Method Part 50 App. F (Chemiluminescence)									

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

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

Approved by

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

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2244-20 EMAIL

S: Reports_Air_SONOr-pt (137PM)



MM-N08

Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetluk, Amphur ThapKlor, Pichit Thailand 66230
P/O : 47581
Date Received : May 30, 2024
Date Reported : Jun 05, 2024
Report Number: 3013839-1

Project Name : Air Test
Project Location :

Page 1 of 1

Lot ID: 2453174
Date Received : May 30, 2024
Date Reported : Jun 05, 2024
Report Number: 3013888-1

Project Name : Air Test
Project Location :

Page 1 of 1

Sample Description		Air Quality											
Location		Ban Khao Mor (GPS 47Q 0675723, 1804284)											
Parameter		Nitrogen dioxide (ppm)											
Measurement Date		May 20, 2024 - May 27, 2024											
Measurement by		Vanch Phairipit											
Time		2453174-15	2453174-16	2453174-17	2453174-18	2453174-19	2453174-20	2453174-21					
		May 20, 2024	May 21, 2024	May 22, 2024	May 23, 2024	May 24, 2024	May 25, 2024	May 26, 2024					
01:00 PM - 02:00 PM		0.001	0.003	<0.001	<0.001	0.002	<0.001	<0.001					
02:00 PM - 03:00 PM		0.001	0.004	0.002	<0.001	<0.001	<0.001	<0.001					
03:00 PM - 04:00 PM		0.004	0.004	0.001	0.001	0.001	<0.001	<0.001					
04:00 PM - 05:00 PM		0.001	0.003	0.001	0.001	0.003	<0.001	<0.001					
05:00 PM - 06:00 PM		0.001	0.002	0.002	<0.001	0.002	<0.001	<0.001					
06:00 PM - 07:00 PM		0.002	0.002	0.003	<0.001	0.001	0.001	0.001					
07:00 PM - 08:00 PM		0.004	0.002	0.007	0.002	0.002	0.002	0.003					
08:00 PM - 09:00 PM		0.004	0.003	0.008	<0.001	0.002	0.003	0.006					
09:00 PM - 10:00 PM		0.005	0.004	0.006	<0.001	0.001	0.004	0.005					
10:00 PM - 11:00 PM		0.005	0.006	0.006	<0.001	0.004	0.003	0.006					
11:00 PM - 12:00 AM		0.004	0.008	0.004	<0.001	0.002	0.002	0.002					
12:00 AM - 01:00 AM		0.005	0.007	0.001	<0.001	0.002	0.003	<0.001					
01:00 AM - 02:00 AM		0.005	0.007	<0.001	<0.001	0.002	0.003	0.001					
02:00 AM - 03:00 AM		0.004	0.008	<0.001	<0.001	0.002	0.003	0.002					
03:00 AM - 04:00 AM		0.005	0.008	0.001	<0.001	0.003	0.002	0.002					
04:00 AM - 05:00 AM		0.004	0.007	0.001	<0.001	0.003	0.003	0.003					
05:00 AM - 06:00 AM		0.005	0.005	<0.001	<0.001	0.003	0.003	0.004					
06:00 AM - 07:00 AM		0.005	0.005	<0.001	<0.001	0.003	0.004	0.002					
07:00 AM - 08:00 AM		0.005	0.005	<0.001	0.001	0.004	0.004	0.002					
08:00 AM - 09:00 AM		0.008	0.005	0.004	0.004	0.005	0.004	0.002					
09:00 AM - 10:00 AM		0.006	0.002	0.003	0.003	0.005	0.003	0.002					
10:00 AM - 11:00 AM		0.002	0.003	0.002	0.002	0.003	0.002	0.002					
11:00 AM - 12:00 PM		0.002	0.002	0.002	0.002	0.001	0.002	0.003					
12:00 PM - 01:00 PM		0.002	0.001	<0.001	0.002	<0.001	0.001	0.003					
Average		0.004	0.004	0.003	0.001	0.002	0.002	0.002					
1hr - Maximum		0.008	0.008	0.008	0.004	0.005	0.004	0.006					
Standard 1hr - Average		0.170	0.170	0.170	0.170	0.170	0.170	0.170					
Standard	: Notification of the National Environment Board No. 33, 2009 (B.E. 2552).												
Reference Method	: US EPA Method Part 50 App. F (Chemiluminescence)												

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2244-20 BIAL

u.26/19



Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetluk, Amphur ThapKlor, Pichit Thailand 66230
P/O : 47581
Date Received : May 30, 2024
Date Reported : Jun 05, 2024
Report Number: 3013888-1

Project Name : Air Test
Project Location :

Page 1 of 1

Sample Description		Air Quality											
Location		Ban Nong Ra Man (GPS 47Q 0674693, 1802561)											
Parameter		Nitrogen dioxide (ppm)											
Measurement Date		May 20, 2024 - May 27, 2024											
Measurement by		Vanich Phairipit											
Time		2453174-8	2453174-9	2453174-10	2453174-11	2453174-12	2453174-13	2453174-14					
		May 20, 2024	May 21, 2024	May 22, 2024	May 23, 2024	May 24, 2024	May 25, 2024	May 26, 2024					
12:00 PM - 01:00 PM		0.001	0.003	0.002	<0.001	<0.001	<0.001	0.001	0.001				
01:00 PM - 02:00 PM		<0.001	0.003	0.002	<0.001	<0.001	<0.001	0.001	0.001				
02:00 PM - 03:00 PM		0.003	0.004	0.002	<0.001	<0.001	0.001	0.002	0.001				
03:00 PM - 04:00 PM		0.003	0.003	0.001	<0.001	0.001	0.002	0.002	0.001				
04:00 PM - 05:00 PM		0.002	0.003	0.001	<0.001	0.001	0.002	0.002	0.001				
05:00 PM - 06:00 PM		0.003	0.004	0.003	<0.001	0.003	0.003	0.003	0.002				
06:00 PM - 07:00 PM		0.004	0.003	0.004	0.001	0.002	0.004	0.003	0.002				
07:00 PM - 08:00 PM		0.005	0.004	0.007	<0.001	0.003	0.003	0.004	0.004				
08:00 PM - 09:00 PM		0.005	0.003	0.005	<0.001	0.001	0.003	0.004	0.004				
09:00 PM - 10:00 PM		0.005	0.003	0.005	<0.001	0.001	0.002	0.003	0.003				
10:00 PM - 11:00 PM		0.005	0.006	0.004	<0.001	0.002	0.001	0.002	0.002				
11:00 PM - 12:00 AM		0.004	0.006	0.003	<0.001	0.002	0.002	<0.001	<0.001				
12:00 AM - 01:00 AM		0.004	0.010	<0.001	<0.001	0.001	0.002	<0.001	<0.001				
01:00 AM - 02:00 AM		0.004	0.008	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
02:00 AM - 03:00 AM		0.004	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	0.003				
03:00 AM - 04:00 AM		0.003	0.007	<0.001	0.001	<0.001	0.001	0.001	0.002				
04:00 AM - 05:00 AM		0.003	0.008	0.001	0.002	0.002	0.001	0.002	0.002				
05:00 AM - 06:00 AM		0.004	0.007	<0.001	<0.001	0.002	0.001	0.002	0.001				
06:00 AM - 07:00 AM		0.005	0.006	0.001	0.003	0.003	0.002	0.003	0.003				
07:00 AM - 08:00 AM		0.006	0.005	0.002	0.003	0.003	0.002	0.002	0.003				
08:00 AM - 09:00 AM		0.006	0.002	0.002	0.002	0.003	0.003	0.003	0.003				
09:00 AM - 10:00 AM		0.005	0.002	0.004	0.002	0.002	0.002	0.002	0.001				
10:00 AM - 11:00 AM		0.003	0.002	0.003	0.001	0.002	0.003	0.003	0.003				
11:00 AM - 12:00 PM		0.002	0.002	0.001	<0.001	0.001	0.002	0.002	0.002				
Average		0.004	0.005	0.002	0.001	0.002	0.002	0.002	0.002				
1hr - Maximum		0.006	0.010	0.007	0.003	0.003	0.003	0.004	0.004				
Standard 1hr - Average		0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170				
Standard	: Notification of the National Environment Board No. 33, 2009 (B.E. 2552); Reference Method : US EPA Method Part 50 App. F (Chemiluminescence)												



MM-N08

Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetluk, Amphur ThapKlor, Pichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 2453174
Date Received : May 30, 2024
Date Reported : Jun 05, 2024
Report Number: 3013843-1

Page 1 of 1

Sample Description		Air Quality											
Location	Parameter	Ban Long Du (GPS 47Q 0671962, 1799044)											
Measurement Date	Measurement by	Nitrogen dioxide (ppm)											
Measurement Date		May 20, 2024 - May 27, 2024											
Measurement by		Vanich Phairipit											
Time		2453174-29	2453174-30	2453174-31	2453174-32	2453174-33	2453174-34	2453174-35					
		May 20, 2024	May 21, 2024	May 22, 2024	May 23, 2024	May 24, 2024	May 25, 2024	May 26, 2024					
03:00 PM - 04:00 PM		0.004	0.003	0.004	0.002	0.003	0.003	0.003					
04:00 PM - 05:00 PM		<0.001	0.003	0.004	0.002	0.003	0.003	0.003					
05:00 PM - 06:00 PM		0.008	0.003	0.004	0.002	0.003	0.003	0.003					
06:00 PM - 07:00 PM		0.004	0.003	0.004	0.002	0.003	0.004	0.004					
07:00 PM - 08:00 PM		0.004	0.004	0.004	0.003	0.003	0.003	0.003					
08:00 PM - 09:00 PM		0.004	0.004	0.004	0.003	0.003	0.003	0.003					
09:00 PM - 10:00 PM		0.005	0.004	0.004	0.002	0.003	0.003	0.003					
10:00 PM - 11:00 PM		0.004	0.004	0.004	0.002	0.003	0.003	0.004					
11:00 PM - 12:00 AM		0.004	0.005	0.004	0.002	0.003	0.004	0.003					
12:00 AM - 01:00 AM		0.004	0.005	0.003	0.002	0.003	0.004	0.003					
01:00 AM - 02:00 AM		0.004	0.004	0.002	0.002	0.003	0.003	0.002					
02:00 AM - 03:00 AM		0.004	0.004	0.002	0.002	0.003	0.003	0.002					
03:00 AM - 04:00 AM		0.004	0.005	0.003	0.002	0.003	0.003	0.003					
04:00 AM - 05:00 AM		0.004	0.005	0.002	0.002	0.003	0.003	0.003					
05:00 AM - 06:00 AM		0.005	0.004	0.002	0.002	0.003	0.003	0.003					
06:00 AM - 07:00 AM		0.005	0.004	0.002	0.002	0.003	0.003	0.003					
07:00 AM - 08:00 AM		0.004	0.004	0.004	0.002	0.003	0.003	0.003					
08:00 AM - 09:00 AM		0.004	0.004	0.003	0.002	0.003	0.003	0.003					
09:00 AM - 10:00 AM		0.004	0.003	0.003	0.002	0.003	0.004	0.003					
10:00 AM - 11:00 AM		0.004	0.003	0.002	0.003	0.003	0.004	0.003					
11:00 AM - 12:00 PM		0.002	0.003	0.003	0.003	0.003	0.004	0.003					
12:00 PM - 01:00 PM		0.003	0.003	0.002	0.004	0.003	0.004	0.003					
01:00 PM - 02:00 PM		0.004	0.004	0.002	0.003	0.003	0.003	0.003					
02:00 PM - 03:00 PM		0.003	0.005	0.002	0.002	0.003	0.003	0.002					
Average		0.004	0.004	0.003	0.003	0.003	0.003	0.003					
1hr - Maximum		0.008	0.005	0.004	0.004	0.003	0.004	0.004					
Standard 1hr - Average		0.170	0.170	0.170	0.170	0.170	0.170	0.170					
Standard		: Notification of the National Environment Board No. 33, 2009 (B.E. 2552).											
Reference Method		: US EPA Method Part 50 App. F (Chemiluminescence)											

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

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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetluk, Amphur ThapKlor, Pichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 2453174
Date Received : May 30, 2024
Date Reported : Jun 05, 2024
Report Number: 3013841-1

Page 1 of 1

Sample Description		Air Quality													
Location	Parameter	Ban Klong Sai Yang Rong (GPS 47Q 0676116, 1798785)													
Measurement Date	Measurement by	Nitrogen dioxide (ppm)													
Time		2453174-22		2453174-23		2453174-24		2453174-25		2453174-26		2453174-27		2453174-28	
		May 20, 2024	May 21, 2024	May 21, 2024	May 22, 2024	May 22, 2024	May 23, 2024	May 23, 2024	May 24, 2024	May 24, 2024	May 25, 2024	May 25, 2024	May 26, 2024	May 26, 2024	
03:00 PM - 04:00 PM		0.003	0.003	0.003	0.004	0.004	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
04:00 PM - 05:00 PM		<0.001	0.003	0.003	0.004	0.004	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
05:00 PM - 06:00 PM		0.008	0.003	0.003	0.004	0.004	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
06:00 PM - 07:00 PM		0.004	0.003	0.003	0.004	0.004	0.002	0.003	0.003	0.003	0.004	0.004	0.004	0.004	
07:00 PM - 08:00 PM		0.004	0.004	0.004	0.004	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004	
08:00 PM - 09:00 PM		0.004	0.004	0.004	0.004	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
09:00 PM - 10:00 PM		0.005	0.004	0.004	0.004	0.004	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
10:00 PM - 11:00 PM		0.004	0.004	0.004	0.004	0.004	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.004	
11:00 PM - 12:00 AM		0.004	0.005	0.005	0.004	0.004	0.002	0.003	0.003	0.003	0.004	0.004	0.003	0.003	
12:00 AM - 01:00 AM		0.004	0.005	0.005	0.003	0.003	0.002	0.003	0.003	0.003	0.004	0.004	0.003	0.003	
01:00 AM - 02:00 AM		0.004	0.004	0.004	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.002	0.002	
02:00 AM - 03:00 AM		0.004	0.004	0.004	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.002	0.002	
03:00 AM - 04:00 AM		0.004	0.005	0.005	0.003	0.003	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
04:00 AM - 05:00 AM		0.004	0.005	0.005	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
05:00 AM - 06:00 AM		0.005	0.004	0.004	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
06:00 AM - 07:00 AM		0.005	0.004	0.004	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
07:00 AM - 08:00 AM		0.004	0.004	0.004	0.004	0.004	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
08:00 AM - 09:00 AM		0.004	0.004	0.004	0.003	0.003	0.003	0.002	0.003	0.003	0.003	0.003	0.003	0.003	
09:00 AM - 10:00 AM		0.004	0.003	0.003	0.003	0.003	0.002	0.003	0.003	0.003	0.004	0.004	0.003	0.003	
10:00 AM - 11:00 AM		0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.003	
11:00 AM - 12:00 PM		0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.004	0.003	0.003	
12:00 PM - 01:00 PM		0.003	0.003	0.003	0.002	0.002	0.004	0.003	0.003	0.003	0.004	0.004	0.003	0.003	
01:00 PM - 02:00 PM		0.004	0.004	0.004	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
02:00 PM - 03:00 PM		0.003	0.005	0.005	0.002	0.002	0.002	0.003	0.003	0.003	0.003	0.003	0.002	0.002	
Average		0.004	0.004	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
1hr - Maximum		0.008	0.005	0.005	0.004	0.004	0.004	0.004	0.003	0.003	0.004	0.004	0.004	0.004	
Standard 1hr - Average		0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	0.170	
Standard		: Notification of the National Environment Board No. 33, 2009 (B.E. 2552);													
Reference Method		: US EPA Method Part 50 App. F (Chemiluminescence)													

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

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224420 BMAIL

u.26/20



Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011370-1

Page 1 of 1

Sample Number	2453184-2
Parameter	Air Quality
Location	Ben Dong Long (GPS 47Q 0678205, 1802158)
Measurement Date	May 21 - May 22, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858518

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	47.0	62.3	41.0
03:00 PM - 04:00 PM	46.7	78.0	38.9
04:00 PM - 05:00 PM	47.5	70.3	38.0
05:00 PM - 06:00 PM	45.7	68.8	36.4
06:00 PM - 07:00 PM	48.2	73.5	37.3
07:00 PM - 08:00 PM	43.4	72.4	37.7
08:00 PM - 09:00 PM	41.7	57.0	40.2
09:00 PM - 10:00 PM	43.2	66.1	39.7
10:00 PM - 11:00 PM	42.6	68.0	38.1
11:00 PM - 12:00 AM	41.0	70.9	38.3
12:00 AM - 01:00 AM	41.1	71.3	38.5
01:00 AM - 02:00 AM	38.9	52.8	37.3
02:00 AM - 03:00 AM	37.4	54.3	36.3
03:00 AM - 04:00 AM	37.8	47.3	37.0
04:00 AM - 05:00 AM	37.9	57.0	36.4
05:00 AM - 06:00 AM	44.2	66.9	37.2
06:00 AM - 07:00 AM	47.2	68.0	39.5
07:00 AM - 08:00 AM	47.5	74.5	40.7
08:00 AM - 09:00 AM	46.0	66.4	37.0
09:00 AM - 10:00 AM	45.9	69.0	37.8
10:00 AM - 11:00 AM	45.0	66.2	37.1
11:00 AM - 12:00 PM	47.7	71.9	36.3
12:00 PM - 01:00 PM	49.1	80.2	36.0
01:00 PM - 02:00 PM	46.2	67.9	38.4

Leq Average 24 hrs. (dB(A))	45.3
Lmax (dB(A))	80.2
L90 (dB(A))	37.7
Ldn (dB(A))	

Standard (dB(A)) 115
Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2540
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2548

Technical Management

Approved by



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

Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011369-1

Page 1 of 1

Sample Number	2453184-1
Parameter	Air Quality
Location	Ben Dong Long (GPS 47Q 0678205, 1802158)
Measurement Date	May 20 - May 21, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858518

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	48.2	73.5	37.3
03:00 PM - 04:00 PM	47.2	73.2	39.9
04:00 PM - 05:00 PM	49.4	77.5	38.7
05:00 PM - 06:00 PM	47.3	65.5	40.9
06:00 PM - 07:00 PM	50.5	82.6	38.9
07:00 PM - 08:00 PM	49.8	70.7	38.8
08:00 PM - 09:00 PM	49.6	62.8	38.8
09:00 PM - 10:00 PM	41.2	65.4	37.8
10:00 PM - 11:00 PM	46.2	69.4	40.0
11:00 PM - 12:00 AM	44.9	70.5	38.4
12:00 AM - 01:00 AM	40.1	52.5	38.9
01:00 AM - 02:00 AM	49.9	76.6	37.4
02:00 AM - 03:00 AM	42.2	76.4	37.2
03:00 AM - 04:00 AM	39.6	60.1	37.2
04:00 AM - 05:00 AM	38.7	57.9	35.8
05:00 AM - 06:00 AM	44.6	65.3	37.2
06:00 AM - 07:00 AM	49.7	76.0	41.0
07:00 AM - 08:00 AM	45.1	65.6	40.0
08:00 AM - 09:00 AM	47.2	74.2	40.8
09:00 AM - 10:00 AM	47.5	69.4	39.3
10:00 AM - 11:00 AM	54.6	84.8	42.0
11:00 AM - 12:00 PM	54.5	80.2	42.9
12:00 PM - 01:00 PM	50.4	74.8	41.4
01:00 PM - 02:00 PM	49.2	72.6	39.2

Leq Average 24 hrs. (dB(A))	48.6
Lmax (dB(A))	84.8
L90 (dB(A))	38.9
Ldn (dB(A))	

Standard (dB(A)) 115
Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2540
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2548

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Analysis / Test Report

Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011372-1

Page 1 of 1

Sample Number	2453184-4
Parameter	Air Quality
Location	Ben Dong Long (GPS 47Q 0678205, 1802158)
Measurement Date	May 23 - May 24, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858518

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	43.4	65.6	36.9
03:00 PM - 04:00 PM	44.7	68.3	36.8
04:00 PM - 05:00 PM	44.8	74.6	37.1
05:00 PM - 06:00 PM	52.4	63.0	48.9
06:00 PM - 07:00 PM	49.2	61.0	41.0
07:00 PM - 08:00 PM	49.2	65.0	44.6
08:00 PM - 09:00 PM	44.6	62.1	42.1
09:00 PM - 10:00 PM	43.0	62.4	41.5
10:00 PM - 11:00 PM	42.4	58.0	41.4
11:00 PM - 12:00 AM	43.5	64.5	41.1
12:00 AM - 01:00 AM	42.6	71.8	40.6
01:00 AM - 02:00 AM	42.0	66.8	39.5
02:00 AM - 03:00 AM	41.5	58.3	40.1
03:00 AM - 04:00 AM	41.5	56.9	39.4
04:00 AM - 05:00 AM	40.8	63.1	39.8
05:00 AM - 06:00 AM	46.2	73.9	40.3
06:00 AM - 07:00 AM	45.8	76.8	40.2
07:00 AM - 08:00 AM	46.1	74.0	39.6
08:00 AM - 09:00 AM	46.8	68.6	40.1
09:00 AM - 10:00 AM	46.1	71.6	40.1
10:00 AM - 11:00 AM	44.8	68.3	39.2
11:00 AM - 12:00 PM	49.7	69.7	37.9
12:00 PM - 01:00 PM	47.3	68.9	37.7
01:00 PM - 02:00 PM	46.4	69.5	37.7
Leq Average 24 hrs. (dB(A))	46.4		
Lmax (dB(A))	76.8		
L90 (dB(A))			40.1
Ldn (dB(A))	51.2		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่ทำงาน
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่พักอาศัย

รายงาน น.ศ. 2548

Technical Management

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Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochietuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011374-1

Page 1 of 1

Sample Number	2453184-6
Parameter	Air Quality
Location	Ben Dong Long (GPS 47Q 0678205, 1802158)
Measurement Date	May 25 - May 26, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858518

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	59.0	80.1	37.4
03:00 PM - 04:00 PM	51.2	70.9	38.1
04:00 PM - 05:00 PM	46.1	71.6	38.5
05:00 PM - 06:00 PM	44.4	66.2	37.6
06:00 PM - 07:00 PM	44.9	69.6	37.3
07:00 PM - 08:00 PM	50.9	76.1	38.4
08:00 PM - 09:00 PM	45.9	65.6	42.9
09:00 PM - 10:00 PM	45.3	70.0	41.4
10:00 PM - 11:00 PM	41.6	55.3	38.9
11:00 PM - 12:00 AM	40.5	65.4	38.5
12:00 AM - 01:00 AM	38.8	59.1	37.0
01:00 AM - 02:00 AM	39.9	64.2	36.2
02:00 AM - 03:00 AM	39.1	63.9	35.5
03:00 AM - 04:00 AM	38.3	62.5	35.4
04:00 AM - 05:00 AM	39.8	65.3	35.9
05:00 AM - 06:00 AM	41.9	69.8	36.6
06:00 AM - 07:00 AM	47.2	80.6	41.4
07:00 AM - 08:00 AM	49.4	86.6	39.9
08:00 AM - 09:00 AM	57.3	81.2	39.0
09:00 AM - 10:00 AM	60.9	83.6	38.2
10:00 AM - 11:00 AM	45.5	69.0	37.8
11:00 AM - 12:00 PM	45.0	73.0	37.4
12:00 PM - 01:00 PM	46.7	70.6	37.0
01:00 PM - 02:00 PM	44.9	71.0	37.1
Leq Average 24 hrs. (dB(A))	51.5		
Lmax (dB(A))	83.6		
L90 (dB(A))			37.6
Ldn (dB(A))	52.8		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2540
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนและระดับเสียงที่ปลอดภัยจากผลกระทบจากโรงงาน พ.ศ. 2548

