

ภาคผนวก ค

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ใบรับรองผลการวิเคราะห์

ภาคผนวก ค-1

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คุณภาพอากาศในบรรยากาศ



## 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: 2434034  
Date Received : May 02, 2024  
Date Reported : May 08, 2024  
Report Number: 2946543-1

Page 1 of 1

Sample Description	Air Quality							
Location	บริเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)							
Parameter	Nitrogen dioxide (ppm)							
Measurement Date	Apr 22, 2024 - Apr 29, 2024							
Measurement by	Prommee Sripatnet							
Time	2434034-1 Apr 22, 2024	2434034-2 Apr 23, 2024	2434034-3 Apr 24, 2024	2434034-4 Apr 25, 2024	2434034-5 Apr 26, 2024	2434034-6 Apr 27, 2024	2434034-7 Apr 28, 2024	
10:00 AM - 11:00 AM	0.007	0.006	0.007	0.007	0.007	0.009	0.006	
11:00 AM - 12:00 PM	0.006	0.006	0.007	0.007	0.008	0.009	0.006	
12:00 PM - 01:00 PM	0.006	0.006	0.006	0.007	0.008	0.008	0.005	
01:00 PM - 02:00 PM	0.006	0.006	0.007	0.007	0.008	0.011	0.006	
02:00 PM - 03:00 PM	0.007	0.007	0.007	0.014	0.008	0.011	0.006	
03:00 PM - 04:00 PM	0.008	0.008	0.008	0.009	0.010	0.009	0.006	
04:00 PM - 05:00 PM	0.012	0.010	0.012	0.013	0.013	0.010	0.008	
05:00 PM - 06:00 PM	0.016	0.016	0.016	0.019	0.013	0.011	0.011	
06:00 PM - 07:00 PM	0.017	0.026	0.022	0.026	0.018	0.014	0.012	
07:00 PM - 08:00 PM	0.021	0.026	0.021	0.023	0.018	0.015	0.010	
08:00 PM - 09:00 PM	0.021	0.022	0.020	0.019	0.018	0.015	0.009	
09:00 PM - 10:00 PM	0.021	0.022	0.018	0.017	0.018	0.013	0.009	
10:00 PM - 11:00 PM	0.014	0.019	0.014	0.014	0.017	0.010	0.009	
11:00 PM - 12:00 AM	0.012	0.016	0.014	0.011	0.014	0.008	0.008	
12:00 AM - 01:00 AM	0.010	0.015	0.011	0.010	0.012	0.007	0.007	
01:00 AM - 02:00 AM	0.010	0.014	0.011	0.011	0.011	0.006	0.007	
02:00 AM - 03:00 AM	0.011	0.012	0.011	0.011	0.010	0.007	0.007	
03:00 AM - 04:00 AM	0.010	0.011	0.012	0.011	0.009	0.007	0.006	
04:00 AM - 05:00 AM	0.009	0.010	0.011	0.012	0.009	0.007	0.007	
05:00 AM - 06:00 AM	0.010	0.011	0.012	0.012	0.009	0.006	0.007	
06:00 AM - 07:00 AM	0.010	0.010	0.010	0.011	0.009	0.006	0.006	
07:00 AM - 08:00 AM	0.008	0.008	0.007	0.008	0.008	0.006	0.006	
08:00 AM - 09:00 AM	0.007	0.007	0.007	0.007	0.007	0.006	0.006	
09:00 AM - 10:00 AM	0.007	0.008	0.008	0.007	0.007	0.006	0.015	
Average	0.011	0.012	0.012	0.012	0.011	0.009	0.008	
1hr - Maximum	0.021	0.026	0.022	0.026	0.018	0.015	0.015	
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

*Orawan R.*

Orawan Rakyong  
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 :  
Project Name : Monitoring  
Project Location : WHA SIL

Lot ID: 2434034  
Date Received : May 02, 2024  
Date Reported : May 08, 2024  
Report Number: 2984518-1

Page 1 of 1

Sample Description	Air Quality							
Location	ร. บ้านใหม่ห้วยหินลาด หมู่บ้านใหม่ห้วยหินลาด (GPS 47P 0697239, 1589433)							
Parameter	Nitrogen dioxide (ppm)							
Measurement Date	Apr 22, 2024 - Apr 29, 2024							
Measurement by	Prommee Sripatnet							
Time	2434034-8 Apr 22, 2024	2434034-9 Apr 23, 2024	2434034-10 Apr 24, 2024	2434034-11 Apr 25, 2024	2434034-12 Apr 26, 2024	2434034-13 Apr 27, 2024	2434034-14 Apr 28, 2024	
11:00 AM - 12:00 PM	0.012	0.019	0.019	0.020	0.027	0.025	0.021	
12:00 PM - 01:00 PM	0.014	0.019	0.022	0.031	0.036	0.024	0.018	
01:00 PM - 02:00 PM	0.014	0.017	0.020	0.024	0.032	0.022	0.018	
02:00 PM - 03:00 PM	0.015	0.018	0.019	0.026	0.028	0.020	0.022	
03:00 PM - 04:00 PM	0.021	0.023	0.023	0.038	0.030	0.021	0.018	
04:00 PM - 05:00 PM	0.042	0.020	0.039	0.034	0.022	0.022	0.019	
05:00 PM - 06:00 PM	0.047	0.023	0.029	0.036	0.027	0.022	0.017	
06:00 PM - 07:00 PM	0.050	0.030	0.033	0.042	0.032	0.024	0.023	
07:00 PM - 08:00 PM	0.044	0.038	0.042	0.040	0.033	0.026	0.025	
08:00 PM - 09:00 PM	0.036	0.037	0.036	0.036	0.034	0.025	0.023	
09:00 PM - 10:00 PM	0.032	0.042	0.034	0.029	0.034	0.024	0.020	
10:00 PM - 11:00 PM	0.031	0.043	0.032	0.030	0.032	0.021	0.015	
11:00 PM - 12:00 AM	0.024	0.033	0.027	0.024	0.034	0.020	0.016	
12:00 AM - 01:00 AM	0.022	0.027	0.023	0.020	0.026	0.016	0.016	
01:00 AM - 02:00 AM	0.017	0.024	0.018	0.022	0.024	0.012	0.014	
02:00 AM - 03:00 AM	0.018	0.023	0.017	0.021	0.021	0.012	0.013	
03:00 AM - 04:00 AM	0.017	0.019	0.019	0.020	0.016	0.016	0.014	
04:00 AM - 05:00 AM	0.015	0.018	0.019	0.022	0.016	0.015	0.012	
05:00 AM - 06:00 AM	0.015	0.018	0.020	0.023	0.016	0.014	0.014	
06:00 AM - 07:00 AM	0.016	0.017	0.018	0.021	0.018	0.012	0.015	
07:00 AM - 08:00 AM	0.016	0.017	0.016	0.019	0.016	0.010	0.014	
08:00 AM - 09:00 AM	0.014	0.014	0.013	0.015	0.013	0.010	0.010	
09:00 AM - 10:00 AM	0.014	0.015	0.015	0.016	0.014	0.011	0.011	
10:00 AM - 11:00 AM	0.016	0.016	0.020	0.018	0.026	0.018	0.014	
Average	0.023	0.024	0.024	0.026	0.025	0.018	0.017	
1hr - Maximum	0.050	0.043	0.042	0.042	0.036	0.026	0.025	
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

*Orawan R.*

Orawan Rakyong  
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 :**  
**Project Name :** Monitoring  
**Project Location :** WHA SIL

**Lot ID: 2434034**  
Date Received : May 02, 2024  
Date Reported : May 08, 2024  
Report Number: 2984519-1

Page 1 of 1

Sample Description	Air Quality						
Location	ร. วัดนวลนรดิราช กรุงเทพมหานคร (GPS 47P 0698465, 1594331)						
Parameter	Nitrogen dioxide (ppm)						
Measurement Date	Apr 22, 2024 - Apr 29, 2024						
Measurement by	Prommee Sripatnet						
Time	2434034-15 Apr 22, 2024	2434034-16 Apr 23, 2024	2434034-17 Apr 24, 2024	2434034-18 Apr 25, 2024	2434034-19 Apr 26, 2024	2434034-20 Apr 27, 2024	2434034-21 Apr 28, 2024
01:00 PM - 02:00 PM	0.003	0.013	0.006	0.009	0.004	0.002	0.003
02:00 PM - 03:00 PM	0.004	0.016	0.007	0.037	0.003	0.003	0.007
03:00 PM - 04:00 PM	0.005	0.012	0.008	0.038	0.006	0.004	0.006
04:00 PM - 05:00 PM	0.005	0.011	0.023	0.017	0.006	0.016	0.006
05:00 PM - 06:00 PM	0.009	0.010	0.009	0.012	0.012	0.016	0.005
06:00 PM - 07:00 PM	0.007	0.006	0.010	0.016	0.012	0.013	0.005
07:00 PM - 08:00 PM	0.008	0.008	0.014	0.013	0.013	0.011	0.007
08:00 PM - 09:00 PM	0.010	0.004	0.009	0.017	0.007	0.010	0.010
09:00 PM - 10:00 PM	0.012	0.007	0.028	0.009	0.013	0.007	0.011
10:00 PM - 11:00 PM	0.015	0.002	0.030	0.011	0.012	0.007	0.006
11:00 PM - 12:00 AM	0.012	0.012	0.010	0.012	0.013	0.006	0.007
12:00 AM - 01:00 AM	0.011	0.007	0.010	0.012	0.012	0.005	0.012
01:00 AM - 02:00 AM	0.012	0.010	0.012	0.011	0.010	0.005	0.012
02:00 AM - 03:00 AM	0.014	0.007	0.011	0.012	0.008	0.005	0.015
03:00 AM - 04:00 AM	0.012	0.006	0.010	0.008	0.006	0.006	0.010
04:00 AM - 05:00 AM	0.011	0.006	0.011	0.010	0.006	0.005	0.010
05:00 AM - 06:00 AM	0.012	0.012	0.010	0.017	0.008	0.005	0.014
06:00 AM - 07:00 AM	0.014	0.012	0.015	0.019	0.010	0.004	0.015
07:00 AM - 08:00 AM	0.018	0.009	0.018	0.015	0.013	0.006	0.013
08:00 AM - 09:00 AM	0.024	0.009	0.016	0.011	0.010	0.008	0.010
09:00 AM - 10:00 AM	0.022	0.010	0.017	0.009	0.005	0.004	0.006
10:00 AM - 11:00 AM	0.016	0.013	0.012	0.007	0.008	0.003	0.006
11:00 AM - 12:00 PM	0.011	0.012	0.007	0.005	0.009	0.005	0.006
12:00 PM - 01:00 PM	0.005	0.010	0.006	0.004	0.006	0.002	0.006
Average	0.011	0.009	0.013	0.014	0.009	0.007	0.009
1hr - Maximum	0.024	0.016	0.030	0.038	0.013	0.016	0.015
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

*Orawan R.*

Orawan Rakyong  
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 :**  
**Project Name :** Monitoring  
**Project Location :** WHA SIL

**Lot ID: 2434034**  
Date Received : May 02, 2024  
Date Reported : May 08, 2024  
Report Number: 2984520-1

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Sample Description	Air Quality							
Location	ร. วัดหนองปลาหมอ กรุงเทพมหานคร (GPS 47P 0700733, 1590964)							
Parameter	Nitrogen dioxide (ppm)							
Measurement Date	Apr 22, 2024 - Apr 29, 2024							
Measurement by	Prommee Sripatnet							
	2434034-22 Apr 22, 2024	2434034-23 Apr 23, 2024	2434034-24 Apr 24, 2024	2434034-25 Apr 25, 2024	2434034-26 Apr 26, 2024	2434034-27 Apr 27, 2024	2434034-28 Apr 28, 2024	
Time								
12:00 PM - 01:00 PM	0.001	0.007	0.008	0.017	0.020	0.023	0.010	
01:00 PM - 02:00 PM	0.008	0.009	0.008	0.014	0.022	0.017	0.012	
02:00 PM - 03:00 PM	0.011	0.010	0.010	0.011	0.018	0.010	0.010	
03:00 PM - 04:00 PM	0.019	0.015	0.017	0.008	0.015	0.007	0.008	
04:00 PM - 05:00 PM	0.017	0.030	0.023	0.009	0.014	0.006	0.008	
05:00 PM - 06:00 PM	0.015	0.039	0.030	0.010	0.009	0.008	0.007	
06:00 PM - 07:00 PM	0.028	0.033	0.018	0.010	0.008	0.009	0.008	
07:00 PM - 08:00 PM	0.021	0.022	0.020	0.012	0.009	0.009	0.008	
08:00 PM - 09:00 PM	0.018	0.021	0.015	0.013	0.008	0.008	0.009	
09:00 PM - 10:00 PM	0.009	0.018	0.014	0.012	0.009	0.007	0.011	
10:00 PM - 11:00 PM	0.009	0.016	0.011	0.008	0.009	0.005	0.008	
11:00 PM - 12:00 AM	0.007	0.012	0.010	0.005	0.006	0.004	0.005	
12:00 AM - 01:00 AM	0.008	0.010	0.010	0.006	0.006	0.004	0.004	
01:00 AM - 02:00 AM	0.006	0.008	0.010	0.007	0.008	0.005	0.008	
02:00 AM - 03:00 AM	0.006	0.008	0.009	0.008	0.008	0.007	0.007	
03:00 AM - 04:00 AM	0.006	0.008	0.011	0.008	0.007	0.006	0.007	
04:00 AM - 05:00 AM	0.007	0.009	<0.001	0.008	0.006	0.005	0.018	
05:00 AM - 06:00 AM	0.006	0.006	0.008	0.009	0.006	0.006	0.006	
06:00 AM - 07:00 AM	0.005	0.006	0.010	0.010	0.007	0.007	0.013	
07:00 AM - 08:00 AM	0.004	0.005	0.012	0.011	0.011	0.010	0.016	
08:00 AM - 09:00 AM	0.005	0.006	0.020	0.011	0.011	0.018	0.020	
09:00 AM - 10:00 AM	0.007	0.008	0.022	0.014	0.011	0.015	0.022	
10:00 AM - 11:00 AM	0.007	0.007	0.037	0.019	0.014	0.013	0.030	
11:00 AM - 12:00 PM	0.008	0.007	0.032	0.017	0.026	0.011	0.021	
Average	0.010	0.013	0.015	0.011	0.011	0.009	0.012	
1hr - Maximum	0.028	0.039	0.037	0.019	0.026	0.023	0.030	
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

*Orawan R.*

Orawan Rakyong  
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 :  
Project Name : Monitoring  
Project Location : WHA SIL

Lot ID: 2434035  
Date Received : May 02, 2024  
Date Reported : May 08, 2024  
Report Number: 2946544-1

Page 1 of 1

Sample Description	Air Quality						
Location	บริเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)						
Parameter	Sulfur Dioxide (ppm)						
Measurement Date	Apr 22, 2024 - Apr 29, 2024						
Measurement by	Prommee Sripatnet						
Time	2434035-1 Apr 22, 2024	2434035-2 Apr 23, 2024	2434035-3 Apr 24, 2024	2434035-4 Apr 25, 2024	2434035-5 Apr 26, 2024	2434035-6 Apr 27, 2024	2434035-7 Apr 28, 2024
10:00 AM - 11:00 AM	0.003	0.003	0.003	0.004	0.004	0.004	0.003
11:00 AM - 12:00 PM	0.003	0.003	0.003	0.004	0.003	0.003	0.003
12:00 PM - 01:00 PM	0.003	0.003	0.003	0.004	0.004	0.004	0.003
01:00 PM - 02:00 PM	0.003	0.003	0.003	0.004	0.004	0.004	0.003
02:00 PM - 03:00 PM	0.003	0.003	0.004	0.004	0.003	0.004	0.003
03:00 PM - 04:00 PM	0.003	0.003	0.003	0.004	0.003	0.004	0.003
04:00 PM - 05:00 PM	0.003	0.003	0.003	0.003	0.003	0.003	0.003
05:00 PM - 06:00 PM	0.004	0.003	0.003	0.003	0.003	0.003	0.003
06:00 PM - 07:00 PM	0.004	0.004	0.003	0.003	0.003	0.003	0.003
07:00 PM - 08:00 PM	0.004	0.005	0.004	0.003	0.003	0.003	0.003
08:00 PM - 09:00 PM	0.005	0.005	0.004	0.004	0.003	0.004	0.003
09:00 PM - 10:00 PM	0.005	0.003	0.004	0.004	0.003	0.004	0.003
10:00 PM - 11:00 PM	0.005	0.003	0.004	0.004	0.003	0.003	0.003
11:00 PM - 12:00 AM	0.004	0.003	0.004	0.003	0.003	0.003	0.003
12:00 AM - 01:00 AM	0.004	0.003	0.004	0.004	0.004	0.003	0.003
01:00 AM - 02:00 AM	0.004	0.003	0.004	0.004	0.004	0.003	0.003
02:00 AM - 03:00 AM	0.004	0.004	0.003	0.004	0.004	0.003	0.003
03:00 AM - 04:00 AM	0.004	0.003	0.003	0.003	0.003	0.003	0.003
04:00 AM - 05:00 AM	0.004	0.003	0.004	0.003	0.003	0.003	0.003
05:00 AM - 06:00 AM	0.004	0.003	0.003	0.003	0.003	0.003	0.003
06:00 AM - 07:00 AM	0.004	0.003	0.003	0.003	0.003	0.003	0.003
07:00 AM - 08:00 AM	0.004	0.003	0.004	0.004	0.003	0.004	0.004
08:00 AM - 09:00 AM	0.004	0.004	0.004	0.004	0.004	0.004	0.004
09:00 AM - 10:00 AM	0.004	0.003	0.004	0.004	0.004	0.003	0.003
Average	0.004	0.003	0.003	0.004	0.003	0.003	0.003
1hr - Maximum	0.005	0.005	0.004	0.004	0.004	0.004	0.004
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).							
Reference Method : US EPA Method Part 53 and 58							

Approved by

*Orawan R.*

Orawan Rakyong  
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 :  
Project Name : Monitoring  
Project Location : WHA SIL

Lot ID: 2434035  
Date Received : May 02, 2024  
Date Reported : May 08, 2024  
Report Number: 2984513-1

Page 1 of 1

Sample Description	Air Quality						
Location	ร. บ้านไร่ทุ่งดินสอด ทุเรียนบ้านไร่ทุ่งดินสอด (GPS 47P 0697239, 1589433)						
Parameter	Sulfur Dioxide (ppm)						
Measurement Date	Apr 22, 2024 - Apr 29, 2024						
Measurement by	Prommee Sripatnet						
Time	2434035-8 Apr 22, 2024	2434035-9 Apr 23, 2024	2434035-10 Apr 24, 2024	2434035-11 Apr 25, 2024	2434035-12 Apr 26, 2024	2434035-13 Apr 27, 2024	2434035-14 Apr 28, 2024
11:00 AM - 12:00 PM	0.002	0.002	0.003	0.004	0.003	0.003	0.002
12:00 PM - 01:00 PM	0.002	0.003	0.003	0.003	0.003	0.003	0.003
01:00 PM - 02:00 PM	0.001	0.003	0.003	0.004	0.003	0.003	0.003
02:00 PM - 03:00 PM	0.002	0.003	0.003	0.004	0.003	0.003	0.003
03:00 PM - 04:00 PM	0.003	0.003	0.003	0.004	0.003	0.003	0.003
04:00 PM - 05:00 PM	0.003	0.003	0.003	0.003	0.003	0.003	0.003
05:00 PM - 06:00 PM	0.003	0.003	0.003	0.003	0.003	0.003	0.003
06:00 PM - 07:00 PM	0.003	0.003	0.003	0.003	0.003	0.003	0.003
07:00 PM - 08:00 PM	0.004	0.003	0.003	0.003	0.003	0.003	0.003
08:00 PM - 09:00 PM	0.004	0.004	0.003	0.003	0.003	0.003	0.003
09:00 PM - 10:00 PM	0.003	0.003	0.003	0.003	0.003	0.003	0.002
10:00 PM - 11:00 PM	0.003	0.003	0.003	0.003	0.003	0.003	0.003
11:00 PM - 12:00 AM	0.003	0.003	0.003	0.003	0.003	0.003	0.002
12:00 AM - 01:00 AM	0.003	0.003	0.003	0.003	0.003	0.003	0.002
01:00 AM - 02:00 AM	0.003	0.003	0.003	0.003	0.003	0.002	0.003
02:00 AM - 03:00 AM	0.003	0.003	0.003	0.003	0.003	0.002	0.003
03:00 AM - 04:00 AM	0.003	0.003	0.003	0.003	0.003	0.002	0.003
04:00 AM - 05:00 AM	0.003	0.003	0.003	0.003	0.003	0.003	0.003
05:00 AM - 06:00 AM	0.003	0.003	0.003	0.003	0.003	0.003	0.002
06:00 AM - 07:00 AM	0.003	0.003	0.003	0.003	0.003	0.003	0.002
07:00 AM - 08:00 AM	0.003	0.003	0.003	0.003	0.003	0.003	0.003
08:00 AM - 09:00 AM	0.004	0.003	0.003	0.003	0.003	0.003	0.003
09:00 AM - 10:00 AM	0.003	0.003	0.003	0.003	0.003	0.003	0.003
10:00 AM - 11:00 AM	0.003	0.003	0.004	0.003	0.003	0.002	0.003
Average	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1hr - Maximum	0.004	0.004	0.004	0.004	0.003	0.003	0.003
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

*Orawan R.*

Orawan Rakyong  
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 :**  
**Project Name :** Monitoring  
**Project Location :** WHA SIL

