

# ภาคผนวก ค

---

ใบรับรองผลการตรวจวิเคราะห์

# ภาคผนวก ค-1

---

คุณภาพอากาศในบรรยากาศ



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Tesing

**Project Location :**

**Lot ID: 233671**

Date Received : Jan 31, 2023

Date Reported : Feb 02, 2023

Report Number: 2540497-1

Page 1 of 1

**Sample Description** Air Quality  
**Location** วัดร่องแซง (A1) (GPS 47P 0701612, 1593740)  
**Parameter** Nitrogen dioxide (ppm)  
**Measurement Date** Jan 23, 2023 - Jan 30, 2023  
**Measurement by** Thananat Anake

	233671-1 Jan 23, 2023	233671-2 Jan 24, 2023	233671-3 Jan 25, 2023	233671-4 Jan 26, 2023	233671-5 Jan 27, 2023	233671-6 Jan 28, 2023	233671-7 Jan 29, 2023
Time							
01:00 PM - 02:00 PM	0.009	0.012	0.004	0.012	0.004	0.010	0.004
02:00 PM - 03:00 PM	0.006	0.022	0.008	0.008	0.004	0.002	<0.001
03:00 PM - 04:00 PM	0.003	0.008	0.009	0.008	0.003	0.002	<0.001
04:00 PM - 05:00 PM	0.011	<0.001	0.010	0.005	0.006	0.002	<0.001
05:00 PM - 06:00 PM	0.020	<0.001	0.013	0.020	0.007	0.002	0.002
06:00 PM - 07:00 PM	0.024	0.002	0.010	<0.001	0.005	0.004	0.001
07:00 PM - 08:00 PM	0.019	0.005	0.009	0.001	0.005	0.007	0.003
08:00 PM - 09:00 PM	0.012	0.005	0.006	0.001	0.006	0.010	0.002
09:00 PM - 10:00 PM	0.019	0.003	0.006	0.005	0.012	0.005	0.003
10:00 PM - 11:00 PM	0.028	<0.001	0.018	0.005	0.036	0.003	0.008
11:00 PM - 12:00 AM	0.018	0.013	0.018	0.007	0.025	0.002	0.005
12:00 AM - 01:00 AM	0.020	0.018	0.020	0.006	0.026	0.002	0.005
01:00 AM - 02:00 AM	0.022	0.013	0.020	0.007	0.018	0.001	0.004
02:00 AM - 03:00 AM	0.017	0.016	0.021	0.006	0.002	0.001	0.002
03:00 AM - 04:00 AM	0.020	0.016	0.020	0.024	<0.001	<0.001	0.003
04:00 AM - 05:00 AM	0.025	0.015	0.018	0.015	0.002	0.006	0.007
05:00 AM - 06:00 AM	0.032	<0.001	0.016	0.012	0.004	<0.001	0.006
06:00 AM - 07:00 AM	0.032	0.001	0.017	0.015	0.001	0.007	0.003
07:00 AM - 08:00 AM	0.034	0.005	0.019	0.013	<0.001	0.017	0.006
08:00 AM - 09:00 AM	0.031	0.009	0.023	0.021	0.002	0.016	0.010
09:00 AM - 10:00 AM	0.024	0.011	0.028	0.018	0.002	0.007	0.010
10:00 AM - 11:00 AM	0.003	0.009	0.022	0.032	0.002	0.003	0.006
11:00 AM - 12:00 PM	0.011	0.005	0.014	0.029	0.001	<0.001	0.002
12:00 PM - 01:00 PM	0.012	0.003	0.010	0.012	0.007	<0.001	0.001
Average	0.019	0.008	0.015	0.012	0.008	0.005	0.004
1hr - Maximum	0.034	0.022	0.028	0.032	0.036	0.017	0.010
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 EPAMethod Part 50 App. F (Chemiluminescence)

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

Approved by

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Tesing

**Project Location :**

**Lot ID: 233671**

Date Received : Jan 31, 2023

Date Reported : Feb 02, 2023

Report Number: 2558362-1

Page 1 of 1

**Sample Description** Air Quality  
**Location** บ้านบัวลอย (A2) (GPS 47P 0698562, 1594241)  
**Parameter** Nitrogen dioxide (ppm)  
**Measurement Date** Jan 23, 2023 - Jan 30, 2023  
**Measurement by** Thananat Anake

	233671-8 Jan 23, 2023	233671-9 Jan 24, 2023	233671-10 Jan 25, 2023	233671-11 Jan 26, 2023	233671-12 Jan 27, 2023	233671-13 Jan 28, 2023	233671-14 Jan 29, 2023
Time							
11:00 AM - 12:00 PM	0.010	0.003	0.013	0.031	0.020	0.003	0.004
12:00 PM - 01:00 PM	0.008	0.003	0.008	0.020	0.011	0.005	0.004
01:00 PM - 02:00 PM	0.013	0.002	0.006	0.013	0.009	0.008	0.004
02:00 PM - 03:00 PM	0.008	0.002	0.010	0.013	0.006	0.007	0.007
03:00 PM - 04:00 PM	0.006	0.003	0.011	0.011	0.005	0.005	0.006
04:00 PM - 05:00 PM	0.008	0.003	0.012	0.008	0.007	0.010	0.007
05:00 PM - 06:00 PM	0.012	0.003	0.015	0.009	0.008	0.011	0.004
06:00 PM - 07:00 PM	0.014	0.005	0.021	0.013	0.007	0.014	0.004
07:00 PM - 08:00 PM	0.018	0.008	0.016	0.020	0.009	0.010	0.005
08:00 PM - 09:00 PM	0.017	0.008	0.011	0.023	0.015	0.010	0.006
09:00 PM - 10:00 PM	0.014	0.007	0.014	0.034	0.020	0.006	0.007
10:00 PM - 11:00 PM	0.009	0.005	0.012	0.032	0.013	0.005	0.006
11:00 PM - 12:00 AM	0.009	0.003	0.010	0.030	0.013	0.004	0.007
12:00 AM - 01:00 AM	0.018	0.002	0.021	0.038	0.028	0.004	0.005
01:00 AM - 02:00 AM	0.019	0.002	0.024	0.038	0.020	0.006	0.008
02:00 AM - 03:00 AM	0.021	0.002	0.024	0.036	0.005	0.010	0.011
03:00 AM - 04:00 AM	0.028	0.002	0.017	0.032	0.005	0.005	0.011
04:00 AM - 05:00 AM	0.033	0.002	0.021	0.025	0.015	0.008	0.004
05:00 AM - 06:00 AM	0.042	0.007	0.023	0.041	0.009	0.014	0.010
06:00 AM - 07:00 AM	0.051	0.007	0.020	0.040	0.008	0.020	0.016
07:00 AM - 08:00 AM	0.048	0.006	0.026	0.039	0.009	0.024	0.018
08:00 AM - 09:00 AM	0.040	0.011	0.025	0.037	0.008	0.020	0.014
09:00 AM - 10:00 AM	0.023	0.015	0.028	0.039	0.006	0.013	0.012
10:00 AM - 11:00 AM	0.014	0.011	0.034	0.032	0.004	0.009	0.009
Average	0.020	0.005	0.018	0.027	0.011	0.010	0.008
1hr - Maximum	0.051	0.015	0.034	0.041	0.028	0.024	0.018
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 EPAMethod Part 50 App. F (Chemiluminescence)

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

Approved by

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Tesing

**Project Location :**

**Lot ID: 233671**

Date Received : Jan 31, 2023

Date Reported : Feb 02, 2023

Report Number: 2558363-1

Page 1 of 1

**Sample Description** Air Quality

**Location** วัดท่าช้าง (A3) (GPS 47P 0701331, 1595594)

**Parameter** Nitrogen dioxide (ppm)

**Measurement Date** Jan 23, 2023 - Jan 30, 2023

**Measurement by** Thananat Anake

	233671-15 Jan 23, 2023	233671-16 Jan 24, 2023	233671-17 Jan 25, 2023	233671-18 Jan 26, 2023	233671-19 Jan 27, 2023	233671-20 Jan 28, 2023	233671-21 Jan 29, 2023
Time							
12:00 PM - 01:00 PM	0.008	0.004	0.008	0.025	0.009	0.003	0.003
01:00 PM - 02:00 PM	0.013	0.004	0.009	0.018	0.010	0.006	0.003
02:00 PM - 03:00 PM	0.010	0.003	0.012	0.014	0.006	0.006	0.006
03:00 PM - 04:00 PM	0.007	0.003	0.015	0.011	0.005	0.004	0.006
04:00 PM - 05:00 PM	0.008	0.004	0.015	0.008	0.007	0.006	0.007
05:00 PM - 06:00 PM	0.008	0.004	0.017	0.007	0.009	0.008	0.004
06:00 PM - 07:00 PM	0.009	0.006	0.015	0.008	0.010	0.007	0.005
07:00 PM - 08:00 PM	0.011	0.010	0.014	0.010	0.016	0.012	0.007
08:00 PM - 09:00 PM	0.010	0.009	0.013	0.011	0.026	0.012	0.008
09:00 PM - 10:00 PM	0.009	0.010	0.017	0.020	0.023	0.007	0.011
10:00 PM - 11:00 PM	0.017	0.005	0.015	0.039	0.022	0.006	0.010
11:00 PM - 12:00 AM	0.024	0.004	0.022	0.041	0.022	0.005	0.012
12:00 AM - 01:00 AM	0.026	0.003	0.027	0.040	0.023	0.005	0.007
01:00 AM - 02:00 AM	0.028	0.002	0.026	0.038	0.012	0.005	0.007
02:00 AM - 03:00 AM	0.026	0.002	0.030	0.029	0.005	0.007	0.009
03:00 AM - 04:00 AM	0.028	0.003	0.027	0.017	0.004	0.004	0.007
04:00 AM - 05:00 AM	0.031	0.003	0.024	0.027	0.013	0.004	0.004
05:00 AM - 06:00 AM	0.038	0.006	0.025	0.037	0.008	0.014	0.009
06:00 AM - 07:00 AM	0.041	0.006	0.026	0.040	0.007	0.023	0.014
07:00 AM - 08:00 AM	0.042	0.006	0.028	0.041	0.010	0.028	0.020
08:00 AM - 09:00 AM	0.035	0.008	0.028	0.037	0.007	0.018	0.015
09:00 AM - 10:00 AM	0.028	0.018	0.033	0.037	0.006	0.008	0.011
10:00 AM - 11:00 AM	0.013	0.014	0.040	0.039	0.005	0.007	0.008
11:00 AM - 12:00 PM	0.004	0.013	0.036	0.022	0.004	0.003	0.005
Average	0.020	0.006	0.022	0.026	0.011	0.009	0.008
1hr - Maximum	0.042	0.018	0.040	0.041	0.026	0.028	0.020
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 EPAMethod Part 50 App. F (Chemiluminescence)

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

Approved by

*Saranya C.*

Saranya Chalermthamrong

Scientist (4)

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

TESTING  
No.0009

**Client :** Magotteaux Co., Ltd.  
14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Tesing

**Project Location :**

**Lot ID: 233672**

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2540502-1

Page 1 of 1

<b>Sample Description</b>	Air Quality				
<b>Location</b>	วัดคลองแขง (A1) (GPS 47P 0701612, 1593740)				
<b>Date Analysis Commenced</b>	Feb 01, 2023				
<b>Condition of Sample</b>	Drawn into one quartz filter paper (8x10 inch) placed in plastic bag and one glass filter paper (8x10 inch) placed in plastic bag				
Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
233672-1	Jan 23 - Jan 24, 2023	0.179	0.102	758	30
233672-2	Jan 24 - Jan 25, 2023	0.128	0.064	758	30
233672-3	Jan 25 - Jan 26, 2023	0.148	0.070	758	30
233672-4	Jan 26 - Jan 27, 2023	0.103	0.054	758	31
233672-5	Jan 27 - Jan 28, 2023	0.112	0.049	758	30
233672-6	Jan 28 - Jan 29, 2023	0.132	0.051	758	28
233672-7	Jan 29 - Jan 30, 2023	0.117	0.058	758	30
<b>Guideline</b>		0.33	0.12	-	-

### Reference Method

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

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

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

**Sampled By :** Thananat Anake

### Remark :

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

Approved by

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

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



## Analysis / Test Report

TESTING  
No.0009

**Client :** Magotteaux Co., Ltd.  
14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Tesing

**Project Location :**

**Lot ID: 233672**

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562187-1

Page 1 of 1

<b>Sample Description</b>	Air Quality				
<b>Location</b>	บ้านบัวลอย (A2) (GPS 47P 0698562, 1594241)				
<b>Date Analysis Commenced</b>	Feb 01, 2023				
<b>Condition of Sample</b>	Drawn into one quartz filter paper (8x10 inch) placed in plastic bag and one glass filter paper (8x10 inch) placed in plastic bag				
Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
233672-8	Jan 23 - Jan 24, 2023	0.170	0.093	758	30
233672-9	Jan 24 - Jan 25, 2023	0.101	0.039	758	30
233672-10	Jan 25 - Jan 26, 2023	0.110	0.061	758	30
233672-11	Jan 26 - Jan 27, 2023	0.205	0.116	758	31
233672-12	Jan 27 - Jan 28, 2023	0.152	0.066	758	30
233672-13	Jan 28 - Jan 29, 2023	0.109	0.048	758	28
233672-14	Jan 29 - Jan 30, 2023	0.122	0.062	758	30
<b>Guideline</b>		0.33	0.12	-	-

### Reference Method

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

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

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

**Sampled By :** Thananat Anake

### Remark :

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

Approved by

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

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



## Analysis / Test Report

TESTING  
No.0009

**Client :** Magotteaux Co., Ltd.  
14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Tesing

**Project Location :**

**Lot ID: 233672**

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562188-1

Page 1 of 1

<b>Sample Description</b>	Air Quality				
<b>Location</b>	วัดท่าช้าง (A3) (GPS 47P 0701331, 1595594)				
<b>Date Analysis Commenced</b>	Feb 01, 2023				
<b>Condition of Sample</b>	Drawn into one quartz filter paper (8x10 inch) placed in plastic bag and one glass filter paper (8x10 inch) placed in plastic bag				
Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
233672-15	Jan 23 - Jan 24, 2023	0.185	0.101	758	30
233672-16	Jan 24 - Jan 25, 2023	0.136	0.058	758	30
233672-17	Jan 25 - Jan 26, 2023	0.146	0.078	758	30
233672-18	Jan 26 - Jan 27, 2023	0.175	0.113	758	31
233672-19	Jan 27 - Jan 28, 2023	0.136	0.069	758	30
233672-20	Jan 28 - Jan 29, 2023	0.113	0.052	758	28
233672-21	Jan 29 - Jan 30, 2023	0.151	0.083	758	30
<b>Guideline</b>		0.33	0.12	-	-

### Reference Method

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

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

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

**Sampled By :** Thananat Anake

### Remark :

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

Approved by

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

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





## Analysis / Test Report

**Client** : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

**P/O** :

**Project Name** : Environmental Tesing

**Project Location** :

**Lot ID** : 233673

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number : 2540503-1

Page 1 of 2

**Sample Number** : 233673-1 to 7  
**Parameter** : Wind Speed / Wind Direction  
**Location** : วัดร่องแซง (A1) (GPS 47P 0701612, 1593740)  
**Sampling Date** : Jan 23 - Jan 30, 2023  
**Sampling by** : Thananat Anake

Time	Jan 23 - Jan 24, 2023			Jan 24 - Jan 25, 2023			Jan 25 - Jan 26, 2023			Jan 26 - Jan 27, 2023			Jan 27 - Jan 28, 2023			Jan 28 - Jan 29, 2023			Jan 29 - Jan 30, 2023		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
01:00 PM - 02:00 PM	2.2	283.0	WNW	2.9	90.0	E	2.3	39.0	NE	3.8	359.0	N	4.0	359.0	N	3.3	1.0	N	4.6	31.0	NNE
02:00 PM - 03:00 PM	0.2	-	-	1.0	12.0	NNE	3.2	23.0	NNE	0.7	209.0	SSW	0.9	15.0	NNE	2.2	7.0	N	5.0	359.0	N
03:00 PM - 04:00 PM	1.8	227.0	SW	2.3	7.0	N	5.9	345.0	NNW	2.6	8.0	N	1.8	108.0	ESE	2.3	359.0	N	7.3	359.0	N
04:00 PM - 05:00 PM	5.4	238.0	WSW	1.1	42.0	NE	4.1	337.0	NNW	1.3	11.0	N	3.0	359.0	N	2.9	23.0	NNE	1.7	27.0	NNE
05:00 PM - 06:00 PM	0.2	-	-	1.5	34.0	NE	1.7	6.0	N	2.3	268.0	W	3.0	48.0	NE	4.2	359.0	N	1.9	42.0	NE
06:00 PM - 07:00 PM	0.0	-	-	1.1	15.0	NNE	1.8	45.0	NE	0.0	-	-	0.7	75.0	ENE	1.6	359.0	N	1.4	50.0	NE
07:00 PM - 08:00 PM	0.0	-	-	1.7	26.0	NNE	1.0	18.0	NNE	0.0	-	-	0.0	-	-	3.1	54.0	NE	1.3	17.0	NNE
08:00 PM - 09:00 PM	0.0	-	-	0.7	42.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	2.3	359.0	N	2.2	359.0	N
09:00 PM - 10:00 PM	0.9	9.0	N	1.4	52.0	NE	0.6	27.0	NNE	0.0	-	-	0.0	-	-	2.8	15.0	NNE	0.4	55.0	NE
10:00 PM - 11:00 PM	0.2	-	-	4.3	31.0	NNE	0.0	-	-	0.0	-	-	0.0	-	-	0.9	45.0	NE	0.5	41.0	NE
11:00 PM - 12:00 AM	0.0	-	-	3.7	40.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	2.7	65.0	ENE	1.7	17.0	NNE
12:00 AM - 01:00 AM	0.8	7.0	N	4.2	2.0	N	0.0	-	-	0.0	-	-	0.6	27.0	NNE	1.0	37.0	NE	2.1	21.0	NNE
01:00 AM - 02:00 AM	0.8	359.0	N	11.2	66.0	ENE	0.0	-	-	0.0	-	-	1.3	58.0	ENE	1.1	0.0	N	0.5	46.0	NE
02:00 AM - 03:00 AM	0.0	-	-	6.0	78.0	ENE	0.0	-	-	0.0	-	-	3.0	11.0	N	1.4	20.0	NNE	2.2	359.0	N
03:00 AM - 04:00 AM	1.1	2.0	N	2.9	49.0	NE	0.0	-	-	0.0	-	-	2.6	12.0	NNE	1.8	13.0	NNE	1.1	9.0	N
04:00 AM - 05:00 AM	0.0	-	-	2.7	29.0	NNE	0.0	-	-	0.5	359.0	N	2.3	9.0	N	1.2	22.0	NNE	3.5	17.0	NNE
05:00 AM - 06:00 AM	0.9	0.0	N	3.5	31.0	NNE	0.0	-	-	0.0	-	-	6.8	359.0	N	1.7	359.0	N	2.2	7.0	N
06:00 AM - 07:00 AM	0.9	357.0	N	1.7	359.0	N	0.0	-	-	0.0	-	-	1.6	48.0	NE	2.6	5.0	N	2.2	23.0	NNE
07:00 AM - 08:00 AM	0.5	359.0	N	2.7	359.0	N	2.2	0.0	N	0.0	-	-	2.4	8.0	N	2.1	40.0	NE	2.8	3.0	N
08:00 AM - 09:00 AM	3.4	359.0	N	3.3	359.0	N	0.8	9.0	N	0.0	-	-	2.8	39.0	NE	5.5	1.0	N	1.3	14.0	NNE
09:00 AM - 10:00 AM	1.0	50.0	NE	1.3	2.0	N	4.0	359.0	N	1.2	40.0	NE	4.3	14.0	NNE	4.6	359.0	N	2.5	19.0	NNE
10:00 AM - 11:00 AM	4.1	20.0	NNE	6.0	339.0	NNW	1.0	359.0	N	3.2	359.0	N	1.8	26.0	NNE	3.4	38.0	NE	4.1	2.0	N
11:00 AM - 12:00 PM	2.7	45.0	NE	3.1	353.0	N	2.6	337.0	NNW	3.4	359.0	N	4.7	80.0	E	5.3	0.0	N	2.1	12.0	NNE
12:00 PM - 01:00 PM	2.4	1.0	N	5.3	355.0	N	1.5	11.0	N	4.1	359.0	N	3.3	359.0	N	3.8	359.0	N	1.4	8.0	N

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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

Approved by

Sarayuth Jittrantont  
Assistant General Manager



## Analysis / Test Report

**Client** : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

**P/O** :

**Project Name** : Environmental Testing

**Project Location** :

**Lot ID** : 233673

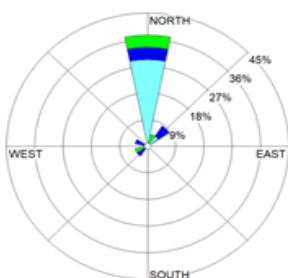
Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

