

ภาคผนวก ค

ใบรับรองผลการวิเคราะห์

ภาคผนวก ค-1

คุณภาพอากาศในบรรยากาศ



Analysis / Test Report



TESTING
No.0009

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhæ, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 24119677
Date Received : Nov 01, 2024
Date Reported : Nov 08, 2024
Report Number: 3141521-1

Page 1 of 1

Sample Description Air Quality
Location บริเวณสำนักงานบริษัท (GPS 47P 0698566, 1589306)
Date Analysis Commenced Nov 04, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
24119677-1	Oct 21 - Oct 22, 2024	0.057	0.030	759	33
24119677-2	Oct 22 - Oct 23, 2024	0.073	0.035	759	34
24119677-3	Oct 23 - Oct 24, 2024	0.061	0.037	759	33
24119677-4	Oct 24 - Oct 25, 2024	0.099	0.049	759	33
24119677-5	Oct 25 - Oct 26, 2024	0.091	0.061	759	34
24119677-6	Oct 26 - Oct 27, 2024	0.057	0.039	759	33
24119677-7	Oct 27 - Oct 28, 2024	0.052	0.034	759	33
Guideline		0.33	0.12	-	-

Reference Method

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

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

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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

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Analysis / Test Report



TESTING
No.0009

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhæ, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 24119677
Date Received : Nov 01, 2024
Date Reported : Nov 08, 2024
Report Number: 3160674-1

Page 1 of 1

Sample Description Air Quality
Location รร. บ้านใหม่ทุ่งดินฆะ ภูเขมบ้านใหม่ทุ่งดินฆะ (GPS 47P 0697239, 1589433)
Date Analysis Commenced Nov 04, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
24119677-8	Oct 21 - Oct 22, 2024	0.063	0.019	759	33
24119677-9	Oct 22 - Oct 23, 2024	0.062	0.031	759	34
24119677-10	Oct 23 - Oct 24, 2024	0.053	0.030	759	33
24119677-11	Oct 24 - Oct 25, 2024	0.102	0.053	759	33
24119677-12	Oct 25 - Oct 26, 2024	0.090	0.062	759	34
24119677-13	Oct 26 - Oct 27, 2024	0.083	0.055	759	33
24119677-14	Oct 27 - Oct 28, 2024	0.073	0.039	759	33
Guideline		0.33	0.12	-	-

Reference Method

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

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

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Analysis / Test Report



TESTING
No.0009

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhæ, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119677

Date Received : Nov 01, 2024

Date Reported : Nov 08, 2024

Report Number: 3160675-1

Page 1 of 1

Sample Description Air Quality
Location รร. วัดป่าลุมพินี หมู่บ้านนิคมอุตสาหกรรม (GPS 47P 0698465, 1594331)
Date Analysis Commenced Nov 04, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
24119677-15	Oct 21 - Oct 22, 2024	0.046	0.026	759	33
24119677-16	Oct 22 - Oct 23, 2024	0.051	0.029	759	34
24119677-17	Oct 23 - Oct 24, 2024	0.047	0.029	759	33
24119677-18	Oct 24 - Oct 25, 2024	0.079	0.038	759	33
24119677-19	Oct 25 - Oct 26, 2024	0.078	0.045	759	34
24119677-20	Oct 26 - Oct 27, 2024	0.068	0.043	759	33
24119677-21	Oct 27 - Oct 28, 2024	0.053	0.031	759	33
Guideline		0.33	0.12	-	-

Reference Method

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

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

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

Sampled By : Winyou Boontana

Remark :

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

Approved by

Orawan R.

Orawan Rakyong
Scientist (3)

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Analysis / Test Report



TESTING
No.0009

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhæ, Saraburi Thailand 18140

P/O :

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24129681

Date Received : Nov 21, 2024

Date Reported : Nov 29, 2024

Report Number: 3164825-1

Page 1 of 1

Sample Description Air Quality
Location รร. วัดหนองปลาหมอ หมู่บ้านหนองผักชีใต้ (GPS 47P 0700770, 1590932)
Date Analysis Commenced Nov 22, 2024
Condition of Sample Drawn into one glass filter paper (8x10 inch) placed in plastic bag and one quartz filter paper (8x10 inch) placed in plastic bag

Sample Number	Sampled Date	Total Suspended Particulate (mg/m3)	Particulate Matter (PM-10) (mg/m3)	Barometric Pressure (mm Hg)	Atmospheric Temperature (°C)
24129681-1	Nov 13 - Nov 14, 2024	0.119	0.070	757	33
24129681-2	Nov 14 - Nov 15, 2024	0.061	0.035	757	32
24129681-3	Nov 15 - Nov 16, 2024	0.070	0.047	757	32
24129681-4	Nov 16 - Nov 17, 2024	0.071	0.044	757	32
24129681-5	Nov 17 - Nov 18, 2024	0.066	0.031	757	32
24129681-6	Nov 18 - Nov 19, 2024	0.058	0.033	757	33
24129681-7	Nov 19 - Nov 20, 2024	0.045	0.025	757	33
Guideline		0.33	0.12	-	-

Reference Method

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

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

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

Sampled By : Winyou Boontana

Remark :

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

Approved by

Saranya C.

Saranya Chalermthamrong
Scientist (4)

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119675

Date Received : Nov 01, 2024

Date Reported : Nov 07, 2024

Report Number: 3141500-1

Page 1 of 1

Sample Description	Air Quality						
Location	บริเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)						
Parameter	Nitrogen dioxide (ppm)						
Measurement Date	Oct 21, 2024 - Oct 28, 2024						
Measurement by	Winyou Boontana						
Time	24119675-1 Oct 21, 2024	24119675-2 Oct 22, 2024	24119675-3 Oct 23, 2024	24119675-4 Oct 24, 2024	24119675-5 Oct 25, 2024	24119675-6 Oct 26, 2024	24119675-7 Oct 27, 2024
10:00 AM - 11:00 AM	0.0143	0.0102	0.0100	0.0058	0.0244	0.0109	0.0066
11:00 AM - 12:00 PM	0.0176	0.0103	0.0101	0.0063	0.0102	0.0133	0.0095
12:00 PM - 01:00 PM	0.0145	0.0106	0.0097	0.0070	0.0113	0.0173	0.0091
01:00 PM - 02:00 PM	0.0171	0.0115	0.0095	0.0183	0.0143	0.0193	0.0080
02:00 PM - 03:00 PM	0.0218	0.0136	0.0167	0.0152	0.0231	0.0180	0.0127
03:00 PM - 04:00 PM	0.0127	0.0201	0.0251	0.0063	0.0370	0.0192	0.0166
04:00 PM - 05:00 PM	0.0070	0.0299	0.0394	0.0063	0.0369	0.0175	0.0167
05:00 PM - 06:00 PM	0.0126	0.0624	0.0261	0.0069	0.0301	0.0160	0.0151
06:00 PM - 07:00 PM	0.0082	0.0606	0.0135	0.0069	0.0223	0.0128	0.0149
07:00 PM - 08:00 PM	0.0118	0.0470	0.0101	0.0049	0.0187	0.0146	0.0125
08:00 PM - 09:00 PM	0.0085	0.0368	0.0126	0.0037	0.0178	0.0144	0.0097
09:00 PM - 10:00 PM	0.0060	0.0323	0.0129	0.0032	0.0155	0.0099	0.0085
10:00 PM - 11:00 PM	0.0054	0.0227	0.0101	0.0029	0.0117	0.0083	0.0073
11:00 PM - 12:00 AM	0.0053	0.0162	0.0188	0.0027	0.0108	0.0077	0.0068
12:00 AM - 01:00 AM	0.0044	0.0344	0.0145	0.0024	0.0099	0.0062	0.0066
01:00 AM - 02:00 AM	0.0047	0.0215	0.0228	0.0027	0.0102	0.0087	0.0065
02:00 AM - 03:00 AM	0.0079	0.0103	0.0167	0.0029	0.0097	0.0090	0.0061
03:00 AM - 04:00 AM	0.0146	0.0121	0.0153	0.0048	0.0076	0.0090	0.0066
04:00 AM - 05:00 AM	0.0180	0.0190	0.0198	0.0089	0.0074	0.0074	0.0069
05:00 AM - 06:00 AM	0.0178	0.0192	0.0382	0.0233	0.0071	0.0043	0.0054
06:00 AM - 07:00 AM	0.0155	0.0147	0.0254	0.0197	0.0080	0.0048	0.0053
07:00 AM - 08:00 AM	0.0142	0.0111	0.0091	0.0122	0.0103	0.0041	0.0054
08:00 AM - 09:00 AM	0.0116	0.0125	0.0074	0.0063	0.0108	0.0042	0.0055
09:00 AM - 10:00 AM	0.0106	0.0118	0.0076	0.0125	0.0139	0.0048	0.0081
Average	0.0118	0.0230	0.0167	0.0080	0.0158	0.0109	0.0090
1hr - Maximum	0.0218	0.0624	0.0394	0.0233	0.0370	0.0193	0.0167
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)

Approved by

Saranya C.

Saranya Chalerthamrong
Scientist (4)

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119675

Date Received : Nov 01, 2024

Date Reported : Nov 07, 2024

Report Number: 3158574-1

Page 1 of 1

Sample Description	Air Quality						
Location	ร. บ้านใหม่ทุ่งดินนา หมู่ชนบ้านใหม่ทุ่งดินนา (GPS 47P 0697239, 1589433)						
Parameter	Nitrogen dioxide (ppm)						
Measurement Date	Oct 21, 2024 - Oct 28, 2024						
Measurement by	Winyou Boontana						
Time	24119675-8 Oct 21, 2024	24119675-9 Oct 22, 2024	24119675-10 Oct 23, 2024	24119675-11 Oct 24, 2024	24119675-12 Oct 25, 2024	24119675-13 Oct 26, 2024	24119675-14 Oct 27, 2024
11:00 AM - 12:00 PM	0.0047	0.0075	0.0090	0.0058	0.0058	0.0049	0.0081
12:00 PM - 01:00 PM	0.0056	0.0049	0.0072	0.0082	0.0060	0.0062	0.0060
01:00 PM - 02:00 PM	0.0057	0.0041	0.0055	0.0082	0.0050	0.0055	0.0076
02:00 PM - 03:00 PM	0.0035	0.0032	0.0071	0.0074	0.0049	0.0081	0.0049
03:00 PM - 04:00 PM	0.0053	0.0035	0.0070	0.0047	0.0033	0.0076	0.0053
04:00 PM - 05:00 PM	0.0104	0.0044	0.0080	0.0048	0.0029	0.0065	0.0036
05:00 PM - 06:00 PM	0.0082	0.0065	0.0066	0.0055	0.0036	0.0059	0.0064
06:00 PM - 07:00 PM	0.0167	0.0113	0.0046	0.0141	0.0079	0.0094	0.0085
07:00 PM - 08:00 PM	0.0060	0.0169	0.0090	0.0145	0.0098	0.0153	0.0070
08:00 PM - 09:00 PM	0.0288	0.0162	0.0140	0.0130	0.0155	0.0179	0.0118
09:00 PM - 10:00 PM	0.0249	0.0150	0.0148	0.0164	0.0156	0.0180	0.0083
10:00 PM - 11:00 PM	0.0200	0.0096	0.0138	0.0165	0.0138	0.0171	0.0062
11:00 PM - 12:00 AM	0.0178	0.0065	0.0127	0.0150	0.0118	0.0197	0.0079
12:00 AM - 01:00 AM	0.0204	0.0055	0.0098	0.0037	0.0062	0.0130	0.0090
01:00 AM - 02:00 AM	0.0223	0.0089	0.0088	0.0062	0.0038	0.0124	0.0097
02:00 AM - 03:00 AM	0.0178	0.0131	0.0092	0.0028	0.0031	0.0104	0.0077
03:00 AM - 04:00 AM	0.0137	0.0087	0.0066	0.0062	0.0040	0.0096	0.0089
04:00 AM - 05:00 AM	0.0100	0.0100	0.0062	0.0095	0.0054	0.0085	0.0134
05:00 AM - 06:00 AM	0.0121	0.0118	0.0096	0.0141	0.0069	0.0075	0.0117
06:00 AM - 07:00 AM	0.0117	0.0103	0.0100	0.0128	0.0117	0.0083	0.0124
07:00 AM - 08:00 AM	0.0116	0.0165	0.0138	0.0099	0.0130	0.0095	0.0142
08:00 AM - 09:00 AM	0.0124	0.0132	0.0145	0.0070	0.0127	0.0104	0.0174
09:00 AM - 10:00 AM	0.0086	0.0120	0.0132	0.0095	0.0089	0.0140	0.0169
10:00 AM - 11:00 AM	0.0045	0.0078	0.0099	0.0089	0.0052	0.0075	0.0043
Average	0.0126	0.0095	0.0096	0.0094	0.0078	0.0106	0.0090
1hr - Maximum	0.0288	0.0169	0.0148	0.0165	0.0156	0.0197	0.0174
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)

Approved by

Saranya C.

Saranya Chalerthamrong
Scientist (4)

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119675

Date Received : Nov 01, 2024

Date Reported : Nov 07, 2024

Report Number: 3158577-1

Page 1 of 1

Sample Description	Air Quality						
Location	ร. วัดบึงลพบุรี หมู่บ้านหนองปลาหมอ (GPS 47P 0698465, 1594331)						
Parameter	Nitrogen dioxide (ppm)						
Measurement Date	Oct 21, 2024 - Oct 28, 2024						
Measurement by	Winyou Boontana						
Time	24119675-15 Oct 21, 2024	24119675-16 Oct 22, 2024	24119675-17 Oct 23, 2024	24119675-18 Oct 24, 2024	24119675-19 Oct 25, 2024	24119675-20 Oct 26, 2024	24119675-21 Oct 27, 2024
01:00 PM - 02:00 PM	0.0015	0.0050	0.0049	0.0036	0.0054	0.0062	0.0043
02:00 PM - 03:00 PM	0.0019	0.0033	0.0088	0.0034	0.0055	0.0039	0.0066
03:00 PM - 04:00 PM	0.0024	0.0029	0.0125	0.0030	0.0042	0.0031	0.0052
04:00 PM - 05:00 PM	0.0014	0.0026	0.0065	0.0037	0.0034	0.0028	0.0046
05:00 PM - 06:00 PM	0.0013	0.0024	0.0047	0.0044	0.0039	0.0024	0.0095
06:00 PM - 07:00 PM	0.0017	0.0022	0.0036	0.0042	0.0031	0.0028	0.0110
07:00 PM - 08:00 PM	0.0018	0.0022	0.0036	0.0047	0.0053	0.0035	0.0110
08:00 PM - 09:00 PM	0.0022	0.0021	0.0032	0.0040	0.0040	0.0055	0.0084
09:00 PM - 10:00 PM	0.0062	0.0023	0.0048	0.0053	0.0043	0.0058	0.0099
10:00 PM - 11:00 PM	0.0058	0.0025	0.0049	0.0093	0.0058	0.0090	0.0134
11:00 PM - 12:00 AM	0.0051	0.0047	0.0046	0.0057	0.0077	0.0069	0.0073
12:00 AM - 01:00 AM	0.0064	0.0039	0.0049	0.0054	0.0083	0.0060	0.0062
01:00 AM - 02:00 AM	0.0030	0.0012	0.0053	0.0059	0.0098	0.0075	0.0085
02:00 AM - 03:00 AM	0.0043	0.0054	0.0041	0.0071	0.0092	0.0109	0.0082
03:00 AM - 04:00 AM	0.0041	0.0075	0.0035	0.0093	0.0091	0.0092	0.0075
04:00 AM - 05:00 AM	0.0026	0.0071	0.0032	0.0065	0.0085	0.0086	0.0068
05:00 AM - 06:00 AM	0.0041	0.0080	0.0033	0.0065	0.0072	0.0085	0.0068
06:00 AM - 07:00 AM	0.0052	0.0124	0.0030	0.0063	0.0071	0.0083	0.0061
07:00 AM - 08:00 AM	0.0040	0.0122	0.0027	0.0091	0.0063	0.0069	0.0055
08:00 AM - 09:00 AM	0.0072	0.0071	0.0022	0.0103	0.0064	0.0076	0.0079
09:00 AM - 10:00 AM	0.0052	0.0091	0.0026	0.0104	0.0065	0.0055	0.0084
10:00 AM - 11:00 AM	0.0059	0.0119	0.0026	0.0095	0.0070	0.0078	0.0085
11:00 AM - 12:00 PM	0.0077	0.0110	0.0035	0.0085	0.0076	0.0090	0.0094
12:00 PM - 01:00 PM	0.0062	0.0111	0.0043	0.0064	0.0090	0.0039	0.0074
Average	0.0040	0.0058	0.0045	0.0064	0.0064	0.0063	0.0078
1hr - Maximum	0.0077	0.0124	0.0125	0.0104	0.0098	0.0109	0.0134
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)

Approved by

Saranya C.

Saranya Chalerthamrong
Scientist (4)

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S:\Reports_Air SOxNOx.rpt (1:25PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119675

Date Received : Nov 01, 2024

Date Reported : Nov 07, 2024

Report Number: 3158578-1

Page 1 of 1

Sample Description	Air Quality						
Location	ร. วัดบึงลพบุรี หมู่บ้านหนองปลาหมอ (GPS 47P 0700733, 1590964)						
Parameter	Nitrogen dioxide (ppm)						
Measurement Date	Oct 21, 2024 - Oct 28, 2024						
Measurement by	Winyou Boontana						
Time	24119675-22 Oct 21, 2024	24119675-23 Oct 22, 2024	24119675-24 Oct 23, 2024	24119675-25 Oct 24, 2024	24119675-26 Oct 25, 2024	24119675-27 Oct 26, 2024	24119675-28 Oct 27, 2024
12:00 PM - 01:00 PM	0.0055	0.0053	0.0050	0.0133	0.0032	0.0076	0.0024
01:00 PM - 02:00 PM	0.0066	0.0071	0.0016	0.0126	0.0024	0.0048	0.0051
02:00 PM - 03:00 PM	0.0072	0.0075	0.0024	0.0061	0.0020	0.0052	0.0046
03:00 PM - 04:00 PM	0.0123	0.0100	0.0028	0.0061	0.0035	0.0050	0.0049
04:00 PM - 05:00 PM	0.0134	0.0128	0.0047	0.0084	0.0043	0.0087	0.0063
05:00 PM - 06:00 PM	0.0127	0.0152	0.0134	0.0067	0.0082	0.0061	0.0080
06:00 PM - 07:00 PM	0.0126	0.0127	0.0166	0.0055	0.0098	0.0077	0.0082
07:00 PM - 08:00 PM	0.0101	0.0088	0.0099	0.0073	0.0124	0.0087	0.0085
08:00 PM - 09:00 PM	0.0076	0.0063	0.0028	0.0127	0.0109	0.0122	0.0093
09:00 PM - 10:00 PM	0.0104	0.0064	0.0055	0.0102	0.0117	0.0120	0.0107
10:00 PM - 11:00 PM	0.0106	0.0067	0.0067	0.0093	0.0117	0.0101	0.0130
11:00 PM - 12:00 AM	0.0092	0.0063	0.0094	0.0089	0.0095	0.0068	0.0129
12:00 AM - 01:00 AM	0.0083	0.0058	0.0079	0.0065	0.0061	0.0070	0.0138
01:00 AM - 02:00 AM	0.0068	0.0057	0.0105	0.0075	0.0073	0.0074	0.0131
02:00 AM - 03:00 AM	0.0066	0.0059	0.0100	0.0123	0.0066	0.0083	0.0115
03:00 AM - 04:00 AM	0.0071	0.0062	0.0093	0.0200	0.0057	0.0067	0.0079
04:00 AM - 05:00 AM	0.0075	0.0065	0.0093	0.0102	0.0089	0.0068	0.0073
05:00 AM - 06:00 AM	0.0079	0.0056	0.0089	0.0098	0.0091	0.0066	0.0059
06:00 AM - 07:00 AM	0.0075	0.0058	0.0116	0.0146	0.0069	0.0072	0.0062
07:00 AM - 08:00 AM	0.0066	0.0051	0.0131	0.0076	0.0071	0.0071	0.0073
08:00 AM - 09:00 AM	0.0062	0.0041	0.0127	0.0088	0.0089	0.0073	0.0074
09:00 AM - 10:00 AM	0.0049	0.0038	0.0135	0.0070	0.0070	0.0073	0.0084
10:00 AM - 11:00 AM	0.0041	0.0061	0.0129	0.0035	0.0088	0.0066	0.0078
11:00 AM - 12:00 PM	0.0086	0.0075	0.0130	0.0027	0.0073	0.0067	0.0063
Average	0.0083	0.0072	0.0089	0.0091	0.0075	0.0075	0.0082
1hr - Maximum	0.0134	0.0152	0.0166	0.0200	0.0124	0.0122	0.0138
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)

Approved by

Saranya C.

Saranya Chalerthamrong
Scientist (4)

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S:\Reports_Air SOxNOx.rpt (1:25PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119676

Date Received : Nov 01, 2024

Date Reported : Nov 07, 2024

Report Number: 3141514-1

Page 1 of 1

Sample Description Air Quality

Location บริเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)

Parameter Sulfur Dioxide (ppm)

Measurement Date Oct 21, 2024 - Oct 28, 2024

Measurement by Winyou Boontana

Time	24119676-1 Oct 21, 2024	24119676-2 Oct 22, 2024	24119676-3 Oct 23, 2024	24119676-4 Oct 24, 2024	24119676-5 Oct 25, 2024	24119676-6 Oct 26, 2024	24119676-7 Oct 27, 2024
10:00 AM - 11:00 AM	0.0010	0.0007	0.0007	0.0009	0.0009	0.0010	0.0009
11:00 AM - 12:00 PM	0.0011	0.0007	0.0008	0.0008	0.0008	0.0009	0.0008
12:00 PM - 01:00 PM	0.0010	0.0009	0.0008	0.0008	0.0009	0.0009	0.0008
01:00 PM - 02:00 PM	0.0010	0.0008	0.0009	0.0008	0.0009	0.0010	0.0010
02:00 PM - 03:00 PM	0.0010	0.0009	0.0008	0.0009	0.0009	0.0010	0.0009
03:00 PM - 04:00 PM	0.0011	0.0011	0.0008	0.0008	0.0010	0.0010	0.0009
04:00 PM - 05:00 PM	0.0012	0.0013	0.0008	0.0009	0.0010	0.0010	0.0010
05:00 PM - 06:00 PM	0.0010	0.0011	0.0008	0.0009	0.0008	0.0010	0.0010
06:00 PM - 07:00 PM	0.0010	0.0022	0.0009	0.0009	0.0009	0.0009	0.0010
07:00 PM - 08:00 PM	0.0011	0.0021	0.0009	0.0010	0.0010	0.0010	0.0011
08:00 PM - 09:00 PM	0.0012	0.0019	0.0009	0.0010	0.0011	0.0010	0.0011
09:00 PM - 10:00 PM	0.0012	0.0012	0.0010	0.0010	0.0011	0.0010	0.0011
10:00 PM - 11:00 PM	0.0012	0.0012	0.0011	0.0011	0.0013	0.0012	0.0012
11:00 PM - 12:00 AM	0.0011	0.0011	0.0012	0.0013	0.0014	0.0012	0.0014
12:00 AM - 01:00 AM	0.0010	0.0018	0.0012	0.0016	0.0014	0.0012	0.0016
01:00 AM - 02:00 AM	0.0010	0.0012	0.0014	0.0017	0.0017	0.0015	0.0017
02:00 AM - 03:00 AM	0.0010	0.0011	0.0015	0.0016	0.0019	0.0015	0.0015
03:00 AM - 04:00 AM	0.0007	0.0011	0.0014	0.0016	0.0020	0.0013	0.0015
04:00 AM - 05:00 AM	0.0008	0.0010	0.0014	0.0016	0.0017	0.0014	0.0014
05:00 AM - 06:00 AM	0.0007	0.0011	0.0013	0.0015	0.0013	0.0013	0.0011
06:00 AM - 07:00 AM	0.0008	0.0010	0.0011	0.0012	0.0010	0.0011	0.0010
07:00 AM - 08:00 AM	0.0007	0.0009	0.0009	0.0010	0.0010	0.0009	0.0009
08:00 AM - 09:00 AM	0.0007	0.0008	0.0009	0.0009	0.0011	0.0010	0.0007
09:00 AM - 10:00 AM	0.0008	0.0007	0.0008	0.0008	0.0009	0.0010	0.0007
Average	0.0010	0.0012	0.0010	0.0011	0.0012	0.0011	0.0011
1hr - Maximum	0.0012	0.0022	0.0015	0.0017	0.0020	0.0015	0.0017
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

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

Reference Method : US EPA Method Part 53 and 58

Approved by

Saranya C.

Saranya Chalerthamrong
Scientist (4)

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119676

Date Received : Nov 01, 2024

Date Reported : Nov 07, 2024

Report Number: 3158564-1

Page 1 of 1

Sample Description Air Quality

Location รร. บ้านใหม่ทุ่งดินนา หมู่ชนบ้านใหม่ทุ่งดินนา (GPS 47P 0697239, 1589433)

Parameter Sulfur Dioxide (ppm)

Measurement Date Oct 21, 2024 - Oct 28, 2024

Measurement by Winyou Boontana

Time	24119676-8 Oct 21, 2024	24119676-9 Oct 22, 2024	24119676-10 Oct 23, 2024	24119676-11 Oct 24, 2024	24119676-12 Oct 25, 2024	24119676-13 Oct 26, 2024	24119676-14 Oct 27, 2024
11:00 AM - 12:00 PM	0.0005	0.0005	0.0006	0.0006	0.0006	0.0005	0.0006
12:00 PM - 01:00 PM	0.0005	0.0006	0.0006	0.0006	0.0006	0.0005	0.0004
01:00 PM - 02:00 PM	0.0005	0.0006	0.0006	0.0006	0.0006	0.0006	0.0005
02:00 PM - 03:00 PM	0.0005	0.0005	0.0006	0.0005	0.0006	0.0005	0.0005
03:00 PM - 04:00 PM	0.0005	0.0006	0.0007	0.0006	0.0005	0.0005	0.0005
04:00 PM - 05:00 PM	0.0005	0.0006	0.0006	0.0005	0.0005	0.0005	0.0005
05:00 PM - 06:00 PM	0.0005	0.0005	0.0006	0.0006	0.0005	0.0005	0.0005
06:00 PM - 07:00 PM	0.0006	0.0005	0.0007	0.0006	0.0005	0.0006	0.0006
07:00 PM - 08:00 PM	0.0007	0.0005	0.0007	0.0006	0.0005	0.0006	0.0006
08:00 PM - 09:00 PM	0.0006	0.0005	0.0007	0.0006	0.0005	0.0007	0.0006
09:00 PM - 10:00 PM	0.0006	0.0006	0.0008	0.0006	0.0005	0.0006	0.0006
10:00 PM - 11:00 PM	0.0005	0.0006	0.0007	0.0005	0.0005	0.0006	0.0006
11:00 PM - 12:00 AM	0.0005	0.0005	0.0006	0.0005	0.0005	0.0006	0.0006
12:00 AM - 01:00 AM	0.0004	0.0005	0.0005	0.0006	0.0005	0.0005	0.0005
01:00 AM - 02:00 AM	0.0004	0.0004	0.0006	0.0005	0.0005	0.0005	0.0005
02:00 AM - 03:00 AM	0.0004	0.0005	0.0006	0.0005	0.0004	0.0005	0.0005
03:00 AM - 04:00 AM	0.0004	0.0005	0.0006	0.0005	0.0005	0.0004	0.0005
04:00 AM - 05:00 AM	0.0004	0.0005	0.0006	0.0006	0.0005	0.0005	0.0005
05:00 AM - 06:00 AM	0.0004	0.0005	0.0006	0.0006	0.0006	0.0005	0.0005
06:00 AM - 07:00 AM	0.0005	0.0005	0.0007	0.0006	0.0005	0.0005	0.0005
07:00 AM - 08:00 AM	0.0004	0.0006	0.0006	0.0005	0.0005	0.0005	0.0005
08:00 AM - 09:00 AM	0.0004	0.0005	0.0006	0.0005	0.0005	0.0005	0.0004
09:00 AM - 10:00 AM	0.0004	0.0006	0.0006	0.0006	0.0005	0.0005	0.0004
10:00 AM - 11:00 AM	0.0005	0.0006	0.0006	0.0006	0.0005	0.0005	0.0005
Average	0.0005	0.0005	0.0006	0.0006	0.0005	0.0005	0.0005
1hr - Maximum	0.0007	0.0006	0.0008	0.0006	0.0006	0.0007	0.0006
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

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

Reference Method : US EPA Method Part 53 and 58

Approved by

Saranya C.

Saranya Chalerthamrong
Scientist (4)

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119676

Date Received : Nov 01, 2024

Date Reported : Nov 07, 2024

Report Number: 3158568-1

Page 1 of 1

Sample Description	Air Quality						
Location	ร. รัตนาลอณ รัตนวิทยานวณกลาง (GPS 47P 0698465, 1594331)						
Parameter	Sulfur Dioxide (ppm)						
Measurement Date	Oct 21, 2024 - Oct 28, 2024						
Measurement by	Winyou Boontana						
Time	24119676-15 Oct 21, 2024	24119676-16 Oct 22, 2024	24119676-17 Oct 23, 2024	24119676-18 Oct 24, 2024	24119676-19 Oct 25, 2024	24119676-20 Oct 26, 2024	24119676-21 Oct 27, 2024
01:00 PM - 02:00 PM	0.0006	0.0010	0.0002	0.0002	0.0002	0.0004	0.0005
02:00 PM - 03:00 PM	0.0009	0.0011	0.0001	0.0002	0.0003	0.0004	0.0004
03:00 PM - 04:00 PM	0.0013	0.0010	0.0002	0.0002	0.0002	0.0004	0.0005
04:00 PM - 05:00 PM	0.0011	0.0009	0.0003	0.0003	0.0003	0.0004	0.0005
05:00 PM - 06:00 PM	0.0009	0.0008	0.0003	0.0002	0.0003	0.0004	0.0005
06:00 PM - 07:00 PM	0.0005	0.0007	0.0002	0.0002	0.0003	0.0004	0.0005
07:00 PM - 08:00 PM	0.0004	0.0006	0.0002	0.0002	0.0003	0.0005	0.0005
08:00 PM - 09:00 PM	0.0008	0.0006	0.0001	0.0001	0.0002	0.0004	0.0005
09:00 PM - 10:00 PM	0.0005	0.0006	0.0002	0.0002	0.0004	0.0004	0.0005
10:00 PM - 11:00 PM	0.0013	0.0006	0.0004	0.0001	0.0003	0.0004	0.0005
11:00 PM - 12:00 AM	0.0009	0.0006	0.0002	0.0002	0.0003	0.0004	0.0005
12:00 AM - 01:00 AM	0.0008	0.0006	0.0001	0.0002	0.0002	0.0004	0.0005
01:00 AM - 02:00 AM	0.0016	0.0006	0.0002	0.0001	0.0003	0.0004	0.0005
02:00 AM - 03:00 AM	0.0014	0.0006	0.0002	0.0001	0.0003	0.0003	0.0005
03:00 AM - 04:00 AM	0.0013	0.0005	0.0002	0.0002	0.0003	0.0004	0.0005
04:00 AM - 05:00 AM	0.0011	0.0004	0.0002	0.0002	0.0003	0.0005	0.0005
05:00 AM - 06:00 AM	0.0010	0.0004	0.0003	0.0002	0.0003	0.0004	0.0005
06:00 AM - 07:00 AM	0.0018	0.0003	0.0002	0.0002	0.0004	0.0005	0.0005
07:00 AM - 08:00 AM	0.0017	0.0003	0.0003	0.0002	0.0003	0.0005	0.0005
08:00 AM - 09:00 AM	0.0016	0.0002	0.0003	0.0002	0.0003	0.0005	0.0005
09:00 AM - 10:00 AM	0.0014	0.0002	0.0003	0.0002	0.0004	0.0005	0.0006
10:00 AM - 11:00 AM	0.0013	0.0002	0.0003	0.0002	0.0004	0.0005	0.0005
11:00 AM - 12:00 PM	0.0012	0.0001	0.0003	0.0002	0.0004	0.0005	0.0005
12:00 PM - 01:00 PM	0.0012	0.0001	0.0003	0.0002	0.0005	0.0005	0.0008
Average	0.0011	0.0005	0.0002	0.0002	0.0003	0.0004	0.0005
1hr - Maximum	0.0018	0.0011	0.0004	0.0003	0.0005	0.0005	0.0008
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

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

Reference Method : US EPA Method Part 53 and 58

Approved by

Saranya C.