**Lot ID: 2434035**  
Date Received : May 02, 2024  
Date Reported : May 08, 2024  
Report Number: 2984515-1

Page 1 of 1

Sample Description	Air Quality						
Location	ร. วัดนวลนรดิราช กรุงเทพมหานคร (GPS 47P 0698465, 1594331)						
Parameter	Sulfur Dioxide (ppm)						
Measurement Date	Apr 22, 2024 - Apr 29, 2024						
Measurement by	Prommee Sripatnet						
Time	2434035-15 Apr 22, 2024	2434035-16 Apr 23, 2024	2434035-17 Apr 24, 2024	2434035-18 Apr 25, 2024	2434035-19 Apr 26, 2024	2434035-20 Apr 27, 2024	2434035-21 Apr 28, 2024
01:00 PM - 02:00 PM	0.003	0.001	0.003	0.002	0.006	0.009	0.003
02:00 PM - 03:00 PM	0.002	0.002	0.002	0.002	0.006	0.007	0.005
03:00 PM - 04:00 PM	0.002	0.002	0.003	0.002	0.005	0.004	0.004
04:00 PM - 05:00 PM	0.003	0.003	0.004	0.002	0.004	0.003	0.004
05:00 PM - 06:00 PM	0.004	0.003	0.003	0.005	0.005	0.003	0.005
06:00 PM - 07:00 PM	0.002	0.003	0.003	0.004	0.004	0.003	0.004
07:00 PM - 08:00 PM	0.009	0.003	0.003	0.004	0.004	0.004	0.004
08:00 PM - 09:00 PM	0.007	0.004	0.002	0.004	0.004	0.004	0.004
09:00 PM - 10:00 PM	0.005	0.003	0.003	0.005	0.004	0.004	0.004
10:00 PM - 11:00 PM	0.004	0.003	0.002	0.005	0.004	0.004	0.004
11:00 PM - 12:00 AM	0.002	0.002	0.003	0.006	0.004	0.004	0.005
12:00 AM - 01:00 AM	0.002	0.003	0.003	0.004	0.004	0.004	0.003
01:00 AM - 02:00 AM	0.002	0.004	0.003	0.004	0.003	0.003	0.003
02:00 AM - 03:00 AM	0.002	0.003	0.004	0.004	0.004	0.003	0.003
03:00 AM - 04:00 AM	0.002	0.003	0.004	0.004	0.004	0.003	0.003
04:00 AM - 05:00 AM	0.002	0.003	0.004	0.004	0.004	0.003	0.003
05:00 AM - 06:00 AM	0.002	0.002	0.002	0.004	0.003	0.003	0.004
06:00 AM - 07:00 AM	0.002	0.003	0.004	0.003	0.003	0.003	0.004
07:00 AM - 08:00 AM	0.002	0.003	0.004	0.004	0.003	0.003	0.005
08:00 AM - 09:00 AM	0.002	0.002	0.004	0.004	0.004	0.004	0.004
09:00 AM - 10:00 AM	0.001	0.002	0.006	0.004	0.003	0.006	0.002
10:00 AM - 11:00 AM	0.001	0.002	0.006	0.003	0.003	0.005	0.002
11:00 AM - 12:00 PM	0.001	0.002	0.006	0.004	0.003	0.003	0.001
12:00 PM - 01:00 PM	0.001	0.002	0.005	0.005	0.009	0.003	0.001
Average	0.003	0.003	0.004	0.004	0.004	0.004	0.004
1hr - Maximum	0.009	0.004	0.006	0.006	0.009	0.009	0.005
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

*Orawan R.*

Orawan Rakyong  
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 :**  
**Project Name :** Monitoring  
**Project Location :** WHA SIL

**Lot ID: 2434035**  
Date Received : May 02, 2024  
Date Reported : May 08, 2024  
Report Number: 2984517-1

Page 1 of 1

Sample Description	Air Quality							
Location	ร. วัดหนองปลาหมอ แขวงบ้านหนองผักชีใต้ (GPS 47P 0700733, 1590964)							
Parameter	Sulfur Dioxide (ppm)							
Measurement Date	Apr 22, 2024 - Apr 29, 2024							
Measurement by	Prommee Sripatnet							
	2434035-22 Apr 22, 2024	2434035-23 Apr 23, 2024	2434035-24 Apr 24, 2024	2434035-25 Apr 25, 2024	2434035-26 Apr 26, 2024	2434035-27 Apr 27, 2024	2434035-28 Apr 28, 2024	
Time								
12:00 PM - 01:00 PM	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
01:00 PM - 02:00 PM	0.002	0.001	0.001	0.001	0.001	0.001	0.001	
02:00 PM - 03:00 PM	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
03:00 PM - 04:00 PM	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
04:00 PM - 05:00 PM	0.001	0.001	0.001	0.003	0.002	0.001	0.001	
05:00 PM - 06:00 PM	0.001	0.001	0.001	0.001	0.002	0.001	0.001	
06:00 PM - 07:00 PM	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
07:00 PM - 08:00 PM	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
08:00 PM - 09:00 PM	0.002	0.001	0.001	0.001	0.001	0.002	0.001	
09:00 PM - 10:00 PM	0.002	0.001	0.001	0.001	0.001	0.001	0.001	
10:00 PM - 11:00 PM	0.002	0.001	0.001	0.001	0.001	0.001	0.001	
11:00 PM - 12:00 AM	0.002	0.001	0.001	0.001	0.001	0.002	0.001	
12:00 AM - 01:00 AM	0.001	0.001	0.001	0.001	0.001	0.002	0.001	
01:00 AM - 02:00 AM	0.001	0.001	0.001	0.001	0.001	0.002	0.001	
02:00 AM - 03:00 AM	0.001	0.001	0.001	0.001	0.001	0.002	0.001	
03:00 AM - 04:00 AM	0.001	0.001	0.001	0.001	0.001	0.002	0.001	
04:00 AM - 05:00 AM	0.001	0.001	0.001	0.001	0.001	0.002	0.001	
05:00 AM - 06:00 AM	0.001	0.001	0.001	0.001	0.001	0.002	0.001	
06:00 AM - 07:00 AM	0.001	0.001	0.001	0.001	0.001	0.002	0.001	
07:00 AM - 08:00 AM	0.001	0.001	0.001	0.001	0.001	0.002	0.001	
08:00 AM - 09:00 AM	0.002	0.001	0.001	0.001	0.001	0.002	0.001	
09:00 AM - 10:00 AM	0.002	0.001	0.001	0.001	0.001	0.002	0.001	
10:00 AM - 11:00 AM	0.002	0.001	0.001	0.002	0.001	0.002	0.001	
11:00 AM - 12:00 PM	0.002	0.001	0.001	0.001	0.001	0.001	0.001	
Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
1hr - Maximum	0.002	0.001	0.001	0.003	0.002	0.002	0.001	
Standard 1hr - Average	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
Standard 24 hrs - Average	0.12	0.12	0.12	0.12	0.12	0.12	0.12	
Standard : Notification of the National Environment Board No.10, 1995 (B.E.2538), No. 21, 2001 (B.E.2544) and No.24, 2004 (B.E.2547).								
Reference Method : US EPA Method Part 53 and 58								

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, Nongkhae, Saraburi Thailand 18140  
**P/O :**  
**Project Name :** Monitoring  
**Project Location :** WHA SIL

**Lot ID: 2434036**  
Date Received : May 02, 2024  
Date Reported : May 09, 2024  
Report Number: 2946547-1

Page 1 of 1

**Sample Description** Air Quality  
**Location** บริเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)  
**Date Analysis Commenced** May 03, 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)
2434036-1	Apr 22 - Apr 23, 2024	0.086	0.046	753	35
2434036-2	Apr 23 - Apr 24, 2024	0.073	0.039	753	35
2434036-3	Apr 24 - Apr 25, 2024	0.062	0.030	753	35
2434036-4	Apr 25 - Apr 26, 2024	0.060	0.029	753	36
2434036-5	Apr 26 - Apr 27, 2024	0.069	0.033	753	36
2434036-6	Apr 27 - Apr 28, 2024	0.059	0.031	753	36
2434036-7	Apr 28 - Apr 29, 2024	0.054	0.026	753	37
<b>Guideline</b>		0.33	0.12	-	-

### Reference Method

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

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

**Sampled By :** Prommee Sripatnet

### 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, Nongkhae, Saraburi Thailand 18140  
**P/O :**  
**Project Name :** Monitoring  
**Project Location :** WHA SIL

**Lot ID: 2434036**  
Date Received : May 02, 2024  
Date Reported : May 09, 2024  
Report Number: 2986812-1

Page 1 of 1

**Sample Description** Air Quality  
**Location** รร. บ้านใหม่ทุ่งคันชิล ขุขันธ์บ้านใหม่ทุ่งคันชิล (GPS 47P 0697239, 1589433)  
**Date Analysis Commenced** May 03, 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)
2434036-8	Apr 22 - Apr 23, 2024	0.093	0.050	753	36
2434036-9	Apr 23 - Apr 24, 2024	0.085	0.041	753	35
2434036-10	Apr 24 - Apr 25, 2024	0.071	0.032	753	36
2434036-11	Apr 25 - Apr 26, 2024	0.066	0.027	753	37
2434036-12	Apr 26 - Apr 27, 2024	0.072	0.040	753	37
2434036-13	Apr 27 - Apr 28, 2024	0.066	0.028	753	37
2434036-14	Apr 28 - Apr 29, 2024	0.067	0.027	753	37
<b>Guideline</b>		0.33	0.12	-	-

### Reference Method

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

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

**Sampled By :** Prommee Sripatnet

### 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, Nongkhae, Saraburi Thailand 18140  
**P/O :**  
**Project Name :** Monitoring  
**Project Location :** WHA SIL

**Lot ID: 2434036**  
Date Received : May 02, 2024  
Date Reported : May 09, 2024  
Report Number: 2986816-1

Page 1 of 1

**Sample Description** Air Quality  
**Location** รร. วัดบึงลพบุรี กรุงเทพมหานคร (GPS 47P 0698465, 1594331)  
**Date Analysis Commenced** May 03, 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)
2434036-15	Apr 22 - Apr 23, 2024	0.082	0.050	753	38
2434036-16	Apr 23 - Apr 24, 2024	0.074	0.043	753	38
2434036-17	Apr 24 - Apr 25, 2024	0.071	0.026	753	39
2434036-18	Apr 25 - Apr 26, 2024	0.070	0.029	753	39
2434036-19	Apr 26 - Apr 27, 2024	0.050	0.034	753	38
2434036-20	Apr 27 - Apr 28, 2024	0.066	0.032	753	40
2434036-21	Apr 28 - Apr 29, 2024	0.060	0.030	753	39
<b>Guideline</b>		0.33	0.12	-	-

### Reference Method

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

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

### Remark :

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

Approved by

*Orawan R.*

Orawan Rakhyong  
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, Nongkhae, Saraburi Thailand 18140  
**P/O :**  
**Project Name :** Monitoring  
**Project Location :** WHA SIL

**Lot ID: 2434036**  
Date Received : May 02, 2024  
Date Reported : May 09, 2024  
Report Number: 2986818-1

Page 1 of 1

**Sample Description** Air Quality  
**Location** รร. วัดหนองปลาหมอ กรุงเทพมหานคร (GPS 47P 0700733, 1590964)  
**Date Analysis Commenced** May 03, 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)
2434036-22	Apr 22 - Apr 23, 2024	0.105	0.042	753	38
2434036-23	Apr 23 - Apr 24, 2024	0.111	0.044	753	37
2434036-24	Apr 24 - Apr 25, 2024	0.115	0.039	753	37
2434036-25	Apr 25 - Apr 26, 2024	0.095	0.032	753	38
2434036-26	Apr 26 - Apr 27, 2024	0.120	0.037	753	38
2434036-27	Apr 27 - Apr 28, 2024	0.087	0.033	753	38
2434036-28	Apr 28 - Apr 29, 2024	0.089	0.029	753	38
<b>Guideline</b>		0.33	0.12	-	-

### Reference Method

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

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

### Remark :

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

Approved by

*Orawan R.*

Orawan Rakhyong  
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

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: 2434037

Date Received : May 02, 2024

Date Reported : May 07, 2024

Report Number : 2946548-1

Page 1 of 2

Sample Number 2434037-1 to 7

Parameter Wind Speed / Wind Direction

Location นรเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)

Sampling Date Apr 22 - Apr 29, 2024

Sampling by Patchara Suksomboon

Time	Apr 22 - Apr 23, 2024			Apr 23 - Apr 24, 2024			Apr 24 - Apr 25, 2024			Apr 25 - Apr 26, 2024			Apr 26 - Apr 27, 2024			Apr 27 - Apr 28, 2024			Apr 28 - Apr 29, 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	1.6	262.0	W	1.2	247.0	WSW	0.8	248.0	WSW	2.2	287.0	WNW	0.6	217.0	SW	0.7	239.0	WSW	0.6	240.0	WSW
11:00 AM - 12:00 PM	1.6	189.0	S	3.0	251.0	WSW	3.3	265.0	W	1.1	243.0	WSW	1.3	233.0	SW	0.6	242.0	WSW	1.1	236.0	SSW
12:00 PM - 01:00 PM	2.4	255.0	WSW	2.2	273.0	W	1.4	254.0	WSW	2.5	263.0	W	2.1	238.0	WSW	1.8	278.0	W	0.5	225.0	SW
01:00 PM - 02:00 PM	0.0	-	-	1.1	263.0	W	0.7	247.0	WSW	0.3	216.0	SW	0.5	224.0	SW	0.5	258.0	WSW	1.2	227.0	SW
02:00 PM - 03:00 PM	2.8	254.0	WSW	1.3	245.0	WSW	1.5	243.0	WSW	0.9	235.0	SW	1.0	247.0	WSW	1.2	250.0	WSW	1.9	242.0	WSW
03:00 PM - 04:00 PM	0.3	226.0	SW	0.8	245.0	WSW	2.3	253.0	WSW	0.4	211.0	SSW	1.4	242.0	WSW	1.2	240.0	WSW	1.8	265.0	W
04:00 PM - 05:00 PM	1.3	252.0	WSW	1.9	253.0	WSW	3.1	252.0	WSW	1.0	246.0	WSW	1.1	241.0	WSW	0.5	241.0	WSW	2.3	243.0	WSW
05:00 PM - 06:00 PM	0.9	249.0	WSW	1.4	254.0	WSW	1.4	254.0	WSW	1.1	257.0	WSW	0.0	-	-	0.7	245.0	WSW	0.9	245.0	WSW
06:00 PM - 07:00 PM	0.2	-	-	1.1	262.0	W	0.0	-	-	1.1	247.0	WSW	0.4	246.0	WSW	0.0	-	0.0	0.0	-	-
07:00 PM - 08:00 PM	1.1	254.0	WSW	0.6	256.0	WSW	0.0	-	-	1.5	248.0	WSW	0.4	244.0	WSW	1.1	246.0	WSW	0.4	213.0	SSW
08:00 PM - 09:00 PM	1.4	256.0	WSW	0.0	-	-	0.0	-	-	1.4	230.0	SW	1.2	252.0	WSW	1.8	248.0	WSW	0.0	-	-
09:00 PM - 10:00 PM	1.3	257.0	WSW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	1.1	250.0	WSW	0.0	-	-
10:00 PM - 11:00 PM	0.0	-	-	0.0	-	-	1.2	241.0	WSW	0.2	-	-	0.0	-	-	0.0	-	-	0.3	252.0	WSW
11:00 PM - 12:00 AM	0.2	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
12:00 AM - 01:00 AM	0.5	198.0	SSW	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	1.1	149.0	SSE	0.0	-	-	0.6	182.0	S	0.0	-	-	0.6	176.0	S
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	1.1	172.0	S	0.3	185.0	S	0.2	-	-	0.6	182.0	S
03:00 AM - 04:00 AM	0.2	-	-	0.8	164.0	SSE	0.0	-	-	0.2	-	-	0.8	168.0	SSE	0.7	190.0	S	0.0	-	-
04:00 AM - 05:00 AM	0.6	204.0	SSW	1.0	206.0	SSW	0.0	-	-	0.0	-	-	0.8	179.0	S	0.1	-	-	0.2	-	-
05:00 AM - 06:00 AM	0.5	189.0	S	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-	0.0	-	-
06:00 AM - 07:00 AM	0.0	-	-	1.8	182.0	S	0.5	164.0	SSE	1.0	283.0	WNW	0.0	-	-	1.3	205.0	SSW	0.0	-	-
07:00 AM - 08:00 AM	0.5	221.0	SW	0.3	232.0	SW	0.0	-	-	0.9	238.0	WSW	1.6	189.0	S	0.7	220.0	SW	0.7	249.0	WSW
08:00 AM - 09:00 AM	0.8	203.0	SSW	0.8	184.0	S	1.8	243.0	WSW	0.8	191.0	S	1.5	248.0	WSW	1.0	225.0	SW	1.1	192.0	SSW
09:00 AM - 10:00 AM	0.9	238.0	WSW	0.8	206.0	SSW	0.9	204.0	SSW	0.2	-	-	1.3	252.0	WSW	0.8	198.0	SSW	1.6	206.0	SSW

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

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 :

Project Name : Monitoring

Project Location : WHA SIL

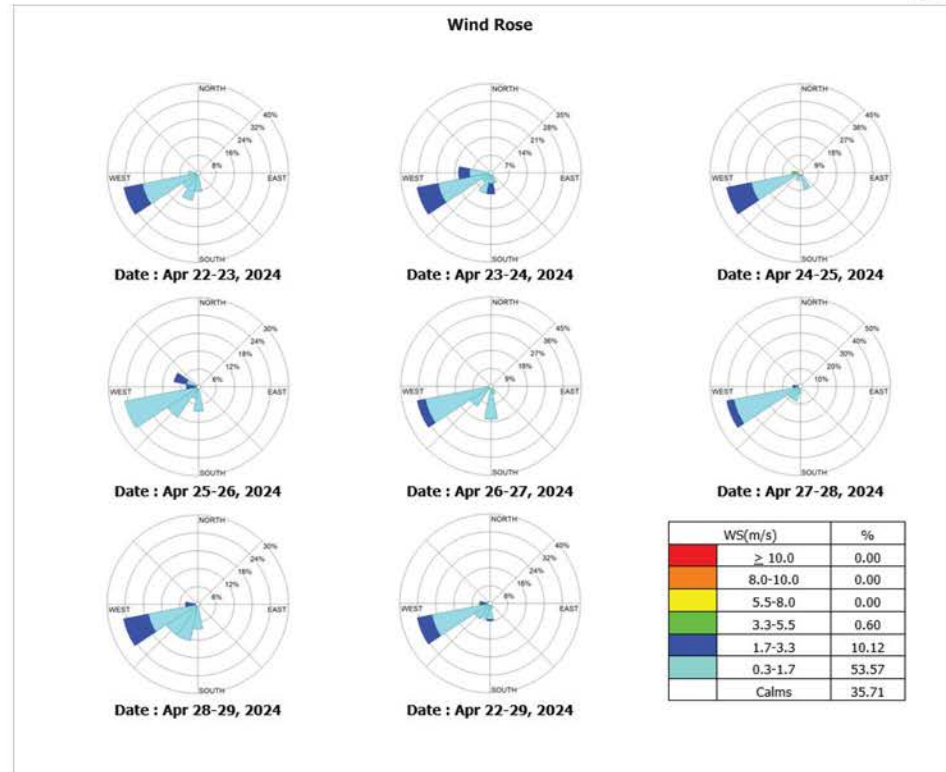
Lot ID: 2434037

Date Received : May 02, 2024

Date Reported : May 07, 2024

Report Number : 2946548-1

Page 2 of 2



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## Analysis / Test Report

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

P/O :

Project Name : Monitoring

Project Location : WHA SIL

Lot ID: 2434037

Date Received : May 02, 2024

Date Reported : May 07, 2024

Report Number : 2946548-1

Page 1 of 2

Sample Number : 2434037-8 to 14

Parameter : Wind Speed / Wind Direction

Location : ร. บ้านโพธิ์วังดินขอ รุขขณบ้านโพธิ์วังดินขอ (GPS 47P 0697239, 1589433)

Sampling Date : Apr 22 - Apr 29, 2024

Sampling by : Patchara Suksomboon

Time	Apr 22 - Apr 23, 2024		Apr 23 - Apr 24, 2024		Apr 24 - Apr 25, 2024		Apr 25 - Apr 26, 2024		Apr 26 - Apr 27, 2024		Apr 27 - Apr 28, 2024		Apr 28 - Apr 29, 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	1.2	188.0	S	5.8	164.0	SSE	2.2	199.0	SSW	2.3	123.0	ESE	0.0	-
12:00 PM - 01:00 PM	2.4	112.0	ESE	2.0	205.0	SSW	1.2	166.0	SSE	2.2	238.0	WSW	0.4	252.0
01:00 PM - 02:00 PM	3.2	137.0	SE	1.3	147.0	SSE	3.5	127.0	SE	0.3	256.0	WSW	1.3	57.0
02:00 PM - 03:00 PM	1.3	253.0	WSW	1.8	159.0	SSE	0.4	38.0	NE	1.9	162.0	SSE	1.5	143.0
03:00 PM - 04:00 PM	2.3	159.0	SSE	4.2	177.0	S	3.2	168.0	SSE	2.5	178.0	S	1.7	255.0
04:00 PM - 05:00 PM	2.2	149.0	SSE	0.8	334.0	NNW	1.3	241.0	WSW	1.8	182.0	S	3.2	145.0
05:00 PM - 06:00 PM	0.6	293.0	WNW	0.3	176.0	S	1.3	116.0	ESE	1.5	261.0	W	1.5	67.0
06:00 PM - 07:00 PM	0.7	148.0	SSE	2.6	207.0	SSW	0.0	-	-	0.9	200.0	SSW	0.3	79.0
07:00 PM - 08:00 PM	1.8	124.0	SE	0.4	118.0	ESE	1.6	169.0	S	1.5	221.0	SW	1.2	150.0
08:00 PM - 09:00 PM	1.0	175.0	S	0.0	-	-	0.7	13.0	NNE	0.6	19.0	NNE	0.0	-
09:00 PM - 10:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	0.5	153.0	SSE	1.5	175.0
10:00 PM - 11:00 PM	0.0	-	-	0.0	-	-	0.0	-	-	3.9	154.0	SSE	0.0	-
11:00 PM - 12:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	2.3	148.0	SSE	0.0	-
12:00 AM - 01:00 AM	1.4	140.0	SE	0.0	-	-	0.0	-	-	0.0	-	-	0.8	127.0
01:00 AM - 02:00 AM	0.1	-	-	2.4	117.0	ESE	0.0	-	-	0.0	-	-	2.2	148.0
02:00 AM - 03:00 AM	3.3	98.0	E	2.6	125.0	SE	1.6	93.0	E	3.1	155.0	SSE	1.5	189.0
03:00 AM - 04:00 AM	2.0	111.0	ESE	2.4	134.0	SE	2.4	141.0	SE	2.4	109.0	ESE	2.3	152.0
04:00 AM - 05:00 AM	3.7	130.0	SE	2.0	124.0	SE	2.3	124.0	SE	1.5	95.0	E	1.3	118.0
05:00 AM - 06:00 AM	4.5	139.0	SE	3.2	113.0	ESE	4.2	126.0	SE	1.7	126.0	SE	2.1	97.0
06:00 AM - 07:00 AM	1.1	31.0	NNE	3.7	116.0	ESE	2.2	127.0	SE	4.1	159.0	SSE	3.3	148.0
07:00 AM - 08:00 AM	4.8	154.0	SSE	0.9	158.0	SSE	2.2	63.0	ENE	2.8	111.0	ESE	2.7	153.0
08:00 AM - 09:00 AM	3.4	176.0	S	2.2	109.0	ESE	3.0	118.0	ESE	2.1	56.0	NE	1.5	80.0
09:00 AM - 10:00 AM	1.3	105.0	ESE	3.8	149.0	SSE	2.5	153.0	SSE	2.7	165.0	SSE	1.7	219.0
10:00 AM - 11:00 AM	1.6	149.0	SSE	2.7	149.0	SSE	1.1	101.0	E	2.5	183.0	S	1.8	176.0