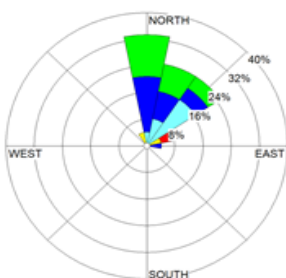
Report Number : 2540503-1

Page 2 of 2

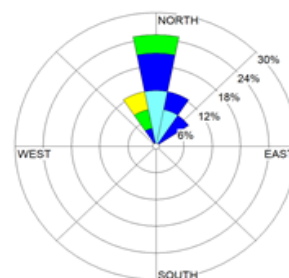
### Wind Rose



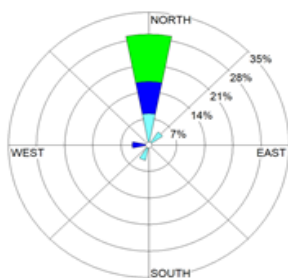
Date : Jan 23-24, 2023



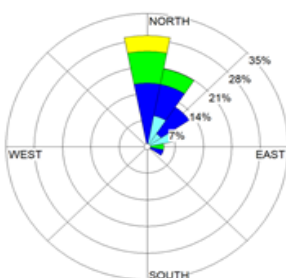
Date : Jan 24-25, 2023



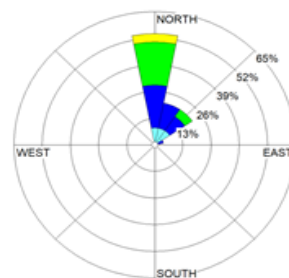
Date : Jan 25-26, 2023



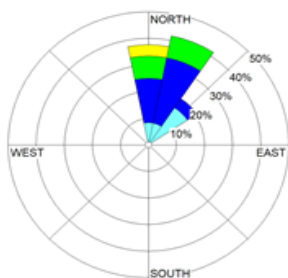
Date : Jan 26-27, 2023



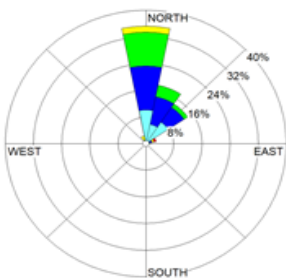
Date : Jan 27-28, 2023



Date : Jan 28-29, 2023



Date : Jan 29-30, 2023



Date : Jan 23-30, 2023

WS(m/s)	%
≥ 10.0	0.60
8.0-10.0	0.00
5.5-8.0	3.56
3.3-5.5	16.67
1.7-3.3	30.95
0.3-1.7	25.60
Calms	22.62

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

Approved by

Sarayuth Jitranont  
Assistant General Manager



## Analysis / Test Report

**Client** : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O** :

**Project Name** : Environmental Tesing

**Project Location** :

**Lot ID** : 233673

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number : 2540503-1

Page 1 of 2

**Sample Number** : 233673-8 to 14  
**Parameter** : Wind Speed / Wind Direction  
**Location** : บ้านบัวลอย (A2) (GPS 47P 0698562, 1594241)  
**Sampling Date** : Jan 23 - Jan 30, 2023  
**Sampling by** : Thananat Anake

Time	Jan 23 - Jan 24, 2023			Jan 24 - Jan 25, 2023			Jan 25 - Jan 26, 2023			Jan 26 - Jan 27, 2023			Jan 27 - Jan 28, 2023			Jan 28 - Jan 29, 2023			Jan 29 - Jan 30, 2023		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
11:00 AM - 12:00 PM	3.1	41.0	NE	0.4	29.0	NNE	0.0	-	-	1.9	185.0	S	3.2	21.0	NNE	2.2	27.0	NNE	3.2	359.0	N
12:00 PM - 01:00 PM	1.5	33.0	NNE	0.9	255.0	WSW	1.2	30.0	NNE	0.0	-	-	3.5	18.0	NNE	3.7	1.0	N	2.8	42.0	NE
01:00 PM - 02:00 PM	0.4	27.0	NNE	3.6	19.0	NNE	0.8	51.0	NE	0.0	-	-	1.5	48.0	NE	3.1	54.0	NE	5.5	7.0	N
02:00 PM - 03:00 PM	1.9	9.0	N	1.4	161.0	SSE	2.4	26.0	NNE	0.7	43.0	NE	3.1	22.0	NNE	2.7	17.0	NNE	7.4	7.0	N
03:00 PM - 04:00 PM	0.5	48.0	NE	0.8	8.0	N	2.9	11.0	N	0.0	-	-	1.9	9.0	N	4.4	37.0	NE	3.3	26.0	NNE
04:00 PM - 05:00 PM	0.5	272.0	W	1.0	35.0	NE	2.3	21.0	NNE	0.6	187.0	S	0.9	27.0	NNE	1.3	27.0	NNE	4.3	359.0	N
05:00 PM - 06:00 PM	0.0	-	-	1.7	34.0	NE	1.7	14.0	NNE	0.0	-	-	0.0	-	-	2.5	30.0	NNE	1.1	22.0	NNE
06:00 PM - 07:00 PM	0.0	-	-	1.5	19.0	NNE	1.5	48.0	NE	0.0	-	-	0.2	-	-	1.0	34.0	NE	4.1	23.0	NNE
07:00 PM - 08:00 PM	0.0	-	-	0.5	23.0	NNE	0.0	-	-	0.0	-	-	0.0	-	-	1.4	30.0	NNE	1.6	30.0	NNE
08:00 PM - 09:00 PM	0.0	-	-	0.0	-	-	0.3	21.0	NNE	0.0	-	-	0.0	-	-	2.4	33.0	NNE	1.8	56.0	NE
09:00 PM - 10:00 PM	0.0	-	-	3.6	45.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	2.5	33.0	NNE	1.6	11.0	N
10:00 PM - 11:00 PM	1.0	30.0	NNE	3.9	27.0	NNE	0.0	-	-	0.0	-	-	0.0	-	-	1.3	28.0	NNE	2.4	33.0	NNE
11:00 PM - 12:00 AM	0.0	-	-	1.1	23.0	NNE	0.0	-	-	0.0	-	-	0.9	41.0	NE	1.3	38.0	NE	3.3	29.0	NNE
12:00 AM - 01:00 AM	0.0	-	-	1.1	27.0	NNE	0.0	-	-	0.0	-	-	2.7	34.0	NE	0.7	91.0	E	1.5	26.0	NNE
01:00 AM - 02:00 AM	0.0	-	-	0.9	24.0	NNE	0.0	-	-	0.0	-	-	1.5	30.0	NNE	2.0	21.0	NNE	3.0	16.0	NNE
02:00 AM - 03:00 AM	0.0	-	-	5.4	54.0	NE	0.0	-	-	0.0	-	-	1.9	10.0	N	4.2	32.0	NNE	2.8	30.0	NNE
03:00 AM - 04:00 AM	1.0	39.0	NE	2.0	45.0	NE	0.0	-	-	1.0	37.0	NE	3.1	17.0	NNE	1.5	16.0	NNE	3.1	21.0	NNE
04:00 AM - 05:00 AM	0.9	31.0	NNE	2.2	27.0	NNE	0.0	-	-	0.0	-	-	3.2	355.0	N	2.4	17.0	NNE	2.6	11.0	N
05:00 AM - 06:00 AM	0.6	35.0	NE	2.1	23.0	NNE	0.0	-	-	0.0	-	-	2.9	8.0	N	4.2	10.0	N	3.4	20.0	NNE
06:00 AM - 07:00 AM	0.4	47.0	NE	1.4	34.0	NE	0.0	-	-	0.0	-	-	4.2	30.0	NNE	3.5	20.0	NNE	2.8	40.0	NE
07:00 AM - 08:00 AM	2.5	27.0	NNE	2.8	29.0	NNE	0.7	30.0	NNE	0.0	-	-	3.4	7.0	N	1.5	6.0	N	2.2	13.0	NNE
08:00 AM - 09:00 AM	1.1	69.0	ENE	2.9	37.0	NE	0.4	47.0	NE	0.0	-	-	2.5	56.0	NE	7.6	11.0	N	5.2	21.0	NNE
09:00 AM - 10:00 AM	2.8	27.0	NNE	2.8	35.0	NE	0.2	-	-	1.2	45.0	NE	2.1	41.0	NE	4.0	31.0	NNE	2.6	28.0	NNE
10:00 AM - 11:00 AM	2.4	348.0	NNW	3.9	33.0	NNE	0.0	-	-	2.2	46.0	NE	5.6	28.0	NNE	5.6	31.0	NNE	2.4	16.0	NNE

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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

Approved by

Sarayuth Jittrantont  
Assistant General Manager



## Analysis / Test Report

**Client** : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

**P/O** :

**Project Name** : Environmental Testing

**Project Location** :

**Lot ID** : 233673

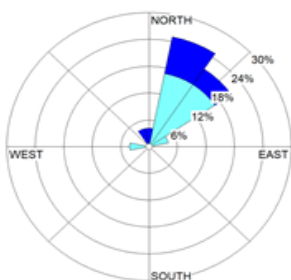
Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

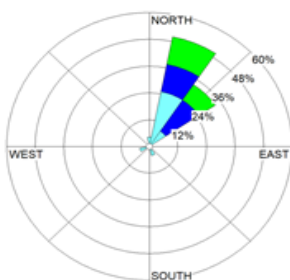
Report Number : 2540503-1

Page 2 of 2

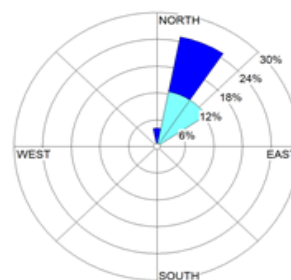
### Wind Rose



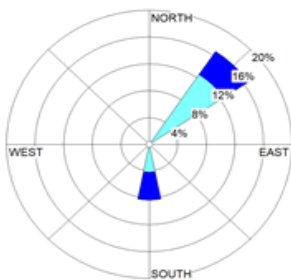
Date : Jan 23-24, 2023



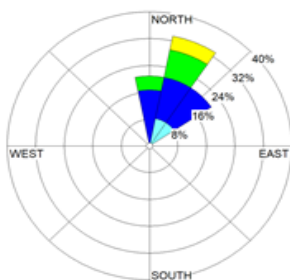
Date : Jan 24-25, 2023



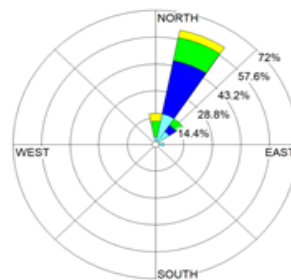
Date : Jan 25-26, 2023



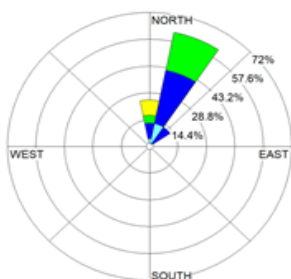
Date : Jan 26-27, 2023



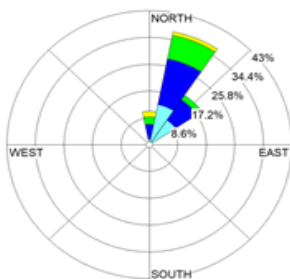
Date : Jan 27-28, 2023



Date : Jan 28-29, 2023



Date : Jan 29-30, 2023



Date : Jan 23-30, 2023

WS(m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	2.98
3.3-5.5	11.91
1.7-3.3	28.56
0.3-1.7	27.98
Calms	28.57

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

Approved by

Sarayuth Jitranont  
Assistant General Manager



## Analysis / Test Report

**Client** : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O** :

**Project Name** : Environmental Tesing

**Project Location** :

**Lot ID** : 233673

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number : 2540503-1

Page 1 of 2

**Sample Number** 233673-15 to 21  
**Parameter** Wind Speed / Wind Direction  
**Location** วัดท่าช้าง (A3) (GPS 47P 0701331, 1595594)  
**Sampling Date** Jan 23 - Jan 30, 2023  
**Sampling by** Thananat Anake

Time	Jan 23 - Jan 24, 2023			Jan 24 - Jan 25, 2023			Jan 25 - Jan 26, 2023			Jan 26 - Jan 27, 2023			Jan 27 - Jan 28, 2023			Jan 28 - Jan 29, 2023			Jan 29 - Jan 30, 2023		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
12:00 PM - 01:00 PM	0.2	-	-	1.8	47.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	1.5	67.0	ENE	2.0	27.0	NNE
01:00 PM - 02:00 PM	0.6	307.0	NW	1.3	43.0	NE	0.0	-	-	0.3	285.0	WNW	0.0	-	-	1.7	42.0	NE	4.9	59.0	ENE
02:00 PM - 03:00 PM	0.2	-	-	0.3	65.0	ENE	0.0	-	-	0.6	109.0	ESE	0.0	-	-	0.0	-	-	3.7	62.0	ENE
03:00 PM - 04:00 PM	1.0	291.0	WNW	0.0	-	-	1.0	11.0	N	0.0	-	-	0.0	-	-	0.0	-	-	5.1	34.0	NE
04:00 PM - 05:00 PM	1.8	270.0	W	0.0	-	-	1.6	32.0	NNE	0.0	-	-	0.0	-	-	0.0	-	-	2.0	33.0	NNE
05:00 PM - 06:00 PM	0.2	-	-	0.0	-	-	2.8	81.0	E	0.0	-	-	0.0	-	-	0.0	-	-	2.1	59.0	ENE
06:00 PM - 07:00 PM	0.0	-	-	1.3	60.0	ENE	1.1	55.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	2.4	57.0	ENE
07:00 PM - 08:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
08:00 PM - 09:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.4	30.0	NNE
09:00 PM - 10:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.1	43.0	NE
10:00 PM - 11:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
11:00 PM - 12:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.4	67.0	ENE	1.2	49.0	NE	2.4	56.0	NE
12:00 AM - 01:00 AM	0.0	-	-	4.7	76.0	ENE	0.0	-	-	0.0	-	-	1.5	32.0	NNE	2.3	61.0	ENE	0.0	-	-
01:00 AM - 02:00 AM	0.0	-	-	2.2	45.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.1	41.0	NE
02:00 AM - 03:00 AM	0.0	-	-	3.6	85.0	E	0.0	-	-	0.0	-	-	0.4	50.0	NE	0.0	-	-	3.4	71.0	ENE
03:00 AM - 04:00 AM	0.0	-	-	3.5	47.0	NE	0.0	-	-	0.0	-	-	1.5	64.0	ENE	0.0	-	-	1.3	41.0	NE
04:00 AM - 05:00 AM	0.0	-	-	1.6	47.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	1.1	29.0	NNE	2.3	43.0	NE
05:00 AM - 06:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.8	28.0	NNE	2.4	31.0	NNE	1.9	28.0	NNE
06:00 AM - 07:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.6	39.0	NE	2.2	49.0	NE	1.6	31.0	NNE
07:00 AM - 08:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	2.0	57.0	ENE	2.1	81.0	E	1.2	30.0	NNE
08:00 AM - 09:00 AM	2.2	49.0	NE	2.0	72.0	ENE	0.0	-	-	0.0	-	-	3.5	72.0	ENE	1.3	40.0	NE	0.0	-	-
09:00 AM - 10:00 AM	3.0	52.0	NE	0.9	43.0	NE	0.0	-	-	0.0	-	-	0.9	34.0	NE	2.7	55.0	NE	2.6	53.0	NE
10:00 AM - 11:00 AM	3.6	67.0	ENE	0.0	-	-	0.0	-	-	1.7	45.0	NE	1.5	31.0	NNE	3.6	52.0	NE	1.2	49.0	NE
11:00 AM - 12:00 PM	2.2	45.0	NE	0.2	-	-	0.0	-	-	1.6	45.0	NE	0.9	58.0	ENE	3.2	54.0	NE	0.6	26.0	NNE

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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

Approved by

Sarayuth Jittrantont  
Assistant General Manager



## Analysis / Test Report

**Client** : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O** :

**Project Name** : Environmental Testing

**Project Location** :

**Lot ID** : 233673

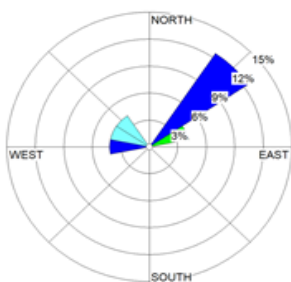
Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

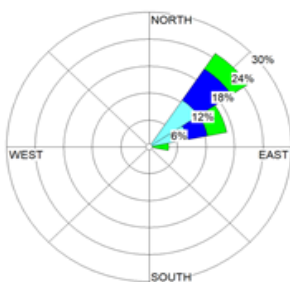
Report Number : 2540503-1

Page 2 of 2

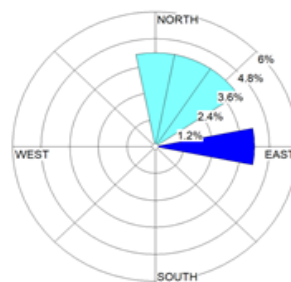
### Wind Rose



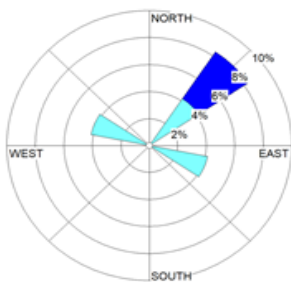
Date : Jan 23-24, 2023



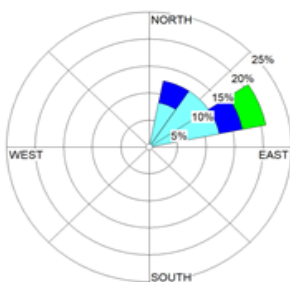
Date : Jan 24-25, 2023



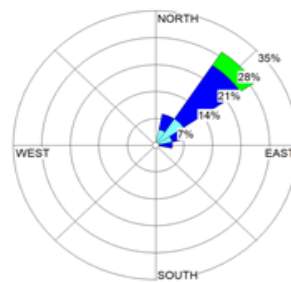
Date : Jan 25-26, 2023



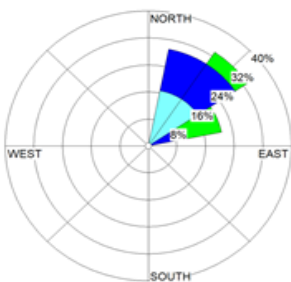
Date : Jan 26-27, 2023



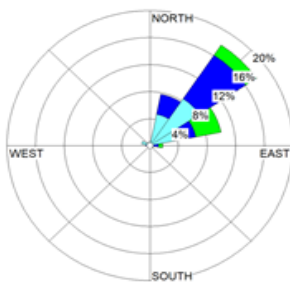
Date : Jan 27-28, 2023



Date : Jan 28-29, 2023



Date : Jan 29-30, 2023



Date : Jan 23-30, 2023

WS(m/s)	%
≥ 10.0	0.00
8.0-10.0	0.00
5.5-8.0	0.00
3.3-5.5	5.95
1.7-3.3	15.48
0.3-1.7	19.64
Calms	58.93

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

Approved by

Sarayuth Jitranont  
Assistant General Manager

# ภาคผนวก ค-2

---

คุณภาพอากาศจากปล่องระบาย





## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233677

Date Received : Jan 26, 2023

Date Reported : Feb 01, 2023

Report Number: 2540508-1

Page 1 of 1

Sample Number	233677-1
Sampled Date	Jan 25, 2023
Sample Description	Emission from Stationary Source
Location	Bag House 1 (1BH-1) : MCL1
Date Analysis Commenced	Jan 27, 2023
Condition of Sample	Extracted into one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	758	mmHg	Diameter	1.50	m	Oxygen	20.9	%
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	46.7	°C	Gas Velocity	12.5	m/s
Type of Fuel	-		Moisture	2.29	%	Flow Rate (Actual O2)	72024	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Total Suspended Particulate	10:40 AM - 11:28 AM	mg/m3	-	0.5	22.3	40	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

Guideline : Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source

Sampled By : Apisit Singha

Remark :

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

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

ทะเบียนเลขที่ 2-204-3-4717

Approved by

*Kanok Korn Anek*

Kanok Korn Anek  
Senior Manager

ทะเบียนเลขที่ 2-204-3-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt (12:42PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233682

Date Received : Jan 26, 2023

Date Reported : Feb 01, 2023

Report Number: 2540511-1

Page 1 of 1

Sample Number	233682-1
Sampled Date	Jan 25, 2023
Sample Description	Emission from Stationary Source
Location	Bag 7 ouse 6 HB7-3( : MCL1
Date Analysis Commenced	Jan 2), 2023
Condition of Sample	Extracted into one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	58	mmHg	Diameter	0.90	m	Oxygen	20.9	%
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	58.0	°C	Gas Velocity	10.1	m/s
Type of Fuel	-		Moisture	1.48	%	Flow Rate (Actual O2)	20541	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Total Suspended Particulate	09:30 AM - 10:12 AM	mg/m3	-	0.5	2.4	40	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

Guideline : Guideline H( : Environmental Impact Assessment Report of Magotteaux Co., Ltd. H.B.E.2554(  
Guideline H2( : Notification of the Ministry of Science, Technology and Environment H.B.E.2544( : New Source

Sampled By : Apisit Singha

Remark :