Saranya Chalerthamrong
Scientist (4)

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S:\Reports_Air SOxNOx.rpt (1:23PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119676

Date Received : Nov 01, 2024

Date Reported : Nov 07, 2024

Report Number: 3158570-1

Page 1 of 1

Sample Description	Air Quality						
Location	ร. รัตนาลอณ รัตนวิทยานวณกลาง (GPS 47P 0700733, 1590964)						
Parameter	Sulfur Dioxide (ppm)						
Measurement Date	Oct 21, 2024 - Oct 28, 2024						
Measurement by	Winyou Boontana						
Time	24119676-22 Oct 21, 2024	24119676-23 Oct 22, 2024	24119676-24 Oct 23, 2024	24119676-25 Oct 24, 2024	24119676-26 Oct 25, 2024	24119676-27 Oct 26, 2024	24119676-28 Oct 27, 2024
12:00 PM - 01:00 PM	0.0005	0.0009	0.0011	0.0007	0.0011	0.0009	0.0007
01:00 PM - 02:00 PM	0.0005	0.0009	0.0010	0.0007	0.0014	0.0009	0.0007
02:00 PM - 03:00 PM	0.0006	0.0008	0.0010	0.0008	0.0015	0.0009	0.0008
03:00 PM - 04:00 PM	0.0006	0.0009	0.0010	0.0009	0.0014	0.0010	0.0008
04:00 PM - 05:00 PM	0.0007	0.0010	0.0010	0.0010	0.0012	0.0011	0.0008
05:00 PM - 06:00 PM	0.0007	0.0012	0.0011	0.0010	0.0011	0.0010	0.0009
06:00 PM - 07:00 PM	0.0008	0.0013	0.0010	0.0011	0.0012	0.0010	0.0009
07:00 PM - 08:00 PM	0.0006	0.0010	0.0009	0.0010	0.0010	0.0008	0.0009
08:00 PM - 09:00 PM	0.0006	0.0008	0.0007	0.0008	0.0010	0.0008	0.0009
09:00 PM - 10:00 PM	0.0006	0.0009	0.0008	0.0006	0.0010	0.0008	0.0008
10:00 PM - 11:00 PM	0.0006	0.0010	0.0009	0.0009	0.0010	0.0008	0.0008
11:00 PM - 12:00 AM	0.0004	0.0010	0.0009	0.0011	0.0012	0.0008	0.0008
12:00 AM - 01:00 AM	0.0008	0.0009	0.0008	0.0013	0.0013	0.0009	0.0007
01:00 AM - 02:00 AM	0.0008	0.0010	0.0008	0.0013	0.0010	0.0009	0.0007
02:00 AM - 03:00 AM	0.0011	0.0010	0.0008	0.0014	0.0009	0.0009	0.0007
03:00 AM - 04:00 AM	0.0008	0.0011	0.0009	0.0014	0.0008	0.0009	0.0007
04:00 AM - 05:00 AM	0.0007	0.0011	0.0009	0.0012	0.0007	0.0009	0.0008
05:00 AM - 06:00 AM	0.0009	0.0010	0.0009	0.0012	0.0008	0.0008	0.0008
06:00 AM - 07:00 AM	0.0012	0.0010	0.0009	0.0010	0.0009	0.0008	0.0008
07:00 AM - 08:00 AM	0.0013	0.0012	0.0008	0.0009	0.0008	0.0009	0.0009
08:00 AM - 09:00 AM	0.0009	0.0012	0.0008	0.0009	0.0008	0.0012	0.0009
09:00 AM - 10:00 AM	0.0007	0.0012	0.0007	0.0009	0.0008	0.0005	0.0008
10:00 AM - 11:00 AM	0.0009	0.0011	0.0007	0.0008	0.0008	0.0008	0.0008
11:00 AM - 12:00 PM	0.0009	0.0012	0.0007	0.0009	0.0009	0.0007	0.0008
Average	0.0008	0.0010	0.0009	0.0010	0.0010	0.0009	0.0008
1hr - Maximum	0.0013	0.0013	0.0011	0.0014	0.0015	0.0012	0.0009
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12

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

Reference Method : US EPA Method Part 53 and 58

Approved by

Saranya C.

Saranya Chalerthamrong
Scientist (4)

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

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S:\Reports_Air SOxNOx.rpt (1:23PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119678

Date Received :Nov 01, 2024

Date Reported :Nov 08, 2024

Report Number :3141527-1

Page 1 of 2

Sample Number 24119678-1 to 7
Parameter Wind Speed / Wind Direction
Location มหานครอุตสาหกรรม (GPS 47P 0698599, 1589315)
Sampling Date Oct 21 - Oct 28, 2024
Sampling by Winyou Boontana

Time	Oct 21 - Oct 22, 2024			Oct 22 - Oct 23, 2024			Oct 23 - Oct 24, 2024			Oct 24 - Oct 25, 2024			Oct 25 - Oct 26, 2024			Oct 26 - Oct 27, 2024			Oct 27 - Oct 28, 2024		
	WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)		WS (m/s)	WD (deg)	
10:00 AM - 11:00 AM	0.2	-	-	0.3	316.0	NW	0.4	123.0	ESE	0.1	-	-	0.3	338.0	NNW	0.5	332.0	NNW	0.6	306.0	NW
11:00 AM - 12:00 PM	0.5	108.0	ESE	0.2	-	-	0.5	292.0	WNW	0.9	9.0	N	0.4	359.0	N	0.6	283.0	WNW	0.4	312.0	NW
12:00 PM - 01:00 PM	0.5	86.0	E	1.2	265.0	W	0.2	-	-	0.4	299.0	WNW	0.3	258.0	WSW	0.8	320.0	NW	1.0	348.0	NNW
01:00 PM - 02:00 PM	0.2	-	-	0.5	349.0	N	0.5	277.0	W	0.0	-	-	1.7	277.0	W	1.1	332.0	NNW	0.3	271.0	W
02:00 PM - 03:00 PM	0.0	-	-	0.5	249.0	WSW	0.5	284.0	WNW	0.5	353.0	N	0.4	332.0	NNW	0.6	326.0	NW	0.2	-	-
03:00 PM - 04:00 PM	0.0	-	-	1.4	109.0	ESE	0.0	-	-	0.9	319.0	NW	0.1	-	-	0.6	334.0	NNW	0.0	-	-
04:00 PM - 05:00 PM	0.0	-	-	0.3	323.0	NW	0.0	-	-	0.2	-	-	0.0	-	-	1.0	278.0	W	0.3	280.0	W
05:00 PM - 06:00 PM	2.3	77.0	ENE	0.0	-	-	0.0	-	-	0.3	328.0	NNW	0.0	-	-	0.3	277.0	W	0.5	275.0	W
06:00 PM - 07:00 PM	0.0	-	-	0.5	112.0	ESE	1.1	8.0	N	0.4	324.0	NW	0.0	-	-	0.6	277.0	W	0.0	-	-
07:00 PM - 08:00 PM	1.7	95.0	E	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
08:00 PM - 09:00 PM	0.7	76.0	ENE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
09:00 PM - 10:00 PM	0.9	86.0	E	0.0	-	-	0.0	-	-	0.4	319.0	NW	0.0	-	-	0.0	-	-	0.0	-	-
10:00 PM - 11:00 PM	0.0	-	-	0.4	128.0	SE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
11:00 PM - 12:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
12:00 AM - 01:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.2	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.1	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.2	-	-
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.6	127.0	SE
03:00 AM - 04:00 AM	0.0	-	-	0.6	98.0	E	0.6	17.0	NNE	0.7	353.0	N	0.0	-	-	0.0	-	-	0.5	112.0	ESE
04:00 AM - 05:00 AM	0.0	-	-	0.0	-	-	0.7	336.0	NNW	0.1	-	-	0.0	-	-	0.0	-	-	0.4	81.0	E
05:00 AM - 06:00 AM	0.0	-	-	0.0	-	-	0.1	-	-	0.5	9.0	N	0.1	-	-	0.0	-	-	0.0	-	-
06:00 AM - 07:00 AM	0.0	-	-	0.3	268.0	W	0.5	346.0	NNW	0.7	348.0	NNW	0.6	359.0	N	0.0	-	-	1.9	66.0	ENE
07:00 AM - 08:00 AM	0.3	333.0	NNW	0.3	354.0	N	0.0	-	-	0.7	353.0	N	0.0	-	-	0.5	275.0	W	0.0	-	-
08:00 AM - 09:00 AM	0.0	-	-	0.2	-	-	0.2	-	-	0.3	356.0	N	0.3	328.0	NNW	0.9	326.0	NW	0.0	-	-
09:00 AM - 10:00 AM	0.2	-	-	1.1	90.0	E	0.5	98.0	E	0.0	-	-	0.1	-	-	0.5	279.0	W	0.3	87.0	E

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

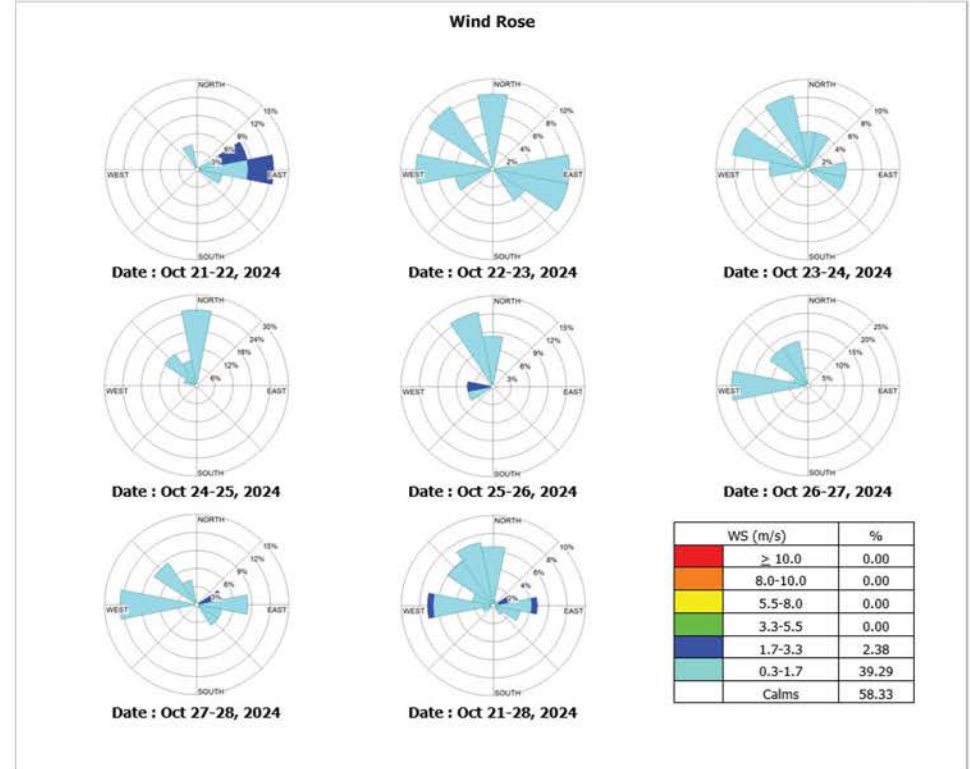
Lot ID: 24119678

Date Received :Nov 01, 2024

Date Reported :Nov 08, 2024

Report Number :3141527-1

Page 2 of 2



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111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119678

Date Received : Nov 01, 2024

Date Reported : Nov 08, 2024

Report Number : 3141527-1

Page 1 of 2

Sample Number : 24119678-8 to 14

Parameter : Wind Speed / Wind Direction

Location : ร. บ้านโพนทุ่งต้นขะ ทุเรียนบ้านโพนทุ่งต้นขะ (GPS 47P 0697239, 1589433)

Sampling Date : Oct 21 - Oct 28, 2024

Sampling by : Winyou Boontana

Time	Oct 21 - Oct 22, 2024			Oct 22 - Oct 23, 2024			Oct 23 - Oct 24, 2024			Oct 24 - Oct 25, 2024			Oct 25 - Oct 26, 2024			Oct 26 - Oct 27, 2024			Oct 27 - Oct 28, 2024		
	WS (m/s)	WD (deg)	S	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	2.8	176.0	S	1.5	111.0	ESE	2.7	307.0	NW	1.9	286.0	WNW	2.4	293.0	WNW	1.5	311.0	NW	1.3	287.0	WNW
12:00 PM - 01:00 PM	3.7	147.0	SSE	1.3	19.0	NNE	2.3	246.0	WSW	2.6	297.0	WNW	1.8	267.0	W	2.1	303.0	WNW	4.1	305.0	NW
01:00 PM - 02:00 PM	2.4	217.0	SW	0.7	308.0	NW	3.2	241.0	WSW	1.5	299.0	WNW	1.3	276.0	W	1.3	296.0	WNW	2.2	281.0	W
02:00 PM - 03:00 PM	0.7	76.0	ENE	0.8	293.0	WNW	2.1	225.0	SW	2.0	303.0	WNW	1.3	307.0	NW	1.2	291.0	WNW	1.3	266.0	W
03:00 PM - 04:00 PM	0.0	-	-	0.0	-	-	0.3	272.0	W	1.2	290.0	WNW	1.0	306.0	NW	1.6	270.0	W	1.6	271.0	W
04:00 PM - 05:00 PM	0.0	-	-	0.5	86.0	E	0.0	-	-	0.9	290.0	WNW	0.3	254.0	WSW	0.8	304.0	NW	0.3	244.0	WSW
05:00 PM - 06:00 PM	0.0	-	-	0.0	-	-	0.2	-	-	0.2	-	-	0.5	261.0	W	0.5	297.0	WNW	0.9	251.0	WSW
06:00 PM - 07:00 PM	2.8	230.0	SW	0.3	112.0	ESE	0.0	-	-	0.5	299.0	WNW	0.0	-	-	0.4	285.0	WNW	0.5	23.0	NNE
07:00 PM - 08:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.4	265.0	W	0.4	253.0	WSW	0.0	-	-	0.0	-	-
08:00 PM - 09:00 PM	0.0	-	-	0.0	-	-	0.3	247.0	WSW	0.5	273.0	W	0.6	301.0	WNW	0.0	-	-	0.2	-	-
09:00 PM - 10:00 PM	0.0	-	-	0.6	213.0	SSW	0.0	-	-	0.2	-	-	0.0	-	-	0.6	288.0	WNW	0.0	-	-
10:00 PM - 11:00 PM	0.4	218.0	SW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.6	258.0	WSW	0.8	272.0	W
11:00 PM - 12:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.2	-	-	0.0	-	-	0.1	-	-	0.0	-	-
12:00 AM - 01:00 AM	0.0	-	-	0.2	-	-	0.5	228.0	SW	1.0	300.0	WNW	0.0	-	-	0.5	41.0	NE	0.5	79.0	E
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.5	280.0	W	0.0	-	-	0.4	144.0	SE	2.2	128.0	SE
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.3	221.0	SW	0.0	-	-	0.3	140.0	SE	2.2	131.0	SE
03:00 AM - 04:00 AM	0.5	115.0	ESE	0.6	124.0	SE	0.3	27.0	NNE	0.7	23.0	NNE	0.3	54.0	NE	0.5	227.0	SW	3.0	117.0	ESE
04:00 AM - 05:00 AM	0.3	123.0	ESE	0.2	-	-	1.0	39.0	NE	0.6	359.0	N	0.2	-	-	0.0	-	-	1.3	136.0	SE
05:00 AM - 06:00 AM	0.0	-	-	1.8	263.0	W	0.4	33.0	NNE	0.5	331.0	NNW	0.0	-	-	0.0	-	-	2.8	109.0	SE
06:00 AM - 07:00 AM	1.1	118.0	ESE	1.6	320.0	NW	0.7	46.0	NE	0.8	27.0	NNE	0.3	231.0	SW	0.4	214.0	SW	2.2	157.0	SSE
07:00 AM - 08:00 AM	2.3	111.0	ESE	2.4	46.0	NE	1.3	268.0	W	0.9	302.0	WNW	0.4	223.0	SW	0.7	247.0	WSW	0.5	152.0	SSE
08:00 AM - 09:00 AM	1.6	64.0	ENE	2.2	55.0	NE	1.8	284.0	WNW	0.7	70.0	ENE	1.1	304.0	NW	1.2	311.0	NW	0.7	182.0	S
09:00 AM - 10:00 AM	1.4	283.0	WNW	1.4	266.0	W	2.7	303.0	WNW	1.8	321.0	NW	1.2	309.0	NW	2.1	289.0	WNW	2.3	223.0	SW
10:00 AM - 11:00 AM	2.2	115.0	ESE	0.8	200.0	SSW	2.3	298.0	WNW	0.7	285.0	WNW	1.8	325.0	NW	1.2	257.0	WSW	3.1	187.0	S

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Sarayuth Jitranont
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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

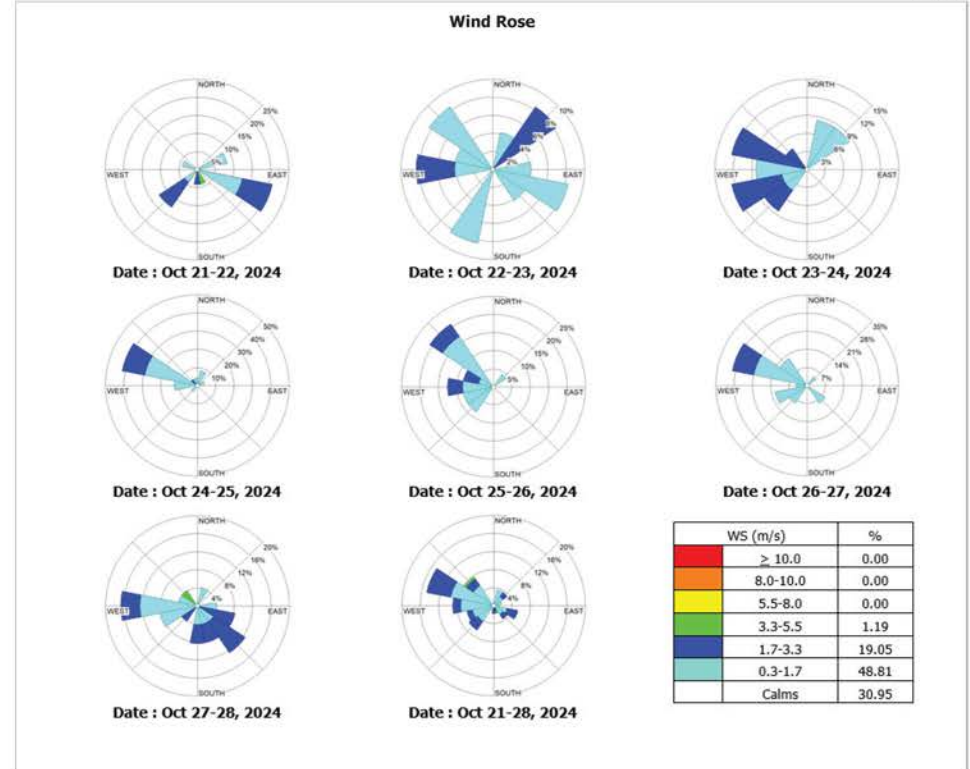
Lot ID: 24119678

Date Received : Nov 01, 2024

Date Reported : Nov 08, 2024

Report Number : 3141527-1

Page 2 of 2



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Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119678

Date Received :Nov 01, 2024

Date Reported :Nov 08, 2024

Report Number :3141527-1

Page 1 of 2

Sample Number 24119678-15 to 21

Parameter Wind Speed / Wind Direction

Location รร. วัดป่าลพบุรี หมู่ ๗ บ้านป่าลพบุรี (GPS 47P 0698465, 1594331)

Sampling Date Oct 21 - Oct 28, 2024

Sampling by Winyou Boontana

Time	Oct 21 - Oct 22, 2024			Oct 22 - Oct 23, 2024			Oct 23 - Oct 24, 2024			Oct 24 - Oct 25, 2024			Oct 25 - Oct 26, 2024			Oct 26 - Oct 27, 2024			Oct 27 - Oct 28, 2024		
	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	2.0	240.0	WSW	2.7	219.0	SW	4.2	175.0	S	1.3	272.0	W	0.9	281.0	W	1.6	208.0	SSW	0.8	236.0	SW
02:00 PM - 03:00 PM	1.7	246.0	WSW	1.9	207.0	SSW	1.4	248.0	WSW	1.9	234.0	SW	0.8	345.0	NNW	1.3	225.0	SW	1.9	210.0	SSW
03:00 PM - 04:00 PM	1.6	197.0	SSW	1.5	201.0	SSW	1.7	208.0	SSW	1.3	280.0	W	0.3	299.0	WNW	0.0	-	-	0.6	187.0	S
04:00 PM - 05:00 PM	0.8	162.0	SSE	1.2	276.0	W	3.2	219.0	SW	0.7	220.0	SW	3.1	252.0	WSW	0.0	-	-	1.7	242.0	WSW
05:00 PM - 06:00 PM	1.7	259.0	W	3.4	209.0	SSW	0.0	-	-	0.6	213.0	SSW	2.1	280.0	W	0.0	-	-	0.7	231.0	SW
06:00 PM - 07:00 PM	1.8	304.0	NW	0.1	-	-	0.6	215.0	SW	0.0	-	-	1.8	277.0	W	2.0	259.0	W	0.0	-	-
07:00 PM - 08:00 PM	0.4	232.0	SW	0.0	-	-	0.0	-	-	0.0	-	-	2.2	283.0	WNW	1.4	268.0	W	0.0	-	-
08:00 PM - 09:00 PM	0.9	148.0	SSE	0.4	100.0	E	2.7	216.0	SW	0.0	-	-	0.0	-	-	0.0	-	-	0.1	-	-
09:00 PM - 10:00 PM	0.0	-	-	0.1	-	-	2.5	264.0	W	0.0	-	-	0.1	-	-	0.0	-	-	0.3	171.0	S
10:00 PM - 11:00 PM	0.0	-	-	0.0	-	-	1.8	252.0	WSW	0.0	-	-	1.4	212.0	SSW	0.0	-	-	0.0	-	-
11:00 PM - 12:00 AM	0.0	-	-	0.9	229.0	SW	0.0	-	-	0.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-
12:00 AM - 01:00 AM	0.6	148.0	SSE	0.0	-	-	0.0	-	-	0.9	273.0	W	0.0	-	-	0.0	-	-	0.0	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.5	262.0	W	0.0	-	-	0.0	-	-	0.0	-	-
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.5	279.0	W	0.6	188.0	S	0.0	-	-	0.3	136.0	SE
03:00 AM - 04:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.3	171.0	S	0.0	-	-	0.0	-	-
04:00 AM - 05:00 AM	0.0	-	-	0.9	196.0	SSW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
05:00 AM - 06:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
06:00 AM - 07:00 AM	0.3	143.0	SE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.2	-	-	0.2	-	-
07:00 AM - 08:00 AM	1.2	58.0	ENE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
08:00 AM - 09:00 AM	0.5	189.0	S	0.2	-	-	0.0	-	-	0.9	241.0	WSW	0.6	110.0	ESE	0.0	-	-	0.0	-	-
09:00 AM - 10:00 AM	3.0	220.0	SW	0.2	-	-	0.0	-	-	1.6	247.0	WSW	1.6	185.0	S	0.0	-	-	0.5	211.0	SSW
10:00 AM - 11:00 AM	1.2	226.0	SW	1.7	215.0	SW	0.7	223.0	SW	2.6	208.0	SSW	2.1	206.0	SSW	2.7	198.0	SSW	0.6	175.0	S
11:00 AM - 12:00 PM	2.1	241.0	WSW	1.0	203.0	SSW	0.9	189.0	S	0.9	261.0	W	1.9	197.0	SSW	3.9	211.0	SSW	0.4	213.0	SSW
12:00 PM - 01:00 PM	1.3	260.0	W	3.3	208.0	SSW	1.1	281.0	W	0.4	303.0	WNW	0.2	-	-	0.3	200.0	SSW	1.2	198.0	SSW

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

Sarayuth Jitranont
Assistant General Manager

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

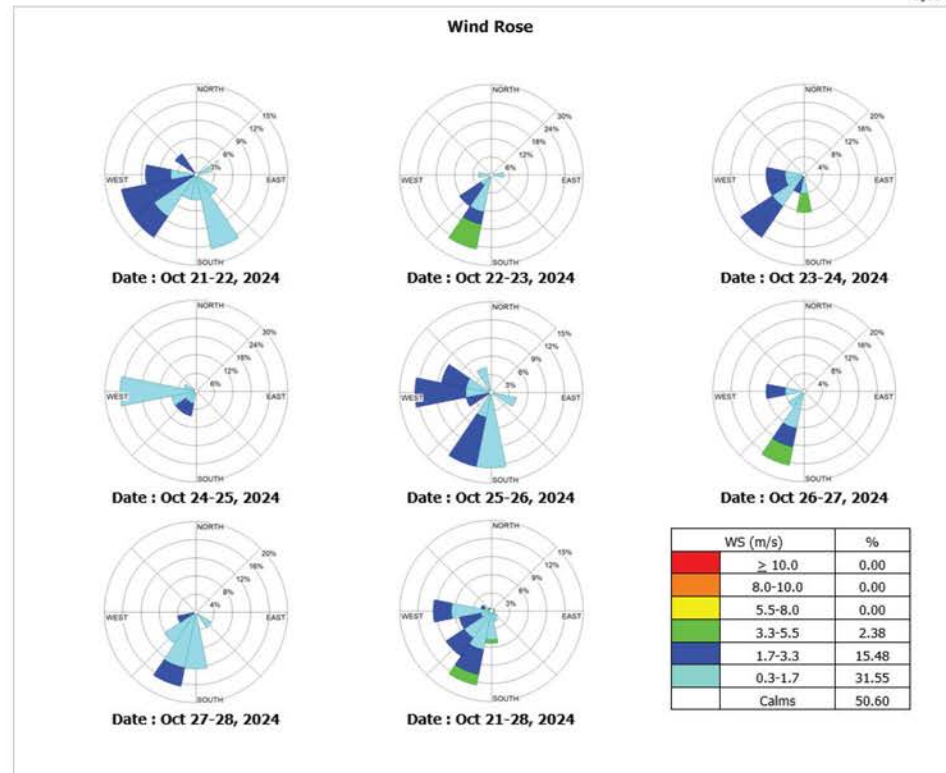
Lot ID: 24119678

Date Received :Nov 01, 2024

Date Reported :Nov 08, 2024

Report Number :3141527-1

Page 2 of 2



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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O :

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24129688

Date Received : Nov 21, 2024

Date Reported : Nov 26, 2024

Report Number : 3164755-1

Sample Number : 24129688-1 to 7

Parameter : Wind Speed / Wind Direction

Location : ร.ต.หนองปลาหมอ ขุขันธ์บ้านหนองกิ้งกือ (GPS 47P 0700770, 1590932)

Sampling Date : Nov 13 - Nov 20, 2024

Sampling by : Winyou Boontana

Time	Nov 13 - Nov 14, 2024		Nov 14 - Nov 15, 2024		Nov 15 - Nov 16, 2024		Nov 16 - Nov 17, 2024		Nov 17 - Nov 18, 2024		Nov 18 - Nov 19, 2024		Nov 19 - Nov 20, 2024								
	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	0.2	-	-	0.4	30.0	NNE	0.0	-	-	0.0	-	-	0.7	84.0	E	0.6	61.0	ENE	2.1	127.0	SE
12:00 PM - 01:00 PM	0.3	56.0	NE	0.0	-	-	0.2	-	-	0.3	60.0	ENE	1.2	37.0	NE	0.8	42.0	NE	1.8	38.0	N
01:00 PM - 02:00 PM	1.2	332.0	NNW	0.2	-	-	3.7	217.0	SW	0.1	-	-	0.8	52.0	NE	1.3	4.0	N	1.1	38.0	NE
02:00 PM - 03:00 PM	1.0	260.0	W	0.8	58.0	ENE	0.1	-	-	2.3	36.0	NE	1.7	56.0	NE	1.5	23.0	NNE	1.6	41.0	NE
03:00 PM - 04:00 PM	0.0	-	-	0.0	-	-	0.2	-	-	0.2	-	-	0.1	-	-	0.7	58.0	ENE	0.7	35.0	NE
04:00 PM - 05:00 PM	0.5	220.0	SW	0.0	-	-	0.0	-	-	0.0	-	-	0.2	-	-	0.0	-	-	0.6	24.0	NNE
05:00 PM - 06:00 PM	0.1	-	-	0.0	-	-	0.6	21.0	NNE	0.0	-	-	2.0	112.0	ESE	0.0	-	-	0.0	-	-
06:00 PM - 07:00 PM	0.0	-	-	0.0	-	-	0.3	21.0	NNE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
07:00 PM - 08:00 PM	0.4	67.0	ENE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.2	-	-	0.9	28.0	NNE
08:00 PM - 09:00 PM	0.3	117.0	ESE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.5	50.0	NE	0.6	26.0	NNE
09:00 PM - 10:00 PM	0.3	53.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.3	50.0	NE	0.5	24.0	NNE
10:00 PM - 11:00 PM	0.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.2	27.0	NNE
11:00 PM - 12:00 AM	0.3	37.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.7	21.0	NNE
12:00 AM - 01:00 AM	0.4	38.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.6	28.0	NNE	1.1	25.0	NNE
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.7	31.0	NNE	1.1	28.0	NNE
02:00 AM - 03:00 AM	0.2	-	-	0.0	-	-	0.3	21.0	NNE	0.0	-	-	0.0	-	-	0.4	26.0	NNE	1.1	12.0	NNE
03:00 AM - 04:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.4	38.0	NE
04:00 AM - 05:00 AM	0.5	45.0	NE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.4	29.0	NNE	1.1	43.0	NE
05:00 AM - 06:00 AM	0.8	32.0	NNE	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.8	56.0	NE	1.4	3.0	N
06:00 AM - 07:00 AM	0.3	61.0	ENE	0.0	-	-	0.0	-	-	1.1	36.0	NE	0.4	32.0	NNE	0.9	45.0	NE	0.7	40.0	NE
07:00 AM - 08:00 AM	1.1	25.0	NNE	0.0	-	-	0.1	-	-	0.8	24.0	NNE	0.0	-	-	0.8	38.0	NE	0.7	43.0	NE
08:00 AM - 09:00 AM	0.8	34.0	NE	0.0	-	-	0.0	-	-	1.0	80.0	E	1.4	46.0	NE	1.3	63.0	ENE	0.7	33.0	NNE
09:00 AM - 10:00 AM	0.7	42.0	NE	0.0	-	-	0.5	92.0	E	1.0	56.0	NE	0.7	85.0	E	1.5	44.0	NE	0.8	39.0	NE
10:00 AM - 11:00 AM	0.6	282.0	WNW	0.0	-	-	1.3	240.0	WSW	2.0	35.0	NE	0.8	103.0	ESE	0.9	62.0	ENE	0.2	-	-

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.

111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O :

Project Name : Monitoring

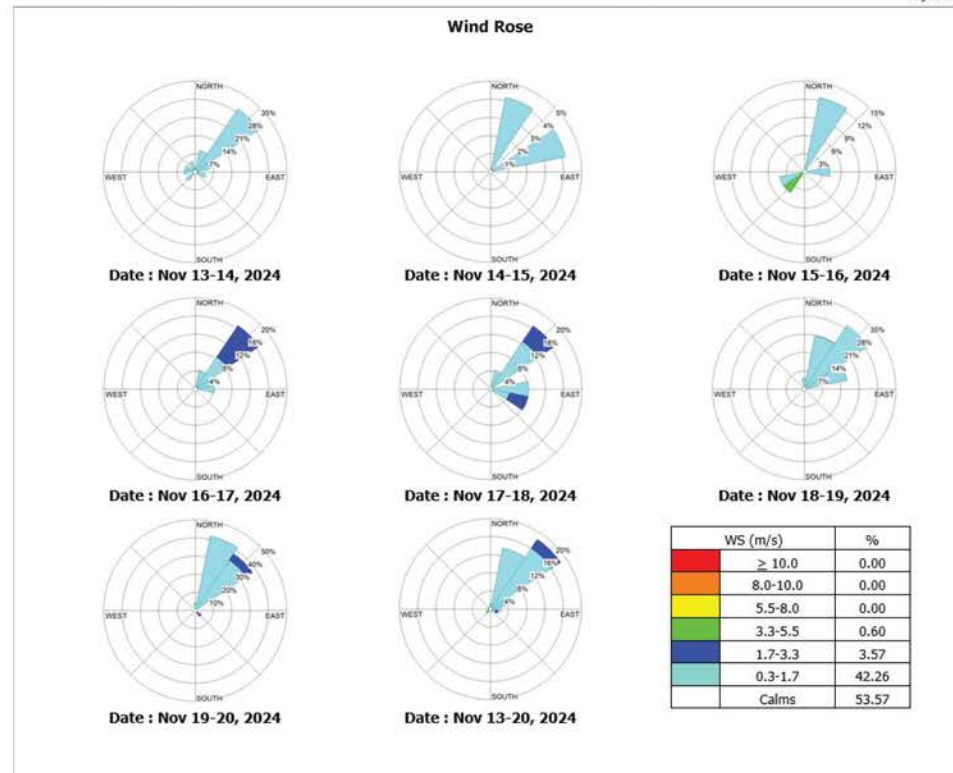
Project Location : WHA SIL

Lot ID: 24129688

Date Received : Nov 21, 2024

Date Reported : Nov 26, 2024

Report Number : 3164755-1



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ภาคผนวก ค-2

ระดับเสียงในบรรยากาศโดยทั่วไป



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119686

Date Received : Nov 01, 2024

Date Reported : Nov 08, 2024

Report Number: 3160709-1

Page 1 of 1

Sample Number 24119686-1
Parameter Noise (Leq 24 hrs.)
Location บริเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)
Measurement Date Oct 24 - Oct 25, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858521

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	56.2	75.1	51.4
09:00 AM - 10:00 AM	53.2	68.9	49.6
10:00 AM - 11:00 AM	52.7	70.5	49.4
11:00 AM - 12:00 PM	52.7	68.9	49.2
12:00 PM - 01:00 PM	52.5	68.4	49.4
01:00 PM - 02:00 PM	52.3	71.6	48.9
02:00 PM - 03:00 PM	53.1	71.7	49.6
03:00 PM - 04:00 PM	54.4	76.5	50.1
04:00 PM - 05:00 PM	54.7	72.2	51.0
05:00 PM - 06:00 PM	56.5	72.4	52.7
06:00 PM - 07:00 PM	54.5	72.1	51.5
07:00 PM - 08:00 PM	55.6	75.7	52.1
08:00 PM - 09:00 PM	57.1	77.6	53.8
09:00 PM - 10:00 PM	55.8	72.1	53.2
10:00 PM - 11:00 PM	54.1	66.4	51.8
11:00 PM - 12:00 AM	53.9	72.7	51.2
12:00 AM - 01:00 AM	53.7	68.6	50.9
01:00 AM - 02:00 AM	52.7	69.9	50.3
02:00 AM - 03:00 AM	52.1	64.6	49.4
03:00 AM - 04:00 AM	51.3	65.5	49.7
04:00 AM - 05:00 AM	52.2	74.8	50.0
05:00 AM - 06:00 AM	52.2	63.1	50.8
06:00 AM - 07:00 AM	54.6	73.8	51.2
07:00 AM - 08:00 AM	58.0	75.1	53.6

Leq Average 24 hrs. (dB(A)) 54.4

Lmax (dB(A))

77.6

L90 (dB(A))

50.8

Ldn (dB(A))

59.8

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

Orawan R.