Technical Management

Approved by



น.26/23

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2244-23/ ENAL

S:\Report\Air Noise prf (2-47PM)

Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochietuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011373-1

Page 1 of 1

Sample Number	2453184-5
Parameter	Air Quality
Location	Ben Dong Long (GPS 47Q 0678205, 1802158)
Measurement Date	May 24 - May 25, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858518

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	49.5	71.4	37.6
03:00 PM - 04:00 PM	45.6	74.2	36.9
04:00 PM - 05:00 PM	44.1	67.8	37.8
05:00 PM - 06:00 PM	44.3	70.2	37.4
06:00 PM - 07:00 PM	45.3	71.3	36.8
07:00 PM - 08:00 PM	45.4	69.9	38.4
08:00 PM - 09:00 PM	48.5	72.9	44.2
09:00 PM - 10:00 PM	44.8	63.1	42.4
10:00 PM - 11:00 PM	44.2	63.9	40.7
11:00 PM - 12:00 AM	42.6	65.9	40.3
12:00 AM - 01:00 AM	41.7	57.9	37.9
01:00 AM - 02:00 AM	39.9	54.4	38.5
02:00 AM - 03:00 AM	46.5	61.5	38.2
03:00 AM - 04:00 AM	38.8	61.8	36.9
04:00 AM - 05:00 AM	39.8	61.7	37.4
05:00 AM - 06:00 AM	43.7	69.9	37.8
06:00 AM - 07:00 AM	46.7	68.5	41.4
07:00 AM - 08:00 AM	49.9	79.6	41.2
08:00 AM - 09:00 AM	47.7	71.1	39.7
09:00 AM - 10:00 AM	45.8	70.1	39.1
10:00 AM - 11:00 AM	47.0	71.7	38.1
11:00 AM - 12:00 PM	46.4	70.7	38.7
12:00 PM - 01:00 PM	51.1	70.2	40.0
01:00 PM - 02:00 PM	45.6	69.8	37.6
Leq Average 24 hrs. (dB(A))	46.2		
Lmax (dB(A))	79.6		
L90 (dB(A))			38.4
Ldn (dB(A))	50.7		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2540
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนและระดับเสียงที่ปลอดภัยจากผลกระทบจากโรงงาน พ.ศ. 2548

Technical Management

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

2244-23/ ENAL

S:\Report\Air Noise prf (2-46PM)



Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochietuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011376-1

Sample Number	2453184-8
Parameter	Air Quality
Location	Ben Khao Mor (GPS 47Q 0675703, 1804307)
Measurement Date	May 20 - May 21, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 572564

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	46.5	70.8	38.4
03:00 PM - 04:00 PM	46.7	70.0	40.0
04:00 PM - 05:00 PM	45.5	64.2	38.7
05:00 PM - 06:00 PM	46.1	68.4	38.3
06:00 PM - 07:00 PM	48.6	69.7	37.0
07:00 PM - 08:00 PM	42.5	59.2	38.3
08:00 PM - 09:00 PM	42.3	54.0	41.0
09:00 PM - 10:00 PM	41.5	53.9	40.1
10:00 PM - 11:00 PM	41.5	57.4	39.7
11:00 PM - 12:00 AM	42.5	58.4	39.2
12:00 AM - 01:00 AM	45.0	60.0	39.0
01:00 AM - 02:00 AM	43.6	58.6	38.9
02:00 AM - 03:00 AM	39.9	52.1	38.0
03:00 AM - 04:00 AM	38.8	53.4	37.3
04:00 AM - 05:00 AM	40.7	60.5	37.9
05:00 AM - 06:00 AM	51.2	70.8	39.2
06:00 AM - 07:00 AM	49.5	72.7	40.8
07:00 AM - 08:00 AM	46.5	68.9	40.4
08:00 AM - 09:00 AM	48.6	71.8	42.7
09:00 AM - 10:00 AM	46.9	66.0	41.2
10:00 AM - 11:00 AM	55.0	79.6	45.9
11:00 AM - 12:00 PM	58.3	87.2	45.5
12:00 PM - 01:00 PM	49.1	69.4	41.0
01:00 PM - 02:00 PM	49.0	72.7	44.4
Leq Average 24 hrs. (dB(A))	49.1		
Lmax (dB(A))	87.2		
L90 (dB(A))			39.2
Ldn (dB(A))	53.2		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวน และวิธีวัดเสียงในสถานที่ทำงาน พ.ศ. 2548
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวน และวิธีวัดเสียงในสถานที่ทำงาน พ.ศ. 2548

Technical Management

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

Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochietuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011375-1

Sample Number	2453184-7
Parameter	Air Quality
Location	Ben Dong Long (GPS 47Q 0678205, 1802158)
Measurement Date	May 26 - May 27, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 888518

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	43.9	64.1	36.3
03:00 PM - 04:00 PM	45.2	72.4	36.6
04:00 PM - 05:00 PM	47.0	74.6	36.8
05:00 PM - 06:00 PM	46.8	71.6	36.7
06:00 PM - 07:00 PM	44.4	70.1	36.4
07:00 PM - 08:00 PM	46.0	73.5	36.4
08:00 PM - 09:00 PM	44.6	72.2	42.8
09:00 PM - 10:00 PM	43.5	53.6	41.3
10:00 PM - 11:00 PM	42.2	65.5	39.9
11:00 PM - 12:00 AM	61.7	77.8	40.2
12:00 AM - 01:00 AM	47.9	73.2	39.0
01:00 AM - 02:00 AM	42.1	61.8	38.8
02:00 AM - 03:00 AM	42.0	54.4	41.0
03:00 AM - 04:00 AM	41.2	54.0	40.0
04:00 AM - 05:00 AM	42.4	51.9	40.8
05:00 AM - 06:00 AM	44.2	61.4	41.2
06:00 AM - 07:00 AM	47.4	66.2	41.8
07:00 AM - 08:00 AM	48.9	76.4	40.9
08:00 AM - 09:00 AM	50.2	73.0	40.9
09:00 AM - 10:00 AM	48.6	72.4	39.3
10:00 AM - 11:00 AM	47.8	77.2	38.5
11:00 AM - 12:00 PM	46.3	71.5	38.4
12:00 PM - 01:00 PM	43.5	64.0	35.8
01:00 PM - 02:00 PM	48.9	80.4	36.6
Leq Average 24 hrs. (dB(A))	50.1		
Lmax (dB(A))	80.4		
L90 (dB(A))			39.0
Ldn (dB(A))	58.7		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวน และวิธีวัดเสียงในสถานที่ทำงาน พ.ศ. 2548
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวน และวิธีวัดเสียงในสถานที่ทำงาน พ.ศ. 2548

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



Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011378-1

Sample Number	2453184-10
Parameter	Air Quality
Location	Ben Khao Mor (GPS 47Q 0675703, 1804307)
Measurement Date	May 22 - May 23, 2024
Measurement by	Varich Phanploit
Sound Level meter	Serial No. 572564

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	51.6	75.4	40.6
03:00 PM - 04:00 PM	54.6	70.0	41.2
04:00 PM - 05:00 PM	47.2	70.7	40.8
05:00 PM - 06:00 PM	48.6	72.5	41.7
06:00 PM - 07:00 PM	50.2	75.1	39.8
07:00 PM - 08:00 PM	48.7	70.0	40.2
08:00 PM - 09:00 PM	47.6	61.9	45.9
09:00 PM - 10:00 PM	46.9	69.7	43.8
10:00 PM - 11:00 PM	45.1	57.7	42.5
11:00 PM - 12:00 AM	45.2	61.1	41.4
12:00 AM - 01:00 AM	63.7	70.8	48.6
01:00 AM - 02:00 AM	46.1	57.0	42.2
02:00 AM - 03:00 AM	49.4	59.6	44.9
03:00 AM - 04:00 AM	48.7	55.1	47.0
04:00 AM - 05:00 AM	50.1	57.5	48.4
05:00 AM - 06:00 AM	51.0	72.5	45.7
06:00 AM - 07:00 AM	49.0	71.5	42.9
07:00 AM - 08:00 AM	48.3	70.5	43.0
08:00 AM - 09:00 AM	49.2	68.5	47.2
09:00 AM - 10:00 AM	49.9	70.8	43.8
10:00 AM - 11:00 AM	50.1	70.4	44.0
11:00 AM - 12:00 PM	49.1	70.6	39.8
12:00 PM - 01:00 PM	47.2	63.0	40.7
01:00 PM - 02:00 PM	45.9	61.7	40.6

Leq Average 24 hrs. (dB(A))	52.5
Lmax (dB(A))	75.4
L90 (dB(A))	42.5
Ldn (dB(A))	

Standard (dB(A)) 115
Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่ทำงาน
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่พักอาศัย

Technical Management

Approved by



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

Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011377-1

Sample Number	2453184-9
Parameter	Air Quality
Location	Ben Khao Mor (GPS 47Q 0675703, 1804307)
Measurement Date	May 21 - May 22, 2024
Measurement by	Varich Phanploit
Sound Level meter	Serial No. 572564

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	48.0	69.6	42.8
03:00 PM - 04:00 PM	46.9	71.3	41.3
04:00 PM - 05:00 PM	45.9	60.9	40.3
05:00 PM - 06:00 PM	46.3	75.3	38.2
06:00 PM - 07:00 PM	59.7	89.8	37.6
07:00 PM - 08:00 PM	50.8	63.4	39.4
08:00 PM - 09:00 PM	51.1	69.6	44.9
09:00 PM - 10:00 PM	44.8	53.2	40.7
10:00 PM - 11:00 PM	42.4	59.9	40.0
11:00 PM - 12:00 AM	41.4	52.2	39.1
12:00 AM - 01:00 AM	41.1	54.5	37.8
01:00 AM - 02:00 AM	41.3	59.6	37.2
02:00 AM - 03:00 AM	38.8	51.1	36.1
03:00 AM - 04:00 AM	40.2	67.1	36.5
04:00 AM - 05:00 AM	39.6	59.2	37.3
05:00 AM - 06:00 AM	50.7	73.7	38.5
06:00 AM - 07:00 AM	52.8	78.8	39.1
07:00 AM - 08:00 AM	47.0	67.7	39.4
08:00 AM - 09:00 AM	47.8	75.7	40.3
09:00 AM - 10:00 AM	46.2	69.0	38.9
10:00 AM - 11:00 AM	46.0	72.4	37.5
11:00 AM - 12:00 PM	44.7	63.8	36.2
12:00 PM - 01:00 PM	45.1	67.4	35.8
01:00 PM - 02:00 PM	52.6	70.7	41.9

Leq Average 24 hrs. (dB(A))	49.7
Lmax (dB(A))	89.8
L90 (dB(A))	38.9
Ldn (dB(A))	

Standard (dB(A)) 115
Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่ทำงาน
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่พักอาศัย

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



Analysis / Test Report

Lot ID: 2453184

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230

P/O : 47581
Project Name : Air Test
Project Location :
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011380-1

Page 1 of 1

Sample Number	2453184-12
Parameter	Air Quality
Location	Ben Khao Mor (GPS 47Q 0675703, 1804307)
Measurement Date	May 24 - May 25, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 572564

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	50.3	67.2	45.7
03:00 PM - 04:00 PM	50.6	70.2	45.3
04:00 PM - 05:00 PM	49.5	62.2	45.5
05:00 PM - 06:00 PM	51.9	82.8	43.7
06:00 PM - 07:00 PM	49.8	70.9	41.1
07:00 PM - 08:00 PM	53.7	74.4	46.7
08:00 PM - 09:00 PM	51.5	61.4	48.4
09:00 PM - 10:00 PM	50.1	56.2	47.0
10:00 PM - 11:00 PM	49.7	56.6	46.4
11:00 PM - 12:00 AM	50.0	58.9	45.8
12:00 AM - 01:00 AM	54.5	61.4	48.3
01:00 AM - 02:00 AM	48.1	69.3	44.4
02:00 AM - 03:00 AM	45.3	58.8	41.9
03:00 AM - 04:00 AM	46.4	52.4	40.8
04:00 AM - 05:00 AM	45.0	60.4	41.1
05:00 AM - 06:00 AM	46.2	62.3	42.3
06:00 AM - 07:00 AM	54.4	74.5	46.8
07:00 AM - 08:00 AM	53.8	74.7	43.7
08:00 AM - 09:00 AM	50.1	66.9	44.8
09:00 AM - 10:00 AM	50.9	72.3	46.4
10:00 AM - 11:00 AM	50.7	68.5	45.9
11:00 AM - 12:00 PM	50.5	71.1	43.4
12:00 PM - 01:00 PM	52.4	72.1	42.9
01:00 PM - 02:00 PM	50.8	73.6	39.8
Leq Average 24 hrs. (dB(A))	51.0		
Lmax (dB(A))	82.8		
L90 (dB(A))			44.8
Ldn (dB(A))	56.9		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในโรงงานอุตสาหกรรม
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในชุมชน และระดับเสียงที่อาจก่อให้เกิดผลกระทบต่อสุขภาพ

รายงาน น.ร. 2548

Technical Management

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Lot ID: 2453184

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230

P/O : 47581
Project Name : Air Test
Project Location :
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011379-1

Page 1 of 1

Sample Number	2453184-11
Parameter	Air Quality
Location	Ben Khao Mor (GPS 47Q 0675703, 1804307)
Measurement Date	May 23 - May 24, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 572564

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	48.0	73.8	41.1
03:00 PM - 04:00 PM	48.9	75.8	37.9
04:00 PM - 05:00 PM	50.5	68.6	39.2
05:00 PM - 06:00 PM	55.4	70.1	51.9
06:00 PM - 07:00 PM	51.8	77.0	43.2
07:00 PM - 08:00 PM	49.1	57.2	46.0
08:00 PM - 09:00 PM	48.1	60.8	44.6
09:00 PM - 10:00 PM	48.6	58.1	44.2
10:00 PM - 11:00 PM	46.2	35.4	43.3
11:00 PM - 12:00 AM	45.5	35.0	42.3
12:00 AM - 01:00 AM	43.6	35.4	41.5
01:00 AM - 02:00 AM	42.8	33.9	40.1
02:00 AM - 03:00 AM	43.5	51.8	41.0
03:00 AM - 04:00 AM	43.0	54.0	40.5
04:00 AM - 05:00 AM	44.6	54.2	41.7
05:00 AM - 06:00 AM	51.7	68.3	43.6
06:00 AM - 07:00 AM	49.6	68.7	43.1
07:00 AM - 08:00 AM	52.2	77.9	44.5
08:00 AM - 09:00 AM	51.2	66.3	45.9
09:00 AM - 10:00 AM	51.9	71.5	47.0
10:00 AM - 11:00 AM	51.8	67.3	48.5
11:00 AM - 12:00 PM	52.1	69.7	48.0
12:00 PM - 01:00 PM	50.7	71.4	43.6
01:00 PM - 02:00 PM	51.5	69.9	41.9
Leq Average 24 hrs. (dB(A))	50.0		
Lmax (dB(A))	77.9		
L90 (dB(A))			43.1
Ldn (dB(A))	54.2		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในโรงงานอุตสาหกรรม
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในชุมชน และระดับเสียงที่อาจก่อให้เกิดผลกระทบต่อสุขภาพ

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Analysis / Test Report

Lot ID: 2453184

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230

P/O : 47581
Project Name : Air Test
Project Location :
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011382-1

Page 1 of 1

Sample Number	2453184-14
Parameter	Air Quality
Location	Ben Khao Mor (GPS 47Q 0675703, 1804307)
Measurement Date	May 26 - May 27, 2024
Measurement by	Varich Phantipit
Sound Level meter	Serial No. 572564

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	50.2	75.3	40.7
03:00 PM - 04:00 PM	51.0	74.2	39.3
04:00 PM - 05:00 PM	49.1	71.7	39.5
05:00 PM - 06:00 PM	47.1	69.1	40.2
06:00 PM - 07:00 PM	48.5	70.2	38.4
07:00 PM - 08:00 PM	50.6	71.5	40.7
08:00 PM - 09:00 PM	52.2	61.0	41.8
09:00 PM - 10:00 PM	51.3	58.1	45.6
10:00 PM - 11:00 PM	49.9	55.6	44.3
11:00 PM - 12:00 AM	60.6	73.0	42.7
12:00 AM - 01:00 AM	60.8	74.9	42.3
01:00 AM - 02:00 AM	45.5	62.3	39.7
02:00 AM - 03:00 AM	44.8	57.7	40.3
03:00 AM - 04:00 AM	46.7	72.4	43.0
04:00 AM - 05:00 AM	49.8	59.8	43.0
05:00 AM - 06:00 AM	50.7	64.1	49.0
06:00 AM - 07:00 AM	51.5	68.6	47.6
07:00 AM - 08:00 AM	52.6	77.2	44.8
08:00 AM - 09:00 AM	51.0	70.6	45.1
09:00 AM - 10:00 AM	50.5	70.3	46.0
10:00 AM - 11:00 AM	48.5	68.1	43.4
11:00 AM - 12:00 PM	47.6	61.9	45.9
12:00 PM - 01:00 PM	46.9	69.7	43.8
01:00 PM - 02:00 PM	53.2		
Leq Average 24 hrs. (dB(A))			
Lmax (dB(A))	81.4		
L90 (dB(A))			42.7
Ldn (dB(A))	61.7		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดมาตรฐานค่าระดับเสียงในชุมชน พ.ศ. 2540
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงในชุมชน และระดับเสียงที่อาจก่อให้เกิดผลกระทบต่อสุขภาพ

Technical Management

Approved by

น.26/27

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2244-23/ ENAL

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Analysis / Test Report

Lot ID: 2453184

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230

P/O : 47581
Project Name : Air Test
Project Location :
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011381-1

Page 1 of 1

Sample Number	2453184-13
Parameter	Air Quality
Location	Ben Khao Mor (GPS 47Q 0675703, 1804307)
Measurement Date	May 25 - May 26, 2024
Measurement by	Varich Phantipit
Sound Level meter	Serial No. 572564

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	49.6	69.7	39.2
03:00 PM - 04:00 PM	51.7	77.7	39.0
04:00 PM - 05:00 PM	45.1	65.2	38.9
05:00 PM - 06:00 PM	46.8	68.9	38.5
06:00 PM - 07:00 PM	48.5	71.8	38.7
07:00 PM - 08:00 PM	52.3	73.9	40.1
08:00 PM - 09:00 PM	52.9	68.1	45.7
09:00 PM - 10:00 PM	49.1	69.5	45.7
10:00 PM - 11:00 PM	49.8	64.1	47.4
11:00 PM - 12:00 AM	47.8	58.9	44.0
12:00 AM - 01:00 AM	46.9	59.7	45.3
01:00 AM - 02:00 AM	43.6	61.9	39.8
02:00 AM - 03:00 AM	41.0	56.8	39.3
03:00 AM - 04:00 AM	43.0	61.5	39.1
04:00 AM - 05:00 AM	43.5	70.3	38.9
05:00 AM - 06:00 AM	44.1	61.7	40.3
06:00 AM - 07:00 AM	52.0	71.6	43.8
07:00 AM - 08:00 AM	47.8	68.2	42.4
08:00 AM - 09:00 AM	50.5	73.2	43.2
09:00 AM - 10:00 AM	51.1	82.2	42.5
10:00 AM - 11:00 AM	51.4	77.6	42.3
11:00 AM - 12:00 PM	46.5	68.8	40.6
12:00 PM - 01:00 PM	51.1	73.6	39.3
01:00 PM - 02:00 PM	49.1	67.4	41.0
Leq Average 24 hrs. (dB(A))	49.3		
Lmax (dB(A))		82.2	
L90 (dB(A))			40.3
Ldn (dB(A))	54.3		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดมาตรฐานค่าระดับเสียงในชุมชน พ.ศ. 2540
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงในชุมชน และระดับเสียงที่อาจก่อให้เกิดผลกระทบต่อสุขภาพ

Technical Management

Approved by

2244-23/ ENAL

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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011384-1

Page 1 of 1

Sample Number	2453184-16
Parameter	Air Quality
Location	Ben Long Du (GPS 47Q 0672008, 1799066)
Measurement Date	May 21 - May 22, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858521

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	60.6	73.6	40.5
04:00 PM - 05:00 PM	65.9	75.3	59.1
05:00 PM - 06:00 PM	56.1	74.3	41.2
06:00 PM - 07:00 PM	45.8	64.1	39.8
07:00 PM - 08:00 PM	41.8	55.2	39.1
08:00 PM - 09:00 PM	44.8	76.8	38.3
09:00 PM - 10:00 PM	41.6	69.8	37.3
10:00 PM - 11:00 PM	43.6	76.8	36.1
11:00 PM - 12:00 AM	51.6	79.2	36.2
12:00 AM - 01:00 AM	42.3	70.6	36.6
01:00 AM - 02:00 AM	37.8	53.4	36.3
02:00 AM - 03:00 AM	43.4	70.6	36.3
03:00 AM - 04:00 AM	41.1	56.3	38.0
04:00 AM - 05:00 AM	56.5	71.1	39.6
05:00 AM - 06:00 AM	52.8	69.4	48.8
06:00 AM - 07:00 AM	50.9	70.2	40.9
07:00 AM - 08:00 AM	47.2	66.9	39.7
08:00 AM - 09:00 AM	48.6	70.1	41.0
09:00 AM - 10:00 AM	47.0	68.3	40.2
10:00 AM - 11:00 AM	45.2	73.0	38.9
11:00 AM - 12:00 PM	52.0	67.8	40.6
12:00 PM - 01:00 PM	55.8	70.1	41.7
01:00 PM - 02:00 PM	48.4	64.2	40.4
02:00 PM - 03:00 PM	55.0	79.2	39.7
Leq Average 24 hrs. (dB(A))	55.0		
Lmax (dB(A))			
L90 (dB(A))			
Ldn (dB(A))	58.8		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2540
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนและระดับเสียงในสถานที่ทำงาน พ.ศ. 2548

Technical Management

Approved by



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2244-23 EMAIL

S:\Report\Air Noise.pdf (2 of 1PM)

Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011383-1

Page 1 of 1

Sample Number	2453184-15
Parameter	Air Quality
Location	Ben Long Du (GPS 47Q 0672008, 1799066)
Measurement Date	May 20 - May 21, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858521

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	46.6	74.9	38.5
04:00 PM - 05:00 PM	49.3	68.7	43.4
05:00 PM - 06:00 PM	46.8	67.3	40.9
06:00 PM - 07:00 PM	47.4	67.2	39.4
07:00 PM - 08:00 PM	43.6	56.8	38.8
08:00 PM - 09:00 PM	43.1	68.3	37.6
09:00 PM - 10:00 PM	41.4	65.9	36.9
10:00 PM - 11:00 PM	41.3	63.7	36.7
11:00 PM - 12:00 AM	41.9	66.2	36.3
12:00 AM - 01:00 AM	48.5	71.8	36.3
01:00 AM - 02:00 AM	39.6	63.8	36.1
02:00 AM - 03:00 AM	38.7	56.8	36.5
03:00 AM - 04:00 AM	39.6	57.9	37.0
04:00 AM - 05:00 AM	50.4	71.8	36.4
05:00 AM - 06:00 AM	48.3	71.1	41.5
06:00 AM - 07:00 AM	47.7	71.3	40.3
07:00 AM - 08:00 AM	47.5	67.9	40.1
08:00 AM - 09:00 AM	48.9	72.1	42.5
09:00 AM - 10:00 AM	50.4	74.9	40.7
10:00 AM - 11:00 AM	55.8	70.1	41.7
11:00 AM - 12:00 PM	57.2	83.3	46.0
12:00 PM - 01:00 PM	48.5	64.4	43.9
01:00 PM - 02:00 PM	53.0	74.6	42.3
02:00 PM - 03:00 PM	51.8	70.5	43.9
Leq Average 24 hrs. (dB(A))	49.6		
Lmax (dB(A))		83.3	
L90 (dB(A))			
Ldn (dB(A))	53.2		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2540
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนและระดับเสียงในสถานที่ทำงาน พ.ศ. 2548

Technical Management

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2244-23 EMAIL

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Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011386-1

Page 1 of 1

Sample Number	2453184-18
Parameter	Air Quality
Location	Ben Long Du (GPS 47Q 0672008, 1799066)
Measurement Date	May 23 - May 24, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858521

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	46.3	66.3	38.9
04:00 PM - 05:00 PM	59.9	72.9	50.1
05:00 PM - 06:00 PM	51.8	78.6	43.3
06:00 PM - 07:00 PM	47.9	71.4	42.2
07:00 PM - 08:00 PM	43.4	60.1	41.6
08:00 PM - 09:00 PM	44.3	68.5	40.8
09:00 PM - 10:00 PM	42.8	60.4	40.6
10:00 PM - 11:00 PM	45.7	55.9	44.4
11:00 PM - 12:00 AM	46.9	69.4	45.5
12:00 AM - 01:00 AM	47.5	65.3	46.3
01:00 AM - 02:00 AM	51.8	60.3	46.6
02:00 AM - 03:00 AM	56.9	68.2	54.2
03:00 AM - 04:00 AM	58.6	62.0	57.1
04:00 AM - 05:00 AM	55.4	72.0	49.3
05:00 AM - 06:00 AM	50.0	68.8	42.7
06:00 AM - 07:00 AM	48.4	67.6	42.1
07:00 AM - 08:00 AM	48.5	69.7	41.1
08:00 AM - 09:00 AM	47.7	64.3	42.5
09:00 AM - 10:00 AM	48.8	66.2	44.2
10:00 AM - 11:00 AM	46.1	66.7	43.4
11:00 AM - 12:00 PM	49.5	76.1	44.6
12:00 PM - 01:00 PM	48.4	73.4	42.9
01:00 PM - 02:00 PM	51.9	75.9	44.6
02:00 PM - 03:00 PM	48.1	73.7	42.0

Leq Average 24 hrs. (dB(A))	52.2
Lmax (dB(A))	78.6
L90 (dB(A))	43.3
Ldn (dB(A))	

Standard (dB(A)) 70
Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่ทำงาน
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่พักอาศัย

Technical Management

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

Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011385-1

Page 1 of 1

Sample Number	2453184-17
Parameter	Air Quality
Location	Ben Long Du (GPS 47Q 0672008, 1799066)
Measurement Date	May 22 - May 23, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858521

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	47.7	68.1	40.1
04:00 PM - 05:00 PM	49.3	65.8	42.8
05:00 PM - 06:00 PM	62.0	76.9	41.9
06:00 PM - 07:00 PM	61.3	75.4	43.5
07:00 PM - 08:00 PM	48.1	73.1	39.4
08:00 PM - 09:00 PM	42.3	56.6	39.4
09:00 PM - 10:00 PM	42.9	63.1	39.1
10:00 PM - 11:00 PM	41.1	57.8	37.6
11:00 PM - 12:00 AM	53.8	67.8	38.3
12:00 AM - 01:00 AM	52.1	63.4	38.8
01:00 AM - 02:00 AM	46.1	65.9	38.1
02:00 AM - 03:00 AM	57.0	65.4	54.2
03:00 AM - 04:00 AM	59.2	62.2	58.2
04:00 AM - 05:00 AM	58.7	75.3	52.5
05:00 AM - 06:00 AM	48.8	71.0	41.8
06:00 AM - 07:00 AM	48.2	68.8	41.4
07:00 AM - 08:00 AM	51.7	75.5	41.8
08:00 AM - 09:00 AM	49.5	69.4	41.0
09:00 AM - 10:00 AM	49.6	69.3	43.2
10:00 AM - 11:00 AM	54.3	80.0	40.4
11:00 AM - 12:00 PM	49.6	77.3	40.5
12:00 PM - 01:00 PM	48.0	63.3	39.5
01:00 PM - 02:00 PM	47.7	66.4	39.6
02:00 PM - 03:00 PM	46.7	65.9	37.8

Leq Average 24 hrs. (dB(A))	54.5
Lmax (dB(A))	80.0
L90 (dB(A))	40.4
Ldn (dB(A))	61.1

Standard (dB(A)) 70
Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่ทำงาน
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่พักอาศัย

Technical Management

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MM-N08

Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011388-1

Page 1 of 1

Sample Number	2453184-20
Parameter	Air Quality
Location	Ben Long Du (GPS 47Q 0672008, 1799066)
Measurement Date	May 25 - May 26, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858521

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	46.9	72.6	40.0
04:00 PM - 05:00 PM	48.3	73.0	39.7
05:00 PM - 06:00 PM	51.2	73.2	44.8
06:00 PM - 07:00 PM	49.7	74.6	39.4
07:00 PM - 08:00 PM	43.8	64.8	38.2
08:00 PM - 09:00 PM	42.0	63.6	39.3
09:00 PM - 10:00 PM	42.2	52.4	40.0
10:00 PM - 11:00 PM	42.5	58.6	39.3
11:00 PM - 12:00 AM	42.3	60.4	39.0
12:00 AM - 01:00 AM	41.6	59.5	38.1
01:00 AM - 02:00 AM	42.1	64.8	37.6
02:00 AM - 03:00 AM	42.8	68.9	36.5
03:00 AM - 04:00 AM	38.4	55.4	36.3
04:00 AM - 05:00 AM	40.2	60.6	36.0
05:00 AM - 06:00 AM	50.7	75.1	38.3
06:00 AM - 07:00 AM	50.2	73.0	42.1
07:00 AM - 08:00 AM	48.5	76.5	41.4
08:00 AM - 09:00 AM	53.3	72.0	41.7
09:00 AM - 10:00 AM	48.8	77.2	43.6
10:00 AM - 11:00 AM	48.2	75.8	42.7
11:00 AM - 12:00 PM	47.9	71.5	41.5
12:00 PM - 01:00 PM	47.2	72.5	41.2
01:00 PM - 02:00 PM	47.2	68.2	41.7
02:00 PM - 03:00 PM	48.3	73.4	40.4

Leq Average 24 hrs. (dB(A))	47.8
Lmax (dB(A))	77.2
L90 (dB(A))	39.7
Ldn (dB(A))	
Standard (dB(A))	70
Standard (dB(A))	115
Reference Method : ISO1996-1 and 1996-2	
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในอาคารอยู่อาศัยทั่วไป 2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในอาคารพาณิชย์ และเสียงในโรงงานอุตสาหกรรม	
รายงาน น.ร. 2548	

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Approved by



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



Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheutuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011387-1

Page 1 of 1

Sample Number	2453184-19
Parameter	Air Quality
Location	Ben Long Du (GPS 47Q 0672008, 1799066)
Measurement Date	May 24 - May 25, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858521

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	46.4	69.7	41.3
04:00 PM - 05:00 PM	47.6	69.7	41.3
05:00 PM - 06:00 PM	49.9	67.0	46.2
06:00 PM - 07:00 PM	49.8	73.9	42.6
07:00 PM - 08:00 PM	46.6	68.4	40.4
08:00 PM - 09:00 PM	43.7	63.7	39.8
09:00 PM - 10:00 PM	41.6	59.3	38.8
10:00 PM - 11:00 PM	40.8	59.4	38.9
11:00 PM - 12:00 AM	40.7	57.9	38.4
12:00 AM - 01:00 AM	41.5	53.3	38.6
01:00 AM - 02:00 AM	40.3	60.4	37.9
02:00 AM - 03:00 AM	40.3	56.3	37.3
03:00 AM - 04:00 AM	44.4	69.8	37.3
04:00 AM - 05:00 AM	39.6	59.1	37.5
05:00 AM - 06:00 AM	53.6	74.6	38.4
06:00 AM - 07:00 AM	50.6	75.8	42.4
07:00 AM - 08:00 AM	50.1	70.6	41.7
08:00 AM - 09:00 AM	48.5	65.7	40.8
09:00 AM - 10:00 AM	46.8	70.7	41.4
10:00 AM - 11:00 AM	49.1	66.5	44.9
11:00 AM - 12:00 PM	47.7	69.8	40.4
12:00 PM - 01:00 PM	47.8	73.5	40.1
01:00 PM - 02:00 PM	49.3	70.6	41.2
02:00 PM - 03:00 PM	47.1	70.7	38.9

Leq Average 24 hrs. (dB(A))	47.6
Lmax (dB(A))	75.8
L90 (dB(A))	40.1
Ldn (dB(A))	
Standard (dB(A))	70
Standard (dB(A))	115
Reference Method : ISO1996-1 and 1996-2	
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในอาคารอยู่อาศัยทั่วไป 2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในอาคารพาณิชย์ และเสียงในโรงงานอุตสาหกรรม	
รายงาน น.ร. 2548	

Technical Management

Approved by



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



Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011390-1

Sample Number	2453184-22
Parameter	Air Quality
Location	Ben Nong Ra Man (GPS 47Q 0674684, 1802590)
Measurement Date	May 20 - May 21, 2024
Measurement by	Varich Phanploit
Sound Level meter	Serial No. 858520

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	44.8	73.3	37.9
02:00 PM - 03:00 PM	45.4	64.7	38.6
03:00 PM - 04:00 PM	45.7	67.1	38.0
04:00 PM - 05:00 PM	48.6	69.5	39.4
05:00 PM - 06:00 PM	48.4	66.6	39.8
06:00 PM - 07:00 PM	47.0	67.3	38.6
07:00 PM - 08:00 PM	45.9	67.4	39.2
08:00 PM - 09:00 PM	48.5	59.5	41.1
09:00 PM - 10:00 PM	48.7	58.3	40.2
10:00 PM - 11:00 PM	47.6	75.0	41.4
11:00 PM - 12:00 AM	46.4	65.3	45.9
12:00 AM - 01:00 AM	45.2	58.2	39.0
01:00 AM - 02:00 AM	44.0	55.5	40.3
02:00 AM - 03:00 AM	44.2	59.7	38.7
03:00 AM - 04:00 AM	44.4	59.1	38.1
04:00 AM - 05:00 AM	48.4	67.9	42.9
05:00 AM - 06:00 AM	49.4	43.2	43.2
06:00 AM - 07:00 AM	49.8	70.6	43.4
07:00 AM - 08:00 AM	49.3	42.7	42.7
08:00 AM - 09:00 AM	48.1	75.4	40.6
09:00 AM - 10:00 AM	51.5	78.4	46.6
10:00 AM - 11:00 AM	59.8	88.6	45.1
11:00 AM - 12:00 PM	50.1	69.3	44.8
12:00 PM - 01:00 PM			
Leq Average 24 hrs. (dB(A))	49.9		
Lmax (dB(A))	88.6		
L90 (dB(A))			40.3
Ldn (dB(A))	54.1		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่ทำงาน
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่พักอาศัย

Technical Management

Approved by



Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011389-1

Sample Number	2453184-21
Parameter	Air Quality
Location	Ben Long Du (GPS 47Q 0672008, 1799066)
Measurement Date	May 26 - May 27, 2024
Measurement by	Varich Phanploit
Sound Level meter	Serial No. 858521

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
03:00 PM - 04:00 PM	50.4	74.0	40.6
04:00 PM - 05:00 PM	49.5	73.3	41.0
05:00 PM - 06:00 PM	50.6	66.9	44.4
06:00 PM - 07:00 PM	48.8	70.3	42.0
07:00 PM - 08:00 PM	43.8	62.6	38.7
08:00 PM - 09:00 PM	43.0	65.3	38.2
09:00 PM - 10:00 PM	41.4	51.3	37.7
10:00 PM - 11:00 PM	42.8	58.6	38.8
11:00 PM - 12:00 AM	59.0	74.1	42.4
12:00 AM - 01:00 AM	40.9	63.4	37.5
01:00 AM - 02:00 AM	37.9	52.0	36.0
02:00 AM - 03:00 AM	39.5	61.4	35.2
03:00 AM - 04:00 AM	40.3	57.1	35.7
04:00 AM - 05:00 AM	47.1	60.7	40.2
05:00 AM - 06:00 AM	51.9	76.2	40.4
06:00 AM - 07:00 AM	53.8	80.1	44.3
07:00 AM - 08:00 AM	52.2	78.0	43.3
08:00 AM - 09:00 AM	49.4	66.3	41.9
09:00 AM - 10:00 AM	52.3	78.1	43.5
10:00 AM - 11:00 AM	50.0	77.6	42.2
11:00 AM - 12:00 PM	47.9	70.7	40.3
12:00 PM - 01:00 PM	47.0	65.4	39.9
01:00 PM - 02:00 PM	46.3	69.5	38.5
02:00 PM - 03:00 PM	45.0	66.9	36.6
Leq Average 24 hrs. (dB(A))	50.1		
Lmax (dB(A))		80.1	
L90 (dB(A))			40.2
Ldn (dB(A))	57.7		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่ทำงาน
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่พักอาศัย

Technical Management

Approved by





Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Analysis / Test Report

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011392-1

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Page 1 of 1

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Sample Number	2453184-24
Parameter	Air Quality
Location	Ben Nong Ra Man (GPS 47Q 0674684, 1802590)
Measurement Date	May 22 - May 23, 2024
Measurement by	Varich Phanploit
Sound Level meter	Serial No. 888520

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	49.4	70.2	41.9
02:00 PM - 03:00 PM	62.7	72.9	45.2
03:00 PM - 04:00 PM	64.6	74.6	43.0
04:00 PM - 05:00 PM	48.1	75.4	42.5
05:00 PM - 06:00 PM	48.5	68.0	42.3
06:00 PM - 07:00 PM	49.2	68.0	42.2
07:00 PM - 08:00 PM	46.6	58.5	43.6
08:00 PM - 09:00 PM	50.4	64.5	49.2
09:00 PM - 10:00 PM	50.3	59.1	49.2
10:00 PM - 11:00 PM	49.6	63.8	47.7
11:00 PM - 12:00 AM	61.4	73.2	42.4
12:00 AM - 01:00 AM	52.6	68.6	45.3
01:00 AM - 02:00 AM	49.4	55.2	48.1
02:00 AM - 03:00 AM	51.4	61.5	50.2
03:00 AM - 04:00 AM	53.8	63.0	51.9
04:00 AM - 05:00 AM	56.1	67.1	55.1
05:00 AM - 06:00 AM	53.4	75.9	47.5
06:00 AM - 07:00 AM	51.0	66.5	46.5
07:00 AM - 08:00 AM	50.2	66.3	44.2
08:00 AM - 09:00 AM	49.4	69.5	43.9
09:00 AM - 10:00 AM	50.6	68.0	44.1
10:00 AM - 11:00 AM	47.7	66.7	42.5
11:00 AM - 12:00 PM	47.0	66.7	40.3
12:00 PM - 01:00 PM	46.0	68.8	40.4
Leq Average 24 hrs. (dB(A))	53.9		
Lmax (dB(A))	75.9		
L90 (dB(A))			44.1
Ldn (dB(A))	61.2		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในโรงงานอุตสาหกรรม
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในโรงงานอุตสาหกรรม

รายงาน น.ร. 2548

Technical Management

Approved by



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



Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochhetuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011394-1

Page 1 of 1

Sample Number	2453184-26
Parameter	Air Quality
Location	Ben Nong Ra Man (GPS 47Q 0674684, 1802590)
Measurement Date	May 24 - May 25, 2024
Measurement by	Varich Phantipit
Sound Level meter	Serial No. 888520

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	46.9	62.4	41.5
02:00 PM - 03:00 PM	47.1	67.0	41.6
03:00 PM - 04:00 PM	48.7	70.0	41.2
04:00 PM - 05:00 PM	53.1	76.3	43.3
05:00 PM - 06:00 PM	50.5	68.3	42.8
06:00 PM - 07:00 PM	47.7	69.0	40.6
07:00 PM - 08:00 PM	48.5	63.8	42.0
08:00 PM - 09:00 PM	46.1	64.8	41.6
09:00 PM - 10:00 PM	44.6	57.9	42.4
10:00 PM - 11:00 PM	46.2	77.1	41.9
11:00 PM - 12:00 AM	45.1	75.2	41.8
12:00 AM - 01:00 AM	46.6	62.5	43.9
01:00 AM - 02:00 AM	45.2	58.6	42.6
02:00 AM - 03:00 AM	43.5	58.1	40.9
03:00 AM - 04:00 AM	44.0	61.2	41.2
04:00 AM - 05:00 AM	46.1	64.8	41.7
05:00 AM - 06:00 AM	51.0	64.6	46.0
06:00 AM - 07:00 AM	49.2	66.9	44.2
07:00 AM - 08:00 AM	51.2	71.2	44.6
08:00 AM - 09:00 AM	48.9	65.7	43.3
09:00 AM - 10:00 AM	49.1	73.2	43.2
10:00 AM - 11:00 AM	48.8	69.8	41.5
11:00 AM - 12:00 PM	47.6	66.2	40.3
12:00 PM - 01:00 PM	47.4	71.9	39.1
Leq Average 24 hrs. (dB(A))	48.3		
Lmax (dB(A))	77.1		41.8
L90 (dB(A))			
Ldn (dB(A))	53.7		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2540
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2548

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Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochhetuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011393-1

Page 1 of 1

Sample Number	2453184-25
Parameter	Air Quality
Location	Ben Nong Ra Man (GPS 47Q 0674684, 1802590)
Measurement Date	May 23 - May 24, 2024
Measurement by	Varich Phantipit
Sound Level meter	Serial No. 888520

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	47.6	63.0	40.8
02:00 PM - 03:00 PM	48.2	72.9	40.6
03:00 PM - 04:00 PM	47.1	66.7	39.8
04:00 PM - 05:00 PM	55.9	66.6	42.9
05:00 PM - 06:00 PM	53.6	63.9	49.0
06:00 PM - 07:00 PM	49.9	72.6	43.5
07:00 PM - 08:00 PM	47.5	68.7	43.2
08:00 PM - 09:00 PM	47.1	61.0	44.1
09:00 PM - 10:00 PM	47.3	67.3	42.9
10:00 PM - 11:00 PM	47.0	71.6	41.5
11:00 PM - 12:00 AM	45.9	67.7	41.2
12:00 AM - 01:00 AM	44.5	63.0	41.5
01:00 AM - 02:00 AM	43.4	62.5	41.3
02:00 AM - 03:00 AM	44.0	63.5	40.8
03:00 AM - 04:00 AM	43.7	54.1	42.1
04:00 AM - 05:00 AM	45.9	60.0	42.8
05:00 AM - 06:00 AM	49.6	66.2	44.7
06:00 AM - 07:00 AM	51.7	73.1	45.3
07:00 AM - 08:00 AM	51.1	74.0	44.7
08:00 AM - 09:00 AM	54.3	80.4	44.9
09:00 AM - 10:00 AM	48.2	63.5	43.8
10:00 AM - 11:00 AM	48.9	66.3	42.9
11:00 AM - 12:00 PM	50.6	66.1	43.7
12:00 PM - 01:00 PM	49.7	64.0	42.5
Leq Average 24 hrs. (dB(A))	49.8		
Lmax (dB(A))	80.4		42.9
L90 (dB(A))			
Ldn (dB(A))	54.3		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2540
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงรบกวนในชุมชน พ.ศ. 2548

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Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011396-1

Page 1 of 1

Sample Number	2453184-28
Parameter	Air Quality
Location	Ban Nong Ra Man (GPS 47Q 0674684, 1802590)
Measurement Date	May 26 - May 27, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 888520

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	47.0	70.4	40.3
02:00 PM - 03:00 PM	46.1	66.7	39.3
03:00 PM - 04:00 PM	45.1	65.8	39.0
04:00 PM - 05:00 PM	46.3	68.4	40.0
05:00 PM - 06:00 PM	48.8	66.8	40.9
06:00 PM - 07:00 PM	47.5	71.9	39.7
07:00 PM - 08:00 PM	50.3	67.7	42.8
08:00 PM - 09:00 PM	49.0	60.9	46.6
09:00 PM - 10:00 PM	46.9	65.9	43.2
10:00 PM - 11:00 PM	45.4	62.4	42.7
11:00 PM - 12:00 AM	62.4	74.0	43.3
12:00 AM - 01:00 AM	44.9	67.2	41.0
01:00 AM - 02:00 AM	44.7	69.6	40.5
02:00 AM - 03:00 AM	43.9	56.3	41.4
03:00 AM - 04:00 AM	44.9	58.3	42.1
04:00 AM - 05:00 AM	47.1	65.8	44.8
05:00 AM - 06:00 AM	49.8	63.9	44.6
06:00 AM - 07:00 AM	50.4	73.9	44.7
07:00 AM - 08:00 AM	50.5	70.0	44.4
08:00 AM - 09:00 AM	50.0	73.6	43.5
09:00 AM - 10:00 AM	47.8	65.2	42.1
10:00 AM - 11:00 AM	47.3	67.8	40.7
11:00 AM - 12:00 PM	45.2	58.6	42.6
12:00 PM - 01:00 PM	43.5	58.1	40.9