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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Approved by

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 :

Project Name : Monitoring

Project Location : WHA SIL

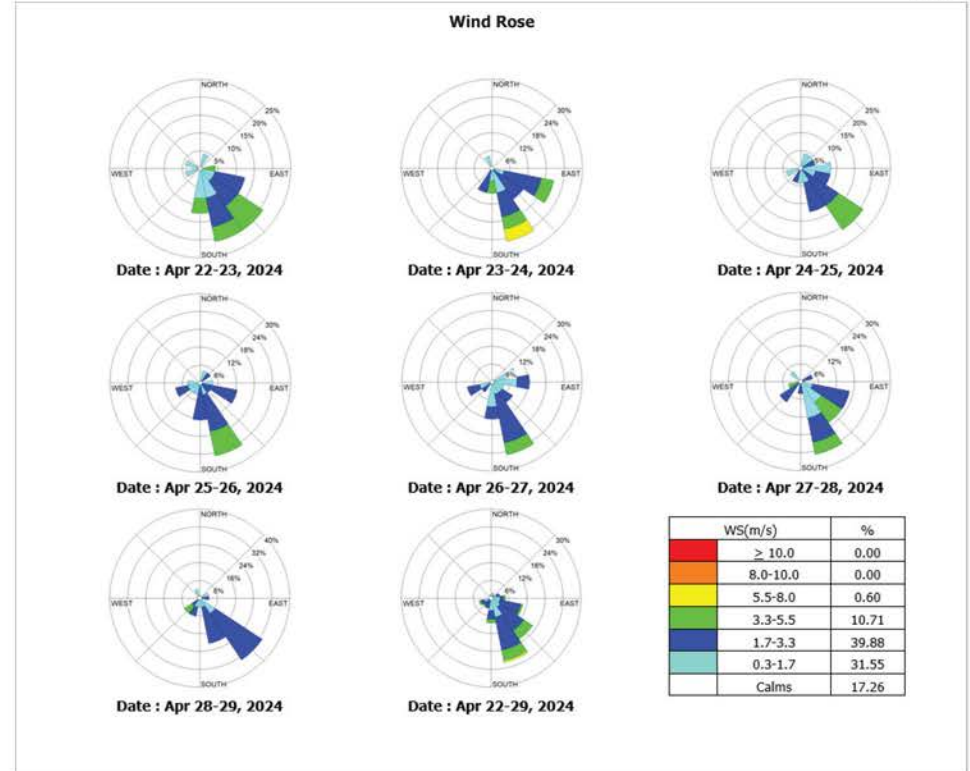
Lot ID: 2434037

Date Received : May 02, 2024

Date Reported : May 07, 2024

Report Number : 2946548-1

Page 2 of 2



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Date Received :May 02, 2024

Date Reported :May 07, 2024

Report Number :2946548-1

**P/O :**

**Project Name** : Monitoring

**Project Location** : WHA SIL

Sample Number 2434037-15 to 21

Parameter	Wind Speed / Wind Direction
-----------	-----------------------------

**Location** รร. วัดบัวลอย เขตชนบทบ้านบัวลอยกลาง (GPS 47P 0698465, 1594331)

**Sampling Date** Apr 22 - Apr 29, 2024

**Sampling by** Patchara Suksomboon

Time	Apr 22 - Apr 23, 2024			Apr 23 - Apr 24, 2024			Apr 24 - Apr 25, 2024			Apr 25 - Apr 26, 2024			Apr 26 - Apr 27, 2024			Apr 27 - Apr 28, 2024			Apr 28 - Apr 29, 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	0.6	196.0	SSW	3.4	145.0	SE	1.0	253.0	WSW	4.7	134.0	SE	1.4	105.0	ESE	1.9	154.0	SSE	2.6	148.0	SSE
02:00 PM - 03:00 PM	2.8	170.0	S	1.8	151.0	SSE	0.8	228.0	SW	1.7	172.0	S	3.0	145.0	SE	1.3	150.0	SSE	3.0	182.0	S
03:00 PM - 04:00 PM	2.5	99.0	E	2.6	151.0	SSE	1.4	160.0	SSE	1.5	138.0	SE	2.2	131.0	SE	2.3	138.0	SE	2.4	157.0	SSE
04:00 PM - 05:00 PM	2.9	180.0	S	1.5	151.0	SSE	2.3	180.0	S	1.1	148.0	SSE	1.6	177.0	S	1.3	150.0	SSE	2.0	136.0	SE
05:00 PM - 06:00 PM	1.6	160.0	SSE	2.3	131.0	SE	2.8	161.0	SSE	2.6	179.0	S	1.5	196.0	SSW	1.2	174.0	S	1.5	178.0	S
06:00 PM - 07:00 PM	1.1	162.0	SSE	2.7	145.0	SE	2.4	147.0	SSE	1.5	172.0	S	4.7	147.0	SSE	0.9	162.0	SSE	1.3	120.0	ESE
07:00 PM - 08:00 PM	1.1	174.0	S	0.9	190.0	S	3.2	149.0	SSE	2.1	130.0	SE	3.0	127.0	SE	3.6	143.0	SE	1.3	159.0	SSE
08:00 PM - 09:00 PM	1.3	187.0	S	0.6	159.0	SSE	1.0	149.0	SSE	1.5	176.0	S	1.0	168.0	SSE	1.5	139.0	SE	1.1	176.0	S
09:00 PM - 10:00 PM	1.6	179.0	S	0.3	174.0	S	1.8	185.0	S	0.8	147.0	SSE	0.5	168.0	SSE	1.0	162.0	SSE	1.9	148.0	SSE
10:00 PM - 11:00 PM	1.8	126.0	SE	1.0	164.0	SSE	1.2	170.0	S	0.9	185.0	S	1.0	164.0	SSE	1.3	144.0	SE	0.9	158.0	SSE
11:00 PM - 12:00 AM	2.2	124.0	SE	0.5	141.0	SE	1.0	155.0	SSE	0.8	168.0	SSE	1.4	132.0	SE	0.6	140.0	SE	1.6	135.0	SE
12:00 AM - 01:00 AM	1.0	105.0	ESE	0.5	120.0	ESE	1.2	105.0	ESE	0.6	142.0	SE	1.2	165.0	SSE	1.0	114.0	ESE	1.2	147.0	SSE
01:00 AM - 02:00 AM	1.5	88.0	E	1.8	144.0	SE	0.5	133.0	SE	1.2	165.0	SSE	0.6	154.0	SSE	1.5	110.0	ESE	1.2	129.0	SE
02:00 AM - 03:00 AM	1.6	153.0	SSE	2.2	164.0	SSE	1.8	153.0	SSE	0.8	158.0	SSE	1.0	97.0	E	1.7	141.0	SE	1.7	184.0	S
03:00 AM - 04:00 AM	1.3	151.0	SSE	0.9	145.0	SE	1.1	158.0	SSE	1.5	123.0	ESE	0.8	161.0	SSE	1.3	129.0	SE	1.0	125.0	SE
04:00 AM - 05:00 AM	2.1	95.0	E	2.4	96.0	E	1.0	129.0	SE	0.1	-	-	0.9	159.0	SSE	2.0	140.0	SE	1.4	103.0	ESE
05:00 AM - 06:00 AM	2.1	99.0	E	0.6	132.0	SE	1.1	88.0	E	1.0	141.0	SE	0.7	159.0	SSE	1.6	133.0	SE	1.8	152.0	SSE
06:00 AM - 07:00 AM	2.7	155.0	SSE	1.2	191.0	S	2.0	111.0	ESE	4.2	150.0	SSE	2.8	177.0	S	4.0	94.0	E	2.1	174.0	S
07:00 AM - 08:00 AM	1.5	65.0	ENE	1.3	204.0	SSW	2.0	175.0	S	1.3	147.0	SSE	3.0	156.0	SSE	2.1	186.0	SSW	2.9	147.0	SSE
08:00 AM - 09:00 AM	1.4	96.0	E	1.0	132.0	SE	4.2	155.0	SSE	2.6	103.0	ESE	1.7	179.0	S	2.4	101.0	E	2.6	146.0	SE
09:00 AM - 10:00 AM	3.1	202.0	SSW	2.4	111.0	ESE	1.5	208.0	SSW	1.4	83.0	E	2.9	205.0	SSW	2.4	122.0	ESE	3.3	161.0	SSE
10:00 AM - 11:00 AM	1.5	134.0	SE	2.8	229.0	SW	2.0	141.0	SE	3.0	119.0	ESE	2.3	177.0	S	5.1	198.0	SSW	0.9	203.0	SSW
11:00 AM - 12:00 PM	2.8	159.0	SSE	2.8	175.0	S	1.1	117.0	ESE	3.8	164.0	SSE	2.5	142.0	SE	2.4	172.0	S	1.6	186.0	S
12:00 PM - 01:00 PM	2.2	100.0	E	4.0	175.0	S	2.1	146.0	SE	1.8	129.0	SE	2.1	133.0	SE	1.4	180.0	S	1.2	167.0	SSE

Reference Method : Cup Anemometer &amp; Anodized Aluminium Vane Method

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

Approved by \_\_\_\_\_

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## Analysis / Test Report

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

Lot ID: 2434037

Date Received :May 02, 2024

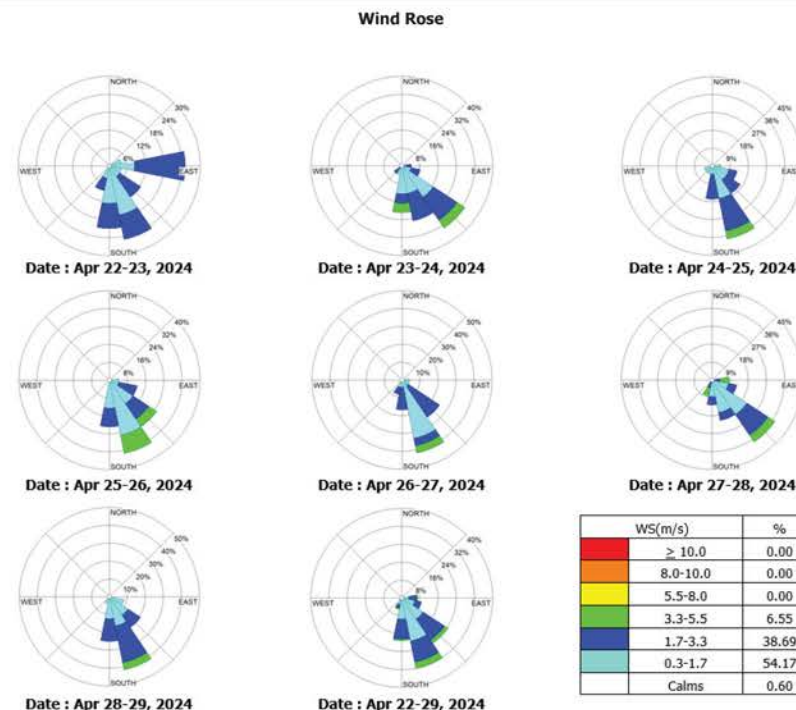
Date Reported : May 07, 2024

Report Number :2946548-1

**P/O :**

**Project Name** : Monitoring

**Project Location** : WHA SIL



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

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

Date Received :May 02, 2024

Date Reported :May 07, 2024

Report Number :2946548-1

**Project Name** : Monitoring

**Project Location** : WHA SIL

Sample Number	2434037-22 to 28
---------------	------------------

Parameter	Wind Speed / Wind Direction
-----------	-----------------------------

**Location** รร. วัดหนองปลาหมอ มชนบ้านหนองผักขีใต้ (GPS 47P 0700733, 1590964)

**Sampling Date** Apr 22 - Apr 29, 2024

Sampling by Patchara Suksomboon

Time	Apr 22 - Apr 23, 2024			Apr 23 - Apr 24, 2024			Apr 24 - Apr 25, 2024			Apr 25 - Apr 26, 2024			Apr 26 - Apr 27, 2024			Apr 27 - Apr 28, 2024			Apr 28 - Apr 29, 2024		
	WS	WD		WS	WD		WS	WD		WS	WD		WS	WD		WS	WD		WS	WD	
	(m/s)	(deg)		(m/s)	(deg)		(m/s)	(deg)		(m/s)	(deg)		(m/s)	(deg)		(m/s)	(deg)		(m/s)	(deg)	
12:00 PM - 01:00 PM	0.3	209.0	SSW	1.3	214.0	SW	0.2	-	-	0.8	347.0	NNW	1.7	163.0	SSE	0.6	161.0	SSE	1.8	211.0	SSW
01:00 PM - 02:00 PM	0.7	253.0	WSW	0.8	243.0	WSW	1.9	278.0	W	2.6	194.0	SSW	1.8	218.0	SW	1.9	172.0	S	1.6	190.0	S
02:00 PM - 03:00 PM	0.5	134.0	SE	0.5	192.0	SSW	0.0	-	-	1.6	252.0	WSW	3.3	259.0	W	2.3	154.0	SSE	1.3	202.0	SSW
03:00 PM - 04:00 PM	1.2	135.0	SE	2.6	117.0	ESE	1.4	141.0	SE	0.9	227.0	SW	0.4	154.0	SSE	0.3	194.0	SSW	0.6	234.0	SW
04:00 PM - 05:00 PM	0.7	126.0	SE	1.7	147.0	SSE	1.9	162.0	SSE	2.8	232.0	SW	0.4	187.0	S	0.3	167.0	SSE	1.1	204.0	SSW
05:00 PM - 06:00 PM	0.0	-	-	0.9	143.0	SE	1.2	141.0	SE	0.9	239.0	WSW	0.8	168.0	SSE	1.2	169.0	S	0.0	-	-
06:00 PM - 07:00 PM	0.0	-	-	0.0	-	-	0.6	206.0	SSW	1.2	176.0	S	0.0	-	-	0.8	166.0	SSE	0.2	-	-
07:00 PM - 08:00 PM	0.0	-	-	0.0	-	-	0.4	194.0	SSW	0.5	150.0	SSE	0.2	-	-	1.6	139.0	SE	0.7	213.0	SSW
08:00 PM - 09:00 PM	0.9	232.0	SW	0.5	141.0	SE	0.2	-	-	0.0	-	-	0.9	176.0	S	1.1	126.0	SE	0.9	186.0	S
09:00 PM - 10:00 PM	1.1	321.0	NW	0.0	-	-	0.0	-	-	0.0	-	-	0.4	150.0	SSE	0.5	187.0	S	0.1	-	-
10:00 PM - 11:00 PM	2.2	131.0	SE	1.0	200.0	SSW	0.2	-	-	2.8	129.0	SE	0.5	177.0	S	0.4	189.0	S	0.1	-	-
11:00 PM - 12:00 AM	1.8	228.0	SW	0.0	-	-	0.0	-	-	1.4	146.0	SE	0.4	157.0	SSE	0.0	-	-	0.5	176.0	S
12:00 AM - 01:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	0.2	-	-	0.3	149.0	SSE	1.3	120.0	ESE	0.9	167.0	SSE
01:00 AM - 02:00 AM	0.0	-	-	0.0	-	-	0.9	210.0	SSW	0.2	-	-	1.6	162.0	SSE	2.2	119.0	ESE	1.7	183.0	S
02:00 AM - 03:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	1.7	155.0	SSE	0.6	137.0	SE	1.4	120.0	ESE	1.2	159.0	SSE
03:00 AM - 04:00 AM	0.0	-	-	0.0	-	-	0.0	-	-	1.0	131.0	SE	0.3	132.0	SE	1.3	182.0	S	1.1	211.0	SSW
04:00 AM - 05:00 AM	0.9	254.0	WSW	0.0	-	-	0.0	-	-	1.0	76.0	ENE	1.7	164.0	SSE	2.1	119.0	ESE	0.4	157.0	SSE
05:00 AM - 06:00 AM	2.0	135.0	SE	0.2	-	-	0.0	-	-	0.4	151.0	SSE	2.1	195.0	SSW	0.8	118.0	ESE	0.8	172.0	S
06:00 AM - 07:00 AM	2.4	127.0	SE	0.3	199.0	SSW	0.8	145.0	SE	1.5	121.0	ESE	3.4	178.0	S	1.3	125.0	SE	1.9	202.0	SSW
07:00 AM - 08:00 AM	1.5	127.0	SE	0.0	-	-	1.8	131.0	SE	0.9	117.0	ESE	3.2	194.0	SSW	2.8	180.0	S	0.5	199.0	SSE
08:00 AM - 09:00 AM	1.5	233.0	SW	1.2	129.0	SE	1.9	124.0	SE	0.8	128.0	SE	1.2	143.0	SE	1.3	251.0	WSW	2.0	211.0	SSW
09:00 AM - 10:00 AM	1.6	180.0	S	0.1	-	-	1.0	202.0	SSW	0.4	73.0	ENE	0.3	253.0	WSW	2.6	55.0	NE	1.1	224.0	SW
10:00 AM - 11:00 AM	0.6	127.0	SE	0.5	229.0	SW	1.7	128.0	SE	1.1	203.0	SSW	0.4	171.0	S	2.9	159.0	SSE	1.5	183.0	S
11:00 AM - 12:00 PM	1.2	117.0	ESE	1.0	118.0	ESE	1.2	224.0	SW	0.2	-	-	0.5	274.0	W	1.8	174.0	S	0.4	211.0	SSW

Reference Method : Cup Anemometer & Anodized Aluminium Vane Method

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## Analysis / Test Report

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

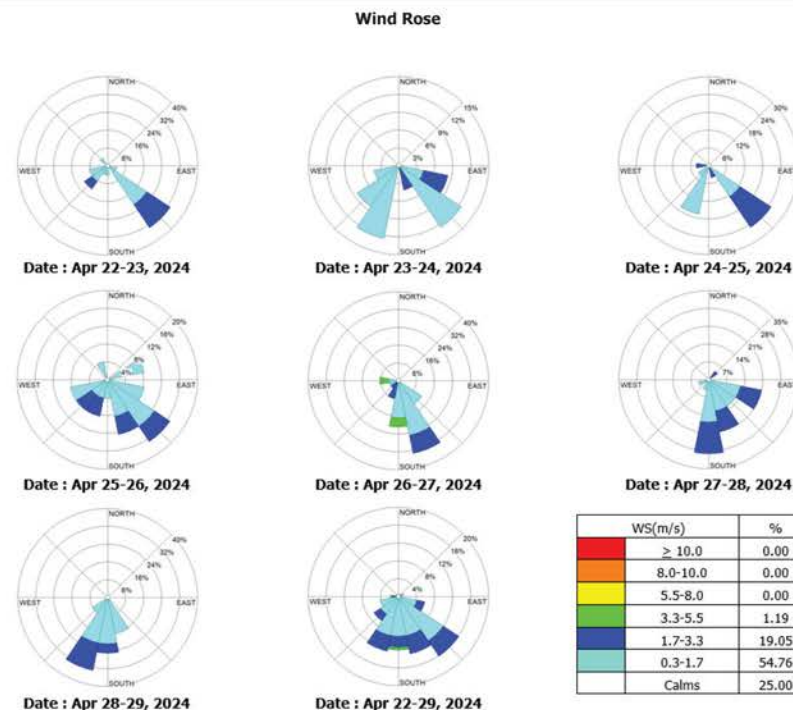
Date Received :May 02, 2024

Date Reported : May 07, 2024

Report Number :2946548-1

**Project Name** : Monitoring

**Project Location** : WHA SIL



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ภาคผนวก ค-2

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ระดับเสียงในบรรยากาศโดยทั่วไป



## Analysis / Test Report

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

**Lot ID: 2434040**  
Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987768-1

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

Page 1 of 1

**Sample Number** 2434040-1  
**Parameter** Noise (Leq 24 hrs)  
**Location** บริเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)  
**Measurement Date** Apr 22 - Apr 23, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 572551

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	52.7	70.7	49.6
12:00 PM - 01:00 PM	52.0	68.4	48.8
01:00 PM - 02:00 PM	51.3	66.6	48.5
02:00 PM - 03:00 PM	52.3	69.5	48.9
03:00 PM - 04:00 PM	53.4	70.2	49.8
04:00 PM - 05:00 PM	53.3	73.0	50.0
05:00 PM - 06:00 PM	55.1	78.4	51.8
06:00 PM - 07:00 PM	53.5	73.6	50.9
07:00 PM - 08:00 PM	54.0	76.0	51.0
08:00 PM - 09:00 PM	53.4	74.8	50.6
09:00 PM - 10:00 PM	51.8	68.3	50.1
10:00 PM - 11:00 PM	52.5	70.1	50.3
11:00 PM - 12:00 AM	52.9	70.0	50.3
12:00 AM - 01:00 AM	52.5	67.3	50.4
01:00 AM - 02:00 AM	52.7	77.7	50.2
02:00 AM - 03:00 AM	52.1	70.2	50.2
03:00 AM - 04:00 AM	51.7	76.5	50.3
04:00 AM - 05:00 AM	52.0	62.6	50.5
05:00 AM - 06:00 AM	52.8	68.3	50.7
06:00 AM - 07:00 AM	54.9	75.1	51.7
07:00 AM - 08:00 AM	58.2	81.4	54.1
08:00 AM - 09:00 AM	56.1	70.8	52.7
09:00 AM - 10:00 AM	54.2	66.4	51.6
10:00 AM - 11:00 AM	53.6	70.7	50.9