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

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist H(

ทะเบียนเลขที่ 2-204-3-4) 1)

Approved by

*Kanok Korn Anek*

Kanok Korn Anek  
Senior Manager

ทะเบียนเลขที่ 2-204-3-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt (12:44PM)





## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

**Lot ID: 233695**

Date Received : Apr 24, 2023

Date Reported : May 03, 2023

Report Number: 2540526-1

Page 1 of 1

<b>Sample Number</b>	233695-1
<b>Sampled Date</b>	Apr 24, 2023
<b>Sample Description</b>	Emission from Stationary Source
<b>Location</b>	ปล่อยมลพิษจากโรงงาน HT2 Stack 1 (2SN-1)
<b>Date Analysis Commenced</b>	Apr 25, 2023
<b>Condition of Sample</b>	Extracted into two 2-L collection flasks, one filter paper placed in plastic petri dish and one 10-L air sampling bag

### Stack Description

Ambient Pressure	758	mmHg	Diameter	0.50	m	Oxygen	18.8	%
Ambient Temperature	36.0	°C	Shape	Circle		Carbon Dioxide	1.3	%
Type of Process	Combustion (Open System)		Stack Temperature	163	°C	Gas Velocity	8.5	m/s
Type of Fuel	LPG		Moisture	2.83	%	Flow Rate (Actual O2)	4000	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Carbon Monoxide	12:00 PM - 12:10 PM	ppm	-	1.0	<1.0	-	690 (3)	United States Environmental Protection Agency, EPA Method 10	Bangkok
Oxides of Nitrogen	11:50 AM - 12:00 PM	ppm	-	1.06	<1.06	60	180	United States Environmental Protection Agency, EPA Method 7	Bangkok
Total Suspended Particulate	11:40 AM - 12:22 PM	mg/m3	-	0.5	1.0	60	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

**Guideline :** Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source  
Guideline (3) : 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 :** Anuvat Moungrai

Remark :

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

Technical Management

*Orawan R.*

Orawan Rakyong  
Scientist (3)

ทะเบียนเลขที่ 2-204-2-6115

Approved by

*Kanokorn A.*

Kanokorn Anek  
Senior Manager

ทะเบียนเลขที่ 2-204-2-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt ( 3:00PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

**Lot ID: 233696**

Date Received : Apr 24, 2023

Date Reported : May 03, 2023

Report Number: 254054061

Page 1 of 1

<b>Sample Number</b>	233f 9f 6L
<b>Sampled Date</b>	Apr 24, 2023
<b>Sample Description</b>	Emission from Stationary Source
<b>Location</b>	ปล่อยมลพิษจากโรงงาน HT2 Stack 2 (2SN2)
<b>Date Analysis Commenced</b>	Apr 25, 2023
<b>Condition of Sample</b>	Extracted into two 2L collection flasks, one filter paper placed in plastic petri dish and one 10L air sampling bag

### Stack Description

Ambient Pressure	758	mmHg	Diameter	0.50	m	Oxygen	17.1	%
Ambient Temperature	35.0	°C	Shape	Circle		Carbon Dioxide	2.2	%
Type of Process	Combustion (Open System)		Stack Temperature	312	°C	Gas Velocity	9.3	m/s
Type of Fuel	L-G		Moisture	2.83	%	Flow Rate (Actual O2)	f 188	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Carbon Monoxide	01:20 - M 601:30 - M	ppm	6	1.0	4.9	6	f 90 (3)	<nited States Environmental Protection Agency, E- A Method 10	Bangkok
Oxides of Nitrogen	01:10 - M 601:20 - M	ppm	6	1.0f	3.03	f 0	180	<nited States Environmental Protection Agency, E- A Method 7	Bangkok
Total Suspended - articulate	01:10 - M 601:58 - M	mg/m3	6	0.5	1.5	f 0	120	<nited States Environmental Protection Agency, E- A Method 5	Bangkok

**Guideline :** Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source  
Guideline (3) : Notification of the Ministry of Industry 2006 (B.E. 2549) Published in the Royal Government Gazette, Vol.123 Special - art 125 D, dated December 4, 2006 (B.E. 2549)

**Sampled By :** Anuvat Moungrai

Remark :

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

Technical Management

*Orawan R.*

Orawan Rakyong  
Scientist (3)

ทะเบียนเลขที่ 2-204-2-6115

Approved by

*Kanokorn A.*

Kanokorn Anek  
Senior Manager

ทะเบียนเลขที่ 2-204-2-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt ( 3:59PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233700

Date Received : Apr 24, 2023

Date Reported : May 03, 2023

Report Number: 25405426L

- page 1 of 1

Sample Number	233700L
Sampled Date	Apr 24, 2023
Sample Description	Emission from Stationary Source
Location	Oil Circulate 2 (H2C-2) : HT2
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one 10L air sampling bag

### Stack Description

Ambient Pressure	758	mmHg	Diameter	0.50	m	Oxygen	20.9	%
Ambient Temperature	37.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	58.5	°C	Gas Velocity	11.3	m/s
Type of Fuel	-		Moisture	2.78	%	Flow Rate (Actual O2)	6970	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Total Suspended - particulate	10:10 AM - 6:10:58 AM	mg/m3	6	0.5	<0.5	40	120	United States Environmental Protection Agency, E- A Method 5	Bangkok

Guideline : % Guideline H1 : Environmental Impact Assessment Report of PMagotteaux Co., Ltd. H.B.E.2554( % Guideline H2 : Notification of the Ministry of Science, Technology and Environment H.B.E.2544( : New Source

Sampled By : Anuvat Moungpai

Remark :

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

Technical Management

*Orawan R.*

Orawan Rak Yong  
Scientist H(

ทะเบียนเลขที่ ๖๒๐๔๖๑/๑๑๕

Approved by

*Kanok Anek*

"anokkorn Anek  
Senior Manager

ทะเบียนเลขที่ ๖๒๐๔๖๑/๑๑๕

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt ( 4:17PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233700

Date Received : Apr 24, 2023

Date Reported : May 03, 2023

Report Number: 2540542-2

Page 1 of 1

Sample Number	233700-1
Sampled Date	Apr 24, 2023
Sample Description	Emission from Stationary Source
Location	Oil Circulate 2 (H2C-2) : HT2
Date Analysis Commenced	Apr 25, 2023
Condition of Sample	Extracted into one filter paper placed in plastic petri dish and one 10-L air sampling bag

### Stack Description

Ambient Pressure	758	mmHg	Diameter	0.50	m	Oxygen	20.9	%
Ambient Temperature	36.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	58.5	°C	Gas Velocity	11.3	m/s
Type of Fuel	-		Moisture	2.68	%	Flow Rate (Actual O2)	6970	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
<b>Air Testing</b>							
Total Hydrocarbon as Methane	10:25 AM - 10:35 AM	ppm	-	1.0	8.3	Total Hydrocarbon Analyzer, Based on US EPA Method 25A	Bangkok
Total VOCs as Propane	10:25 AM - 10:35 AM	ppm	-	1.0	3.5	United States Environmental Protection Agency, EPA Method 25A	Bangkok

Sampled By : Anuvat Moungpai

Remark :

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

Approved by

*Orawan R.*

Orawan Rak Yong  
Scientist (3)

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_NGL.rpt ( 4:17PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 23370S

Date Received : Jan 26, 2023

Date Reported : Feb 01, 2023

Report Number: 2540546-1

Page 1 of 1

**pamule Nbmder** 233701-1  
**pamules Date** Jan 23, 2023  
**pamule DeAcrtion** Emission from Stationary Source  
**Location** Bag House 3 (3BH-1) : MCL2  
**Date y nalf A Commences** Jan 27, 2023  
**Cosition okpamule** Extracted into one filter paper placed in plastic petri dish

### ptact DeAcrtion

Ambient Pressure	758	mmHg	Diameter	1.25	m	Oxygen	20.8	%
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.1	%
Type of Process	Process		Stack Temperature	44.3	°C	Gas Velocity	12.1	m/s
Type of Fuel	-		Moisture	2.99	%	Flow Rate (Actual O2)	48595	Nm3/hr

ynalf te	pamules Rime	Unit	LOD	LOQ (LOG)	GeAbt	(baseline 1S)	(baseline 12)	Methos	ReAtng Location
----------	--------------	------	-----	-----------	-------	---------------	---------------	--------	-----------------

### yir ReAtng

Total Suspended Particulate	01:00 PM - 01:54 PM	mg/m3	-	0.5	3.5	40	120	United States Environmental Protection Agency, EPA Method 5	Bangkok
-----------------------------	---------------------	-------	---	-----	-----	----	-----	---	---------

(baseline : Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source

pamules Bf : Qhanetson Qhamphet

Remark :

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

Rechnical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

ทะเบียนเลขที่ ว-204-จ-4717

yuuroves df

*Kanokorn Anek*

Kanokorn Anek  
Senior Manager

ทะเบียนเลขที่ ว-204-ก-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt (12:48PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 23370S

Date Received : Jan 26, 2023

Date Reported : Feb 01, 2023

Report Number: 254054-P1

Page 1 of 1

**pamule Nbmder** 233-10P1  
**pamules Date** Jan 23, 2023  
**pamule DeAcrtion** Emission from Stationary Source  
**Location** Bag House 4 (3BHP2) : MCL2  
**Date y nalf A Commences** Jan 2-, 2023  
**Cosition okpamule** Extracted into one filter paper placed in plastic petri dish

### ptact DeAcrtion

Ambient Pressure	- 58	mmHg	Diameter	1.25	m	%xygen	20.0	9
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	9
Type of Process	Process		Stack Temperature	48.0	°C	Gas Velocity	16.0	m/s
Type of Fuel	P		Moisture	2.52	9	Flow Rate (Actual %2)	63-- 4	Nm3/hr

ynalf te	pamules Rime	Unit	LOD	LOQ (LOG)	GeAbt	(baseline 10)	(baseline 12)	Methos	ReAtng Location
----------	--------------	------	-----	-----------	-------	---------------	---------------	--------	-----------------

### yir ReAtng

Total Suspended Particulate	02:20 PM P03:08 PM	mg/m3	P	0.5	0.8	40	120	United States Environmental Protection Agency, EPA Method 5	Bangkok
-----------------------------	--------------------	-------	---	-----	-----	----	-----	---	---------

(baseline : Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source

pamules Bf : Qhanetson Qhamphet

Remark :

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

Rechnical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

ทะเบียนเลขที่ ว204P4-1-

yuuroves df

*Kanokorn Anek*

Kanokorn Anek  
Senior Manager

ทะเบียนเลขที่ ว204P4P5111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt (12:51PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233711

Date Received : Jan 26, 2023

Date Reported : Feb 01, 2023

Report Number: 254054-P1

Page 1 of 1

Sample Number	233H11P1
Sampled Date	Jan 23, 2023
Sample Description	Emission from Stationary Source
Location	Bag (ouse 5 )3B( P3° : MCL2
Date Analysis Commenced	Jan 24, 2023
Condition of Sample	Extracted into one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	H58	mm(g	Diameter	1.25	m	Oxygen	20.0	%
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	45.0	°C	Gas Velocity	20.8	m/s
Type of Fuel	P		Moisture	3.02	%	Flow Rate (Actual O2°	834H	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Total Suspended Particulate	03:30 PM P04:24 PM	mg/m3	P	0.5	5.4	40	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

Guideline : Guideline 1° : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554°  
Guideline 2° : Notification of the Ministry of Science, Technology and Environment (B.E.2544° : New Source

Sampled By : Chantetson Chantet

Remark :

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

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)  
ทะเบียนเลขที่ 2204PMH1H

Approved by

Kanokorn Anek

Kanokorn Anek  
Senior Manager  
ทะเบียนเลขที่ 2204PMH11

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt (12:55PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233714

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 2540551-1

Page 1 of 1

Sample Number	233714-1
Sampled Date	Jan 23, 2023
Sample Description	Emission from Stationary Source
Location	ปล่องระบายไอระเหย HT3 Stack 2 (3SN-2)
Date Analysis Commenced	Jan 27, 2023
Condition of Sample	Extracted into one 2-L collection flask, one 10-L air sampling bag and one filter paper placed in plastic petridish

### Stack Description

Ambient Pressure	758	mmHg	Diameter	0.45	m	Oxygen	10.0	%
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	1.5	%
Type of Process	Combustion (Open System)		Stack Temperature	170	°C	Gas Velocity	8.2	m/s
Type of Fuel	LP%		Moisture	1.08	%	Flow Rate (Actual 92)	3000	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Carbon Monoxide	10:45 AM - 10:55 AM	ppm	-	1.0	1.7	-	600 (3)	United States Environmental Protection Agency, EPA Method 10	Bangkok
Oxides of Nitrogen	11:03 AM - 11:08 AM	ppm	-	1.06	4.00	60	180	United States Environmental Protection Agency, EPA Method 7	Bangkok
Total Suspended Particulate	10:40 AM - 11:28 AM	mg/m3	-	0.5	1.3	60	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

Guideline : Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source  
Guideline (3) : Notification of the Ministry of Industry 2006 (B.E. 2540) Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2540)

Sampled By : Apisit Singha

Remark :

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

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)  
ทะเบียนเลขที่ 2-204-จ-4717

Approved by

Kanokorn Anek

Kanokorn Anek  
Senior Manager  
ทะเบียนเลขที่ 2-204-ก-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt (12:21PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233717

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 2540552-1

Page 1 of 1

Sample Number	233717-1
Sampled Date	Jan 23, 2023
Sample Description	Emission from Stationary Source
Location	ปล่องระบายไอควัน HT4 Stack 1 (3SN-3)
Date Analysis Commenced	Jan 27, 2023
Condition of Sample	Extracted into one 2-L collection flask, one 10-L air sampling bag and one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	758	mmHg	Diameter	0.70	m	9 xygen	11.5	G
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	6.4	G
Type of Process	Combustion (9 pen System)		Stack Temperature	205	°C	%as Velocity	2.7	m/s
Type of Fuel	LP%		Moisture	1.01	G	Flow Rate (Actual 92)	2308	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Carbon Monoxide	02:00 PM - 02:10 PM	ppm	-	1.0	45.3	-	600 (3)	United States Environmental Protection Agency, EPA Method 10	Bangkok
9xides of Nitrogen	02:10 PM - 02:20 PM	ppm	-	1.06	25.4	60	180	United States Environmental Protection Agency, EPA Method 7	Bangkok
Total Suspended Particulate	01:50 PM - 02:38 PM	mg/m3	-	0.5	10.5	60	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

Guideline : %uideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)

%uideline (2) : Notification of the Ministry of Science, Technology and Environmental (B.E.2544) : New Source

%uideline (3) : Notification of the Ministry of Industry 2006 (B.E. 2540) Published in the Royal Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2540)

Sampled By : Apisit Singha

Remark :

- L9 D : Limit of Detection
- K K : Lower than L9 < (Limit of < quantitation) / L9 R (Limit of Reporting)

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

ทะเบียนเลขที่ 2-204-3-4717

Approved by

Kanok Anek

zanokkorn Anek  
Senior Manager

ทะเบียนเลขที่ 2-204-3-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt (12:36PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233718

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 2540553-1

Page 1 of 1

Sample Number	233718-1
Sampled Date	Jan 23, 2023
Sample Description	Emission from Stationary Source
Location	ปล่องระบายไอควัน HT4 Stack 2 (3SN-4)
Date Analysis Commenced	Jan 27, 2023
Condition of Sample	Extracted into one 2-L collection flask, one 10-L air sampling bag and one filter paper placed in plastic petridish

### Stack Description

Ambient Pressure	758	mmHg	Diameter	0.45	m	9 xygen	16.4	G
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	3.2	G
Type of Process	Combustion (9 pen System)		Stack Temperature	224	°C	%as Velocity	8.7	m/s
Type of Fuel	LP%		Moisture	1.40	G	Flow Rate (Actual 92)	2033	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Carbon Monoxide	12:00 PM - 12:10 PM	ppm	-	1.0	6.0	-	600 (3)	United States Environmental Protection Agency, EPA Method 10	Bangkok
9xides of Nitrogen	11:50 AM - 11:58 AM	ppm	-	1.06	16.8	60	180	United States Environmental Protection Agency, EPA Method 7	Bangkok
Total Suspended Particulate	11:48 AM - 12:36 PM	mg/m3	-	0.5	10.5	60	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

Guideline : %uideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)

%uideline (2) : Notification of the Ministry of Science, Technology and Environmental (B.E.2544) : New Source

%uideline (3) : Notification of the Ministry of Industry 2006 (B.E. 2540) Published in the Royal Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 2540)

Sampled By : Apisit Singha

Remark :

- L9 D : Limit of Detection
- K K : Lower than L9 < (Limit of < quantitation) / L9 R (Limit of Reporting)

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

ทะเบียนเลขที่ 2-204-3-4717

Approved by

Kanok Anek

zanokkorn Anek  
Senior Manager

ทะเบียนเลขที่ 2-204-3-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt (12:37PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.  
14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

**P/O :**  
**Project Name :** Environmental Testing  
**Project Location :**

**Lot ID: 233721**  
Date Received : Jan 26, 2023  
Date Reported : Feb 02, 2023  
Report Number: 2540554-1

Page 1 of 1

**4amSle Npmuer** 233724-1  
**4amSle Date** Jan 24, 2023  
**4amSle DedcriStion** Emission from Stationary Source  
**Location** Hil Circulate 3 (3HC-1) : ° T3  
**Date s nalAdid Commenceb** Jan 27, 2023  
**Conbition oy4amSle** Extracted into one 10-L air sampling bag and one filter paper placed in plastic petri dish

### 4taf DedcriStion

Ambient Pressure	758	mm <sup>g</sup>	Diameter	0.90	m	Hxygen	20.8	O
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	O
Type of Process	Process		Stack Temperature	33.0	°C	Gas Velocity	5.0	m/s
Type of Fuel	-		Moisture	0.85	O	Flow Rate (Actual H2)	11145	Nm3/hr

s nalAte	4amSle Date	Unit	LOD	LOQ (LOT)	Tedpht	Rpibeline (Q)	Rpibeline (Q)	Method	kedting Location
Total Suspended Particulate	10:00 AM - 10:54 AM	mg/m3	-	0.5	U0.5	40	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

**Rpibeline :** Guideline (1) : Environmental Qncompact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Tecnology and Environmetal (B.E.2544) : New Source

**4amSleB BA :** Apisit Singha

Remark :  
- LHD : Limit of Detection  
- <L : Lower than LHD (Limit of " uantitation) / LHR (Limit of Reporting)

Technical Management

*Saranya C.*  
Saranya Chalerthamrong  
Scientist (4)  
ทะเบียนเลขที่ 2-204-3-4717

SSroveb uA

*Kanokkorn Anek*  
Kanokkorn Anek  
Senior Manager  
ทะเบียนเลขที่ 2-204-3-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt (12:39PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.  
14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

**P/O :**  
**Project Name :** Environmental Testing  
**Project Location :**

**Lot ID: 233724**  
Date Received : Jan 26, 2023  
Date Reported : Feb 02, 2023  
Report Number: 2540554-2

Page 1 of 1

**Sample Number** 233724-1  
**Sampled Date** Jan 24, 2023  
**Sample Description** Emission from Stationary Source  
**Location** Oil Circulate 3 (3OC-1) : HT3  
**Date Analysis Commenced** Jan 27, 2023  
**Condition of Sample** Extracted into one 10-L air sampling bag and one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	758	mmHg	Diameter	0.90	m	Oxygen	20.8	%
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	33.0	°C	Gas Velocity	5.0	m/s
Type of Fuel	-		Moisture	0.85	%	Flow Rate (Actual O2)	11145	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Total Hydrocarbon as Methane	10:05 AM - 10:15 AM	ppm	-	1.0	7.3	Total Hydrocarbon Analyzer, Based on US EPA Method 25A	Bangkok
Total VOCs as Propane	10:05 AM - 10:15 AM	ppm	-	1.0	3.7	United States Environmental Protection Agency, EPA Method 25A	Bangkok

**Sampled By :** Apisit Singha

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

Approved by

*Saranya C.*  
Saranya Chalerthamrong  
Scientist (4)

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_NGL.rpt (12:39PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233727

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 2540555-1

Page 1 of 1

**1amSle Npmuer** 233727-1  
**1amSleb Date** Jan 24, 2023  
**1amSle DedcriStion** Emission from Stationary Source  
**Location** Hil Circulate 4 (3HC-2) : ° T4  
**Date s nalAdid Commenceb** Jan 27, 2023  
**Conbition oy 1amSle** Extracted into one 10-L air sampling bag and one filter paper placed in plastic petri dish

### 1taef DedcriStion

Ambient Pressure	758	mmHg	Diameter	0.90	m	Hxygen	20.8	O
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	O
Type of Process	Process		Stack Temperature	34.2	°C	Gas Velocity	3.2	m/s
Type of Fuel	-		Moisture	1.12	%	Flow Rate (Actual H2)	6990	Nm3/hr

s nalAte	1amSleb kime	Unit	LOD	LOQ (LOT)	TedpIt	Rpibeline (Q)	Rpibeline (Q)	Method	kedting Location
Total Suspended Particulate	11:05 AM - 11:47 AM	mg/m3	-	0.5	0.6	40	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