Leq Average 24 hrs. (dB(A))	51.1
Lmax (dB(A))	74.0
L90 (dB(A))	42.1
Ldn (dB(A))	

Standard (dB(A)) 115
Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในชุมชน พ.ศ. 2540 (พ.ศ. 2540) (ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในชุมชน พ.ศ. 2540)
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในชุมชน พ.ศ. 2540 (พ.ศ. 2540) (ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในชุมชน พ.ศ. 2540)

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2244-23 ENAL

Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011395-1

Page 1 of 1

Sample Number	2453184-27
Parameter	Air Quality
Location	Ban Nong Ra Man (GPS 47Q 0674684, 1802590)
Measurement Date	May 25 - May 26, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 888520

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	47.7	82.7	39.7
02:00 PM - 03:00 PM	46.2	60.8	39.3
03:00 PM - 04:00 PM	46.9	67.2	39.9
04:00 PM - 05:00 PM	47.8	64.4	40.7
05:00 PM - 06:00 PM	48.0	70.7	40.1
06:00 PM - 07:00 PM	47.0	63.2	39.8
07:00 PM - 08:00 PM	48.6	60.4	41.5
08:00 PM - 09:00 PM	49.2	60.5	46.2
09:00 PM - 10:00 PM	47.4	66.5	44.4
10:00 PM - 11:00 PM	46.1	58.1	42.0
11:00 PM - 12:00 AM	47.8	58.1	43.2
12:00 AM - 01:00 AM	48.9	64.2	42.8
01:00 AM - 02:00 AM	45.5	58.5	41.7
02:00 AM - 03:00 AM	44.0	63.7	41.2
03:00 AM - 04:00 AM	43.8	55.9	40.3
04:00 AM - 05:00 AM	45.3	62.3	41.0
05:00 AM - 06:00 AM	49.5	67.2	44.0
06:00 AM - 07:00 AM	48.9	65.9	43.7
07:00 AM - 08:00 AM	49.5	64.8	42.9
08:00 AM - 09:00 AM	47.7	70.6	42.2
09:00 AM - 10:00 AM	47.1	68.3	41.4
10:00 AM - 11:00 AM	49.8	80.1	40.4
11:00 AM - 12:00 PM	47.2	66.6	40.4
12:00 PM - 01:00 PM	45.7	63.9	39.3

Leq Average 24 hrs. (dB(A))	47.6
Lmax (dB(A))	82.7
L90 (dB(A))	41.2
Ldn (dB(A))	

Standard (dB(A)) 115
Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในชุมชน พ.ศ. 2540 (พ.ศ. 2540) (ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในชุมชน พ.ศ. 2540)
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในชุมชน พ.ศ. 2540 (พ.ศ. 2540) (ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในชุมชน พ.ศ. 2540)

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Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011398-1

Sample Number	2453184-30
Parameter	Air Quality
Location	Ban Kong Sai Yang Rong (GPS 47Q 0676121, 1798820)
Measurement Date	May 21 - May 22, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858519

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
04:00 PM - 05:00 PM	46.9	70.7	37.4
05:00 PM - 06:00 PM	49.1	73.7	38.8
06:00 PM - 07:00 PM	48.1	73.6	38.3
07:00 PM - 08:00 PM	43.5	60.4	39.9
08:00 PM - 09:00 PM	44.8	66.2	42.4
09:00 PM - 10:00 PM	43.9	58.1	42.6
10:00 PM - 11:00 PM	42.8	60.2	41.7
11:00 PM - 12:00 AM	41.2	54.1	37.5
12:00 AM - 01:00 AM	43.4	59.0	41.6
01:00 AM - 02:00 AM	43.2	66.0	40.8
02:00 AM - 03:00 AM	41.7	66.4	36.6
03:00 AM - 04:00 AM	38.9	52.7	36.7
04:00 AM - 05:00 AM	42.1	65.0	38.5
05:00 AM - 06:00 AM	53.2	73.9	42.4
06:00 AM - 07:00 AM	50.9	72.2	40.9
07:00 AM - 08:00 AM	48.4	80.7	38.4
08:00 AM - 09:00 AM	50.1	71.3	41.4
09:00 AM - 10:00 AM	50.2	83.5	39.0
10:00 AM - 11:00 AM	49.1	69.5	39.0
11:00 AM - 12:00 PM	49.2	73.1	38.4
12:00 PM - 01:00 PM	49.4	73.5	38.5
01:00 PM - 02:00 PM	49.5	73.4	38.7
02:00 PM - 03:00 PM	60.3	93.3	40.2
03:00 PM - 04:00 PM	48.5	68.0	40.1

Leq Average 24 hrs. (dB(A))	50.1
Lmax (dB(A))	93.3
L90 (dB(A))	39.0
Ldn (dB(A))	54.3
Standard (dB(A))	70

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่ทำงาน และระดับเสียงที่อาจก่อให้เกิดผลกระทบต่อสุขภาพ
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่ทำงาน และระดับเสียงที่อาจก่อให้เกิดผลกระทบต่อสุขภาพ
พ.ร.บ. พ.ศ. 2548

Technical Management

Approved by



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Analysis / Test Report

Client: Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 2453184
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011397-1

Sample Number	2453184-29
Parameter	Air Quality
Location	Ban Kong Sai Yang Rong (GPS 47Q 0676121, 1798820)
Measurement Date	May 20 - May 21, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 858519

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
04:00 PM - 05:00 PM	46.8	74.2	36.3
05:00 PM - 06:00 PM	45.6	62.7	37.1
06:00 PM - 07:00 PM	49.9	76.0	39.9
07:00 PM - 08:00 PM	43.2	63.3	39.3
08:00 PM - 09:00 PM	43.8	63.4	42.2
09:00 PM - 10:00 PM	43.6	59.9	41.2
10:00 PM - 11:00 PM	44.9	72.2	40.2
11:00 PM - 12:00 AM	44.1	68.7	40.4
12:00 AM - 01:00 AM	40.9	55.7	39.0
01:00 AM - 02:00 AM	40.9	65.0	39.0
02:00 AM - 03:00 AM	42.3	65.9	38.1
03:00 AM - 04:00 AM	38.8	54.0	37.6
04:00 AM - 05:00 AM	41.4	64.6	37.9
05:00 AM - 06:00 AM	49.9	76.8	43.2
06:00 AM - 07:00 AM	50.9	72.3	41.1
07:00 AM - 08:00 AM	48.9	72.8	40.0
08:00 AM - 09:00 AM	49.3	73.0	40.4
09:00 AM - 10:00 AM	49.4	77.2	40.5
10:00 AM - 11:00 AM	57.0	85.3	42.5
11:00 AM - 12:00 PM	58.9	88.9	46.6
12:00 PM - 01:00 PM	49.3	73.1	39.8
01:00 PM - 02:00 PM	47.8	71.4	39.4
02:00 PM - 03:00 PM	50.3	75.6	39.1
03:00 PM - 04:00 PM	49.4	73.7	38.9

Leq Average 24 hrs. (dB(A))	50.1
Lmax (dB(A))	88.9
L90 (dB(A))	39.8
Ldn (dB(A))	53.6
Standard (dB(A))	70

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่ทำงาน และระดับเสียงที่อาจก่อให้เกิดผลกระทบต่อสุขภาพ
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานเสียงในสถานที่ทำงาน และระดับเสียงที่อาจก่อให้เกิดผลกระทบต่อสุขภาพ
พ.ร.บ. พ.ศ. 2548

Technical Management

Approved by





Analysis / Test Report

Lot ID: 2453184

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230

P/O : 47581
Project Name : Air Test
Project Location :
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011400-1

Page 1 of 1

Sample Number	2453184-32
Parameter	Air Quality
Location	Ban Kong Sai Yang Rong (GPS 47Q 0676121, 1798820)
Measurement Date	May 23 - May 24, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 888519

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
04:00 PM - 05:00 PM	55.9	75.5	39.5
05:00 PM - 06:00 PM	50.6	75.7	42.9
06:00 PM - 07:00 PM	51.0	71.9	42.9
07:00 PM - 08:00 PM	51.6	69.1	42.5
08:00 PM - 09:00 PM	47.6	60.9	45.5
09:00 PM - 10:00 PM	47.9	63.3	45.2
10:00 PM - 11:00 PM	52.7	77.8	46.1
11:00 PM - 12:00 AM	51.3	59.3	50.2
12:00 AM - 01:00 AM	50.8	61.3	48.7
01:00 AM - 02:00 AM	45.8	58.1	42.3
02:00 AM - 03:00 AM	45.6	59.8	43.0
03:00 AM - 04:00 AM	50.9	62.2	47.1
04:00 AM - 05:00 AM	56.3	86.1	44.2
05:00 AM - 06:00 AM	52.9	78.3	43.7
06:00 AM - 07:00 AM	52.0	80.9	41.6
07:00 AM - 08:00 AM	50.1	72.2	40.7
08:00 AM - 09:00 AM	51.5	82.2	41.2
09:00 AM - 10:00 AM	52.8	71.9	44.7
10:00 AM - 11:00 AM	49.3	77.7	42.2
11:00 AM - 12:00 PM	52.6	79.5	42.0
12:00 PM - 01:00 PM	50.8	73.9	41.0
01:00 PM - 02:00 PM	48.4	72.6	41.3
02:00 PM - 03:00 PM	49.0	70.7	41.2
03:00 PM - 04:00 PM	45.8	69.1	39.4
Leq Average 24 hrs. (dB(A))	51.4		
Lmax (dB(A))	86.1		
L90 (dB(A))			42.9
Ldn (dB(A))	58.3		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่องมาตรฐานสิ่งแวดล้อมทางบก และระดับเสียงในสถานที่สาธารณะ
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดระดับเสียงมาตรฐาน และระดับเสียงในสถานที่สาธารณะ
พ.ศ. 2548

Technical Management

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น.26/36

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2244-23/ ENAL

S:\Reports\Air Noise\ref 2\66PM

Analysis / Test Report

Lot ID: 2453184

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochettuk, Amphur Thapklor, Phichit Thailand 66230

P/O : 47581
Project Name : Air Test
Project Location :
Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011399-1

Page 1 of 1

Sample Number	2453184-31
Parameter	Air Quality
Location	Ban Kong Sai Yang Rong (GPS 47Q 0676121, 1798820)
Measurement Date	May 22 - May 23, 2024
Measurement by	Varich Phanpitt
Sound Level meter	Serial No. 888519

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
04:00 PM - 05:00 PM	49.6	74.7	39.4
05:00 PM - 06:00 PM	49.3	73.9	37.8
06:00 PM - 07:00 PM	49.7	87.0	39.2
07:00 PM - 08:00 PM	48.0	68.5	44.6
08:00 PM - 09:00 PM	46.2	57.7	44.4
09:00 PM - 10:00 PM	47.3	59.3	43.7
10:00 PM - 11:00 PM	47.3	68.1	42.8
11:00 PM - 12:00 AM	60.3	87.2	40.0
12:00 AM - 01:00 AM	48.7	78.5	39.6
01:00 AM - 02:00 AM	42.1	67.1	39.0
02:00 AM - 03:00 AM	43.3	61.6	38.9
03:00 AM - 04:00 AM	45.9	63.2	42.4
04:00 AM - 05:00 AM	47.6	60.0	45.2
05:00 AM - 06:00 AM	55.4	84.7	44.6
06:00 AM - 07:00 AM	50.3	76.6	42.3
07:00 AM - 08:00 AM	50.3	80.3	41.6
08:00 AM - 09:00 AM	47.7	70.9	39.5
09:00 AM - 10:00 AM	50.7	70.7	40.4
10:00 AM - 11:00 AM	50.7	74.7	37.7
11:00 AM - 12:00 PM	49.4	70.8	38.9
12:00 PM - 01:00 PM	49.7	75.8	38.5
01:00 PM - 02:00 PM	48.3	70.7	39.0
02:00 PM - 03:00 PM	46.5	74.5	35.9
03:00 PM - 04:00 PM	45.7	71.4	35.7
Leq Average 24 hrs. (dB(A))	50.9		
Lmax (dB(A))	87.2		
L90 (dB(A))			39.5
Ldn (dB(A))	59.0		
Standard (dB(A))	70	115	

Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่องมาตรฐานสิ่งแวดล้อมทางบก และระดับเสียงในสถานที่สาธารณะ
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดระดับเสียงมาตรฐาน และระดับเสียงในสถานที่สาธารณะ
พ.ศ. 2548

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2244-23/ ENAL

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MM-N08

Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheiuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 241186

Date Received : Mar 22, 2024
Date Reported : Mar 29, 2024
Report Number: 2878284-1

Sample Number		241186-1	
Sampled Date		Mar 19, 2024	
Sample Description		Emission from Stationary Source	
Location		Acid Hood/ Outlet	
Date Analysis Commenced		Mar 25, 2024	
Condition of Sample		Extracted into two amber plastic bottles, refrigerated	

		Stack Description	
Ambient Pressure	750	mmHg	Diameter
Ambient Temperature	38.0	°C	Shape
Type of Process	Process		Stack Temperature
Type of Fuel	-		Moisture
			Flow Rate (Actual O2)
			2966

Analyte	Sampled Time	Unit	LOQ (LOR)	Result	Guideline Limit	Method	Testing Location
Air Testing	03:00 PM - 04:00 PM	mg/m ³	-	<0.01	200	United States Environmental Protection Agency, EPA Method 26	Bangkok
	03:15 PM - 03:57 PM	ppm	-	3.18	25	United States Environmental Protection Agency, EPA Method 8	Bangkok

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

Sampled By : Thanong Wiriyaahakij

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

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244-23/EMAIL

S:Reports_Air Stack_GL.rpt (2:48PM)



Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheiuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 2453184

Date Received : May 30, 2024
Date Reported : Jun 03, 2024
Report Number: 3011403-1

Sample Number		2453184-35	
Parameter		Air Quality	
Location		Ban Kong Sai Yang Rong (GPS 47Q 0676121, 1798520)	
Measurement Date		May 26 - May 27, 2024	
Measurement by		Varich Phantipit	
Sound Level meter		Serial No. 888519	

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
04:00 PM - 05:00 PM	44.8	70.0	36.1
05:00 PM - 06:00 PM	46.0	70.1	36.4
06:00 PM - 07:00 PM	47.7	82.3	39.3
07:00 PM - 08:00 PM	48.2	80.0	42.1
08:00 PM - 09:00 PM	46.2	68.4	43.7
09:00 PM - 10:00 PM	43.7	63.4	41.9
10:00 PM - 11:00 PM	52.6	82.1	39.8
11:00 PM - 12:00 AM	58.1	85.5	38.9
12:00 AM - 01:00 AM	40.7	54.7	38.6
01:00 AM - 02:00 AM	43.6	64.6	41.2
02:00 AM - 03:00 AM	43.1	53.0	39.4
03:00 AM - 04:00 AM	47.9	70.8	39.1
04:00 AM - 05:00 AM	54.3	83.9	40.9
05:00 AM - 06:00 AM	53.1	76.5	41.1
06:00 AM - 07:00 AM	51.1	73.6	42.5
07:00 AM - 08:00 AM	49.1	69.6	40.6
08:00 AM - 09:00 AM	49.9	77.0	39.2
09:00 AM - 10:00 AM	49.1	71.4	40.1
10:00 AM - 11:00 AM	49.0	74.0	38.5
11:00 AM - 12:00 PM	47.3	79.0	37.4
12:00 PM - 01:00 PM	47.4	71.4	37.2
01:00 PM - 02:00 PM	46.0	71.4	36.6
02:00 PM - 03:00 PM	47.0	69.5	37.1
03:00 PM - 04:00 PM	47.6	60.0	45.2

Leq Average 24 hrs. (dB(A))	50.0
Lmax (dB(A))	85.5
L90 (dB(A))	39.3
Ldn (dB(A))	58.3

Standard (dB(A)) 115
Reference Method : ISO1996-1 and 1996-2
Standard : 1. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานระดับเสียงในชุมชน พ.ศ. 2540 (พ.ศ. 2540) (ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานระดับเสียงในชุมชน พ.ศ. 2540)
2. ประกาศกระทรวงอุตสาหกรรม เรื่อง ค่ามาตรฐานระดับเสียงในชุมชน และระดับเสียงที่อาจก่อให้เกิดผลกระทบต่อสุขภาพ พ.ศ. 2548

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S:Reports_Air Noise.rpt (2:57PM)



MM-N08

Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 241188
Date Received : Mar 22, 2024
Date Reported : Mar 29, 2024
Report Number: 2878286-1

Page 1 of 1

Sample Number	241188-1
Sampled Date	Mar 20, 2024
Sample Description	Emission from Stationary Source
Location	Hot Oil
Date Analysis Commenced	Mar 25, 2024
Condition of Sample	Extracted into two 2-L collection flasks; one filter paper placed in plastic petri dish, one 10-L air sampling bag and three amber plastic bottles, refrigerated

Stack Description						
Analyte	Sampled Time	Unit	LOD (LOR)	Result at %O ₂	Guideline Limit	Method
Air Testing	04:00 PM - 04:10 PM	ppm	- 1.0	84.2	690	<United States Environmental Protection Agency, EPA Method 10
Carbon Monoxide	04:00 PM - 04:10 PM	ppm	- 1.0	84.2	690	<United States Environmental Protection Agency, EPA Method 10
Hydrogen Chloride	03:40 PM - 04:40 PM	mg/m ³	- 0.01	0.17	160	<United States Environmental Protection Agency, EPA Method 26
Oxides of Nitrogen	03:45 PM - 03:55 PM	ppm	- 1.06	4.85	200	<United States Environmental Protection Agency, EPA Method 7
Sulfur dioxide	03:40 PM - 04:10 PM	ppm	- 2.0	B2.00	60	<United States Environmental Protection Agency, EPA Method 6
Total Suspended Particulate	03:40 PM - 04:22 PM	mg/m ³	- 0.5	1.6	320	<United States Environmental Protection Agency, EPA Method 5

Guideline : Notification of the Ministry of Industry 2006 (U.E. 2549) Published in the Royal %overnment %azette, Vol.123 Special Part 125 D, dated December 4, 2006 (U.E. 2549)

Sampled By : Thanong Wriyasaikij

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



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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 241185
Date Received : Mar 22, 2024
Date Reported : Mar 28, 2024
Report Number: 2878281-1

Page 1 of 1

Sample Number	241185-1
Sampled Date	Mar 19, 2024
Sample Description	Emission from Stationary Source
Location	Lab Dust Collection/ Hulet
Date Analysis Commenced	Mar 25, 2024
Condition of Sample	EQtracted into one filter paper placed in plastic petri dish

Stack Description						
Analyte	Sampled Time	Unit	LOD (LOR)	Result	Guideline Limit	Method
Air Testing	01:30 PM - 02:18 PM	mg/m ³	-	59.1	400	<United States Environmental Protection Agency, EPA Method 5
Total Suspended Particulate	01:30 PM - 02:18 PM	mg/m ³	- 0.5	59.1	400	<United States Environmental Protection Agency, EPA Method 5

Guideline : Notification of the Ministry of Industry 2006 (U.E. 2549) Published in the Royal %overnment %azette, Vol.123 Special Part 125 D, dated December 4, 2006 (U.E. 2549)

Sampled By : Thanong z iriyasahakw

Remark :
- LOD : Limit of Detection
- "Q" : Lower than Lnj (Limit of j unitisation) / LHR (Limit of Reporting)



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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thaplor, Phichit Thailand 66230
P/O : 47581
Date Received : Mar 22, 2024
Date Reported : Mar 29, 2024
Report Number: 2878259-2

Lot ID: 241180

Project Name : Air Test
Project Location :

Page 1 of 1

Sample Number	241180-1
Sampled Date	Mar 21, 2024
Sample Description	Emission from Stationary Source
Location	Hold Melting Furnace
Date Analysis Commenced	Mar 25, 2024
Condition of Sample	Extracted into two 2-L collection flasks, one filter paper placed in plastic petri dish, one 10-L air sampling bag and three amber plastic bottles, refrigerated

Stack Description				
Ambient Pressure	754	mm ² g	Diameter	0.60
Ambient Temperature	30.0	°C	Shape	Circle
Type of Process	Combustion	Open System	Stack Temperature	113
Type of Fuel	LPG		Moisture	4.95
			Flow Rate	Actual 11.6
			Flow Rate	Actual 8569
				Nm ³ /hr

Analyte	Sampled Time	Unit	LOQ (LOR)	Result	Method	Testing Location
---------	--------------	------	-----------	--------	--------	------------------

Air Testing						
Hydrogen cyanide	09:30 AM - 10:00 AM	mg/m3	-	0.01	N1965° G994V, P8CAM 116	Bangkok

Sampled By : Thanong Wriyasaahakij

Remark :
- LOD : Limit of Detection
- LQD : Lower than LQD Limit of Quantitation/ LQD Limit of Reporting

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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thaplor, Phichit Thailand 66230
P/O : 47581
Date Received : Mar 22, 2024
Date Reported : Mar 29, 2024
Report Number: 2878286-2

Lot ID: 241188

Project Name : Air Test
Project Location :

Page 1 of 1

Sample Number	241188-1
Sampled Date	Mar 20, 2024
Sample Description	Emission from Stationary Source
Location	Hot Oil
Date Analysis Commenced	Mar 25, 2024
Condition of Sample	Extracted into two 2-L collection flasks, one filter paper placed in plastic petri dish, one 10-L air sampling bag and three amber plastic bottles, refrigerated

Stack Description				
Ambient Pressure	754	mmHg	Diameter	0.40
Ambient Temperature	30.1	°C	Shape	Circle
Type of Process	Combustion		Stack Temperature	198
Type of Fuel	LPG		Moisture	10.91
			Flow Rate	Actual 02
			Flow Rate	Actual 2412
				Nm ³ /hr

Analyte	Sampled Time	Unit	LOQ (LOR)	Result at 7 %O ₂	Method	Testing Location
---------	--------------	------	-----------	-----------------------------	--------	------------------

Air Testing						
Hydrogen cyanide	04:10 PM - 04:40 PM	mg/m3	-	0.01	NIOSH (1994), P8CAM 116	Bangkok

Sampled By : Thanong Wriyasaahakij

Remark :
- LOD : Limit of Detection
- LQD : Lower than LQD Limit of Quantitation/ LQD Limit of Reporting

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MM-N08

Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thaplor, Pichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 241179
Date Received : Mar 22, 2024
Date Reported : Mar 29, 2024
Report Number: 2878257-2

Page 1 of 1

Sample Number	241179-1
Sampled Date	Mar 21, 2024
Sample Description	Emission from Stationary Source
Location	Electro Hinning
Date Analysis Commenced	Mar 25, 2024
Condition of Sample	Extracted into bxo 2-L collection flasks, one filter paper placed in plastic petri dish and bxo amber plastic bottles, refrigerated

Stack Description				
Ambient Pressure	754	mmHg	Diameter	0.45
Ambient Temperature	30.0	°C	Shape	Circle
Type of Process	-		Stack Temperature	40.5
Type of Fuel	-		Moisture	5.25
			Flow Rate	4952
			%Actual	%21
			Nm3/hr	