Orawan Rakyong
Scientist (3)

Approved by

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Supot Salamteh
Section Head

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S:\Reports_Air Noise rpt (5:42PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119686

Date Received : Nov 01, 2024

Date Reported : Nov 08, 2024

Report Number: 3160710-1

Page 1 of 1

Sample Number 24119686-2
Parameter Noise (Leq 24 hrs.)
Location บริเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)
Measurement Date Oct 25 - Oct 26, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858521

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	57.6	79.8	51.6
09:00 AM - 10:00 AM	53.1	68.4	49.5
10:00 AM - 11:00 AM	53.1	67.4	49.2
11:00 AM - 12:00 PM	52.3	63.3	49.5
12:00 PM - 01:00 PM	53.6	69.0	50.1
01:00 PM - 02:00 PM	52.9	67.6	49.7
02:00 PM - 03:00 PM	53.1	66.7	50.0
03:00 PM - 04:00 PM	54.2	71.4	50.3
04:00 PM - 05:00 PM	54.7	71.7	51.1
05:00 PM - 06:00 PM	55.8	80.4	52.3
06:00 PM - 07:00 PM	55.3	74.0	52.0
07:00 PM - 08:00 PM	56.6	80.5	53.3
08:00 PM - 09:00 PM	57.2	71.7	54.0
09:00 PM - 10:00 PM	54.9	67.8	52.8
10:00 PM - 11:00 PM	54.0	71.8	51.7
11:00 PM - 12:00 AM	54.5	74.1	51.2
12:00 AM - 01:00 AM	52.9	65.2	50.1
01:00 AM - 02:00 AM	52.2	70.3	50.3
02:00 AM - 03:00 AM	50.6	65.3	49.2
03:00 AM - 04:00 AM	59.9	72.6	49.5
04:00 AM - 05:00 AM	50.6	69.0	49.1
05:00 AM - 06:00 AM	52.8	72.5	49.3
06:00 AM - 07:00 AM	53.9	72.3	50.1
07:00 AM - 08:00 AM	57.6	69.5	52.9

Leq Average 24 hrs. (dB(A)) 54.9

Lmax (dB(A))

80.5

L90 (dB(A))

50.1

Ldn (dB(A))

61.0

Standard (dB(A))

70

115

Reference Method : ISO1996-1 and 1996-2

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

Technical Management

Orawan R.

Orawan Rakyong
Scientist (3)

Approved by

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Supot Salamteh
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S:\Reports_Air Noise rpt (5:42PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119686

Date Received : Nov 01, 2024

Date Reported : Nov 08, 2024

Report Number: 3160711-1

Page 1 of 1

Sample Number 24119686-3
Parameter Noise (Leq 24 hrs.)
Location บริเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)
Measurement Date Oct 26 - Oct 27, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858521

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	56.2	72.0	51.3
09:00 AM - 10:00 AM	53.0	70.8	49.5
10:00 AM - 11:00 AM	51.8	69.7	48.7
11:00 AM - 12:00 PM	55.5	67.6	48.8
12:00 PM - 01:00 PM	52.3	67.2	49.3
01:00 PM - 02:00 PM	52.1	64.8	49.2
02:00 PM - 03:00 PM	52.9	74.4	49.7
03:00 PM - 04:00 PM	54.6	74.7	50.7
04:00 PM - 05:00 PM	54.7	71.1	51.1
05:00 PM - 06:00 PM	55.5	72.1	51.6
06:00 PM - 07:00 PM	54.0	70.5	51.4
07:00 PM - 08:00 PM	55.2	75.3	52.1
08:00 PM - 09:00 PM	54.7	66.2	52.6
09:00 PM - 10:00 PM	53.3	66.7	51.5
10:00 PM - 11:00 PM	53.4	71.9	51.2
11:00 PM - 12:00 AM	53.4	67.0	51.0
12:00 AM - 01:00 AM	53.1	73.2	50.5
01:00 AM - 02:00 AM	51.7	65.3	49.7
02:00 AM - 03:00 AM	51.0	74.6	48.7
03:00 AM - 04:00 AM	50.1	64.7	48.8
04:00 AM - 05:00 AM	50.4	67.8	49.2
05:00 AM - 06:00 AM	50.6	66.2	49.3
06:00 AM - 07:00 AM	52.8	72.9	50.3
07:00 AM - 08:00 AM	54.5	72.1	50.6

Leq Average 24 hrs. (dB(A))

Lmax (dB(A))

L90 (dB(A))

Ldn (dB(A))

Standard (dB(A))

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

Orawan R.

Orawan Rakyong
Scientist (3)

Approved by

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Supot Salamteh
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S:\Reports_Air Noise rpt (5:42PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119686

Date Received : Nov 01, 2024

Date Reported : Nov 08, 2024

Report Number: 3160712-1

Page 1 of 1

Sample Number 24119686-4
Parameter Noise (Leq 24 hrs.)
Location รร. บ้านใหม่ทุ่งดินฆอล หมู่ชนบ้านใหม่ทุ่งดินฆอล (GPS 47P 0697239, 1589433)
Measurement Date Oct 24 - Oct 25, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858523

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	50.3	68.8	43.5
09:00 AM - 10:00 AM	49.0	68.9	42.4
10:00 AM - 11:00 AM	46.6	65.6	42.5
11:00 AM - 12:00 PM	45.5	63.9	41.1
12:00 PM - 01:00 PM	47.4	72.8	40.2
01:00 PM - 02:00 PM	47.3	75.5	41.8
02:00 PM - 03:00 PM	48.9	70.8	41.0
03:00 PM - 04:00 PM	48.6	67.3	44.2
04:00 PM - 05:00 PM	51.6	74.9	44.6
05:00 PM - 06:00 PM	49.6	72.6	44.2
06:00 PM - 07:00 PM	54.4	69.8	47.5
07:00 PM - 08:00 PM	63.3	71.6	58.6
08:00 PM - 09:00 PM	65.1	69.5	63.8
09:00 PM - 10:00 PM	65.9	71.2	64.9
10:00 PM - 11:00 PM	63.1	73.2	61.6
11:00 PM - 12:00 AM	59.0	62.9	47.9
12:00 AM - 01:00 AM	49.8	60.5	45.8
01:00 AM - 02:00 AM	48.0	65.4	45.7
02:00 AM - 03:00 AM	49.7	65.9	46.8
03:00 AM - 04:00 AM	57.8	67.3	47.4
04:00 AM - 05:00 AM	60.9	63.1	60.3
05:00 AM - 06:00 AM	59.3	74.9	49.9
06:00 AM - 07:00 AM	54.0	75.1	48.9
07:00 AM - 08:00 AM	54.7	77.2	45.9

Leq Average 24 hrs. (dB(A))

Lmax (dB(A))

L90 (dB(A))

Ldn (dB(A))

Standard (dB(A))

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

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Orawan Rakyong
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S:\Reports_Air Noise rpt (5:42PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119686

Date Received : Nov 01, 2024

Date Reported : Nov 08, 2024

Report Number: 3160713-1

Page 1 of 1

Sample Number 24119686-5
Parameter Noise (Leq 24 hrs.)
Location รร. บ้านใหม่ทุ่งดินฆอล ชุมชนบ้านใหม่ทุ่งดินฆอล (GPS 47P 0697239, 1589433)
Measurement Date Oct 25 - Oct 26, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858523

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	49.1	70.7	43.1
09:00 AM - 10:00 AM	47.9	76.6	41.5
10:00 AM - 11:00 AM	52.7	76.9	41.5
11:00 AM - 12:00 PM	48.6	74.4	42.1
12:00 PM - 01:00 PM	47.7	69.4	41.3
01:00 PM - 02:00 PM	46.0	67.1	41.7
02:00 PM - 03:00 PM	47.3	68.8	41.9
03:00 PM - 04:00 PM	47.9	70.3	42.9
04:00 PM - 05:00 PM	50.6	70.7	43.5
05:00 PM - 06:00 PM	49.3	66.8	43.2
06:00 PM - 07:00 PM	54.7	70.2	47.2
07:00 PM - 08:00 PM	57.6	76.2	56.1
08:00 PM - 09:00 PM	56.8	73.7	51.2
09:00 PM - 10:00 PM	50.1	76.3	44.6
10:00 PM - 11:00 PM	47.5	67.1	44.4
11:00 PM - 12:00 AM	49.5	73.2	45.0
12:00 AM - 01:00 AM	54.1	65.2	47.1
01:00 AM - 02:00 AM	59.3	67.4	58.9
02:00 AM - 03:00 AM	58.2	70.7	52.0
03:00 AM - 04:00 AM	51.9	63.9	50.9
04:00 AM - 05:00 AM	53.0	66.6	51.4
05:00 AM - 06:00 AM	48.6	80.3	44.8
06:00 AM - 07:00 AM	57.1	78.3	45.6
07:00 AM - 08:00 AM	52.6	76.8	45.7

Leq Average 24 hrs. (dB(A))

53.4

Lmax (dB(A))

80.3

L90 (dB(A))

44.6

Ldn (dB(A))

61.1

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

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S:\Reports_Air Noise rpt (5:42PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119686

Date Received : Nov 01, 2024

Date Reported : Nov 08, 2024

Report Number: 3160714-1

Page 1 of 1

Sample Number 24119686-6
Parameter Noise (Leq 24 hrs.)
Location รร. บ้านใหม่ทุ่งดินฆอล ชุมชนบ้านใหม่ทุ่งดินฆอล (GPS 47P 0697239, 1589433)
Measurement Date Oct 26 - Oct 27, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858523

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	52.3	70.4	44.2
09:00 AM - 10:00 AM	49.5	73.1	43.3
10:00 AM - 11:00 AM	46.9	71.5	40.5
11:00 AM - 12:00 PM	47.5	69.5	38.8
12:00 PM - 01:00 PM	45.6	67.8	37.5
01:00 PM - 02:00 PM	43.8	62.5	38.0
02:00 PM - 03:00 PM	47.4	71.6	39.7
03:00 PM - 04:00 PM	48.2	64.9	43.4
04:00 PM - 05:00 PM	51.6	71.0	43.8
05:00 PM - 06:00 PM	52.5	78.5	43.4
06:00 PM - 07:00 PM	50.5	70.4	47.2
07:00 PM - 08:00 PM	52.0	69.9	48.7
08:00 PM - 09:00 PM	50.9	71.6	48.3
09:00 PM - 10:00 PM	49.8	67.6	46.0
10:00 PM - 11:00 PM	49.0	77.6	45.5
11:00 PM - 12:00 AM	50.3	76.7	47.0
12:00 AM - 01:00 AM	50.3	77.9	45.5
01:00 AM - 02:00 AM	48.3	70.1	45.0
02:00 AM - 03:00 AM	48.2	70.5	44.7
03:00 AM - 04:00 AM	47.4	61.0	44.2
04:00 AM - 05:00 AM	51.0	67.3	47.2
05:00 AM - 06:00 AM	51.3	78.3	47.3
06:00 AM - 07:00 AM	54.5	75.4	45.9
07:00 AM - 08:00 AM	54.1	76.6	45.2

Leq Average 24 hrs. (dB(A))

50.4

Lmax (dB(A))

78.5

L90 (dB(A))

44.7

Ldn (dB(A))

56.9

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

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S:\Reports_Air Noise rpt (5:43PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 24119686
Date Received : Nov 01, 2024
Date Reported : Nov 08, 2024
Report Number: 3160715-1

Page 1 of 1

Sample Number 24119686-7
Parameter Noise (Leq 24 hrs.)
Location รร. วัดป่าลพ ยมชนบ้านป่าลพกลาง (GPS 47P 0698465, 1594331)
Measurement Date Oct 24 - Oct 25, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858526

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	46.4	75.4	39.6
09:00 AM - 10:00 AM	44.4	66.3	39.3
10:00 AM - 11:00 AM	46.3	74.5	39.1
11:00 AM - 12:00 PM	42.5	59.8	37.8
12:00 PM - 01:00 PM	44.2	69.1	38.4
01:00 PM - 02:00 PM	44.1	70.3	37.1
02:00 PM - 03:00 PM	47.4	74.9	37.5
03:00 PM - 04:00 PM	44.7	67.4	38.9
04:00 PM - 05:00 PM	45.3	72.1	39.9
05:00 PM - 06:00 PM	47.6	70.6	40.5
06:00 PM - 07:00 PM	46.8	63.1	43.0
07:00 PM - 08:00 PM	47.5	70.5	45.5
08:00 PM - 09:00 PM	46.8	57.6	45.0
09:00 PM - 10:00 PM	45.5	58.9	44.0
10:00 PM - 11:00 PM	43.8	65.5	41.9
11:00 PM - 12:00 AM	42.7	54.8	41.0
12:00 AM - 01:00 AM	42.6	58.2	39.9
01:00 AM - 02:00 AM	41.7	52.3	40.4
02:00 AM - 03:00 AM	41.9	65.0	40.1
03:00 AM - 04:00 AM	40.4	51.8	38.3
04:00 AM - 05:00 AM	44.3	72.8	39.9
05:00 AM - 06:00 AM	45.1	63.2	41.0
06:00 AM - 07:00 AM	48.9	71.3	43.6
07:00 AM - 08:00 AM	46.2	63.6	41.8

Leq Average 24 hrs. (dB(A)) 45.4
Lmax (dB(A)) 75.4
L90 (dB(A)) 39.9
Ldn (dB(A)) 50.9
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

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S:\Reports_Air Noise rpt (5:43PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 24119686
Date Received : Nov 01, 2024
Date Reported : Nov 08, 2024
Report Number: 3160716-1

Page 1 of 1

Sample Number 24119686-8
Parameter Noise (Leq 24 hrs.)
Location รร. วัดป่าลพ ยมชนบ้านป่าลพกลาง (GPS 47P 0698465, 1594331)
Measurement Date Oct 25 - Oct 26, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858526

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	44.6	64.3	40.2
09:00 AM - 10:00 AM	43.7	57.9	38.5
10:00 AM - 11:00 AM	42.8	57.5	37.8
11:00 AM - 12:00 PM	43.3	63.6	38.2
12:00 PM - 01:00 PM	43.4	63.1	38.1
01:00 PM - 02:00 PM	44.4	63.7	37.9
02:00 PM - 03:00 PM	43.4	65.4	37.8
03:00 PM - 04:00 PM	44.7	66.3	40.1
04:00 PM - 05:00 PM	45.3	71.0	40.1
05:00 PM - 06:00 PM	49.3	68.5	42.2
06:00 PM - 07:00 PM	46.6	64.5	42.8
07:00 PM - 08:00 PM	48.2	62.3	45.6
08:00 PM - 09:00 PM	46.4	64.0	44.0
09:00 PM - 10:00 PM	46.1	64.3	43.1
10:00 PM - 11:00 PM	44.8	59.3	40.5
11:00 PM - 12:00 AM	42.3	60.0	40.2
12:00 AM - 01:00 AM	41.8	58.2	39.3
01:00 AM - 02:00 AM	40.6	56.6	38.1
02:00 AM - 03:00 AM	40.8	63.9	38.4
03:00 AM - 04:00 AM	40.9	51.5	38.8
04:00 AM - 05:00 AM	45.2	69.6	41.2
05:00 AM - 06:00 AM	46.2	67.7	41.7
06:00 AM - 07:00 AM	47.6	67.8	42.5
07:00 AM - 08:00 AM	48.0	71.8	42.6

Leq Average 24 hrs. (dB(A)) 45.2
Lmax (dB(A)) 71.8
L90 (dB(A)) 40.1
Ldn (dB(A)) 50.8
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

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S:\Reports_Air Noise rpt (5:43PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 24119686
Date Received : Nov 01, 2024
Date Reported : Nov 08, 2024
Report Number: 3160717-1

Page 1 of 1

Sample Number 24119686-9
Parameter Noise (Leq 24 hrs.)
Location รร. วัดป่าละอู หมู่ชนบ้านป่าละอูกลาง (GPS 47P 0698465, 1594331)
Measurement Date Oct 26 - Oct 27, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858526

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	44.5	65.2	39.3
09:00 AM - 10:00 AM	46.8	72.7	39.4
10:00 AM - 11:00 AM	45.7	74.6	37.3
11:00 AM - 12:00 PM	43.5	61.5	39.2
12:00 PM - 01:00 PM	42.0	59.7	37.9
01:00 PM - 02:00 PM	43.3	60.5	38.0
02:00 PM - 03:00 PM	45.0	60.2	39.8
03:00 PM - 04:00 PM	44.7	61.2	40.0
04:00 PM - 05:00 PM	46.6	64.2	40.7
05:00 PM - 06:00 PM	44.9	68.5	40.2
06:00 PM - 07:00 PM	47.0	71.8	42.2
07:00 PM - 08:00 PM	46.6	64.6	44.7
08:00 PM - 09:00 PM	45.3	56.6	43.9
09:00 PM - 10:00 PM	48.0	73.1	41.9
10:00 PM - 11:00 PM	43.4	63.2	41.0
11:00 PM - 12:00 AM	42.2	53.2	40.5
12:00 AM - 01:00 AM	42.0	60.9	38.7
01:00 AM - 02:00 AM	41.5	64.5	38.8
02:00 AM - 03:00 AM	41.3	50.1	39.5
03:00 AM - 04:00 AM	42.3	56.5	39.4
04:00 AM - 05:00 AM	44.8	70.1	41.0
05:00 AM - 06:00 AM	45.8	61.5	42.1
06:00 AM - 07:00 AM	49.1	70.9	42.1
07:00 AM - 08:00 AM	48.1	72.3	41.7

Leq Average 24 hrs. (dB(A)) 45.3
Lmax (dB(A)) 74.6
L90 (dB(A)) 40.0
Ldn (dB(A)) 51.0
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

Technical Management

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Orawan Rakyong
Scientist (3)

Approved by

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S:\Reports_Air Noise rpt (5:43PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 24119686
Date Received : Nov 01, 2024
Date Reported : Nov 08, 2024
Report Number: 3160718-1

Page 1 of 1

Sample Number 24119686-10
Parameter Noise (Leq 24 hrs.)
Location รร. วัดหนองปลาหมอ หมู่ชนบ้านหนองผิงยี่สิบ (GPS 47P 0700733, 1590964)
Measurement Date Oct 24 - Oct 25, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858525

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	58.8	75.3	51.3
09:00 AM - 10:00 AM	56.3	82.8	45.2
10:00 AM - 11:00 AM	52.1	73.4	43.6
11:00 AM - 12:00 PM	53.0	71.7	43.8
12:00 PM - 01:00 PM	54.1	74.3	44.4
01:00 PM - 02:00 PM	52.2	74.6	44.9
02:00 PM - 03:00 PM	54.2	79.4	43.1
03:00 PM - 04:00 PM	54.2	75.3	43.2
04:00 PM - 05:00 PM	55.4	78.7	46.8
05:00 PM - 06:00 PM	56.3	77.5	48.4
06:00 PM - 07:00 PM	54.4	81.6	47.8
07:00 PM - 08:00 PM	58.1	74.9	53.6
08:00 PM - 09:00 PM	59.1	77.7	55.8
09:00 PM - 10:00 PM	56.0	75.5	50.6
10:00 PM - 11:00 PM	51.5	72.5	46.2
11:00 PM - 12:00 AM	49.6	71.0	46.0
12:00 AM - 01:00 AM	52.6	73.9	45.8
01:00 AM - 02:00 AM	53.3	71.7	51.0
02:00 AM - 03:00 AM	52.9	68.6	51.1
03:00 AM - 04:00 AM	53.5	70.2	50.7
04:00 AM - 05:00 AM	50.6	68.1	47.7
05:00 AM - 06:00 AM	55.1	69.7	47.8
06:00 AM - 07:00 AM	54.2	76.2	48.9
07:00 AM - 08:00 AM	57.0	74.4	50.3

Leq Average 24 hrs. (dB(A)) 55.0
Lmax (dB(A)) 82.8
L90 (dB(A)) 47.7
Ldn (dB(A)) 59.9
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

Orawan R.
Orawan Rakyong
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S:\Reports_Air Noise rpt (5:43PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119686

Date Received : Nov 01, 2024

Date Reported : Nov 08, 2024

Report Number: 3160719-1

Page 1 of 1

Sample Number 24119686-11
Parameter Noise (Leq 24 hrs.)
Location รร. วัดหนองปลาหมอ ชุมชนบ้านหนองผักชีโต (GPS 47P 0700733, 1590964)
Measurement Date Oct 25 - Oct 26, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858525

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	54.3	77.4	47.2
09:00 AM - 10:00 AM	53.9	74.4	45.3
10:00 AM - 11:00 AM	52.7	77.6	44.8
11:00 AM - 12:00 PM	52.2	68.9	45.3
12:00 PM - 01:00 PM	52.9	71.1	45.9
01:00 PM - 02:00 PM	53.9	75.7	45.1
02:00 PM - 03:00 PM	53.3	73.7	45.5
03:00 PM - 04:00 PM	53.8	71.9	45.3
04:00 PM - 05:00 PM	57.4	81.5	47.2
05:00 PM - 06:00 PM	56.4	76.2	49.2
06:00 PM - 07:00 PM	54.8	83.0	47.4
07:00 PM - 08:00 PM	55.9	78.5	51.2
08:00 PM - 09:00 PM	56.6	83.8	48.6
09:00 PM - 10:00 PM	52.5	71.9	47.2
10:00 PM - 11:00 PM	50.9	69.6	46.2
11:00 PM - 12:00 AM	50.9	77.3	44.8
12:00 AM - 01:00 AM	51.5	74.0	45.8
01:00 AM - 02:00 AM	50.2	69.8	47.2
02:00 AM - 03:00 AM	50.1	71.8	47.1
03:00 AM - 04:00 AM	48.8	67.8	45.3
04:00 AM - 05:00 AM	48.6	68.4	42.2
05:00 AM - 06:00 AM	54.2	74.2	45.9
06:00 AM - 07:00 AM	55.1	76.5	47.5
07:00 AM - 08:00 AM	54.9	74.0	48.2

Leq Average 24 hrs. (dB(A)) 53.8

Lmax (dB(A))

83.8

L90 (dB(A))

45.9

Ldn (dB(A))

58.7

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

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Orawan Rakyong
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S:\Reports_Air Noise rpt (5:44PM)



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O : 54240030

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 24119686

Date Received : Nov 01, 2024

Date Reported : Nov 08, 2024

Report Number: 3160720-1

Page 1 of 1

Sample Number 24119686-12
Parameter Noise (Leq 24 hrs.)
Location รร. วัดหนองปลาหมอ ชุมชนบ้านหนองผักชีโต (GPS 47P 0700733, 1590964)
Measurement Date Oct 26 - Oct 27, 2024
Measurement by Thaneeuan Sriwasut
Sound Level meter Serial No. 858525

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
08:00 AM - 09:00 AM	54.5	72.3	45.9
09:00 AM - 10:00 AM	58.3	77.6	49.4
10:00 AM - 11:00 AM	59.3	72.0	51.1
11:00 AM - 12:00 PM	59.5	75.1	48.6
12:00 PM - 01:00 PM	59.0	88.1	43.8
01:00 PM - 02:00 PM	52.0	66.6	45.3
02:00 PM - 03:00 PM	52.0	75.0	44.8
03:00 PM - 04:00 PM	57.1	75.6	48.2
04:00 PM - 05:00 PM	58.8	80.1	52.8
05:00 PM - 06:00 PM	58.0	83.1	52.4
06:00 PM - 07:00 PM	62.9	88.1	51.8
07:00 PM - 08:00 PM	57.9	71.1	52.5
08:00 PM - 09:00 PM	56.4	88.3	49.5
09:00 PM - 10:00 PM	54.7	73.8	47.6
10:00 PM - 11:00 PM	58.0	93.4	46.1
11:00 PM - 12:00 AM	52.6	80.0	44.5
12:00 AM - 01:00 AM	50.2	71.3	46.6
01:00 AM - 02:00 AM	50.9	74.6	47.8
02:00 AM - 03:00 AM	49.1	69.9	44.4
03:00 AM - 04:00 AM	48.3	71.5	43.6
04:00 AM - 05:00 AM	46.9	67.0	42.8
05:00 AM - 06:00 AM	60.0	70.6	53.1
06:00 AM - 07:00 AM	59.6	79.1	50.9
07:00 AM - 08:00 AM	57.3	76.1	49.5

Leq Average 24 hrs. (dB(A)) 57.2

Lmax (dB(A))

93.4

L90 (dB(A))

47.8

Ldn (dB(A))

62.3

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

Orawan R.
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ภาคผนวก ค-3

คุณภาพน้ำผิวดิน



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 2489542
Date Received : Sep 03, 2024
Date Reported : Sep 11, 2024
Report Number : 3074405-1

Page 1 of 9

Sample Number 2489542-1
Sampled Date Sep 03, 2024 9:00 AM
Sample Description Surface water
Location คลองระพีพัฒน์ บริเวณต้นน้ำก่อนถึงท่อผลของคลองหนองปรุ ประมาณ 500 เมตร
Date Analysis Commenced Sep 04, 2024
Condition of Sample Contained in one amber glass bottle, two BOD bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.001	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	11000.0	≤20000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	-	0.06	0.18	≤0.5	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (B, F)	Bangkok
BOD (5 days at 20 degree C) *	mg/L	-	2.0	<2.0	≤2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, 4500 -O (C)	Bangkok
Conductivity at 25 degree C *	micromhos/cm	-	0.5	363	No Standard	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	≤0.005	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok

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

Approved by

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 2489542
Date Received : Sep 03, 2024
Date Reported : Sep 11, 2024
Report Number : 3074405-1

Page 2 of 9

Sample Number 2489542-1
Sampled Date Sep 03, 2024 9:00 AM
Sample Description Surface water
Location คลองระพีพัฒน์ บริเวณต้นน้ำก่อนถึงท่อผลของคลองหนองปรุ ประมาณ 500 เมตร
Date Analysis Commenced Sep 04, 2024
Condition of Sample Contained in one amber glass bottle, two BOD bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	5.8	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Bangkok
Nitrate as N	mg/L	0.06	0.2	0.7	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Oil & Grease	mg/L	-	3	<3	No Standard	In-house method : STM 04-014 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Bangkok
pH at 25 degree C		-	-	7.5	5.0-9.0	In-house method : STM 04-003 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok
Temperature *	Degree C	-	-	29.3	n ¹	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Bangkok
Total Dissolved solids Dried at 180 degree C *	mg/L	-	5	170	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	50	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Bangkok

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)

n¹: Change from Natural condition not more than 3 degree C

n : Not Change from natural condition

Sampling By : Jiranat Khowlaor

Remark :

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

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location: WHA SIL



TESTING
No.0009
Lot ID: 2489542
Date Received : Sep 03, 2024
Date Reported : Sep 11, 2024
Report Number : 3074405-1

Page 3 of 9

- 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.