Leq Average 24 hrs. (dB(A)) 53.6  
Lmax (dB(A)) 81.4  
L90 (dB(A)) 50.3  
Ldn (dB(A)) 59.4  
Standard (dB(A)) 70  
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 (12:29PM)



## Analysis / Test Report

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

**Lot ID: 2434040**  
Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987769-1

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

Page 1 of 1

**Sample Number** 2434040-2  
**Parameter** Noise (Leq 24 hrs)  
**Location** บริเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)  
**Measurement Date** Apr 23 - Apr 24, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 572551

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	52.9	71.7	49.9
12:00 PM - 01:00 PM	52.9	72.4	49.6
01:00 PM - 02:00 PM	52.6	75.9	49.4
02:00 PM - 03:00 PM	52.5	71.1	49.6
03:00 PM - 04:00 PM	53.5	68.8	50.1
04:00 PM - 05:00 PM	53.9	71.6	50.7
05:00 PM - 06:00 PM	54.1	70.8	51.0
06:00 PM - 07:00 PM	53.6	73.3	50.5
07:00 PM - 08:00 PM	54.1	73.2	50.6
08:00 PM - 09:00 PM	53.5	67.8	50.4
09:00 PM - 10:00 PM	51.7	71.4	49.1
10:00 PM - 11:00 PM	51.3	64.8	49.4
11:00 PM - 12:00 AM	52.6	70.9	50.0
12:00 AM - 01:00 AM	52.3	63.5	50.3
01:00 AM - 02:00 AM	51.6	66.3	50.0
02:00 AM - 03:00 AM	50.9	63.9	49.2
03:00 AM - 04:00 AM	50.2	67.7	48.4
04:00 AM - 05:00 AM	50.9	66.1	49.2
05:00 AM - 06:00 AM	52.1	68.9	49.6
06:00 AM - 07:00 AM	54.4	72.5	51.0
07:00 AM - 08:00 AM	56.8	70.3	53.3
08:00 AM - 09:00 AM	55.4	68.1	52.2
09:00 AM - 10:00 AM	53.6	70.2	50.6
10:00 AM - 11:00 AM	52.7	67.7	50.0

Leq Average 24 hrs. (dB(A)) 53.2  
Lmax (dB(A)) 75.9  
L90 (dB(A)) 50.0  
Ldn (dB(A)) 58.7  
Standard (dB(A)) 70  
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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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

**Lot ID: 2434040**  
Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987770-1

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

Page 1 of 1

**Sample Number** 2434040-3  
**Parameter** Noise (Leq 24 hrs)  
**Location** บริเวณสำนักงานบริษัท (GPS 47P 0698599, 1589315)  
**Measurement Date** Apr 24 - Apr 25, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 572551

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
11:00 AM - 12:00 PM	52.3	72.3	49.3
12:00 PM - 01:00 PM	52.2	71.7	49.2
01:00 PM - 02:00 PM	51.8	70.0	49.2
02:00 PM - 03:00 PM	51.5	65.0	48.7
03:00 PM - 04:00 PM	53.0	70.7	49.4
04:00 PM - 05:00 PM	53.2	68.9	50.1
05:00 PM - 06:00 PM	54.0	68.9	51.1
06:00 PM - 07:00 PM	53.9	70.2	50.8
07:00 PM - 08:00 PM	53.7	68.0	50.4
08:00 PM - 09:00 PM	53.4	67.8	50.4
09:00 PM - 10:00 PM	51.7	64.8	50.0
10:00 PM - 11:00 PM	51.7	69.1	49.8
11:00 PM - 12:00 AM	52.7	69.8	50.3
12:00 AM - 01:00 AM	52.3	65.5	50.2
01:00 AM - 02:00 AM	51.8	71.0	50.0
02:00 AM - 03:00 AM	51.2	66.8	50.0
03:00 AM - 04:00 AM	51.4	62.3	50.2
04:00 AM - 05:00 AM	51.9	61.4	50.4
05:00 AM - 06:00 AM	52.3	69.8	50.4
06:00 AM - 07:00 AM	54.4	67.8	51.7
07:00 AM - 08:00 AM	58.5	87.5	53.9
08:00 AM - 09:00 AM	56.0	70.8	52.4
09:00 AM - 10:00 AM	53.5	66.5	50.9
10:00 AM - 11:00 AM	52.5	64.9	49.8

Leq Average 24 hrs. (dB(A)) 53.3  
Lmax (dB(A)) 87.5  
L90 (dB(A)) 50.2  
Ldn (dB(A)) 59.0  
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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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

**Lot ID: 2434040**  
Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987771-1

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

Page 1 of 1

**Sample Number** 2434040-4  
**Parameter** Noise (Leq 24 hrs)  
**Location** รร. บ้านใหม่ทุ่งดินขอ ชุมชนบ้านใหม่ทุ่งดินขอ (GPS 47P 0697239, 1589433)  
**Measurement Date** Apr 22 - Apr 23, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 572566

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	50.6	71.5	44.7
01:00 PM - 02:00 PM	49.5	69.7	44.2
02:00 PM - 03:00 PM	52.4	72.4	44.1
03:00 PM - 04:00 PM	49.9	69.9	44.5
04:00 PM - 05:00 PM	53.5	77.4	45.9
05:00 PM - 06:00 PM	51.9	74.9	45.4
06:00 PM - 07:00 PM	49.7	69.4	45.4
07:00 PM - 08:00 PM	51.0	74.6	46.3
08:00 PM - 09:00 PM	53.3	65.6	51.2
09:00 PM - 10:00 PM	52.4	71.6	50.2
10:00 PM - 11:00 PM	49.0	69.4	47.6
11:00 PM - 12:00 AM	48.6	69.9	46.1
12:00 AM - 01:00 AM	47.8	69.0	46.1
01:00 AM - 02:00 AM	50.3	75.2	46.5
02:00 AM - 03:00 AM	47.8	58.8	46.7
03:00 AM - 04:00 AM	49.4	63.0	46.5
04:00 AM - 05:00 AM	47.4	61.4	46.1
05:00 AM - 06:00 AM	51.3	76.0	46.6
06:00 AM - 07:00 AM	53.7	73.1	48.0
07:00 AM - 08:00 AM	54.4	75.8	48.5
08:00 AM - 09:00 AM	55.5	77.6	48.7
09:00 AM - 10:00 AM	55.0	83.6	47.4
10:00 AM - 11:00 AM	58.1	73.9	46.5
11:00 AM - 12:00 PM	56.7	73.8	45.3

Leq Average 24 hrs. (dB(A)) 52.6  
Lmax (dB(A)) 83.6  
L90 (dB(A)) 46.3  
Ldn (dB(A)) 57.1  
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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## Analysis / Test Report

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

**Lot ID: 2434040**

Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987772-1

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

Page 1 of 1

**Sample Number** 2434040-5  
**Parameter** Noise (Leq 24 hrs)  
**Location** รร. บ้านใหม่ทุ่งดินขอ ชุมชนบ้านใหม่ทุ่งดินขอ (GPS 47P 0697239, 1589433)  
**Measurement Date** Apr 23 - Apr 24, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 572566

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	55.5	73.5	44.5
01:00 PM - 02:00 PM	53.5	71.3	44.9
02:00 PM - 03:00 PM	53.7	72.4	44.5
03:00 PM - 04:00 PM	51.9	71.0	44.9
04:00 PM - 05:00 PM	54.9	83.4	45.4
05:00 PM - 06:00 PM	53.7	72.5	45.2
06:00 PM - 07:00 PM	56.2	80.0	45.1
07:00 PM - 08:00 PM	51.8	70.1	46.6
08:00 PM - 09:00 PM	50.5	67.8	48.4
09:00 PM - 10:00 PM	49.7	71.4	48.6
10:00 PM - 11:00 PM	49.9	69.3	48.5
11:00 PM - 12:00 AM	50.2	70.2	48.4
12:00 AM - 01:00 AM	50.8	64.2	48.9
01:00 AM - 02:00 AM	49.3	66.3	48.2
02:00 AM - 03:00 AM	49.6	66.5	48.4
03:00 AM - 04:00 AM	50.0	62.4	46.9
04:00 AM - 05:00 AM	50.6	64.8	49.2
05:00 AM - 06:00 AM	50.4	67.6	47.0
06:00 AM - 07:00 AM	57.1	81.9	48.2
07:00 AM - 08:00 AM	56.8	73.4	49.1
08:00 AM - 09:00 AM	56.4	73.6	47.4
09:00 AM - 10:00 AM	55.6	74.1	46.2
10:00 AM - 11:00 AM	54.9	71.8	45.2
11:00 AM - 12:00 PM	56.4	74.6	44.9

Leq Average 24 hrs. (dB(A)) 53.7  
Lmax (dB(A)) 83.4  
L90 (dB(A)) 46.9  
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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## Analysis / Test Report

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

**Lot ID: 2434040**

Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987773-1

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

Page 1 of 1

**Sample Number** 2434040-6  
**Parameter** Noise (Leq 24 hrs)  
**Location** รร. บ้านใหม่ทุ่งดินขอ ชุมชนบ้านใหม่ทุ่งดินขอ (GPS 47P 0697239, 1589433)  
**Measurement Date** Apr 24 - Apr 25, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 572566

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
12:00 PM - 01:00 PM	53.1	73.8	44.3
01:00 PM - 02:00 PM	53.0	72.5	44.2
02:00 PM - 03:00 PM	50.0	72.6	43.6
03:00 PM - 04:00 PM	53.1	76.3	44.1
04:00 PM - 05:00 PM	53.1	76.0	45.7
05:00 PM - 06:00 PM	55.0	71.8	45.8
06:00 PM - 07:00 PM	51.7	71.2	45.5
07:00 PM - 08:00 PM	51.9	76.2	46.4
08:00 PM - 09:00 PM	53.1	65.3	51.9
09:00 PM - 10:00 PM	50.1	70.3	48.7
10:00 PM - 11:00 PM	49.0	62.0	47.5
11:00 PM - 12:00 AM	49.0	63.2	46.9
12:00 AM - 01:00 AM	48.3	70.6	46.4
01:00 AM - 02:00 AM	47.2	63.2	45.7
02:00 AM - 03:00 AM	46.4	60.8	45.6
03:00 AM - 04:00 AM	47.2	65.1	45.9
04:00 AM - 05:00 AM	47.7	65.9	45.7
05:00 AM - 06:00 AM	53.4	75.6	47.1
06:00 AM - 07:00 AM	56.4	73.7	48.6
07:00 AM - 08:00 AM	55.8	76.1	48.4
08:00 AM - 09:00 AM	56.9	72.3	47.4
09:00 AM - 10:00 AM	57.0	73.5	46.1
10:00 AM - 11:00 AM	55.8	76.2	45.1
11:00 AM - 12:00 PM	53.7	73.2	43.4

Leq Average 24 hrs. (dB(A)) 53.1  
Lmax (dB(A)) 76.3  
L90 (dB(A)) 45.8  
Ldn (dB(A)) 57.9  
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป  
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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: 2434040**  
Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987774-1

Page 1 of 1

**Sample Number** 2434040-7  
**Parameter** Noise (Leq 24 hrs)  
**Location** รร. วัดป่าลอม ชุมชนบ้านป่าลอมกลาง (GPS 47P 0698465, 1594331)  
**Measurement Date** Apr 22 - Apr 23, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 858516

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	50.8	76.3	44.1
03:00 PM - 04:00 PM	51.0	78.0	44.7
04:00 PM - 05:00 PM	48.7	66.1	45.6
05:00 PM - 06:00 PM	57.9	76.5	47.2
06:00 PM - 07:00 PM	51.5	67.1	44.6
07:00 PM - 08:00 PM	52.3	78.7	43.9
08:00 PM - 09:00 PM	47.7	70.7	44.5
09:00 PM - 10:00 PM	53.3	74.1	43.7
10:00 PM - 11:00 PM	45.9	66.0	43.0
11:00 PM - 12:00 AM	45.8	66.5	42.3
12:00 AM - 01:00 AM	45.3	64.4	42.9
01:00 AM - 02:00 AM	43.9	57.2	42.0
02:00 AM - 03:00 AM	46.2	81.8	42.6
03:00 AM - 04:00 AM	46.4	63.3	43.2
04:00 AM - 05:00 AM	45.9	63.2	43.2
05:00 AM - 06:00 AM	52.5	69.4	45.0
06:00 AM - 07:00 AM	53.5	74.0	47.8
07:00 AM - 08:00 AM	55.3	75.5	49.6
08:00 AM - 09:00 AM	54.5	77.0	49.0
09:00 AM - 10:00 AM	53.5	77.2	47.9
10:00 AM - 11:00 AM	68.3	87.7	46.7
11:00 AM - 12:00 PM	66.9	89.9	47.6
12:00 PM - 01:00 PM	50.4	72.0	45.2
01:00 PM - 02:00 PM	51.7	76.9	45.1

Leq Average 24 hrs. (dB(A)) 57.9  
Lmax (dB(A)) 89.9  
L90 (dB(A)) 44.6  
Ldn (dB(A)) 59.4  
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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## 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: 2434040**  
Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987775-1

Page 1 of 1

**Sample Number** 2434040-8  
**Parameter** Noise (Leq 24 hrs)  
**Location** รร. วัดป่าลอม ชุมชนบ้านป่าลอมกลาง (GPS 47P 0698465, 1594331)  
**Measurement Date** Apr 23 - Apr 24, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 858516

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	50.5	73.5	44.9
03:00 PM - 04:00 PM	48.8	73.2	44.2
04:00 PM - 05:00 PM	49.8	71.8	45.4
05:00 PM - 06:00 PM	51.6	77.7	46.4
06:00 PM - 07:00 PM	50.8	74.4	45.0
07:00 PM - 08:00 PM	47.3	58.9	45.5
08:00 PM - 09:00 PM	49.8	69.0	45.3
09:00 PM - 10:00 PM	54.1	74.4	46.3
10:00 PM - 11:00 PM	50.1	70.4	43.4
11:00 PM - 12:00 AM	46.6	71.8	42.1
12:00 AM - 01:00 AM	46.0	73.7	41.6
01:00 AM - 02:00 AM	46.8	60.9	42.3
02:00 AM - 03:00 AM	43.3	60.1	41.3
03:00 AM - 04:00 AM	44.2	61.5	42.1
04:00 AM - 05:00 AM	46.4	61.3	42.6
05:00 AM - 06:00 AM	52.4	71.6	46.1
06:00 AM - 07:00 AM	53.5	78.2	47.6
07:00 AM - 08:00 AM	52.7	83.7	47.4
08:00 AM - 09:00 AM	50.4	72.8	46.4
09:00 AM - 10:00 AM	53.9	76.9	46.3
10:00 AM - 11:00 AM	51.2	77.5	45.8
11:00 AM - 12:00 PM	54.8	79.1	45.9
12:00 PM - 01:00 PM	52.1	78.4	45.1
01:00 PM - 02:00 PM	50.9	77.4	44.3

Leq Average 24 hrs. (dB(A)) 50.9  
Lmax (dB(A)) 83.7  
L90 (dB(A)) 45.1  
Ldn (dB(A)) 56.0  
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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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: 2434040**  
Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987776-1

Page 1 of 1

**Sample Number** 2434040-9  
**Parameter** Noise (Leq 24 hrs)  
**Location** รร. วัดป่าลอม ชุมชนบ้านป่าลอมกลาง (GPS 47P 0698465, 1594331)  
**Measurement Date** Apr 24 - Apr 25, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 858516

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
02:00 PM - 03:00 PM	52.4	79.2	44.0
03:00 PM - 04:00 PM	53.6	83.2	45.7
04:00 PM - 05:00 PM	52.8	75.3	45.8
05:00 PM - 06:00 PM	57.6	80.3	50.2
06:00 PM - 07:00 PM	64.0	82.2	52.4
07:00 PM - 08:00 PM	55.8	75.5	48.5
08:00 PM - 09:00 PM	70.0	87.5	52.0
09:00 PM - 10:00 PM	59.7	81.3	50.8
10:00 PM - 11:00 PM	51.5	68.0	46.9
11:00 PM - 12:00 AM	51.5	80.4	45.0
12:00 AM - 01:00 AM	54.3	93.8	45.0
01:00 AM - 02:00 AM	50.6	69.8	44.9
02:00 AM - 03:00 AM	46.6	72.2	43.9
03:00 AM - 04:00 AM	47.9	68.4	46.2
04:00 AM - 05:00 AM	54.1	79.2	46.8
05:00 AM - 06:00 AM	65.9	87.1	50.1
06:00 AM - 07:00 AM	63.8	97.3	50.2
07:00 AM - 08:00 AM	52.9	79.0	48.1
08:00 AM - 09:00 AM	53.9	74.2	47.2
09:00 AM - 10:00 AM	51.2	74.4	46.3
10:00 AM - 11:00 AM	53.9	78.7	45.5
11:00 AM - 12:00 PM	54.9	79.0	44.4
12:00 PM - 01:00 PM	52.1	75.9	43.7
01:00 PM - 02:00 PM	53.0	76.0	44.8

Leq Average 24 hrs. (dB(A)) 60.0  
Lmax (dB(A)) 97.3  
L90 (dB(A)) 46.2  
Ldn (dB(A)) 65.7  
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

Standard : 1. ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 (พ.ศ. 2540) เรื่องกำหนดมาตรฐานระดับเสียงโดยทั่วไป  
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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: 2434040**  
Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987777-1

Page 1 of 1

**Sample Number** 2434040-10  
**Parameter** Noise (Leq 24 hrs)  
**Location** รร. วัดหนองปลาหมอ ชุมชนบ้านหนองผักชีใต้ (GPS 47P 0700733, 1590964)  
**Measurement Date** Apr 22 - Apr 23, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 572552

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	57.7	79.5	55.2
02:00 PM - 03:00 PM	59.2	80.7	55.3
03:00 PM - 04:00 PM	57.2	73.9	55.0
04:00 PM - 05:00 PM	59.5	82.3	55.3
05:00 PM - 06:00 PM	61.2	90.1	55.5
06:00 PM - 07:00 PM	61.5	83.3	48.1
07:00 PM - 08:00 PM	52.2	74.9	43.5
08:00 PM - 09:00 PM	52.0	75.1	43.2
09:00 PM - 10:00 PM	48.8	68.4	42.5
10:00 PM - 11:00 PM	51.4	80.1	42.1
11:00 PM - 12:00 AM	49.1	70.2	41.9
12:00 AM - 01:00 AM	45.9	66.1	42.0
01:00 AM - 02:00 AM	46.3	67.1	42.2
02:00 AM - 03:00 AM	46.7	65.5	43.3
03:00 AM - 04:00 AM	48.3	67.4	43.5
04:00 AM - 05:00 AM	49.9	73.3	44.4
05:00 AM - 06:00 AM	56.8	74.9	45.9
06:00 AM - 07:00 AM	54.8	79.0	47.8
07:00 AM - 08:00 AM	55.6	75.6	48.8
08:00 AM - 09:00 AM	57.1	83.5	48.6
09:00 AM - 10:00 AM	57.7	82.5	47.7
10:00 AM - 11:00 AM	58.0	77.7	50.1
11:00 AM - 12:00 PM	57.5	74.2	49.8
12:00 PM - 01:00 PM	58.3	73.3	55.6

Leq Average 24 hrs. (dB(A)) 56.4  
Lmax (dB(A)) 90.1  
L90 (dB(A)) 47.7  
Ldn (dB(A)) 59.7  
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 Rak Yong  
Scientist (3)

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

**Lot ID: 2434040**  
Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987778-1

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

Page 1 of 1

**Sample Number** 2434040-11  
**Parameter** Noise (Leq 24 hrs)  
**Location** รร. วัดหนองปลาหมอ ชุมชนบ้านหนองผักชีใต้ (GPS 47P 0700733, 1590964)  
**Measurement Date** Apr 23 - Apr 24, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 572552

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	58.4	73.0	55.5
02:00 PM - 03:00 PM	58.4	71.6	55.2
03:00 PM - 04:00 PM	55.7	71.8	46.5
04:00 PM - 05:00 PM	58.3	82.2	46.4
05:00 PM - 06:00 PM	55.3	76.3	46.4
06:00 PM - 07:00 PM	57.4	76.4	47.1
07:00 PM - 08:00 PM	52.7	79.9	42.6
08:00 PM - 09:00 PM	54.5	82.2	42.4
09:00 PM - 10:00 PM	51.6	78.4	42.0
10:00 PM - 11:00 PM	48.3	67.7	42.1
11:00 PM - 12:00 AM	51.2	78.2	41.1
12:00 AM - 01:00 AM	47.3	69.6	40.8
01:00 AM - 02:00 AM	45.0	71.7	41.3
02:00 AM - 03:00 AM	47.8	71.0	43.3
03:00 AM - 04:00 AM	46.9	64.3	43.7
04:00 AM - 05:00 AM	52.5	70.8	44.2
05:00 AM - 06:00 AM	56.5	76.8	48.3
06:00 AM - 07:00 AM	56.2	85.0	49.0
07:00 AM - 08:00 AM	60.8	78.6	50.6
08:00 AM - 09:00 AM	58.7	81.6	48.0
09:00 AM - 10:00 AM	55.2	78.3	46.8
10:00 AM - 11:00 AM	54.8	75.0	47.0
11:00 AM - 12:00 PM	56.8	80.0	46.7
12:00 PM - 01:00 PM	54.6	77.0	45.2

Leq Average 24 hrs. (dB(A)) 55.6  
Lmax (dB(A)) 85.0  
L90 (dB(A)) 46.4  
Ldn (dB(A)) 59.5  
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

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## Analysis / Test Report

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

**Lot ID: 2434040**  
Date Received : May 02, 2024  
Date Reported : May 10, 2024  
Report Number: 2987779-1

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

Page 1 of 1

**Sample Number** 2434040-12  
**Parameter** Noise (Leq 24 hrs)  
**Location** รร. วัดหนองปลาหมอ ชุมชนบ้านหนองผักชีใต้ (GPS 47P 0700733, 1590964)  
**Measurement Date** Apr 24 - Apr 25, 2024  
**Measurement by** Prommee Sripatnet  
**Sound Level meter** Serial No. 572552

Time	Leq (dB(A))	Lmax (dB(A))	L90 (dB(A))
01:00 PM - 02:00 PM	52.4	69.9	45.0
02:00 PM - 03:00 PM	53.7	76.0	44.9
03:00 PM - 04:00 PM	53.8	74.7	45.3
04:00 PM - 05:00 PM	75.2	88.4	50.0
05:00 PM - 06:00 PM	66.8	81.5	49.6
06:00 PM - 07:00 PM	58.7	74.8	49.6
07:00 PM - 08:00 PM	56.0	75.2	47.8
08:00 PM - 09:00 PM	53.9	72.1	44.1
09:00 PM - 10:00 PM	51.0	72.5	41.3
10:00 PM - 11:00 PM	47.0	63.5	41.3
11:00 PM - 12:00 AM	47.8	68.8	41.4
12:00 AM - 01:00 AM	46.3	66.1	41.2
01:00 AM - 02:00 AM	46.8	68.9	40.9
02:00 AM - 03:00 AM	46.9	67.4	41.6
03:00 AM - 04:00 AM	46.5	62.8	42.8
04:00 AM - 05:00 AM	54.7	73.2	45.6
05:00 AM - 06:00 AM	54.3	79.2	45.3
06:00 AM - 07:00 AM	68.7	83.1	49.2
07:00 AM - 08:00 AM	60.1	83.2	55.9
08:00 AM - 09:00 AM	58.3	77.8	55.4
09:00 AM - 10:00 AM	58.3	74.1	55.8
10:00 AM - 11:00 AM	58.3	76.3	55.4
11:00 AM - 12:00 PM	58.2	74.8	55.6
12:00 PM - 01:00 PM	59.2	65.7	56.5

Leq Average 24 hrs. (dB(A)) 63.4  
Lmax (dB(A)) 88.4  
L90 (dB(A)) 45.3  
Ldn (dB(A)) 67.2  
Standard (dB(A)) 70 115

Reference Method : ISO1996-1 and 1996-2

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

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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: 2422783  
Date Received : Mar 05, 2024  
Date Reported : Jul 18, 2024  
Report Number : 3059029-1

Page 1 of 3

Sample Number 2422783-1  
Sampled Date Mar 05, 2024 10:00 AM  
Sample Description Surface water  
Location คลองระพีพัฒน์ บริเวณต้นน้ำก่อนถึงท่อผลของคลองหนองปรุ ประมาณ 500 เมตร  
Date Analysis Commenced Mar 06, 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
<b>Metals Testing</b>							
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	0.0006	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
<b>Water Testing</b>							
Ammonia Nitrogen *	mg/L	-	0.06	<0.06	≤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	322	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
Dissolved Oxygen *	mg/L	-	0.1	5.7	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	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.