Analyte	Sampled Time	Unit	LOQ (LOR)	Result	Method	Testing Location
Air Testing						
hydrogen cyanide	11:00 AM - 11:30 AM	mg/m3	-	0.01	N86Sw 19941, PBCAM 116	Wangk

Sampled By : Thanong Hiriyasahakij

Remark :
- L%Q : Limit of Detection
- %* : Lower than L%Q Limit of Quantitation / L%Q Limit of Reporting

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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thaplor, Pichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :
Lot ID: 241180
Date Received : Mar 22, 2024
Date Reported : Mar 29, 2024
Report Number: 2878259-1

Page 1 of 1

Sample Number	241180-1
Sampled Date	Mar 21, 2024
Sample Description	Emission from Stationary Source
Location	Hold Melting Furnace
Date Analysis Commenced	Mar 25, 2024
Condition of Sample	Extracted into two 2-L collection flasks, one filter paper placed in plastic petri dish, one 10-L air sampling bag and three amber plastic bottles, refrigerated

Stack Description				
Ambient Pressure	754	mm ² g	Diameter	0.60
Ambient Temperature	30.0	°C	Shape	Circle
Type of Process	Combustion %Open SystemV		Stack Temperature	113
Type of Fuel	LPH		Moisture	4.95
			Flow Rate	8569
			%Actual	%2V
			Nm3/hr	

Analyte	Sampled Time	Unit	LOQ (LOR)	Result	Guideline Limit	Method	Testing Location
Air Testing							
Carbon Monoxide	09:35 AM - 09:45 AM	ppm	-	4.5	690	<United States Environmental Protection Agency, EPA Method 10	Uangkok
%hydrogen Chloride	09:00 AM - 10:00 AM	mg/m3	-	0.08	160	<United States Environmental Protection Agency, EPA Method 26	Uangkok
Oxides of Nitrogen	09:20 AM - 09:30 AM	ppm	-	B1.06	200	<United States Environmental Protection Agency, EPA Method 7	Uangkok
Sulfur dioxide	09:00 AM - 09:30 AM	ppm	-	B2.00	60	<United States Environmental Protection Agency, EPA Method 6	Uangkok
Total Suspended Particulate	09:10 AM - 09:52 AM	mg/m3	-	38.3	320	<United States Environmental Protection Agency, EPA Method 5	Uangkok

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

Sampled By : Thanong Hiriyasahakij

Remark :
- LGD : Limit of Detection
- %* : Lower than LGQ %Limit of QuantitationV LGR %Limit of ReportingV

RESULTS 241180-1

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MM-N08

Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thaplor, Phichit Thailand 66230
P/O : 48262
Project Name : Soil Plant, Fish, Food
Project Location :

Lot ID: 2418690
Date Received : Feb 16, 2024
Date Reported : Feb 22, 2024
Report Number : 2913812-1

Page 1 of 4

Sample Number	2418690-1
Sampled Date	Feb 16, 2024 8:00 AM
Sample Description	Tailing
Location	Spigot 5
Date Analysis Commenced	Feb 19, 2024
Condition of Sample	Packed in one plastic bottle

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Total Concentration Test (TTLO) : Chemical						
Cyanide	mg/kg	-	0.2	7.1	United States Environmental Protection Agency, EPA Method 9013 and 9010 B	Bangkok

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

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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thaplor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 241179
Date Received : Mar 22, 2024
Date Reported : Mar 29, 2024
Report Number : 2878257-1

Page 1 of 1

Sample Number	241179-1
Sampled Date	Mar 21, 2024
Sample Description	Emission from Stationary Source
Location	Electro H lining
Date Analysis Commenced	Mar 25, 2024
Condition of Sample	EQtracted into tx o 2-L collection flasks, one filter paper placed in plastic petri dish and tx o amber plastic bottles, refrigerated

Stack Description						
Ambient Pressure	754	mmwg	Diameter	0.45	m	GOgen 20.9 %
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide 0.0 %
Type of Process	Process		Stack Temperature	40.5	°C	Vas (elocky 9.7 m/s
Type of Fuel	-		Moisture	5.25	%	Flox Rate)Actual G2< 4952 Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Testing Location
Air Testing								
hydrogen Chloride	11:00 AM - 12:00 PM	mg/m3	-	0.01	0.08	200	United States Environmental Protection Agency, EPA Method 26	Bangkok
GOdes of Nitrogen	11:20 AM - 11:30 AM	ppm	-	1.06	1 1.06	No Standard	United States Environmental Protection Agency, EPA Method 7	Bangkok
Total Suspended Particulate	11:00 AM - 11:42 AM	mg/m3	-	0.5	1 0.5	400	United States Environmental Protection Agency, EPA Method 5	Bangkok

Guideline : Notification of the Ministry of ndustry 2006 JB.E. 2549<-Published in the Royal Government Vallette, (d.123 Special Part 125 D, dated December 4, 2006 JB.E. 2549<-

Sampled By : Thanong H Triyasahakij

Remark :
- LGD : Limit of Detection
- "L" : Lower than LOQ)Limit of Quantitation</ LGR)Limit of Reporting <

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MM-N08

Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetuk, Amphur Thapkor, Phichit Thailand 66230
P/O : 48262
Date Received : Feb 16, 2024
Date Reported : Feb 22, 2024
Report Number : 2913812-1

Project Name : Soil, Plant, Fish, Food
Project Location :

Lot ID: 2418690

Page 3 of 4

Sample Number : 2418690-3
Sampled Date : Feb 16, 2024 8:25 AM
Sample Description : Tailing
Location : Spigot 51
Date Analysis Commenced : Feb 19, 2024
Condition of Sample : Packed in one plastic bottle

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Total Concentration Test (TTLC) : Chemical						
Cyanide	mg/kg	-	0.2	19.0	United States Environmental Protection Agency, EPA Method 9013 and 9010 B	Bangkok

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

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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetuk, Amphur Thapkor, Phichit Thailand 66230
P/O : 48262
Date Received : Feb 16, 2024
Date Reported : Feb 22, 2024
Report Number : 2913812-1

Project Name : Soil, Plant, Fish, Food
Project Location :

Lot ID: 2418690

Page 2 of 4

Sample Number : 2418690-2
Sampled Date : Feb 16, 2024 8:10 AM
Sample Description : Tailing
Location : Spigot 21
Date Analysis Commenced : Feb 19, 2024
Condition of Sample : Packed in one plastic bottle

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Total Concentration Test (TTLC) : Chemical						
Cyanide	mg/kg	-	0.2	18.9	United States Environmental Protection Agency, EPA Method 9013 and 9010 B	Bangkok

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

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MM-N08

Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetuk, Amphur Thapklor, Pichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 241187
Date Received : Mar 22, 2024
Date Reported : Mar 28, 2024
Report Number: 287285-1

Sample Number	241187-1
Sampled Date	Mar 19, 2024
Sample Description	Emission from Stationary Source
Location	Cyanide Hood/ Output
Date Analysis Commenced	Mar 25, 2024
Condition of Sample	Extracted into one amber plastic bottle, refrigerated

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location	Stack Description	
Ambient Pressure	750	mmHg			0.30	m	Oxygen	20.9	F
Ambient Temperature	38.0	°C			Circle		Carbon Dioxide	0.0	F
Type of Process	Process				27.0	°C	Gas %/ccity	11.4	m/s
Type of °ul	-				1.62	F	%bV Rate (Actual O2)	2791	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Air Testing							
Hydrogen cyanide	04:30 PM - 05:00 PM	mg/m3	-	0.01	I 0.01	NIOSH (1994), PBCAM 116	Wangkok

Sampled By : Thanong j iriyasahakij

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

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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetuk, Amphur Thapklor, Pichit Thailand 66230
P/O : 48262
Project Name : Soil/Plant, Fish, Food
Project Location :

Lot ID: 2418690
Date Received : Feb 16, 2024
Date Reported : Feb 22, 2024
Report Number : 2913812-1

Sample Number	2418690-4
Sampled Date	Feb 16, 2024 8:35 AM
Sample Description	Tailing
Location	Spigot 58
Date Analysis Commenced	Feb 19, 2024
Condition of Sample	Packed in one plastic bottle

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Total Concentration Test (TTIC) : Chemical						
Cyanide	mg/kg	-	0.2	7.1	United States Environmental Protection Agency, EPA Method 9013 and 9010 B	Bangkok

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

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MM-N08

Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thaplor, Pichit Thailand 66230
P/O : 47734
Project Name : Air Test
Project Location :

Lot ID: 2432216
Date Received : Mar 22, 2024
Date Reported : Mar 27, 2024
Report Number: 294341D0

Page 1 of 1

Sample Number	24322D6V0
Sample Date	Mar 20, 2024
Sample Description	Emission from Stationary Source
Location	Carbon Regeneration
Date Analysis Commenced	Mar 25, 2024
Condition of Sample	Extracted into one liter paper placed in plastic petri dish

Stack Description					
Ambient Pressure	150	mmHg	51mm	m	4.0
Ambient Temperature	21.0	°C	Circle	Circle	9.6
Type of Process	Combustion	°C	Back Temperature	410	m/s
Type of Fuel	LP	%	Moisture	35.24	m³/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result at 7 %O ₂	Guideline Limit	Method	Testing Location
Air Testing								
Total Suspended Particulate	09:30 PM - 10:07 PM	mg/m³	V	0.5	250	320	<United States Environmental Protection Agency, EPA Method 5	Uangkok

Guideline : - obligation of the Ministry of Industry 2006 (U.E. 2549) Published in the Royal Gazette, Extraordinary Part 25 5, dated 5 eember 4, 2006 (U.E. 2549)

Sampled By : Thanon N. Vinyasakul

Remark :
- L₉₅ : Limit of Selection
- Q : Lower than L₉₅ (Limit of Quantitation) / L₉₅ (Limit of Reporting)

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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thaplor, Pichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 241183
Date Received : Mar 22, 2024
Date Reported : Mar 29, 2024
Report Number: 2878268-1

Page 1 of 1

Sample Number	241183-1
Sample Date	Mar 20, 2024
Sample Description	Emission from Stationary Source
Location	Carbon Regeneration
Date Analysis Commenced	Mar 25, 2024
Condition of Sample	Extracted into two 2-L collection flasks, one filter paper placed in plastic petri dish, one 10-L air sampling bag and three amber plastic bottles, refrigerated

Stack Description					
Ambient Pressure	754	mmHg	Diameter	m	4.3
Ambient Temperature	30.1	°C	Shape	Circle	9.4
Type of Process	Combustion	°C	Stack Temperature	411	m/s
Type of Fuel	LP	%	Moisture	33.11	m³/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result at 7 %O ₂	Guideline Limit	Method	Testing Location
Air Testing								
Carbon Monoxide	02:20 PM - 02:30 PM	ppm	-	1.0	367	690	<United States Environmental Protection Agency, EPA Method 10	Uangkok
Hydrogen Chloride	02:15 PM - 03:15 PM	mg/m³	-	0.01	0.26	160	<United States Environmental Protection Agency, EPA Method 26	Uangkok
Gases of Nitrogen	02:35 PM - 02:45 PM	ppm	-	1.06	12.7	200	<United States Environmental Protection Agency, EPA Method 7	Uangkok
Sulfur dioxide	02:15 PM - 02:45 PM	ppm	-	2.0	82.00	60	<United States Environmental Protection Agency, EPA Method 6	Uangkok
Total Suspended Particulate	02:15 PM - 03:03 PM	mg/m³	-	0.5	274	320	<United States Environmental Protection Agency, EPA Method 5	Uangkok

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

Sampled By : Thanong Winyasakul

Remark :
- LGD : Limit of Detection
- "B" : Lower than LGQ (Limit of Quantitation) / LGR (Limit of Reporting)

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MM-N08



Analysis / Test Report

TESTING
No.0009

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thapkhlor, Phichit Thailand 66230
P/O :
Project Name : Water Project
Project Location : CHATREE

Lot ID: 2468808
Date Received : Jun 17, 2024
Date Reported : Jun 25, 2024
Report Number : 3027423-1

Page 1 of 4

Sample Number	2468808-1
Sampled Date	Jun 17, 2024 9:35 AM
Sample Description	Wastewater
Location	WWAT6706
Date Analysis Commenced	Jun 18, 2024
Condition of Sample	Contained in three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Arsenic	mg/L	0.0003	0.0005	0.10	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	0.002	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.24	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.002	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.31	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	<0.0005	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Nickel	mg/L	0.0003	0.0005	0.003	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	0.05	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	<0.01	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.01	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Water Testing						
BOD (5 days at 20 degree C)	mg/L	-	2.0	4.8	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 52.10 B, part 4500 - O G	Bangkok

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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaocheuluk, Amphur Thapkhlor, Phichit Thailand 66230
P/O : 47581
Project Name : Air Test
Project Location :

Lot ID: 241183
Date Received : Mar 22, 2024
Date Reported : Mar 29, 2024
Report Number: 2878268-2

Page 1 of 1

Sample Number	241183-1
Sampled Date	Mar 20, 2024
Sample Description	Emission from Stationary Source
Location	Carbon Regeneration
Date Analysis Commenced	Mar 25, 2024
Condition of Sample	Extracted into 100 2-L collection flasks, one filter paper placed in plastic petri dish, one 10-L air sampling bag and three amber plastic bottles, refrigerated

Analyte	Unit	LOD	LOQ (LOR)	Result at 7 %O ₂	Method	Testing Location
Air Testing						
hydrogen cyanide	mg/m3	-	0.01	2.23	N%Ex (1994), P&CAM 116	Bangkok

Sampled By : Thanong Wriyasahtakij

Remark :
- LMD : Limit of Detection
- %C₂ : Lower than LMQ (Limit of Quantitation) / LMR (Limit of Reporting)

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MM-N08



Analysis / Test Report

TESTING
No. 0009

Lot ID: 2468808

Date Received : Jun 17, 2024
Date Reported : Jun 25, 2024
Report Number : 3027423-1

Page 3 of 4

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochutuk, Amphur Thapkhlor, Phichit Thailand 66230
P/O :
Project Name : Water Project
Project Location : CHATREE

Sample Number	2468808-2
Sampled Date	Jun 17, 2024 9:07 AM
Sample Description	Wastewater
Location	WWBT6706
Date Analysis Commenced	Jun 18, 2024
Condition of Sample	Contained in three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Arsenic	mg/L	0.0003	0.0005	0.28	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	0.003	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	9.96	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.05	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	5.12	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	<0.0005	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok
Nickel	mg/L	0.0003	0.0005	0.28	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Selenium	mg/L	0.0003	0.0005	0.09	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Trivalent Chromium *	mg/L	-	0.01	0.21	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.19	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 31.25 B, 3030 F	Bangkok
Water Testing						
BOD (5 days at 20 degree C)	mg/L	-	2.0	<2.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 52.10 B, part 4500 - O G	Bangkok

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Analysis / Test Report

TESTING
No. 0009

Lot ID: 2468808

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochutuk, Amphur Thapkhlor, Phichit Thailand 66230
P/O :
Project Name : Water Project
Project Location : CHATREE

Sample Number	2468808-1
Sampled Date	Jun 17, 2024 9:36 AM
Sample Description	Wastewater
Location	WWAT6706
Date Analysis Commenced	Jun 18, 2024
Condition of Sample	Contained in three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
COD	mg/L	-	25	76	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok
pH at 25 degree C		-	-	9.0	In-house method : STM 04-003 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok
Temperature *	Degree C	-	-	34.4	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Bangkok
Total Dissolved Solids Dried at 180 degree C	mg/L	-	5	4692	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	19	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Bangkok
Weak Acid Discolorable Cyanide *	mg/L	0.002	0.005	Not Detected	Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (1)	Bangkok

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

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Analysis / Test Report

TESTING
No. 0009

Lot ID: 2468808

Date Received : Jun 17, 2024

Date Reported : Jun 25, 2024

Report Number : 3027423-1

Page 4 of 4

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetluk, Amphur Thapklor, Phichit Thailand 66230
P/O :
Project Name : Water Project
Project Location : CHATREE

Sample Number : 2468808-2
Sampled Date : Jun 17, 2024 9:07 AM
Sample Description : Wastewater
Location : WWBT6706
Date Analysis Commenced : Jun 18, 2024
Condition of Sample : Contained in three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Water Testing						
COD	mg/L	-	25	187	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CH (C, E)	Bangkok
pH at 25 degree C		-	-	9.4	In-house method : STM 04-003 based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok
Temperature *	Degree C	-	-	36.5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Bangkok
Total Dissolved solids Dried at 180 degree C	mg/L	-	5	4552	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	425	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Bangkok
Weak Acid Disinfectable Cyanide *	mg/L	0.002	0.005	Not Detected	Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-CN (1)	Bangkok

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

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

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CERTIFICATE OF ANALYSIS

Client	Akara Resources Public Co., Ltd.	ALS Lot No.	246544
Contact Address	Yaowanud Chandung 99 Moo 9, Tambon Khaochetluk, Amphur Thapklor, Phichit Thailand 66230	Date Samples Received Issue Date	Feb 14, 2024 01:00 PM Feb 28, 2024 07:44 PM
Email	yaowanud@akararesources.com	Quote number Project	Q2352889 CHATREE
Telephone Facsimile	0-5661-4500 0-5661-4190	No. of samples received No. of samples analysed	24 24

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or client request.

When sampling time information is not provided by client, sampling dates are shown without a time component. In this instances, the time component has been assumed by the laboratory for processing purposes.

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Analytical Results

Client sample ID Client sampling date / time			SW6702ST1 12-Feb-24	SW6702ST2 12-Feb-24	SW6702ST8 13-Feb-24	SW6702ST9 13-Feb-24	SW6702ST10 13-Feb-24	SW6702ST11 13-Feb-24	SW6702ST13 12-Feb-24
Compound	LOR	Unit	246544-1	246544-2	246544-3	246544-4	246544-5	246544-6	246544-7
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	320	129	2572	3196	1852	342	222
EA025: Suspended Solids									
Total Suspended Solids	5	mg/L	35	18	6	<5	<5	<5	157
EA065: Total Hardness									
Total Hardness	1	mg/L	189	101	1649	2804	1321	265	137
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	101	86	55	106	81	121	50
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	101	86	55	106	81	121	50
ED041G: Sulfate									
Sulfate	1.0	mg/L	128	7.0	1767	2755	1219	157	143
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	18.7	2.4	30.3	1.9	2.8	2.6	15.6
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	50.2	18.9	246	557	271	36.3	31.9
Magnesium	0.10	mg/L	15.5	13.1	251	344	168	42.3	14.1
Potassium	0.10	mg/L	9.22	0.64	5.49	11.6	11.2	6.38	5.96
Sodium	0.10	mg/L	22.1	5.92	144	26.5	13.8	7.38	34.7
EG020T: Total Metals by ICP-MS									
Arsenic	0.001	mg/L	0.004	0.001	<0.001	0.001	<0.001	<0.001	0.003
Cobalt	0.001	mg/L	0.004	<0.001	0.008	<0.001	0.002	<0.001	0.005
Copper	0.001	mg/L	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	0.01
Iron	0.05	mg/L	2.12	0.97	1.47	<0.05	0.13	0.11	5.31
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
Manganese	0.001	mg/L	3.67	0.33	2.65	0.31	1.24	0.10	2.69
EG035T: Total Recoverable Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

LOR = Limit of reporting

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Analytical Results

Client sample ID Client sampling date / time			SW6702ST1 12-Feb-24	SW6702ST2 12-Feb-24	SW6702ST8 13-Feb-24	SW6702ST9 13-Feb-24	SW6702ST10 13-Feb-24	SW6702ST11 13-Feb-24	SW6702ST13 12-Feb-24
Compound	LOR	Unit	246544-1	246544-2	246544-3	246544-4	246544-5	246544-6	246544-7
EN055: Ionic Balance									
Ionic Balance	0	%	2.00	0.68	2.01	0.39	3.69	4.72	2.65
Total Anions	0.01	mEq/L	4.78	1.61	37.80	57.96	26.25	5.25	4.18
Total Cations	0.01	mEq/L	4.98	2.29	39.35	57.50	28.26	5.77	4.41
EP005: Total Organic Carbon									
Total Organic Carbon	0.1	mg/L	31.9	4.60	1.83	1.31	2.23	4.61	5.34
Turbidity									
Turbidity	0.1	NTU	31	19	16	0.45	2.1	7.3	240

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Analytical Results

Client sample ID Client sampling date / time			SW6702ST14	SW6702ST16	SW6702ST17	SW6702ST18	SW6702ST20	SW6702ST21	SW6702ST27
			12-Feb-24	12-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24
Compound	LOR	Unit	246544-8	246544-9	246544-10	246544-11	246544-12	246544-13	246544-14
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	153	140	1064	760	1956	1656	1376
EA025: Suspended Solids									
Total Suspended Solids	5	mg/L	30	39	7	12	<5	<5	<5
EA065: Total Hardness									
Total Hardness	1	mg/L	93	81	854	559	1673	1277	1309
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	116	96	121	91	76	81	131
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	116	96	121	91	76	81	131
ED041G: Sulfate									
Sulfate	1.0	mg/L	<1.0	29.6	725	453	1496	1148	1054
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	5.3	10.0	7.8	4.8	2.4	2.7	1.8
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	24.3	21.9	160	97.3	380	285	245
Magnesium	0.10	mg/L	7.93	6.43	110	76.5	181	139	165
Potassium	0.10	mg/L	4.06	3.16	6.24	8.67	10.8	11.1	7.01
Sodium	0.10	mg/L	14.5	19.9	44.6	18.3	15.1	25.4	10.3
EG020T: Total Metals by ICP-MS									
Arsenic	0.001	mg/L	0.003	0.002	0.001	0.001	0.001	<0.001	0.001
Cobalt	0.001	mg/L	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	0.001	mg/L	0.002	0.002	<0.001	0.002	<0.001	<0.001	<0.001
Iron	0.05	mg/L	1.16	1.65	0.20	0.08	0.07	<0.05	0.10
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.71	1.91	0.45	0.59	0.22	0.20	0.07
EG035T: Total Recoverable Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

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Analytical Results

Client sample ID Client sampling date / time			SW6702ST14	SW6702ST16	SW6702ST17	SW6702ST18	SW6702ST20	SW6702ST21	SW6702ST27
			12-Feb-24	12-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24
Compound	LOR	Unit	246544-8	246544-9	246544-10	246544-11	246544-12	246544-13	246544-14
EN055: Ionic Balance									
Ionic Balance	0	%	0.56	0.11	5.99	5.67	4.43	4.24	5.60
Total Anions	0.01	mEq/L	2.05	2.46	16.99	10.86	31.80	24.82	23.68
Total Cations	0.01	mEq/L	2.60	2.57	19.15	12.17	34.75	27.01	26.49
EP005: Total Organic Carbon									
Total Organic Carbon	0.1	mg/L	6.31	6.87	7.06	7.61	2.43	2.80	2.76
Turbidity									
Turbidity	0.1	NTU	50	55	11	19	4.3	1.2	2.1