**Rpibeline** : Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Tecnology and Environmetal (B.E.2544) : New Source

**1amSleb BA** : Apisit Singha

Remark :

- LHD : Limit of Detection
- "<" : Lower than LHQ (Limit of Quantitation) / LHR (Limit of Reporting)

Technical Management

*Saranya C.*

Saranya Chalerthamrong  
Scientist (4)

ทะเบียนเลขที่ 2-204-3-4717

SSroveb uA

*Kanokkorn Anek*

Kanokkorn Anek  
Senior Manager

ทะเบียนเลขที่ 2-204-3-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_NGL.rpt (12:42PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233727

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 2540555-2

Page 1 of 1

**Sample Number** 233727-1  
**Sampled Date** Jan 24, 2023  
**Sample Description** Emission from Stationary Source  
**Location** Oil Circulate 4 (3OC-2) : HT4  
**Date Analysis Commenced** Jan 27, 2023  
**Condition of Sample** Extracted into one 10-L air sampling bag and one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	758	mmHg	Diameter	0.90	m	Oxygen	20.8	%
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	34.2	°C	Gas Velocity	3.2	m/s
Type of Fuel	-		Moisture	1.12	%	Flow Rate (Actual O2)	6990	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
Total Hydrocarbon as Methane	11:00 AM - 11:10 AM	ppm	-	1.0	6.8	Total Hydrocarbon Analyzer, Based on US EPA Method 25A	Bangkok
Total VOCs as Propane	11:00 AM - 11:10 AM	ppm	-	1.0	3.1	United States Environmental Protection Agency, EPA Method 25A	Bangkok

**Sampled By** : Apisit Singha

Remark :

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

Approved by

*Saranya C.*

Saranya Chalerthamrong  
Scientist (4)

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_NGL.rpt (12:42PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234938

Date Received : Jan 26, 2023

Date Reported : Feb 06, 2023

Report Number: 2543320-1

Page 1 of 1

Sample Number 234938-1  
Sampled Date Jan 24, 2023  
Sample Description Emission from Stationary Source  
Location โรงงาน Bag House of Melting (4BH-1) : MCL4  
Date Analysis Commenced Jan 27, 2023  
Condition of Sample Extracted into one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	758	mmHg	Diameter	1.50	m	Oxygen	20.9	%
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	36.2	°C	Gas Velocity	5.6	m/s
Type of Fuel	-		Moisture	2.18	%	Flow Rate (Actual O2)	33450	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<strong>Air Testing</strong>									
Total Suspended Particulate	08:20 PM - 09:08 PM	mg/m3	-	0.5	<0.5	40	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

Guideline : Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Tecnology and Environmetal (B.E.2544) : New Source

Sampled By : Apisit Singha

Remark :

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

Technical Management

*Saranya C.*

Saranya Chalermtamrong  
Scientist (4)

ทะเบียนเลขที่ 2-204-3-4717

Approved by

*Kanokkorn Anek*

Kanokkorn Anek  
Senior Manager

ทะเบียนเลขที่ 2-204-ก-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\Air Stack\_2GL.rpt (11:54AM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234938

Date Received : Jan 26, 2023

Date Reported : Feb 06, 2023

Report Number: 2543320-2

Page 1 of 1

Sample Number 234938-1  
Sampled Date Jan 24, 2023  
Sample Description Emission from Stationary Source  
Location โรงงาน Bag House of Melting (4BH-1) : MCL4  
Date Analysis Commenced Feb 01, 2023  
Condition of Sample Extracted into one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	758	mmHg	Diameter	1.50	m	Oxygen	20.9	%
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	Process		Stack Temperature	36.2	°C	Gas Velocity	5.6	m/s
Type of Fuel	-		Moisture	2.18	%	Flow Rate (Actual O2)	33450	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
<strong>Metals Testing</strong>							
Chromium	08:20 PM - 09:08 PM	mg/m3	-	0.10	<0.10	United States Environmental Protection Agency, EPA Method 29	Bangkok

Sampled By : Apisit Singha

Remark :

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

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\Air Stack\_NGL.rpt ( 8:25PM)





## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235218

Date Received : Jan 26, 2023

Date Reported : Feb 01, 2023

Report Number: 2543884-1

Page 1 of 1

Sample Number 235218-1  
Sampled Date Jan 24, 2023  
Sample Description Emission from Stationary Source  
Location โรงงาน Bag House of Sand plant H1B7-2( : MCL4  
Date Analysis Commenced Jan 2), 2023  
Condition of Sample Extracted into one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	58	mmHg	Diameter	0.60	m	%Oxygen	20.0	9
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	9
Type of Process	Process		Stack Temperature	46.0	°C	Gas Velocity	0.4	m/s
Type of Fuel	-		Moisture	3.13	9	Flow Rate (Actual) (%)	6812	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<strong>Air Testing</strong>									
Total Suspended Particulate	10:00 AM - 10:54 AM	mg/m3	-	0.5	U0.5	40	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

Guideline H1 : Environmental Impact Assessment Report of Magotteaux Co., Ltd. H.B.E.2554( )  
Guideline H2 : Notification of the Ministry of Science, Technology and Environment H.B.E.2544( ) : New Source

Sampled By : "hanetson" hamphet

Remark :

- L( D ) : Limit of Detection
- R( K ) : Lower than L( < ) Limit of < quantitation( / L( R ) Limit of Reporting(

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist H( )  
ทะเบียนเลขที่ 2-204-2-4) 1)

Approved by

Anokkorn Anek

"anokkorn Anek  
Senior Manager  
ทะเบียนเลขที่ 2-204-2-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt (12:59PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235219

Date Received : Jan 26, 2023

Date Reported : Feb 01, 2023

Report Number: 2543886-1

Page 1 of 1

Sample Number 235217-1  
Sampled Date Jan 24, 2023  
Sample Description Emission from Stationary Source  
Location โรงงาน Bag House of Shake- ( ut ) H1B7-3° : MCL4  
Date Analysis Commenced Jan 29, 2023  
Condition of Sample Extracted into one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	958	mmHg	Diameter	1.38	m	( % ) Oxygen	20.8	O
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.1	O
Type of Process	Process		Stack Temperature	38.0	°C	Gas Velocity	9.5	m/s
Type of Fuel	-		Moisture	3.07	O	Flow Rate (Actual) (%)	39347	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<strong>Air Testing</strong>									
Total Suspended Particulate	11:20 AM - 12:08 PM	mg/m3	-	0.5	U0.5	40	120	United States Environmental Protection Agency, EPA Method 5	Bangkok

Guideline H1 : Environmental Impact Assessment Report of Magotteaux Co., Ltd. H.B.E.2554( )  
Guideline H2 : Notification of the Ministry of Science, Technology and Environment H.B.E.2544( ) : New Source

Sampled By : "hanetson" hamphet

Remark :

- L( D ) : Limit of Detection
- R( K ) : Lower than L( < ) Limit of < quantitation( / L( R ) Limit of Reporting(

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist H( )  
ทะเบียนเลขที่ 2-204-2-4919

Approved by

Anokkorn Anek

"anokkorn Anek  
Senior Manager  
ทะเบียนเลขที่ 2-204-2-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt (1:01PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235222

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 25438-3P1

Page 1 of 1

Sample Number	235222P1
Sampled Date	Jan 25, 2023
Sample Description	Emission from Stationary Source
Location	ปล่อง Heat Treatment Batch Furnace 1 (4HTP1) : MCL4
Date Analysis Commenced	Jan 2 <sup>o</sup> , 2023
Condition of Sample	Extracted into two 2L collection flasks and one 10L air sampling bag

### Stack Description

Ambient Pressure	58	mmHg	Diameter	0.45	m	%Oxygen	20.0	G
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.6	G
Type of Process	Combustion (Open System)		Stack Temperature	6.0	°C	Gas Velocity	2.6	m/s
Type of Fuel	LFO		Moisture	3.28	G	Flow Rate (Actual %)	1246	Nm <sup>3</sup> /hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Carbon Monoxide	12:40 F M P 12:50 F M	ppm	P	1.0	23.2	P	6-0 (3)	United States Environmental Protection Agency, EPA Method 10	Bangkok
%O <sub>2</sub> Nitrogen	12:30 F M P 12:40 F M	ppm	P	1.06	11.060	60	180	United States Environmental Protection Agency, EPA Method 10	Bangkok

**Guideline** : Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source  
Guideline (3) : Notification of the Ministry of Industry 2006 (B.E. 254-) published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 254-)

Sampled By : Anantson Anantphet

Remark :

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

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)  
ทะเบียนเลขที่ 2204P1P1°

Approved by

Anakorn Anek

Anakorn Anek  
Senior Manager  
ทะเบียนเลขที่ 2204P1P1°

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL\_rpt (12:50PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235224

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 25438-P1

Page 1 of 1

Sample Number	235224P1
Sampled Date	Jan 25, 2023
Sample Description	Emission from Stationary Source
Location	ปล่อง Heat Treatment Batch Furnace 3 (4HTP3) : MCL4
Date Analysis Commenced	Jan 2 <sup>o</sup> , 2023
Condition of Sample	Extracted into two 2L collection flasks and one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	58	mmHg	Diameter	0.45	m	%Oxygen	18.5	G
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	1.4	G
Type of Process	Combustion (Open System)		Stack Temperature	2.0	°C	Gas Velocity	4.4	m/s
Type of Fuel	LFO		Moisture	3.01	G	Flow Rate (Actual %)	1-55	Nm <sup>3</sup> /hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Carbon Monoxide	12:10 F M P 12:20 F M	ppm	P	1.0	8.6	P	6-0 (3)	United States Environmental Protection Agency, EPA Method 10	Bangkok
%O <sub>2</sub> Nitrogen	12:00 F M P 12:10 F M	ppm	P	1.06	6.31	60	180	United States Environmental Protection Agency, EPA Method 10	Bangkok

**Guideline** : Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source  
Guideline (3) : Notification of the Ministry of Industry 2006 (B.E. 254-) published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 254-)

Sampled By : Anantson Anantphet

Remark :

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

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)  
ทะเบียนเลขที่ 2204P1P1°

Approved by

Anakorn Anek

Anakorn Anek  
Senior Manager  
ทะเบียนเลขที่ 2204P1P1°

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL\_rpt (12:52PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235225

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 2543-00P1

Page 1 of 1

Sample Number	235225P1
Sampled Date	Jan 25, 2023
Sample Description	Emission from Stationary Source
Location	ปล่อง Heat Treatment Batch Furnace 4 (4HTP4) : MCL4
Date Analysis Commenced	Jan 2 <sup>o</sup> , 2023
Condition of Sample	Extracted into two 2RL collection flasks and one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	58	mmHg	Diameter	0.45	m	%Oxygen	1-1.0	G
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	1.0	G
Type of Process	Combustion (Open System)		Stack Temperature	105	°C	Gas Velocity	2.5	m/s
Type of Fuel	LFO		Moisture	3.66	G	Flow Rate (Actual %)	106°	Nm <sup>3</sup> /hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Carbon Monoxide	10:10 AM P10:20 AM	ppm	P	1.0	4.2	P	6-0 (3)	United States Environmental Protection Agency, EPA Method 10	Bangkok
%O <sub>2</sub> Nitrogen	10:00 AM P10:10 AM	ppm	P	1.06	11.06	60	180	United States Environmental Protection Agency, EPA Method 10	Bangkok

**Guideline :** Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source  
Guideline (3) : Notification of the Ministry of Industry 2006 (B.E. 254-) published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 254-)

Sampled By : Chanetson Champhet

Remark :

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

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

ทะเบียนเลขที่ 2204P11°

Approved by

Kanok Anek

anokkorn Anek  
Senior Manager

ทะเบียนเลขที่ 2204P111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL\_rpt (12:54PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235226

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 2543-03P1

Page 1 of 1

Sample Number	235226P1
Sampled Date	Jan 25, 2023
Sample Description	Emission from Stationary Source
Location	ปล่อง Heat Treatment Batch Furnace 5 (4HTP5) : MCL4
Date Analysis Commenced	Jan 2 <sup>o</sup> , 2023
Condition of Sample	Extracted into two 2RL collection flasks and one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	58	mmHg	Diameter	0.45	m	%Oxygen	20.0	G
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.6	G
Type of Process	Combustion (Open System)		Stack Temperature	100.0	°C	Gas Velocity	2.0	m/s
Type of Fuel	LFO		Moisture	3.04	G	Flow Rate (Actual %)	~ 6	Nm <sup>3</sup> /hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Carbon Monoxide	11:45 AM P11:55 AM	ppm	P	1.0	3.3	P	6-0 (3)	United States Environmental Protection Agency, EPA Method 10	Bangkok
%O <sub>2</sub> Nitrogen	11:35 AM P11:45 AM	ppm	P	1.06	11.06	60	180	United States Environmental Protection Agency, EPA Method 10	Bangkok

**Guideline :** Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source  
Guideline (3) : Notification of the Ministry of Industry 2006 (B.E. 254-) published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 254-)

Sampled By : Chanetson Champhet

Remark :

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

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

ทะเบียนเลขที่ 2204P11°

Approved by

Kanok Anek

anokkorn Anek  
Senior Manager

ทะเบียนเลขที่ 2204P111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL\_rpt (12:56PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235227

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 2543-05P1

Page 1 of 1

Sample Number	23522H1
Sampled Date	Jan 25, 2023
Sample Description	Emission from Stationary Source
Location	ปล่อง ( eat Treatment Batch Furnace 6 )4( TR5° : MCL4
Date Analysis Commenced	Jan 24, 2023
Condition of Sample	Extracted into two 2FL collection flasks and one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	H58	mm( g	Diameter	0.45	m	%Oxygen	1- .3	G
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	1.0	G
Type of Process	Combustion	%Open System°	Stack Temperature	101		Gas Velocity	3.0	m/s
Type of Fuel	LFO		Moisture	3.HI	G	Flow Rate (Actual %)	1313	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Carbon Monoxide	10:35 AM P10:45 AM	ppm	P	1.0	1.5	P	6- 0 )3°	United States Environmental Protection Agency, EPA Method 10	Bangkok
%Oxygen/Nitrogen	10:30 AM P10:40 AM	ppm	P	1.06	1.06	60	180	United States Environmental Protection Agency, EPA Method H	Bangkok

**Guideline :** Guideline )1° : Environmental Impact Assessment Report of Magotteaux Co., Ltd. )B.E.2554°  
Guideline )2° : Notification of the Ministry of Science, Technology and Environment )B.E.2544° : New Source  
Guideline )3° : Notification of the Ministry of Industry 2006 )B.E. 254- ° Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 )B.E. 254- °

Sampled By : Chanetson Champhet

Remark :

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

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist )4°  
ทะเบียนเลขที่ วร204ฟ6111

Approved by

Kanok Anek

kanokkorn Anek  
Senior Manager  
ทะเบียนเลขที่ วร204ฟ6111

The above results are valid only for the analysis/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.

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt ( 1:06PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235221

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 2543-0P1

Page 1 of 1

Sample Number	23522H1
Sampled Date	Jan 26, 2023
Sample Description	Emission from Stationary Source
Location	ปล่อง ( eat Treatment Batch Furnace 6 )4( TR5° : MCL4
Date Analysis Commenced	Jan 24, 2023
Condition of Sample	Extracted into two 2FL collection flasks and one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	P58	mm( g	Diameter	0.45	m	%Oxygen	20.3	G
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	0.0	G
Type of Process	Combustion	%Open System°	Stack Temperature	P5.0	°C	Gas Velocity	2.0	m/s
Type of Fuel	LFO		Moisture	3.18	G	Flow Rate (Actual %)	- 6-	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Carbon Monoxide	0- :40 AM P 0- :50 AM	ppm	f	1.0	1- .3	f	6- 0 )3°	United States Environmental Protection Agency, EPA Method 10	Bangkok
%Oxygen/Nitrogen	0- :30 AM P 0- :40 AM	ppm	f	1.06	1.06	60	180	United States Environmental Protection Agency, EPA Method P	Bangkok

**Guideline :** Guideline )1° : Environmental Impact Assessment Report of Magotteaux Co., Ltd. )B.E.2554°  
Guideline )2° : Notification of the Ministry of Science, Technology and Environment )B.E.2544° : New Source  
Guideline )3° : Notification of the Ministry of Industry 2006 )B.E. 254- ° Published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 )B.E. 254- °

Sampled By : Chanetson Champhet

Remark :

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

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist )4°  
ทะเบียนเลขที่ วร204ฟ6111

Approved by

Kanok Anek

kanokkorn Anek  
Senior Manager  
ทะเบียนเลขที่ วร204ฟ6111

The above results are valid only for the analysis/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.

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt ( 1:07PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

**Lot ID: 235221**

Date Received : Jan 26, 2023

Date Reported : Feb 02, 2023

Report Number: 2543-18P1

Page 1 of 1

<b>9amSle Npmuer</b>	23522- P1
<b>9amSle Date</b>	Jan 25, 2023
<b>9amSle DedcriStion</b>	Emission from Stationary Source
<b>Location</b>	ปล่อง Heat Treatment Batch Furnace 8 (4HTFB) : MCL4
<b>Date s naAdid Commenceb</b>	Jan 2 <sup>o</sup> , 2023
<b>Conbition oy9amSle</b>	Extracted into two 2RL collection flasks and one filter paper placed in plastic petri dish

### 9taef DedcriStion

Ambient Pressure	58	mmHg	Diameter	0.45	m	%Oxygen	18.8	G
Ambient Temperature	30.0	°C	Shape	Circle		Carbon Dioxide	1.2	G
Type of Process	Combustion (Open System)		Stack Temperature	80.0	°C	Gas Velocity	2.-	m/s
Type of Fuel	LFO		Moisture	3.51	G	Flow Rate (Actual %Q)	1353	Nm <sup>3</sup> /hr

s naAte	9amSle Date	Unit	LOD	LOQ (LOQ)	Test Date	Reference (Q)	Reference (Q)	Method	Testing Location
<b>Stacking</b>									
Carbon Monoxide	11:15 AM P11:25 AM	ppm	P	1.0	1.-	P	6-0 (3)	United States Environmental Protection Agency, EPA Method 10	Bangkok
%O <sub>2</sub> Nitrogen	11:05 AM P11:15 AM	ppm	P	1.06	2.52	60	180	United States Environmental Protection Agency, EPA Method 10	Bangkok

**Reference :** Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)  
Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source  
Guideline (3) : Notification of the Ministry of Industry 2006 (B.E. 254-) published in the Royal Government Gazette, Vol.123 Special Part 125 D, dated December 4, 2006 (B.E. 254-)

**9amSle BA :** "hanetson" hamphet

Remark :

- LOD : Limit of Detection
- L<sub>Q</sub> : Lower than L<sub>Q</sub> (Limit of Quantitation) / L<sub>Q</sub> (Limit of Reporting)

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

ทะเบียนเลขที่ 2204P111

Signature

*Kanokorn Anek*

Kanokorn Anek  
Senior Manager

ทะเบียนเลขที่ 2204P111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt ( 4:17PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

**Lot ID: 2339200**

Date Received : May 23, 2023

Date Reported : Jun 03, 2023

Report Number: 2313F25-1

Page 1 of 1

<b>Sample Number</b>	2335200-1
<b>Sampled Date</b>	May 23, 2023
<b>Sample Description</b>	Emission from Stationary Source
<b>Location</b>	91aa Bag filter of shotblasting 4BH-4( : MCL4
<b>Date Analysis Commenced</b>	May 23, 2023
<b>Condition of Sample</b>	Extracted into one filter paper placed in plastic petri dish

### Stack Description

Ambient Pressure	104	mmHg	Diameter	0.18	m	Oxygen	20.5	%
Ambient Temperature	33.0	°C	Shape	Circle		Carbon Dioxide	0.0	%
Type of Process	ProDess		Stack Temperature	42.0	°C	Gas Velocity	5.0	m/s
Type of Fuel	-		Moisture	1.FJ	%	Flow Rate Actual O <sub>2</sub>	143F3	Nm <sup>3</sup> /hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOQ)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Total Suspended Particulate	01:30 PM - 02:18 PM	mg/m <sup>3</sup>	-	0.F	<0.F	40	120	United States Environmental Protection Agency, EPA Method F	Bangkok

**Guideline :** Guideline 1( : Environmental Impact Assessment Report of Magotteaux Co., Ltd. B.E.2554)  
Guideline 2( : Notification of the Ministry of Science, Technology and Environment B.E.2544) : New Source

**Sampled By :** Ardit Srisen

Remark :

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

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist 4(

ทะเบียนเลขที่ 2-204-3-4) 1)

Approved by

*Kanokorn Anek*

Kanokorn Anek  
Senior Manager

ทะเบียนเลขที่ 2-204-3-1111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Stack\_2GL.rpt ( 3:22PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

**Lot ID: 2339203**

Date Received : Apr 07, 2023

Date Reported : Apr 18, 2023

Report Number: 2616557-1

Page 1 of 1

**Sample Number** 2339203-1  
**Sampled Date** Apr 07, 2023  
**Sample Description** Emission from Stationary Source  
**Location** ปล่องระบายไอจาก HT3 Stack 1 (3SN-1)  
**Date Analysis Commenced** Apr 10, 2023  
**Condition of Sample** Extracted into two 2-L collection flasks

### Stack Description

Ambient Pressure	758	mmHg	Diameter	0.70	m	Oxygen	11.2	%
Ambient Temperature	32.0	°C	Shape	Circle		Carbon Dioxide	5.5	%
Type of Process	Combustion (Open System)		Stack Temperature	310	°C	Gas Velocity	2.2	m/s
Type of Fuel	LPG		Moisture	13.45	%	Flow Rate (Actual O2)	1337	Nm3/hr

Analyte	Sampled Time	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
<b>Air Testing</b>									
Oxides of Nitrogen	09:30 AM - 09:40 AM	ppm	-	1.06	29.9	60	180	United States Environmental Protection Agency, EPA Method 7	Bangkok

**Guideline :** Guideline (1) : Environmental Impact Assessment Report of Magotteaux Co., Ltd. (B.E.2554)

Guideline (2) : Notification of the Ministry of Science, Technology and Environment (B.E.2544) : New Source

Guideline (3) : 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 :** AnechaTansamai

**Remark :**

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

**Technical Management**

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

ทะเบียนเลขที่ 2-204-2-4717

**Approved by**

*Kanok Korn Anek*

Kanok Korn Anek  
Senior Manager

ทะเบียนเลขที่ 2-204-2-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\Air Stack\_2GL.rpt ( 1:25PM)

# ภาคผนวก ค-3

---

คุณภาพน้ำ



## Analysis / Test Report

TESTING  
No.0009

**Client :** Magotteaux Co., Ltd.  
14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

**Lot ID: 2340317**

Date Received : Apr 20, 2023

Date Reported : Apr 27, 2023

Report Number : 2635029-1

Page 1 of 1

<b>Sample Number</b>	2340317-1
<b>Sampled Date</b>	Apr 20, 2023 11:00 AM
<b>Sample Description</b>	Wastewater
<b>Location</b>	คูน้ำรอบพื้นที่โครงการ (MCL1+2)
<b>Date Analysis Commenced</b>	Apr 21, 2023
<b>Condition of Sample</b>	Contained in three plastic bottles and one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
<b>Water Testing</b>						
BOD (5 days at 20 degree C)	mg/L	-	2.0	3.6	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O C	Bangkok
COD	mg/L	-	25	50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Bangkok
Oil & Grease *	mg/L	-	3	<3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Bangkok
pH at 25 degree C *		-	-	8.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok
Temperature *	Degree C	-	-	29.6	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Bangkok
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	7	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Bangkok

**Sampling By :** Teerawat Puangsuk ทะเบียนเลขที่ ว-204-จ-7107

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.