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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: 2422783  
Date Received : Mar 05, 2024  
Date Reported : Jul 18, 2024  
Report Number : 3059029-1

Page 2 of 3

Sample Number 2422783-1  
Sampled Date Mar 05, 2024 10:00 AM  
Sample Description Surface water  
Location คลองระพีพัฒน์ บริเวณต้นน้ำก่อนถึงท่อผลของคลองหนองปรุ ประมาณ 500 เมตร  
Date Analysis Commenced Mar 06, 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
<b>Water Testing</b>							
Nitrate as N	mg/L	0.06	0.2	0.4	≤5	In - house method : STM 04-004 based on 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	-	-	-	7.9	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	-	-	28.9	n'	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	167	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	27	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)

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

n : Not Change from natural condition

**Note :** This Analysis test report is reissued to supersede report No.2921074-1, Date Reported : Mar 13, 2024 due to revise analytical information.

**Sampling By :** Teerawat Puangsuk

Remark :

- LOD : Limit of Detection

Approved by

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Section Head

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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: 2422783**  
Date Received : Mar 05, 2024  
Date Reported : Jul 18, 2024  
Report Number : 3059029-1

Page 3 of 3

- "<" : 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 :**  
**Project Name :** Monitoring  
**Project Location:** WHA SIL



**TESTING**  
**No.0009**  
**Lot ID: 2430477**  
Date Received : Mar 19, 2024  
Date Reported : Mar 26, 2024  
Report Number : 2939593-1

Page 1 of 1

**Sample Number** 2430477-1  
**Sampled Date** Mar 19, 2024 11:00 AM  
**Sample Description** Group 3 : Surface Water-SW  
**Location** คลองระพีพัฒน์ ต้นน้ำก่อนถึงท่อลอดคลองคลองหนองรี ประมาณ 500 เมตร (SW-RP-UP)  
**Date Analysis Commenced** Mar 20, 2024  
**Condition of Sample** Contained in one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
<b>Microbiological Testing</b>							
Total Coliform	MPN/100mL	-	-	3300.0	≤20000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	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 :** Thanwa Jariya

**Remark :**

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

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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Siriluk Bunnak  
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Approved by

*Suwannee Chumkeaw*

Suwannee Chumkeaw  
Section Head

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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: 2422783  
Date Received : Mar 05, 2024  
Date Reported : Jul 18, 2024  
Report Number : 3059030-1

Page 1 of 3

Sample Number	2422783-2
Sampled Date	Mar 05, 2024 10:15 AM
Sample Description	Surface water
Location	คลองหนองขี้ บริเวณต้นน้ำก่อนถึงจุดระบายน้ำทิ้ง ประมาณ 500 เมตร
Date Analysis Commenced	Mar 06, 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
<b>Metals Testing</b>							
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	0.0007	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
<b>Microbiological Testing</b>							
Total Coliform	MPN/100mL	-	-	330.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
<b>Water Testing</b>							
Ammonia Nitrogen *	mg/L	-	0.06	0.09	≤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	567	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) 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: 2422783  
Date Received : Mar 05, 2024  
Date Reported : Jul 18, 2024  
Report Number : 3059030-1

Page 2 of 3

Sample Number	2422783-2
Sampled Date	Mar 05, 2024 10:15 AM
Sample Description	Surface water
Location	คลองหนองขี้ บริเวณต้นน้ำก่อนถึงจุดระบายน้ำทิ้ง ประมาณ 500 เมตร
Date Analysis Commenced	Mar 06, 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
<b>Water Testing</b>							
Dissolved Oxygen *	mg/L	-	0.1	5.6	≥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	0.4	≤5	In - house method : STM 04-004 based on 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	-	-	-	8.0	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	-	-	28.7	n <sup>1</sup>	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	320	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	14	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)  
**n<sup>1</sup>:** Change from Natural condition not more than 3 degree C

**Note :** This Analysis test report is reissued to supersede report No.2921074-1, Date Reported : Mar 13, 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, Nongkhae, Saraburi Thailand 18140  
P/O : 54240030  
Project Name : Monitoring  
Project Location: WHA SIL



TESTING  
No.0009  
Lot ID: 2422783  
Date Received : Mar 05, 2024  
Date Reported : Jul 18, 2024  
Report Number : 3059030-1

Page 3 of 3

Sampling By : Teerawat Puangsuk

Remark :

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

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## Analysis / Test Report

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: 2422783  
Date Received : Mar 05, 2024  
Date Reported : Jul 18, 2024  
Report Number : 3059031-1

Page 1 of 3

Sample Number 2422783-3  
Sampled Date Mar 05, 2024 10:30 AM  
Sample Description Surface water  
Location คลองหนองหญ้าหนี่งจากจุดระบายน้ำทิ้งลงมา ประมาณ 500 เมตร  
Date Analysis Commenced Mar 06, 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
<strong>Metals Testing</strong>							
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
<strong>Microbiological Testing</strong>							
Total Coliform	MPN/100mL	-	-	490.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
<strong>Water Testing</strong>							
Ammonia Nitrogen *	mg/L	-	0.06	<0.06	≤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	453	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

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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: 2422783  
Date Received : Mar 05, 2024  
Date Reported : Jul 18, 2024  
Report Number : 3059031-1

Page 2 of 3

Sample Number	2422783-3						
Sampled Date	Mar 05, 2024 10:30 AM						
Sample Description	Surface water						
Location	คลองหนองจอก ห่างน้ำจากจุดระบายน้ำทิ้งลงมา ประมาณ 500 เมตร						
Date Analysis Commenced	Mar 06, 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	4.9	≥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	In - house method : STM 04-004 based on 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		-	-	7.8	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	-	-	29.0	n <sup>1</sup>	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	244	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	17	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)

n<sup>1</sup>: Change from Natural condition not more than 3 degree C

**Note** : This Analysis test report is reissued to supersede report No.2921074-1, Date Reported : Mar 13, 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, Nongkhae, Saraburi Thailand 18140  
P/O : 54240030  
Project Name : Monitoring  
Project Location: WHA SIL



TESTING  
No.0009  
Lot ID: 2422783  
Date Received : Mar 05, 2024  
Date Reported : Jul 18, 2024  
Report Number : 3059031-1

Page 3 of 3

**Sampling By** : Teerawat Puangsuk

**Remark** :

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

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## Analysis / Test Report

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



TESTING  
No.0009  
Lot ID: 2460708  
Date Received : Jun 03, 2024  
Date Reported : Jul 19, 2024  
Report Number : 3059804-1

Page 1 of 4

Sample Number 2460708-1  
Sampled Date Jun 03, 2024 9:00 AM  
Sample Description Surface water  
Location คลองระพีพัฒน์ บริเวณต้นน้ำก่อนถึงท่อผลของคลองหนองปรุ ประมาณ 500 เมตร  
Date Analysis Commenced Jun 04, 2024  
Condition of Sample Contained in two BOD bottles, two glass vials, six plastic bottles and one amber glass bottle, 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
<b>Metals Testing</b>							
Arsenic	mg/L	0.0003	0.0005	0.003	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.002	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	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	0.0009	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.11	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	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

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: 2460708  
Date Received : Jun 03, 2024  
Date Reported : Jul 19, 2024  
Report Number : 3059804-1

Page 2 of 4

Sample Number 2460708-1  
Sampled Date Jun 03, 2024 9:00 AM  
Sample Description Surface water  
Location คลองระพีพัฒน์ บริเวณต้นน้ำก่อนถึงท่อผลของคลองหนองปรุ ประมาณ 500 เมตร  
Date Analysis Commenced Jun 04, 2024  
Condition of Sample Contained in two BOD bottles, two glass vials, six plastic bottles and one amber glass bottle, 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
<b>Metals Testing</b>							
Nickel	mg/L	0.0003	0.0005	0.001	≤0.10	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	<0.005	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
<b>Microbiological Testing</b>							
Total Coliform	MPN/100mL	-	-	1300.0	≤20000	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
<b>Water Testing</b>							
Ammonia Nitrogen *	mg/L	-	0.06	<0.06	≤0.5	Based on Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-NH <sub>3</sub> (B, F)	Bangkok
Conductivity at 25 degree C *	micromhos/cm	-	0.5	283	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
Dissolved Oxygen *	mg/L	-	0.1	5.9	≥4	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 4500-O (C)	Bangkok

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## 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: 2460708  
Date Received : Jun 03, 2024  
Date Reported : Jul 19, 2024  
Report Number : 3059804-1

Page 3 of 4

Sample Number 2460708-1  
Sampled Date Jun 03, 2024 9:00 AM  
Sample Description Surface water  
Location คลองระพีพัฒน์ บริเวณต้นน้ำก่อนถึงท่อปล่อยของคลองหนองปรุ ประมาณ 500 เมตร  
Date Analysis Commenced Jun 04, 2024  
Condition of Sample Contained in two BOD bottles, two glass vials, six plastic bottles and one amber glass bottle, 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
<b>Water Testing</b>							
Nitrate as N	mg/L	0.06	0.2	0.3	≤5	In - house method : STM 04-004 based on 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		-	-	7.3	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	-	-	31.0	n'	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	152	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 3)

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

n : Not Change from natural condition

**Note** : This Analysis test report is issued to supersede report No.3006000-1, Date Reported : Jun 17, 2024 due to revise analytical information.

**Sampling By** : Naruebet Permpoon

Remark :

- LOD : Limit of Detection

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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: 2460708  
Date Received : Jun 03, 2024  
Date Reported : Jul 19, 2024  
Report Number : 3059804-1

Page 4 of 4

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

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## Analysis / Test Report

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: 2468777

Date Received : Jun 18, 2024  
Date Reported : Jul 02, 2024  
Report Number : 3027079-1

Page 1 of 1

Sample Number 2468777-1  
Sampled Date Jun 18, 2024 12:50 PM  
Sample Description Surface water  
Location คลองระพีพัฒน์ บริเวณต้นน้ำก่อนถึงท่อผลของคลองหนองปรุ ประมาณ 500 เมตร (SW-RP-UP)  
Date Analysis Commenced Jun 20, 2024  
Condition of Sample Contained in one plastic bottle, 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
<b>Water Testing</b>							
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

**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 :** Norraset Komal

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

Approved by

Siriluk P.

Siriluk Bunnak  
Section Head

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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: 2460708

Date Received : Jun 03, 2024  
Date Reported : Jul 19, 2024  
Report Number : 3059805-1

Page 1 of 4

Sample Number 2460708-2  
Sampled Date Jun 03, 2024 9:20 AM  
Sample Description Surface water  
Location คลองหนองปรุ บริเวณต้นน้ำก่อนถึงจุดระบายน้ำทิ้ง ประมาณ 500 เมตร  
Date Analysis Commenced Jun 04, 2024  
Condition of Sample Contained in two BOD bottles, two glass vials, six plastic bottles and one amber glass bottle, 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
<b>Metals Testing</b>							
Arsenic	mg/L	0.0003	0.0005	0.002	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.001	≤0.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	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	0.0006	≤0.05	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Manganese	mg/L	0.0003	0.0005	0.53	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	In-house method : STM 05-007 based on United States Environmental Protection Agency, 2002, EPA Method 1631, Revision E	Bangkok

Approved by

Siriluk P.

Siriluk Bunnak  
Section Head

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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: 2460708

Date Received : Jun 03, 2024

Date Reported : Jul 19, 2024

Report Number : 3059805-1

Page 2 of 4

Sample Number	2460708-2
Sampled Date	Jun 03, 2024 9:20 AM
Sample Description	Surface water
Location	คลองหนองขี้ บริเวณต้นน้ำก่อนถึงจุดระบายน้ำทิ้ง ประมาณ 500 เมตร
Date Analysis Commenced	Jun 04, 2024
Condition of Sample	Contained in two BOD bottles, two glass vials, six plastic bottles and one amber glass bottle, 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
<b>Metals Testing</b>							
Nickel	mg/L	0.0003	0.0005	0.003	≤0.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	<0.005	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
<b>Microbiological Testing</b>							
Total Coliform	MPN/100mL	-	-	490.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
<b>Water Testing</b>							
Ammonia Nitrogen *	mg/L	-	0.06	<0.06	≤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	757	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

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Siriluk Bunnak  
Section Head

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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: 2460708

Date Received : Jun 03, 2024

Date Reported : Jul 19, 2024

Report Number : 3059805-1

Page 3 of 4

Sample Number	2460708-2
Sampled Date	Jun 03, 2024 9:20 AM
Sample Description	Surface water
Location	คลองหนองขี้ บริเวณต้นน้ำก่อนถึงจุดระบายน้ำทิ้ง ประมาณ 500 เมตร
Date Analysis Commenced	Jun 04, 2024
Condition of Sample	Contained in two BOD bottles, two glass vials, six plastic bottles and one amber glass bottle, 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
<b>Water Testing</b>							
Dissolved Oxygen *	mg/L	-	0.1	5.4	≥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	In - house method : STM 04-004 based on 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	-	-	30.7	n <sup>1</sup>	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	430	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	22	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)

**n<sup>1</sup> :** Change from Natural condition not more than 3 degree C

**Note :** This Analysis test report is reissued to supersede report No.3006000-1, Date Reported : Jun 17, 2024 due to revise analytical information.

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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: 2460708**  
Date Received : Jun 03, 2024  
Date Reported : Jul 19, 2024  
Report Number : 3059805-1

Page 4 of 4

**Sampling By :** Naruebet Permpoon

**Remark :**

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

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: 2460708**  
Date Received : Jun 03, 2024  
Date Reported : Jul 19, 2024  
Report Number : 3059806-1

Page 1 of 4

**Sample Number** 2460708-3  
**Sampled Date** Jun 03, 2024 9:40 AM  
**Sample Description** Surface water  
**Location** คลองหนองห้วย ท้ายน้ำจากจุดระบายน้ำทิ้งลงนา ประมาณ 500 เมตร  
**Date Analysis Commenced** Jun 04, 2024  
**Condition of Sample** Contained in two BOD bottles, two glass vials, six plastic bottles and one amber glass bottle, 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
<b>Metals Testing</b>							
Arsenic	mg/L	0.0003	0.0005	0.002	≤0.01	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Cadmium	mg/L	0.0003	0.0005	Not Detected	≤0.005	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.001	≤0.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Hexavalent Chromium	mg/L	0.003	0.01	Not Detected	≤0.05	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
Manganese	mg/L	0.0003	0.0005	0.57	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Mercury	mg/L	0.0001	0.0005	Not Detected	≤0.002	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 P.*

Siriluk Bunnak  
Section Head

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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: 2460708

Date Received : Jun 03, 2024  
Date Reported : Jul 19, 2024  
Report Number : 3059806-1

Page 2 of 4

Sample Number	2460708-3
Sampled Date	Jun 03, 2024 9:40 AM
Sample Description	Surface water
Location	คลองหนองรี ทำนบกักตุนน้ำทิ้งลงมา ประมาณ 500 เมตร
Date Analysis Commenced	Jun 04, 2024
Condition of Sample	Contained in two BOD bottles, two glass vials, six plastic bottles and one amber glass bottle, 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
<b>Metals Testing</b>							
Nickel	mg/L	0.0003	0.0005	0.006	≤0.1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
Zinc	mg/L	0.003	0.005	0.01	≤1	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 3125 B, 3030 F	Bangkok
<b>Microbiological Testing</b>							
Total Coliform	MPN/100mL	-	-	490.0	No Standard	Standard Methods for the Examination of Water and Wastewater. APHA, AWWA & WEF, 23rd ed., 2017, part 9221 B	Bangkok
<b>Water Testing</b>							
Ammonia Nitrogen *	mg/L	-	0.06	<0.06	≤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	4.0	≤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	839	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

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Siriluk Bunnak  
Section Head

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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: 2460708

Date Received : Jun 03, 2024  
Date Reported : Jul 19, 2024  
Report Number : 3059806-1

Page 3 of 4

Sample Number	2460708-3
Sampled Date	Jun 03, 2024 9:40 AM
Sample Description	Surface water
Location	คลองหนองรี ทำนบกักตุนน้ำทิ้งลงมา ประมาณ 500 เมตร
Date Analysis Commenced	Jun 04, 2024
Condition of Sample	Contained in two BOD bottles, two glass vials, six plastic bottles and one amber glass bottle, 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
<b>Water Testing</b>							
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	0.6	≤5	In - house method : STM 04-004 based on 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	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	-	-	31.1	n <sup>1</sup>	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	490	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	11	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)  
n<sup>1</sup>: Change from Natural condition not more than 3 degree C

**Note :** This Analysis test report is reissued to supersede report No.3006000-1, Date Reported : Jun 17, 2024 due to revise analytical information.

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Section Head

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## Analysis / Test Report

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

**TESTING**  
**No.0009**  
**Lot ID: 2460708**  
Date Received : Jun 03, 2024  
Date Reported : Jul 19, 2024  
Report Number : 3059806-1

Page 4 of 4

**Sampling By :** Naruebet Permpoon

**Remark :**

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

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** : 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

<b>Sample Number</b>	2434048-1						
<b>Sampled Date</b>	Apr 02, 2024 1:20 PM						
<b>Sample Description</b>	Soil (Dry Basis)						
<b>Location</b>	คลองหนองจอก ต้นน้ำเหนือจุดระบายน้ำจากโครงการ ประมาณ 500 เมตร						
<b>Date Analysis Commenced</b>	Apr 03, 2024						
<b>Condition of Sample</b>	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
<b>Metals Testing</b>							
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
<b>Physical Parameters</b>							
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

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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*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, Nongkhae, 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)

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

Page 1 of 2

<b>Sample Number</b>	2434048-2						
<b>Sampled Date</b>	Apr 02, 2024 1:05 PM						
<b>Sample Description</b>	Soil (Dry Basis)						
<b>Location</b>	คลองหนองหูละแวกจระเข้น้ำจากโครงการ						
<b>Date Analysis Commenced</b>	Apr 03, 2024						
<b>Condition of Sample</b>	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
<b>Metals Testing</b>							
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
<b>Physical Parameters</b>							
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

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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Specialist 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** : 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)

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## Analysis / Test Report

**Client :** WHA Saraburi Industrial Land Co., Ltd.  
111 Moo 7, Nongplakradi Road, Nongplamoh, Nongkhao, 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

<b>Sample Number</b>	2434048-3						
<b>Sampled Date</b>	Apr 02, 2024 2:10 PM						
<b>Sample Description</b>	Soil (Dry Basis)						
<b>Location</b>	คลองหนองห้วย พายุดรบนาน้ำทิ้งของโครงการ ประมาณ 500 เมตร						
<b>Date Analysis Commenced</b>	Apr 03, 2024						
<b>Condition of Sample</b>	Packed in one glass bottle, and, one plastic bag, sample containers comply to pretreatment - preservation standards (APHA, USEPA)						
<b>Analyte</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ (LOR)</b>	<b>Result</b>	<b>Guideline (1)</b>	<b>Guideline (2)</b>	<b>Method</b>
<b>Metals Testing</b>							
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
<b>Physical Parameters</b>							
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.

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, Nongkhao, 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)

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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	คลองหนองหูก ทำนบกั้นน้ำทิ้งของโครงการ 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
Metals Testing							
Copper	mg/kg	-	1.00	24.3	≤31.5	≤150	United States Environmental Protection Agency, EPA Method 3050 B and 6010 D
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

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 ๖-204-๖-0058

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

Siriluk P.

Siriluk Bunnak  
Section Head

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ALS logo and analysis details for WWA Utilities and Power Public Company Limited. Includes sample number 23147638, date received Jan 16, 2024, and various test results for water quality parameters like COD, pH, and temperature.

ALS logo and analysis details for WWA Utilities and Power Public Company Limited. Includes sample number 23147638, date received Jan 16, 2024, and various test results for water quality parameters like COD, pH, and temperature.

ALS logo and analysis details for WWA Utilities and Power Public Company Limited. Includes sample number 23147638, date received Jan 16, 2024, and various test results for water quality parameters like COD, pH, and temperature.