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location: WHA SIL



TESTING
No.0009
Lot ID: 2489542
Date Received : Sep 03, 2024
Date Reported : Sep 11, 2024
Report Number : 3074405-1

Page 4 of 9

Sample Number 2489542-2
Sampled Date Sep 03, 2024 9:20 AM
Sample Description Surface water
Location คลองหนองจรูญ บริเวณต้นน้ำก่อนถึงจุดระบายน้ำทิ้ง ประมาณ 500 เมตร
Date Analysis Commenced Sep 04, 2024
Condition of Sample Contained in one amber glass bottle, two BOD bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.001	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	24000.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	-	0.06	0.08	≤0.5	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (B, F)	Bangkok
BOD (5 days at 20 degree C) *	mg/L	-	2.0	<2.0	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, 4500 - O (C)	Bangkok
Conductivity at 25 degree C *	micromhos/cm	-	0.5	338	No Standard	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	0.005	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok

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

Approved by

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 2489542
Date Received : Sep 03, 2024
Date Reported : Sep 11, 2024
Report Number : 3074405-1

Page 5 of 9

Sample Number 2489542-2
Sampled Date Sep 03, 2024 9:20 AM
Sample Description Surface water
Location คลองหนองปรือบริเวณต้นน้ำก่อนถึงจุดระบายน้ำทิ้ง ประมาณ 500 เมตร
Date Analysis Commenced Sep 04, 2024
Condition of Sample Contained in one amber glass bottle, two BOD bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	4.2	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Bangkok
Nitrate as N	mg/L	0.06	0.2	<0.2	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Oil & Grease	mg/L	-	3	<3	No Standard	In-house method : STM 04-014 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Bangkok
pH at 25 degree C		-	-	7.2	5.0-9.0	In-house method : STM 04-003 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - H (B)	Bangkok
Temperature *	Degree C	-	-	29.7	n ¹	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Bangkok
Total Dissolved solids Dried at 180 degree C *	mg/L	-	5	156	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	34	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Bangkok

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
n¹: Change from Natural condition not more than 3 degree C
Sampling By : Jiranat Khawlaor

Remark :
- LOD : Limit of Detection

Approved by

Sithichok T.
Sithichok Thongnuean
Scientist (3)

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

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 2489542
Date Received : Sep 03, 2024
Date Reported : Sep 11, 2024
Report Number : 3074405-1

Page 6 of 9

- "<" : 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

Sithichok T.
Sithichok Thongnuean
Scientist (3)

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 2489542
Date Received : Sep 03, 2024
Date Reported : Sep 11, 2024
Report Number : 3074405-1

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Sample Number 2489542-3
Sampled Date Sep 03, 2024 9:30 AM
Sample Description Surface water
Location คลองหนองจอก ฝายน้ำจากจุดระบายน้ำทั้งลงมา ประมาณ 500 เมตร
Date Analysis Commenced Sep 04, 2024
Condition of Sample Contained in one amber glass bottle, two BOD bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.02	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	4900.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	-	0.06	0.07	≤0.5	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH3 (B, F)	Bangkok
BOD (5 days at 20 degree C) *	mg/L	-	2.0	<2.0	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5210 B, 4500 - O (C)	Bangkok
Conductivity at 25 degree C *	micromhos/cm	-	0.5	140	No Standard	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2510 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	<0.005	0.005	In-house method : STM 04-007 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - CN (C, E)	Bangkok

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 2489542
Date Received : Sep 03, 2024
Date Reported : Sep 11, 2024
Report Number : 3074405-1

Page 8 of 9

Sample Number 2489542-3
Sampled Date Sep 03, 2024 9:30 AM
Sample Description Surface water
Location คลองหนองจอก ฝายน้ำจากจุดระบายน้ำทั้งลงมา ประมาณ 500 เมตร
Date Analysis Commenced Sep 04, 2024
Condition of Sample Contained in one amber glass bottle, two BOD bottles and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	7.6	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Bangkok
Nitrate as N	mg/L	0.06	0.2	Not Detected	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4110 B	Bangkok
Oil & Grease	mg/L	-	3	<3	No Standard	In-house method : STM 04-014 based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Bangkok
pH at 25 degree C	-	-	-	7.1	5.0-9.0	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	n ¹	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Bangkok
Total Dissolved solids Dried at 180 degree C *	mg/L	-	5	62	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	60	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Bangkok

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 4)
n¹: Change from Natural condition not more than 3 degree C
Sampling By : Jiranat Khawlaor

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

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location: WHA SIL



TESTING
No.0009
Lot ID: 2489542
Date Received : Sep 03, 2024
Date Reported : Sep 11, 2024
Report Number : 3074405-1

Page 9 of 9

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



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
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P/O : 54240030
Project Name : Monitoring
Project Location: WHA SIL



TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 1 of 12

Sample Number 24123584-1
Sampled Date Dec 03, 2024 2:20 PM
Sample Description Surface water
Location คลองระพีพัฒน์ บริเวณต้นน้ำก่อนถึงท่อลอดของคลองหนองจรูญ ประมาณ 500 เมตร
Date Analysis Commenced Dec 04, 2024
Condition of Sample Contained in two DO bottles, one amber glass bottle, two glass vials and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.002	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.002	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.001	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.13	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok

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Siriluk Bunnak
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Analysis / Test Report

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111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 2 of 12

Sample Number 24123584-1
Sampled Date Dec 03, 2024 2:20 PM
Sample Description Surface water
Location คลองระพีพัฒน์ บริเวณต้นน้ำก่อนถึงท่อผลของคลองหนองจร ประมาณ 500 เมตร
Date Analysis Commenced Dec 04, 2024
Condition of Sample Contained in two DO bottles, one amber glass bottle, two glass vials and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.002	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.02	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	330.0	≤20000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	-	0.06	<0.06	≤0.5	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NH3 (B, F)	Bangkok
BOD (5 days at 20 degree C) *	mg/L	-	2.0	<2.0	≤2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, 4500 - O (C)	Bangkok
Conductivity at 25 degree C *	micromhos/cm	-	0.5	359	No Standard	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2510 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	<0.005	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - CN (C, E)	Bangkok

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Siriluk Bunnak
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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 3 of 12

Sample Number 24123584-1
Sampled Date Dec 03, 2024 2:20 PM
Sample Description Surface water
Location คลองระพีพัฒน์ บริเวณต้นน้ำก่อนถึงท่อผลของคลองหนองจร ประมาณ 500 เมตร
Date Analysis Commenced Dec 04, 2024
Condition of Sample Contained in two DO bottles, one amber glass bottle, two glass vials and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	5.9	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-O (C)	Bangkok
Nitrate as N	mg/L	0.06	0.2	0.8	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4110 B	Bangkok
Oil & Grease	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Bangkok
pH at 25 degree C		-	-	7.6	5.0-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Bangkok
Temperature *	Degree C	-	-	29.2	n'	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Bangkok
Total Dissolved solids Dried at 180 degree C *	mg/L	-	5	190	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	51	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Bangkok

Guideline : Notification of the National Environmental Board, No. 8, B.E.2537 issued under the Enhancement and Conservation of National Environmental Quality Act. B.E.2535, published in the Royal Government Gazette, Vol. 111, Part 16, Dated February 24, B.E. 2537 (Class 3)

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

n : Not Change from natural condition

Sampling By : Teerawat Puangsuks

Remark :

- LOD : Limit of Detection

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

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 4 of 12

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

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 5 of 12

Sample Number 24123584-2
Sampled Date Dec 03, 2024 2:30 PM
Sample Description Surface water
Location คลองหนองจอก บริเวณต้นน้ำก่อนถึงจุดระบายน้ำทิ้ง ประมาณ 500 เมตร
Date Analysis Commenced Dec 04, 2024
Condition of Sample Contained in two DO bottles, one amber glass bottle, two glass vials and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.001	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.001	≤0.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.0006	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.11	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok

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Analysis / Test Report

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P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 6 of 12

Sample Number 24123584-2
Sampled Date Dec 03, 2024 2:30 PM
Sample Description Surface water
Location คลองหนองวัง บริเวณต้นน้ำก่อนถึงจุดระบายน้ำทิ้ง ประมาณ 500 เมตร
Date Analysis Commenced Dec 04, 2024
Condition of Sample Contained in two DO bottles, one amber glass bottle, two glass vials and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.001	≤0.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.01	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	490.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	-	0.06	<0.06	≤0.5	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NH ₃ (B, F)	Bangkok
BOD (5 days at 20 degree C) *	mg/L	-	2.0	<2.0	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, 4500 - O (C)	Bangkok
Conductivity at 25 degree C *	micromhos/cm	-	0.5	368	No Standard	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2510 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	Not Detected	0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - CN (C, E)	Bangkok

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 7 of 12

Sample Number 24123584-2
Sampled Date Dec 03, 2024 2:30 PM
Sample Description Surface water
Location คลองหนองวัง บริเวณต้นน้ำก่อนถึงจุดระบายน้ำทิ้ง ประมาณ 500 เมตร
Date Analysis Commenced Dec 04, 2024
Condition of Sample Contained in two DO bottles, one amber glass bottle, two glass vials and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	8.2	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-O (C)	Bangkok
Nitrate as N	mg/L	0.06	0.2	0.3	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4110 B	Bangkok
Oil & Grease	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Bangkok
pH at 25 degree C		-	-	8.1	5.0-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Bangkok
Temperature *	Degree C	-	-	29.4	n'	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Bangkok
Total Dissolved solids Dried at 180 degree C *	mg/L	-	5	187	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	16	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Bangkok

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

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

Sampling By : Teerawat Puangasuk

Remark :

- LOD : Limit of Detection

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

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 8 of 12

- 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.



Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 9 of 12

Sample Number 24123584-3
Sampled Date Dec 03, 2024 2:40 PM
Sample Description Surface water
Location คลองหนองจอก ทำนบน้ำจากจุดระบายน้ำทิ้งลงมา ประมาณ 500 เมตร
Date Analysis Commenced Dec 04, 2024
Condition of Sample Contained in two DO bottles, one amber glass bottle, two glass vials and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Arsenic	mg/L	0.0003	0.0005	0.002	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.002	≤0.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3500-Cr B	Bangkok
Lead	mg/L	0.0003	0.0005	0.0007	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.10	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B,3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok

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Analysis / Test Report

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111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 10 of 12

Sample Number 24123584-3
Sampled Date Dec 03, 2024 2:40 PM
Sample Description Surface water
Location คลองหนองห้วย น้ำจากจุดระบายน้ำทิ้งลงนา ประมาณ 500 เมตร
Date Analysis Commenced Dec 04, 2024
Condition of Sample Contained in two DO bottles, one amber glass bottle, two glass vials and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Metals Testing							
Nickel	mg/L	0.0003	0.0005	0.001	≤0.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.02	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 3125 B, 3030 F	Bangkok
Microbiological Testing							
Total Coliform	MPN/100mL	-	-	330.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 9221 B	Bangkok
Water Testing							
Ammonia Nitrogen *	mg/L	-	0.06	<0.06	≤0.5	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-NH3 (B, F)	Bangkok
BOD (5 days at 20 degree C) *	mg/L	-	2.0	<2.0	≤4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5210 B, 4500 - O (C)	Bangkok
Conductivity at 25 degree C *	micromhos/cm	-	0.5	356	No Standard	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2510 B	Bangkok
Cyanide as CN	mg/L	0.002	0.005	<0.005	0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - CN (C, E)	Bangkok

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL



TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 11 of 12

Sample Number 24123584-3
Sampled Date Dec 03, 2024 2:40 PM
Sample Description Surface water
Location คลองหนองห้วย น้ำจากจุดระบายน้ำทิ้งลงนา ประมาณ 500 เมตร
Date Analysis Commenced Dec 04, 2024
Condition of Sample Contained in two DO bottles, one amber glass bottle, two glass vials and six plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property Yellow, some odour, solid and turbid

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Dissolved Oxygen *	mg/L	-	0.1	9.8	≥2	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500-O (C)	Bangkok
Nitrate as N	mg/L	0.06	0.2	0.6	≤5	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4110 B	Bangkok
Oil & Grease	mg/L	-	3	<3	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 5520 B	Bangkok
pH at 25 degree C		-	-	8.1	5.0-9.0	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 4500 - H (B)	Bangkok
Temperature *	Degree C	-	-	29.3	n'	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2550 B	Bangkok
Total Dissolved solids Dried at 180 degree C *	mg/L	-	5	188	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 C	Bangkok
Total Suspended Solids Dried at 103-105 degree C *	mg/L	-	5	32	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 24th ed., 2023, part 2540 D	Bangkok

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

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

Sampling By : Teerawat Puangasuk

Remark :

- LOD : Limit of Detection

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

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location: WHA SIL

TESTING
No.0009
Lot ID: 24123584
Date Received : Dec 03, 2024
Date Reported : Dec 13, 2024
Report Number : 3149413-1

Page 12 of 12

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhæ, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 2434048
Date Received : Apr 02, 2024
Date Reported : Jul 18, 2024
Report Number : 3058757-1

Page 1 of 2

Sample Number	2434048-1						
Sampled Date	Apr 02, 2024 1:20 PM						
Sample Description	Soil (Dry Basis)						
Location	คลองหนองจอก ต้นน้ำเหนือจุดระบายน้ำจากโครงการ ประมาณ 500 เมตร						
Date Analysis Commenced	Apr 03, 2024						
Condition of Sample	Packed in one glass bottle, and, one plastic bag, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method
Metals Testing							
Arsenic	mg/kg	-	0.50	3.07	≤10	≤33	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Cadmium	mg/kg	-	0.50	<0.50	≤1	≤5	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Copper	mg/kg	-	1.00	31.0	≤31.5	≤150	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Hexavalent Chromium	mg/kg	-	0.25	<1.00	No Standard	No Standard	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A
Lead	mg/kg	-	1.00	19.5	≤36	≤130	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Manganese	mg/kg	-	1.00	811	No Standard	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Mercury	mg/kg	-	0.10	<0.10	≤0.2	≤1	United States Environmental Protection Agency, EPA Method 7473
Nickel	mg/kg	-	1.00	15.6	≤23	≤50	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Selenium	mg/kg	-	0.50	<0.50	No Standard	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Zinc	mg/kg	-	1.00	37.5	≤120	≤460	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Physical Parameters							
Moisture	%	-	0.1	40.8	No Standard	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhæ, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 2434048
Date Received : Apr 02, 2024
Date Reported : Jul 18, 2024
Report Number : 3058757-1

Page 2 of 2

Guideline : (1) Notification of The National Environmental Board B.E.2565, for protect benthic animals
(2) Notification of The National Environmental Board B.E.2565, Annex1
Note : 1. Analysis Results expressed on dry basis.
2. This Analysis test report is reissued to supersede report No.2946577-1, Date Reported : Apr 10, 2024 due to revise analytical information.
Sampling By : Teerawat Puangsuk
Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhæ, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 2434048
Date Received : Apr 02, 2024
Date Reported : Jul 18, 2024
Report Number : 3058758-1

Page 1 of 2

Sample Number	2434048-2						
Sampled Date	Apr 02, 2024 1:05 PM						
Sample Description	Soil (Dry Basis)						
Location	คลองหนองจอก บริเวณจุดระบายน้ำจากโครงการ						
Date Analysis Commenced	Apr 03, 2024						
Condition of Sample	Packed in one glass bottle, and, one plastic bag, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method
Metals Testing							
Arsenic	mg/kg	-	0.50	2.66	≤10	≤33	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Cadmium	mg/kg	-	0.50	<0.50	≤1	≤5	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Copper	mg/kg	-	1.00	27.9	≤31.5	≤150	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Hexavalent Chromium	mg/kg	-	0.25	<1.00	No Standard	No Standard	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A
Lead	mg/kg	-	1.00	21.4	≤36	≤130	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Manganese	mg/kg	-	1.00	136	No Standard	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Mercury	mg/kg	-	0.10	<0.10	≤0.2	≤1	United States Environmental Protection Agency, EPA Method 7473
Nickel	mg/kg	-	1.00	10.8	≤23	≤50	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Selenium	mg/kg	-	0.50	<0.50	No Standard	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Zinc	mg/kg	-	1.00	33.3	≤120	≤460	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Physical Parameters							
Moisture	%	-	0.1	46.3	No Standard	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G

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111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhæ, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 2434048
Date Received : Apr 02, 2024
Date Reported : Jul 18, 2024
Report Number : 3058758-1

Page 2 of 2

Guideline : (1) Notification of The National Environmental Board B.E.2565, for protect benthic animals
(2) Notification of The National Environmental Board B.E.2565, Annex1
Note : 1. Analysis Results expressed on dry basis.
2. This Analysis test report is reissued to supersede report No.2946577-1, Date Reported : Apr 10, 2024 due to revise analytical information.
Sampling By : Teerawat Puangsuk
Remark :
- LOD : Limit of Detection
- "<" : Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)

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

Approved by

Nant Somb

Nanthawadee Somboon
Specialist 2

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhæ, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 2434048
Date Received : Apr 02, 2024
Date Reported : Jul 18, 2024
Report Number : 3058759-1

Page 1 of 2

Sample Number	2434048-3						
Sampled Date	Apr 02, 2024 2:10 PM						
Sample Description	Soil (Dry Basis)						
Location	คลองหนองฯ ฝายจุลบรรณานำทิ้งของโครงการ ประมาณ 500 เมตร						
Date Analysis Commenced	Apr 03, 2024						
Condition of Sample	Packed in one glass bottle, and, one plastic bag, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method
Metals Testing							
Arsenic	mg/kg	-	0.50	1.84	≤10	≤33	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Cadmium	mg/kg	-	0.50	<0.50	≤1	≤5	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Hexavalent Chromium	mg/kg	-	0.25	<1.00	No Standard	No Standard	United States Environmental Protection Agency, EPA Method 3060 A and 7196 A
Lead	mg/kg	-	1.00	20.0	≤36	≤130	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Manganese	mg/kg	-	1.00	804	No Standard	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Mercury	mg/kg	-	0.10	<0.10	≤0.2	≤1	United States Environmental Protection Agency, EPA Method 7473
Nickel	mg/kg	-	1.00	17.5	≤23	≤50	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Selenium	mg/kg	-	0.50	<0.50	No Standard	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Zinc	mg/kg	-	1.00	49.5	≤120	≤460	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
Physical Parameters							
Moisture	%	-	0.1	40.1	No Standard	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G

Guideline : (1) Notification of The National Environmental Board B.E.2565, for protect benthic animals
(2) Notification of The National Environmental Board B.E.2565, Annex1

Note : 1. Analysis Results expressed on dry basis.
2. This Analysis test report is reissued to supersede report No.2946577-1, Date Reported : Apr 10, 2024 due to revise analytical information.

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhæ, Saraburi Thailand 18140
P/O : 54240030
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 2434048
Date Received : Apr 02, 2024
Date Reported : Jul 18, 2024
Report Number : 3058759-1

Page 2 of 2

Sampling By : Teerawat Puangsuk

Remark :

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

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

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Analysis / Test Report

Client : WHA Saraburi Industrial Land Co., Ltd.
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O :
Project Name : Monitoring
Project Location : WHA SIL

Lot ID: 2441485
Date Received : Apr 18, 2024
Date Reported : Apr 29, 2024
Report Number : 2964370-1

Page 1 of 1

Sample Number	2441485-1							
Sampled Date	Apr 18, 2024 2:10 PM							
Sample Description	Soil (Dry Basis)							
Location	คลองหนองรี ตำบลกระเบา อำเภอนครหลวง จังหวัดพระนครศรีอยุธยา ประมาณ 500 เมตร							
Date Analysis Commenced	Apr 19, 2024							
Condition of Sample	Packed in one plastic bag and one amber glass bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline (1)	Guideline (2)	Method	Testing Location
Metals Testing								
Copper	mg/kg	-	1.00	24.3	≤31.5	≤150	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Physical Parameters								
Moisture	%	-	0.1	37.1	No Standard	No Standard	In-house method based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 G	Bangkok

Guideline : (1) Notification of The National Environmental Board B.E.2565, for protect benthic animals
(2) Notification of The National Environmental Board B.E.2565, Annex1

Note : Analysis Results expressed on dry basis.

Sampling By : Teerawat Puangsuk ทะเบียนเลขที่ 7-204-3-0058

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

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Approved by

Siriluk P.

Siriluk Bunnak
Section Head

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ภาคผนวก ค-5

คุณภาพน้ำทิ้ง (ระบบบำบัดน้ำเสียรวมทางชีวภาพ)

ALS logo and company information. Analysis / Test Report. Client: WPA Utilities and Power Public Company Limited. Project Name: WPA SLS. Sample Number: 2470923-1. Sample Date: Jul 06, 2024 9:30 AM. Sample Description: Group 1 Wastewater WSP Plant. Location: WPA SLS, WSP-01 - ya Retention Pond. Date Analysis Commenced: Jul 11, 2024. Conditions of Sample: Contained in two plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA). Physical Property: Green, some colour, solid and turbid. Analyte: COD, pH (at 25°C), Total Suspended Solids Dried at 103-105 degree C. Results: COD 25, pH 8.3, TSS 150. Guidelines / Specification: 110, 5.5-9.0, 150. Method: Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 522.0. Testing Location: Bangkok. Technical Management: Siriluk P. Approved by: Kaithe A. Right Solutions Pte. Ltd. www.alsglobal.com

ALS logo and company information. Analysis / Test Report. Client: WPA Utilities and Power Public Company Limited. Project Name: WPA SLS. Sample Number: 2470924-1. Sample Date: Jul 16, 2024 11:00 AM. Sample Description: Group 1 Wastewater WSP Plant. Location: WPA SLS, WSP-01 - ya Retention Pond. Date Analysis Commenced: Jul 24, 2024. Conditions of Sample: Contained in two plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA). Physical Property: Green, some colour, solid and turbid. Analyte: COD, pH (at 25°C), Total Suspended Solids Dried at 103-105 degree C. Results: COD 110, pH 7.8, TSS 150. Guidelines / Specification: 110, 5.5-9.0, 150. Method: Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 522.0. Testing Location: Bangkok. Technical Management: Sunimon C. Approved by: Kaithe A. Right Solutions Pte. Ltd. www.alsglobal.com

ALS logo and company information. Analysis / Test Report. Client: WPA Utilities and Power Public Company Limited. Project Name: WPA SLS. Sample Number: 2470925-1. Sample Date: Jul 23, 2024 11:40 AM. Sample Description: Group 1 Wastewater WSP Plant. Location: WPA SLS, WSP-01 - ya Retention Pond. Date Analysis Commenced: Jul 24, 2024. Conditions of Sample: Contained in two plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA). Physical Property: Green, a bit of color, some solid and turbid. Analyte: COD, pH (at 25°C), Total Suspended Solids Dried at 103-105 degree C. Results: COD 110, pH 8.0, TSS 150. Guidelines / Specification: 110, 5.5-9.0, 150. Method: Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 522.0. Testing Location: Bangkok. Technical Management: Sunimon C. Approved by: Kaithe A. Right Solutions Pte. Ltd. www.alsglobal.com

ALS logo and company information. Analysis / Test Report. Client: WPA Utilities and Power Public Company Limited. Project Name: WPA SLS. Sample Number: 2470926-1. Sample Date: Jul 09, 2024 10:30 AM. Sample Description: Group 1 Wastewater WSP Plant. Location: WPA SLS, WSP-01 - ya Chlorine Contact Tank. Date Analysis Commenced: Jul 11, 2024. Conditions of Sample: Contained in one amber glass bottle and seven plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA). Physical Property: Yellow, some colour, solid and no turbid. Analyte: COD, pH at 25 degree C, Total Suspended Solids Dried at 103-105 degree C, Fertilisability, Oil & Grease, pH at 25 degree C, Phenol, Sulfide, Temperature. Results: COD 42, pH 7.3, TSS 45, Fertilisability 0.13, Oil & Grease 3, pH 7.3, Phenol 0.000, Sulfide 0.5, Temperature 30.7. Guidelines / Specification: 110, 5.5-9.0, 150, No Standard, 15, 5.5-9.0, 0.001, 0.5, 30.7. Method: Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 522.0. Testing Location: Bangkok. Technical Management: Sunimon C. Approved by: Kaithe A. Right Solutions Pte. Ltd. www.alsglobal.com

ALS logo and company information. Analysis / Test Report. Client: WPA Utilities and Power Public Company Limited. Project Name: WPA SLS. Sample Number: 2470927-1. Sample Date: Aug 04, 2024 10:30 AM. Sample Description: Group 1 Wastewater WSP Plant. Location: WPA SLS, WSP-01 - ya Chlorine Contact Tank. Date Analysis Commenced: Aug 07, 2024. Conditions of Sample: Contained in one amber glass bottle and seven plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA). Physical Property: Yellow, some colour, solid and no turbid. Analyte: COD, Fertilisability, Oil & Grease, pH at 25 degree C, Phenol, Sulfide, Temperature. Results: COD 44, Fertilisability 0.13, Oil & Grease 3, pH 7.3, Phenol 0.001, Sulfide 0.5, Temperature 30.7. Guidelines / Specification: 110, 5.5-9.0, 150, No Standard, 15, 5.5-9.0, 0.001, 0.5, 30.7. Method: Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 522.0. Testing Location: Bangkok. Technical Management: Siriluk P. Approved by: Kaithe A. Right Solutions Pte. Ltd. www.alsglobal.com

ALS logo and company information. Analysis / Test Report. Client: WPA Utilities and Power Public Company Limited. Project Name: WPA SLS. Sample Number: 2470928-1. Sample Date: Aug 15, 2024 10:30 AM. Sample Description: Group 1 Wastewater WSP Plant. Location: WPA SLS, WSP-01 - ya Chlorine Contact Tank. Date Analysis Commenced: Aug 16, 2024. Conditions of Sample: Contained in one amber glass bottle and seven plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA). Physical Property: Yellow, some colour, solid and no turbid. Analyte: COD, pH at 25 degree C, Total Suspended Solids Dried at 103-105 degree C, Fertilisability, Oil & Grease, pH at 25 degree C, Phenol, Sulfide, Temperature. Results: COD 42, pH 7.3, TSS 45, Fertilisability 0.13, Oil & Grease 3, pH 7.3, Phenol 0.001, Sulfide 0.5, Temperature 30.7. Guidelines / Specification: 110, 5.5-9.0, 150, No Standard, 15, 5.5-9.0, 0.001, 0.5, 30.7. Method: Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 522.0. Testing Location: Bangkok. Technical Management: Siriluk P. Approved by: Kaithe A. Right Solutions Pte. Ltd. www.alsglobal.com

ALS logo and company information. Analysis / Test Report. Client: WPA Utilities and Power Public Company Limited. Project Name: WPA SLS. Sample Number: 2470929-1. Sample Date: Aug 06, 2024 10:30 AM. Sample Description: Group 1 Wastewater WSP Plant. Location: WPA SLS, WSP-01 - ya Chlorine Contact Tank. Date Analysis Commenced: Aug 15, 2024. Conditions of Sample: Contained in one amber glass bottle and seven plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA). Physical Property: Yellow, some colour, solid and no turbid. Analyte: Metals Testing, Microbiological Testing, Water Testing, Conductivity at 25 degree C, Dissolved Oxygen (in air), Nitrate as N, Nitrite as N. Results: Metals Testing 0.003, 0.005, 0.15, Microbiological Testing 23000.0, Water Testing 0.06, 3.05, Conductivity 0.6, Dissolved Oxygen 0.1, Nitrate 0.2, Nitrite 0.225. Guidelines / Specification: No Standard, No Standard, 150, No Standard, No Standard, No Standard, No Standard. Method: Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 522.0. Testing Location: Bangkok. Technical Management: Siriluk P. Approved by: Kaithe A. Right Solutions Pte. Ltd. www.alsglobal.com

ALS logo and company information. Analysis / Test Report. Client: WPA Utilities and Power Public Company Limited. Project Name: WPA SLS. Sample Number: 2470930-1. Sample Date: Aug 16, 2024 10:30 AM. Sample Description: Group 1 Wastewater WSP Plant. Location: WPA SLS, WSP-01 - ya Chlorine Contact Tank. Date Analysis Commenced: Aug 16, 2024. Conditions of Sample: Contained in one amber glass bottle and seven plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA). Physical Property: Yellow, some colour, solid and no turbid. Analyte: Metals Testing, Microbiological Testing, Water Testing, Conductivity at 25 degree C, Dissolved Oxygen (in air), Nitrate as N, Nitrite as N. Results: Metals Testing 0.003, 0.005, 0.15, Microbiological Testing 23000.0, Water Testing 0.06, 3.05, Conductivity 0.6, Dissolved Oxygen 0.1, Nitrate 0.2, Nitrite 0.225. Guidelines / Specification: No Standard, No Standard, 150, No Standard, No Standard, No Standard, No Standard. Method: Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 522.0. Testing Location: Bangkok. Technical Management: Siriluk P. Approved by: Kaithe A. Right Solutions Pte. Ltd. www.alsglobal.com

ALS logo and company information. Analysis / Test Report. Client: WPA Utilities and Power Public Company Limited. Project Name: WPA SLS. Sample Number: 2470931-1. Sample Date: Aug 15, 2024 9:30 AM. Sample Description: Group 1 Wastewater WSP Plant. Location: WPA SLS, WSP-01 - ya Chlorine Contact Tank. Date Analysis Commenced: Aug 16, 2024. Conditions of Sample: Contained in two plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA). Physical Property: Yellow, some colour, solid and no turbid. Analyte: Water Testing, pH at 25 degree C, Total Suspended Solids Dried at 103-105 degree C. Results: Water Testing 25, pH 7.3, TSS 150. Guidelines / Specification: 110, 5.5-9.0, 150. Method: Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 522.0. Testing Location: Bangkok. Technical Management: Siriluk P. Approved by: Kaithe A. Right Solutions Pte. Ltd. www.alsglobal.com



ALS
ANALYTICAL SERVICES



MINISTRY OF NATURAL RESOURCES AND ENVIRONMENTAL CONSERVATION

Analysis / Test Report

Client: WWA Utilities and Power Public Company Limited
113 Moo 7, Nongkhai Road, Nongkhai, Nongkhai, Songkhro Thailand 20148

P/O #:

Project Name:

Project Location: (WPA SS)

Sample Number: 2481914-1
Aug 20, 2024 10:18 AM

Sampled Date: Group 1 Wastewater - WPA Plant

Sample Description: WPA SS2, WPA CF - (see Client Contact Task)

Location: Aug 21, 2024

Date Analysis Commenced:

Condition of Sample: Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Physical Property: Yellow, some odour, solid and no turbid

TESTING
Net: 00.009

Lot ID: 2481914
Date Received: Aug 20, 2024
Date Reported: Aug 20, 2024
Report Number: 20240820

Page 1 of 1

Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing							
COD	mg/L	-	25	41	1120	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & 1997, 23rd ed., 2017, (part 522.0)	Songkhro
pH at 25 degree C *		-		7.3	5.5-6.8	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & 1997, 23rd ed., 2017, (part 522.0)	Songkhro
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	8	>50	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & 1997, 23rd ed., 2017, (part 254.0)	Songkhro

Guideline: Efficient standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and other related agencies for factories and industrial park set by Notification of the Ministry of Industry dated June 07, B.E.2560 (2017).

Sampling By: In-house team (see Appendix 1) 1204-010315

Remark:

- LOD = Limit of Detection
- LOQ = Lower Limit of Quantification (LOQ = limit of reporting)
- Multiplied result * factor not included in scope of Accreditation (see ISO 17025)
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management



Sriruk P.
Senior Bureau
Manager
email: sriruk.p@als.co.th

Approved by



Kachai A.
General Bureau
Manager
email: kachai.a@als.co.th

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174-148-2769 (EXT. 116)

EMAIL: info@als.co.th


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REPLY TO: als@alsglobal.com

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Analysis / Test Report



TESTING
No. 0059

Client: WMA Utilities and Power Public Company Limited
 111 Liza E, Hongkong Road, Singapore, Singapore, Sarawak Thailand 58140

P/O ID:
Project Name:
Project Location: WMA SL

Sample Number: 2470911-1
Sampled Date: Jul 16, 2024 10:05 AM
Sample Description: Group 1 Wastewater WSP Plant
Location: WMA SL, WSP 01 - In Effluent Tank
Date Analysis Commenced: Jul 31, 2024
Condition of Sample: Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA)
Physical Property: Yellow, a bit odour, acid and turbid


Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing							
CO ₂	mg/L	-	25	81	1750	Standard Methods for the Examination of Water and Wastewater, 19th, edition 1995, EPA 821, 2017, part 1629	Sample
pH at 25 degree C**	-	-	7.4	5.5-8.0	1629	Standard Methods for the Examination of Water and Wastewater, 19th, edition 1995, EPA 821, 2017, part 1629	Sample
Total Suspended Solids Direct at 120-125 degree C	mg/L	-	5	53	1200	Standard Methods for the Examination of Water and Wastewater, 19th, edition 1995, EPA 821, 2017, part 2540	Sample

Guidelines: Standard of WMA Sarawak Industrial Land, Maximum limits for wastewater discharging to central wastewater treatment plant.

Sampling By: Tarmaw Pampung (inculcated v-204-o-005)


Remark:
 * - Limit of Detection
 ** - Lower limit (LOD) limit of quantification (LOQ) and of Reporting
 Analysis method: None 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






Sumitran Changaning
 Scientist (S)
 inculcated v-204-o-0028



Approved by



Karoline Ann
 Assistant General Manager
 inculcated v-204-o-0004

APPROVED FOR THE CLIENT (To be filled by the client)

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	<h1 style="margin: 0;">Analysis / Test Report</h1>	
Client: WVA Utilities and Power Public Company Limited 113 Moo 7, Nongprachan Road, Nongprachan, Nongbuahe, Saraburi Thailand 20140	TESTING No: 00009 Lot ID: 2481893 Date Received: Aug 20, 2024 Date Reported: Aug 14, 2024 Report Number: 20240214-2	
P/O # Project Name Project Location: 108A-S1	<i>Page 1 of 1</i>	
<div style="border: 1px solid black; padding: 5px;"> <p>NOTE: () Ind of Detection</p> <p>“*” (Less than 1/100 & not of Quantitation) 1/100 & not of Reporting</p> <p>Analyst's initial: "A" has not to be used in case of no confidence (NO REC. 1/100).</p> <p>The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.</p> </div>		
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>		
<p>Approved by </p> <p>Sandrine Nongprachan Manager</p>		
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Analysis / Test Report

TESTING
No. 0009
Let ID: 2481897
Date Received : Aug 20, 2024
Date Reported : Aug 23, 2024
Report Number : 308520-B

Client : WNA Udaire and Power Public Company Limited
 111 Mile 7, Nongpladung Road, Nongpladung, Saraburi Thailand 35140

P/O I :
Project Name :
Project Location : WNA SS

Sample Number : 2481897-1
Sample Date : Aug 20, 2024 10:20 AM
Sample Description : Group 3 Wastewater WPP Plant
Location : WNA SS, WPP 301 in Specification Tank
Date Analysis Commenced : Aug 23, 2024
Condition of Sample : Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, US EPA)
Physical Property : Yellow, a bit of odour, cold and turbid


Analyte	Unit	LOD	LOQ	Result	Qualifier / Specification	Testing Location
Water Testing						
COD	mg/L	—	25	230	6750	Standard Methods for the Examination of water and wastewater, 19th edn 5 (APHA, EPA et al., 2017) part 5210 B
pH at 25 degree C	—	—	7.5	5.5-6.0	Standard Methods for the Examination of water and wastewater, 19th edn 5 (APHA, EPA et al., 2017) part 9100 B	Standard Methods for the Examination of water and wastewater, 19th edn 5 (APHA, EPA et al., 2017) part 9100 B
Total Suspended Solids (dry) at 103-105 degree C	mg/L	—	5	123	6200	Standard Methods for the Examination of water and wastewater, 19th edn 5 (APHA, EPA et al., 2017) part 2540 B

Guideline : Standard of WNA Saraburi Industrial Land. Maximum levels for wastewater discharging to central wastewater treatment plant.

Sampling by : Noncontact Point collection at >20M x 0.015


Remarks :
 1. LOD : Limit of Detection
 2. LOQ : Lower Limit of Quantification (1/10 of end of reporting)
 3. Analyte method : "As is" and included in water of Accreditation (AS/EE) 1623.
 (The laboratory has been accredited in accordance complying with the ISO/IEC 17025.)

Technical Management



Siriluk Punnak
Section Head
Inchusalee >20M x 0.015

Approved by



Kanchan Anon
Assistant General Manager
Inchusalee >20M x 0.008

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[illegible][illegible]

Client: WMA Utilities and Power Company Limited				No.0509			
111 Ror J, Bangkoladong, Bangkokmae, Hongkhar, Sarakut Thailand (SEA)				Let ID: 2495505			
WFO / Job ID:				Date Received : 1 Sep 2024			
Project Name:				Date Received : 1 Sep 2024			
Project Location: WMA SL				Report Number: 3088070-1			
Sample Reference: 2406105-1				Page 1			
Sampled Date: Sep 15, 2024 10:40 AM							
Sample Description: Group 1 Waterline SRO Plant							
Location: WMA SL - WB EP - ex-choke Contact Tank							
Date Analysis Completed: Sep 11, 2024							
Condition of Sample: Collected in two plastic bottles; sample containers comply to pretreatment - preservation standards (APHA, USEPA)							
Physical Property: Yellow, some odor, solid and no turbid							
Analyte	Unit	Ltd [LOD]	Result	Guideline / Specification	Method	Tested Location	
Water Testing							
COD	mg/L	-	25	40	S120	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, page 1023 D	Sample
pH at 25 degree C *	-	-	-	-	5.5-8.0	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, page 4500 - H (B)	Sample
Total Suspended Solids Dry at 103-105 Degree C	mg/L	-	5	12	150	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, page 2540 D	Sample

Guideline: Different demand for factories, industrial estate and industrial park will be Notification of the Ministry of Natural Resources and Environment and different standard for factories and industrial park will be Notification of The Ministry of Industry dated June 07, 82,B.E(2017).