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Analytical Results

Client sample ID Client sampling date / time			SW6702ST28	SW6702ST29	SW6702ST30	SW6702ST31	SW6702ST33	SW6702ST36	SW6702ST37
			12-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24
Compound	LOR	Unit	246544-15	246544-16	246544-17	246544-18	246544-19	246544-20	246544-21
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	290	1812	2716	1692	1268	2164	556
EA025: Suspended Solids									
Total Suspended Solids	5	mg/L	14	<5	<5	<5	<5	<5	<5
EA065: Total Hardness									
Total Hardness	1	mg/L	238	1533	2485	1425	938	1896	406
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	111	50	60	50	<1	3	23
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	111	50	60	50	<1	3	23
ED041G: Sulfate									
Sulfate	1.0	mg/L	134	1362	2225	1215	860	1631	359
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	3.6	1.9	2.6	2.9	1.9	5.2	1.4
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	45.9	401	480	254	199	297	103
Magnesium	0.10	mg/L	30.1	125	313	183	107	281	35.9
Potassium	0.10	mg/L	5.21	7.96	13.7	11.2	9.48	3.63	2.17
Sodium	0.10	mg/L	4.07	29.8	14.5	10.5	7.76	37.4	12.8
EG020T: Total Metals by ICP-MS									
Arsenic	0.001	mg/L	0.006	<0.001	<0.001	0.002	0.001	<0.001	<0.001
Cobalt	0.001	mg/L	<0.001	<0.001	<0.001	0.001	0.09	0.03	<0.001
Copper	0.001	mg/L	0.001	<0.001	<0.001	<0.001	0.008	0.003	<0.001
Iron	0.05	mg/L	0.12	<0.05	0.16	0.36	0.19	0.08	<0.05
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.26	0.12	0.08	0.46	7.32	5.81	0.02
EG035T: Total Recoverable Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

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Analytical Results

Client sample ID Client sampling date / time			SW6702ST28	SW6702ST29	SW6702ST30	SW6702ST31	SW6702ST33	SW6702ST36	SW6702ST37
			12-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24	13-Feb-24
Compound	LOR	Unit	246544-15	246544-16	246544-17	246544-18	246544-19	246544-20	246544-21
EN055: Ionic Balance									
Ionic Balance	0	%	4.38	5.22	4.35	5.12	4.71	8.46	6.03
Total Anions	0.01	mEq/L	4.65	28.65	46.44	25.68	17.59	33.44	7.74
Total Cations	0.01	mEq/L	5.07	31.80	50.67	28.45	19.33	39.62	8.73
EP005: Total Organic Carbon									
Total Organic Carbon	0.1	mg/L	11.3	1.24	2.64	4.10	1.61	2.14	2.27
Turbidity									
Turbidity	0.1	NTU	18	0.85	1.0	2.1	2.8	0.75	0.70

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Analytical Results

			Client sample ID	SW6702ST39	SW6702ST40	SW6702ST41	----	----	----	----
			Client sampling date / time	13-Feb-24	13-Feb-24	13-Feb-24	----	----	----	----
Compound	LOR	Unit		246544-22	246544-23	246544-24	----	----	----	----
EA015: Total Dissolved Solids										
Total Dissolved solids	5	mg/L		684	34	988	----	----	----	----
EA025: Suspended Solids										
Total Suspended Solids	5	mg/L		<5	<5	9	----	----	----	----
EA065: Total Hardness										
Total Hardness	1	mg/L		583	16	888	----	----	----	----
ED037P: Alkalinity										
Bicarbonate Alkalinity	1	mg/L		55	18	66	----	----	----	----
Carbonate Alkalinity	1	mg/L		<1	<1	<1	----	----	----	----
Hydroxide Alkalinity	1	mg/L		<1	<1	<1	----	----	----	----
Phenolphthalein Alkalinity	1	mg/L		<1	<1	<1	----	----	----	----
Total Alkalinity	1	mg/L		55	18	66	----	----	----	----
ED041G: Sulfate										
Sulfate	1.0	mg/L		497	<1.0	744	----	----	----	----
ED045G: Chloride Discrete analyzer										
Chloride	1.0	mg/L		3.0	1.2	2.2	----	----	----	----
ED093F: Dissolved Major Cations										
Calcium	0.10	mg/L		136	4.24	169	----	----	----	----
Magnesium	0.10	mg/L		59.0	1.42	114	----	----	----	----
Potassium	0.10	mg/L		6.31	3.95	4.28	----	----	----	----
Sodium	0.10	mg/L		9.10	0.50	13.7	----	----	----	----
EG020T: Total Metals by ICP-MS										
Arsenic	0.001	mg/L		0.001	0.002	0.001	----	----	----	----
Cobalt	0.001	mg/L		<0.001	<0.001	<0.001	----	----	----	----
Copper	0.001	mg/L		<0.001	0.001	<0.001	----	----	----	----
Iron	0.05	mg/L		<0.05	0.14	0.33	----	----	----	----
Lead	0.001	mg/L		<0.001	<0.001	<0.001	----	----	----	----
Manganese	0.001	mg/L		0.06	0.05	0.76	----	----	----	----
EG035T: Total Recoverable Mercury by CVAFS										
Mercury	0.0001	mg/L		<0.0001	<0.0001	<0.0001	----	----	----	----
EK025G: Cyanide Discrete analyzer										
Cyanide	0.002	mg/L		<0.002	<0.002	<0.002	----	----	----	----
EK025G-1: Cyanide WAD Discrete analyzer										
Weak Acid Dissociable Cyanide	0.002	mg/L		<0.002	<0.002	<0.002	----	----	----	----

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Analytical Results

			Client sample ID	SW6702ST39	SW6702ST40	SW6702ST41	----	----	----	----
			Client sampling date / time	13-Feb-24	13-Feb-24	13-Feb-24	----	----	----	----
Compound	LOR	Unit		246544-22	246544-23	246544-24	----	----	----	----
EN055: Ionic Balance										
Ionic Balance	0	%		4.68	0.13	6.21	----	----	----	----
Total Anions	0.01	mEq/L		11.12	0.32	16.31	----	----	----	----
Total Cations	0.01	mEq/L		12.21	0.45	18.47	----	----	----	----
EP005: Total Organic Carbon										
Total Organic Carbon	0.1	mg/L		4.53	5.02	6.08	----	----	----	----
Turbidity										
Turbidity	0.1	NTU		3.1	4.8	12	----	----	----	----

LOR = Limit of reporting

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CERTIFICATE OF ANALYSIS

Client	Akara Resources Public Co., Ltd.	ALS Lot No.	2451541
Contact Address	Yaowanud Chandung 99 Moo 9, Tambon Khaochetluk, Amphur Thapklor, Phichit Thailand 66230	Date Samples Received	May 17, 2024 09:00 AM
Email	yaowanud@akararesources.com	Issue Date	May 31, 2024 12:02 PM
Telephone	0-5661-4500	Quote number	Q2352889
Facsimile	0-5661-4190	Project	CHATREE
		No. of samples received	18
		No. of samples analysed	18

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

General Comments

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Page : 1 of 7

ALS Lot No. : 2451541
Client : Akara Resources Public Co., Ltd.
Project : CHATREE



Analytical Results

Client sample ID Client sampling date / time			SW6605 ST9 15-May-24	SW6605 ST10 14-May-24	SW6605 ST11 14-May-24	SW6605 ST14 13-May-24	SW6605 ST17 15-May-24	SW6605 ST18 15-May-24	SW6605 ST20 15-May-24
Compound	LOR	Unit	2451541-3	2451541-4	2451541-5	2451541-6	2451541-7	2451541-8	2451541-9
EA015: Total Dissolved Solids									
Total Dissolved Solids	5	mg/L	3948	1780	364	165	1452	756	2016
EA025: Suspended Solids									
Total Suspended Solids	5	mg/L	<5	<5	13	144	6	<5	<5
EA065: Total Hardness									
Total Hardness	1	mg/L	2699	1319	295	47	1040	616	1602
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	86	51	126	81	116	86	51
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	96	51	126	81	116	86	51
ED041G: Sulfate									
Sulfate	1.0	mg/L	2169	1137	181	<1.0	944	598	1393
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	3.1	3.5	3.9	17.4	17.6	11.4	2.8
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	535	273	38.2	12.9	179	99.5	414
Magnesium	0.10	mg/L	330	159	48.2	3.52	144	89.0	143
Potassium	0.10	mg/L	11.9	10.9	7.36	4.73	8.10	10.3	10.6
Sodium	0.10	mg/L	25.9	13.8	9.13	22.3	59.0	21.3	20.5
EG020T: Total Metals by ICP-MS									
Arsenic	0.001	mg/L	0.001	<0.001	0.002	0.02	0.002	0.002	0.001
Cobalt	0.001	mg/L	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001
Copper	0.001	mg/L	0.001	<0.001	0.004	0.008	0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	0.10	0.28	4.24	0.12	<0.05	<0.05
Lead	0.001	mg/L	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.07	0.47	0.08	0.42	0.34	0.69	0.11
EG035T: Total Recoverable Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

LOR = Limit of reporting

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Analytical Results

Client sample ID			SW6605 ST9	SW6605 ST10	SW6605 ST11	SW6605 ST14	SW6605 ST17	SW6605 ST18	SW6605 ST20
Client sampling date / time			15-May-24	14-May-24	14-May-24	13-May-24	15-May-24	15-May-24	15-May-24
Compound	LOR	Unit	2451541-3	2451541-4	2451541-5	2451541-6	2451541-7	2451541-8	2451541-9
EN055: Ionic Balance									
Ionic Balance	0	%	45.72	24.11	5.88	1.82	21.65	13.93	29.32
Total Anions	0.01	mEq/L	45.72	24.11	5.88	1.82	21.65	13.93	29.32
Total Cations	0.01	mEq/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EP005: Total Organic Carbon									
Total Organic Carbon	0.1	mg/L	1.04	1.68	5.50	20.8	12.5	8.87	2.50
Turbidity									
Turbidity	0.1	NTU	0.70	1.3	14	190	6.4	6.9	2.5

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Analytical Results

			Client sample ID						
Client sampling date / time			SW6605 ST21	SW6605 ST27	SW6605 ST28	SW6605 ST30	SW6605 ST31	SW6605 ST33	SW6605 ST36
			14-May-24	15-May-24	14-May-24	15-May-24	13-May-24	13-May-24	15-May-24
Compound	LOR	Unit	2451541-10	2451541-11	2451541-12	2451541-14	2451541-15	2451541-16	2451541-17
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	1760	1696	292	2804	1948	1868	2396
EA025: Suspended Solids									
Total Suspended Solids	5	mg/L	<5	<5	24	<5	<5	<5	<5
EA065: Total Hardness									
Total Hardness	1	mg/L	1283	1283	226	2530	1426	1331	1888
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	20	91	81	51	20	10	5
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	20	91	81	51	20	10	5
ED041G: Sulfate									
Sulfate	1.0	mg/L	1129	1114	165	2164	1308	1214	2010
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	3.2	2.6	5.0	3.0	3.5	2.8	10.7
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	276	257	41.2	469	273	319	307
Magnesium	0.10	mg/L	156	166	29.9	329	181	134	272
Potassium	0.10	mg/L	12.0	10.0	6.39	14.5	13.5	10.7	4.12
Sodium	0.10	mg/L	22.3	11.5	5.74	15.9	13.0	13.3	43.1
EG020T: Total Metals by ICP-MS									
Arsenic	0.001	mg/L	<0.001	0.002	0.006	<0.001	0.002	0.001	<0.001
Cobalt	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	0.02	0.01
Copper	0.001	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
Iron	0.05	mg/L	<0.05	<0.05	0.19	0.08	0.08	<0.05	<0.05
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.16	0.06	0.22	0.05	0.09	2.95	5.28
EG035T: Total Recoverable Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

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Analytical Results

Client sample ID Client sampling date / time			SW6605 ST21 14-May-24	SW6605 ST27 15-May-24	SW6605 ST28 14-May-24	SW6605 ST30 15-May-24	SW6605 ST31 13-May-24	SW6605 ST33 13-May-24	SW6605 ST36 15-May-24
Compound	LOR	Unit	2451541-10	2451541-11	2451541-12	2451541-14	2451541-15	2451541-16	2451541-17
EN055: Ionic Balance									
Ionic Balance	0	%	23.45	24.27	4.83	45.03	27.11	25.01	41.38
Total Anions	0.01	mEq/L	23.45	24.27	4.83	45.03	27.11	25.01	41.38
Total Cations	0.01	mEq/L	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EP005: Total Organic Carbon									
Total Organic Carbon	0.1	mg/L	2.41	4.70	14.6	2.71	5.44	2.14	1.92
Turbidity									
Turbidity	0.1	NTU	1.1	1.3	21	1.0	2.4	1.2	1.0

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Analytical Results

Client sample ID Client sampling date / time			SW6605 ST37 15-May-24	SW6605 ST39 15-May-24	SW6605 ST40 13-May-24	SW6605 ST41 15-May-24	----	----	----
Compound	LOR	Unit	2451541-18	2451541-19	2451541-20	2451541-21	----	----	----
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	524	792	1236	900	----	----	----
EA025: Suspended Solids									
Total Suspended Solids	5	mg/L	<5	<5	<5	6	----	----	----
EA065: Total Hardness									
Total Hardness	1	mg/L	444	598	1032	723	----	----	----
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	13	61	10	101	----	----	----
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	----	----	----
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	----	----	----
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	----	----	----
Total Alkalinity	1	mg/L	13	61	10	101	----	----	----
ED041G: Sulfate									
Sulfate	1.0	mg/L	434	568	907	673	----	----	----
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	2.1	4.1	2.5	3.3	----	----	----
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	113	139	240	137	----	----	----
Magnesium	0.10	mg/L	39.2	60.7	95.2	92.5	----	----	----
Potassium	0.10	mg/L	2.47	6.70	8.86	5.97	----	----	----
Sodium	0.10	mg/L	14.2	9.64	10.8	14.4	----	----	----
EG020T: Total Metals by ICP-MS									
Arsenic	0.001	mg/L	0.001	0.002	0.001	0.002	----	----	----
Cobalt	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	----	----	----
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	----	----	----
Iron	0.05	mg/L	<0.05	<0.05	0.37	0.07	----	----	----
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	----	----	----
Manganese	0.001	mg/L	0.02	0.03	0.20	0.48	----	----	----
EG035T: Total Recoverable Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	----	----	----
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	----	----	----
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	----	----	----

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Analytical Results

Client sample ID Client sampling date / time			SW6605 ST37 15-May-24	SW6605 ST39 15-May-24	SW6605 ST40 13-May-24	SW6605 ST41 15-May-24	---	---	---
Compound	LOR	Unit	2451541-18	2451541-19	2451541-20	2451541-21	---	---	---
EN055: Ionic Balance									
Ionic Balance	0	%	9.11	12.70	18.74	15.47	---	---	---
Total Anions	0.01	mEq/L	9.11	12.70	18.74	15.47	---	---	---
Total Cations	0.01	mEq/L	0.00	0.00	0.00	0.00	---	---	---
EP005: Total Organic Carbon									
Total Organic Carbon	0.1	mg/L	2.33	5.92	2.78	8.07	---	---	---
Turbidity									
Turbidity	0.1	NTU	0.95	3.3	1.1	9.2	---	---	---

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CERTIFICATE OF ANALYSIS

Client	Akara Resources Public Co., Ltd.	ALS Lot No.	2414915
Contact	Yaowanud Chandung	Date Samples Received	Feb 14, 2024 01:00 PM
Address	99 Moo 9, Tambon Khaochetluk, Amphur Thapklor, Phichit Thailand 66230	Issue Date	Feb 21, 2024 08:35 AM
Email	yaowanud@akararesources.com	Quote number	Q2352889
Telephone	0-5661-4500	Project	CHATREE
Facsimile	0-5661-4190	No. of samples received	25
		No. of samples analysed	25

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or client request.

When sampling time information is not provided by client, sampling dates are shown without a time component. In this instances, the time component has been assumed by the laboratory for processing purposes.

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



Analytical Results

Client sample ID Client sampling date / time			GW6702ST4	GW6702ST5	GW6702ST7	GW6702ST8	GW6702ST9	GW6702ST10	GW6702ST11
			12-Feb-24	13-Feb-24	12-Feb-24	12-Feb-24	12-Feb-24	12-Feb-24	12-Feb-24
Compound	LOR	Unit	2414915-1	2414915-2	2414915-3	2414915-4	2414915-5	2414915-6	2414915-7
EA015: Total Dissolved Solids									
Total Dissolved Solids	5	mg/L	492	412	488	222	200	362	186
EA065: Total Hardness									
Total Hardness	1	mg/L	351	314	264	144	127	191	105
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	186	267	262	111	126	202	116
Carbonate Alkalinity	1	mg/L	<1	40.00	10.00	10.00	<1	20.00	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	20	5	5	<1	10	<1
Total Alkalinity	1	mg/L	186	307	272	121	126	222	116
ED041G: Sulfate									
Sulfate	1.0	mg/L	64.9	<1.0	36.8	37.0	28.0	53.0	17.2
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	24.3	1.7	22.1	22.1	5.7	9.7	1.9
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	103	110	67.9	48.1	33.2	53.2	28.7
Magnesium	0.10	mg/L	22.9	9.40	23.0	5.89	10.6	14.2	8.20
Potassium	0.10	mg/L	0.36	0.51	0.38	6.28	0.15	0.45	1.21
Sodium	0.10	mg/L	33.6	15.8	70.6	13.1	17.3	50.9	14.7
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.003	<0.001	0.005	0.001	<0.001	<0.001	0.001
Cobalt	0.001	mg/L	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.50
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.09	0.21	0.10	0.52	0.24	<0.001	0.16
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	0	%	25.29	22.35	19.19	6.23	8.08	13.02	0.47
Total Anions	0.01	mEq/L	5.06	4.43	5.67	3.19	2.80	4.66	2.30
Total Cations	0.01	mEq/L	8.49	6.97	8.36	3.62	3.29	6.05	2.78
Turbidity									
Turbidity	0.1	NTU	0.60	0.75	0.15	23	0.65	0.65	160

LOR = Limit of reporting

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Analytical Results

Client sample ID Client sampling date / time			GW6702ST12	GW6702ST13	GW6702ST15	GW6702ST17	GW6702ST18	GW6702ST20	GW6702ST21
			12-Feb-24	12-Feb-24	12-Feb-24	12-Feb-24	12-Feb-24	13-Feb-24	12-Feb-24
Compound	LOR	Unit	2414915-8	2414915-9	2414915-10	2414915-11	2414915-12	2414915-13	2414915-14
EA015: Total Dissolved Solids									
Total Dissolved Solids	5	mg/L	192	268	312	816	524	370	306
EA065: Total Hardness									
Total Hardness	1	mg/L	124	174	198	587	270	246	235
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	146	156	111	307	186	222	181
Carbonate Alkalinity	1	mg/L	<1	20.00	<1	<1	10.00	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	10	<1	<1	5	<1	<1
Total Alkalinity	1	mg/L	146	176	111	307	197	222	181
ED041G: Sulfate									
Sulfate	1.0	mg/L	7.0	<1.0	85.0	200	129	<1.0	35.7
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	1.5	2.3	18.4	103	49.1	30.1	5.9
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	41.4	53.9	64.3	155	79.8	68.2	68.0
Magnesium	0.10	mg/L	4.97	9.66	9.08	48.3	17.2	18.4	15.7
Potassium	0.10	mg/L	0.70	0.16	7.28	2.36	1.18	0.92	<0.10
Sodium	0.10	mg/L	15.0	11.7	9.74	96.6	73.0	13.9	21.3
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.02	<0.001	0.001	0.001	<0.001	<0.001	0.002
Cobalt	0.001	mg/L	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.40	0.42	1.22	0.17	0.005	0.14	0.01
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	0	%	9.85	20.72	5.76	14.10	9.85	10.59	18.46
Total Anions	0.01	mEq/L	2.58	2.63	4.07	12.04	7.06	4.48	3.87
Total Cations	0.01	mEq/L	3.15	4.00	4.57	15.99	8.61	5.55	5.62
Turbidity									
Turbidity	0.1	NTU	3.0	3.6	40	0.85	0.15	1.1	45

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Analytical Results

Client sample ID Client sampling date / time			RG67026672	RG6702690	RG6702691	RG6702692	RG6702693	RG67024017	RG67024018
			13-Feb-24	12-Feb-24	12-Feb-24	12-Feb-24	12-Feb-24	12-Feb-24	12-Feb-24
Compound	LOR	Unit	2414915-15	2414915-16	2414915-17	2414915-18	2414915-19	2414915-20	2414915-21
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	250	386	320	196	342	716	368
EA065: Total Hardness									
Total Hardness	1	mg/L	120	303	252	111	290	369	259
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	116	247	212	146	181	227	202
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	116	247	212	146	181	227	202
ED041G: Sulfate									
Sulfate	1.0	mg/L	41.0	<1.0	31.3	<1.0	76.5	168	60.9
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	1.7	1.1	4.8	<1.0	2.1	54.0	16.9
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	28.2	93.2	61.2	27.2	86.9	109	83.6
Magnesium	0.10	mg/L	12.0	17.2	24.1	10.5	17.7	23.5	12.3
Potassium	0.10	mg/L	5.37	0.46	9.16	0.42	0.61	1.15	3.60
Sodium	0.10	mg/L	14.8	22.9	23.6	19.1	11.9	57.5	28.1
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.001	0.003	0.002	0.002	0.001	0.001	0.001
Cobalt	0.001	mg/L	0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.21
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.19	0.20	1.65	0.49	0.05	0.98	0.43
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	0	%	6.53	26.86	19.52	11.70	15.85	6.66	12.82
Total Anions	0.01	mEq/L	2.78	4.08	4.24	2.42	4.59	8.66	5.02
Total Cations	0.01	mEq/L	3.17	7.07	6.30	3.07	6.32	9.90	6.50
Turbidity									
Turbidity	0.1	NTU	39	1.3	26	180	6.1	16	85

LOR = Limit of reporting

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Analytical Results

Client sample ID Client sampling date / time			RG67024020	RG67024021	RG67024024	RG67024025	----	----	----
			12-Feb-24	12-Feb-24	12-Feb-24	12-Feb-24	----	----	----
Compound	LOR	Unit	2414915-22	2414915-23	2414915-24	2414915-25	----	----	----
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	432	240	167	196	----	----	----
EA065: Total Hardness									
Total Hardness	1	mg/L	194	140	76	123	----	----	----
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	247	171	76	106	----	----	----
Carbonate Alkalinity	1	mg/L	60.00	<1	<1	<1	----	----	----
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	----	----	----
Phenolphthalein Alkalinity	1	mg/L	30	<1	<1	<1	----	----	----
Total Alkalinity	1	mg/L	307	171	76	106	----	----	----
ED041G: Sulfate									
Sulfate	1.0	mg/L	93.9	<1.0	28.3	25.8	----	----	----
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	27.6	6.1	8.6	5.9	----	----	----
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	43.0	43.9	20.5	37.3	----	----	----
Magnesium	0.10	mg/L	21.0	7.37	5.94	7.26	----	----	----
Potassium	0.10	mg/L	1.12	6.97	1.15	3.31	----	----	----
Sodium	0.10	mg/L	110	19.6	15.1	11.7	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	<0.001	0.003	<0.001	<0.001	----	----	----
Cobalt	0.001	mg/L	<0.001	<0.001	0.002	<0.001	----	----	----
Copper	0.001	mg/L	0.01	<0.001	<0.001	<0.001	----	----	----
Iron	0.05	mg/L	<0.05	0.66	<0.05	<0.05	----	----	----
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	----	----	----
Manganese	0.001	mg/L	0.13	0.74	0.95	0.16	----	----	----
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	----	----	----
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	----	----	----
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	----	----	----
EN055: Ionic Balance									
Ionic Balance	0	%	12.71	12.50	0.14	11.45	----	----	----
Total Anions	0.01	mEq/L	6.74	2.98	2.06	2.43	----	----	----
Total Cations	0.01	mEq/L	8.70	3.83	2.20	3.05	----	----	----
Turbidity									
Turbidity	0.1	NTU	40	16	8.3	17	----	----	----

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CERTIFICATE OF ANALYSIS

Client	Akara Resources Public Co., Ltd.	ALS Lot No.	2415266
Contact	Yaowanud Chandung	Date Samples Received	Feb 14, 2024 01:00 PM
Address	99 Moo 9, Tambon Khaochetluk, Amphur Thapklor, Phichit Thailand 66230	Issue Date	Feb 21, 2024 08:38 AM
Email	yaowanud@akararesources.com	Quote number Project	Q2352889 CHATREE
Telephone	0-5661-4500	No. of samples received	18
Facsimile	0-5661-4190	No. of samples analysed	18

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

General Comments

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When sampling time information is not provided by client, sampling dates are shown without a time component. In this instances, the time component has been assumed by the laboratory for processing purposes.