ALS logo and analysis details for WWA Utilities and Power Public Company Limited. Includes sample number 23147638, date received Jan 16, 2024, and various test results for water quality parameters like COD, pH, and temperature.

ALS logo and analysis details for WWA Utilities and Power Public Company Limited. Includes sample number 23147640, date received Jan 16, 2024, and various test results for water quality parameters like COD, pH, and temperature.

ALS logo and analysis details for WWA Utilities and Power Public Company Limited. Includes sample number 23147641, date received Jan 16, 2024, and various test results for water quality parameters like COD, pH, and temperature.

ALS logo and analysis details for WWA Utilities and Power Public Company Limited. Includes sample number 23147642, date received Jan 16, 2024, and various test results for water quality parameters like COD, pH, and temperature.

ALS logo and analysis details for WWA Utilities and Power Public Company Limited. Includes sample number 23147643, date received Jan 16, 2024, and various test results for water quality parameters like COD, pH, and temperature.

ALS logo and analysis details for WWA Utilities and Power Public Company Limited. Includes sample number 2495999, date received Jan 16, 2024, and various test results for water quality parameters like COD, pH, and temperature.









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		<b>TESTING</b> No: 0009				
<b>Client:</b> WSA Utilities and Power Public Company Limited		<b>Lot ID: 249511</b>				
<b>Address:</b> 111 Pho 7, Nongkhalang Road, Nongkhalang, Saraburi Thailand 21400		<b>Date Received:</b> 1 Feb 2024				
<b>P/V#:</b>		<b>Date Reported:</b> 1 Feb 2024				
<b>Project Name:</b>		<b>Report Number:</b> 249402-1				
<b>Project Location:</b> WSA SS,		<b>Page:</b> 1 of 1				
<b>Sample Number:</b> 249511-1						
<b>Sampled Date:</b> Feb 23, 2024 4:00 PM						
<b>Sample Description:</b> Group 1 Wastewater WW Plant						
<b>Location:</b> WSA SS - 100 MP - Up Estimation Point						
<b>Date Analysis Commenced:</b> Feb 23, 2024						
<b>Conditions of Sample:</b> Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, 1520FA)						
<b>Physical Property:</b> Green, some colour, solids, and turbid						
Analyte	Unit	LOD (UCL)	Result	Guideline / Specification	Method	Testing Location
Water Testing						
COD	mg/L	< 25	61	> 125	Standard Methods for the Quantification of Water and Wastewater: APHA, AWWA & WEF, 19th ed., 2017, page 1045-D	Bangkok
pH (at test) *	-	-	8.2	5.5-9.5	Standard Methods for the Quantification of Water and Wastewater: APHA, AWWA & WEF, 19th ed., 2017, page 405 - H-20	Bangkok
Total Suspended Solids Dried at 100-150 degree C	mg/L	< 5	20	< 50	Standard Methods for the Quantification of Water and Wastewater: APHA, AWWA & WEF, 19th ed., 2017, page 1045-D	Bangkok
<b>Guideline:</b> Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and official standard for factories and industrial park set by Notification of The Ministry of Industry dated June 17, B.E.2560 (2017).						
Sampling By * : Technical Management wsautilss@wsa.co.th > 209-4-0111						
Review : - QC : Limit of Detection - "N" : Lower than LOQ (Limit of Quantitation) / LOQ (Limit of Reporting) - Analytical method : type not included in range of Accredited Scope / MSOs. - The laboratory has been accepted as an accredited industry company with the ISO/IEC 17025.						
<b>Technical Management</b>		 Sunnien Charngeun Technical CS mscussaw@wsa.com > 209-4-0517		<b>Approved by</b>		 Kanchanarat Boonrattanasakul Senior Manager wscussaw@wsa.com > 209-4-0111
<small>* When applicable, the analytical methods used are listed in the table below. If the analytical method is not listed in the table, please provide details of the analytical method used in the comments section.</small>						
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<small>SGS Environmental Services Co., Ltd. Phrasarakon Rd., Phrasarakon Rd., Mueang Phrasarakon, Khao Sam Luang, Bangkok 10310 THAILAND   PHONE: +66 6 2762 3800   FAX: +66 6 2760 2157   E-MAIL: info@sgsenvironmental.com</small>						
<b>Website:</b> <a href="#">www.sgs-environmental.com</a>		<b>www.alsglobal.com</b>				
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## Analysis / Test Report



**TESTING**  
No. 0009

---

**Client :** WMA Utilities and Power Public Company Limited  
111, Jalan 7/3, Tropicana Indah, Tropicana, Kajang, Selangor, Thailand (SE40)

**P/O :**

**Project Name :** Project Location : WMA SS.

**Sample Number :** 24912/3

**Sampled Date :** Feb-27, 2024 9:45 AM

**Sample Description :** Group 1 Wastewater WFO Plant

**Location :** WMA SS - 1000 mPT (in Retention Pond)

**Date Analysis Commenced :** Feb-28, 2024

**Condition of Sample :** Contained in two plastic bottles, sample consistent comply to pre-treatment - pre-treatment standards (APHA, USEPA).

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

**Lot ID: 24912/1**  
Date Received : Feb-27, 2024  
Date Reported : Feb 11, 2024  
Report Number : 24912/001

Page 1 of 1

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Analyte	Unit	LOD (LOQ)	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>						
mg/L	mg/L	25	38	5.2/2	Standard Methods for the Examination of water and Wastewater, APHA, 1905th & 1995, 19th ed., 2017, part 10.01-10	Bangkok
ppm (mg/L) *	mg/L	7.5	5.5-6.0	5.5-6.0	Standard Methods for the Examination of water and Wastewater, APHA, 1905th & 1995, 19th ed., 2017, part 10.01-10	Bangkok
Total Suspended Solids Direct at 100-100 degree C	mg/L	5	8	130	Standard Methods for the Examination of water and Wastewater, APHA, 1905th & 1995, 19th ed., 2017, part 24.01-24	Bangkok

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**Guideline:** Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effort standard for factories and industrial park set by Notification of The Ministry of Industry dated June 27, 8.2-2006 (31/7).

**Sampling By :** Project WMA/Seawater effluent/SS-1000 mPT/2024

**Remarks :**

- \* LOD (Limit of Detection)
- "N" (Lower than LOQ (Limit of Quantitation) / LOQ (Limit of Reporting))
- Reported result is above the maximum value of detection: >1000 / 1000.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

**Technical Management**



**Sumrit Chantanasakul**  
Senior Technician  
micromedusa > 2004 > 0018

**Approved by**




**Kanchanarat Saeo**  
Senior Manager  
micromedusa > 2004 > 0008


Before using the data of this report, please refer to the following information: 1. This report is for the use of the client only. 2. The data in this report is based on the sample received and analyzed. 3. The data in this report is not valid if the sample is not received and analyzed within the specified time. 4. The data in this report is not valid if the sample is not received and analyzed within the specified time. 5. The data in this report is not valid if the sample is not received and analyzed within the specified time.

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E-mail: info@als.co.th | Website: www.als.co.th

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## Analysis / Test Report

**Client** : WUE Utilities and Power Public Company Limited  
 111 Moo 2, Bangsupakong Road, Nongnueang, Nongbua (Thailand) 18140

**P/O #** :  
**Project Name** :  
**Project Location** : (WUE SS, SSS)

**Sample Number** : 2422187-1  
**Sampled Date** : Mar 05, 2024 11:30 AM  
**Sample Description** : Group 1, Wastewater Effluent Water  
**Location** : Waste SS, 1000 EF / 1st Chlorine Contact Tank  
**Date Analysis Completed** : Mar 05, 2024  
**Condition of Sample** : Contained in one amber glass bottle, two glass vials and eight plastic bottles, sample containers covered by parafilm - preservation standards (ASTM, ISO/IEC 17025)  
**Physical Property** : Yellow, some odor, solid and no turbid

**TESTING**  
**No.0509**  
**Lot ID: 2422187**  
**Gold Received** : Mar 05, 2024  
**Date Reported** : Mar 12, 2024  
**Report Number** : 2055173-1

*Page 1 of 2*

	Unit	LOD (0.000)	Result	Guideline / Specification	Method	Testing Location
<b>Metals Testing</b>						
Cadmium	mg/L	0.0003	0.0006	Not Detected	10.01	Samut
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 3121 & 3129 F						
Copper	mg/L	0.0003	0.0005	0.006	12.0	Samut
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 3121 & 3129 F						
Hexavalent Chromium	mg/L	0.001	0.01	Not Detected	0.2025	Samut
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 3121 & 3129 F						
Lead	mg/L	0.0003	0.0005	0.001	10.3	Samut
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 3121 & 3129 F						
Mercury	mg/L	0.0001	0.0001	Not Detected	0.0005	Samut
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 3112						
Nickel	mg/L	0.0003	0.0005	0.01	13.0	Samut
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 3121 & 3129 F						
Trivalent Chromium *	mg/L	-	0.01	<0.01	0.075	Samut
Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 3121 & 3129 F						

**Technical Management**

*Samut N*

Samut Nongnueang  
 Manager  
 email: n2004@wue.com

**Approved by**

*Kan A*

Kanichai Kiat  
 Senior Manager  
 email: kkanichai@sgs.com

\*Hexavalent Chromium is showing. Hexavalent Chromium is not listed in the Request of Analysis. The results are for information only.


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 JCR0001 0104 (P)00000100-001, Phrasitthaphan 80, Phrasitthaphan 80, Phrasitthaphan, 10400 Nongnueang, Bangkok, 10270 Thailand | Phone: +66 2 6786 2000 | Fax: +66 2 6786 2100

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## Analysis / Test Report

**Client** WWSA Utilities and Power Public Company Limited  
 111 Moo 7, Nongneng Road, Nongneng, Saraburi Thailand 18140  
**P.O. #** \_\_\_\_\_  
**Project Name** \_\_\_\_\_  
**Project Location** WWSA SS

**TESTING**  
**Lot ID: 2421187**  
**Date Received** Mar 05, 2024  
**Date Reported** Mar 12, 2024  
**Report Number** 2050373-1

Page 1 of 2

<b>Sample Number</b>	2421187-1				
<b>Sampled Date</b>	Mar 05, 2024 11:33 AM				
<b>Sample Description</b>	Group 1 Wastewater (see Client Contact Task)				
<b>Location</b>	WWSA SS, near CV - see Client Contact Task				
<b>Date Analysis Commenced</b>	Mar 05, 2024				
<b>Condition of Sample</b>	Contained in one amber glass bottle, two glass vials and eight plastic bottles, sample containers comply to pretreatment -				
<b>Physical Property</b>	preservation standards (ASTM D5776) liquid, some odour, solid not to touch				

Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Metals Testing</b>							
Zinc	mg/L	0.001	0.005	0.07	< 5.0	Standard Methods for the Examination of Water and Wastewater, 8310, 8310-01, 2017, part 31.75 B, 3020 F	Saraburi
<b>Water Testing</b>							
BOD (5 days at 20 degree C)	mg/L	-	2.0	7.2	< 20	Standard Methods for the Examination of Water and Wastewater, 5210, 5210-01, 2017, part 4500 C	Saraburi
COD	mg/L	-	25	47	< 120	Standard Methods for the Examination of Water and Wastewater, 5200, 5200-01, 2017, part 5210 B	Saraburi
Formaldehyde *	mg/L	0.03	0.1	Not Detected	< 1.0	Standard Methods for the Examination of Water and Wastewater, 9140, 9140-01, 2017, part 9140 D	Saraburi
Oil & Grease *	mg/L	-	3	< 1	< 3	Standard Methods for the Examination of Water and Wastewater, 9140, 9140-01, 2017, part 9140 D	Saraburi
pH at 25 degree C *	-	-	-	7.3	5.9-9.0	Standard Methods for the Examination of Water and Wastewater, 9140, 9140-01, 2017, part 9140 D	Saraburi
Phos *	mg/L	0.0005	0.001	Not Detected	< 1.0	Standard Methods for the Examination of Water and Wastewater, 9140, 9140-01, 2017, part 9140 D	Saraburi
Sulfate *	mg/L	-	5.0	< 5.0	< 10.0	Standard Methods for the Examination of Water and Wastewater, 9140, 9140-01, 2017, part 9140 D	Saraburi

**Technical Management**

*Savitree N.*  
 Savitree Nongneng  
 Manager  
 mcsavitree.v@wpa-vietnam.com

**Approved by**


*Kanokorn A.*  
 Kanokorn Aech  
 Senior Manager  
 wss000001@wpa-vietnam.com

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**ALS**  
ANALYTICAL SERVICES

# Analysis / Test Report



**TESTING**  
No. 0009

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**Client** WUE Utilities and Power Public Company Limited  
113 Moo 7, Nongpladung Road, Nongpladung, Saraburi (Thailand) (S140)

**P/O :**

**Project Name :**

**Project Location** (RHS SLL)

**Sample Number** 2422187-1  
Mar 05, 2024 11:30 AM

**Sample Description** Group 1 Wastewater W/W Plant

**Location** SRA 100 - 1000 ft - 1st Churne Contact Tank

**Date Analysis Commenced** Mar 05, 2024

**Condition of Sample** Collected in one amber glass bottle, two glass vials and eight plastic bottles, sample containers comply to pretreatment - environmental standards (AWWA, USEPA, ISO, etc.)

**Physical Property** Volatile, some colour, solid and no turbidity

**Lot ID:** 2422187  
Date Received: Mar 05, 2024  
Date Reported: Mar 12, 2024  
Report Number: 2420717-1

Page 1 of 2

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Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
<b>Temperature</b>	°C			28.8	≤40	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WQF, 249 ed., 2017, page 2559 D	Bangkok
<b>Total Dissolved Solids at 280 ± 0.01 °C</b>	mg/L		5	1064	≤1000	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WQF, 249 ed., 2017, page 2546 C	Bangkok
<b>Total Suspended Solids at 280 ± 0.01 °C</b>	mg/L	0.15	1.0	2.2	≤100	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WQF, 249 ed., 2017, page 2546 C	Bangkok
<b>Total Suspended Solids at 105 ± 0.01 °C</b>	mg/L		5	32	≤50	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WQF, 249 ed., 2017, page 2546 D	Bangkok

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**Guideline:** Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 15, 8-8-2560 (2517).

**Sampling By:** Tamsorn Puchanpattana, industrial estate & industrial park

**Remark:**

- LOD = Limit of Detection
- LOQ = Limit of Quantitation / 10% (Limit of Reporting)
- Analysis method = colorimetric method in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

**Technical Management**


*Savitree N.*  
Savitree Nuchkarnjan  
Manager  
msl@alslab.com 1-204-0087

**Approved by**


*Kanit A.*  
Kanitkarn Aon  
Senior Manager  
msl@alslab.com 1-204-0009

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INDIAN SUBCONTINENT DIVISION 1-204-0100



## Analysis / Test Report



**Client:** URA LRTKs and Power Public Company Limited  
 113 Moo 7, Nongpradeng Road, Nongpradeng, Samsat Thailand (8142)

**P/O #:**

**Project Name:**

**Project Location:** SHA SS

**Sample Number:** 242187-1

**Sampled Date:** Mar 05, 2017 11:30 AM

**Sample Description:** Group 1 Wastewater - WW Plant

**Remarks:** WWA SS, (pH 9.0) - see Client Contact Task

**Date Analysis Completed:** Mar 06, 2017

**Condition of Sample:** Contained in one amber glass bottle, two glass vials and eight plastic bottles, samples containers comply to pre-treatment - preservation standards (APHA, EPA)

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

**TESTING**  
 No. 00599

**Lot ID: 242187-1**  
 Issued: Mar 06, 2017  
 Date Reported: Mar 16, 2017  
 Report Number: 2050172-0

*Page 1 of 1*

Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Metal Testing</b>							
Cadmium	mg/L	0.001	0.005	0.24	No Standard	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, page 3125 & 3039 F	Bangkok
<b>Microbiological Testing</b>							
Total Coliforms	MPN/100mL	-	-	40000.0	No Standard	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, page 9222 B	Bangkok
<b>Water Testing</b>							
Ammonia Nitrogen: *	mg/L	-	0.36	1.14	No Standard	Based on Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, page 4500-1801-18, F1	Bangkok
Conductivity at 25 degree C *	microsiemen/cm	-	0.3	1802	No Standard	Based on Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, page 2510 B	Bangkok
Dissolved Oxygen (in sat) *	mg/L	-	0.1	2.6	No Standard	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, page 4500-4501 B	Bangkok
Hardness as Ca *	mg/L	0.08	0.2	11.8	No Standard	Based on Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, page 4500-9012 B	Bangkok
Hardness as Mg *	mg/L	0.08	0.2	9.24	No Standard	Based on Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, page 4500-9012 B	Bangkok
Total Phosphorus as P *	mg/L	0.2	0.3	3.4	No Standard	As-phosphorus method based on United States Environmental Protection Agency, EPA Method 800.4	Bangkok

Work and test results are provided only as an advisory service. The user is responsible for the proper use of the data. We do not warrant that the results are free from error or that the results will be suitable for a particular use. We do not accept any liability for any loss or damage, whether direct or indirect, arising from the use of the results.

**Approved by**

Seacourt N

Seacourt Nongpradeng  
Manager

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**WAST. SOLUTIONS** PROJECT: P1487-17-01539

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<h2 style="margin: 0;">Analysis / Test Report</h2>	
<b>Client:</b> WPPA Utilities and Power Public Company Limited 111 Moo 7, Nongpanpang Road, Nongpanpang, Nongpanpang Suburban Township 18140 <b>P/O :</b> <b>Project Name:</b> <b>Project Location:</b> WPPA SLL	<b>TESTING</b> No.0006 <b>Lot ID: 24212187</b> Date Received : Mar 01, 2024 Date Reported : Mar 11, 2024 Report Number : WJ00371-2
<i>Page 1 of 1</i>	
<b>Guideline:</b> Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of the Ministry of Industry dated June 07, B.E.2568 (257). <b>Sampling By :</b> Tsevent Pongpuk	
<b>Remarks:</b> - L20 : Limit of Detection - L4 : Lower than L20(Limit of Quantitation) / LOK (Limit of Reporting) - Parameter marked * value not included in scope of Accreditation ISO/IEC 17025. - The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.	
<div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="width: 45%; border: 1px solid black; padding: 5px; font-size: 0.8em;"> <p>Results, tests to be executed is considered. Only the sampling are considered to be valid and if any of the result was not in accordance to the job then additional test is required. Periodical testing and/or additional testing may be needed to ensure the results are accurate.</p> <p style="text-align: center;">We are pleased to serve you.</p> </div> <div style="width: 50%; text-align: right;"> <p><b>Approved by</b> _____</p> <p style="font-size: 1.2em; font-family: cursive;">Sasithorn N</p> <p style="font-size: 0.8em;">Sasithorn Nongpanpang Manager</p> </div> </div>	
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 30%;"> <p style="font-size: 0.8em;">ADDRESS 104 Phrasakorn Rd., Phrasakorn Rd., Khwaeng Phrasakorn, Wattana Lump, Bangkok 10250 THAILAND   PHONE +66 9 2740 9993   FAX +66 9 2740 9197</p> <p style="font-size: 0.8em;">E-MAIL <a href="mailto:info@shglobe.com">info@shglobe.com</a>   WEBSITE <a href="http://www.shglobe.com">www.shglobe.com</a></p> </div> <div style="width: 40%; text-align: center;"> <p style="font-weight: bold; font-size: 1.1em;">shglobe</p> <p style="font-weight: bold; font-size: 1.1em;">SIGHT SOLUTIONS</p> <p style="font-size: 0.8em;">THAILAND 2 P.O.Box 110000</p> </div> <div style="width: 30%; text-align: right;"> <p style="font-size: 0.8em;">© shglobe, all rights reserved.</p> </div> </div>	

	 <b>TESTING</b> No. 0009 <b>Lot ID: 2422189</b> Date Received : Nov 15, 2014 Date Reported : Nov 15, 2014 Report Number : 2020277-1					
<h2 style="margin: 0;">Analysis / Test Report</h2>						
<b>Client :</b> USTW Utilities and Power Public Company Limited 111 Moo 7, Nongseelard Road, Nongseelard, Nongkhai, Saraburi Thailand 18140						
<b>PYO :</b> <b>Project Name :</b> <b>Project Location :</b> BPA5 SSL						
<b>Sample Number :</b> 2422189-1 <b>Sampled Date :</b> Mar 12, 2014 13:15 PM <b>Sample Description :</b> Group 1 Wastewater WWF Plant (BPA5 SSL - 100M <sup>3</sup> /day) - via On-site Contact Tank <b>Date Analysis Commenced :</b> Jan 13, 2014 <b>Condition of Sample :</b> Taken from two plastic bottles, samples containers comply to pre-treatment - preservation standards (APHA, US EPA) <b>Physical Property :</b> Yellow, some odor, solid and turbid						
Analyte	Unit	LOD [10%]	Result	Guideline / Specification	Method	Testing Location
Water Testing						
pH at 25 degree C *	mg/L	= 25	33.29	<3.0	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 19th ed., 1995, part 210-D	Nongkhai
Total Suspended Solids Direct at 100-100 degrees C	mg/L	= 3	17	5.0-6.0	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 19th ed., 1995, part 252-B	Nongkhai
				<50	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WEF, 19th ed., 1995, part 254-D	Nongkhai

**Guideline:** Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resources and Environmental and effluent standard for factories and industrial park set by Notification of the Ministry of Industry dated June 01, B.E.2546 (2011).