Sampling Per: Thermal Stratification method <20m x20m

Accuracy:




- * ± 0.1 (each of duplicate)
- * ± 0.2 (from LOD) each of Quantitative) (LOE and of Reporting)
- * modified method (1) (from test result, it was not reported)

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

[illegible]

Client: WMA Utilities and Power Company Limited				Lab ID: 2495590			
111 Mile 7, Bangsalland Road, Bangsalland, Nongthlang, Tarsarung (Sarabai) (5040)				Date Received: Sep 03, 2024	Test ID: 503_2024		
WMA SL, WMA SL, WMA SL - in Equilibration Tank				Date Received: Sep 11, 2024	Test ID: 503_2024		
Project Location: WMA SL, WMA SL				Report Number: 308007-1			
Sample Number: 240000-01							
Sample Date: Sep 03, 2024 @ 10:30 AM							
Sample Description: Group 1 (Wastewater 500 µM)							
Location: WMA SL, WMA SL - in Equilibration Tank							
Date Analyzed/Commented: Sep 16, 2024							
Condition of Sample: Contains 2 to 3 mm clear glass bottles, 500 µM and 500 µM bottles, sample contains only to sedimentation							
Physical Property: preservation status: (WMA, LQSP) Value: 0 to 100, 0.00, 0.00							
Analyte	Unit	LOD	LOQ	Result	Qualifiers / Specification	Method	Tested Location
Metals Testing							
Calcium	mg/L	0.0003	0.0005	Not Detected	<0.03	Standard 1 Methods for the Determination of water and wastewater, ASTM, 0010 & 0011, 2004 vol. 11.00, 0.00, 0.00	Sample
Copper	mg/L	0.0003	0.0005	0.01	<0.2	Standard 1 Methods for the Determination of water and wastewater, ASTM, 0010 & 0011, 2004 vol. 11.00, 0.00, 0.00	Sample
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	<0.25	Standard 1 Methods for the Determination of water and wastewater, ASTM, 0010 & 0011, 2004 vol. 11.00, 0.00, 0.00	Sample
Lead	mg/L	0.0003	0.0005	0.003	<0.2	Standard 1 Methods for the Determination of water and wastewater, ASTM, 0010 & 0011, 2004 vol. 11.00, 0.00, 0.00	Sample
Mercury	mg/L	0.0001	0.0005	Not Detected	<0.005	Standard 1 Methods for the Determination of water and wastewater, ASTM, 0010 & 0011, 2004 vol. 11.00, 0.00, 0.00	Sample
Nickel	mg/L	0.0003	0.0005	0.008	<1	Standard 1 Methods for the Determination of water and wastewater, ASTM, 0010 & 0011, 2004 vol. 11.00, 0.00, 0.00	Sample
Treated Chromium *	mg/L	-	0.01	<0.02	<0.75	Standard 1 Methods for the Determination of water and wastewater, ASTM, 0010 & 0011, 2004 vol. 11.00, 0.00, 0.00	Sample

[illegible]

ALS						
Analysis / Test Report					TESTING No.0009 Let ID: 24959660 Date Received : Sep 03, 2024 Date Reported : Sep 05, 2024 Report Number : 308972-2	
Client : WTA (Srihan and Power Public Company Limited) 111 Moo 7, Rungtong Road, Rungtong, Rungtong, Saraburi Thailand 38140						
P/P / Project Name Project Location : WTA 123						
Sample Number : 24959660-1 Sampled Date : Sep 03, 2024 10:30 AM Sample Description : Group 1 Wastewater 1000 PPM Location : WTA 021, 1000 PPM (in Equilibrium Tank)						
Data Analysis Commanded Condition of Sample Contained in one amber glass bottle, two glass vials and eight plastic bottles, sample containers comply to pre-treatment : preservation standards (pH ₂ , DO ₂) volume, a lot of odour, solid and turbid						
Physical Property Analyte Unit LOD LOQ Result Guideline / Specification Method Testing Location						
Flask Testing Size : mg/L, 8.003, 8.005, 8.73 No Standard : Deviate of the Result for the Examination of water and Wastewater, ASTM, ASTM D 567, 23d ed., 2017, part 02.5 & 3830 P						
Microbiological Testing Total Coliform : MPN/100mL, —, —, 300000-2 No Standard : Deviate of the Result for the Examination of water and Wastewater, ASTM, ASTM D 567, 23d ed., 2017, part 02.1 & 3821 P						
Water Testing Ammonia Nitrogen : mg/L, —, 0.08, 11.8 No Standard : Based on Standard Method for the Examination of water and Wastewater, ASTM, ASTM D 567, 23d ed., 2017, part 02.000-001.03, P						
Conductivity at 25 degree C : microhm/cm, —, 0.5, 1040 No Standard : Based on Standard Method for the Examination of water and Wastewater, ASTM, ASTM D 567, 23d ed., 2017, part 02.000-001.03, P						
Dissolved Oxygen (in site) : mg/L, —, 0.1, 0.1 No Standard : Standard for the Examination of water and Wastewater, ASTM, ASTM D 567, 23d ed., 2017, part 02.000-001.03, P						
Nitrate as N : mg/L, 0.06, 0.2, Not Detected No Standard : Based on Standard Method for the Examination of water and Wastewater, ASTM, ASTM D 567, 23d ed., 2017, part 02.000-001.03, P						
Nitrite as N : mg/L, 0.06, 0.2, Not Detected No Standard : Based on Standard Method for the Examination of water and Wastewater, ASTM, ASTM D 567, 23d ed., 2017, part 02.000-001.03, P						
Guideline : Standard of WTA Saraburi Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant. Sampling By : Jirarat Khochai Issued :						
Approved by  Sawatree N. Sawatree Nongman Manager						



ALS
ANALYTICAL SERVICES

Analysis / Test Report



TESTING
No.0009
Let ID: 24120326
Date Received: Nov 29, 2024
Date Reported: Nov 29, 2024
Report Number: 24120326-01

Client: WOL Industries and Power Pulp Co. Myanmar Limited
111 Nov 7, Kungkalung Road, Sangawbogy, Sanchaung, Shan State Thailand 58140

P/P / I:

Project Name:

Project Location: 1016A 102

Sample Number: 24120326-01

Sampled Date: Nov 26, 2024 11:35 AM

Sample Description: Group 1 Watercourse 1001 Part


Location: 1016A 102, 1001 Part / 1st Cherted Contact Tank


Date Analysis Commenced: Nov 27, 2024

Condition of Sample: Contained in two plastic bottles, sample containers comply to pre-treatment - preservation standards (2416, US204)

Physical Property: Yellow, some odour, solid and no fluff

Analysis	Unit	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
COD	mg/L	-	25	29	15.0	Standard Methods for the Examination of Water and Wastewater, 24th ed., 1905, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461	





Analysis / Test Report

Client WOL Industries and Power Rubber Company Limited
111 Nong 7, Nongpladung Road, Bangsuek, Bangphue, Saraburi Thailand 35140

P/O # _____

Project Name _____

Project Location RIMA 102

Sample Number 24120327-1

Sampled Date Nov 05, 2024 12:40 PM

Sample Description Group 1 Watercourse 300 PPM

Location W44-02, 1000-PP, ya Kasetam Pond

Date Analysis Commenced Nov 06, 2024

Condition of Sample Contained in one amber glass bottle and seven plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, ISO/IE)

Physical Property Green, some colour, wind and turbid

TESTING

Lot ID: 24120327

Date Received: Nov 05, 2024


Date Reported: Nov 12, 2024

Report Number: 2402027-0


Page 1 of 1

Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing SD (at 20.0 deg C)	mg/L	-	0.0	7.3	620	Standard Methods for the Examination of water and Wastewater, APHA, 1995 & WPP, 24th ed., 2012, 24th ed. 2012, 24th ed. 2012	Saraburi
COD	mg/L	-	25	18	1120	Standard Methods for the Examination of water and Wastewater, APHA, 1995 & WPP, 24th ed., 2012, 24th ed. 2012, 24th ed. 2012	Saraburi
Color (at Original pH)	APCW	-	5	18	1300	Standard Methods for the Examination of water and Wastewater, APHA, 1995 & WPP, 24th ed., 2012, 24th ed. 2012, 24th ed. 2012	Saraburi
Color (at pH 7.0)	APCW	-	5	17	1300	Standard Methods for the Examination of water and Wastewater, APHA, 1995 & WPP, 24th ed., 2012, 24th ed. 2012, 24th ed. 2012	Saraburi
Formaldehyde	mg/L	0.03	0.1	Not Detected	13.0	Standard Methods for the Examination of water and Wastewater, APHA, 1995 & WPP, 24th ed., 2012, 24th ed. 2012, 24th ed. 2012	Saraburi
Oil & Grease	mg/L	-	3	<3	13	Standard Methods for the Examination of water and Wastewater, APHA, 1995 & WPP, 24th ed., 2012, 24th ed. 2012, 24th ed. 2012	Saraburi
pH (at 20.0 °C)	-	-	-	8.4	6.5-8.5	Standard Methods for the Examination of water and Wastewater, APHA, 1995 & WPP, 24th ed., 2012, 24th ed. 2012, 24th ed. 2012	Saraburi
Phenol	mg/L	0.0005	0.001	Not Detected	12.0	Standard Methods for the Examination of water and Wastewater, APHA, 1995 & WPP, 24th ed., 2012, 24th ed. 2012, 24th ed. 2012	Saraburi

Technical Management


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ALS

Analysis / Test Report



TESTING
No. 0009

Client: NWA Utilities and Power Public Company Limited
111 Non 7, Bangrak Road, Bangkok, Bangkok, Sarutut Thailand 10140

P/O:

Project Name:

Project Location: RWPA SS.

Sample Number: 2413062-1

Sample Date: Dec 24, 2024 9:50 AM

Sample Description: Group 1: Wastewater RW Plant
RWPA SS - 1001-47 / via Chonmei Gerdut Park

Date Analysis Commenced: Dec 25, 2024

Conditions of Sample: Contained in two plastic bottles, sample containers comply to pre-treatment : preservation standards (APHA, 1520B)

Physical Property: Yellow, some colour, solid and no foef

Let ID: 2413062-1

Date Received: Dec 26, 2024

Date Reported: Dec 27, 2024

Report Number: 2417020-1

Page 2 of 2

Analyte	Unit	LOD (0.06)	Result	Guideline / Specification	Method	Testing Location
Water Testing						
COO	mg/L	< 25	50	<120	Standard Methods for the Examination of water and wastewater, APHA, 8200-5 WSP, 2001 ed., 2023 and 1995 (H-22)	Samguk
pH at 25 degree C			7.3	5.5-8.0	Standard Methods for the Examination of water and wastewater, APHA, 8200-5 WSP, 2001 ed., 2023 and 1995 (H-22)	Samguk
Total Suspended Solids Dried at 103-105 degree C	mg/L	< 5	31	<50	Standard Methods for the Examination of water and wastewater, APHA, 8200-5 WSP, 2001 ed., 2023 and 1995 (H-22)	Samguk

Guideline: Effluent standard for factories, industrial estate and industrial park set by Institution of the Ministry of Natural Resource and Environment and standard effluent for factories and industrial park set by Institution of The Ministry of industry dated June 01, B.E.2560 (2517).

Remark:

LOD : Limit of Detection
 "+" : lower than 100 (not of Quantified) (100 is limit of Reporting)
 "analyte tested" is the list and included a trace of analyte (N/A) : (N/A)
 The laboratory has been complied in an accredited laboratory complying with the ISO/IEC 17025.

Technical Management



Nara Sarnang
Superior
microware < 204-0004

Approved by



Kanchan Anon
Assistant General Manager
microware < 204-0004

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PHYSICAL SOLID WASTE / WASTEWATER

[illegible]

Client: WWA Utilities and Power Company Limited						Lot No: 24130624	
131 Rte 7, Hongkong Road, Nongkhang, Nongkhang, Sarakham Thailand (2546)						Date Received : 06 Dec 2024	
FID						Date of Report: 06 Dec 2024	
Project Name						Report Number: 1387260-1	
Project Location: WWA, SGL							
Sample Number	24130624-1						
Sample Date	Sat 03, 2024 13:45:40						
Sample Description	Group 1 Watermeter WVF-WF						
Location	WWA SGL, WWF-47, sa Retention Pond						
Test Analysis Comment	On 09, 2024						
Condition of Sample	Contained in two ISO bottles, two glass vials, one amber glass bottle and five plastic bottles, sample containers comply to pretreatment: preservation adequately fulfilled (GMP), (GMP)						
Physical Property	Yellows, some cloudy and undisturbed						
Analysis	Unit	LOD	LOD	LOD	Result	Guideline / Specification	Method
Pesticide - Organophosphorus Group							
2,4-DCP *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
2,4-DCP *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
4-A-DCP *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
4-A-DCP *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
4-A-DCP *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Method for the Examination of water and invertebrates, APHA, 8200A & 8210, 24th ed., 2023, part 8410-0, part 8410-0	Sarangkhan
Albino *	µg/L	0.01	0.0				


WATER UTILITIES AND POWER COMPANY LIMITED					No.0059	
111 Hias 7, Bangkokkadee Road, Nongkheung, Bangkok, Thailand 10140 (S14)					Let ID: 244.130624	
PDI					Date Received: On 03.2024	
Project Name					Date Received: On 12.2024	
Project Location: WWS-1S					Report Number: 1327261-3	
Sample Number	243.0624.1					
Sampled Date	On 03.2024 11.45 AM					
Sample Description	Group 1: Wastewater WWS-MF					
Location	WWS-CL1, MW-AP, ex-Rehaberation Pond					
Date Analysis Commenced	On 04.2024					
Condition of Sample	Contained in two (2) BOD bottles, two glass vials, one amber glass bottle and five plastic bottles, sample containers comply to environmental preservation standards (APHA, 1998)					
Physical Property	Turbidity, some odor, acidic and frothy					
Analyte	Unit	LOD	LOQ	LOD	Guideline / Significant	Method
Water Treated (Cap per 7.6)	ADMC	-	5	27	1000	Standard Methods for the Examination of water and Wastewater, APHA, 1998 & 1995
Chloride as Cl ⁻	mg/L	0.002	0.005	<0.05	60.2	2494 ed., 2003, and 2222 F
Formaldehyde	mg/L	0.03	0.1	Not Detected	21.0	2494 ed., 2003, and 2222 F Examination of water and Wastewater, APHA, 1998 & 1995
Oil & Grease	mg/L	-	3	<3	15	Standard Methods for the Examination of water and Wastewater, APHA, 1998 & 1995
pH (in site)	-	-	-	-	8.3	2494 ed., 2003, and 2222 F
Phenol	mg/L	0.0005	0.001	Not Detected	21.0	Standard Methods for the Examination of water and Wastewater, APHA, 1998 & 1995
Residual Free Chlorine +	mg/L	-	0.1	<0.1	1.0	Standard Methods for the Examination of water and Wastewater, APHA, 1998 & 1995
Sulfide +	mg/L	-	0.5	<0.5	0.1	Standard Methods for the Examination of water and Wastewater, APHA, 1998 & 1995
<div style="display: flex; justify-content: space-between; align-items: center;"> <div> <p>Technical Management</p> <p><i>Channatt S.</i></p> <p>Channatt Sittichai Section Head Environmental & WQS-1 CODE</p> </div> <div> <p>Approved by</p> <p><i>Kanokorn A.</i></p> <p>Kanokorn Aue Assistant General Manager Environmental & WQS-1 CODE</p> </div> </div>						

[illegible]


ภาคผนวก ค-6

คุณภาพน้ำทิ้ง (โรงงานอุตสาหกรรม)

[illegible][illegible]



ALS
ANALYTICAL SERVICES LABORATORY



LABORATORY ACCREDITED
SINGAPORE

Analysis / Test Report

Client WSL Utilities and Power Public Company Limited
111 Road 7, Singaporeville Road, Singapore, Singapore SSG40

P/O To : Factory 1 Monthly

Project Name : Factory 1 Monthly

Project Location : WSL SG

Sampling By : Terence Pongpisr inclosure# 1-204-e-0008

Remark
 1. VV : Limit of Detection
 2. " " : (over than 100 (Limit of Quantitation) : (0W (Limit of Reporting)
 Analytical method : "As is" not included in scope of accreditation SING-01/2020
 The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

TESTING
No.0009

Lot ID: 2470482
 Date Received : Jul 01, 2024
 Date Reported : Jul 15, 2024
 Report Number : 303170-1

Page 1 of 1

Technical Management

Charatt L

Charatteng Inthorn
Section Head
inclosure# 1-204-e-0008

Approved by

Kanok An

Kanokorn An
Assistant General Manager
inclosure# 1-204-e-0004

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 E-MAIL: info@alsglobal.com | WWW.alsglobal.com

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NEW SCHEME

www.alsglobal.com

RIGHT TO LIFE

							
Client: WWA Utilities and Power Public Company Limited 111 Moo-7, Nongpradeng Road, Nongpradeng, Bangnaeang, Samut Prakan Thailand 10240				Lot ID: 24704022			
P/O # :				Date Received: Jul 04, 2024			
Project Name: Factory / Facility				Date Reported: Jul 11, 2024			
Project Location: (State St.)				Report Number: XXXX702-Z			
				<i>(Page 1 of 1)</i>			
Sample Number	24704022-I						
Sampled Date	Jul 04, 2024 10:20 AM						
Sample Description	Group 2 Wastewater WW-CF						
Contract No.	ISL 072, 2017	Fuel	ISO	Site	Gulf IP WC Co Ltd		
Date Analytical Commenced	Jul 05, 2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles; sample containers comply to pre-treatment - preservation standards (APHA/USEPA)						
Physical Property	Yellow, some odour, solid and no turbid						
Analyte	Unit	LOD	LOQ (3xLOD)	Email	Qualifies / Specification	Method	Testing Location
Water Testing							
Conductivity at 25 degree C	mhos/cm@25°C	-	0.5	2096	No Standard		Bangkok Standard JAWA, ISO/IEC 17025, 23rd ed., 2017, part 2019 B
Guideline: Standard of WWA Sanitary Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant. Sampling by: Technical Support							
Remark:							
- LOD = Limit of Detection							
- LOQ = Lower limit (10x) (Limit of Quantification) >(10x Limit of Reporting)							
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				Approved by _____ <i>Suwanna C</i> Summan Chamuangkarn Scientist [O]			
ORDER NO.: 104 Phrakhanon Rd., Phrakhanon Sub., Khwaeng Phrakhanon, Khet Suan Yodwong, Bangkok 10110 Thailand Phone: +66(0) 2750 9800 Fax: +66(0) 2750 9177 Email: info@alsglobal.com Website: www.alsglobal.com Laboratory Accredited by UKAS and ANAB Global Certifications							
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ALS



Analysis / Test Report

Client: WWSL Ltd/State and Power Public Company Limited
 111 No.7, Bangkolad Road, Bangkolad, Nongkhal, Samsat Thuan 33140

P/O# :

Project Name : Factory / Ministry
Project Location : 1000-12

Sample Number : 257949-1
Sample Date: Jul 11, 2014 \$5.50 AM
Sample Description : Group 2 Wastewater "WB-C"
Container ID : 102, 106, 204, 205
Test List :

Data Analysis Commented :

Condition of Sample : Contained in one order glass bottle and three plastic bottles, sample containers comply to pre-treatment - preservation standards
 (WWSL, WWSL, water, solid, water, solid, and no filter)

Physical Property

Analyte	Unit	LOD	LOQ	Recall	Guideline / Specification	Method	Testing Location
Water Tracking							
300 (5 to 20 degrees C)	mg/L	-	2.0	4.4	4500	Standard Methods for the Examination of water and Wastewater, APHA, 19th ed. 1995, 2011, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 25	

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ALS												
Analysis / Test Report					TESTING No.0509							
Client : WMA Utilities and Power Public Company Limited 111 Km.7, Nongkhetwong Road, Nongkhetwong, Bangkok, Thailand Thailand 10540					Lot ID: 2474909 Received Date : 24 Jul 2024 Date Reported : 24 Jul 2024 Report Number : 202417-1							
P/O : Project Name : Factory / Roadside Project Location : (WMA-S1)												
Sample Number : 2474909-1 Sampled Date : 24 Jul 2024 11:30 AM Sample Description : Ground Water Watermutter W07 Contract ID : 161, 526, 2756 Site : Hagnote (Thailand) Co.,Ltd. (142)												
Date Analysis Commenced : 24 Jul 06, 2024												
Physical Property of Sample : Collected in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment / preservation standards Container, sample volume, sealed and no-leaked												
Physical Property												
Analyte	Unit	LOD	LOQ (mg/L)	Result	Guideline / Specification	Method						
Water Testing BOD-5 (20 ± 2 Degree C) <table border="1"> <tr> <td>mg/L</td> <td>< 2.0</td> <td>3.9</td> <td>5.00</td> <td>Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B</td> <td>Spectrophotometer</td> </tr> </table>							mg/L	< 2.0	3.9	5.00	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer
mg/L	< 2.0	3.9	5.00	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer							
COD <table border="1"> <tr> <td>mg/L</td> <td>< 25</td> <td>< 25</td> <td>2750</td> <td>Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B</td> <td>Spectrophotometer</td> </tr> </table>							mg/L	< 25	< 25	2750	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer
mg/L	< 25	< 25	2750	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer							
Oil & Grease * <table border="1"> <tr> <td>mg/L</td> <td>< 3</td> <td>< 3</td> <td>210</td> <td>Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B</td> <td>Spectrophotometer</td> </tr> </table>							mg/L	< 3	< 3	210	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer
mg/L	< 3	< 3	210	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer							
pH (at 25°C) * <table border="1"> <tr> <td></td> <td>< 6.1</td> <td>< 6.1</td> <td>5.5-6.0</td> <td>Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B</td> <td>Spectrophotometer</td> </tr> </table>								< 6.1	< 6.1	5.5-6.0	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer
	< 6.1	< 6.1	5.5-6.0	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer							
Temperature * <table border="1"> <tr> <td>Degree C</td> <td>< 32.2</td> <td>< 32.2</td> <td>145</td> <td>Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B</td> <td>Spectrophotometer</td> </tr> </table>							Degree C	< 32.2	< 32.2	145	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer
Degree C	< 32.2	< 32.2	145	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer							
Total Dissolved Solids Dried at 180 Degree C <table border="1"> <tr> <td>mg/L</td> <td>< 5</td> <td>1302</td> <td>< 3000</td> <td>Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B</td> <td>Spectrophotometer</td> </tr> </table>							mg/L	< 5	1302	< 3000	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer
mg/L	< 5	1302	< 3000	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer							
Total Suspended Solids Dried at 600-850 Degree C <table border="1"> <tr> <td>mg/L</td> <td>< 5</td> <td>< 5</td> <td>< 1205</td> <td>Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B</td> <td>Spectrophotometer</td> </tr> </table>							mg/L	< 5	< 5	< 1205	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer
mg/L	< 5	< 5	< 1205	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, part 9220-B, 22d ed., 2012, part 9220-B, 23d ed., 2012, part 9220-B, 24th ed., 2012, part 9220-B	Spectrophotometer							
Outliner : Standard of WMA Sarabai Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.												
Sampling By : Tassanapong Pongkumwong, No.204 + 0008												
Notes : * LOD : Limit of Detection * LOQ : Lowest level (LOQ) of 200.0 mg/L of 100 mg/L of 100 mg/L * Analytical method : Active and Inactive in accordance with ISO 15705												
Technical Management  Tassanapong Pongkumwong Scientist (C) No.204 + 0008					Approved by  Kanchan Kosa National General Manager No.204 + 0008							
Note: This is the printed version of the report. The report is valid only if it is signed by the National General Manager. The report is valid only if it is signed by the National General Manager.												

[illegible]

Analysis / Test Report

Client : WWA Utilities and Power Public Company Limited

111 Rue 7, Nong Thong Road, Nongthong, Nongthong, Saraburi Thailand 36140

Project :

Line Report - Factory 1 Monthly

Project Location : WWA 101

TESTING

No. 0009

Lot ID: 2474900

Date Received : 24 Jul 2024

Date Reported : 24 Jul 2024

Report Number : 3031758-1

Page 1 of 2

Sample Number

2474900-1

Sample Date Jul 31, 2024 12:30 PM AW

Sample Description Site 1: Wastewater WWF CT

Container ID 1SL, 012L, 2356 Plot 149

Date Analysis Commenced Jul 31, 2024

Condition of Sample

Collected in one-liter glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards

UNHS/2014

Contents, some odour, solid and no build

Physical Property

Appearance

Clear

LOD

LOQ

Result

Guideline / Specification

Method

Testing Location

Water Testing

BOD (5 days at 20 degree C)

mg/L

-

1.0

6.1

3300

Standard Methods for the Examination of Water and Wastewater, 19th ed., 2017, part 9210.5, part 9210.1-12

COD

mg/L

-

25

30

1750

Standard Methods for the Examination of Water and Wastewater, 19th ed., 2017, part 9210.5, part 9210.1-12

Oil & Grease *

mg/L

-

3

<3

110

Standard Methods for the Examination of Water and Wastewater, 19th ed., 2017, part 9210.5, part 9210.1-12

pH (at site) *

-

-

6.1

6.5-8.0

3300

Standard Methods for the Examination of Water and Wastewater, 19th ed., 2017, part 9210.5, part 9210.1-12

Temperature *

Degree C

-

32.6

145

3300

Standard Methods for the Examination of Water and Wastewater, 19th ed., 2017, part 9210.5, part 9210.1-12

Total Dissolved Solids Determined at 180 Degree *

mg/L

-

5

900

13000

Standard Methods for the Examination of Water and Wastewater, 19th ed., 2017, part 9210.5, part 9210.1-12

Total Suspended Solids Determined at 105-5 Degree *

mg/L

-

5

<5

1300

Standard Methods for the Examination of Water and Wastewater, 19th ed., 2017, part 9210.5, part 9210.1-12

Guideline : Standard of WWA Saraburi Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.

Sampling by : Asset Protection and Compliance - 1204-0-0009

Notes:

* LOD = Limit of Detection

* LOQ = Lower Limit (LOD and LOQ are quantified) (LOQ = 3 x LOD)

Lot ID: 2470456
Date Received : Jul 02, 2024
Date Reported : Jul 08, 2024
Report Number : 3021629-2

Page 2 of 9

Physical Property		Values, a list of value, a list, and a list					
Analysis	Units	LOD	LOQ	Result	Gaschrom / Specific-Info	Method	Testing Location
Water Testing							
5 min Diss (at 25 degrees C)	mg/L	-	2.0	40.9	4500	Extraction Methods for the Identification of Water and Inoculation, ASTM, ASTM, 2003, 2nd ed., part 0211, part 0001, 2nd ed.	Birmingham
COO	mg/L	-	25	206	5700	Extraction Methods for the Identification of Water and Inoculation, ASTM, ASTM, 2003, 2nd ed., part 0211, part 0001, 2nd ed.	Birmingham
Oil & Grease *	mg/L	-	3	<3	110	Extraction Methods for the Identification of Water and Inoculation, ASTM, ASTM, 2003, 2nd ed., part 0211, part 0001, 2nd ed.	Birmingham
pH (in air) **				7.2	5.5-8.6	Extraction Methods for the Identification of Water and Inoculation, ASTM, ASTM, 2003, 2nd ed., part 0211, part 0001, 2nd ed.	Birmingham
Temperature *	Degree C	-	33.2	34.5		Extraction Methods for the Identification of Water and Inoculation, ASTM, ASTM, 2003, 2nd ed., part 0211, part 0001, 2nd ed.	Birmingham
Total Suspended Solids (dried at 103/105 °C)	mg/L	-	5	88	4200	Extraction Methods for the Identification of Water and Inoculation, ASTM, ASTM, 2003, 2nd ed., part 0211, part 0001, 2nd ed.	Birmingham

Guideline: Standard of WHO Sanitary Industrial Limit, Maximum levels for wastewater discharging to central wastewater treatment plant.

Sampling By: Jeevan Khosla and Dr. Anurag K. +91-90072

Report:

- 1000 L/min of detection
- *100 L/min of detection (100 L/min of Reporting)
- Analytical method: 1000 L/min of detection (100 L/min of Reporting)
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Siriluk P.
Siriluk Sunnak
Section Head
ms009687 - 204-e-0013

Approved by Lark Anik
Karidorn Anak
Assistant General Manager
ms009687 - 204-e-0004

I hereby declare that the information contained herein is true and correct to the best of my knowledge and belief, and I am not aware of any false or misleading information being included herein.

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ANALYTICAL GROUP (HPLC AND GC), A. S. ANS Limited Company

Lot ID: 2470425
Date Received : Jul 21, 2024
Date Reported : Jul 08, 2024
Report Number : 3031523-3

Page 1 of 1

Physical Property		Value, and a list of factors and/or source used				Uncertainty	
Analysis	Unit	LOD	LOQ	Result	Gaschromatograph / Mass Spectrometry	Method	Testing Location
Water Testing							
LOD (5 days 20 to 25 degrees C)	mg/L	-	2.0	25.4	4300	Standard Methods for the Examination of Water and Wastewater, APHA, ASTM, & WEF, 23rd ed., 2017, part 5212 & part 5210, 2-3	Evergreen
COD	mg/L	-	25	205	6750	Standard Methods for the Examination of Water and Wastewater, APHA, ASTM, & WEF, 23rd ed., 2017, part 5212.0	Evergreen
Oil & Grease *	mg/L	-	3	4	110	Standard Methods for the Examination of Water and Wastewater, APHA, ASTM, & WEF, 23rd ed., 2017, part 922.0	Evergreen
pH (at site)	-	-	-	7.9	5.5-8.8	Standard Methods for the Examination of Water and Wastewater, APHA, ASTM, & WEF, 23rd ed., 2017, part 922.0	Evergreen
Temperature *	Degrees C	-	-	33.1	945	Standard Methods for the Examination of Water and Wastewater, APHA, ASTM, & WEF, 23rd ed., 2017, part 922.0	Evergreen
Total Dissolved Solids Determined at 1025 LOD	mg/L	-	5	42	4200	Standard Methods for the Examination of Water and Wastewater, APHA, ASTM, & WEF, 23rd ed., 2017, part 922.0	Evergreen

Guideline: Standard of WHO Sanitary Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.

Sampling By: Ramesh Kumar (e-mail: ramesh.kumar@vsnl.com)

Remark:

- ✓ (✓) : Limit of Detection
- ✓ (✓) : Limit of Quantitation
- ✓ (✓) : Limit of Reporting
- ✓ (✓) : Not included in scope of Accreditation (ISO/IEC 17025)
- ✓ (✓) : Not included in scope of Accreditation (ISO/IEC 17025)
- ✓ (✓) : Not included in scope of Accreditation (ISO/IEC 17025)

Technical Management

Siriluk P.
Siriluk Punnak
Section Head
msdmsw@f-204-a-0013

Approved by

Karlson Anai
Karlson Anai
Assistant General Manager
msdmsw@f-204-a-0004

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Lot ID: 2470452
Date Received : Jul 02, 2024
Date Reported : Jul 09, 2024
Report Number : 3031811-0

Page 1 of 1

Physical Property		Value, units, index, and/or test method					
Analysis	Unit	LOD (LOEL)	Result	Gasification / Specification	Method	Extraction Location	
Water Testing (5 min test at 20 degrees C)	mg/L	-	1.0	<0.6	1300	Standard Methods for the Examination of Water and Wastewater, APHA, 20th ed., 2011, part 9212 & part 9210, 10-2	Intergovernmental
COO	mg/L	-	25	<25	\$750	Standard Methods for the Examination of Water and Wastewater, APHA, 20th ed., 2011, part 9212 & part 9210, 10-2	Intergovernmental
Oil & Grease	mg/L	-	3	<3	110	Standard Methods for the Examination of Water and Wastewater, APHA, 20th ed., 2011, part 9212 & part 9210, 10-2	Intergovernmental
pH (in situ)	-	-	-	7.8	5.5-8.2	Standard Methods for the Examination of Water and Wastewater, APHA, 20th ed., 2011, part 9212 & part 9210, 10-2	Intergovernmental
Temperature	Degree C	-	-	20.6	14-5	Standard Methods for the Examination of Water and Wastewater, APHA, 20th ed., 2011, part 9212 & part 9210, 10-2	Intergovernmental
Total Suspended Solids dried at 105°C	mg/L	-	5	<5	\$200	Standard Methods for the Examination of Water and Wastewater, APHA, 20th ed., 2011, part 9212 & part 9210, 10-2	Intergovernmental

Catchment: Standard of YMA Seraiul Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.
Sampling By : Jnanat Khondar jnanatk@rediffmail.com +91-96072-0072
Remarks:

- LOD : Limit of Detection.
- * : Lower than LOD (Limit of Quantification) / ON (out of Reporting).
- Analytical method : Acid-soluble in range of Accreditation ISO/IEC 17025.
- This laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Sullivan C.
Summer Chairperson
Scientist (S)
m0609080#f 1-204-e-0018

Approved by

Karl Auk
Karlöken Auk
Assistant General Manager
m0609080#f 1-204-e-0008

Please sign at the end of each column. After the company was contacted by AUC, because of throughput it is required to stay for future studies. Consider this as approval.