Technical Management

Siriluk P.

Siriluk Puengpang  
Supervisor

ทะเบียนเลขที่ ว-204-จ-4720

Approved by

Kanok Korn Anek

Kanok Korn Anek  
Senior Manager

ทะเบียนเลขที่ ว-204-ค-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER





## Analysis / Test Report

TESTING

No.0009

**Lot ID: 2340317**

Date Received : Apr 20, 2023

Date Reported : Apr 27, 2023

Report Number : 2635030-1

**Client** : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

**P/O** :

**Project Name** : Environmental Testing

**Project Location** :

Page 1 of 1

<b>Sample Number</b>	2340317-2						
<b>Sampled Date</b>	Apr 20, 2023 10:10 AM						
<b>Sample Description</b>	Wastewater						
<b>Location</b>	บ่อพักน้ำทิ้ง (MCL1+2)						
<b>Date Analysis Commenced</b>	Apr 21, 2023						
<b>Condition of Sample</b>	Contained in three plastic bottles and one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
BOD (5 days at 20 degree C)	mg/L	-	2.0	3.1	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O C	Bangkok
COD	mg/L	-	25	52	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Bangkok
Oil & Grease *	mg/L	-	3	<3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Bangkok
pH at 25 degree C *		-	-	8.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok
Temperature *	Degree C	-	-	29.8	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Bangkok
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Bangkok

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

**Sampling By** : Teerawat Puangsuk ทะเบียนเลขที่ ว-204-จ-7107

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.

**Technical Management**

*Siriluk P.*

Siriluk Puengpang

Supervisor

ทะเบียนเลขที่ ว-204-จ-4720

**Approved by**

*Kanokkorn Anek*

Kanokkorn Anek

Senior Manager

ทะเบียนเลขที่ ว-204-ค-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

TESTING  
No.0009

**Client :** Magotteaux Co., Ltd.  
14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

**Lot ID: 2340318**

Date Received : Apr 20, 2023

Date Reported : Apr 27, 2023

Report Number : 2635018-1

Page 1 of 1

<b>Sample Number</b>	2340318-1
<b>Sampled Date</b>	Apr 20, 2023 10:50 AM
<b>Sample Description</b>	Wastewater
<b>Location</b>	คูน้ำรอบพื้นที่โครงการ (MCL4)
<b>Date Analysis Commenced</b>	Apr 21, 2023
<b>Condition of Sample</b>	Contained in three plastic bottles and one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Method	Testing Location
<b>Water Testing</b>						
BOD (5 days at 20 degree C)	mg/L	-	2.0	4.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O C	Bangkok
COD	mg/L	-	25	45	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Bangkok
Oil & Grease *	mg/L	-	3	3	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Bangkok
pH at 25 degree C *		-	-	7.9	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok
Temperature *	Degree C	-	-	28.8	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Bangkok
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	74	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Bangkok

**Sampling By :** Teerawat Puangsuk ทะเบียนเลขที่ ว-204-จ-7107

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.

Technical Management

Siriluk P.

Siriluk Puengpang  
Supervisor

ทะเบียนเลขที่ ว-204-จ-4720

Approved by

Kanok Korn Anek

Kanok Korn Anek  
Senior Manager

ทะเบียนเลขที่ ว-204-ค-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

TESTING

No.0009

**Lot ID: 2340318**

Date Received : Apr 20, 2023

Date Reported : Apr 27, 2023

Report Number : 2635019-1

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

Page 1 of 1

<b>Sample Number</b>	2340318-2
<b>Sampled Date</b>	Apr 20, 2023 10:40 AM
<b>Sample Description</b>	Wastewater
<b>Location</b>	บ่อพักน้ำทิ้ง (MCL4)
<b>Date Analysis Commenced</b>	Apr 21, 2023
<b>Condition of Sample</b>	Contained in three plastic bottles and one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
BOD (5 days at 20 degree C)	mg/L	-	2.0	<2.0	≤20	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, part 4500 - O C	Bangkok
COD	mg/L	-	25	36	≤120	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Bangkok
Oil & Grease *	mg/L	-	3	4	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Bangkok
pH at 25 degree C *		-	-	8.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok
Temperature *	Degree C	-	-	29.9	≤40	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Bangkok
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	12	≤50	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Bangkok

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

**Sampling By :** Teerawat Puangsuk ทะเบียนเลขที่ ว-204-จ-7107

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.

**Technical Management**

Siriluk P.

Siriluk Puengpang

Supervisor

ทะเบียนเลขที่ ว-204-จ-4720

**Approved by**

Kanokkorn Anek

Senior Manager

ทะเบียนเลขที่ ว-204-ค-6111

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

# ภาคผนวก ค-4

---

ระดับเสียงโดยทั่วไป



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Teting

**Project Location :**

**Lot ID: 233734**

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562212-1

Page 1 of 1

**Sample Number** 233734-1  
**Parameter** Noise (Leq 24 hrs.)  
**Location** ริมรั้วด้านทิศตะวันตกโครงการ MCL1-2 : MCL1-2 (GPS 47P 0700052, 1593539)  
**Measurement Date** Jan 26 - Jan 27, 2023  
**Measurement by** Thananat Anake  
**Sound Level meter** Serial No. 658241

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	58.5	85.0	54.7
02:00 PM - 03:00 PM	58.2	76.4	54.6
03:00 PM - 04:00 PM	59.1	80.6	54.9
04:00 PM - 05:00 PM	58.9	80.0	54.9
05:00 PM - 06:00 PM	57.4	80.1	54.6
06:00 PM - 07:00 PM	60.3	76.9	56.0
07:00 PM - 08:00 PM	60.9	70.0	59.4
08:00 PM - 09:00 PM	61.6	73.5	59.4
09:00 PM - 10:00 PM	60.8	70.5	58.8
10:00 PM - 11:00 PM	61.7	74.5	59.7
11:00 PM - 12:00 AM	62.7	81.1	60.0
12:00 AM - 01:00 AM	63.2	78.6	60.7
01:00 AM - 02:00 AM	64.0	72.2	60.4
02:00 AM - 03:00 AM	64.3	76.6	61.8
03:00 AM - 04:00 AM	62.3	68.9	61.1
04:00 AM - 05:00 AM	62.5	81.0	60.8
05:00 AM - 06:00 AM	61.5	70.2	60.0
06:00 AM - 07:00 AM	61.0	71.7	58.7
07:00 AM - 08:00 AM	60.9	80.4	56.0
08:00 AM - 09:00 AM	63.9	80.3	56.4
09:00 AM - 10:00 AM	61.0	76.0	56.8
10:00 AM - 11:00 AM	60.8	75.3	57.4
11:00 AM - 12:00 PM	61.6	79.2	57.6
12:00 PM - 01:00 PM	61.8	80.0	56.7

Leq Average 24 hrs. (dB(A))

61.6

Lmax (dB(A))

85.0

L90 (dB(A))

57.6

Ldn (dB(A))

68.9

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป  
 2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

Approved by

*Supot S.*

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan Rd., Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
 ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 2:43PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Teting

**Project Location :**

**Lot ID: 233734**

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562213-1

Page 1 of 1

**Sample Number** 233734-2  
**Parameter** Noise (Leq 24 hrs.)  
**Location** ริมรั้วด้านทิศตะวันตกโครงการ MCL1-2 : MCL1-2 (GPS 47P 0700052, 1593539)  
**Measurement Date** Jan 27 - Jan 28, 2023  
**Measurement by** Thananat Anake  
**Sound Level meter** Serial No. 658241

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	59.8	78.6	54.1
02:00 PM - 03:00 PM	60.4	78.0	56.2
03:00 PM - 04:00 PM	62.0	82.0	57.0
04:00 PM - 05:00 PM	59.6	75.9	55.5
05:00 PM - 06:00 PM	59.8	75.7	56.6
06:00 PM - 07:00 PM	61.3	74.5	59.2
07:00 PM - 08:00 PM	62.0	80.0	60.1
08:00 PM - 09:00 PM	60.1	72.7	57.7
09:00 PM - 10:00 PM	58.9	74.6	57.2
10:00 PM - 11:00 PM	59.2	70.8	57.6
11:00 PM - 12:00 AM	60.6	82.5	58.1
12:00 AM - 01:00 AM	60.3	72.2	58.8
01:00 AM - 02:00 AM	60.6	71.3	58.9
02:00 AM - 03:00 AM	61.5	71.2	59.6
03:00 AM - 04:00 AM	61.1	72.5	59.1
04:00 AM - 05:00 AM	61.6	70.5	59.8
05:00 AM - 06:00 AM	61.8	72.9	59.9
06:00 AM - 07:00 AM	62.2	78.0	60.3
07:00 AM - 08:00 AM	63.5	80.8	60.6
08:00 AM - 09:00 AM	63.6	80.9	60.7
09:00 AM - 10:00 AM	65.3	87.6	61.0
10:00 AM - 11:00 AM	63.3	78.3	60.6
11:00 AM - 12:00 PM	62.6	81.0	60.0
12:00 PM - 01:00 PM	62.1	81.9	59.6

Leq Average 24 hrs. (dB(A))

61.7

Lmax (dB(A))

87.6

L90 (dB(A))

59.1

Ldn (dB(A))

67.6

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป  
 2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

Approved by

*Supot S.*

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan Rd., Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
 ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 2:43PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Teting

**Project Location :**

**Lot ID: 233734**

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562214-1

Page 1 of 1

**Sample Number** 233734-3  
**Parameter** Noise (Leq 24 hrs.)  
**Location** ริมรั้วด้านทิศตะวันตกโครงการ MCL1-2 : MCL1-2 (GPS 47P 0700052, 1593539)  
**Measurement Date** Jan 28 - Jan 29, 2023  
**Measurement by** Thananat Anake  
**Sound Level meter** Serial No. 658241

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	62.5	76.4	59.8
02:00 PM - 03:00 PM	63.0	74.7	60.1
03:00 PM - 04:00 PM	62.9	78.6	60.2
04:00 PM - 05:00 PM	62.2	76.0	60.1
05:00 PM - 06:00 PM	62.6	83.8	59.5
06:00 PM - 07:00 PM	62.3	72.2	59.4
07:00 PM - 08:00 PM	62.0	76.9	60.2
08:00 PM - 09:00 PM	61.9	72.6	60.0
09:00 PM - 10:00 PM	64.2	80.1	60.5
10:00 PM - 11:00 PM	62.0	75.8	60.1
11:00 PM - 12:00 AM	62.3	77.0	60.2
12:00 AM - 01:00 AM	61.9	74.2	60.1
01:00 AM - 02:00 AM	61.9	83.0	59.8
02:00 AM - 03:00 AM	62.8	76.0	60.0
03:00 AM - 04:00 AM	62.1	70.3	59.8
04:00 AM - 05:00 AM	62.4	77.1	59.6
05:00 AM - 06:00 AM	64.5	76.5	60.9
06:00 AM - 07:00 AM	63.0	73.9	60.5
07:00 AM - 08:00 AM	63.9	79.5	60.5
08:00 AM - 09:00 AM	64.9	83.2	61.8
09:00 AM - 10:00 AM	64.7	88.1	61.8
10:00 AM - 11:00 AM	63.4	78.9	61.3
11:00 AM - 12:00 PM	63.2	72.4	61.1
12:00 PM - 01:00 PM	62.0	80.1	60.1

Leq Average 24 hrs. (dB(A))

63.0

Lmax (dB(A))

88.1

L90 (dB(A))

60.1

Ldn (dB(A))

69.1

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป

2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

Approved by

*Supt S.*

Supot Salamteh  
Section Head

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

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

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

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 2:44PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Teting

**Project Location :**

**Lot ID: 233734**

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562215-1

Page 1 of 1

**Sample Number** 233734-4  
**Parameter** Noise (Leq 24 hrs.)  
**Location** ริมรั้วด้านทิศตะวันออกเชิงใต้โครงการ MCL1-2 : MCL1-2 (GPS 47P 0700382, 1593268)  
**Measurement Date** Jan 26 - Jan 27, 2023  
**Measurement by** Thananat Anake  
**Sound Level meter** Serial No. 658242

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	68.5	90.2	55.1
02:00 PM - 03:00 PM	56.1	76.5	48.7
03:00 PM - 04:00 PM	52.4	74.6	46.9
04:00 PM - 05:00 PM	53.2	72.1	47.1
05:00 PM - 06:00 PM	62.8	90.2	53.7
06:00 PM - 07:00 PM	53.3	74.5	50.4
07:00 PM - 08:00 PM	57.4	74.1	54.3
08:00 PM - 09:00 PM	58.3	70.8	57.1
09:00 PM - 10:00 PM	59.6	76.4	57.3
10:00 PM - 11:00 PM	60.5	73.5	59.1
11:00 PM - 12:00 AM	60.5	75.2	58.3
12:00 AM - 01:00 AM	60.6	92.6	58.1
01:00 AM - 02:00 AM	59.1	71.9	57.9
02:00 AM - 03:00 AM	56.9	76.1	54.3
03:00 AM - 04:00 AM	58.3	85.4	54.7
04:00 AM - 05:00 AM	58.0	72.8	56.9
05:00 AM - 06:00 AM	60.2	80.3	57.2
06:00 AM - 07:00 AM	58.7	79.2	53.9
07:00 AM - 08:00 AM	64.3	96.2	53.4
08:00 AM - 09:00 AM	63.7	87.0	58.1
09:00 AM - 10:00 AM	61.5	85.2	58.3
10:00 AM - 11:00 AM	62.4	81.5	59.8
11:00 AM - 12:00 PM	59.8	83.9	56.9
12:00 PM - 01:00 PM	62.0	91.5	58.3

Leq Average 24 hrs. (dB(A))

61.1

Lmax (dB(A))

96.2

L90 (dB(A))

56.9

Ldn (dB(A))

66.2

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป

2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการโรงงาน พ.ศ. 2548

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

Approved by

*Supt S.*

Supot Salamteh  
Section Head

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

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

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

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 2:44PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Teting

Project Location :

Lot ID: 233734

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562216-1

Page 1 of 1

Sample Number 233734-5  
Parameter Noise (Leq 24 hrs.)  
Location ริมรั้วด้านทิศตะวันออกเชิงใต้โครงการ MCL1-2 : MCL1-2 (GPS 47P 0700382, 1593268)  
Measurement Date Jan 27 - Jan 28, 2023  
Measurement by Thananat Anake  
Sound Level meter Serial No. 658242

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	63.4	90.7	57.7
02:00 PM - 03:00 PM	63.9	89.0	56.8
03:00 PM - 04:00 PM	59.3	78.8	53.8
04:00 PM - 05:00 PM	59.6	83.2	55.1
05:00 PM - 06:00 PM	57.7	73.8	52.7
06:00 PM - 07:00 PM	56.7	75.4	55.4
07:00 PM - 08:00 PM	59.4	76.1	57.2
08:00 PM - 09:00 PM	60.5	74.8	58.9
09:00 PM - 10:00 PM	59.9	75.6	58.1
10:00 PM - 11:00 PM	60.0	75.0	58.8
11:00 PM - 12:00 AM	59.7	76.5	57.4
12:00 AM - 01:00 AM	60.7	76.8	59.0
01:00 AM - 02:00 AM	60.2	71.9	58.5
02:00 AM - 03:00 AM	60.1	77.6	58.8
03:00 AM - 04:00 AM	60.4	76.2	58.7
04:00 AM - 05:00 AM	60.8	75.7	59.6
05:00 AM - 06:00 AM	60.8	81.3	58.3
06:00 AM - 07:00 AM	61.0	76.1	58.8
07:00 AM - 08:00 AM	61.4	77.8	59.0
08:00 AM - 09:00 AM	61.8	82.0	59.5
09:00 AM - 10:00 AM	62.5	80.8	59.2
10:00 AM - 11:00 AM	63.0	84.0	58.5
11:00 AM - 12:00 PM	57.9	75.7	55.9
12:00 PM - 01:00 PM	60.4	73.0	58.4

Leq Average 24 hrs. (dB(A)) 60.8

Lmax (dB(A)) 90.7

L90 (dB(A)) 58.4

Ldn (dB(A)) 66.9

Standard (dB(A)) 70

115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป  
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการ  
โรงงาน พ.ศ. 2548

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

Approved by

Supt S.

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 2:44PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Teting

Project Location :

Lot ID: 233734

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562217-1

Page 1 of 1

Sample Number 233734-6  
Parameter Noise (Leq 24 hrs.)  
Location ริมรั้วด้านทิศตะวันออกเชิงใต้โครงการ MCL1-2 : MCL1-2 (GPS 47P 0700382, 1593268)  
Measurement Date Jan 28 - Jan 29, 2023  
Measurement by Thananat Anake  
Sound Level meter Serial No. 658242

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	63.5	80.4	57.4
02:00 PM - 03:00 PM	60.2	88.0	56.4
03:00 PM - 04:00 PM	58.2	75.2	56.1
04:00 PM - 05:00 PM	57.9	75.6	53.8
05:00 PM - 06:00 PM	58.6	81.5	54.3
06:00 PM - 07:00 PM	57.0	68.6	54.9
07:00 PM - 08:00 PM	58.7	76.3	55.5
08:00 PM - 09:00 PM	59.6	75.1	57.7
09:00 PM - 10:00 PM	59.6	74.4	57.3
10:00 PM - 11:00 PM	59.8	78.8	57.1
11:00 PM - 12:00 AM	59.7	73.8	57.6
12:00 AM - 01:00 AM	60.2	75.8	57.5
01:00 AM - 02:00 AM	59.8	76.4	57.5
02:00 AM - 03:00 AM	58.6	79.4	57.2
03:00 AM - 04:00 AM	59.5	70.6	58.0
04:00 AM - 05:00 AM	60.5	73.0	59.3
05:00 AM - 06:00 AM	58.7	89.6	55.2
06:00 AM - 07:00 AM	59.4	75.8	55.9
07:00 AM - 08:00 AM	57.6	77.3	54.0
08:00 AM - 09:00 AM	58.5	76.1	55.4
09:00 AM - 10:00 AM	58.2	74.8	55.1
10:00 AM - 11:00 AM	58.1	75.5	54.0
11:00 AM - 12:00 PM	58.1	82.6	55.1
12:00 PM - 01:00 PM	59.4	76.1	57.2

Leq Average 24 hrs. (dB(A)) 59.4

Lmax (dB(A)) 89.6

L90 (dB(A)) 56.1

Ldn (dB(A)) 66.0

Standard (dB(A)) 70

115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป  
2. ประกาศกระทรวงอุตสาหกรรม เรื่องกำหนดค่าระดับเสียงการรบกวน และระดับเสียงที่เกิดจากการประกอบกิจการ  
โรงงาน พ.ศ. 2548

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

Approved by

Supt S.