**Sampling By :** Tassanaporn Hongsakulwattanasakul v 20W v 0008

**Remark:**

- "C" Limit of detection
- "<" Lower than LOQ (Limit of Quantitation) / ZDW (Limit of Reporting)
- "ND" Not detected or below the limit of detection.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

**Technical Management**

  
 Tassanaporn Hongsakulwattanasakul  
 Supervisor  
 wbslssakul v 20W v 0001

**Approved by**


  
 Kanchana Anon  
 Senior Manager  
 wbslssakul v 20W v 0004

\* Based upon the results of the analysis performed by ALS. We warrant that the analytical methods used are appropriate and that we have followed good laboratory practices.  
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		<b>TESTING</b> No.0508					
<b>Client :</b> Utilities and Power Public Company Limited 111 Phlo 2, Nongprue Road, Nongprue, Saraburi Thailand 35145		<b>Lot ID:</b> 242129N					
<b>P/O # :</b>		Gold Standard - July 15, 2024					
<b>Project Name :</b>		Data Reported - July 22, 2024					
<b>Project Location :</b> SIVA SL		Report Number : 20240721-01					
		Page 1 of 1					
<b>Sample Number</b>	242129N-1						
<b>Sampled Date</b>	Mar 15, 2024 10:05 AM						
<b>Sample Description</b>	Group I Watermain West Plot						
<b>Location</b>	WPA 02, WPA 07, Ice-Chem Contact Tank						
<b>Date Analysis Commenced</b>	Mar 20, 2024						
<b>Condition of Sample</b>	Container in two plastic bottles, sample containers comply to pre-treatment – preservation standards (APHA, USEPA)						
<b>Physical Property</b>	Yields, some color, solid and no turbid						
Analyte	mg/L	LOD	LOQ (ppm)	Result	Guideline / Specification	Method	Testing Location
Water Testing	-	-	20	88	(125)	Standard Methods for the Determination of Major and Tracewater APHA, AWWA & WEF, 19th ed., 2011, 2nd 1000 L	Bangkok
COD	-	-	7.8	5.5-6.0	-	Standard Methods for the Determination of Major and Tracewater APHA, AWWA & WEF, 19th ed., 2011, 2nd 1000 L	Bangkok
pH at 25 degree C *	-	-	-	-	-	Standard Methods for the Determination of Major and Tracewater APHA, AWWA & WEF, 19th ed., 2011, 2nd 1000 L	Bangkok
Total Suspended Solids Dried at 100-120 degree C	mg/L	-	5	41	(50)	Standard Methods for the Determination of Major and Tracewater APHA, AWWA & WEF, 19th ed., 2011, 2nd 1000 L	Bangkok
<b>Guideline:</b> Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and official standard for factories and industrial park set by notification of The Ministry of Industry dated June 07, B.E.2548 (253). <b>Sampling By:</b> Client (sample was collected) v client (not collected)							
Notes : _____ * _____ Limit of Detection * "N" Lower than LOD (Limit of Quantitation) / LOQ (Limit of Reporting) Analytical method = same test without a major or fundamental change (10%) The laboratory has been accepted at an accredited laboratory complying with the ISO/IEC 17025.							
<b>Technical Management</b>		 Sumrit Chantaporn Scientist (S) certified by JDA-v-0218		<b>Approved by</b>   Kiatichai Thien Senior Manager vinda-wat@sgs.com +6664			
<small>We warrant that the services we performed were conducted in accordance with the applicable technical methods and procedures as they existed at the time of analysis. We do not warrant that our analytical results are representative of the entire lot or material analyzed, nor do we warrant that our results will detect all defects or impurities in the material analyzed.</small>							
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SIVA SL (SARABURI) 111 Phlo 2, Nongprue Road, Nongprue, Saraburi 35145 Thailand		<a href="http://www.alstglobal.com">www.alstglobal.com</a>					

[illegible]

## Analysis / Test Report

Client **WHA Utilities and Power Public Company Limited**  
111 Moo 7, Bangkapiandae Road, Nongkhai, Nongkhai, Saraburi Thailand 35140

P/Y/D :  
Project Name :  
Project Location : **WHA SL**

TESTING  
No. 0009  
Lot ID: **2423181**  
Date Received : **14th May 2024**  
Date Reported : **14th May 2024**  
Report Number : **W020201-24**

Page 1 of 1

Sample Number **2423181-1**

Sampled Date **Mon 05, 2024 11:58 AM**

Sample Description **Group 1 Reservoirs WH-Pland**

Location **Unit SL - 100 ft. in Reservoir Tank**  
Date Analysis Completed **Mon 06, 2024**

Condition of Sample  
preservation standards (ASTM, ISO/IEC)  
Container, a set of amber, solid and barrel

Physical Property  
Container, a set of amber, solid and barrel

Analysis	Unit	LOD	LOQ	Result	Cause/In / Non-Cause/In	Method	Testing Location
Mercury	mg/L	0.0003	0.0005	Not Detected	<0.01	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, pp. 1127 & 3020 F	Bangkok
Copper	mg/L	0.0003	0.0005	0.02	<1	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, pp. 3120 & 3020 F	Bangkok
Involuntary Chromium	mg/L	0.003	0.01	Not Detected	<0.25	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, pp. 3020 & 3	Bangkok
Lead	mg/L	0.003	0.0005	0.003	<0.2	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, pp. 3120 & 3020 F	Bangkok
Mercury	mg/L	0.0003	0.0005	Not Detected	<0.005	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, pp. 1127	Bangkok
Nickel	mg/L	0.0003	0.0005	0.02	<1	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, pp. 3120 & 3020 F	Bangkok
Toxical Chromium *	mg/L	-	0.01	<0.01	<0.75	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, pp. 3120 & 3020 F	Bangkok

Technical Management

*Sasitorn N*

Sasitorn Nongkhai  
Manager

inbound#1-234-0007

Approved by

*Kan Kan*

Kan Kan  
Senior Manager

inbound#6-234-0008

Endnote: This report is valid only for the purpose stated and for the use of the client. It is not to be used for any other purpose without the written consent of the laboratory.

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2024-05-14

PHOTO 1: SAKON NAKHON PHATTHANABURI

Page 1 of 1



# Analysis / Test Report



**Client:** UEA Utilities and Power Public Company Limited  
 113 Moo 2, Nongpradeng Road, Nongpradeng, Bangkok (Thailand) 11040  
**P/O #:**  
**Project Name:**  
**Project Location:** (SHA, SS),

**TESTING**  
 No.0009  
**Lot ID:** 24212181  
 QMS Required - Mar. 20, 2024  
 Date Reported - Mar. 12, 2024  
 Report Number - 25010041

**Sample Number:** 2521181-1  
**Sampled Date:** Mar. 05, 2024 11:30 AM  
**Sample Description:** Group 1 Wastewater WFO Plant  
**Location:** WFO SS, 100 M - to Effluentation Tank  
**Date Analysis Commenced:** Mar. 06, 2024  
**Condition of Sample:** Coloured in an amber glass bottle, two glass vials and eight plastic bottles, sample containers covered by pre-laminated generation standards (SHA, SS234)  
**Physical Property:** Yellow, a bit of odour, solid and turbid

**Page 1 of 1**

Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Metal Testing</b>							
Zinc	mg/L	0.002	0.004	9.13	<3	Standard Methods for the Examination of Water and Wastewater: APHA, 23rd ed., 2017, part 8128, 8.303 F	Bangkok
<b>Water Testing</b>							
ISO 103 (at 20 degree C)	mg/L	-	2.8	90.1	<500	Standard Methods for the Examination of Water and Wastewater: APHA, 23rd ed., 2017, part 9124, 9.100	Bangkok
COO	mg/L	-	25	205	<750	Standard Methods for the Examination of Water and Wastewater: APHA, 23rd ed., 2017, part 9125, 9.100	Bangkok
Oil & Grease *	mg/L	-	3	9	<10	Standard Methods for the Examination of Water and Wastewater: APHA, 23rd ed., 2017, part 9103, 9.100	Bangkok
pH at 25 degree C *	-	-	-	7.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater: APHA, 23rd ed., 2017, part 9100, 9.100	Bangkok
Phosph *	mg/L	0.0005	0.001	Not Detected	<1	Standard Methods for the Examination of Water and Wastewater: APHA, 23rd ed., 2017, part 9102, 9.100	Bangkok
Sulfide *	mg/L	-	0.1	<0.1	<1	Standard Methods for the Examination of Water and Wastewater: APHA, 23rd ed., 2017, part 9102, 9.100	Bangkok
Temperature *	Degrees C	-	-	32.8	<45	Standard Methods for the Examination of Water and Wastewater: APHA, 23rd ed., 2017, part 9100, 9.100	Bangkok

**Technical Management**



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 Savitree Nongpradeng  
 Manager  
 email:snava@ua.com | 09-08887

**Approved by**

*Kanokkorn A*  
 Kanokkorn Aue  
 Senior Manager  
 email:kanokk@ua.com | 09-00004

Results are valid only in accordance with the sample collection and handling as stated in the latest version of the Technical Management System (TMS) and the Laboratory Quality Management System (LQMS) of the Client. The Client is responsible for the accuracy of the information provided in the report. The results are not valid if the sample is not collected and handled as stated in the TMS and LQMS. The results are not valid if the sample is not analyzed within the specified time frame. The results are not valid if the sample is not analyzed by the specified method. The results are not valid if the sample is not analyzed by the specified personnel. The results are not valid if the sample is not analyzed by the specified equipment. The results are not valid if the sample is not analyzed by the specified reagents. The results are not valid if the sample is not analyzed by the specified standards. The results are not valid if the sample is not analyzed by the specified procedures. 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The results are not valid if the sample is not analyzed by the specified personnel

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	 <b>SOCIENTIA ENGINEERING &amp; CONSULTING</b> Pte Ltd 111 Hoo Joo 1, Nongpleng Road, Nongpleng, Saraburi Thailand 18140						
<b>Analysis / Test Report</b>							
<b>TESTING No.0009</b> <b>Lot ID: 2422181</b> Date Received : May 05, 2024 Date Reported : May 12, 2024 Report Number : 2502009-2							
<b>Client :</b> WPA Utilities and Power Public Company Limited 111 Hoo Joo 1, Nongpleng Road, Nongpleng, Saraburi Thailand 18140							
<b>P/O #:</b> <b>Project Name:</b> <b>Project Location:</b> (WHA 10L)							
<b>Sample Number:</b> 2422181-1 <b>Sample Date:</b> Mar 05, 2024 13:58 AM <b>Sample Description:</b> Group 1 Westsidein New Plant <b>Location:</b> WHA 10L, Saraburi <b>Date Analysis Commenced:</b> May 05, 2024 <b>Condition of Sample:</b> Collected in one amber glass bottle, two plain white and eight plastic bottles, sample containers comply to requirement - (water, a lot of debris, solid and turbid)							
<b>Physical Property:</b>							
Analysis	Unitk	LOQ	LOQ (LOEL)	Result	Causeline / Note/Platline	Method	Testing Location
<b>H Metals Testing</b>							
Iron	mg/L	5.001	5.001	0.36	No Standard	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017 part 112.7 B, 3020	Bangkok
<b>Microbiological Testing</b>							
Total Coliform	MPN/100mL	-	-	<2200000.0	No Standard	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017 part 922.2 B	Bangkok
<b>Water Testing</b>							
Amoniac Nitrogen *	mg/L	-	0.36	18.3	No Standard	Based on Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017 part 450.0-01 B-1	Bangkok
Conductivity at 25 degree C *	microsiemens/cm	-	0.3	2188	No Standard	Based on Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017 part 2510.8	Bangkok
Dissolved Oxygen (sat) %	mg/L	-	0.1	<0.1	No Standard	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017 part 450.0-01 B-1	Bangkok
Ferrous Sulfide *	mg/L	0.01	0.1	Not Detected	31	Indonesian analysis method, Environmental Engineering Association of Thailand, 4th edn, 2004	Bangkok
Sulfate as S *	mg/L	0.06	0.2	Not Detected	No Standard	Based on Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017 part 450.0-01 B-1	Bangkok
Nitrite as N *	mg/L	0.06	0.2	Not Detected	No Standard	Based on Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017 part 450.0-01 B-1	Bangkok

\* Limit of detection (LOD) for the parameters which are reported, has been calculated based on the standard deviation of blank samples. The LOD value is equal to three times the standard deviation of blank samples. The LOQ value is equal to ten times the standard deviation of blank.

**Approved by** \_\_\_\_\_ *Sorathida N*  
 Sorathida Nongnang  
 Manager

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## Analysis / Test Report

**Client :** URA Utilities and Power Public Company Limited  
 111 Poy U, Nongsewong Road, Nongsewong, Nongsewong, Saraburi Thailand (8142)

**P/O :**  
**Project Name :**  
**Project Location :** SIVA, SL

**Sample Number :** 292181-1

**Sampled Date :** Mar 05, 2024 11:30 AM

**Sample Description :** Group 1, Wastewater WWF Plant

**Location :** SIVA SL, KMS 26 - on Elephantine Tank

**Date Analysis Commenced :** Mar 05, 2024

**Condition of Sample :** Contained in one amber glass bottle, two glass vials and eight plastic bottles, sample containers comply to pre-treatment - generation standard (GPA, GSPA)

**Physical Property :** Yellow, a bit of odour, solid and turbid

Analyte	Unit	LOD	LOQ (LORL)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Total Phosphate as P *	mg/L	0.2	0.5	10.0	As Standard	In house method based on United States Environmental Protection Agency, EPA Method 80.1-4	

**TESTING NO. 0009**

**Lot ID: 2422181**

**Date Received :** Mar 05, 2024

**Date Reported :** Mar 12, 2024

**Report Number :** 2020229-2

*Page 1 of 2*

**Guideline :** Standard of PMA Saraburi Industrial Land, Minimum levels for wastewater discharging to central wastewater treatment plant.

**Sampling by :** Teerawat Puangkue

**Remark :**

- LOD : Limit of Detection
- "C" : (lower than LOQ Limit of Quantification) / LOQ Limit of Reporting
- Analyte(s) marked "X" have not included in scope of Accreditation (ISO/IEC 17025)
- The laboratory has been ACCREDITED as an accredited laboratory complying with the ISO/IEC 17025.

Please note that this analytical certificate does not constitute an endorsement or approval of the quality of the product or service. The product or service may not conform to the requirements of the standard or specification. The product or service may be used for any purpose without the consent of the laboratory. The laboratory is not responsible for any loss or damage caused by the use of the product or service.

**APPROVED BY** (Signature)

**Signature** (Name)

*Signature N*

**Signature** (Name)

**Manager**

ADDRESS: 104 Pothammakorn Rd., Pothammakorn Rd., Khwaeng Pothammakorn, Khwaeng Saen Suk, Bangkok 10250 Thailand | PHONE: +66 2 5766 8999 | FAX: +66 2 5766 9197


**SIVA - Saraburi Office**


**www.sivaglobal.com**

Lab No. 0009

**PHYSICAL SOLUTIONS** PROJECT PHASE 1/2023

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## Analysis / Test Report

**Client :** WINKA Utilities and Power Public Company Limited  
 211 Road 7, Nongasari Road, Nongasari, Sarawak (Thailand 18140)

**P/O ID :**

**Project Name :**  
 Project Location : **WPA SS**

**Sample Number :** **PA231842-1**  
**Sample Date :** **Mar 12, 2024 12:20 PM**

**Sample Description :** **Group 1 Wastewater WPA Plant**

**Location :** **WPA SS, WPA 01 - 1st Equalization Tank**

**Date Analysis Commenced :** **Mar 12, 2024**

**Condition of Sample :** **Contained in two plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, US EPA)**

**Date Analysis Completed :** **Yollow, a lot of chloride, acid and buffer**

**TESTING**  
 No-0008

**Lot ID: 2421892**  
 Sample Date: Mar 02, 2024  
 Date Reported: Mar 25, 2024  
 Report Number : 202020-1

Page 1 of 1

Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
<b>COD</b>	mg/L	-	25	235	5.750	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WPA 2015, 2017, page 1223-D	Singapore
<b>pH at 25 Degree C *</b>		-	-	7.8	5.5-8.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WPA 2015, 2017, page 1223-D	Singapore
<b>Total Suspended Solids Dred at 120-150 Degree C</b>	mg/L	-	5	67	<200	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WPA 2015, 2017, page 2540-D	Singapore


**Guideline:** Standard of WINKA Sarawak Industrial Limit, Minimum limits for wastewater (discharging to central wastewater treatment plant).

**Remarks:** **By Test, Parameter Fulfillment < 204 = 008**


**Notes:**

- LOD = Limit of Detection
- "N" = Lower than LOQ Limit of Quantification (LOQ Limit of Reporting)
- Sampled Material kept and excluded in scope of Accreditation (ISO/IEC 17025)
- The Laboratory has been accepted to be accredited internationally by the ISO/IEC 17025.

**Technical Management**

  
 Director Hinghohband  
 Supervisor  
 WPA001001-12004-0012

**Approved by**

  
 Senior Manager  
 WPA001001-12004-0008

Note: When the laboratory is notified of a change in the test method, the laboratory will inform the client and the client will be responsible for the cost of the change.

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**Water Testing**

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WPA001001-12004-0008

**Water Testing**

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**ALS**

# Analysis / Test Report



**TESTING**  
No. 00009

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**Client:** Uthair Uthair and Power Public Company Limited  
112 Moo 3, Nongprachan Road, Nongprachan, Nakhon Phanom 53140

**P/O #:**

**Project Name:** WPAK SS, WPP #7 - In-Charge Contact Tank

**Project Location:** WPAK SS, WPP #7

**Sample Number:** 2419054-1

**Sampled Date:** Apr 02, 2024 11:25 AM

**Sample Description:** Liquid 1 Waterworks WPP Office

**Analysis Method:** Apr 03, 2024

**Date Analysis Commenced:**

**Condition of Sample:** Container is an amber glass bottle and several plastic bottles, sample containers comply to preservation - preservation standards (APHA, ISO/IEC)

**Physical Property:** Colorless, some odour, no solid, and turbid

**Lot ID:** 2434954

**Calibration:** Apr 03, 2024

**Date Reported:** Apr 03, 2024

**Report Number:** 24K0009

**Page 1 of 2**

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Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing							
ISO 17535 (pH at 20 Degree C)	mg/L	-	2.6	4.4	>120	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017, part 1923 B, part 4000 - pH	Nongkhai
CO2	mg/L	-	25	38	>120	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017, part 1923 D, part 4000 - CO2	Nongkhai
Formaldehyde *	mg/L	0.03	0.2	Not Detected	<1.3	Waterworks system manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Nongkhai
Oil & Grease *	mg/L	-	3	<3	15	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017, part 1923 B	Nongkhai
pH at 25 Degree C *	-	-	-	7.3	5.5-8.6	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017, part 1923 B	Nongkhai
Fluoride *	mg/L	0.0005	0.001	Not Detected	<1.0	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017, part 1923 C	Nongkhai
Sulfide *	mg/L	-	0.6	<0.6	<1.0	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017, part 1923 C	Nongkhai
Temperature *	Degree C	-	-	32.2	1-40	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017, part 1923 B	Nongkhai

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**Technical Management**

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## Analysis / Test Report

**Client :** WVA Utilities and Power Public Company Limited  
111 Moo 9, Nongnong Road, Nongnong, Nongnong, Saraburi Thailand 18140


**P/O # :**  
**Project Name :** WVA SWL  
**Project Location :** WVA SWL

**Sample Number :** 240401-1  
**Sample Date :** Apr 02, 2024 11:29 AM  
**Sample Description :** Group 1 Wastewater WVA Plant  
**Location :** WVA SWL - WPP# 07 - (see Contact Table)  
**Date Analysis Commenced :** Apr 03, 2024

**Quantity of Sample :** Submitted: 200mL, 100mL, 50mL, 25mL, 12.5mL, 6.25mL, 3.125mL, 1.5625mL, 0.78125mL, 0.390625mL, 0.1953125mL, 0.09765625mL, 0.048828125mL, 0.0244140625mL, 0.01220703125mL, 0.006103515625mL, 0.0030517578125mL, 0.00152587890625mL, 0.000762939453125mL, 0.0003814697265625mL, 0.00019073486328125mL, 0.000095367431640625mL, 0.0000476837158203125mL, 0.00002384185791015625mL, 0.000011920928955078125mL, 0.0000059604644775390625mL, 0.00000298023223876953125mL, 0.000001490116119384765625mL, 0.0000007450580596923828125mL, 0.00000037252902984619140625mL, 0.000000186264514923095703125mL, 0.0000000931322574615478515625mL, 0.00000004656612873077392578125mL, 0.000000023283064365386962890625mL, 0.0000000116415321826934814453125mL, 0.00000000582076609134674072265625mL, 0.000000002910383045673370361328125mL, 0.0000000014551915228366851806640625mL, 0.00000000072759576141834259033203125mL, 0.000000000363797880709171295166015625mL, 0.0000000001818989403545856475830078125mL, 0.00000000009094947017729282379150390625mL, 0.000000000045474735088646411895751953125mL, 0.0000000000227373675443232059478759765625mL, 0.00000000001136868377216160297393798828125mL, 0.000000000005684341886080801486968994140625mL, 0.0000000000028421709430404007434844970703125mL, 0.00000000000142108547152020037174224853515625mL, 0.000000000000710542735760100185871124267578125mL, 0.00000000000035527136788005009293556213390625mL, 0.000000000000177635683940025046467781067453125mL, 0.000000000000088817841970012523233890533715625mL, 0.0000000000000444089209850062616169452668578125mL, 0.00000000000002220446049250313080847263342890625mL, 0.000000000000011102230246251565404236316714453125mL, 0.0000000000000055511151231257827021181583572265625mL, 0.0000000000000027755575615628913510590791786328125mL, 0.000000000000001387778780781445675529539589375mL, 0.0000000000000006938893903907228377647697946875mL, 0.00000000000000034694469519536141888238489734375mL, 0.000000000000000173472347597680709441192448671875mL, 0.000000000000000086736173798840354720596224338828125mL, 0.00000000000000004336808689942017736029811216940625mL, 0.000000000000000021684043449710088680149056084703125mL, 0.0000000000000000108420217248550443400745280423515625mL, 0.00000000000000000542101086242752217003726402121875mL, 0.000000000000000002710505431213761085018632010609375mL, 0.0000000000000000013552527156068805425093160053046875mL, 0.0000000000000000006776263578034402712546580026521875mL, 0.00000000000000000033881317890172013562732900132609375mL, 0.000000000000000000169406589450860067813664500663046875mL, 0.000000000000000000084703294725430033906832250331521875mL, 0.0000000000000000000423516473627150169534161251657609375mL, 0.00000000000000000002117582368135750847670806252828828125mL, 0.00000000000000000001058791184068775423835403126414440625mL, 0.000000000000000000005293955920343877119177015632072203125mL, 0.0000000000000000000026469779601719385595885078160361015625mL, 0.0000000000000000000013234889800859692779792503908017578125mL, 0.00000000000000000000066174449004298463898962519540087890625mL, 0.000000000000000000000330872245021492319494812557700439453125mL, 0.0000000000000000000001654361225107461097472406288502197265625mL, 0.000000000000000000000082718061255373054873620314425109375mL, 0.0000000000000000000000413590306276865273868101571255546875mL, 0.00000000000000000000002067951531384276369340507856277734375mL, 0.0000000000000000000000103397576569213781967025392813886940625mL, 0.00000000000000000000000516987882846068909835011964069421875mL, 0.000000000000000000000002584939414230344549175059820324609375mL, 0.0000000000000000000000012924697071151722745875299101623046875mL, 0.0000000000000000

	<h1 style="margin: 0;">Analysis / Test Report</h1>	
<b>Client:</b> UENL Utilities and Power Public Company Limited 113 Ploa 7, Nongpruekh Road, Nongpruekh, Nongpruekh, Bangkok (Thailand) 10140		<b>TESTING</b> No.0009
<b>P/O #:</b> <b>Project Name:</b> <b>Project Location:</b> (SHA, SS)		<b>Lot ID: 24334504</b> Date Received : Apr 02, 2024 Date Reported : Apr 09, 2024 Report Number : 2947666-2
Page 1 of 2		
<b>Guideline:</b> Efficient standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resources and Environment and efficient standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2565 (2022).		
<b>Sampling By :</b> Technical Pumping Unit		
<b>Remarks :</b> <ul style="list-style-type: none"> <li>- LCO : Limit of Compliance</li> <li>- LUL : Lower than LCO (Limit of Quantitation) &lt; LCO (Limit of Reporting)</li> <li>- Analytical method : HPLC MS included in Scope of Accreditation BSI/SGS, ISO/IEC 17025.</li> <li>- The laboratory has been accepted as an accredited laboratory complying with the BSI/SGS 17025.</li> </ul>		
Approved by 		
Somsak Chuanthong Section Head		
ADDRESS: 104 Phatthanaburi Rd, Phatthanaburi Rd, Khwaeng Phatthanaburi, Khwaeng Lumpini, Bangkok 10250 Thailand   PHONE: +66 2 0762 0000   FAX: +66 2 0762 9197 E-MAIL: info@sgs.com   sgs@sgs.com   sgstest@sgs.com   test@sgs.com   sgstest@sgs.com		
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## Analysis / Test Report



TESTING  
No.0009  
**Lot ID: 2434956**  
Date Received : Apr 18, 2024  
Date Reported : Apr 23, 2024  
Report Number : 24VTR761-1

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**Client** WPA Utilities and Power Public Company Limited  
 111 Moo 3, Nongnengdang, Nongneng, Saraburi Thailand 18140

**P/O #** \_\_\_\_\_  
**Project Name** \_\_\_\_\_  
**Project Location** WPA, TH, SL

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**Sample Number** 2434956-1  
**Sampled Date** Apr 18, 2024 1:00 PM  
**Sample Description** Group 1 Wastewater (Raw Plant)  
**Location** WPAH 101 - WPAH 47 - 1st Downstream Contact Tank  
**Date Analysis Commenced** Apr 19, 2024

**Condition of Sample** Contained in two plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA).

**Physical Property** Yellow, some odour, solid and no bubble

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Analysis	Unit	LOD (LOB)	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>						
CO <sub>2</sub>	mg/L	-	25	17.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & 1997, 1998 and 2005, 2nd (22nd) Ed.	Bangkok
pH at 25 degree C *		-	7.6	5.5-8.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & 1997, 1998 and 2005, 2nd (22nd) Ed.	Bangkok
Total Suspended Solids (TSS) at 105-100 degree C	mg/L	-	5	20	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & 1997, 1998 and 2005, 2nd (22nd) Ed.	Bangkok

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**Guideline:** Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of the Ministry of Industry dated June 01, 84, 2540 (2017).