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ALS Lot No. : 2415266
Client : Akara Resources Public Co., Ltd.
Project : CHATREE



Analytical Results

Client sample ID Client sampling date / time			MS6702677 13-Feb-24	MS6702678 12-Feb-24	MS6702679 12-Feb-24	MS67025993 13-Feb-24	MS67025994 13-Feb-24	MS67025997 13-Feb-24	MS67026081 13-Feb-24
Compound	LOR	Unit	2415266-1	2415266-2	2415266-3	2415266-4	2415266-5	2415266-6	2415266-8
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	1484	252	314	2972	1884	154	1276
EA065: Total Hardness									
Total Hardness	1	mg/L	1150	152	166	2355	1649	59	1030
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	86	111	101	131	176	71	141
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	86	111	101	131	176	71	141
ED041G: Sulfate									
Sulfate	1.0	mg/L	1050	69.4	91.3	2132	1252	19.0	901
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	2.0	1.0	1.2	3.1	2.8	1.1	2.4
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	331	30.8	40.8	623	496	17.1	259
Magnesium	0.10	mg/L	72.8	18.3	15.7	195	94.2	3.87	87.0
Potassium	0.10	mg/L	14.4	0.52	1.04	1.79	6.36	1.25	2.43
Sodium	0.10	mg/L	42.2	15.1	15.4	72.6	47.0	12.5	87.7
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.003	0.002	<0.001	0.003	0.002	<0.001	<0.001
Cobalt	0.001	mg/L	0.01	<0.001	0.010	<0.001	<0.001	<0.001	<0.001
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	8.96	<0.05	2.19	<0.05	<0.05	0.87	<0.05
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	4.03	0.10	0.70	0.05	1.56	0.14	1.21
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	0	%	3.92	6.46	6.31	4.80	9.80	0.17	7.15
Total Anions	0.01	mEq/L	22.87	3.26	3.55	45.71	28.50	1.58	20.75
Total Cations	0.01	mEq/L	24.73	3.71	4.03	50.32	34.69	1.75	23.94
Turbidity									
Turbidity	0.1	NTU	95	34	75	14	25	11	4.6

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Analytical Results

Client sample ID Client sampling date / time			MS67026082 13-Feb-24	MS67026083 13-Feb-24	MS67026084 13-Feb-24	MS67026647 12-Feb-24	MS67026648 12-Feb-24	MS67026651 13-Feb-24	MS67026652 13-Feb-24
Compound	LOR	Unit	2415266-9	2415266-10	2415266-11	2415266-12	2415266-13	2415266-14	2415266-15
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	2052	394	398	396	270	440	400
EA065: Total Hardness									
Total Hardness	1	mg/L	1784	265	309	274	169	337	378
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	126	212	237	146	121	181	141
Carbonate Alkalinity	1	mg/L	10.00	<1	<1	10.00	10.00	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	5	<1	<1	5	5	<1	<1
Total Alkalinity	1	mg/L	136	212	237	156	131	181	141
ED041G: Sulfate									
Sulfate	1.0	mg/L	1551	16.8	25.6	128	88.5	145	89.4
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	2.6	1.6	2.5	2.5	2.5	3.2	3.3
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	322	83.7	79.0	84.1	51.2	96.1	121
Magnesium	0.10	mg/L	238	13.7	27.1	15.5	10.0	23.5	18.7
Potassium	0.10	mg/L	6.57	0.69	0.39	3.37	2.29	4.69	3.74
Sodium	0.10	mg/L	72.8	25.5	31.8	11.4	10.8	10.8	9.75
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.002	0.003	0.002	<0.001	<0.001	0.002	0.002
Cobalt	0.001	mg/L	0.008	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	4.47	0.05	0.22	0.69	0.20	0.76	0.34
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	0	%	7.17	25.01	25.73	8.79	0.62	9.72	31.27
Total Anions	0.01	mEq/L	33.78	3.86	4.47	5.08	3.86	6.02	4.23
Total Cations	0.01	mEq/L	38.99	6.43	7.57	6.06	3.91	7.32	8.08
Turbidity									
Turbidity	0.1	NTU	20	1.1	4.0	50	40	36	37

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Analytical Results

Client sample ID Client sampling date / time			MS67026653 13-Feb-24	MS67026654 13-Feb-24	MS67026655 12-Feb-24	MS67026656 12-Feb-24	-----	-----	-----
Compound	LOR	Unit	2415266-16	2415266-17	2415266-18	2415266-19	-----	-----	-----
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	888	196	192	260	-----	-----	-----
EA065: Total Hardness									
Total Hardness	1	mg/L	685	83	60	148	-----	-----	-----
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	116	50	71	126	-----	-----	-----
Carbonate Alkalinity	1	mg/L	<1	<1	<1	10.00	-----	-----	-----
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	-----	-----	-----
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	5	-----	-----	-----
Total Alkalinity	1	mg/L	116	50	71	136	-----	-----	-----
ED041G: Sulfate									
Sulfate	1.0	mg/L	570	64.3	14.9	24.0	-----	-----	-----
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	3.6	7.6	2.4	2.4	-----	-----	-----
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	134	7.64	18.2	47.3	-----	-----	-----
Magnesium	0.10	mg/L	85.2	15.6	3.48	7.19	-----	-----	-----
Potassium	0.10	mg/L	12.6	4.81	1.48	2.81	-----	-----	-----
Sodium	0.10	mg/L	6.96	12.2	12.8	12.1	-----	-----	-----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.001	<0.001	0.002	0.002	-----	-----	-----
Cobalt	0.001	mg/L	<0.001	0.01	0.002	<0.001	-----	-----	-----
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	-----	-----	-----
Iron	0.05	mg/L	0.31	<0.05	<0.05	<0.05	-----	-----	-----
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	-----	-----	-----
Manganese	0.001	mg/L	4.15	1.02	0.26	0.08	-----	-----	-----
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	-----	-----	-----
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	-----	-----	-----
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	-----	-----	-----
EN055: Ionic Balance									
Ionic Balance	0	%	2.49	0.03	0.26	15.03	-----	-----	-----
Total Anions	0.01	mEq/L	13.62	2.35	1.53	2.62	-----	-----	-----
Total Cations	0.01	mEq/L	14.32	2.32	1.79	3.55	-----	-----	-----
Turbidity									
Turbidity	0.1	NTU	220	34	19	0.75	-----	-----	-----

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CERTIFICATE OF ANALYSIS

Client	Akara Resources Public Co., Ltd.	ALS Lot No.	2415249
Contact	Yaowanud Chandung	Date Samples Received	Feb 16, 2024 12:20 PM
Address	99 Moo 9, Tambon Khaochetluk, Amphur Thapklor, Phichit Thailand 66230	Issue Date	Feb 23, 2024 09:36 PM
Email	yaowanud@akararesources.com	Quote number Project	Q2352889 CHATREE
Telephone	0-5661-4500	No. of samples received	30
Facsimile	0-5661-4190	No. of samples analysed	30

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

General Comments

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ALS Lot No. : 2415249
Client : Akara Resources Public Co., Ltd.
Project : CHATREE



Analytical Results

Client sample ID Client sampling date / time			MS67025991 14-Feb-24	MS67025992 14-Feb-24	TSF6702663 14-Feb-24	TSF6702699 14-Feb-24	TSF67021991 14-Feb-24	TSF67021992 14-Feb-24	TSF67025350 14-Feb-24
Compound	LOR	Unit	2415249-1	2415249-2	2415249-3	2415249-4	2415249-5	2415249-6	2415249-7
EA015: Total Dissolved Solids									
Total Dissolved Solids	5	mg/L	700	896	1064	1016	146	318	936
EA065: Total Hardness									
Total Hardness	1	mg/L	601	619	828	739	87	228	637
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	466	546	349	369	91	228	283
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	20.00	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	10	<1
Total Alkalinity	1	mg/L	466	546	349	369	91	248	283
ED041G: Sulfate									
Sulfate	1.0	mg/L	133	194	404	358	13.1	34.4	357
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	5.1	6.6	32.7	22.3	4.9	1.0	7.2
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	172	149	257	190	31.5	82.1	170
Magnesium	0.10	mg/L	41.3	60.0	37.0	61.5	2.14	5.59	51.5
Potassium	0.10	mg/L	0.43	0.27	2.07	0.34	0.17	0.14	2.38
Sodium	0.10	mg/L	24.5	76.4	27.6	36.2	8.77	8.90	69.3
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.003	0.004	<0.001	<0.001	<0.001	0.002	0.004
Cobalt	0.001	mg/L	<0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	0.10	0.13	<0.05
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	1.38	0.60	2.07	0.11	0.27	0.98	1.69
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	0	%	10.98	9.00	7.01	7.19	0.24	5.15	13.08
Total Anions	0.01	mEq/L	10.48	13.10	14.88	13.98	1.90	4.46	12.13
Total Cations	0.01	mEq/L	13.07	15.69	17.13	16.14	2.13	4.95	15.78
Turbidity									
Turbidity	0.1	NTU	0.70	0.85	9.0	32	80	50	9.6

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Analytical Results

Client sample ID Client sampling date / time			TSF67025351 14-Feb-24	TSF67025249 14-Feb-24	TSF67026534 14-Feb-24	TSF67025332 14-Feb-24	TSF67025336 14-Feb-24	TSF67026691 14-Feb-24	TSF67025338 14-Feb-24
Compound	LOR	Unit	2415249-8	2415249-9	2415249-10	2415249-11	2415249-12	2415249-13	2415249-14
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	1052	445	442	298	460	488	462
EA065: Total Hardness									
Total Hardness	1	mg/L	733	337	324	149	300	349	286
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	182	213	197	121	258	248	187
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	182	213	197	121	258	248	187
ED041G: Sulfate									
Sulfate	1.0	mg/L	517	40.8	31.7	51.4	71.8	142	121
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	4.1	5.9	5.1	2.5	2.4	3.9	4.0
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	149	124	119	46.3	98.4	116	92.5
Magnesium	0.10	mg/L	87.5	6.66	6.31	8.07	13.2	14.7	13.3
Potassium	0.10	mg/L	2.35	0.62	0.59	0.41	0.62	1.15	1.25
Sodium	0.10	mg/L	39.3	12.0	11.6	11.2	18.4	21.9	19.2
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	<0.001	0.002	0.003	0.002	0.007	0.06	0.04
Cobalt	0.001	mg/L	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.001
Copper	0.001	mg/L	<0.001	<0.001	0.009	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	<0.05	0.06	0.90	<0.05	0.10	0.13
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.02	0.22	0.46	0.45	0.03	1.30	1.25
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	0	%	9.13	23.72	26.98	5.53	8.36	5.92	7.58
Total Anions	0.01	mEq/L	13.65	4.48	4.02	3.11	5.76	7.07	5.66
Total Cations	0.01	mEq/L	16.39	7.27	7.00	3.47	6.81	7.96	6.58
Turbidity									
Turbidity	0.1	NTU	12	1.2	7.0	25	1.1	90	100

LOR = Limit of reporting

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Analytical Results

Client sample ID Client sampling date / time			TSF67025339 14-Feb-24	TSF67026467 14-Feb-24	TSF67026468 14-Feb-24	TSF67026472 14-Feb-24	TSF67026473 14-Feb-24	TSF67026655 14-Feb-24	TSF67026656 14-Feb-24
Compound	LOR	Unit	2415249-15	2415249-16	2415249-17	2415249-18	2415249-19	2415249-20	2415249-21
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	250	824	2370	325	744	190	18
EA065: Total Hardness									
Total Hardness	1	mg/L	125	641	1293	240	629	89	6
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	71	329	81	228	23	96	10
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	71	329	81	228	23	96	10
ED041G: Sulfate									
Sulfate	1.0	mg/L	83.2	329	1539	38.6	548	7.2	<1.0
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	2.8	5.8	44.6	1.4	5.5	1.3	1.5
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	37.1	213	341	78.1	149	26.6	2.02
Magnesium	0.10	mg/L	7.75	25.8	104	10.9	62.2	5.41	0.25
Potassium	0.10	mg/L	3.02	1.73	20.5	0.58	0.80	1.47	<0.10
Sodium	0.10	mg/L	12.4	24.2	335	14.7	23.3	7.40	2.26
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	<0.001	0.001	<0.001	0.002	<0.001	0.004	<0.001
Cobalt	0.001	mg/L	0.003	0.002	0.08	<0.001	0.002	0.003	<0.001
Copper	0.001	mg/L	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.94	0.11
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.52	1.13	14.8	0.45	0.40	0.55	0.02
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	0	%	2.86	6.18	9.02	8.90	7.47	0.37	0.01
Total Anions	0.01	mEq/L	2.93	12.26	33.96	4.56	11.71	1.76	0.21
Total Cations	0.01	mEq/L	3.11	13.88	40.69	5.45	13.60	2.13	0.22
Turbidity									
Turbidity	0.1	NTU	55	4.5	7.8	19	55	50	0.70

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Analytical Results

Client sample ID Client sampling date / time			TSF67026657 14-Feb-24	TSF67026658 14-Feb-24	TSF67026659 14-Feb-24	TSF67026660 14-Feb-24	TSF67026661 14-Feb-24	TSF67026662 14-Feb-24	TSF67026663 14-Feb-24
Compound	LOR	Unit	2415249-22	2415249-23	2415249-24	2415249-25	2415249-26	2415249-27	2415249-28
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	308	848	432	392	325	19	252
EA065: Total Hardness									
Total Hardness	1	mg/L	244	551	317	272	259	11	146
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	238	13	268	223	248	13	157
Carbonate Alkalinity	1	mg/L	<1	<1	20.00	<1	20.00	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	10	<1	10	<1	<1
Total Alkalinity	1	mg/L	238	13	288	223	268	13	157
ED041G: Sulfate									
Sulfate	1.0	mg/L	8.0	513	74.2	62.4	2.3	<1.0	<1.0
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	1.0	<1.0	1.8	1.5	1.1	<1.0	<1.0
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	85.5	148	103	94.3	89.8	3.43	45.9
Magnesium	0.10	mg/L	7.40	43.9	14.5	8.94	8.46	0.57	7.60
Potassium	0.10	mg/L	2.21	6.95	1.05	0.99	0.62	0.30	1.90
Sodium	0.10	mg/L	13.8	22.1	38.3	17.9	23.5	0.52	13.8
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	<0.001	<0.001	0.006	0.004	0.02	<0.001	<0.001
Cobalt	0.001	mg/L	<0.001	0.05	<0.001	<0.001	<0.001	0.002	0.001
Copper	0.001	mg/L	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.10
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.33	3.84	0.02	0.09	0.26	0.06	0.32
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	0	%	15.00	6.42	14.83	11.44	20.03	0.00	15.82
Total Anions	0.01	mEq/L	4.09	10.69	5.96	4.96	4.14	0.25	2.59
Total Cations	0.01	mEq/L	5.53	12.16	8.03	6.25	6.22	0.25	3.57
Turbidity									
Turbidity	0.1	NTU	2.8	0.80	0.60	2.5	3.5	0.55	27

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Analytical Results

Client sample ID Client sampling date / time			TSF67026664 14-Feb-24	6702DC2 15-Feb-24	-----	-----	-----	-----	-----
Compound	LOR	Unit	2415249-29	2415249-31	-----	-----	-----	-----	-----
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	238	-----	-----	-----	-----	-----	-----
EA065: Total Hardness									
Total Hardness	1	mg/L	142	-----	-----	-----	-----	-----	-----
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	152	-----	-----	-----	-----	-----	-----
Carbonate Alkalinity	1	mg/L	<1	-----	-----	-----	-----	-----	-----
Hydroxide Alkalinity	1	mg/L	<1	-----	-----	-----	-----	-----	-----
Phenolphthalein Alkalinity	1	mg/L	<1	-----	-----	-----	-----	-----	-----
Total Alkalinity	1	mg/L	152	-----	-----	-----	-----	-----	-----
ED041G: Sulfate									
Sulfate	1.0	mg/L	2.7	-----	-----	-----	-----	-----	-----
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	<1.0	-----	-----	-----	-----	-----	-----
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	42.0	-----	-----	-----	-----	-----	-----
Magnesium	0.10	mg/L	8.95	-----	-----	-----	-----	-----	-----
Potassium	0.10	mg/L	2.16	-----	-----	-----	-----	-----	-----
Sodium	0.10	mg/L	13.6	-----	-----	-----	-----	-----	-----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	<0.001	-----	-----	-----	-----	-----	-----
Cobalt	0.001	mg/L	0.002	-----	-----	-----	-----	-----	-----
Copper	0.001	mg/L	<0.001	-----	-----	-----	-----	-----	-----
Iron	0.05	mg/L	<0.05	-----	-----	-----	-----	-----	-----
Lead	0.001	mg/L	<0.001	-----	-----	-----	-----	-----	-----
Manganese	0.001	mg/L	0.41	-----	-----	-----	-----	-----	-----
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	-----	-----	-----	-----	-----	-----
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	-----	-----	-----	-----	-----
EK025G-1: Cyanide WAD Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	-----	-----	-----	-----	-----
EN055: Ionic Balance									
Ionic Balance	0	%	15.14	-----	-----	-----	-----	-----	-----
Total Anions	0.01	mEq/L	2.56	-----	-----	-----	-----	-----	-----
Total Cations	0.01	mEq/L	3.48	-----	-----	-----	-----	-----	-----
Turbidity									
Turbidity	0.1	NTU	19	-----	-----	-----	-----	-----	-----

LOR = Limit of reporting

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CERTIFICATE OF ANALYSIS

Client	Akara Resources Public Co., Ltd.	ALS Lot No.	2451542
Contact	Yaowanud Chandung	Date Samples Received	May 16, 2024 09:00 AM
Address	99 Moo 9, Tambon Khaochetluk, Amphur Thapklor, Phichit Thailand 66230	Issue Date	May 24, 2024 09:35 PM
Email	yaowanud@akararesources.com	Quote number	Q2352889
		Project	CHATREE
Telephone	0-5661-4500	No. of samples received	21
Facsimile	0-5661-4190	No. of samples analysed	21

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or client request.

When sampling time information is not provided by client, sampling dates are shown without a time component. In this instances, the time component has been assumed by the laboratory for processing purposes.