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 2:44PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Teting

Project Location :

Lot ID: 235234

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562225-1

Page 1 of 1

Sample Number 235234-1  
Parameter Noise (Leq 24 hrs.)  
Location ริมรั้วด้านทิศเหนือโครงการ VRM : MCL4 (GPS 47P 0699917, 1593242)  
Measurement Date Jan 26 - Jan 27, 2023  
Measurement by Thananat Anake  
Sound Level meter Serial No. 658243

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	56.6	64.9	54.2
02:00 PM - 03:00 PM	55.9	73.8	52.3
03:00 PM - 04:00 PM	58.6	82.1	50.6
04:00 PM - 05:00 PM	57.7	92.8	50.7
05:00 PM - 06:00 PM	57.3	69.6	52.3
06:00 PM - 07:00 PM	55.7	70.5	53.6
07:00 PM - 08:00 PM	55.5	63.5	54.2
08:00 PM - 09:00 PM	56.3	70.4	54.2
09:00 PM - 10:00 PM	56.9	65.3	54.8
10:00 PM - 11:00 PM	59.1	66.3	57.3
11:00 PM - 12:00 AM	59.2	66.1	57.2
12:00 AM - 01:00 AM	59.9	69.9	57.7
01:00 AM - 02:00 AM	60.0	72.3	57.2
02:00 AM - 03:00 AM	61.0	70.0	58.2
03:00 AM - 04:00 AM	59.1	66.9	56.2
04:00 AM - 05:00 AM	58.2	67.3	55.6
05:00 AM - 06:00 AM	60.1	67.0	58.0
06:00 AM - 07:00 AM	58.7	78.9	56.2
07:00 AM - 08:00 AM	57.0	74.3	53.7
08:00 AM - 09:00 AM	56.6	66.8	54.2
09:00 AM - 10:00 AM	64.2	72.1	54.8
10:00 AM - 11:00 AM	59.7	85.4	54.2
11:00 AM - 12:00 PM	59.1	69.4	54.7
12:00 PM - 01:00 PM	56.4	71.9	53.7

Leq Average 24 hrs. (dB(A)) 58.8

Lmax (dB(A)) 92.8

L90 (dB(A)) 54.2

Ldn (dB(A)) 65.8

Standard (dB(A)) 70

115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ผลการทดสอบ ผลรวมการสังเกตทั้งหมดของค่าเฉลี่ย 5 นาที (พ.ศ. 2540) เครื่องวัดตามมาตรฐานวิธี เล่มโดยทั่วไป  
2. ผลการทดสอบการสังเกตการณ์รวม เครื่องวัดตามวิธี เล่มโดยทั่วไป ปั่น ออสมติ เล่มของเทคนิคการปฏิบัติ การปฏิบัติ  
โรงงาน พ.ศ. 2548

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

Approved by

Supt S

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 2:50PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Teting

Project Location :

Lot ID: 235234

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562226-1

Page 1 of 1

Sample Number 235234-2  
Parameter Noise (Leq 24 hrs.)  
Location ริมรั้วด้านทิศเหนือโครงการ VRM : MCL4 (GPS 47P 0699917, 1593242)  
Measurement Date Jan 27 - Jan 28, 2023  
Measurement by Thananat Anake  
Sound Level meter Serial No. 658243

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	57.5	82.2	53.9
02:00 PM - 03:00 PM	55.9	68.3	52.6
03:00 PM - 04:00 PM	54.0	65.9	51.6
04:00 PM - 05:00 PM	58.1	67.6	54.7
05:00 PM - 06:00 PM	59.2	68.7	56.3
06:00 PM - 07:00 PM	57.9	71.0	54.2
07:00 PM - 08:00 PM	59.2	71.6	57.0
08:00 PM - 09:00 PM	59.4	74.5	56.6
09:00 PM - 10:00 PM	59.9	69.9	57.6
10:00 PM - 11:00 PM	59.7	66.5	57.4
11:00 PM - 12:00 AM	61.6	70.7	59.8
12:00 AM - 01:00 AM	61.7	69.9	59.8
01:00 AM - 02:00 AM	62.8	70.7	61.4
02:00 AM - 03:00 AM	61.1	69.6	57.8
03:00 AM - 04:00 AM	59.0	77.0	56.8
04:00 AM - 05:00 AM	60.7	67.6	57.7
05:00 AM - 06:00 AM	60.0	68.2	58.1
06:00 AM - 07:00 AM	59.1	71.0	57.4
07:00 AM - 08:00 AM	60.7	68.9	57.0
08:00 AM - 09:00 AM	62.3	72.6	61.4
09:00 AM - 10:00 AM	62.6	69.5	61.4
10:00 AM - 11:00 AM	62.4	69.6	61.0
11:00 AM - 12:00 PM	61.2	64.7	60.4
12:00 PM - 01:00 PM	61.0	85.9	60.2

Leq Average 24 hrs. (dB(A)) 60.3

Lmax (dB(A)) 85.9

L90 (dB(A)) 57.4

Ldn (dB(A)) 67.1

Standard (dB(A)) 70

115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ผลการทดสอบ ผลรวมการสังเกตทั้งหมดของค่าเฉลี่ย 5 นาที (พ.ศ. 2540) เครื่องวัดตามมาตรฐานวิธี เล่มโดยทั่วไป  
2. ผลการทดสอบการสังเกตการณ์รวม เครื่องวัดตามวิธี เล่มโดยทั่วไป ปั่น ออสมติ เล่มของเทคนิคการปฏิบัติ การปฏิบัติ  
โรงงาน พ.ศ. 2548

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

Approved by

Supt S

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 2:50PM)





## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Teting

Project Location :

Lot ID: 235234

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562227-1

Page 1 of 1

Sample Number 235234-3  
Parameter Noise (Leq 24 hrs.)  
Location ริมรั้วด้านทิศเหนือโครงการ VRM : MCL4 (GPS 47P 0699917, 1593242)  
Measurement Date Jan 28 - Jan 29, 2023  
Measurement by Thananat Anake  
Sound Level meter Serial No. 658243

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	61.3	65.9	60.5
02:00 PM - 03:00 PM	59.9	68.6	55.4
03:00 PM - 04:00 PM	56.5	64.9	54.1
04:00 PM - 05:00 PM	60.5	77.9	57.5
05:00 PM - 06:00 PM	58.6	85.6	55.3
06:00 PM - 07:00 PM	61.3	82.1	56.2
07:00 PM - 08:00 PM	60.1	72.1	56.6
08:00 PM - 09:00 PM	60.5	68.2	56.6
09:00 PM - 10:00 PM	58.4	68.8	56.5
10:00 PM - 11:00 PM	58.1	67.3	54.3
11:00 PM - 12:00 AM	59.0	69.4	53.6
12:00 AM - 01:00 AM	65.8	70.3	64.3
01:00 AM - 02:00 AM	65.4	70.0	63.7
02:00 AM - 03:00 AM	65.3	69.7	63.7
03:00 AM - 04:00 AM	65.2	70.1	63.5
04:00 AM - 05:00 AM	65.4	70.2	63.6
05:00 AM - 06:00 AM	65.6	80.9	63.8
06:00 AM - 07:00 AM	66.0	81.4	63.6
07:00 AM - 08:00 AM	64.4	70.3	57.9
08:00 AM - 09:00 AM	57.2	68.4	54.8
09:00 AM - 10:00 AM	56.9	69.1	54.5
10:00 AM - 11:00 AM	59.9	87.0	54.2
11:00 AM - 12:00 PM	59.5	85.3	55.2
12:00 PM - 01:00 PM	58.6	72.2	55.7

Leq Average 24 hrs. (dB(A)) 62.4

Lmax (dB(A)) 87.0

L90 (dB(A)) 56.5

Ldn (dB(A)) 70.7

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ผลการทดสอบการปล่อยเสียงจากเครื่องจักรกลที่มีกำลัง 5 (ก. 2540) เครื่องปรับอากาศมาตรฐานเสียงโดยทั่วไป  
2. ผลการทดสอบการปล่อยเสียงจากเครื่องจักรกลที่มีกำลัง 5 (ก. 2540) เครื่องปรับอากาศมาตรฐานเสียงโดยทั่วไป  
โรงงาน ก. 2548

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

Approved by

Supt S

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 2:50PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Teting

Project Location :

Lot ID: 235234

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562228-1

Page 1 of 1

Sample Number 235234-4  
Parameter Noise (Leq 24 hrs.)  
Location ริมรั้วด้านทิศตะวันออกโครงการ VRM : MCL4 (GPS 47P 0699843, 1593041)  
Measurement Date Jan 26 - Jan 27, 2023  
Measurement by Thananat Anake  
Sound Level meter Serial No. 858516

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	62.2	73.3	61.1
02:00 PM - 03:00 PM	62.7	75.0	61.4
03:00 PM - 04:00 PM	62.2	70.4	61.4
04:00 PM - 05:00 PM	61.2	70.6	60.4
05:00 PM - 06:00 PM	62.5	79.4	60.8
06:00 PM - 07:00 PM	63.2	79.3	61.4
07:00 PM - 08:00 PM	62.8	76.3	61.9
08:00 PM - 09:00 PM	62.3	71.0	61.5
09:00 PM - 10:00 PM	63.1	77.2	62.0
10:00 PM - 11:00 PM	63.2	83.4	62.2
11:00 PM - 12:00 AM	62.7	70.9	62.1
12:00 AM - 01:00 AM	63.5	75.2	62.3
01:00 AM - 02:00 AM	63.4	74.7	62.2
02:00 AM - 03:00 AM	63.3	77.7	62.1
03:00 AM - 04:00 AM	62.2	70.2	61.4
04:00 AM - 05:00 AM	61.5	70.1	60.8
05:00 AM - 06:00 AM	62.4	65.2	61.6
06:00 AM - 07:00 AM	61.6	69.2	60.8
07:00 AM - 08:00 AM	62.6	74.6	61.7
08:00 AM - 09:00 AM	61.9	79.4	59.9
09:00 AM - 10:00 AM	62.5	80.1	59.4
10:00 AM - 11:00 AM	60.2	81.3	57.9
11:00 AM - 12:00 PM	60.9	81.3	57.6
12:00 PM - 01:00 PM	59.5	80.6	56.8

Leq Average 24 hrs. (dB(A)) 62.3

Lmax (dB(A)) 83.4

L90 (dB(A)) 61.4

Ldn (dB(A)) 69.0

Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ผลการทดสอบการปล่อยเสียงจากเครื่องจักรกลที่มีกำลัง 5 (ก. 2540) เครื่องปรับอากาศมาตรฐานเสียงโดยทั่วไป  
2. ผลการทดสอบการปล่อยเสียงจากเครื่องจักรกลที่มีกำลัง 5 (ก. 2540) เครื่องปรับอากาศมาตรฐานเสียงโดยทั่วไป  
โรงงาน บ. 2548

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

Approved by

Supt S

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 2:50PM)



14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**Project Name** : Environmental Testing

**Project Location :**

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 256222- P1

page 1 of 1

Reference Method : ISO1- - 6P1 and 1- - 6P2

[illegible]

### Technical Management

Saranya Chalermthamrong  
Scientist 4V

**Approved by**

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

**www.alsglobal.com**

**RIGHT SOLUTIONS RIGHT PARTNER**

35-5P31/ EMAIL

S:\Reports\\_Air Noise.rpt ( 2:51PM)



14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

**Project Name** : Environmental Testing

**Project Location :**

Date Received : Jan 31, 2023

Date Reported : Feb 07, 2023

Report Number: 2562230-1

Page 1 of 1

Reference Method : ISO1996-1 and 1996-2[illegible]

## Technical Management

Saranya Chalermthamrong  
Scientist (4)

Approved by

Supot Salamter  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

**www.alsglobal.com**

**RIGHT SOLUTIONS RIGHT PARTNER**

3595-31/ EMAIL

S:\Reports\\_Air Noise.rpt ( 2:51PM)

# ภาคผนวก ค-5

---

ระดับเสียงในบริเวณการทำงาน



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233742

Date Received : Jan 27, 2023

Date Reported : Jan 31, 2023

Report Number: 2556522-1

Page 1 of 1

Sample Number 233742-1  
Parameter Noise (Leq 8 hrs.)  
Location เด้าหลอม : MCL1  
Measurement Date Jan 25, 2023  
Measurement by Phitsanupong Chaiya

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:01 AM - 12:01 PM	84.2	107.2	77.4
12:01 PM - 01:01 PM	83.9	104.0	78.7
01:01 PM - 02:01 PM	83.9	103.7	78.1
02:01 PM - 03:01 PM	86.0	111.4	77.6
03:01 PM - 04:01 PM	83.5	100.0	79.2
04:01 PM - 05:01 PM	84.1	109.7	78.8
05:01 PM - 06:01 PM	85.9	108.7	77.8
06:01 PM - 07:01 PM	83.7	102.0	80.3

Leq Average 8 hrs. (dB(A))

84.5

Lmax (dB(A))

111.4

Standard (dB(A))

90

140

Reference Method : Based on ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

Approved by

Supot S.

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 3:56PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233742

Date Received : Jan 27, 2023

Date Reported : Jan 31, 2023

Report Number: 2556523-1

Page 1 of 1

Sample Number 233742-2  
Parameter Noise (Leq 8 hrs.)  
Location เด้าหลอม : MCL2  
Measurement Date Jan 26, 2023  
Measurement by Phitsanupong Chaiya

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:58 PM - 10:58 PM	82.2	99.9	76.7
10:58 PM - 11:58 PM	81.2	101.6	76.2
11:58 PM - 12:58 AM	84.2	97.0	78.7
12:58 AM - 01:58 AM	84.0	103.4	79.1
01:58 AM - 02:58 AM	84.2	100.7	79.2
02:58 AM - 03:58 AM	84.2	97.4	78.7
03:58 AM - 04:58 AM	83.1	98.3	79.6
04:58 AM - 05:58 AM	81.0	90.1	78.1

Leq Average 8 hrs. (dB(A))

83.2

Lmax (dB(A))

103.4

Standard (dB(A))

90

140

Reference Method : Based on ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

Approved by

Supot S.

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 3:56PM)



14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

**Project Name** : Environmental Testing

**Project Location :**

Date Received : Jan 27, 2023

Date Reported : Jan 31, 2023

Report Number: 2556524-1

Page 1 of 1

Sample Number	233742-3
Parameter	Noise (Leq 8 hrs.)
Location	ตามจุดประกาศ : MCL1
Measurement Date	Jan 25, 2023
Measurement by	Phitsanupong Chaiya

Leq Average 8 hrs. (dB(A))	71.4	
Lmax (dB(A))		102.2
Standard (dB(A))	70	140

Reference Method : Based on 1Sj 1m6-1 and 1m6-2

Standard : 9๑ สก๊ี่ สะว่า มอ้คดภส่าวัก ำม ัก สกฏัดดามด ัก 9โอนบัส

\* อสภ 91 สอธ สจ สกั นมก 0 สส สร ดบ ก. ป น ใ น ใ ส ใ อสภ ก นมก 0 พ. . ๒๕๔๖

### Technical Management

Saranya Chalermthamrong  
Scientist (4)

**Approved by**

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

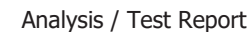
Life Sciences

**www.alsglobal.com**

**RIGHT SOLUTIONS RIGHT PARTNER**

35v6-31/ EMA-L

S:\Reports\\_Air Noise.rpt ( 3:56PM)



14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**Project Name** : Environmental Testing

**Project Location :**

Date Received : Jan 27, 2023

Date Reported : Jan 31, 2023

Report Number: 2556525-1

Page 1 of 1

Sample Number	233742-4
Parameter	Noise (Leq 8 hrs.)
Location	ตามจุดประกาศ : MCL2
Measurement Date	Jan 26, 2023
Measurement by	Phitsanupong Chaiya

Leq Average 8 hrs. (dB(A))	75.3	
Lmax (dB(A))		111.0
Standard (dB(A))	10	140

Reference Method : Based on 251m6-1 and 1m6-2

Standard : 9๑ สก๊ี่ สะระว่า ม็อคคอกสาวิ้ ำงม๊ กั าสกัตต์ดามม๊ กั 9โอนบข

<sup>a</sup> Osgood91 สอรรถสิทธิ์ นามกอสต์ สรียดบัก ป๋น นั้ไ้ Osgood91 นามกอสต์ . ๒๕๔๘

## Technical Management

Saranya Chalermthamrong  
Scientist (4)

**Approved by**

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

**www.alsglobal.com**

**RIGHT SOLUTIONS RIGHT PARTNER**

35v6-31/ EMA-L

S:\Reports\\_Air Noise.rpt ( 3:56PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233742

Date Received : Jan 27, 2023

Date Reported : Jan 31, 2023

Report Number: 2556526-1

Page 1 of 1

Sample Number 233742-5  
Parameter Noise (Leq 8 hrs.)  
Location เครื่องตัดแยกขนาดชิ้นงาน : MCL1  
Measurement Date Jan 25, 2023  
Measurement by Phitsanupong Chaiya

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:42 AM - 11:42 AM	90.4	104.3	89.2
11:42 AM - 12:42 PM	90.5	102.7	88.3
12:42 PM - 01:42 PM	90.5	103.8	88.7
01:42 PM - 02:42 PM	90.1	104.3	87.8
02:42 PM - 03:42 PM	89.4	103.9	87.6
03:42 PM - 04:42 PM	90.6	104.6	89.3
04:42 PM - 05:42 PM	90.4	104.4	89.3
05:42 PM - 06:42 PM	90.1	104.8	88.8

Leq Average 8 hrs. (dB(A)) 90.3

Lmax (dB(A)) 104.8

Standard (dB(A)) 90 140

Reference Method : Based on ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

Approved by

Supot S.

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 3:57PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 233742

Date Received : Jan 27, 2023

Date Reported : Jan 31, 2023

Report Number: 2556527-1

Page 1 of 1

Sample Number 233742-6  
Parameter Noise (Leq 8 hrs.)  
Location เครื่องตัดแยกขนาดชิ้นงาน : MCL2  
Measurement Date Jan 26, 2023  
Measurement by Phitsanupong Chaiya

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:24 AM - 10:24 AM	90.3	111.8	85.1
10:24 AM - 11:24 AM	88.9	99.9	85.2
11:24 AM - 12:24 PM	88.7	98.8	85.0
12:24 PM - 01:24 PM	88.8	99.5	85.1
01:24 PM - 02:24 PM	88.7	99.4	85.3
02:24 PM - 03:24 PM	89.1	99.3	85.3
03:24 PM - 04:24 PM	89.2	100.0	85.3
04:24 PM - 05:24 PM	89.5	100.0	86.5

Leq Average 8 hrs. (dB(A)) 89.2

Lmax (dB(A)) 111.8

Standard (dB(A)) 90 140

Reference Method : Based on ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

Saranya C.

Saranya Chalermthamrong  
Scientist (4)

Approved by

Supot S.