1010015 104 Phatthanasak Rd, Phatthanasak Rd, Khomut Phatthanasak, Chai Sattapong, Bangkok 10150 Thailand | T: +66 2 760 0000 | F: +66 2 760 1199

TESTING
No. 0009
Lot ID: 2470412
Date Received : Jul 02, 2024
Date Reported : Jul 09, 2024
Report Number : 3031489-5

Date Reported : 2d Dec, 2024
Report Number : 2024489-2

Sample Number	2470612-1		
Sampled Date	Jul 02, 2024 11:55 AM		
Sample Description	Group 2 Westwacker HBB-CT		
Contract ID	GS_020_2554	Plot 24	Site - Sam NGK Technocons Co., Ltd.

Date Analysis Commenced	31/03/2024						
Condition of Sample	Contained in one amber glass bottle and three plastic bottles: sample containers comply to pretreatment - preservation standards (NPAH/NEPA)						
Physical Property	Yellow, some odour, solid and turbid						
Analyte	Unit	100	100	Result	Guideline /	Method	Notes

[illegible]

Sampling By: Jerald R. Hunsaker and Joseph R. 1-204-1-0072

1.00 : Limit of Detection
 1.5 : Limit Due to Q2 (Limit of Quantification) / LOQ (Limit of Reporting)
 Analytical method: Aqueous solution of Acetylcholine (ACh) in 0.1M HCl.
 The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

5. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

Technical Management:
Suvimon Charungquast
Scientist (3)
ms.00000001.5-204-a-0008

Approved by:
Karolárium Anit
Assistant General Manager
ms.00000001.5-204-a-0004

Figure 100-10 The relationship between the ability to perform high-intensity work and the amount of sleep. The relationship between the amount of sleep and the ability to perform high-intensity work is shown in Figure 100-10. The relationship is shown in Figure 100-10. The relationship is shown in Figure 100-10.

0011651 104 Phatthanasak 40, Phatthana 38, Samsang Phatthanasak, Chai Sa (area, Bangkok 10110 Thailand | Phone: +66 8 770 3000 Fax: +66 8 2760 111
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TESTING
No. 0009
Lot ID: 2470415
Date Received : Jul 01, 2024
Date Reported : Jul 08, 2024
Report Number : 3031495-1

Date Reported : Jul 08, 2024
Report Number : 2023495-0

Sample Number	2475015-1				
Sampled Date	Jul 01, 2024 1:30 PM				
Sample Description	Group 2 Wastewater WWT-CT				
Contract ID	SL_024_2554	Plot 23	Site	Thai Beverage Co., Ltd.	

Location	Point 2
Date Analysis Commenced	3rd Oct, 2024
Conditions of Sample	Contained in one amber glass bottle and three plastic bottles; sample containers comply to pretreatment - preservation standards (APHA/USEPA)
Physical Property	Colorless, some odour, acidic and no turbid

Analyte	Unit	LOD (LOQ)	Result	Guideline / Specification	Method	Tested Location
Water Testing						
ROD (5 days @ 20 degree C)	mg/L	< 1.0	3.44	1500	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, 1995; EPA 816-F-03-001, 2003 and EPA 816-F-03-002, 2003	Nepal
COO	mg/L	< 25	116	1750	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, 1995; EPA 816-F-03-001, 2003 and EPA 816-F-03-002, 2003	Nepal
Oil & Grease	mg/L	< 3	133	1330	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, 1995; EPA 816-F-03-001, 2003	Nepal
pH (in site)			< 7.9	5.5-8.0	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, 1995; EPA 816-F-03-001, 2003	Nepal
Temperature	Degree C		< 36.8	141	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, 1995; EPA 816-F-03-001, 2003	Nepal
Total Suspended Solids (dried at 103-105 degree C)	mg/L	< 5	14	1200	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, 1995; EPA 816-F-03-001, 2003	Nepal

Guideline: Standard of West Sumbur Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.

Remark 1

- ¹ LOD = (Lod of Detection)
- ² ** = (Lower than LOD (Lod of Quantitation) / LOD (Lod of Reporting))
- ³ Analyte(s) marked * have not included in scope of Accreditation ISO/IEC 17025.
- ⁴ The laboratory has been included in accredited laboratory companies with the ISO/IEC 17025.

$C_{\text{eff}} = D \cdot Y$

Technical Management  Approved by 
Serik Buzak Karolomir Anst
Section Head Assistant General Manager
en@buzakoff.com +384-4-0004 en@buzakoff.com +384-4-0004

Figure 10.10 The categories of identified policy objectives are collected in 100% because of the way the data are collected. However, the data are not collected in 100% because of the way the data are collected. However, the data are not collected in 100% because of the way the data are collected.

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RIGHT SOLUTIONS RIGHT PARTNER

TESTING
No.0009
Lot ID: 2470479
Date Received : Jul 01, 2024
Date Reported : Jul 08, 2024
Report Number : 3021605-1

Date Received : Jul 01, 2024
Date Reported : Jul 08, 2024
Report Number : 3021695-0

Sample Number	2407479-1				
Sampled Date	Jul 01, 2024 1:30 PM				
Sample Description	Group 2 Wastewater WSR CT				
Contract ID	SL_001_2587	Plot	1/30/1	Site	Thai Instana Foods (Thailand) Co.,Ltd.

Date Analysis Commenced	Jul 02, 2024																																																																																																																																																																																																																																																																																																																																																																																																																							
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Water Testing	Unit	LOD (BQL)	Resonance	Specificities	Reference	Location
Water Testing 100 °C (less at 30 degree C)	mg/L	-	1.0	139	1300	United States, Mexico for the Examination of water for Microbiology - (APHA, APHIS & NRP, 1995; WHO, 1997; part 1612.0, part 4500 - C
COO	mg/L	-	25	291	1750	Examination of water for Microbiology - (APHA, APHIS & NRP, 2016; WHO, 1997; part 1612.0, part 4500 - C
CE & Grasses +	mg/L	-	3	14	110	Examination of water and Microbiology - (APHA, APHIS & NRP, 2016; WHO, 1997; part 1612.0, part 4500 - C
pH (in 400)	-	-	2.2	5.5-6.0	-	Examination of water and Microbiology - (APHA, APHIS & NRP, 2016; WHO, 1997; part 1612.0, part 4500 - C
Temperature +	Degree C	-	35.5	145	-	Examination of water and Microbiology - (APHA, APHIS & NRP, 2016; WHO, 1997; part 1612.0, part 4500 - C
Total Suspended Solids (out of 100-100 degree C)	mg/L	-	5	42	1300	Examination of water and Microbiology - (APHA, APHIS & NRP, 2016; WHO, 1997; part 1612.0, part 4500 - C

Sampling By: Janet Khondor janetk@us.ibm.com 1-204-4-0072

*100 : Limit of Detection
*1 : Lower than 100 (Limit of Quantitation) / 100 (Limit of Reporting)
Analytical method: It is not included in scope of Accreditation ISO/IEC 17025.
The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

$C_{11} + D$
 $Y_{11} + A_1$

Technical Management

[Signature]
Derek Burns
Section Head
mjburns@t-204-a-0013





Approved by



[Signature]
Karlsson, Aoki
Assistant General Manager
mkarlson@t-204-a-0004

Figure 100 is the schematic diagram of the system 100, and the system 100 is configured to receive a signal from a user device 102, and the system 100 is configured to output a signal to a user device 102. The system 100 is configured to receive a signal from a user device 102, and the system 100 is configured to output a signal to a user device 102.

10100015 104 Phrakasakorn Rd, Phrakasakorn Rd, Khlong Phrakasakorn, Khlong Luang, Bangkok 10150 Thailand TEL: 02-01-458-2742 FAX: 02-01-458-2742
AUS LABORATORIES GROUP (THAILAND) CO., LTD. An AUS Listed Company


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<h2 style="text-align: center;">Analysis / Test Report</h2>							
Client: WMA Utilities and Power Public Company Limited 113 Moo 3, Nongpladung Road, Nongpladung, Saraburi Thailand 35140			TESTING No.0059				
P/O ID: Project Name: Factory / Municipality Project Location: WMA SE			Lot ID: 2470487 Issued: 24 Jul 2024 Date Report: 24 Jul 2024 Report Number: 303709-1				
708.1 (1)							
Sample Number: 2470470-1 Sample Date: 24 Jul 2024 13:00 AM Sample Description: Group 2 Watermeter WBS-CT Customer ID: WMA 2556 Phd: 7, 341		Site: The Rayon Public Limited Company					
Data Analysis Commented Date of Sample: 24 Jul 2024 Compared to set amber glass bottle and four plastic bottles, sample containers comply to pre-treatment - preservation standards (WHO/FAO/ISO) Volume, same colour, solid and no turbid							
Physical Property							
Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing							
SDI (25 °C at 20 degree)	mg/L	-	2.6	11.7	<500	Standard methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2124 & 2101	Saraburi
COO	mg/L	-	25	58	<370	Standard methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 6220 & 6210	Saraburi
Oil & Grease +	mg/L	-	3	<3	210	Standard methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 8220 & 8210	Saraburi
pH (at 20 °C)	-	-	-	6.5	6.5-8.5	Standard methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500 - 4510	Saraburi
Sulfate +	mg/L	-	8.5	<0.9	61	Standard methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-52 (1)	Saraburi
Temperature +	Degree C	-	-	36.3	14-3	Standard methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2500 & 2510	Saraburi
Total Suspended Solids (Dried at 103-105 degree C	mg/L	-	5	<3	<200	Standard methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 & 2541	Saraburi
Outlier: Standard of WMA Saraburi Industrial Ltd., Maximum levels for wastewater discharge to central wastewater treatment plant. Sampling By: Jaranat Khosravan wicupwastw@wma-1.com-7							
Remark: 1. LOD : Limit of Detection 2. LOQ : Lower Limit of Quantitation ; (LOQ = 3x of Detection)							
Technical Management <div style="text-align: center;">  Siriluk P. Section head wicupwastw@wma-1.com-3 </div>		Approved by <div style="text-align: center;">  Kachai A. Section General Manager wicupwastw@wma-1.com-4 </div>					
"We have a commitment to provide the best service to our customers and to ensure the highest quality of our products and services."							
49/99/91 หมู่ 9 ถนนพหลโยธิน 49, Khwaeng Phra Pradaeng, Chatuchak District, Bangkok 10900 (Thailand) Phone: +66 2 770 0000 Fax: +66 2 770 0171 49/99/91 หมู่ 9 ถนนพหลโยธิน 49, Khwaeng Phra Pradaeng, Chatuchak District, Bangkok 10900 (Thailand) Website: www.alsglobal.com							
www.alsglobal.com							

	<h1 style="margin: 0;">Analysis / Test Report</h1>		TESTING No.0009
Client : WWA Utilities and Power Public Company Limited 111 Moo 7, Nongkhalai Road, Nongkhalai, Nongkhalai, Saraburi Thailand 35145	Lot ID: 2470487 Date Received : 14/01/2024 Date Reported : 14/01/2024 Report Number : 3031709-1		
P/O : Project Name : Factory 1 Roadby Project Location : (WHA-52)	<div style="text-align: right;">Page 1 of 1</div>		
<p><small>As per request of WWA and included in scope of Accreditation ISO/IEC 17025</small></p> <p><small>The Laboratory has been accepted as an accredited laboratory according to the ISO/IEC 17025.</small></p>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Technical Management</p> <div style="border-bottom: 1px solid black; padding-bottom: 5px; margin-bottom: 5px;"> <p style="font-size: 1.2em; font-family: cursive;">Sirinuk P.</p> </div> <p style="font-size: 0.8em;">Sirinuk Sirinuk Section Head emailaddress : s.sirinuk@wva-52.co.th</p> </div> <div style="width: 45%; text-align: right;"> <p>Approved by</p> <div style="border-bottom: 1px solid black; padding-bottom: 5px; margin-bottom: 5px;"> <p style="font-size: 1.2em; font-family: cursive;">Kach Aek</p> </div> <p style="font-size: 0.8em;">Kachorn Aek Assistant General Manager emailaddress : k.aek@wva-52.co.th</p> </div> </div>			
<div style="border: 1px solid black; padding: 5px; font-size: 0.7em;"> <p><small>This report and its contents are confidential and are intended for the use of the client only. It is not to be distributed outside the client's organization without the prior written consent of the laboratory. The laboratory is not responsible for the use of the results for purposes other than those for which they were intended.</small></p> </div>			
<p style="font-size: 0.8em;"> <small>WVA-52 (WVA Utilities and Power Public Company Limited) 111 Moo 7, Nongkhalai Road, Nongkhalai, Nongkhalai, Saraburi Thailand 35145 TEL: 036-2100000-036-2100001 FAX: 036-2100002 www.wva-52.co.th E-MAIL: info@wva-52.co.th, marketing@wva-52.co.th</small> </p>			



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Analysis / Test Report

Client: WWA Utilities and Power Public Company Limited
 (11, No.7, Songkhro Road, Songkhro, Bangkok, Sathorn Thani 10140)

P/O / Project Name: Factory / Municipality
Project Location: WWA-SE

Sample Number: 2474057-1
Sampled Date: Jul 01, 2024 @ 9:10 AM
Sample Description: Group 2 Wastewater W6-CT
Contract ID: SLS-095-2060
Issue Date: Jul 01, 2024 **Ref:** 761, 761.73

Order Analysis Comment: **Site:** The Sam Cement (Thailand) Co., Ltd.

Condition of Sample: Collected in one amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA/2292)

Physical Property: Yellowish, some solid, solid and turbid

TESTING
No. 0009
Lot ID: 2474057
Issue Date: Jul 01, 2024
Exp. Date: Jul 08, 2024
Report Number: 3032495-1

Page 1 of 1


Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing							
300 (°C) at 20 (degree C)	mg/L	-	2.6	18.3	≤500	Standard Methods for the Examination of water and wastewater, APHA, ASTM & ISO, 22nd ed., 2007, para 9210 B, 9212 B, 9213 B, 9214 B, 9215 B, 9216 B, 9217 B, 9218 B, 9219 B, 9220 B, 9221 B, 9222 B, 9223 B, 9224 B, 9225 B, 9226 B, 9227 B, 9228 B, 9229 B, 9230 B, 9231 B, 9232 B, 9233 B, 9234 B, 9235 B, 9236 B, 9237 B, 9238 B, 9239 B, 9240 B, 9241 B, 9242 B, 9243 B, 9244 B, 9245 B, 9246 B, 9247 B, 9248 B, 9249 B, 9250 B, 9251 B, 9252 B, 9253 B, 9254 B, 9255 B, 9256 B, 9257 B, 9258 B, 9259 B, 9260 B, 9261 B, 9262 B, 9263 B, 9264 B, 9265 B, 9266 B, 9267 B, 9268 B, 9269 B, 9270 B, 9271 B, 9272 B, 9273 B, 9274 B, 9275 B, 9276 B, 9277 B, 9278 B, 9279 B, 9280 B, 9281 B, 9282 B, 9283 B, 9284 B, 9285 B, 9286 B, 9287 B, 9288 B, 9289 B, 9290 B, 9291 B, 9292 B, 9293 B, 9294 B, 9295 B, 9296 B, 9297 B, 9298 B, 9299 B, 9300 B, 9301 B, 9302 B, 9303 B, 9304 B, 9305 B, 9306 B, 9307 B, 9308 B, 9309 B, 9310 B, 9311 B, 9312 B, 9313 B, 9314 B, 9315 B, 9316 B, 9317 B, 9318 B, 9319 B, 9320 B, 9321 B, 9322 B, 9323 B, 9324 B, 9325 B, 9326 B, 9327 B, 9328 B, 9329 B, 9330 B, 9331 B, 9332 B, 9333 B, 9334 B, 9335 B, 9336 B, 9337 B, 9338 B, 9339 B, 9340 B, 9341 B, 9342 B, 9343 B, 9344 B, 9345 B, 9346 B, 9347 B, 9348 B, 9349 B, 9350 B, 9351 B, 9352 B, 9353 B, 9354 B, 9355 B, 9356 B, 9357 B, 9358 B, 9359 B, 9360 B, 9361 B, 9362 B, 9363 B, 9364 B, 9365 B, 9366 B, 9367 B, 9368 B, 9369 B, 9370 B, 9371 B, 9372 B, 9373 B, 9374 B, 9375 B, 9376 B, 9377 B, 9378 B, 9379 B, 9380 B, 9381 B, 9382 B, 9383 B, 9384 B, 9385 B, 9386 B, 9387 B, 9388 B, 9389 B, 9390 B, 9391 B, 9392 B, 9393 B, 9394 B, 9395 B, 9396 B, 9397 B, 9398 B, 9399 B, 9400 B, 9401 B, 9402 B, 9403 B, 9404 B, 9405 B, 9406 B, 9407 B, 9408 B, 9409 B, 9410 B, 9411 B, 9412 B, 9413 B, 9414 B, 9415 B, 9416 B, 9417 B, 9418 B, 9419 B, 9420 B, 9421 B, 9422 B, 9423 B, 9424 B, 9425 B, 9426 B, 9427 B, 9428 B, 9429 B, 9430 B, 9431 B, 9432 B, 9433 B, 9434 B, 9435 B, 9436 B, 9437 B, 9438 B, 9439 B, 9440 B, 9441 B, 9442 B, 9443 B, 9444 B, 9445 B, 9446 B, 9447 B, 9448 B, 9449 B, 9450 B, 9451 B, 9452 B, 9453 B, 9454 B, 9455 B, 9456 B, 9457 B, 9458 B, 9459 B, 9460 B, 9461 B, 9462 B, 9463 B, 9464 B, 9465 B, 9466 B, 9467 B, 9468 B, 9469 B, 9470 B, 9471 B, 9472 B, 9473 B, 9474 B, 9475 B, 9476 B, 9477 B, 9478 B, 9479 B, 9480 B, 9481 B, 9482 B, 9483 B, 9484 B, 9485 B, 9486 B, 9487 B, 9488 B, 9489 B, 9490 B, 9491 B, 9492 B, 9493 B, 9494 B, 9495 B, 9496 B, 9497 B, 9498 B, 9499 B, 9500 B, 9501 B, 9502 B, 9503 B, 9504 B, 9505 B, 9506 B, 9507 B, 9508 B, 9509 B, 9510 B, 9511 B, 9512 B, 9513 B, 9514 B, 9515 B, 9516 B, 9517 B, 9518 B, 9519 B, 9520 B, 9521 B, 9522 B, 9523 B, 9524 B, 9525 B, 9526 B, 9527 B, 9528 B, 9529 B, 9530 B, 9531 B, 9532 B, 9533 B, 9534 B, 9535 B, 9536 B, 9537 B, 9538 B, 9539 B, 9540 B, 9541 B, 9542 B, 9543 B, 9544 B, 9545 B, 9546 B, 9547 B, 9548 B, 9549 B, 9550 B, 9551 B, 9552 B, 9553 B, 9554 B, 9555 B, 9556 B, 9557 B, 9558 B, 9559 B, 9560 B, 9561 B, 9562 B, 9563 B, 9564 B, 9565 B, 9566 B, 9567 B, 9568 B, 9569 B, 9570 B, 9571 B, 9572 B, 9573 B, 9574 B, 9575 B, 9576 B, 9577 B, 9578 B, 9579 B, 9580 B, 9581 B, 9582 B, 9583 B, 9584 B, 9585 B, 9586 B, 9587 B, 9588 B, 9589 B, 9590 B, 9591 B, 9592 B, 9593 B, 9594 B, 9595 B, 9596 B, 9597 B, 9598 B, 9599 B, 9600 B, 9601 B, 9602 B, 9603 B, 9604 B, 9605 B, 9606 B, 9607 B, 9608 B, 9609 B, 9610 B, 9611 B, 9612 B, 9613 B, 9614 B, 9615 B, 9616 B, 9617 B, 9618 B, 9619 B, 9620 B, 9621 B, 9622 B, 9623 B, 9624 B, 9625 B, 9626 B, 9627 B, 9628 B, 9629 B, 9630 B, 9631 B, 9632 B, 9633 B, 9634 B, 9635 B, 9636 B, 9637 B, 9638 B, 9639 B, 9640 B, 9641 B, 9642 B, 9643 B, 9644 B, 9645 B, 9646 B, 9647 B, 9648 B, 9649 B, 9650 B, 9651 B, 9652 B, 9653 B, 9654 B, 9655 B, 9656 B, 96	

ANALYSIS / Test Report					
Client : WWA (Alaska) and Power Public Company Limited 111 Moo 7, Nongkhalad Road, Nongkhalad, Bangkok, Saraburi Thailand 28140					TESTING No. 00-009
P/O :					Lot ID: 24741671
Project Name : Factory X Municipality					Date Received : 3rd Jul, 2024
Project Location : WNA SS.					Date Report : 3rd Jul, 2024
					Report Number : R0320A-01
					(Page 1 of 1)
Samples Number	24741671-1				
Sampled Date	Jul 05, 2024 10:35 AM				
Customer ID#	Group 2 Watermeter WNA CT	Phi	33.60	Site	Tiamwet (Thailand) Corp., Ltd.
Contact Tel	66 07 2594				
Date Analysis Commenced	Jul 02, 2024				
Criticality of Sample	Compared as one amber glass bottle and three plastic bottles, sample containers comply to pre-treatment - preservation standards (ISO 9001:2015)				
Physical Property	Yellow, a bit of colour, solid and tarted				
Analyte	Unit	LOD	LQD	Rework	Grossline / Specification
			(3.0xLQ)		
Water Testing					
BOD (5 days at 20 Degree C)	mg/L	-	2.0	37.0	<500 Standard Methods for the Examination of water and wastewater, APHA, ASTM & ISO, 2nd edn., 2017, page 5219 & 5091, 6009 >> 2
COD	mg/L	-	25	160	<6750 Standard Methods for the Examination of water and wastewater, APHA, ASTM & ISO, 2nd edn., 2017, page 5221 & 5
Oil & Grease *	mg/L	-	3	12	<110 Standard Methods for the Examination of water and wastewater, APHA, ASTM & ISO, 2nd edn., 2017, page 6223 & 5
pH (at 20°C) **		-	-	7.8	5.5-8.0 Standard Methods for the Examination of water and wastewater, APHA, ASTM & ISO, 2nd edn., 2017, page 6022 & 5 (30)
Temperature *	Degree C	-	-	35.1	<43 Standard Methods for the Examination of water and wastewater, APHA, ASTM & ISO, 2nd edn., 2017, page 2035 & 5
Total Suspended Solids (TSS) at 20 ± 0.5 Degree C	mg/L	-	5	56	<200 Standard Methods for the Examination of water and wastewater, APHA, ASTM & ISO, 2nd edn., 2017, page 2542 & 5
Guideline: *Standard of WWA Sanitary Industrial Local Governmental laws for wastewater discharge to central wastewater treatment plants. Selecting by: Relevant Normal Indicators<= LOD+/- 0.015					
Note: - LOD = Limit of Detection - LQD = Lower limit QSD (Not of Substantive) (<LOD + 2sd of Repeating) Analytically method: *As we not included in scope of Accreditation (SICB) (APCS), this laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.					
Technical Management				Approved by	
		Siriluk Promak Section Head Inchusudho = 026-0253		Kanchana Ait Assistant General Manager inchusudho = 026-0004	
<small>*This report was generated by the Laboratory Information System (LIS) software developed by ALS Laboratory Limited. The results are subject to change without notice. Please refer to the Terms and Conditions of Service for more details.</small>					

 							
Analysis / Test Report							
Client: WMA Utilities and Power Public Company Limited 111 Moo 7, Nongkang Road, Nongkang, Nongkang, Samut Prakan (2814)				TESTING NO NO 0009 Lot ID: 2470437 Date Received : 1-Jul-2024 Date Reported : 1-Jul-2024 Report Number : 3031344-1			
P/O # Project Name Factory / Facility Project Location (WMA-32)							
Sample Number 2470437-1 Sample Date Jul 04, 2024 11:30 AM Sample Description Group 2 Wastewater W04-C7 Contract ID SLL 661, 2596 Plot #47 Site TS Thue (Thailand) Co., Ltd. State Analysis Commented Jul 04, 2024 Condition of Sample Coloured, in one amber glass bottle three plastic bottles, sample containers comply to pretreatment - preservation standards (WMA-32P2A) Physical Property WMA, a lot of volume, some solid and a lot of turbid							
Analyte	Unit	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Testing Location
Water Testing BOD-5 (20 at 20 degree C)	mg/L	-	2.0	72.1	3500	Standard Methods for the Examination of water and Wastewater, APHA, 19th ed. 2nd ed., 2005, part 5210 B, part 5210 B, 2007, part 5210 B	Tongkang
COD	mg/L	-	25	119	1750	Standard Methods for the Examination of water and Wastewater, APHA, 19th ed. 2nd ed., 2005, part 5210 B, 2007, part 5210 B	Tongkang
Oil & Grease **	mg/L	-	3	5	110	Standard Methods for the Examination of water and Wastewater, APHA, 19th ed. 2nd ed., 2005, part 5210 B, 2007, part 5210 B	Tongkang
pH (on site) ***	-	-	-	7.6	5.5-9.0	Standard Methods for the Examination of water and Wastewater, APHA, 19th ed. 2nd ed., 2005, part 9210 B, 2007, part 9210 B	Tongkang
Temperature **	Degree C	-	-	30.4	14-5	Standard Methods for the Examination of water and Wastewater, APHA, 19th ed. 2nd ed., 2005, part 2510 B, 2007, part 2510 B	Tongkang
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	70	1200	Standard Methods for the Examination of water and Wastewater, APHA, 19th ed. 2nd ed., 2005, part 2510 B, 2007, part 2510 B	Tongkang
Outgoing: Standard of WMA (Sasakul Industrial Land, Maximum levels for wastewater discharge to central wastewater treatment plant). Satisfying by: Tawansat Pongkum, wmaudatw@wma-32.com							
Guideline: <ul style="list-style-type: none"> ISO - 14001 (Environment) ISO - 9001 (Quality) ISO - 45001 (Health & Safety) ISO - 50001 (Energy) ISO - 26000 (Social Responsibility) ISO - 27001 (Information Security) ISO - 22301 (Business Continuity) ISO - 20126 (Sustainability) ISO - 26100 (Artificial Intelligence) ISO - 26101 (Artificial Intelligence) ISO - 26102 (Artificial Intelligence) ISO - 26103 (Artificial Intelligence) ISO - 26104 (Artificial Intelligence) ISO - 26105 (Artificial Intelligence) ISO - 26106 (Artificial Intelligence) ISO - 26107 (Artificial Intelligence) ISO - 26108 (Artificial Intelligence) ISO - 26109 (Artificial Intelligence) ISO - 26110 (Artificial Intelligence) ISO - 26111 (Artificial Intelligence) ISO - 26112 (Artificial Intelligence) ISO - 26113 (Artificial Intelligence) ISO - 26114 (Artificial Intelligence) ISO - 26115 (Artificial Intelligence) ISO - 26116 (Artificial Intelligence) ISO - 26117 (Artificial Intelligence) ISO - 26118 (Artificial Intelligence) ISO - 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ALS
ANALYTICAL SERVICES



ANALYTICAL SERVICES
SINGAPORE

Analysis / Test Report

Client: WMA Utilities and Power Public Company Limited
111 Bto 7, Singapore Road, Singapore, Singapore, Singapore (SING 8)

P/O #

Project Name: Factory / Facility

Project Location: WMA SE

Sample Number: 241049-3
31 Oct 2024 11:50 AM

Sample Description: Group 2 Wastewater W6-CT
SIS, S12, T294

Contract ID: S12, T294

Date Analysis Commenced: 31 Oct 2024

Physical Description of Sample: (Completed in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (ISO 9001:2015))
Hazardous, some odour, solid and turbid

Final Property

Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing							
800 (3 days at 20 degree C)	mg/L	-	2.6	37.8	550	Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300	Singapore
COO	mg/L	-	25	133	2750	Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300	Singapore
Oil & Grease *	mg/L	-	3	6	210	Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300	Singapore
pH (on site) *		-	-	7.3	6.5-8.5	Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300	Singapore
Temperature *	Degree C	-	-	32.3	14-25	Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300	Singapore
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	28	3200	Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300, 2017, part 5210-B, part 6300	Singapore

TESTING
No. 0009


Lot ID: 2470406
Date Issued: 31 Oct 2024
Date Reported: 31 Oct 2024
Report Number: 3029475-1

Page 1 of 1


Compliance: Standard of WMA Sangan Industrial Land
Guideline by: (Sangan) Wastewater discharge + 20M + 400%

Notes:
 1. LOD - Limit of Detection
 2. LOQ - Lowest level (LOD or LOQ) + 10% (and 10% of Reporting)
 3. Analytical method: * when not indicated in list of Accreditation (ISO/IEC 17025).
 4. The laboratory has complied with an accredited laboratory complying with the ISO/IEC 17025.

Technical Management:


 Sumitran Chinn
 Scientist (I)
 30 Oct 2024 10:42 AM +08:00

Approved by:


 Kiah Ann
 General Manager
 30 Oct 2024 10:42 AM +08:00




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WMA Utilities and Power Public Company Limited, 111 Bto 7, Singapore Road, Singapore, Singapore, Singapore (SING 8) P/O # 241049-3
S12, T294 (SING 8) P/O # 241049-3
S12, T294 (SING 8) P/O # 241049-3
S12, T294 (SING 8) P/O # 241049-3

WMA Utilities and Power Public Company Limited, 111 Bto 7, Singapore Road, Singapore, Singapore, Singapore (SING 8) P/O # 241049-3
S12, T294 (SING 8) P/O # 241049-3
S12, T294 (SING 8) P/O # 241049-3
S12, T294 (SING 8) P/O # 241049-3

ANALYTICAL SERVICES

ANALYTICAL SERVICES SINGAPORE

ALS					 WATER MANAGEMENT AUTHORITY	
Analysis / Test Report					TESTING NO. 00-009 Lot ID: 24744040 Date Received: 24 Jul 2024 Date Reported: 24 Jul 2024 Report Number: 3031031-2	
Client: WMA Utilities and Power Public Company Limited 111 Moo 2, Nongpladung Road, Nongpladung, Nongpladung, Saraburi Thailand 38140						
P/O I: Project Name: Factory 1 Roadside Project Location: WMS 12,						
Sample Number: 247490-1 Sampled Date: Jul 01, 2024 11:30 AM Sample Description: Group 2 Wastewater WSP CT Contract ID: SCL 075, 2597 Job Ref: 3024 File: ESW1 Site: WMA Corporation Public Limited Company						
Date Analysis Commenced: Jul 03, 2024 Number of Samples: Compared in one amber glass bottle and three plastic bottles, sample containers comply to predetermined - preservation standards (US EPA 8210) Physical Property: Water, a lot of oil, solid and turbid						
Analyte	Unit	LOD	LOQ (3xLOD)	Result	Guideline / Specification	Method
Water Testing						
800 (5-25 dm of Diss-C)	mg/L	-	2.0	69.2		5300
						Isolated methods for the Examination of water and Wastewater (APHA, 1995), 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097
COO	mg/L	-	25	179		5750
						Isolated methods for the Examination of water and Wastewater (APHA, 1995), 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097
Oil & Grease *	mg/L	-	3	4		5750
						Isolated methods for the Examination of water and Wastewater (APHA, 1995), 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097
pH (at 20°C) *		-		7.8		5.5-8.0
						Isolated methods for the Examination of water and Wastewater (APHA, 1995), 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097
Temperature *	Degree C	-		32.0		14-20
						Isolated methods for the Examination of water and Wastewater (APHA, 1995), 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097
Total Suspended Solids Dried at 103-105 Degree C	mg/L	-	5	21		3200
						Isolated methods for the Examination of water and Wastewater (APHA, 1995), 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097, 22nd ed., 2017, part 5218 & 5097
Guideline: Standard of WMA Saraburi Industrial Plant, Maximum levels for wastewater discharging to central wastewater treatment plant Sampling by: Jarnal Koonwong (enclosed) + 204-0-4077						
Notes: 1. LOD = Limit of Detection 2. LOQ = Lower Limit of Quantification (LOQ = 3x of LOD) 3. Analytically undetectable * As we not included in scope of Accreditation ISO/IEC 17025, the laboratory is unable to provide an accredited laboratory complying with the ISO/IEC 17025.						
Technical Management  Siriluk Punnak Section Head Enclosed/enclosed +204-0-0513		Approved by  Kachon Aun Assistant General Manager Enclosed/enclosed +204-0-0008				
* This report is the property of WMA Saraburi Industrial Plant. It is to be used for the purpose for which it was prepared and is not to be distributed outside the organization without the written consent of WMA Saraburi Industrial Plant.						
WMS10101-01, Pathumthani Rd., Khayam Pathumthani, Khayam Road, Bangkok 10100 Thailand Phone: +66 2 670 8880 / 1-1666-247440 (24h) 3031031-2						
www.alslab.com www.wma.go.th 3031031-2						

[illegible]

Lot ID: 2481696
Date Received: Aug 08, 2024
Date Reported: Aug 16, 2024
Report Number: 3055591-5

Date Received : Aug 06, 2024
Date Reported : Aug 16, 2024
Report Number : 2055591-1

23645

ply to pretreatment - preservation standard

[illegible]

water treatment plant.

ank Ank

Assistant General Manager
Edward 1-204-e-0004

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181-460-8776 • 17000 3000 • 1-800-460-8776 • 1-800-460-8776

Lot ID: 2481669
Date Received: Aug 08, 2024
Date Reported: Aug 28, 2024
Report Number: 3058473-5

Date Received : Aug 26, 2024
Date Reported : Aug 26, 2024
Report Number : 2025473-1

Page 1 of 1

Land) Co., Ltd.