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

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ALS Lot No. : 2451542
Client : Akara Resources Public Co., Ltd.
Project : CHATREE



Analytical Results

Client sample ID			GW6705ST4	GW6705ST5	GW6705ST7	GW6705ST9	GW6705ST10	GW6705ST11	GW6705ST12
Client sampling date / time			14-May-24	14-May-24	13-May-24	13-May-24	13-May-24	13-May-24	13-May-24
Compound	LOR	Unit	2451542-1	2451542-2	2451542-3	2451542-4	2451542-5	2451542-6	2451542-7
EA015: Total Dissolved Solids									
Total Dissolved solids	5	mg/L	368	328	364	216	312	188	218
EA065: Total Hardness									
Total Hardness	1	mg/L	296	329	271	151	228	110	123
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	263	299	314	126	243	111	132
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	263	299	314	126	243	111	132
ED041G: Sulfate									
Sulfate	1.0	mg/L	66.4	<1.0	44.2	31.6	55.8	17.8	6.1
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	21.4	2.8	24.3	12.5	14.2	3.2	2.3
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	85.0	116	69.3	38.7	65.2	29.9	41.1
Magnesium	0.10	mg/L	20.2	9.68	23.8	13.2	16.0	8.48	4.95
Potassium	0.10	mg/L	1.14	0.87	0.61	0.59	0.57	1.64	1.17
Sodium	0.10	mg/L	43.9	16.9	75.5	20.5	52.6	15.7	15.4
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.005	0.001	0.005	<0.001	<0.001	0.001	0.02
Cobalt	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.21	<0.05
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	<0.001	0.34	0.001	0.19	0.07	0.19	1.05
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G: Cyanide Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	----	%	11.18	19.20	12.87	12.17	10.88	0.64	14.73
Total Anions	0.01	mEq/L	6.27	4.97	6.73	3.07	5.52	2.28	2.35
Total Cations	0.01	mEq/L	7.85	7.33	8.71	3.92	6.87	2.92	3.16
Turbidity									
Turbidity	0.1	NTU	2.5	0.50	0.65	0.25	0.55	26	0.35

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Analytical Results

Client sample ID Client sampling date / time			GW6705ST13	GW6705ST15	GW6705ST17	GW6705ST18	GW6705ST20	GW6705ST21	RG67056672
			14-May-24	14-May-24	13-May-24	13-May-24	14-May-24	14-May-24	15-May-24
Compound	LOR	Unit	2451542-8	2451542-9	2451542-10	2451542-11	2451542-12	2451542-13	2451542-14
EA015: Total Dissolved Solids									
Total Dissolved Solids	5	mg/L	250	302	764	444	288	204	230
EA065: Total Hardness									
Total Hardness	1	mg/L	183	211	581	282	252	229	120
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	172	121	385	223	218	202	101
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	172	121	385	223	218	202	101
ED041G: Sulfate									
Sulfate	1.0	mg/L	<1.0	91.9	219	127	<1.0	35.9	42.5
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	3.1	18.3	102	48.6	35.2	7.1	2.3
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	56.9	69.0	151	83.7	70.3	65.5	28.3
Magnesium	0.10	mg/L	9.84	9.48	49.5	17.8	18.4	16.0	12.0
Potassium	0.10	mg/L	0.92	8.02	2.85	1.57	1.20	0.58	4.46
Sodium	0.10	mg/L	13.0	10.0	104	79.8	14.4	27.4	15.3
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	<0.001	0.001	0.002	<0.001	<0.001	0.004	0.005
Cobalt	0.001	mg/L	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.002
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2.39
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.48	1.16	0.04	<0.001	0.42	0.02	0.34
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G: Cyanide Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	----	%	18.67	5.27	8.42	9.20	11.00	15.35	10.25
Total Anions	0.01	mEq/L	2.91	4.38	13.66	7.61	4.56	4.25	2.59
Total Cations	0.01	mEq/L	4.24	4.87	16.17	9.15	5.68	5.79	3.18
Turbidity									
Turbidity	0.1	NTU	2.2	36	0.55	0.40	0.80	0.35	19

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Analytical Results

Client sample ID Client sampling date / time			RG6705690	RG6705691	RG6705692	RG67054017	RG67054018	RG67054021	RG67054024
			14-May-24	14-May-24	14-May-24	13-May-24	13-May-24	13-May-24	13-May-24
Compound	LOR	Unit	2451542-15	2451542-16	2451542-17	2451542-18	2451542-19	2451542-20	2451542-21
EA015: Total Dissolved Solids									
Total Dissolved Solids	5	mg/L	324	432	180	420	304	180	149
EA065: Total Hardness									
Total Hardness	1	mg/L	313	332	121	298	258	134	85
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	304	299	147	202	243	116	76
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	304	299	147	202	243	116	76
ED041G: Sulfate									
Sulfate	1.0	mg/L	<1.0	65.4	<1.0	103	46.3	<1.0	30.5
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	1.8	12.8	3.7	42.4	7.1	13.2	14.2
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	96.6	90.2	29.6	87.4	82.8	41.2	23.3
Magnesium	0.10	mg/L	17.4	25.8	11.4	19.4	12.4	7.62	6.50
Potassium	0.10	mg/L	0.70	10.8	0.69	1.53	3.77	10.6	1.40
Sodium	0.10	mg/L	24.6	32.1	20.7	45.9	27.7	12.9	16.3
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.003	0.003	0.002	<0.001	<0.001	0.004	0.001
Cobalt	0.001	mg/L	<0.001	0.007	<0.001	<0.001	<0.001	<0.001	0.002
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	<0.001
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	<0.05
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	0.72	1.73	0.35	0.86	0.35	0.005	1.06
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G: Cyanide Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	----	%	18.67	11.49	14.11	9.46	11.53	21.35	0.18
Total Anions	0.01	mEq/L	5.03	6.59	2.51	6.61	5.12	2.28	2.27
Total Cations	0.01	mEq/L	7.34	8.30	3.33	7.99	6.46	3.52	2.44
Turbidity									
Turbidity	0.1	NTU	1.3	13	2.5	2.4	160	40	4.1

Approved by



CERTIFICATE OF ANALYSIS

Client	Akara Resources Public Co., Ltd.	ALS Lot No.	2451543
Contact	Yaowanud Chandung	Date Samples Received	May 17, 2024 09:00 AM
Address	99 Moo 9, Tambon Khaochetluk, Amphur Thapklor, Pichit Thailand 66230	Issue Date	May 24, 2024 09:37 PM
Email	yaowanud@akararesources.com	Quote number	Q2352889
		Project	CHATREE
Telephone	0-5661-4500	No. of samples received	7
Facsimile	0-5661-4190	No. of samples analysed	7

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

General Comments

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Page : 1 of 2

ALS Lot No. : 2451543
Client : Akara Resources Public Co., Ltd.
Project : CHATREE



Analytical Results

Compound	Client sample ID		TSF6705663	TSF6705699	TSF67055350	TSF67055351	TSF67056467	TSF67056468	6702DC2
	Client sampling date / time	Unit	14-May-24	14-May-24	14-May-24	14-May-24	15-May-24	15-May-24	16-May-24
EA015: Total Dissolved Solids			2451543-3	2451543-4	2451543-7	2451543-8	2451543-16	2451543-17	2451543-30
Total Dissolved Solids	5	mg/L	988	860	980	892	780	2616	----
EA065: Total Hardness									
Total Hardness	1	mg/L	748	671	671	723	585	1222	----
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	329	354	304	258	319	81	----
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	----
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	----
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	----
Total Alkalinity	1	mg/L	329	354	304	258	319	81	----
ED041G: Sulfate									
Sulfate	1.0	mg/L	459	366	513	532	319	1873	----
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	36.2	23.2	11.1	4.8	10.4	64.7	----
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	240	176	168	147	195	339	----
Magnesium	0.10	mg/L	35.9	56.0	60.7	86.2	26.0	97.6	----
Potassium	0.10	mg/L	2.31	0.53	2.67	2.47	2.16	21.9	----
Sodium	0.10	mg/L	28.2	37.3	73.0	43.3	24.5	366	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.001	<0.001	0.003	<0.001	0.001	<0.001	----
Cobalt	0.001	mg/L	<0.001	0.002	<0.001	<0.001	<0.001	0.09	----
Copper	0.001	mg/L	0.001	0.002	0.001	0.001	<0.001	<0.001	----
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.52	----
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	----
Manganese	0.001	mg/L	2.31	0.61	1.40	0.31	1.36	15.8	----
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	----
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G: Cyanide Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	----	%	1.39	3.86	2.76	3.73	3.87	0.13	----
Total Anions	0.01	mEq/L	15.78	13.91	15.75	15.21	12.03	41.34	----
Total Cations	0.01	mEq/L	16.22	15.03	16.64	16.39	13.00	41.45	----
Turbidity									
Turbidity	0.1	NTU	18	45	4.5	1.7	1.6	12	----

Approved by

MM-N08

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11/26/66



CERTIFICATE OF ANALYSIS

Client	Akara Resources Public Co., Ltd.	ALS Lot No.	2451544
Contact	Yaowanud Chandung	Date Samples Received	May 16, 2024 09:00 AM
Address	99 Moo 9, Tambon Khaochetluk, Amphur Thapklor, Pichit Thailand 66230	Issue Date	May 24, 2024 09:36 PM
Email	yaowanud@akararesources.com	Quote number	Q2352889
		Project	CHATREE
Telephone	0-5661-4500	No. of samples received	16
Facsimile	0-5661-4190	No. of samples analysed	16

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Page : 1 of 4

ALS Lot No. : 2451544
Client : Akara Resources Public Co., Ltd.
Project : CHATREE



Analytical Results

Compound	Client sample ID		MS6705677	MS6705678	MS6705679	MS67055993	MS67055994	MS67055997	MS67056081
	Client sampling date / time	Unit	14-May-24	14-May-24	14-May-24	14-May-24	14-May-24	15-May-24	15-May-24
EA015: Total Dissolved Solids			2451544-1	2451544-2	2451544-3	2451544-4	2451544-5	2451544-6	2451544-7
Total Dissolved Solids	5	mg/L	1296	256	248	3200	1904	106	680
EA065: Total Hardness									
Total Hardness	1	mg/L	1074	147	139	2315	1693	58	420
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	81	106	86	268	319	66	10
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	81	106	86	268	319	66	10
ED041G: Sulfate									
Sulfate	1.0	mg/L	990	69.6	87.2	2004	1379	23.7	420
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	3.1	1.7	1.6	3.5	3.3	1.7	3.5
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	310	28.7	33.1	640	521	17.3	82.5
Magnesium	0.10	mg/L	73.0	18.4	13.8	173	95.4	3.58	52.0
Potassium	0.10	mg/L	14.2	0.34	0.99	1.86	5.88	1.09	1.92
Sodium	0.10	mg/L	41.5	15.7	14.9	68.7	49.1	12.8	12.4
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	<0.001	0.001	0.001	0.003	0.004	<0.001	<0.001
Cobalt	0.001	mg/L	0.01	<0.001	0.01	<0.001	<0.001	<0.001	<0.001
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	0.06	<0.05	<0.05	<0.05	<0.05	0.06	0.05
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	3.95	0.22	0.73	0.11	1.29	0.14	0.22
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK045G: Cyanide Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	----	%	4.50	6.21	3.40	4.07	3.88	0.13	0.86
Total Anions	0.01	mEq/L	21.59	3.21	3.23	45.35	33.43	1.61	8.83
Total Cations	0.01	mEq/L	23.63	3.64	3.46	49.20	36.13	1.74	8.99
Turbidity									
Turbidity	0.1	NTU	240	21	90	2.2	18	13	25

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MM-N08



Analytical Results

Client sample ID Client sampling date / time			MS67056082	MS67056083	MS67056084	MS67056647	MS67056651	MS67056652	MS67056653
			15-May-24	15-May-24	15-May-24	13-May-24	13-May-24	13-May-24	13-May-24
Compound	LOR	Unit	2451544-8	2451544-9	2451544-10	2451544-11	2451544-12	2451544-13	2451544-14
EA015: Total Dissolved Solids									
Total Dissolved Solids	5	mg/L	2204	340	340	256	392	368	812
EA065: Total Hardness									
Total Hardness	1	mg/L	1641	260	275	217	340	370	705
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	162	283	304	162	192	299	116
Carbonate Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	<1	<1	<1	<1
Total Alkalinity	1	mg/L	162	283	304	162	192	299	116
ED041G: Sulfate									
Sulfate	1.0	mg/L	1674	10.6	7.0	90.1	148	67.3	613
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	3.2	1.9	2.2	3.1	3.7	4.1	4.5
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	290	84.2	68.5	68.4	96.4	122	142
Magnesium	0.10	mg/L	223	12.2	25.3	11.3	24.2	15.7	85.1
Potassium	0.10	mg/L	6.02	0.39	0.19	2.87	4.85	4.09	12.7
Sodium	0.10	mg/L	114	24.6	27.2	10.4	11.1	8.57	7.64
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.001	0.003	0.001	<0.001	0.003	0.005	<0.001
Cobalt	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
Copper	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lead	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	0.001	mg/L	4.07	0.39	0.15	0.51	1.12	1.90	3.45
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EK025G: Cyanide Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
EN055: Ionic Balance									
Ionic Balance	----	%	1.41	12.23	12.74	3.12	8.26	10.52	0.67
Total Anions	0.01	mEq/L	36.87	4.91	5.18	4.58	6.27	6.38	14.53
Total Cations	0.01	mEq/L	37.93	6.28	6.69	4.87	7.40	7.88	14.73
Turbidity									
Turbidity	0.1	NTU	50	4.5	2.8	27	34	14	220

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Analytical Results

Client sample ID Client sampling date / time			MS67056665	MS67056666	----	----	----	----	----
			13-May-24	13-May-24	----	----	----	----	----
Compound	LOR	Unit	2451544-15	2451544-16	----	----	----	----	----
EA015: Total Dissolved Solids									
Total Dissolved Solids	5	mg/L	115	250	----	----	----	----	----
EA065: Total Hardness									
Total Hardness	1	mg/L	56	149	----	----	----	----	----
ED037P: Alkalinity									
Bicarbonate Alkalinity	1	mg/L	76	147	----	----	----	----	----
Carbonate Alkalinity	1	mg/L	<1	<1	----	----	----	----	----
Hydroxide Alkalinity	1	mg/L	<1	<1	----	----	----	----	----
Phenolphthalein Alkalinity	1	mg/L	<1	<1	----	----	----	----	----
Total Alkalinity	1	mg/L	76	147	----	----	----	----	----
ED041G: Sulfate									
Sulfate	1.0	mg/L	16.9	26.9	----	----	----	----	----
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	2.6	2.7	----	----	----	----	----
ED093F: Dissolved Major Cations									
Calcium	0.10	mg/L	16.9	47.2	----	----	----	----	----
Magnesium	0.10	mg/L	3.34	7.59	----	----	----	----	----
Potassium	0.10	mg/L	1.58	2.36	----	----	----	----	----
Sodium	0.10	mg/L	12.6	11.9	----	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	0.001	mg/L	0.002	0.002	----	----	----	----	----
Cobalt	0.001	mg/L	0.003	<0.001	----	----	----	----	----
Copper	0.001	mg/L	<0.001	<0.001	----	----	----	----	----
Iron	0.05	mg/L	<0.05	<0.05	----	----	----	----	----
Lead	0.001	mg/L	<0.001	<0.001	----	----	----	----	----
Manganese	0.001	mg/L	0.35	0.48	----	----	----	----	----
EG035F: Dissolved Mercury by CVAFS									
Mercury	0.0001	mg/L	<0.0001	<0.0001	----	----	----	----	----
EK025G: Cyanide Discrete analyzer									
Cyanide	0.002	mg/L	<0.002	<0.002	----	----	----	----	----
EK025G: Cyanide Discrete analyzer									
Weak Acid Dissociable Cyanide	0.002	mg/L	<0.002	<0.002	----	----	----	----	----
EN055: Ionic Balance									
Ionic Balance	----	%	0.04	8.01	----	----	----	----	----
Total Anions	0.01	mEq/L	1.66	3.03	----	----	----	----	----
Total Cations	0.01	mEq/L	1.70	3.56	----	----	----	----	----
Turbidity									
Turbidity	0.1	NTU	100	2.4	----	----	----	----	----

Approved by



CERTIFICATE OF ANALYSIS

Client	Akara Resources Public Co., Ltd.	ALS Lot No.	2415272
Contact Address	Yaowanud Chandung 99 Moo 9, Tambon Khaochetluk, Amphur Thapklor, Phichit Thailand 66230	Date Samples Received	Feb 16, 2024 12:20 PM
Email	yaowanud@akararesources.com	Issue Date	Mar 04, 2024 02:31 PM
Telephone	0-5661-4500	Quote number	Q2252046(R1)
Facsimile	0-5661-4190	Project	CHATREE
		No. of samples received	3
		No. of samples analysed	3

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ALS Lot No. : 2415272
Client : Akara Resources Public Co., Ltd.
Project : CHATREE



Analytical Results

Client sample ID			6702SP	6702UD	6702UD2	----	----	----	----
Client sampling date / time			15-Feb-24	15-Feb-24	15-Feb-24	----	----	----	----
Compound	LOR	Unit	2415272-1	2415272-3	2415272-4	----	----	----	----
EA015: Total Dissolved Solids									
Total Dissolved Solids	5	mg/L	2115	2680	2910	----	----	----	----
EA025: Suspended Solids									
Total Suspended Solids	5	mg/L	<5	<5	6	----	----	----	----
EA065: Total Hardness									
Total Hardness	1	mg/L	1305	1565	1325	----	----	----	----
ED037P: Alkalinity									
Total Alkalinity	1	mg/L	187	167	23	----	----	----	----
Bicarbonate Alkalinity	1	mg/L	187	167	23	----	----	----	----
Carbonate Alkalinity	1	mg/L	<1	<1	<1	----	----	----	----
Hydroxide Alkalinity	1	mg/L	<1	<1	<1	----	----	----	----
Phenolphthalein Alkalinity	1	mg/L	<1	<1	<1	----	----	----	----
ED041G: Sulfate									
Sulfate	1.0	mg/L	1310	1475	1934	----	----	----	----
ED045G: Chloride Discrete analyzer									
Chloride	1.0	mg/L	31.8	39.9	105	----	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Aluminium	0.01	mg/L	<0.01	<0.01	<0.01	----	----	----	----
Antimony	0.001	mg/L	<0.001	<0.001	<0.001	----	----	----	----
Arsenic	0.001	mg/L	<0.001	0.006	0.02	----	----	----	----
Barium	0.001	mg/L	0.02	0.03	0.03	----	----	----	----
Boron	0.05	mg/L	0.63	0.24	0.16	----	----	----	----
Cadmium	0.001	mg/L	0.09	<0.001	0.002	----	----	----	----
Chromium	0.001	mg/L	<0.001	<0.001	<0.001	----	----	----	----
Cobalt	0.001	mg/L	0.004	0.01	0.06	----	----	----	----
Copper	0.001	mg/L	<0.001	<0.001	<0.001	----	----	----	----
Iron	0.05	mg/L	<0.05	<0.05	0.05	----	----	----	----
Lead	0.001	mg/L	<0.001	<0.001	<0.001	----	----	----	----
Manganese	0.001	mg/L	3.15	5.92	2.90	----	----	----	----
Molybdenum	0.001	mg/L	0.08	0.14	3.20	----	----	----	----
Nickel	0.001	mg/L	<0.001	0.001	<0.001	----	----	----	----
Selenium	0.01	mg/L	<0.01	<0.01	<0.01	----	----	----	----
Silver	0.001	mg/L	<0.001	<0.001	<0.001	----	----	----	----
Zinc	0.005	mg/L	<0.005	0.02	0.02	----	----	----	----

LOR = Limit of reporting

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MM-N08



Analytical Results

			Client sample ID		6702SP	6702UD	6702UD2	----	----	----	----
			Client sampling date / time		15-Feb-24	15-Feb-24	15-Feb-24	----	----	----	----
Compound	LOR	Unit			2415272-1	2415272-3	2415272-4	----	----	----	----
ED093F: Dissolved Major Cations											
Calcium	0.10	mg/L			430	503	511	----	----	----	----
Magnesium	0.10	mg/L			50.7	74.6	11.5	----	----	----	----
Potassium	0.10	mg/L			43.2	38.4	107	----	----	----	----
Sodium	0.10	mg/L			190	175	394	----	----	----	----
EG035F: Dissolved Mercury by CVAFS											
Mercury	0.0001	mg/L			<0.0001	<0.0001	<0.0001	----	----	----	----
EK025G: Cyanide Discrete analyzer											
Cyanide	0.002	mg/L			<0.002	<0.002	2.656	----	----	----	----
EK025G-1: Cyanide WAD Discrete analyzer											
Weak Acid Dissociable Cyanide	0.002	mg/L			<0.002	<0.002	2.652	----	----	----	----
EN055: Ionic Balance											
Total Anions	0.01	mEq/L			30.68	33.94	42.77	----	----	----	----
Total Cations	0.01	mEq/L			34.99	39.86	46.28	----	----	----	----
Ionic Balance	0.01	%			6.55	8.03	3.95	----	----	----	----
EP005: Total Organic Carbon											
Total Organic Carbon	0.1	mg/L			0.96	0.85	9.98	----	----	----	----
EK055G: Ammonia Discrete analyzer											
Ammonia Nitrogen	0.06	mg/L			5.37	5.07	25.5	----	----	----	----
EK057G: Nitrate Discrete analyzer											
Nitrate	0.01	mg/L			0.24	0.05	0.04	----	----	----	----
EK071G: Reactive Phosphorus											
Reactive Phosphorus	0.01	mg/L			<0.01	<0.01	<0.01	----	----	----	----

LOR = Limit of reporting

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Analysis / Test Report



MM-N08

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetuk, Amphur Thapkhor, Phichit Thailand 66230
P/O : 47583
Project Name : Water Project
Project Location : CHATREE

Lot ID: 2438566
Date Received : Apr 03, 2024
Date Reported : Apr 10, 2024
Report Number : 2955767-1

Sample Number 2438566-1					Page 1 of 1
Sampled Date Apr 02, 2024 9:30 AM					
Sample Description DC2 1๙๙๓1๙๙					
Location 6704DC2					
Date Analysis Commenced Apr 04, 2024					
Condition of Sample Contained in one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)					
Analyte	Unit	LOD	LOQ (LOR)	Result	Testing Location
Water Testing					
Cyanide as CN	mg/L	-	0.002	0.002	Bangkok
Weak Acid Dissociable Cyanide	mg/L	-	0.002	0.002	Bangkok

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

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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47591
Date Received : Feb 16, 2024
Date Reported : Feb 23, 2024
Report Number : 2919864-1
Project Name : Soil, Plant, Fish, Food
Project Location :

Page 1 of 1

Sample Number	2418682-2					
Sampled Date	Feb 13, 2024 3:40 PM					
Sample Description	ข้าวสารสุก					
Location	คลองชลประทานวัง					
Date Analysis Commenced	Feb 17, 2024					
Condition of Sample	Packed in one plastic bag, refrigerated					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Arsenic	mg/kg	-	0.50	3.35	United States Environmental Protection Agency, EPA Method 3050B and 60.10D	Bangkok
Manganese	mg/kg	-	1.00	709	United States Environmental Protection Agency, EPA Method 3050B and 60.10D	Bangkok
Physical Parameters						
Moisture	%	-	0.1	47.2	In-house method based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G	Bangkok

Note : Analysis Results expressed on dry basis.

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

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Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochetuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47591
Date Received : Feb 16, 2024
Date Reported : Feb 23, 2024
Report Number : 2919863-1
Project Name : Soil, Plant, Fish, Food
Project Location :

Page 1 of 1

Sample Number	2418682-1					
Sampled Date	Feb 13, 2024 4:00 PM					
Sample Description	ข้าวสารสุก / หมกมะเขือ					
Location	คลองชลประทานวัง					
Date Analysis Commenced	Feb 19, 2024					
Condition of Sample	Packed in one plastic bag, refrigerated					
Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Arsenic	mg/kg	0.001	0.10	0.95	In-house method, STM No. 05-040 based on AOAC (2019) 2011.19	Bangkok
Manganese	mg/kg	0.02	0.20	4461	In-house method, STM No. 05-040 based on AOAC (2019) 2011.19	Bangkok

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

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Accreditation No. 1031/17

Analysis / Test Report

Client : Akara Resources Public Co., Ltd.
99 Moo 9, Tambon Khaochutuk, Amphur Thapklor, Phichit Thailand 66230
P/O : 47591
Project Name : Soil, Plant, Fish, Food
Project Location :

Lot ID: 2418682
Date Received : Feb 16, 2024
Date Reported : Feb 23, 2024
Report Number : 2919865-1

Page 1 of 1

Sample Number 2418682-3
Sampled Date Feb 13, 2024 3:00 PM
Sample Description ฟักดาหลา
Location อควมเกษตรจังหวัด
Date Analysis Commenced Feb 17, 2024
Condition of Sample Packed in one plastic bag, refrigerated

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Metals Testing						
Arsenic	mg/kg	0.006	0.10	<0.10	In-house method, STM No. 05-040 based on AOAC (2019) 2011.19	Bangkok
Manganese	mg/kg	0.02	0.20	49.6	In-house method, STM No. 05-040 based on AOAC (2019) 2011.19	Bangkok

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