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 3:57PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Teting

**Project Location :**

**Lot ID: 233742**

Date Received : Jan 27, 2023

Date Reported : Jan 31, 2023

Report Number: 2556529-1

Page 1 of 1

**Sample Number** 233742-8  
**Parameter** Noise (Leq 8 hrs.)  
**Location** เคาอมชุมชนงาน : HT2  
**Measurement Date** Jan 25, 2023  
**Measurement by** Phitsanupong Chaiya

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:11 AM - 11:11 AM	82.0	90.4	76.9
11:11 AM - 12:11 PM	82.1	95.1	76.6
12:11 PM - 01:11 PM	82.3	100.6	76.7
01:11 PM - 02:11 PM	82.2	91.0	76.6
02:11 PM - 03:11 PM	81.9	90.5	76.3
03:11 PM - 04:11 PM	81.9	90.9	76.2
04:11 PM - 05:11 PM	81.8	90.6	76.1
05:11 PM - 06:11 PM	81.8	91.0	76.2

Leq Average 8 hrs. (dB(A)) 82.0

Lmax (dB(A)) 100.6

Standard (dB(A)) 90 140

Reference Method : Based on ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

Approved by

*Supot S.*

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
 ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 3:57PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Teting

**Project Location :**

**Lot ID: 233742**

Date Received : Jan 27, 2023

Date Reported : Jan 31, 2023

Report Number: 25565309L

- age 1 of 1

**Sample Number** 233742-9  
**Parameter** Noise (Leq 8 hrs.)  
**Location** เคาอมชุมชนงาน : HT3  
**Measurement Date** Jan 25, 2023  
**Measurement by** - hitsanupong Chaiya

Time	Leq (dB(A))	Lmax (dB(A))	Lf 0 (dB(A))
12:23 - M 901:23 - M	f 1.1	105.6	80.f
01:23 - M 902:23 - M	8f .0	f 7.1	83.1
02:23 - M 903:23 - M	8f .6	101.3	82.8
03:23 - M 904:23 - M	f 0.7	105.2	83.6
04:23 - M 905:23 - M	f 0.7	106.3	83.6
05:23 - M 906:23 - M	f 0.5	106.1	83.7
06:23 - M 907:23 - M	f 0.5	105.7	83.4
07:23 - M 908:23 - M	f 0.5	106.8	83.4

Leq Average 8 hrs. (dB(A)) f 0.4

Lmax (dB(A)) 106.8

Standard (dB(A)) f 0 140

Reference Method : Based on ISO1f f 69L and 1f f 69L

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

Approved by

*Supot S.*

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
 ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

35F 5B1/ EMAIL

S:\Reports\_Air Noise.rpt ( 3:57PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

**Lot ID: 233742**

Date Received : Jan 27, 2023

Date Reported : Jan 31, 2023

Report Number: 255653191

- age 1 of 1

**Sample Number** 233742910  
**Parameter** Noise fLe( 8 hrs.q  
**Location** 1) ตำบลสนธิ์ วัด : ง T4  
**Measurement Date** Jan 25, 2023  
**Measurement by** - hitsanupong Chaiya

Time	Le( fdB(Aq)	Lmax fdB(Aq)	LH0 fdB(Aq)
11:18 AM 9:12:18 - M	87.3	100.1	7H.1
12:18 - M 9:01:18 - M	86.0	H8.4	7H.0
01:18 - M 9:02:18 - M	85.H	H15	7H.7
02:18 - M 9:03:18 - M	87.4	H18	7H.4
03:18 - M 9:04:18 - M	86.6	H10	80.0
04:18 - M 9:05:18 - M	87.1	100.5	80.3
05:18 - M 9:06:18 - M	88.0	H16	80.4
06:18 - M 9:07:18 - M	88.1	101.0	80.4

Le( Average 8 hrs. fdB(Aq) 87.1

Lmax fdB(Aq) 101.0

Standard fdB(Aq) H0 140

Reference Method : Based on ISO1H691 and 1H692

Standard : ประกาศกระทรวงสาธารณสุข (ฐาน มอ) ภาศศกษณควมพลอดภัย

1 กศประกาศกศศโรนคค เกยวทศกศควมพลอดภัยใน กศศคคคค พ.ศ.๒๕๕๖

**Technical Management**

*Saranya C.*

Saranya Chalermtamrong  
Scientist f4q

**Approved by**

*Supot S.*

Supot Salamteh  
Section ead

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
 ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

35H6B1/ EMAIL

S:\Reports\_Air Noise.rpt ( 3:57PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

**Lot ID: 235236**

Date Received : Jan 27, 2023

Date Reported : Jan 31, 2023

Report Number: 2556565-1

Page 1 of 1

**Sample Number** 235236-1  
**Parameter** Noise (Leq 8 hrs.)  
**Location** เคาหลอม MCL4  
**Measurement Date** Jan 24, 2023  
**Measurement by** Phitsanupong Chaiya

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
10:04 PM - 11:04 PM	81.2	90.6	72.8
11:04 PM - 12:04 AM	86.2	94.6	82.3
12:04 AM - 01:04 AM	83.4	93.9	81.2
01:04 AM - 02:04 AM	85.4	94.4	82.4
02:04 AM - 03:04 AM	81.7	90.1	74.9
03:04 AM - 04:04 AM	80.4	94.6	72.3
04:04 AM - 05:04 AM	83.3	95.2	79.2
05:04 AM - 06:04 AM	83.1	95.0	81.2

Leq Average 8 hrs. (dB(A)) 83.5

Lmax (dB(A)) 95.2

Standard (dB(A)) 90 140

Reference Method : Based on ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคณคองควมพลอดภัย

ในการประกอบการจรงงานเกยวทศกศควมพลอดภัยใน การท่งงาน พ.ศ.๒๕๕๖

**Technical Management**

*Saranya C.*

Saranya Chalermtamrong  
Scientist (4)

**Approved by**

*Supot S.*

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
 ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 4:12PM)







## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Teting

**Project Location :**

**Lot ID: 2330601**

Date Received : Mar 25, 2023

Date Reported : Mar 28, 2023

Report Number: 2607551-1

Page 1 of 1

**Sample Number** 2330601-1  
**Parameter** Noise (Leq 8 hrs.)  
**Location** เคาอมขุมชันงาน : HT3  
**Measurement Date** Mar 24, 2023  
**Measurement by** Jiramet Prasertsiripong

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
09:11 PM - 10:11 PM	84.0	98.5	80.1
10:11 PM - 11:11 PM	83.8	96.7	80.2
11:11 PM - 12:11 AM	83.6	95.5	79.4
12:11 AM - 01:11 AM	83.6	94.1	80.3
01:11 AM - 02:11 AM	84.7	94.7	81.5
02:11 AM - 03:11 AM	83.8	93.6	80.3
03:11 AM - 04:11 AM	83.9	94.1	80.4
04:11 AM - 05:11 AM	83.1	94.7	80.3

Leq Average 8 hrs. (dB(A)) 83.8

Lmax (dB(A)) 98.5

Standard (dB(A)) 90 140

Reference Method : Based on ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

*Orawan R.*

Orawan Rakyong  
Scientist (3)

Approved by

*Supot S.*

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan Rd., Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
 ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 7:35PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Teting

**Project Location :**

**Lot ID: 2344311**

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2638730-1

Page 1 of 1

**Sample Number** 2344311-1  
**Parameter** Noise (Leq 8 hrs.)  
**Location** เคาหลอม : MCL1  
**Measurement Date** Apr 25, 2023  
**Measurement by** Phitsanupong Chaiya

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:43 AM - 09:43 AM	83.7	97.1	79.3
09:43 AM - 10:43 AM	84.4	97.0	79.2
10:43 AM - 11:43 AM	85.5	99.8	80.8
11:43 AM - 12:43 PM	85.5	105.0	81.1
12:43 PM - 01:43 PM	86.0	102.4	80.7
01:43 PM - 02:43 PM	85.2	98.9	80.8
02:43 PM - 03:43 PM	86.7	106.9	80.7
03:43 PM - 04:43 PM	85.4	101.2	80.9

Leq Average 8 hrs. (dB(A)) 85.4

Lmax (dB(A)) 106.9

Standard (dB(A)) 90 140

Reference Method : Based on ISO1996-1 and 1996-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรการคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๖

Technical Management

*Supot S.*

Tanyatorn Mongkonjirawut  
Supervisor

Approved by

*Supot S.*

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan Rd., Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
 ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 4:13PM)



14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

**Project Name** : Environmental Testing

**Project Location :**

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2638731-1

Page 1 of 1

Sample Number	2344311-2
Parameter	Noise (Leq 8 hrs.)
Location	เขตหลวง : MCL2
Measurement Date	Apr 24, 2023
Measurement by	Phitsanupong Chaiya

Leq Average 8 hrs. (dB(A))	89.8	
Lmax (dB(A))		108.0
Standard (dB(A))	50	140
Reference Method : Based on ISO1556-1 and 1556-2		
Standard : ประกาศกระทรวงอุตสาหกรรม (เรื่อง มาตรการคุ้มครองความปลอดภัย ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ.๒๕๔๕)		

ในการประกอบกิจการโรงงานเกี่ยวกับสถานะแวดล้อมในการทำงาน พ.ศ.๒๕๔๙

  
Tanyatorn Mongkonjirawut  
Supervisor

**Approved by**

*Supot S.*  
Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

**www.alsglobal.com**

**RIGHT SOLUTIONS RIGHT PARTNER**

S:\Reports\ Air Noise.rpt ( 3:38PM)



## Analysis / Test Report

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**Project Name** : Environmental Testing

**Project Location :**

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2638732-1

Page 1 of 1

Sample Number	2344311-3
Parameter	Noise (Leq 8 hrs.)
Location	ตามผังโครงการ : MCL1
Measurement Date	Apr 24, 2023
Measurement by	Phitsanupong Chaiya

Leq Average 8 hrs. (dB(A))	7๙.0
Lmax (dB(A))	๙6.๗
Standard (dB(A))	๙0
Reference Method : Based on 25.1 and 25.2	140
Standard : 55 เดบี สำหรับวัดระดับเสียงที่อาคารพักอาศัย 5 โมงเย็น	
หมายเหตุ : ผลการวัดเสียงที่อาคารพักอาศัย 5 โมงเย็น ไม่เกิน 55 เดบี สำหรับวัดระดับเสียงที่อาคารพักอาศัย 5 โมงเย็น	

1. I สะว่า สอ สวิ สะว่า ามะย สด สย ดมะ 0 ใน ใต้ I สะว่า ะมะ I พ. ๒๕๔๘

  
Tanyatorn Mongkonjirawut  
Supervisor

**Approved by**

*Supt S.*  
Suport Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

**www.alsglobal.com**

**RIGHT SOLUTIONS RIGHT PARTNER**

S:\Reports\ Air Noise.rpt ( 3:38PM)





## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

**Lot ID: 2344311**

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2638738-1

Page 1 of 1

**Sample Number** 2344311-(  
**Parameter** Noise d.e) 8 hrs.๓  
**Location** เสาขุขุขุ : 9T3  
**Measurement Date** Apr 25, 2023  
**Measurement by** Phitsanupong Chaiya

Time	Le) dB(A)	Lmax dB(A)	L(0) dB(A)
08:57 AM - 09:57 AM	86.4	100.2	83.2
10:57 AM - 11:57 AM	86.2	(.1	83.0
12:57 PM - 01:57 PM	86.4	(.7	82.7
01:57 PM - 02:57 PM	86.2	(.0	82.6
02:57 PM - 03:57 PM	85.7	(7.4	82.2
03:57 PM - 04:57 PM	86.7	(8.2	82.6
	86.0	(8.8	81.5
	84.1	(7.2	77.2

Le) Average 8 hrs. dB(A)

86.0

Lmax dB(A)

100.2

Standard dB(A)

(0

140

Reference Method : Based on ISO1((6-1 and 1((6-2

Standard : ประกาศกระทรวงมหาดไทย เรื่อง การวัดระดับเสียงรบกวนในชุมชน

ในชุมชนประเภทบ้านพักอาศัย และในชุมชนประเภทพาณิชยกรรม พ.ศ.๒๕๔๖

**Technical Management**

*Tanyatorm*

Tanyatorm Mongkonjirawut  
Supervisor

**Approved by**

*Supot S.*

Supot Salamteh  
Section 9 ead

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

35(5-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 3:40PM)



## Analysis / Test Report

**Client :** Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**P/O :**

**Project Name :** Environmental Testing

**Project Location :**

**Lot ID: 2344311**

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 263873-P1

Page 1 of 1

**Sample Number** 2344311P10  
**Parameter** Noise d.e) 8 hrs.๓  
**Location** เสาขุขุขุ : 9T4  
**Measurement Date** Apr 25, 2023  
**Measurement by** f hitsanupong Chaiya

Time	Le) dB(A)	Lmax dB(A)	L(0) dB(A)
08:54 AM P0:54 AM	8-.4	--.6	87.5
10:54 AM P10:54 AM	8-.2	-8.6	87.3
12:54 AM P11:54 AM	8-.5	--.4	87.2
01:54 AM P12:54 AM	8-.1	--.1	87.0
02:54 AM P01:54 AM	8-.1	-7.6	86.-
03:54 AM P02:54 AM	8-.3	-7.7	87.0
04:54 AM P03:54 AM	88.-	-8.6	85.8
05:54 AM P04:54 AM	87.1	-7.5	83.2

Le) Average 8 hrs. dB(A)

8-.0

Lmax dB(A)

--.6

Standard dB(A)

-0

140

Reference Method : Based on ISO1--6P1 and 1--6P2

Standard : ประกาศกระทรวงมหาดไทย เรื่อง การวัดระดับเสียงรบกวนในชุมชน

ในชุมชนประเภทบ้านพักอาศัย และในชุมชนประเภทพาณิชยกรรม พ.ศ.๒๕๔๖

**Technical Management**

*Tanyatorm*

Tanyatorm Mongkonjirawut  
Supervisor

**Approved by**

*Supot S.*

Supot Salamteh  
Section 9 ead

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

35-5B1/ EMAIL

S:\Reports\_Air Noise.rpt ( 3:40PM)



14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhai, Saraburi Thailand 18230

**Project Name** : Environmental Testing

**Project Location :**

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 263874- P1

page 1 of 1

Sample Number	2344333P1
Parameter	Noise d.e) 8 hrs.ด
Location	เทพลอม5 MCL4
Measurement Date	Apr 2-, 2023
Measurement by	f hitsanupong Chaiya

Le) Average 8 hrs. $\mu Bq/คน$	80.3
Lmax $\mu Bq/คน$	101.
Standard $\mu Bq/คน$	140
Reference Method : Based on ISO1966P1 and 1966P2	
Standard : ประสิทธิภาพรวมของสลายตัว 5 ปี ของกัมมา 5 ครั้งจนกว่าจะปลอดภัย ในการประกอบกับกิจกรรมโรงงานเกี่ยวกับกัมมาจะแตกต่างกันไปในทุกประเภท พ.ศ.๒๕๔๖	

  
Tanyatorn Mongkonjirawut  
Supervisor

*Supt S.*  
Suport Salamteh  
Section Head

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

**www.alsglobal.com**

**RIGHT SOLUTIONS RIGHT PARTNER**

S:\Reports\ Air Noise.rpt ( 3:45PM)



14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

**Project Name** : Environmental Testing

**Project Location :**

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2638746-1

Page 1 of 1

Sample Number	2344333-2
Parameter	Noise (Leq 8 hrs.)
Location	ตามข้อบัญญัติฯ ม. ๕๓ ม. ๕๔ ม. ๕๕ ม. ๕๖ ม. ๕๗ ม. ๕๘ ม. ๕๙ ม. ๖๐ ม. ๖๑ ม. ๖๒ ม. ๖๓ ม. ๖๔ ม. ๖๕ ม. ๖๖ ม. ๖๗ ม. ๖๘ ม. ๖๙ ม. ๗๐ ม. ๗๑ ม. ๗๒ ม. ๗๓ ม. ๗๔ ม. ๗๕ ม. ๗๖ ม. ๗๗ ม. ๗๘ ม. ๗๙ ม. ๘๐ ม. ๘๑ ม. ๘๒ ม. ๘๓ ม. ๘๔ ม. ๘๕ ม. ๘๖ ม. ๘๗ ม. ๘๘ ม. ๘๙ ม. ๙๐ ม. ๙๑ ม. ๙๒ ม. ๙๓ ม. ๙๔ ม. ๙๕ ม. ๙๖ ม. ๙๗ ม. ๙๘ ม. ๙๙ ม. ๑๐๐
Measurement Date	Apr 27, 2023
Measurement by	Phitsanupong Chaiva

Leq Average 8 hrs. (dB(A))	77.1	
Lmax (dB(A))		๙2.๕
Standard (dB(A))		140
Reference Method : Based on รง 1๓6-1 and 1๓6-2		
Standard : 5๕ เดบี สำหรับอาคารสำนักงาน และ 5๕ เดบี สำหรับอาคารพาณิชย์		

  
Tanyatorn Mongkonjirawut  
Supervisor

Supot Salamteh  
Section Head

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

**www.alsglobal.com**

**RIGHT SOLUTIONS RIGHT PARTNER**

S:\Reports\ Air Noise.rpt ( 3:45PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344333

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2638747-1

Page 1 of 1

Sample Number	2344333-3
Parameter	Noise (Leq 8 hrs.)
Location	เคาสมชมชื่นงาน MCL1
Measurement Date	Apr 26, 2023
Measurement by	Phitsanupong Chaiya

Time	Leq (dB(A))	Lmax (dB(A))	LH0 (dB(A))
08:18 AM - 10:18 AM	81.2	86.7	77.2
10:18 AM - 11:18 AM	78.4	82.4	77.2
11:18 AM - 12:18 PM	77.4	84.3	79.1
12:18 PM - 01:18 PM	86.8	101.2	73.4
01:18 PM - 02:18 PM	89.6	111.4	72.4
02:18 PM - 03:18 PM	72.7	78.9	71.9
03:18 PM - 04:18 PM	71.9	77.3	67.3
04:18 PM - 09:18 PM	79.7	84.2	72.3

Leq Average 8 hrs. (dB(A))

81.7

Lmax (dB(A))

101.2

Standard (dB(A))

H0

140

Reference Method : Based on SSI 1H16-1 and 1H16-2

Standard : มาตรฐานการวัดเสียงของสำนักงานสิ่งแวดล้อมแห่งชาติ พ.ศ. 2562

มาตรฐานการวัดเสียงของสำนักงานสิ่งแวดล้อมแห่งชาติ พ.ศ. 2562

Technical Management

*Tanyatorm*

Tanyatorm Mongkonjirawut  
Supervisor

Approved by

*Supot S.*

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3918-31/ EMAIL

S:\Reports\_Air Noise.rpt ( 3:45PM)



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2368129

Date Received : Jun 17, 2023

Date Reported : Jun 21, 2023

Report Number: 2561860-1

Page 1 of 1

Sample Number	2358126-1
Parameter	Noise (Leq 8 hrs.)
Location	เครื่องตัดแยกขนาดชิ้นงาน : MCL1
Measurement Date	Jun 14, 2023
Measurement by	Buranasak Pati

Time	Leq (dB(A))	Lmax (dB(A))	L60 (dB(A))
10:43 AM - 11:43 AM	63.3	101.3	61.2
11:43 AM - 12:43 PM	61.4	108.7	84.5
12:43 PM - 01:43 PM	83.2	68.2	76.7
01:43 PM - 02:43 PM	81.7	67.7	78.3
02:43 PM - 03:43 PM	81.7	60.7	75.8
03:43 PM - 04:43 PM	81.3	60.9	79.7
04:43 PM - 09:43 PM	84.5	106.5	77.9
09:43 PM - 05:43 PM	84.0	68.1	77.8

Leq Average 8 hrs. (dB(A))

87.7

Lmax (dB(A))

106.5

Standard (dB(A))

60

140

Reference Method : Based on ISO1665-1 and 1665-2

Standard : ประกาศกระทรวงอุตสาหกรรม เรื่อง มาตรฐานการคุ้มครองความปลอดภัย

ในการประกอบกิจการโรงงานเกี่ยวกับสภาวะแวดล้อมในการทำงาน พ.ศ. ๒๕๔๖

Technical Management

*Saranya C.*

Saranya Chalermthamrong  
Scientist (4)

Approved by

*Supot S.*

Supot Salamteh  
Section Head

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3969-31/ EMAIL

S:\Reports\_Air Noise.rpt (11:10AM)

# ภาคผนวก ค-6

---

ระดับความร้อนในบริเวณการทำงาน





## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234076

Date Received : Jan 27, 2023

Date Reported : Jan 30, 2023

Report Number: 2542377-1

Page 1 of 4

Sample Number 234076-1

Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)

Measurement Date Jan 25, 2023

Measurement by Phitsanupong Chaiya

Location ปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณอนุชา ดุลวงศ์เรือง แผนก : เคาหลอม MCL1 )

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
หน้าเตาหลอม MCL1	30	26.4	23.7	32.6	32.5
ห้องควบคุมเตาหลอม MCL1	90	20.0	18.3	23.8	23.8
Average (WBGT)		21.6			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234076

Date Received : Jan 27, 2023

Date Reported : Jan 30, 2023

Report Number: 2542377-1

Page 2 of 4

Sample Number 234076-4

Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)

Measurement Date Jan 25, 2023

Measurement by Phitsanupong Chaiya

Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณสุทิน หมื่นทวงษ์ แผนก : HT2 )

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณเดาอบชิ้นงาน HT2	120	23.6	20.1	31.6	31.4
Average (WBGT)		23.6			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Teting

Project Location :

Lot ID: 234076

Date Received : Jan 27, 2023

Date Reported : Jan 30, 2023

Report Number: 2542377-1

Page 3 of 4

Sample Number 234076-5  
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)  
Measurement Date Jan 25, 2023  
Measurement by Phitsanupong Chaiya  
Location ปรังคังงาน 1 ฟันที่ (ชื่อ-นามสกุล ปรังคังงาน : คุณเสมธ นริษรณ แผนก : HT3 )

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
เตาอบขนมปังงาน HT3	120	24.5	21.4	31.7	31.7
Average (WBGT)		24.5			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

  
Supot Salamteh  
Section Head

Approved by

  
Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Teting

Project Location :

Lot ID: 234076

Date Received : Jan 27, 2023

Date Reported : Jan 30, 2023

Report Number: 2542377-1

Page 4 of 4

Sample Number 234076-6  
Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)  
Measurement Date Jan 25, 2023  
Measurement by Phitsanupong Chaiya  
Location ปรังคังงาน 1 ฟันที่ (ชื่อ-นามสกุล ปรังคังงาน : คุณเสมธ นริษรณ แผนก : HT4 )

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
เตาอบขนมปังงาน HT4	120	23.1	19.4	31.6	31.5
Average (WBGT)		23.1			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

  
Supot Salamteh  
Section Head

Approved by

  
Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235239

Date Received : Jan 27, 2023

Date Reported : Jan 30, 2023

Report Number: 2543962-1

Page 1 of 2

Sample Number 235239-1

Parameter Heat Stress (Sampling Time : 08.00 PM - 10.00 PM)