Method	Reaction
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Procedures	Exam Dates
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 5211 & part 5210 - C & G	September
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 5212-D	September
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 5212-B	September
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 5212-A	September
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 6001 - A (S)	September
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 5210-B	September
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 2541-D	September

water treatment plant.

ank Ank

Assistant General Manager
 1-204-4-0004

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Abstract

Lot ID: 2481611
Date Received : Aug 08, 2024
Date Reported : Aug 15, 2024
Report Number : 3057980-1

Date Reported : Aug 18, 2024
Report Number : 2057980-1

Page 14

20.125

Method	Testers
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Project	Local Name
Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5212 B, part 4300 – 11 C	Sanskrit
Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5212 D	Sanskrit
Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5212 E	Sanskrit
Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5212 F	Sanskrit
Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4300 – 11 C	Sanskrit
Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2045 D	Sanskrit

Assistant General Manager
1-204-6-0004

2.2. Video camera from the operation:

Analysis / Test Report

TESTING

Client: WMA Utilities and Power Rural Company Limited
 111 Hoi Y, Nongphakong Road, Nongphakong, Sangkhom, Saravath Thailand 36140
P/O:
Project Name: Factory 1 Monthly
Project Location: WMA 52

No 5509
Lot ID: 24861613
 Date Received: April 18, 2024
 Date Reported: April 18, 2024
 Report Number: 3575924

Page 1 of 1

Sample Number	248255-1				
Sampled Date	09 Apr 2024, 1:30 PM				
Sample Description	Solid Sample WBS-CT				
Container ID	SL-013-2304				
Date Analysis Commenced	09 10, 2024				
Physical Description of Sample (WMA, 5509)	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pre-treatment - preservation standards Yellow, a bit of odor, solid and some turbid				
Analysis	Unit	LOD (ppm)	Result	Guideline / Specification	Passing Limitation
Water Testing					
SS (2.0 mm or 20 degrees C)	mg/L	< 1.0	14.0	≤500	Standard Methods for the Examination of Water and Wastewater, 22nd ed., 2017, 2219 B, 2219 C, 2219 D, 2219 E, 2219 F, 2219 G, 2219 H, 2219 I, 2219 J, 2219 K, 2219 L, 2219 M, 2219 N, 2219 O, 2219 P, 2219 Q, 2219 R, 2219 S, 2219 T, 2219 U, 2219 V, 2219 W, 2219 X, 2219 Y, 2219 Z, 2219 AA, 2219 AB, 2219 AC, 2219 AD, 2219 AE, 2219 AF, 2219 AG, 2219 AH, 2219 AI, 2219 AJ, 2219 AK, 2219 AL, 2219 AM, 2219 AN, 2219 AO, 2219 AP, 2219 AQ, 2219 AR, 2219 AS, 2219 AT, 2219 AU, 2219 AV, 2219 AW, 2219 AX, 2219 AY, 2219 AZ, 2219 BA, 2219 BB, 2219 BC, 2219 BD, 2219 BE, 2219 BF, 2219 BG, 2219 BH, 2219 BI, 2219 BJ, 2219 BK, 2219 BL, 2219 BM, 2219 BN, 2219 BO, 2219 BP, 2219 BQ, 2219 BR, 2219 BS, 2219 BT, 2219 BU, 2219 BV, 2219 BW, 2219 BX, 2219 BY, 2219 BZ, 2219 CA, 2219 CB, 2219 CC, 2219 CD, 2219 CE, 2219 CF, 2219 CG, 2219 CH, 2219 CI, 2219 CJ, 2219 CK, 2219 CL, 2219 CM, 2219 CN, 2219 CO, 2219 CP, 2219 CQ, 2219 CR, 2219 CS, 2219 CT, 2219 CU, 2219 CV, 2219 CW, 2219 CX, 2219 CY, 2219 CZ, 2219 DA, 2219 DB, 2219 DC, 2219 DD, 2219 DE, 2219 DF, 2219 DG, 2219 DH, 2219 DI, 2219 DJ, 2219 DK, 2219 DL, 2219 DM, 2219 DN, 2219 DO, 2219 DP, 2219 DQ, 2219 DR, 2219 DS, 2219 DT, 2219 DU, 2219 DV, 2219 DW, 2219 DX, 2219 DY, 2219 DZ, 2219 EA, 2219 EB, 2219 EC, 2219 ED, 2219 EE, 2219 EF, 2219 EG, 2219 EH, 2219 EI, 2219 EJ, 2219 EK, 2219 EL, 2219 EM, 2219 EN, 2219 EO, 2219 EP, 2219 EQ, 2219 ER, 2219 ES, 2219 ET, 2219 EU, 2219 EV, 2219 EW, 2219 EX, 2219 EY, 2219 EZ, 2219 FA, 2219 FB, 2219 FC, 2219 FD, 2219 FE, 2219 FF, 2219 FG, 2219 FH, 2219 FI, 2219 FJ, 2219 FK, 2219 FL, 2219 FM, 2219 FN, 2219 FO, 2219 FP, 2219 FQ, 2219 FR, 2219 FS, 2219 FT, 2219 FU, 2219 FV, 2219 FW, 2219 FX, 2219 FY, 2219 FZ, 2219 GA, 2219 GB, 2219 GC, 2219 GD, 2219 GE, 2219 GF, 2219 GG, 2219 GH, 2219 GI, 2219 GJ, 2219 GK, 2219 GL, 2219 GM, 2219 GN, 2219 GO, 2219 GP, 2219 GQ, 2219 GR, 2219 GS, 2219 GT, 2219 GU, 2219 GV, 2219 GW, 2219 GX, 2219 GY, 2219 GZ, 2219 HA, 2219 HB, 2219 HC, 2219 HD, 2219 HE, 2219 HF, 2219 HG, 2219 HH, 2219 HI, 2219 HJ, 2219 HK, 2219 HL, 2219 HM, 2219 HN, 2219 HO, 2219 HP, 2219 HQ, 2219 HR, 2219 HS, 2219 HT, 2219 HU, 2219 HV, 2219 HW, 2219 HX, 2219 HY, 2219 HZ, 2219 IA, 2219 IB, 2219 IC, 2219 ID, 2219 IE, 2219 IF, 2219 IG, 2219 IH, 2219 II, 2219 IJ, 2219 IK, 2219 IL, 2219 IM, 2219 IN, 2219 IO, 2219 IP, 2219 IQ, 2219 IR, 2219 IS, 2219 IT, 2219 IU, 2219 IV, 2219 IW, 2219 IX, 2219 IY, 2219 IZ, 2219 JA, 2219 JB, 2219 JC, 2219 JD, 2219 JE, 2219 JF, 2219 JG, 2219 JH, 2219 JI, 2219 JJ, 2219 JK, 2219 JL, 2219 JM, 2219 JN, 2219 JO, 2219 JP, 2219 JQ, 2219 JR, 2219 JS, 2219 JT, 2219 JU, 2219 JV, 2219 JW, 2219 JX, 2219 JY, 2219 JZ, 2219 KA, 2219 KB, 2219 KC, 2219 KD, 2219 KE, 2219 KF, 2219 KG, 2219 KH, 2219 KI, 2219 KJ, 2219 KK, 2219 KL, 2219 KM, 2219 KN, 2219 KO, 2219 KP, 2219 KQ, 2219 KR, 2219 KS, 2219 KT, 2219 KU, 2219 KV, 2219 KW, 2219 KX, 2219 KY, 2219 KZ, 2219 LA, 2219 LB, 2219 LC, 2219 LD, 2219 LE, 2219 LF, 2219 LG, 2219 LH, 2219 LI, 2219 LJ, 2219 LK, 2219 LL, 2219 LM, 2219 LN, 2219 LO, 2219 LP, 2219 LQ, 2219 LR, 2219 LS, 2219 LT, 2219 LU, 2219 LV, 2219 LW, 2219 LX, 2219 LY, 2219 LZ, 2219 MA, 2219 MB, 2219 MC, 2219 MD, 2219 ME, 2219 MF, 2219 MG, 2219 MH, 2219 MI, 2219 MJ, 2219 MK, 2219 ML, 2219 MN, 2219 MO, 2219 MP, 2219 MQ, 2219 MR, 2219 MS, 2219 MT, 2219 MU, 2219 MV, 2219 MW, 2219 MX, 2219 MY, 2219 MZ, 2219 NA, 2219 NB, 2219 NC, 2219 ND, 2219 NE, 2219 NF, 2219 NG, 2219 NH, 2219 NI, 2219 NJ, 2219 NK, 2219 NL, 2219 NM, 2219 NO, 2219 NP, 2219 NQ, 2219 NR, 2219 NS, 2219 NT, 2219 NU, 2219 NV, 2219 NW, 2219 NX, 2219 NY, 2219 NZ, 2219 OA, 2219 OB, 2219 OC, 2219 OD, 2219 OE, 2219 OF, 2219 OG, 2219 OH, 2219 OI, 2219 OJ, 2219 OK, 2219 OL, 2219 OM, 2219 ON, 2219 OO, 2219 OP, 2219 OQ, 2219 OR, 2219 OS, 2219 OT, 2219 OU, 2219 OV, 2219 OW, 2219 OX,

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Analysis / Test Report



Client WTA Sdn Bhd and Power Public Company Limited
 111, No.7, Rungtong Road, Rungtong, Rungtong, Saraburi Thailand 39140

P/P / I

Project Name Factory 1 Monthly

Project Location Samsak S.S.

Sample Number 2495970

Sampling Date Sep 12, 2024 13:55 AM

Sample Description Group 2 Wastewater WRS-CF

Contract ID SLI_2023_2557 **Price** 240,240 **Site** Samsak SCS Industrial Co., Ltd.

Location Point 1

Date of Analysis Commenced Sep 12, 2024

Order Sample Description Group 2 Wastewater WRS-CF (WTA/SASRI)
 (Dissolve some solid, acid, and no filter)


TESTING
Ref: 0009
Lab No: 2495970
Lab Received: Sep 12, 2024
Report Number: Sep 18, 2024
Report Number: 208785-3

Page 1 of 1

Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing							
BOD (5 days at 20 degree C)	mg/L	-	2.0	<2.0	1500	Standard Methods for the Examination of Water and Wastewater, 19th ed., 1995, 24th ed., 2017, 2017 5214-9, 2017 5214-10, 2017 5214-11, 2017 5214-12, 2017 5214-13, 2017 5214-14, 2017 5214-15, 2017 5214-16, 2017 5214-17, 2017 5214-18, 2017 5214-19, 2017 5214-20, 2017 5214-21, 2017 5214-22, 2017 5214-23, 2017 5214-24, 2017 5214-25, 2017 5214-26, 2017 5214-27, 2017 5214-28, 2017 5214-29, 2017 5214-30, 2017 5214-31, 2017 5214-32, 2017 5214-33, 2017 5214-34, 2017 5214-35, 2017 5214-36, 2017 5214-37, 2017 5214-38, 2017 5214-39, 2017 5214-40, 2017 5214-41, 2017 5214-42, 2017 5214-43, 2017 5214-44, 2017 5214-45, 2017 5214-46, 2017 5214-47, 2017 5214-48, 2017 5214-49, 2017 5214-50, 2017 5214-51, 2017 5214-52, 2017 5214-53, 2017 5214-54, 2017 5214-55, 2017 5214-56, 2017 5214-57, 2017 5214-58, 2017 5214-59, 2017 5214-60, 2017 5214-61, 2017 5214-62, 2017 5214-63, 2017 5214-64, 2017 5214-65, 2017 5214-66, 2017 5214-67, 2017 5214-68, 2017 5214-69, 2017 5214-70, 2017 5214-71, 2017 5214-72, 2017 5214-73, 2017 5214-74, 2017 5214-75, 2017 5214-76, 2017 5214-77, 2017 5214-78, 2017 5214-79, 2017 5214-80, 2017 5214-81, 2017 5214-82, 2017 5214-83, 2017 5214-84, 2017 5214-85, 2017 5214-86, 2017 5214-87, 2017 5214-88, 2017 5214-89, 2017 5214-90, 2017 5214-91, 2017 5214-92, 2017 5214-93, 2017 5214-94, 2017 5214-95, 2017 5214-96, 2017 5214-97, 2017 5214-98, 2017 5214-99, 2017 5215-1, 2017 5215-2, 2017 5215-3, 2017 5215-4, 2017 5215-5, 2017 5215-6, 2017 5215-7, 2017 5215-8, 2017 5215-9, 2017 5215-10, 2017 5215-11, 2017 5215-12, 2017 5215-13, 2017 5215-14, 2017 5215-15, 2017 5215-16, 2017 5215-17, 2017 5215-18, 2017 5215-19, 2017 5215-20, 2017 5215-21, 2017 5215-22, 2017 5215-23, 2017 5215-24, 2017 5215-25, 2017 5215-26, 2017 5215-27, 2017 5215-28, 2017 5215-29, 2017 5215-30, 2017 5215-31, 2017 5215-32, 2017 5215-33, 2017 5215-34, 2017 5215-35, 2017 5215-36, 2017 5215-37, 2017 5215-38, 2017 5215-39, 2017 5215-40, 2017 5215-41, 2017 5215-42, 2017 5215-43, 2017 5215-44, 2017 5215-45, 2017 5215-46, 2017 5215-47, 2017 5215-48, 2017 5215-49, 2017 5215-50, 2017 5215-51, 2017 5215-52, 2017 5215-53, 2017 5215-54, 2017 5215-55, 2017 5215-56, 2017 5215-57, 2017 5215-58, 2017 5215-59, 2017 5215-60, 2017 5215-61, 2017 5215-62, 2017 5215-63, 2017 5215-64, 2017 5215-65, 2017 5215-66, 2017 5215-67, 2017 5215-68, 2017 5215-69, 2017 5215-70, 2017 5215-71, 2017 5215-72, 2017 5215-73, 2017 5215-74, 2017 5215-75, 2017 5215-76, 2017 5215-77, 2017 5215-78, 2017 5215-79, 2017 5215-80, 2017 5215-81, 2017 5215-82, 2017 5215-83, 2017 5215-84, 2017 5215-85, 2017 5215-86, 2017 5215-87, 2017 5215-88, 2017 5215-89, 2017 5215-90, 2017 5215-91, 2017 5215-92, 2017 5215-93, 2017 5215-94, 2017 5215-95, 2017 5215-96, 2017 5215-97, 2017 5215-98, 2017 5215-99, 2018 5216-1, 2018 5216-2, 2018 5216-3, 2018 5216-4, 2018 5216-5, 2018 5216-6, 2018 5216-7, 2018 5216-8, 2018 5216-9, 2018 5216-10, 2018 5216-11, 2018 5216-12, 2018 5216-13, 2018 5216-14, 2018 5216-15, 2018 5216-16, 2018 5216-17, 2018 5216-18, 2018 5216-19, 2018 5216-20, 2018 5216-21, 2018 5216-22, 2018 5216-23, 2018 5216-24, 2018 5216-25, 2018 5216-26, 2018 5216-27, 2018 5216-28, 2018 5216-29, 2018 5216-30, 2018 5216-31, 2018 5216-32, 2018 5216-33, 2018 5216-34, 2018 5216-35, 2018 5216-36, 2018 521	

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Analysis / Test Report

TESTING NO. 00-009
Lot ID: 241005573
Issue Generated: Oct 13, 2024
Date Reported: Oct 13, 2024
Report Number: 2024009-5

Client: WMA Utilities and Power Public Company Limited
111, No. 7, Rongkham Road, Bangkok, Bangkok, Saraburi Thailand 15160

P/O I:

Project Name: Factory 1 Monthly
Project Location: Satua ES

Sample Number: P24100573
Sampled Date: Oct 03, 2024 11:15 AM

Sample Description: Group 2 Wastewater influent
Contract ID: SLS-2024-2594
Lab Ref: 634

Date Analysis Commenced: Oct 03, 2024

Condition of Sample: (pH/DO/SS/PP)
Collected in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards

Physical Property:
Containers, some above, solid and no turbid

Site: JCY HED Technology Co., Ltd.

Analyte	Unit	LOD	LOQ (LOD)	Result	Guideline / Specifications	Method	Testing Location
Water Testing							
SDI (5 min at 20 degree C)	ng/L	-	2.0	<2.0	<500	Standard Methods for the Examination of water and Wastewater, APHA, 20th ed, 2017, 24th ed., 2023, part 5210, part 5210-B	Bangkok
COD	ng/L	-	25	<25	5750	Standard Methods for the Examination of water and Wastewater, APHA, 20th ed, 2017, 24th ed., 2023, part 5210-B	Bangkok
Oil & Grease	ng/L	-	3	<3	210	Standard Methods for the Examination of water and Wastewater, APHA, 20th ed, 2017, 24th ed., 2023, part 5210-B	Bangkok
pH (at 20°C)	-	-	-	7.9	5.5-8.5	Standard Methods for the Examination of water and Wastewater, APHA, 20th ed, 2017, 24th ed., 2023, part 4100 (4100-10)	Bangkok
Temperature	(Degree C)	-	-	26.8	19-5	Standard Methods for the Examination of water and Wastewater, APHA, 20th ed, 2017, 24th ed., 2023, part 2510-B	Bangkok
Total Suspended Solids (dried at 102 to 105 degree C)	ng/L	-	5	<5	5200	Standard Methods for the Examination of water and Wastewater, APHA, 20th ed, 2017, 24th ed., 2023, part 2510-B	Bangkok


Reference: Standard of WMA Saraburi Industrial Land, Maximum limits for wastewater discharging to central wastewater treatment plant.

Sampling By: Thermal Pumping discharges >204 <0005

Notes:


- 1. LOD - Limit of Detection
- 2. LOQ - Limit of Quantitation
- 3. LOU - Limit of Use (Limit of Quantitation) - LOU (3 part of Inspecion)
- 4. Methodology (note) - Analyte not included in water of Accreditation (210 & 2510)
- 5. The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management



Sumrit Chaiwattana
Technical Manager
Mobile: +66 9-0284 1294
Email: s.chaiwattana@als.co.th

Approved by



Kanyasorn Kiat
Assistant General Manager
Mobile: +66 9-0284 1004

PHOTOGRAPHED BY: P24100573




REPORTED BY: P24100573, P24100573-05, P24100573-06, P24100573-07, P24100573-08, P24100573-09, P24100573-10, P24100573-11, P24100573-12, P24100573-13, P24100573-14, P24100573-15, P24100573-16, P24100573-17, P24100573-18, P24100573-19, P24100573-20, P24100573-21, P24100573-22, P24100573-23, P24100573-24, P24100573-25, P24100573-26, P24100573-27, P24100573-28, P24100573-29, P24100573-30, P24100573-31, P24100573-32, P24100573-33, P24100573-34, P24100573-35, P24100573-36, P24100573-37, P24100573-38, P24100573-39, P24100573-40, P24100573-41, P24100573-42, P24100573-43, P24100573-44, P24100573-45, P24100573-46, P24100573-47, P24100573-48, P24100573-49, P24100573-50, P24100573-51, P24100573-52, P24100573-53, P24100573-54, P24100573-55, P24100573-56, P24100573-57, P24100573-58, P24100573-59, P24100573-60, P24100573-61, P24100573-62, P24100573-63, P24100573-64, P24100573-65, P24100573-66, P24100573-67, P24100573-68, P24100573-69, P24100573-70, P24100573-71, P24100573-72, P24100573-73, P24100573-74, P24100573-75, P24100573-76, P24100573-77, P24100573-78, P24100573-79, P24100573-80, P24100573-81, P24100573-82, P24100573-83, P24100573-84, P24100573-85, P24100573-86, P24100573-87, P24100573-88, P24100573-89, P24100573-90, P24100573-91, P24100573-92, P24100573-93, P24100573-94, P24100573-95, P24100573-96, P24100573-97, P24100573-98, P24100573-99, P24100573-100


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	 TESTING No: 0009 Lot ID: 2410857F Date Received : Oct 19, 2024 Date Reported : Oct 17, 2024 Project Number : 312304-0						
Client : WTA Utilities and Power Public Company Limited 111 Moo 7, Sangkhagrang Road, Sangkhagrang, Saraburi Thailand 35160							
P/O # : Project Name : Factory 1 Monthly Project Location : Satwa ESZ							
TDS (T) 1							
Sample Method : 2410857F-1 Sampled Date : Oct 09, 2024 11:35 AM Sample Description : Group 2 Wastewater WW-Cat Contract ID : SL_2023_2596 Ph# : 61.62 Site : SONG CUP (Thailand) Co., Ltd. Date Analysis Commenced : Oct 09, 2024 Condition of Sample : Contained in six amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA 2291) Physical Property : Volume, a lot of colour, solid and turbid							
Analyte	Unit	LOD	LQO	Result	Guideline / Specification	Method	Testing Location
TSS (T) (seen at 20 degree C)	mg/L	--	1.6	322	≤500	Standard Methods for the Examination of water and wastewater analysis, APHA & WPP, Jan ed., 2023, part 5210-B, part 4300, 12-B	Saraburi
COD	mg/L	--	25	206	≤750	Standard Methods for the Examination of water and wastewater analysis, APHA & WPP, Jan ed., 2023, part 5210-B, part 4300, 12-B	Saraburi
O&G (Green)	mg/L	--	3	13	≤10	Standard 2 Methods for the Examination of Water and Wastewater, APHA & WPP, Jan ed., 2023, part 5210-B	Saraburi
pH (on site) °C		--	--	7.6	5.5-9.0	Standard 2 Methods for the Examination of Water and Wastewater, APHA & WPP, Jan ed., 2023, part 4500 + (B), part 4500, 12-B	Saraburi
Temperature °C	(Degree C)	--	--	33.2	≤43	Standard Methods for the Examination of Water and Wastewater, APHA & WPP, Jan ed., 2023, part 2510-B	Saraburi
Total Suspended Solids (TSS) at 333-105 Degree C	mg/L	--	5	34	≤200	Standard Methods for the Examination of Water and Wastewater, APHA & WPP, Jan ed., 2023, part 2510-B	Saraburi
Remarks : Standard of WTA Saraburi Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant. Sampling By : Thermal Pumping incubated @ 20±0.05C							
Notes: 1. LOD = Limit of Detection 2. LQO = Lower limit (LOD plus 10% of variability) (LOE plus 10% of reporting) 3. Method(s) used: "As-is" not subjected to upgrade or modification (SOLIC, EPC). 4. The laboratory has been accredited as an approved laboratory complying with the ISO/IEC 17025.							
Technical Management  Siriluk Porak Section Head authorized=2024-0223		Approved by  Kachai Anan Resident General Manager authorized=2024-0204					
PROJECT NO.: 312304-0 PROJECT NAME: Phayathai Substation, Phayathai Substation, Chao Praya District, Bangkok, Thailand PROJECT NO.: 312304-0 PROJECT NAME: Phayathai Substation, Phayathai Substation, Chao Praya District, Bangkok, Thailand PROJECT NO.: 312304-0 PROJECT NAME: Phayathai Substation, Phayathai Substation, Chao Praya District, Bangkok, Thailand							
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Analysis / Test Report



TESTING
No.0009
Issued On: 24/12/2026
Last Modified: Nov 14, 2024
Date Reported: Nov 14, 2024
Report Number: 2042839-0

Client: WTA (Utilities and Power Public Company Limited)
111 New 7, Rungtongkarn Road, Rungtongkarn, Bangkok, Thailand 10130

P/O #:

Project Name: Factory 1 Monthly
Project Location: SATHA SEI

Sample Number: 20241230-0
Sample Date: Nov 13, 2024

Sample Description: Group 2 Wastewater HRS-CY
Contract ID: 001_002_2050
Job No: 2410

Date Analysis Commenced: Nov 14, 2024

Condition of Sample: Contained 3 clear plastic bottles and one orange glass bottle, sample containers comply to pre-treatment - preservation standards (APHA, 16939)

Physical Property: Wastewater, a lot of colour, some solid and a lot of turbid

Site: Hengtae (Thailand) Co., Ltd. (S42)

Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Wastewater Testing							
SOD (5 Gram at 20 degree C)	mg/L	-	1.0	2.5	<500	Standard methods for the Examination of water and Wastewater, APHA, 1905 & WSP, 24th ed., 2012, part 5210 & part 4100 & 4101	Sangkok
COO	mg/L	-	25	35	<150	Standard methods for the Examination of water and Wastewater, APHA, 1905 & WSP, 24th ed., 2012, part 1020 & 1021	Bangkok
Oil & Grease	mg/L	-	3	<3	110	Standard methods for the Examination of water and Wastewater, APHA, 1905 & WSP, 24th ed., 2012, part 1030 & 1031	Sangkok
pH (on site) *		-	-	7.9	6.5-9.0	Standard methods for the Examination of water and Wastewater, APHA, 1905 & WSP, 24th ed., 2012, part 4100 & 4101	Sangkok
Temperature *	Degree C	-	-	30.4	<34	Standard methods for the Examination of water and Wastewater, APHA, 1905 & WSP, 24th ed., 2012, part 2510 & 2511	Sangkok
Total Dissolved solids (Diss) at 180 degree C	mg/L	-	5	1036	<5000	Standard methods for the Examination of water and Wastewater, APHA, 1905 & WSP, 24th ed., 2012, part 2540 & 2541	Sangkok
Total Suspended Solids (Diss) at 103-105 degree C	mg/L	-	8	<3	<1200	Standard methods for the Examination of water and Wastewater, APHA, 1905 & WSP, 24th ed., 2012, part 2540 & 2541	Sangkok

Guideline: Standard of WTA Sarnak Industrial Land, Maximum value for wastewater discharging to central wastewater treatment plant.

Sampling Frequency: Chemical Parameter (monthly) > 30 < 10000

Remark:

- * - LOD (Limit of Detection)
- * - LQ (Lower than 1/10 of test of Quantitation) (LOQ is best of Imprecision)
- * Analytical method - Acqua red includes a water of Accreditation ISO/IEC 17025.

Siriluk P.

Siriluk Sarnak
Section Head
email:sarnak@wta.com >30 < 10000

Technical Management

Siriluk P.

Siriluk Sarnak
Section Head
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Approved by

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Assistant General Manager
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Signature

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Printed by: 2024-12-30 10:00:00 AM
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		TESTING No: 0009					
Client: WTA Utilities and Power Public Company Limited 111 Nee Teo Road, Singapore Road, Singapore, Singapore (Toll Free) SG 80		Lot ID: 24120181 Date Received: Nov 13, 2018 Date Reported: Nov 19, 2018 Report Number: 24K713-1					
P/V I: Project Name: Fuxian 1 Monthly Project Location: XINFA 5SL							
Sample Number: 24120181-0 Sample Date: Nov 13, 2018 11:00 AM Sample Description: Group 2 Wastewater WIS-CF Contract ID: SL_2012_2560 Site: Phit 17 Site: Mocherl Sam Co., Ltd.							
Data Analysis Commented: Nov 14, 2018 Condition of Sample: Contained a thin plastic bottle and one amber glass bottle, sample containers comply to pre-treatment - preservation standards (APHA, 16239) Physical Property: Wastewater, a lot of rubbish, solid and turbid							
Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
SOD (in Conc at 20 degree C)	mg/L	-	1.0	58.5	≤500	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, Jan ed., 2012, part 5210-B, part 4000, 10-0	Singapore
COD	mg/L	-	25	174	≤750	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, Jan ed., 2012, part 5210-D	Singapore
O&G (on site)	mg/L	-	3	6	≤10	Standard 2 Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, Jan ed., 2012, part 5210-B	Singapore
pH (on site) °C	-	-	-	7.4	6.5-8.5	Standard 2 Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, Jan ed., 2012, part 4500 + (P)	Singapore
Temperature °C	Degree C	-	-	26.4	≤45	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, Jan ed., 2012, part 2510-B	Singapore
Total Suspended Solids Crude (at 103-105 degree C)	mg/L	-	5	47	≤200	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, Jan ed., 2012, part 2540-D	Singapore
Summary: Standard of WTA-Sanitary Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant. Sampling By: Approved Normal accredited >200+ in 2013							
Notes: <ul style="list-style-type: none"> LOI = Limit of Detection LQ = Lower than LOI (not of Quantitation) (LOI limit of reporting) Method(s) listed = Refer to standard or approved or reference ISO/IEC 17025 Method(s) listed = Refer to standard or approved or reference ISO/IEC 17025 The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025 							
Technical Management		 Siriluk Porak Senior Head accredited >200+ in 2013		Approved by  Kachai Anon Resident General Manager accredited >200+ in 2004			
							
<p>PHOTOCOPY OF THIS REPORT IS VALID FOR ONE YEAR FROM THE DATE OF ISSUANCE. ANY COPY BEYOND THAT PERIOD WILL NOT BE VALID FOR REFERENCE OR EVIDENCE.</p> <p>PHOTOGRAPHIC COPY OF THIS REPORT IS VALID FOR ONE YEAR FROM THE DATE OF ISSUANCE. ANY COPY BEYOND THAT PERIOD WILL NOT BE VALID FOR REFERENCE OR EVIDENCE.</p>							
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ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Project Location: WWA SS. Sample Number: 24120116-1. Sample Date: Nov 13, 2024 10:05 AM. Sample Description: Group 2 Wastewater WWS-CT. Contract ID: SS_002_2534. Plot: 38. Site: Shikabara (Thailand) Co., Ltd. Date Analysis Commenced: Nov 13, 2024. Conditions of Sample: Contained in one amber glass bottle and three plastic bottles. Physical Property: pH (on site) 7.3, Temperature 36.8, Total Suspended Solids 1200. Guidelines: Standard of WWA Sanchar Industrial Land. Sampling By: Tetsana Pungkai. Technical Management: Sirinuk P. Approved by: Kait Ait.

ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Project Location: WWA SS. Sample Number: 24120117-1. Sample Date: Nov 13, 2024 10:05 AM. Sample Description: Group 2 Wastewater WWS-CT. Contract ID: SS_002_2534. Plot: 150. Site: Shikabara (Thailand) Co., Ltd. Date Analysis Commenced: Nov 13, 2024. Conditions of Sample: Contained in three plastic bottles and one amber glass bottle. Physical Property: pH (on site) 7.7, Temperature 32.8, Total Suspended Solids 630. Guidelines: Standard of WWA Sanchar Industrial Land. Sampling By: Tetsana Pungkai. Technical Management: Sirinuk P. Approved by: Kait Ait.

ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Project Location: WWA SS. Sample Number: 24120118-1. Sample Date: Nov 13, 2024 9:55 AM. Sample Description: Group 2 Wastewater WWS-CT. Contract ID: SS_002_2534. Plot: 1. Site: SHAN FIBERGLASS COMPANY LIMITED. Date Analysis Commenced: Nov 14, 2024. Conditions of Sample: Contained in three plastic bottles and one amber glass bottle. Physical Property: pH (on site) 7.9, Temperature 28.9, Total Suspended Solids 620. Guidelines: Standard of WWA Sanchar Industrial Land. Sampling By: Tetsana Pungkai. Technical Management: Sirinuk P. Approved by: Kait Ait.

ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Project Location: WWA SS. Sample Number: 24120216. Sample Date: Nov 12, 2024 10:40 AM. Sample Description: Group 2 Wastewater WWS-CT. Contract ID: SS_002_2534. Plot: 61. Site: Sam Pansaka Co., Ltd. Date Analysis Commenced: Nov 13, 2024. Conditions of Sample: Contained in one amber glass bottle and four plastic bottles. Physical Property: pH (on site) 7.2, Temperature 36.5, Total Dissolved Solids 1800, Total Suspended Solids 4200. Guidelines: Standard of WWA Sanchar Industrial Land. Sampling By: Tetsana Pungkai. Technical Management: Sirinuk P. Approved by: Kait Ait.

ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Project Location: WWA SS. Sample Number: 24120221. Sample Date: Nov 12, 2024 10:40 AM. Sample Description: Group 2 Wastewater WWS-CT. Contract ID: SS_002_2534. Plot: 61. Site: Sam Pansaka Co., Ltd. Date Analysis Commenced: Nov 13, 2024. Conditions of Sample: Contained in one amber glass bottle and four plastic bottles. Physical Property: pH (on site) 7.2, Temperature 36.5, Total Dissolved Solids 1800, Total Suspended Solids 4200. Guidelines: Standard of WWA Sanchar Industrial Land. Sampling By: Tetsana Pungkai. Technical Management: Sirinuk P. Approved by: Kait Ait.


ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Project Location: WWA SS. Sample Number: 24120221. Sample Date: Nov 12, 2024 10:40 AM. Sample Description: Group 2 Wastewater WWS-CT. Contract ID: SS_002_2534. Plot: 61. Site: Sam Pansaka Co., Ltd. Date Analysis Commenced: Nov 13, 2024. Conditions of Sample: Contained in one amber glass bottle and four plastic bottles. Physical Property: pH (on site) 7.2, Temperature 36.5, Total Dissolved Solids 1800, Total Suspended Solids 4200. Guidelines: Standard of WWA Sanchar Industrial Land. Sampling By: Tetsana Pungkai. Technical Management: Sirinuk P. Approved by: Kait Ait.

ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Project Location: WWA SS. Sample Number: 24120219. Sample Date: Nov 12, 2024 1:11 PM. Sample Description: Group 2 Wastewater WWS-CT. Contract ID: SS_002_2534. Plot: 31. Site: Sam Pansaka Co., Ltd. Date Analysis Commenced: Nov 12, 2024. Conditions of Sample: Contained in one amber glass bottle and three plastic bottles. Physical Property: pH (on site) 7.4, Temperature 31.1, Total Dissolved Solids 1194, Total Suspended Solids 4200. Guidelines: Standard of WWA Sanchar Industrial Land. Sampling By: Tetsana Pungkai. Technical Management: Sirinuk P. Approved by: Kait Ait.

ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Project Location: WWA SS. Sample Number: 24120219. Sample Date: Nov 12, 2024 1:11 PM. Sample Description: Group 2 Wastewater WWS-CT. Contract ID: SS_002_2534. Plot: 31. Site: Sam Pansaka Co., Ltd. Date Analysis Commenced: Nov 12, 2024. Conditions of Sample: Contained in one amber glass bottle and three plastic bottles. Physical Property: pH (on site) 7.4, Temperature 31.1, Total Dissolved Solids 1194, Total Suspended Solids 4200. Guidelines: Standard of WWA Sanchar Industrial Land. Sampling By: Tetsana Pungkai. Technical Management: Sirinuk P. Approved by: Kait Ait.

ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Project Location: WWA SS. Sample Number: 24120186. Sample Date: Nov 12, 2024 1:10 PM. Sample Description: Group 2 Wastewater WWS-CT. Contract ID: SS_002_2534. Plot: 31. Site: Sam Pansaka Co., Ltd. Date Analysis Commenced: Nov 12, 2024. Conditions of Sample: Contained in one amber glass bottle and three plastic bottles. Physical Property: pH (on site) 7.8, Temperature 30.6, Total Dissolved Solids 1194, Total Suspended Solids 4200. Guidelines: Standard of WWA Sanchar Industrial Land. Sampling By: Tetsana Pungkai. Technical Management: Sirinuk P. Approved by: Kait Ait.

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Analysis / Test Report

TESTING
No: 0509
Lot ID: 24120162
Issued on: 2024 Nov 13, 2024
Date Reported: Nov 13, 2024
Report Number: 2342973-0

Client: WWA Utilities and River Public Company Limited
113 Rue 3, Nongkham Road, Songkhro, Bangkok, Saraburi Thailand 35160

P/O :

Project Name: Family 3 Murdui

Project Location: Family 3L

Sample Number: 2412032-0
Sample Date: Nov 13, 2024 9:35 AM
Sample Description: Group 2 Wastewater W9-CT
Container ID: 256, 256H **Phi:** 135
Date Analysis Commenced: Nov 14, 2024
Details of Sample (SIDS, MSDS): Contained as three plastic bottles and one small white jar and lot of turbid Yellow, a bit of rubber, some solid and a lot of turbid
Physical Property:

726 (1.5)

Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing SDI (5.0 ml at 25 degree C)	mg/L	-	1.6	238	≤500	Standard methods for the Examination of water and Wastewater, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9	Saraburi
COI	mg/L	-	25	395	≤750	Standard methods for the Examination of water and Wastewater, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9	Saraburi
Oil & Grease	mg/L	-	3	<3	≤10	Standard methods for the Examination of water and Wastewater, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9	Saraburi
pH (at 20 °C)	-	-	-	7.3	5.5-9.0	Standard methods for the Examination of water and Wastewater, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9	Saraburi
Temperature °C	-	-	-	33.5	1-43	Standard methods for the Examination of water and Wastewater, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9	Saraburi
Total Suspended Solids Dried at 105 °C/2 hours degree C	mg/L	-	5	22	≤200	Standard methods for the Examination of water and Wastewater, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9, 20th ed., part 2510 & W9	Saraburi

Remarks: Standard of WWA Saraburi Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.

Sampling By: Thermal Pumping (industrial) >204 <2020

Notes:
 1. LOD : Limit of detection
 2. LOQ : Lower limit of Quantitation (10% of LOD)
 Analytical method : Is not yet validated in scope of Accreditation ISO 17025
 3. The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

Siriruk P.


Siriruk Buran
Section head
incurred/24-10-2023

Approved by

Kanok Aue

Kanok Aue
Assistant General Manager
incurred/24-10-2024

PHOTOGRAPH OF THE SAMPLE LOCATION







PHOTOGRAPH OF THE LABORATORY, PHOTOCOPYED AND, CHANGING PHOTOGRAPH, CHIT DANG KONG, BANGKOK, THAILAND (PHOTOGRAPH) PHOTOCOPYED AND, CHANGING PHOTOGRAPH

PHOTOGRAPH OF THE LABORATORY, PHOTOCOPYED AND, CHANGING PHOTOGRAPH, CHIT DANG KONG, BANGKOK, THAILAND (PHOTOGRAPH) PHOTOCOPYED AND, CHANGING PHOTOGRAPH





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		Analysis / Test Report	TESTING No.0009				
Client: UTM, SRIHATI and Power Public Company Limited (11, Jalan 7, Bangsalan Road, Bangsalan, Kelang, Serdang Thailand 10140)			Lot ID: 24210278 Report Date: Nov-09, 2024 Date Reported: Nov-09, 2024 Report Number: 242470-1A				
P/V :	Page 1 of 1						
Project Name : Factory / Municipality							
Project Location: THAILAND							
Sample Number: 24120176-1							
Sampled Date: Nov 06, 2024 9:50 AM							
Sample Description: Grab 2 Wastewater WW-CF							
Contract ID: 12, 100, 21000	Plot: 45, 46, 243	Site: Thai Walaya Gas (Thailand) Co., Ltd.					
Data Analysis Commenced On: 07-Nov-2024							
Condition of Sample: (NHA/GEDS) Waters, a lot of odour, wild and some turbid							
Physical Property							
Analyte	Unit	LOD (mg/L)	Result	Qualifier / Specification	Method	Testing Location	
Water Testing							
BOD (at 20 degree C)	mg/L	-	2.6	18.8	<500	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 20th ed., 2023, part 1921 section 4500.5, 2023 part 1921 section 4500.5	Serdang
COD	mg/L	-	25	97	>750	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 20th ed., 2023, part 1921 section 5200.2	Serdang
Oil & Grease	mg/L	-	3	4	<10	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 20th ed., 2023, part 1921 section 5100.2	Serdang
pH (on site) *			-	7.0	3.5 & 10	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 20th ed., 2023, part 1921 section 4500.5	Serdang
Temperature *	Degree C	-	-	28.6	<45	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 20th ed., 2023, part 1921 section 1800.2	Serdang
Total Suspended Solids (TSS) at 120-125 degree C	mg/L	-	5	22	<200	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 20th ed., 2023, part 1921 section 2540.2	Serdang
Note: Standard of WHO Drinking Industrial Land, Maximum limit for wastewater discharging to central sewerage treatment plant. Sampling By : Chantorn Sirichit Indrasudana - J204-V-0308 * LOD : Limit of Detection * L : Lower than LOD level of (Qualitative) (LOE level of Reporting) * Qualitative marker : were not included as report of Accredited ISO/IEC 17025 The detection limit have been accepted as an analytical laboratory complying with the ISO/IEC 17025							
Technical Management	 Nalin Sasana Supervisor endorsement >204-V-0309		Approved by  Kiatkarn Anusorn Assistant Chief Manager endorsement >204-V-0308				
Photo taken from the site visit on 06-Nov-2024 (SERANG) 11, Jalan 7, Bangsalan Road, Bangsalan, Kelang, Serdang 10140 Thailand Phone: +66 8 2768 0080 Fax: +66 8 2768 1197 Email: info@alsglobal.com www.alsglobal.com ALS Global Pte Ltd, Singapore							
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Analysis / Test Report							
Client : WMA USMMS and Power Public Company Limited 111 Nue 7, Nongkhalang Road, Nongkhalang, Saraburi Thailand 38140			TESTING No.0009 Lot ID: 24120104 Date Received : Nov 12, 2024 Date Reported : Nov 18, 2024 Report Number : 7342004-0				
P/O : Project Name : Factory 1 Monthly Project Location : WMS 15,							
Sample Number	2412004-1						
Sampled Date	Nov 12, 2024 10:10 AM						
Sample Description	Group 2 Wastewater WMA CT						
Contract ID	10, 807, 0259	Ph#	51.60				
Date Analysis Commenced	Nov 13, 2024						
Condition of Sample (Color, Odor)	Contained a one amber glass bottle and three plastic bottles, sample containers comply to pre-treatment : preservation standards (WMA, USMMS)						
Physical Property Yellown, a bit of odour, clear and turbid							
Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing BOD (5 days at 20 degree C)	mg/L	-	2.0	16.7	5300	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2023, part 5213 B, part 5218 B, 5219 B	Saraburi
COD	mg/L	-	25	82	2750	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2023, part 5213 B, 5218 B	Saraburi
Oil & Grease	mg/L	-	3	5	120	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2023, part 5213 B	Saraburi
pH (at 25 °C)	-	-	-	7.7	5.5-8.0	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2023, part 4005 - (B-2)	Saraburi
Temperature °C	Degree C	-	-	30.9	14-5	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2023, part 1928 B	Saraburi
Total Suspended Solids Dried at 103 ± 0.5 degree C	mg/L	-	3	33	6200	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2023, part 2544 D	Saraburi
Guideline: Standard of WMA Saraburi Industrial Land, Maximum limits for wastewater discharging to central wastewater treatment plant. Sampling by : Thermal Pumping, in-situ/over +204 +0556. Test: 1-10 : (Line of Detection) 1-17 : (Lower limit (LOD) of Guideline) (LOM and LOQ) and (Reporting) Analytical method : "As is not related to range of recyclability (SDC) (B-1) (B-2)." The laboratory has been accredited as an analytical laboratory complying with the ISO/IEC 17025.							
Technical Management  Siriluk Punnak Section Head In-charge of +204 +0553		Approved by  Kanchan Anon Assistant General Manager in-charge of +204 +0504					
(This report is generated by the Laboratory Information Management System (LIMS) and is subject to the terms and conditions of the Laboratory Information Management System (LIMS) and the Laboratory Information Management System (LIMS) and the Laboratory Information Management System (LIMS).)							
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ALS					LABORATORY CERTIFICATE	
Analysis / Test Report					TESTING No: 00059	
Client: WTA Utilities and Power Public Company Limited 111 Nong 7, Nongkarn Road, Bangkok, Bangkok, Thailand 10130					Lot ID: 24130512 Date Received: 08/03/2024 Date Reported: 08/03/2024 Report Number: 3388002-01	
P/V/I: Project Name: Factory 1 Roadity Project Location: HONG 12					Page 1 of 1	
Sample Number	241305210					
Collect Date	08/03/2024 11:45 AM					
Sample Description	Group 2 Wastewater WIS-CT		Ph: 118	Site: FPN (Seaport) Co Ltd		
Collect Date	08/03/2024					
Data Analysis Comment						
Condition of Sample	Container is an amber glass bottle and three plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA 2255.93)					
Physical Property	Volume, a lot of, solid and turbid					
Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Testing Location
Wastewater Testing						
BOD (5 days at 20 degree C)	mg/L	—	1.6	48.6	≤500	Standard Methods for the Examination of Water and Wastewater, APHA, 2005, 2012, part 5210.5-1997, part 5210.5-2012, part 5210.5-2012
COD	mg/L	—	25	145	≤1700	Standard Methods for the Examination of Water and Wastewater, APHA, 2005, 2012, part 5210.5-1997, part 5210.5-2012, part 5210.5-2012
Oil & Grease	mg/L	—	3	3	≤10	Standard Methods for the Examination of Water and Wastewater, APHA, 2005, 2012, part 5210.5-1997, part 5210.5-2012, part 5210.5-2012
pH (at site) °C				7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, 2005, 2012, part 5210.5-1997, part 5210.5-2012, part 5210.5-2012
Temperature °C	Degree C	—		29.9	≤43	Standard Methods for the Examination of Water and Wastewater, APHA, 2005, 2012, part 5210.5-1997, part 5210.5-2012, part 5210.5-2012
Total Suspended Solids (at site) mg/L	mg/L	—	5	33	≤200	Standard Methods for the Examination of Water and Wastewater, APHA, 2005, 2012, part 5210.5-1997, part 5210.5-2012, part 5210.5-2012
Summary: Standard of WTA Seaport Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant. Issued by: Chanying Jitsirakulchai 0208-02499 Checked: • LOQ - Limit of Detection • L ₁ - Limit below LOQ (not of Quantitation) (1/10 of limit of Reporting) • Methodically blank - A lot not contaminated in regard of analytes (LOQ, L ₁ , L ₂) • The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025:2017						
Technical Management	 Siriluk P. Section Head announced 0208-02499-0023		Approved by Kachai A. Resident General Manager announced 0208-02499-0004			
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Analysis / Test Report							
Client: WTA (Utilities and Power Public Company Limited) 111 Moo 7, Rangsit Industrial Estate, Rangsit, Pathum Thani 12130							
P/O #: Project Name / Factor / Priority: Project Location: (Site)							
Sample Number: THA12345-1 Tested On: (Date) 02 / 04 / 2024 2:00 PM Sample Description: Group 2 Wastewater WTS-CT Contract ID: 001, 002, 2356 Ph#: KIC Site: Nakhon (Thailand) Co., Ltd.							
Date Analysis Commenced: 02 / 03 / 2024 Condition of Sample: (When Received) Contained in one amber glass bottle and three plastic bottles, sample containers comply to pre-treatment - preservation standards Physical Property: liquid, a lot of colour, acidic, and turbid							
Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing COD (Cr. Conc at 20 Degree C)	mg/L	-	1.0	50.4	<500	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 24th edn., 2012, part 1210-A, 24th edn., 2012, part 1210-A	Bangkok
DOC	mg/L	-	25	154	<2750	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 24th edn., 2012, part 1220-B	Bangkok
Oil & Grease	mg/L	-	3	5	<10	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 24th edn., 2012, part 1231-A	Bangkok
pH (on site) °	-	-	-	6.1	6.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 24th edn., 2012, part 1231-A	Bangkok
Temperature °C	Degree C	-	-	32.1	<43	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 24th edn., 2012, part 2530-B	Bangkok
Total Suspended Solids Crude (at 120-125 Degree C)	mg/L	-	5	38	<2700	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 24th edn., 2012, part 2540-D	Bangkok
Remarks: Standard of WTA Sanitary Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.							
Sensitivity: By National Puretech Instrumentation >204 >2050							
Notes: <ul style="list-style-type: none"> LOD = Limit of Detection LOQ = Lower than LOQ (Limit of Quantitation) <3 (Limit of Reporting) Impurity limit = 10% not included in range of 10 to 1000 (10% / 10%) The laboratory format accepted as an accredited laboratory complying with the ISO/IEC 17025. 							
Technical Management  Siriluk Poomkiet Section Head mcsnapha-1204+0023		Approved by  Kanchana Aon Assistant General Manager mcsnapha-1204+0004					
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Solving **Ex 1:** Understanding problems
Remark:

- (1) : set of vertices
- " : inner face (VQ & end of (vertices)) ; VQ & end of (hyperedge)

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Oil & Grease	mg/L	1	2	<3	120	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, pp. 522-53	Benign
pH (in conc.)				7.8	1,544.2	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, pp. 522-53	Benign
Temperature °C	Degree C			38.6	145	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, pp. 101-103	Benign
Total Suspended Solids Dried at 105-120 Degree C	mg/L		5	<5	4200	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, pp. 2240-9	Benign

Guideline: Degree of 1998 Control Industrial Load, Maximum levels for wastewater discharging to central wastewater treatment plant.

Sampling By: 10thangang Sampling according to 2016-2018 (104)

Remark:

1.00 = 1 unit of detection
 1.00 = 1 unit less than 1.00 (in Quantity) 1.00 (in Unit of Reporting)
 Analytical method = is not a unit of value of Accreditation (B) 1.00
 The values between are accepted as an approved laboratory data by the PPB (B) 1.00

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CF & Green	mg/L	3	<3	630	Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9	Range
SP (on site) * <td>mg/L <td>7.7 <td>5.5-6 <td>Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9 <td>Range</td> </td></td></td></td>	mg/L <td>7.7 <td>5.5-6 <td>Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9 <td>Range</td> </td></td></td>	7.7 <td>5.5-6 <td>Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9 <td>Range</td> </td></td>	5.5-6 <td>Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9 <td>Range</td> </td>	Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9 <td>Range</td>	Range	
Temperature * <td>Degree C <td>28.4</td> <td>24.5 <td>Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9 <td>Range</td> </td></td></td>	Degree C <td>28.4</td> <td>24.5 <td>Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9 <td>Range</td> </td></td>	28.4	24.5 <td>Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9 <td>Range</td> </td>	Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9 <td>Range</td>	Range	
Total Suspended Solids/Crude Oil 129.103 mg/L	mg/L <td>8 <td>6300 <td>Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9</td> <td>Range</td> </td></td>	8 <td>6300 <td>Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9</td> <td>Range</td> </td>	6300 <td>Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9</td> <td>Range</td>	Standard Methods for the Examination of water and Wastewater, APHA, ASTM & ISO, 1995, 2002, 2005 and ISO 9	Range	

Caution: Standard of 1000 Standard Industrial Load. Maximum levels for wastewater discharging to central wastewater treatment plant.

Sampling by: Sathish Kumar/Inspector/enclosed/0264-2147

Notes:

- 1. 100 = Limit of detection
- 2. <3 = Less than 3 mg/L (Limit of quantitation) (10% Error of Reporting)

Methodically noted "No test was performed on any of Arsenic (As), Cr (VI), Chlorides but have been analysed as per enclosed (Site analysis) complying with the ISO:6185

[illegible][illegible]

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Oil & Grease	mg/L	-	3	<3	110	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 922.6 D	Berkeley
pH (unit) <td>-<td>-<td>-<td>7-8<td>5.5-9.0<td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td></td></td></td></td></td>	- <td>-<td>-<td>7-8<td>5.5-9.0<td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td></td></td></td></td>	- <td>-<td>7-8<td>5.5-9.0<td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td></td></td></td>	- <td>7-8<td>5.5-9.0<td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td></td></td>	7-8 <td>5.5-9.0<td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td></td>	5.5-9.0 <td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td>	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B <th>Berkeley</th>	Berkeley
Temperature ° <td>Degree C<td>-<td>28.8<td>-<td>14-6<td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td></td></td></td></td></td>	Degree C <td>-<td>28.8<td>-<td>14-6<td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td></td></td></td></td>	- <td>28.8<td>-<td>14-6<td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td></td></td></td>	28.8 <td>-<td>14-6<td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td></td></td>	- <td>14-6<td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td></td>	14-6 <td>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B<th>Berkeley</th></td>	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 920.0 B <th>Berkeley</th>	Berkeley
Total Suspended Solids Dry at 103-105 Degree C <th>mg/L</th> <th>-</th> <th>5</th> <th><5</th> <th>5000</th> <th>Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 924.0 D</th> <th>Berkeley</th>	mg/L	-	5	<5	5000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 20th ed., 2022, para 924.0 D	Berkeley

Standard C: degree of 20% Sanitary Industrial Load, Maximum levels for wastewater discharging to central wastewater treatment plant.

Sampling By : Thermal Process Inc./Berkeley - 1034-0026

Unit :
 (1) = Liter
 °C = Celsius
 °F = Fahrenheit
 (1) = One liter has weight of approximately 1.0 kg and 1.05 US Gallons.
 Analytical method : "As per test methods of Department of Health Services (DHS), EPA, or other health facilities accepted as approved laboratory compliance with the SDWSB, DBP."

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OR & Gross	mg/L	-3	<-3	100	Standard Methods for the Examination of water and wastewater, APHA, AWWA & WEF, 1998-2005, pp.102-107	Sample
pH (in unit)				7.6	Standard Methods for the Examination of water and wastewater, APHA, AWWA & WEF, 1998-2005, pp.102-107	Sample
Temperature °	Degree C			27.8	Standard Methods for the Examination of water and wastewater, APHA, AWWA & WEF, 1998-2005, pp.102-107	Sample
Total Suspended Solids (dry at 103-105 degree C)	mg/L	-5	-6	>200	Standard Methods for the Examination of water and wastewater, APHA, AWWA & WEF, 1998-2005, pp.203-208	Sample

Sampling Site: Standard of WPHA Sewerage Industrial Land, Maximum levels for wastewater discharge to central wastewater treatment plant.

Sampling Day: 4 Chemical Oxygen Demand exceeded >100-mg/l

Result:

- 1.00 - 1.00 (Lower Limit) (5 mg of potassium) / (100 ml of Reagent)

Analytical method: Iodometric titration as per Indian standard IS 3025 (Part 5).

All laboratory has been accredited or is currently in accreditation with the ISO/IEC 17025.

[illegible][illegible]

Solely for the English version. Any discrepancy between the English and Thai versions shall be resolved by the English version. The Thai version shall prevail in case of any dispute.



Oil & Grease	mg/L	-	<3	<10	Standard Methods for the Examination of Water and Wastewater, APHA, 1998, 19th ed., section 9120-D	Ireland
pH (on site) *	-	-	7-8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1998, 19th ed., sections 9131-B	Ireland
Temperature *	Degrees C	-	20.0	16.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1998, 19th ed., section 9104 -B10	Ireland
Total Suspended Solids Determined at 555 ± 0.5 Degrees C	mg/L	-	8	<100	Standard Methods for the Examination of Water and Wastewater, APHA, 1998, 19th ed., part 2545-D	Ireland

*Ireland – Standard of WHO Sanitary Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.

Sampling By: Thermal/Potential method as per EPA-Q008

Notes:

- 1/10 = 1 unit of constituent
- >= 1 = more than 100 mg/L of Quantity (100 mg/L of Reporting)
- N/A = Not Applicable
- ND = "Not Detected" or "not met level of detection by USEPA Method 8160, The detection limit associated with an analytical batch run consisting of six USEPA Method 8160 samples." ND = 0.05 mg/L

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Lot ID: 24130523
Date Received : Dec 02, 2024
Date Reported : Dec 30, 2024
Report Number : 3205249-5

ly to pretreatment + preservation standards

Method	Testing Location
Standard Methods for the Examination of water and wastewater, APHA, AWWA & WEF, 24th ed., 2012, part 5220-B & part 4500-C-Q	Singapore
Standard Methods for the Examination of water and wastewater, APHA, AWWA & WEF, 24th ed., 2012, part 5220-B	Singapore
Standard Methods for the Examination of water and wastewater, APHA, AWWA & WEF, 24th ed., 2012, part 5210-A	Singapore
Standard Methods for the Examination of water and wastewater, APHA, AWWA & WEF, 24th ed., 2012, part 4500-H (3)	Singapore
Standard Methods for the Examination of water and wastewater, APHA, AWWA & WEF, 24th ed., 2012, part 2310-B	Singapore
Standard Methods for the Examination of water and wastewater, APHA, AWWA & WEF, 24th ed., 2012, part 2310-B	Singapore

overlapped. Africa, America & USSR,
[1991 ed., 2013, part 1342 D]

water treatment plant.

Kandikorn Anai,
Assistant General Manager
Dusitairtel 1-204-0-0004

01-466-277600000 | 01-466-277600000

Lot ID: 24130590
Date Received : Dec 02, 2024
Date Reported : Dec 30, 2024
Report Number : 3364297-3

Page 1 of 2

IF LIMITED

ly to pretreatment + preservation standards

Method	Testing Location
Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 19th ed., 20th ed., 2023, part 5120.9-B, 2023, part 5120.9-C, 2023, part 5120.9-D	Sengkang
Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 19th ed., 20th ed., 2023, part 5120.9-B, 2023, part 5120.9-C, 2023, part 5120.9-D	Sengkang
Wastewater analysis manual, Environmental Engineering Association of Thailand, 6th ed., 2005	Sengkang
Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 19th ed., 20th ed., 2023, part 5120.9-B	Sengkang
Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 19th ed., 20th ed., 2023, part 4306 - 1 (3)	Sengkang
Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 19th ed., 20th ed., 2023, part 2550-B	Sengkang
Standard Methods for the	Sengkang

Wissenschaftler, AFMA, KAPPA & WEF,
2023 ver., 2023, part 2040 D

water treatment plant.

Kanokorn Anai
Assistant General Manager
Bussaree 1-204-4-0004

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Lot ID: 24130592
Date Received : Dec 09, 2024
Date Reported : Dec 14, 2024
Report Number : 3106299-1

Amir Amir

Assistant General Manager
Managerial - 0-0004

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ภาคผนวก ค-7

ตะกอนจากระบบบำบัดน้ำเสียส่วนกลาง
และตะกอนจากระบบผลิตน้ำใช้เพื่อการอุตสาหกรรม



Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O :
Project Name :
Project Location : WHA SIL

Lot ID: 24109586

Date Received : Oct 01, 2024
Date Reported : Oct 09, 2024
Report Number : 3118397-1

Page 1 of 6

Sample Number 24109586-1
Sampled Date Oct 01, 2024 10:00 AM
Sample Description Solid Waste
Location WHA SIL : ภาคตะวันออกเฉียงเหนือส่วนกลาง (WWTP)
Date Analysis Commenced Oct 02, 2024
Condition of Sample Packed in one plastic bag, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Total Concentration Test (TTLC) : Metals							
Arsenic	mg/kg	-	0.50	3.22	<500	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Barium	mg/kg	-	1.00	142	<10000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	<100	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Chromium	mg/kg	-	1.00	8.20	<2500	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Copper	mg/kg	-	1.00	35.5	<2500	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Lead	mg/kg	-	1.00	9.32	<1000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Manganese	mg/kg	-	1.00	35.2	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	<20	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	10.2	<2000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	<100	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Zinc	mg/kg	-	1.00	274	<5000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of the Ministry of Industry regarding Waste or Used Material Disposal, B.E. 2566 (2023).

Sampling By : Jiranat Khowlaor ทะเบียนเลขที่ ๖-204-๖-0072

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O :
Project Name :
Project Location : WHA SIL

Lot ID: 24109586

Date Received : Oct 01, 2024
Date Reported : Oct 09, 2024
Report Number : 3118397-1

Page 2 of 6

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

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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P/O :
Project Name :
Project Location : WHA SIL

Lot ID: 24109586

Date Received : Oct 01, 2024
Date Reported : Oct 09, 2024
Report Number : 3118397-1

Page 3 of 6

Sample Number 24109586-2
Sampled Date Oct 01, 2024 9:30 AM
Sample Description Solid Waste
Location WHA SIL : ภาคตะวันออกเฉียงเหนือเพื่ออุตสาหกรรม (WTP)
Date Analysis Commenced Oct 02, 2024
Condition of Sample Packed in one plastic bag, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Total Concentration Test (TTLC) : Metals							
Arsenic	mg/kg	-	0.50	3.75	<500	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Barium	mg/kg	-	1.00	44.3	<10000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Cadmium	mg/kg	-	0.50	<0.50	<100	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Chromium	mg/kg	-	1.00	9.88	<2500	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Copper	mg/kg	-	1.00	9.03	<2500	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Lead	mg/kg	-	1.00	4.82	<1000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Manganese	mg/kg	-	1.00	486	No Standard	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Mercury	mg/kg	-	0.10	<0.10	<20	United States Environmental Protection Agency, EPA Method 7473	Bangkok
Nickel	mg/kg	-	1.00	6.16	<2000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Selenium	mg/kg	-	0.50	<0.50	<100	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok
Zinc	mg/kg	-	1.00	24.3	<5000	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D	Bangkok

Guideline : Notification of the Ministry of Industry regarding Waste or Used Material Disposal, B.E. 2566 (2023).

Sampling By : Jiranat Khowlaor ทะเบียนเลขที่ ๖-204-๖-0072

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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P/O :
Project Name :
Project Location : WHA SIL

Lot ID: 24109586

Date Received : Oct 01, 2024
Date Reported : Oct 09, 2024
Report Number : 3118397-1

Page 4 of 6

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

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ๖-204-๖-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ๖-204-๖-0004

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P/O :
Project Name :
Project Location : WHA SIL

Lot ID: 24109586

Date Received : Oct 01, 2024
Date Reported : Oct 09, 2024
Report Number : 3118397-1

Page 5 of 6

Sample Number 24109586-3
Sampled Date Oct 01, 2024 10:00 AM
Sample Description Solid Waste
Location WHA SIL : ภาคเอกชนจากระบบบำบัดน้ำเสียส่วนกลาง
Date Analysis Commenced Oct 02, 2024
Condition of Sample Packed in one plastic bag, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Waste Extraction Test (STLC) : Metals							
Arsenic	mg/L	-	0.01	0.02	<5	MOI, B.E.2566	Bangkok
Barium	mg/L	-	0.01	8.13	<100	MOI, B.E.2566	Bangkok
Cadmium	mg/L	-	0.01	<0.01	<1	MOI, B.E.2566	Bangkok
Chromium	mg/L	-	0.03	0.25	<5	MOI, B.E.2566	Bangkok
Copper	mg/L	-	0.01	<0.01	<25	MOI, B.E.2566	Bangkok
Lead	mg/L	-	0.01	0.08	<5	MOI, B.E.2566	Bangkok
Manganese	mg/L	-	0.01	3.01	No Standard	MOI, B.E.2566	Bangkok
Mercury	mg/L	-	0.001	<0.001	<0.2	MOI, B.E.2566	Bangkok
Nickel	mg/L	-	0.01	0.34	<20	MOI, B.E.2566	Bangkok
Selenium	mg/L	-	0.01	<0.01	<1	MOI, B.E.2566	Bangkok
Zinc	mg/L	-	0.01	7.46	<250	MOI, B.E.2566	Bangkok

Guideline : Notification of the Ministry of Industry regarding Waste or Used Material Disposal, B.E. 2566 (2023).

Sampling By : Jiranat Khowlaor ทะเบียนเลขที่ ว-204-จ-0072

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

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ว-204-ก-0004

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Analysis / Test Report

Client : WHA Utilities and Power Public Company Limited
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhae, Saraburi Thailand 18140

P/O :
Project Name :
Project Location : WHA SIL

Lot ID: 24109586

Date Received : Oct 01, 2024
Date Reported : Oct 09, 2024
Report Number : 3118397-1

Page 6 of 6

Sample Number 24109586-4
Sampled Date Oct 01, 2024 9:30 AM
Sample Description Solid Waste
Location WHA SIL : ภาคเอกชนจากระบบผลิตน้ำใช้เพื่ออุตสาหกรรม
Date Analysis Commenced Oct 02, 2024
Condition of Sample Packed in one plastic bag, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Waste Extraction Test (STLC) : Metals							
Arsenic	mg/L	-	0.01	0.14	<5	MOI, B.E.2566	Bangkok
Barium	mg/L	-	0.01	2.44	<100	MOI, B.E.2566	Bangkok
Cadmium	mg/L	-	0.01	<0.01	<1	MOI, B.E.2566	Bangkok
Chromium	mg/L	-	0.03	0.13	<5	MOI, B.E.2566	Bangkok
Copper	mg/L	-	0.01	0.26	<25	MOI, B.E.2566	Bangkok
Lead	mg/L	-	0.01	0.13	<5	MOI, B.E.2566	Bangkok
Manganese	mg/L	-	0.01	33.6	No Standard	MOI, B.E.2566	Bangkok
Mercury	mg/L	-	0.001	<0.001	<0.2	MOI, B.E.2566	Bangkok
Nickel	mg/L	-	0.01	0.07	<20	MOI, B.E.2566	Bangkok
Selenium	mg/L	-	0.01	0.02	<1	MOI, B.E.2566	Bangkok
Zinc	mg/L	-	0.01	0.74	<250	MOI, B.E.2566	Bangkok

Guideline : Notification of the Ministry of Industry regarding Waste or Used Material Disposal, B.E. 2566 (2023).

Sampling By : Jiranat Khowlaor ทะเบียนเลขที่ ว-204-จ-0072

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

Technical Management

Chanatt L.

Chanattagarn Imchom
Section Head
ทะเบียนเลขที่ ว-204-จ-0008

Approved by

Kanokkorn Anek

Kanokkorn Anek
Assistant General Manager
ทะเบียนเลขที่ ว-204-ก-0004

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