Measurement Date Jan 24, 2023

Measurement by Phitsanupong Chaiya

Location ปรุปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณอัครชัย พุฒสี แผนก : เตาหลอม MCL4 )

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
เตาหลอม MCL4	30	28.1	26.5	31.9	31.9
ห้องควบคุมเตาหลอม MCL4	90	20.3	18.6	24.4	24.3
Average (WBGT)		22.3			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235239

Date Received : Jan 27, 2023

Date Reported : Jan 30, 2023

Report Number: 2543962-1

Page 2 of 2

Sample Number 235239-2

Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)

Measurement Date Jan 24, 2023

Measurement by Phitsanupong Chaiya

Location ปรุปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณสุริยา วันสา แผนก : เตาอบชุบชิ้นงาน MCL4 )

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณเตาอบชุบชิ้นงาน MCL4	30	24.9	22.0	31.7	31.7
ห้องควบคุม/ห้องพักเตาอบชุบชิ้นงาน MCL4	90	18.8	17.1	22.7	22.3
Average (WBGT)		20.3			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2315865

Date Received : Mar 25, 2023

Date Reported : Mar 28, 2023

Report Number: 2565612-1

Page 1 of 1

Sample Number 2315865-1

Parameter Heat Stress (Sampling Time : 11.00 AM - 01.00 PM)

Measurement Date Mar 24, 2023

Measurement by Jiramet Prasertsiripong

Location ปรุปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณเจดกร ภิรมกิจ แผนก : เตาหลอม MCL 2)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
หน้าเตาหลอม	30	30.8	27.4	38.8	38.6
ห้องควบคุมเตาหลอม	90	25.1	24.3	27.1	26.9
Average (WBGT)		26.6			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344327

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2629396-1

Page 1 of 5

Sample Number 2344327-1

Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)

Measurement Date Apr 25, 2023

Measurement by Phitsanupong Chaiya

Location ปรุปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณอนุชา ตรีวงศ์เรือง แผนก : เตาหลอม MCL1)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
หน้าเตาหลอม MCL1	30	40.0	39.6	40.8	40.2
ห้องควบคุมเตาหลอม MCL1	90	19.9	17.2	26.1	25.6
Average (WBGT)		24.9			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344327

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2629396-1

Page 2 of 5

Sample Number 2344327-2

Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)

Measurement Date Apr 24, 2023

Measurement by Phitsanupong Chaiya

Location ปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณวีระกร คำศิริ แผนก : เตาหลอม MCL2)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
หน้าเตาหลอม MCL2	30	34.5	32.6	39.0	38.7
ห้องควบคุมเตาหลอม MCL2	90	23.3	21.5	27.5	27.5
Average (WBGT)		26.1			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344327

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2629396-1

Page 3 of 5

Sample Number 2344327-4

Parameter Heat Stress (Sampling Time : 10.00 AM - 12.00 PM)

Measurement Date Apr 24, 2023

Measurement by Phitsanupong Chaiya

Location ปฏิบัติงาน 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณสุทิน หมื่นดาวงษ์ แผนก : HT2)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณเตาอบชิ้นงาน HT2	120	32.2	28.1	41.6	41.5
Average (WBGT)		32.2			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Teting

Project Location :

Lot ID: 2344327

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2629396-1

Page 4 of 5

Sample Number 2344327-5

Parameter Heat Stress (Sampling Time : 01.00 PM - 03.00 PM)

Measurement Date Apr 24, 2023

Measurement by Phitsanupong Chaiya

Location ปรุขันธ์ 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณสุกฤษณ์ สุทธาสวัสดิ์ แผนก : HT3)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
เตาอบชุมชนงาน HT3	120	29.4	25.6	38.3	37.8
Average (WBGT)		29.4			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Teting

Project Location :

Lot ID: 2344327

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2629396-1

Page 5 of 5

Sample Number 2344327-6

Parameter Heat Stress (Sampling Time : 01.00 PM - 03.00 PM)

Measurement Date Apr 24, 2023

Measurement by Phitsanupong Chaiya

Location ปรุขันธ์ 1 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณประทีป แซ่มะ แผนก : HT4)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
เตาอบชุมชนงาน HT4	120	28.8	25.3	37.1	36.7
Average (WBGT)		28.8			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344355

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2629444-1

Page 1 of 2

Sample Number 2344355-1

Parameter Heat Stress (Sampling Time : 10.00 PM - 12.00 PM)

Measurement Date Apr 25, 2023

Measurement by Phitsanupong Chaiya

Location ปรุปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณอดุล ทุแลสิ แผนก : เตาหลอม MCL4)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
เตาหลอม MCL4	30	28.5	27.1	31.7	31.6
ห้องควบคุมเตาหลอม MCL4	90	20.7	18.9	24.9	24.7
Average (WBGT)		22.6			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER



## Analysis / Test Report

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkai, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344355

Date Received : Apr 27, 2023

Date Reported : May 02, 2023

Report Number: 2629444-1

Page 2 of 2

Sample Number 2344355-2

Parameter Heat Stress (Sampling Time : 01.00 PM - 03.00 PM)

Measurement Date Apr 26, 2023

Measurement by Phitsanupong Chaiya

Location ปรุปฏิบัติงาน 2 พื้นที่ (ชื่อ-นามสกุล ผู้ปฏิบัติงาน : คุณเมฆ แด่กระโทก แผนก : เตาอบชุบชิ้นงาน)

Location	Duration (min)	WBGT (°C)	NWB (°C)	GT (°C)	DB (°C)
บริเวณเตาอบชุบชิ้นงาน MCL4	30	28.9	26.6	34.4	34.2
ห้องควบคุม/ห้องพักเตาอบชุบชิ้นงาน MCL4	90	20.9	18.7	26.0	25.6
Average (WBGT)		22.9			
Guideline WBGT (°C)		34.0			

Reference Method : Wet Bulb Globe Temperature

### Guideline:

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

Technical Management

Supot Salamteh  
Section Head

Approved by

Wichan Choonharat  
Assistant Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

# ภาคผนวก ค-7

---

คุณภาพอากาศในสถานประกอบการ





## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234546

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2542386-1

Page 1 of 8

Sample Number 234546-1  
Sampled Date Jan 25, 2023  
Sample Description Air Quality  
Location หน้าเตาหลอม : MCL1  
Personal Sampling คุณณัฐชา ดุลวงศ์เรือง  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	10:01 AM - 12:01 PM	mg/m3	-	0.15	<0.15	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	10:01 AM - 01:01 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	10:01 AM - 12:01 PM	mg/m3	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom  
Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234546

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2542386-1

Page 2 of 8

Sample Number 234546-3  
Sampled Date Jan 25, 2023  
Sample Description Air Quality  
Location เครื่องปั้นแบบทราย : MCL1  
Personal Sampling คุณณัฐ เน้มัน  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	09:50 AM - 11:50 AM	mg/m3	-	0.15	0.17	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	09:50 AM - 12:50 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	09:50 AM - 11:50 AM	mg/m3	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom  
Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234546

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2542386-1

Page 3 of 8

Sample Number 234546-5  
Sampled Date Jan 25, 2023  
Sample Description Air Quality  
Location เครื่องคัดแยกขนาด : MCL1  
Personal Sampling คุณปณิศา มาดีกา  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	09:40 AM - 11:40 AM	mg/m3	-	0.15	0.68	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	09:40 AM - 12:40 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	09:40 AM - 11:40 AM	mg/m3	-	0.002	0.006	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom  
Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234546

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2542386-1

Page 4 of 8

Sample Number 234546-6  
Sampled Date Jan 26, 2023  
Sample Description Air Quality  
Location เครื่องคัดแยกขนาด : MCL2  
Personal Sampling คุณสายพิน ถนอมศรี  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	09:20 AM - 11:20 AM	mg/m3	-	0.15	0.20	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	09:20 AM - 12:20 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	09:20 AM - 11:20 AM	mg/m3	-	0.002	0.008	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom  
Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234546

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2542386-1

Page 5 of 8

Sample Number 234546-7  
Sampled Date Jan 25, 2023  
Sample Description Air Quality  
Location เครื่องมือ : MCL1  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	10:01 AM - 01:01 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	10:01 AM - 12:01 PM	mg/m <sup>3</sup>	-	0.15	0.77	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	10:01 AM - 12:01 PM	mg/m <sup>3</sup>	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom

Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234546

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2542386-1

Page 6 of 8

Sample Number 234546-9  
Sampled Date Jan 25, 2023  
Sample Description Air Quality  
Location เครื่องมือ : MCL1  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	09:50 AM - 12:50 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	09:50 AM - 11:50 AM	mg/m <sup>3</sup>	-	0.15	0.17	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	09:50 AM - 11:50 AM	mg/m <sup>3</sup>	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom

Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234546

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2542386-1

Page 7 of 8

Sample Number 234546-11  
Sampled Date Jan 25, 2023  
Sample Description Air Quality  
Location เครื่องคัดแยกขนาดชิ้นงาน : MCL1  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	09:40 AM - 12:40 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	09:40 AM - 11:40 AM	mg/m <sup>3</sup>	-	0.15	1.92	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	09:40 AM - 11:40 AM	mg/m <sup>3</sup>	-	0.002	0.008	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom  
Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 234546

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2542386-1

Page 8 of 8

Sample Number 234546-12  
Sampled Date Jan 26, 2023  
Sample Description Air Quality  
Location เครื่องคัดแยกขนาดชิ้นงาน : MCL2  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	09:20 AM - 12:20 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	09:20 AM - 11:20 AM	mg/m <sup>3</sup>	-	0.15	2.04	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	09:20 AM - 11:20 AM	mg/m <sup>3</sup>	-	0.002	0.007	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom  
Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235240

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2543967-1

Page 1 of 4

Sample Number 235240-1  
Sampled Date Jan 24, 2023  
Sample Description Air Quality  
Location หน้าเตาหลอม : MCL4  
Personal Sampling คุณอดุลย์ พงษ์  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	08:00 PM - 10:00 PM	mg/m3	-	0.15	<0.15	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	08:00 PM - 11:00 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	08:00 PM - 10:00 PM	mg/m3	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom  
Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235240

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2543967-1

Page 2 of 4

Sample Number 235240-2  
Sampled Date Jan 24, 2023  
Sample Description Air Quality  
Location เครื่องขึ้นแบบทราย : MCL4  
Personal Sampling คุณยุทธนา ชัดนำฟ่ง  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	10:10 AM - 12:10 PM	mg/m3	-	0.15	<0.15	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	10:10 AM - 01:10 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	10:10 AM - 12:10 PM	mg/m3	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom  
Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235240

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2543967-1

Page 3 of 4

Sample Number 235240-3  
Sampled Date Jan 24, 2023  
Sample Description Air Quality  
Location หน้าศาลากลาง : MCL4  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	08:00 PM - 11:00 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	08:00 PM - 10:00 PM	mg/m <sup>3</sup>	-	0.15	<0.15	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	08:00 PM - 10:00 PM	mg/m <sup>3</sup>	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom

Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 235240

Date Received : Jan 27, 2023

Date Reported : Feb 03, 2023

Report Number : 2543967-1

Page 4 of 4

Sample Number 235240-4  
Sampled Date Jan 24, 2023  
Sample Description Air Quality  
Location เครื่องปั้นแบบทอ : MCL4  
Date Analysis Commenced Jan 30, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 30.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	10:10 AM - 01:10 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	10:10 AM - 12:10 PM	mg/m <sup>3</sup>	-	0.15	0.34	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	10:10 AM - 12:10 PM	mg/m <sup>3</sup>	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Chanatt L.*

Chanattagarn Imchom

Supervisor

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2315870

Date Received : Mar 25, 2023

Date Reported : Apr 03, 2023

Report Number : 2565644-1

Page 1 of 4

Sample Number 2315870-1  
Sampled Date Mar 24, 2023  
Sample Description Air Quality  
Location หน้าเตาหลอม : MCL2  
Personal Sampling คุณวณิชกร ภิรมกิจ  
Date Analysis Commenced Mar 27, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 754 mmHg  
Atmospheric Temperature 36.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	09:30 AM - 11:30 AM	mg/m3	-	0.15	<0.15	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO <sub>2</sub> ) *	09:30 AM - 12:30 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	09:30 AM - 11:30 AM	mg/m3	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Jiramet Prasertsirpong

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2315870

Date Received : Mar 25, 2023

Date Reported : Apr 03, 2023

Report Number : 2565644-1

Page 2 of 4

Sample Number 2315870-2  
Sampled Date Mar 24, 2023  
Sample Description Air Quality  
Location เครื่องปั้นแบบทราย : MCL2  
Personal Sampling คุณวณิชกร ภิรมกิจ  
Date Analysis Commenced Mar 27, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 754 mmHg  
Atmospheric Temperature 36.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	09:30 AM - 11:30 AM	mg/m3	-	0.15	<0.15	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO <sub>2</sub> ) *	09:30 AM - 12:30 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	09:30 AM - 11:30 AM	mg/m3	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Jiramet Prasertsirpong

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2315870

Date Received : Mar 25, 2023

Date Reported : Apr 03, 2023

Report Number : 2565644-1

Page 3 of 4

Sample Number 2315870-3  
Sampled Date Mar 24, 2023  
Sample Description Air Quality  
Location เครื่องมือ : MCL2  
Date Analysis Commenced Mar 27, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 754 mmHg  
Atmospheric Temperature 36.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	09:00 AM - 12:00 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	09:00 AM - 11:00 AM	mg/m <sup>3</sup>	-	0.15	0.57	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	09:00 AM - 11:00 AM	mg/m <sup>3</sup>	-	0.002	0.003	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Jiramet Prasertsiripong

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2315870

Date Received : Mar 25, 2023

Date Reported : Apr 03, 2023

Report Number : 2565644-1

Page 4 of 4

Sample Number 2315870-4  
Sampled Date Mar 24, 2023  
Sample Description Air Quality  
Location เครื่องมือ : MCL2  
Date Analysis Commenced Mar 27, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 754 mmHg  
Atmospheric Temperature 36.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	09:00 AM - 12:00 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	09:00 AM - 11:00 AM	mg/m <sup>3</sup>	-	0.15	0.65	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	09:00 AM - 11:00 AM	mg/m <sup>3</sup>	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Jiramet Prasertsiripong

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL





## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 1 of 12

Sample Number 2344315-1  
Sampled Date Apr 25, 2023  
Sample Description Air Quality  
Location หน้าเตาหลอม : MCL1  
Personal Sampling คุณวัชรกร คำศรี  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	09:20 AM - 11:20 AM	mg/m3	-	0.15	0.66	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	09:20 AM - 12:20 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	09:20 AM - 11:20 AM	mg/m3	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 2 of 12

Sample Number 2344315-2  
Sampled Date Apr 24, 2023  
Sample Description Air Quality  
Location หน้าเตาหลอม : MCL2  
Personal Sampling คุณวัชรกร คำศรี  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	10:30 AM - 12:30 PM	mg/m3	-	0.15	<0.15	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	10:30 AM - 01:30 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	10:30 AM - 12:30 PM	mg/m3	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 3 of 12

Sample Number 2344315-3  
Sampled Date Apr 25, 2023  
Sample Description Air Quality  
Location เครื่องปั้นแบบทราย : MCL1  
Personal Sampling คุณนิรุฒ เหมิน  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	09:25 AM - 11:25 AM	mg/m3	-	0.15	0.38	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	09:25 AM - 12:25 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	09:25 AM - 12:25 PM	mg/m3	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 4 of 12

Sample Number 2344315-4  
Sampled Date Apr 24, 2023  
Sample Description Air Quality  
Location เครื่องปั้นแบบทราย : MCL2  
Personal Sampling คุณวันชนะ สุมาณิตย  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	10:40 AM - 12:40 PM	mg/m3	-	0.15	<0.15	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	10:40 AM - 01:40 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	10:40 AM - 12:40 PM	mg/m3	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 5 of 12

Sample Number 2344315-5  
Sampled Date Apr 25, 2023  
Sample Description Air Quality  
Location เครื่องคัดแยกขนาด : MCL1  
Personal Sampling คุณณรงค์ เรืองชัย  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	09:15 AM - 11:15 AM	mg/m3	-	0.15	<0.15	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	09:15 AM - 12:15 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	09:15 AM - 11:15 AM	mg/m3	-	0.002	0.004	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 6 of 12

Sample Number 2344315-6  
Sampled Date Apr 24, 2023  
Sample Description Air Quality  
Location เครื่องคัดแยกขนาด : MCL2  
Personal Sampling คุณสุกัญญา ดวงน้อย  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Respirable Dust	10:45 AM - 12:45 PM	mg/m3	-	0.15	0.24	5	Based on NIOSH (1998), 0600	OSHA	Bangkok
Silica (SiO2) *	10:45 AM - 01:45 PM	mg/m3	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
<b>Metals Testing</b>									
Chromium *	10:45 AM - 12:45 PM	mg/m3	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 7 of 12

Sample Number 2344315-7  
Sampled Date Apr 25, 2023  
Sample Description Air Quality  
Location เดียวพลอง : MCL1  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	09:20 AM - 12:20 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	09:20 AM - 11:20 AM	mg/m <sup>3</sup>	-	0.15	1.43	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	09:20 AM - 11:20 AM	mg/m <sup>3</sup>	-	0.002	0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 8 of 12

Sample Number 2344315-8  
Sampled Date Apr 24, 2023  
Sample Description Air Quality  
Location เดียวพลอง : MCL2  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	10:30 AM - 01:30 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	10:30 AM - 12:30 PM	mg/m <sup>3</sup>	-	0.15	1.00	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	10:30 AM - 12:30 PM	mg/m <sup>3</sup>	-	0.002	0.003	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 9 of 12

Sample Number 2344315-9  
Sampled Date Apr 25, 2023  
Sample Description Air Quality  
Location เครื่องปั่นแบบพกพา : MCL1  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	09:25 AM - 12:25 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	09:25 AM - 11:25 AM	mg/m <sup>3</sup>	-	0.15	0.56	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	09:25 AM - 11:25 AM	mg/m <sup>3</sup>	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam

Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkhae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 10 of 12

Sample Number 2344315-10  
Sampled Date Apr 24, 2023  
Sample Description Air Quality  
Location เครื่องปั่นแบบพกพา : MCL2  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	10:40 AM - 01:40 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	10:40 AM - 12:40 PM	mg/m <sup>3</sup>	-	0.15	0.74	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	10:40 AM - 12:40 PM	mg/m <sup>3</sup>	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam

Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 11 of 12

Sample Number 2344315-11  
Sampled Date Apr 25, 2023  
Sample Description Air Quality  
Location เครื่องคัดแยกขนาดชิ้นงาน : MCL1  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	09:15 AM - 12:15 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	09:25 AM - 11:15 AM	mg/m <sup>3</sup>	-	0.15	0.78	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	09:25 AM - 11:15 AM	mg/m <sup>3</sup>	-	0.002	0.003	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL



## Analysis / Test Report



TESTING  
No.0009

Client : Magotteaux Co., Ltd.

14 Moo 3, Suwannasorn Rd., Bualoy, Nongkae, Saraburi Thailand 18230

P/O :

Project Name : Environmental Testing

Project Location :

Lot ID: 2344315

Date Received : Apr 27, 2023

Date Reported : May 08, 2023

Report Number : 2629350-1

Page 12 of 12

Sample Number 2344315-12  
Sampled Date Apr 24, 2023  
Sample Description Air Quality  
Location เครื่องคัดแยกขนาดชิ้นงาน : MCL2  
Date Analysis Commenced Apr 28, 2023  
Condition of Sample Drawn into three filter papers placed in each cassette  
Barometric Pressure 758 mmHg  
Atmospheric Temperature 35.0 °C

Analyte	Sampled Date/time	Unit	LOD	LOQ (LOR)	Result	Guideline Limit	Method	Guideline	Testing Location
<b>Air Testing</b>									
Silica (SiO <sub>2</sub> ) *	10:45 AM - 01:45 PM	mg/m <sup>3</sup>	-	0.020	<0.020	0.025 (R)	NIOSH (1994), 7601	MOL	Bangkok
Total dust	10:45 AM - 12:45 PM	mg/m <sup>3</sup>	-	0.15	0.65	15	Based on NIOSH (1994), 0501	OSHA	Bangkok
<b>Metals Testing</b>									
Chromium *	10:45 AM - 12:45 PM	mg/m <sup>3</sup>	-	0.002	<0.002	0.5	NIOSH (2003), 7301	ACGIH	Bangkok

### Guideline :

ACGIH : The American Conference of Governmental Industrial Hygiene, The 6th edition of the Documentation of the Threshold Limit Values and Biological Exposure Indices (2022).

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

OSHA : Occupational Safety and Health Administration

Sampled By : Phitsanupong Chaiya

### 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.

Approved by

*Sawitree N.*

Sawitree Noisangiam  
Manager

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

ADDRESS 104 Phatthanakan 40, Phatthanakan Rd., Khwaeng Phatthanakan, Khet Suan Luang, Bangkok 10250 Thailand | PHONE +66 0 2760 3000 | FAX +66 0 2760 3197  
ALS LABORATORY GROUP (THAILAND) CO., LTD. An ALS Limited Company

Life Sciences

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

3595-31/ EMAIL