**Reference:** "Thermal Turbidity" (revised) v.2016 v.1000

**Remark:**

- LOD : Limit of Detection
- LOB : Limit of Quantitation
- LOQ : Limit of Reporting
- Analytical Method : 1945 and 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**

*Sinluk P.*

Sinluk Pannak  
Senior Manager  
ms000486@2024 v.2024 v.0017

**Approved by** *Kanok A.*

Kanokkarn Aue  
Senior Manager  
ms000486 v.2024 v.0009

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HEADQUARTERS: 104 PHRASKORN ROAD, BANGKOK 10250 THAILAND

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<b>Client</b> : WMA Utilities and Power Public Company Limited 121 Moo 7, Nongnanglue Road, Nongnanglue, Saraburi Thailand 18140		<b>TESTING</b> <b>Lot ID:</b> 2434955 Date Reported : May 14, 2024 Report Number : 2447882-1						
<b>P/O #</b> : <b>Project Name</b> : Project Location : 1090 SS		<b>Analysis / Test Report</b>						
<b>Sample Number</b> : 2434955-1 <b>Sample Date</b> : Apr 30, 2024 9:15 AM <b>Sample Description</b> : Group 1 - Wastewater RW Plant <b>Location</b> : WMA SS, WMA Eff. w/ Chlorine Contact Tank <b>Date Analysis Commenced</b> : May 02, 2024		<b>Condition of Sample</b> : Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, USEPA) <b>Physical Property</b> : Yellow, some solids, solid and no turbid						
<b>Analyte</b>		<b>Unit</b>	<b>LOD</b>	<b>LOQ</b> (10X)	<b>Result</b>	<b>Guideline / Specification</b>	<b>Method</b>	<b>Testing Location</b>
<b>Water Testing</b>								
<b>CO<sub>2</sub></b>		mg/L	-	25	32	<130	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005, 2017, page 1223-D	Nonglue
<b>pH at 25.0 ± 0.1 °C</b>			-	-	7.3	5.5-8.8	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005, 2017, page 1223-D	Nonglue
<b>Total Suspended Solids Dried at 100 ± 0.2 °C for 1 hour</b>		mg/L	-	5	7	<50	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005, 2017, page 2443-D	Nonglue
<b>Guideline</b> : Effluent standard for factories, industrial wastes and industrial parks set by Notification of the Ministry of Natural Resources and Environment and effluent standard for factories and industrial park set by Notification of the Ministry of Industry dated June 07, B.E.2560 (2017). <b>Sampling Fee</b> : Sample Collection and/or courier > 2000 = 8000.								
<b>Notes</b> : - LOQ = Limit of Quantitation - LOD = Limit of Detection - LOQ Limit = LOQ (Limit of Quantitation) / 10K (Limit of Reporting) - The laboratory has been accepted as an accredited laboratory complying with the ISO9001:2015.								
<b>Technical Management</b>				<b>Approved by</b>				
		Sumrit Chantagarn Scientist II email:sumrit.c@als-lab.co.th				Kunkun Aun Senior Manager WMASS-2434955-1		
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4030301-044 Phrayatana Rd., Phrayatana, Phrayatana, Thai Samut Prakan, Bangkok 10710 Thailand   Phone: +66 2 2788 8000   Fax: +66 2 2788 8170   Email: info@als-lab.co.th								
<b>ALS Laboratory</b>		<b>www.alslab.co.th</b>						
PMS-AT / SQA-LS-001-001, Version 1.0 (2024-01-01)								


							
<b>Analysis / Test Report</b>							<b>TESTING</b> No.0059
<b>Client :</b> WPA Utilities and Power Public Company Limited 113 Moo 5, Nongpradeng Road, Nongpradeng, Nongphai, Saraburi Thailand 38142							<b>Lot ID:</b> 2434949
<b>P/V D :</b>							<b>Cash Receipt:</b> April 02, 2024
<b>Project Name</b>							<b>Date Reported :</b> Apr 06, 2024
<b>Project Location:</b> WPA S.S.							<b>Report Number :</b> 2947671-0
							<i>Page 1 of 1</i>
<b>Sample Number</b> : 2945491-1							
<b>Sampling Date</b> : April 02, 2024 14:40 AM							
<b>Sample Description</b> : Group 1 Wastewater from Plant							
<b>Location</b> : WPA S.S., Unit 1 - 1 ; Le Engineering Tank							
<b>Date Analyzed Communicated</b> : Apr 03, 2024							
<b>Condition of Sample</b> : Contained in two amber glass bottles and seven plastic bottles, samples contained comply to preservation - preservation standards (APHA, ASTM), Yellow, a lot of odour, solid and turbid							
<b>Physical Property</b>							
Analyte	Unit	LOD	LOQ [LOD]	Result	Guideline / Specification	Method	Testing Laboratory
<b>Water Testing</b>							
BOD (5 Day @ 20 degree C)	mg/L	—	2.8	< 2.8	<100	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1913 B, part 4000, 5-2	Bangkok
COD	mg/L	—	25	134	1750	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5125 B, part 4000, 5-2	Bangkok
Formaldehyde *	mg/L	0.03	0.1	Not Detected	<1	Wastewater analysis manual, Environmental Engineering Association of Thailand, 4th ed., 2004	Bangkok
pH at 20 degree C *	—	—	—	7.6	5.5-8.5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4000 - H-30	Bangkok
Hardness *	mg/L	0.0005	0.001	Not Detected	<1	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1910-C	Bangkok
Sulfide *	mg/L	—	0.5	< 0.5	<1	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4000 IZ-C, F	Bangkok
Temperature *	Degree C	—	—	32.8	<45	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1910-B	Bangkok
Total Dissolved Solids Onset at 180 degree C	mg/L	—	3	1376	<1000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2510-C	Bangkok
<p><b>Technical Management</b></p> <p style="text-align: center;">   <b>Sirinuk P.</b>          Senior Bureau          Section Head          Wastewater &amp; SDA &amp; O&amp;M       </p> <p style="text-align: right;"> <b>Approved by</b>   <b>Kankkaro An</b>          Senior Manager          Wastewater &amp; SDA &amp; O&amp;M       </p>							
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<p align="center"> <a href="http://www.phasitaporn.com">www.phasitaporn.com</a>  <a href="http://www.asiatelabsol.com">www.asiatelabsol.com</a>          PHASITAPORN LABORATORIES, THAILAND'S LEADING ENVIRONMENTAL TESTING LABORATORY       </p>							












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## Analysis / Test Report



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Contrôle

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**Client :** Uthra Utilities and Power Public Company Limited  
113, No. 7, Nongpradeng Road, Nongpradeng, Siatung Thaniang 12140

**P/O # :**

**Project Name :**

**Project Location :** (SNA-SS)

**Sample Number :** 2943111-1  
May 07, 2024 9:58 AM

**Sampled Date :** June 17, 2024 10:48 AM

**Sample Description :** Chlorine 1 Watermain Valve Closure

**Location :** W&S, SS, 10th Fl. - 1st Office Contact Tank

**Date Analysis Commenced :** May 08, 2024

**Details of Sample :** Collected in one amber glass bottle and seven plastic bottles, sample containers comply to pretestment - precontamination standards (ASTM, ISO/IEC, some others, no rule, and fulfilled)

**Physical Property :**

**TESTING**  
No. 0009

**Lot ID: 24433311**  
**Card Number:** 105-01-2024

**Date Reported:** May 14, 2024

**Report Number:** 276049-1

Page 1 of 2

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Analyte	Unit	LOD	LOQ (3xLOD)	Result	Compliance / Specification	Method	Testing Location
<b>Phenyle Testing</b>							
Iron	mg/L	0.002	0.006	0.11	No Standard	Standard Methods for the Examination of Water and Wastewater, ASTM, APHA & ISO, 23rd ed., 2017, part 3125 & 3030 F	Bangkok
<b>Microbiological Testing</b>							
Total Coliform	MPN/100mL	—	—	40000.0	No Standard	Standard Methods for the Examination of Water and Wastewater, ASTM, APHA & ISO, 23rd ed., 2017, part 9202 B	Bangkok
<b>Water Testing</b>							
Ammonia Nitrogen : *	mg/L	—	0.36	0.87	No Standard	Standard Methods for the Examination of Water and Wastewater, ASTM, APHA & ISO, 23rd ed., 2017, part 4500-NH3-18	Bangkok
<b>Conductivity at 25 Degree C : *</b>	microsiemen/cm	—	0.5	2400	No Standard	Standard Methods for the Examination of Water and Wastewater, ASTM, APHA & ISO, 23rd ed., 2017, part 2510	Bangkok
<b>Dissolved Oxygen (in sat) % :</b>	mg/L	—	0.1	1.8	No Standard	Standard Methods for the Examination of Water and Wastewater, ASTM, APHA & ISO, 23rd ed., 2017, part 4500-DO-2	Bangkok
<b>Nitrite as N % :</b>	mg/L	0.06	0.2	9.94	No Standard	Standard Methods for the Examination of Water and Wastewater, ASTM, APHA & ISO, 23rd ed., 2017, part 4500-NO2-1	Bangkok
<b>Nitrate as N % :</b>	mg/L	0.06	0.2	>0.280	No Standard	Standard Methods for the Examination of Water and Wastewater, ASTM, APHA & ISO, 23rd ed., 2017, part 4500-NO3-1	Bangkok

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**Guideline :** Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and official standard for factories and industrial park set by Notification of The Ministry of industry dated June 9, B.E.2549 (2015).

**Sampling by :** Thomas Jones

We warrant that the analysis was performed using the following test methods and equipment as indicated on this report. We warrant that the analysis was performed using the following test methods and equipment as indicated on this report. We warrant that the analysis was performed using the following test methods and equipment as indicated on this report.

**Approved by** 


Sawatree Nongpradeng  
Manager

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# Analysis / Test Report



**Client :** WHA Utilities and Power Public Company Limited  
 111 Moo 11, Nongkajarn Road, Nongkajarn, Nongkhai, Sakhon Thai Road (3346)

**P / O :**

**Project Name :**

**Project Location :** WHA S3.

**TESTING**  
 No.0009

**Lot ID: 2443311**  
 Date Received : May 07, 2024  
 Date Reported : May 14, 2024  
 Report Number : 250818-01


Page 1 of 1

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**Remarks :**

- L20 : Limit of Detection
- "C" : Limit value (50% Limit of Quantification) (LOQ Limit of Reporting)
- Accuracy marked \* value not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.

Please note that this declaration is mandatory when the following test method is used:  
 1. All the test results are determined by a fully automatic method using  
 standardized test methods and equipment.

**Approved by** 

Sawatree Nongkajarn  
 Manager





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		<b>Analysis / Test Report</b>			
				<b>TESTING</b> No: 0009	
<b>Client :</b> WWA Utilities and Power Public Company Limited 111 Moo 5, Nongpladung Road, Nongpladung, Nongpladung, Saraburi Thailand 32140		<b>Lot ID:</b> 24433316		Date Received : May 15, 2024 Date Reported : May 17, 2024 Report Number : 7999911-1	
<b>P/O :</b> <b>Project Name :</b> WWA SWL		<b>Page 1 of 1</b>			
<b>Sample Number :</b> 24433316-1 <b>Sampled Date :</b> May 14, 2024 10:45 AM <b>Sample Description :</b> Group 1 Wastewater WWA Plant <b>Location :</b> area SWL - WWA Eff. - ve Chlorine Contact Tank <b>Date Analysis Commenced :</b> May 15, 2024 <b>Condition of Sample :</b> Contained in two plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA) <b>Physical Property :</b> Yellow, water colour, solid and no turbid		<b>Findings / Observation :</b>			
<b>Analyzer :</b>		<b>Unit :</b>	<b>LOQ (LOD):</b>	<b>Result :</b>	<b>Method :</b>
<b>Water Testing :</b>	<b>COD :</b>	mg/L	25	12.00	Standard Methods for the Determination of Water and wastewater APHA, 1995 & WEF, 21st ed., 2017, part 5210 D
pH at 25 degree C	-	-	7.6	5.0-8.0	Standard Methods for the Determination of Water and wastewater APHA, 1995 & WEF, 21st ed., 2017, part 9100 B
Total Suspended Solids dried at 102-105 degree C	mg/L	5	10	150	Standard Methods for the Determination of Water and wastewater APHA, 1995 & WEF, 21st ed., 2017, part 2540
<b>Guideline:</b> Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment, and effluent standard for factories and industrial park set by Notification of the Ministry of Industry dated June 11, B.E.2540 (2017)					
<b>Sampling By :</b> Thailand Pongphat Engineering Co., Ltd.					
<b>Remarks :</b>					
1. " " : Limit of detection 2. " < " : Lower than LOQ (Limit of Quantitation) / LOQ (Limit of Reporting) 3. Reported result 1 value are included in error of measurement (RSD) 4. The laboratory has accepted an accredited laboratory complying with the ISO/IEC 17025.					
<b>Technical Management</b>				<b>Approved by</b>	
Sumrit Chaiyapong Supervisor in-house > 10 yr 01/18		Kachakorn Kachakorn Senior Manager in-house > 20+ yr 00/08			
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00220725-104 (Thailand) KOL, Phrasakorn Road, Phrasakorn Road, Chulalongkornrajavidyalaya University, Bangkok, 10120 (Thailand) Phone: +66 2 2788 2000   Fax: +66 2 2788 2107 Email: info@als.com.th		<b>www.alsglobal.com</b>		<b>HEALTH SOLUTIONS</b>	


								
					TESTING NO.		Lot ID: 24433137	
<b>Client:</b> URA - Utilities and Power Public Company Limited 113 Moo 2, Nongprachar Road, Nongprachar, Nongphue, Saraburi Thailand (1840)					Date Requested: May 21, 2024		Report Date: May 27, 2024	
<b>R/P# :</b>					Request Number : 20498918		Page 1 of 1	
<b>Project Name :</b> <b>Project Location :</b> Sam S&L								
<b>Sample Number :</b> 2443313-1								
<b>Sampled Date :</b> May 21, 2024 9:30 AM								
<b>Sample Description :</b> Group 1 Wastewater WW Plant								
<b>Location :</b> WW S&L, Site #9 / Se Chom Contact Tank								
<b>Date Analysis Commenced :</b> May 23, 2024								
<b>Details of Sample :</b> Collected in two plastic bottles, sample containers comply to pre-treatment – preservative standards (APHA, USEPA)								
<b>Physical Property :</b> Yellow, some odor, no solid and turbid								
Analyte	Unit	LOD	LOQ [LOD]	Result	Guideline / Specification	Method	Testing Location	
Water Testing								
COD	mg/L	-	25	43	1120	Standard Methods for the Examination of Water and Wastewater, APHA & NSF, 23rd ed., 2017, part 5210 D	Nongphik	
pH at 20 degrees C *		-		7.4	5.5-8.5	Standard Methods for the Examination of Water and Wastewater, APHA, ASTM & NSF, 23rd ed., 2017, part 9200 - H-30	Nongphik	
TOTAL Suspended Solids Dried at 105-120 Degrees C	mg/L	-	5	7	<200	Standard Methods for the Examination of Water and Wastewater, APHA, ASTM & NSF, 23rd ed., 2017, part 2540 D	Bangkok	
<b>Guideline:</b> Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resources and Environment and official standard for factories and industrial park set by Notification of the Ministry of Industry dated June 57, B.E.2560 (2017). <b>Sampling By:</b> Accredited Personnel Endorsed# 2049 + G105								
<b>Remarks:</b> * 1 ppm of hydrochloric acid solution was added to each sample. * 1 liter from LOQ (Limit of Quantitation) / 120 L (Limit of Reporting) * Analytical results are obtained in mg/L or g/kg. * The Laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.								
<b>Technical Management</b>  Sumrit Chantavongkorn Supervisor (S) Endorsed# 2049 + G103					<b>Approved by</b>  Kanchana Kiat Senior Manager Endorsed# 2049 + G004			
<small>We warrant that the analysis is performed in accordance with the methods specified and that the result of the analysis truly represents the concentration of the analyte in the sample submitted for testing.</small>								
<small>ACCREDITED BY: PTT Phosphate Rock Co., Phosphate Rock, Phosphate Fertilizer, Nafton Chemical, Bangkok, 10210 Thailand   Phone: +66 (0) 2760 2000   Fax: +66 (0) 2760 3337   Email: info@pttchemical.com   Website: www.pttchemical.com</small>								
<b>Lab No. 244333333</b> <b>www.alsglobal.com</b>					<b>REMY SOLUTIONS GROUP PRIVATE</b>			

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**ALS**  
ANALYTICAL SERVICES

## Analysis / Test Report



**TESTING**  
No. 0509

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**Client :** URAH Utilities and Power Public Company Limited  
111 Jln 7, Hongkapedda Road, Hongkapedda, Singapore, Serranai Thailand (18-42)

**P/O :**

**Project Name :**  
Project Location : URAH, SG

**Sample Number :** 2942394-1 Page 1 of 2

**Sampling Date :** May 30, 2024 10:17 AM

**Sample Description :** Group 1 Wastewater WW Plant

**Location :** URAH SG, 1818 St - on Esplanade Walk

**Date Analysis Commenced :** May 18, 2024

**Physical Property :** Contained in one amber glass bottle and seven plastic bottles, samples containers comply to pre-treatment - preservation standards (APHA, USEPA, ISO), yellow, a lot of oil, solid not turbid

**Lot ID:** 2443924

**Received Date :** May 07, 2024

**Date Reported :** May 13, 2024

**Report Number :** 2568170-1

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Analyte	Unit	LOD	LOQ (10xLOD)	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
<b>Sulfide *</b>	mg/L	-	0.5	<0.5	<1	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21st ed., 2017, pp 250-12 (C, F)	Singapore
<b>Temperature *</b>	Degree C	-	-	30.5	<45	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21st ed., 2017, pp 250-8	Singapore
<b>Total Dissolved Solid Dried at 180 degree C</b>	-	-	5	1400	<3000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21st ed., 2017, pp 254-6	Singapore
<b>Total Kjeldahl Nitrogen as N *</b>	mg/L	0.15	1.5	20.2	10	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21st ed., 2017, pp 460-108 (F, H)	Singapore
<b>Total Phosphate as P *</b>	mg/L	0.2	0.5	5.8	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21st ed., 2017, pp 254-6	Singapore
<b>Total Suspended Solid Dried at 102-103 degree C</b>	mg/L	-	5	36	1200	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 21st ed., 2017, pp 254-6	Singapore


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**Guideline :** Standard of 6814, Singapore Industrial Land, Minimum limits for wastewater discharged to central wastewater treatment plant.


**Sampling by :** Thomas Jeyasekaran v 2024-05-08

**Remark :**

- 1. LOD : Limit of Detection
- 2. "C" : Lower than 1/10 (ten) of Quantitation / 1/10 (ten) of Reporting
- 3. Analytical method \* : Same not included in scope of Accreditation (ISO/IEC 17025).
- 4. The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

**Approved by :** 

Karim Khan  
Senior Manager  
v20240509 v 2024-05-09




Sriluk P.  
Jeyasekaran  
v20240509 v 2024-05-11

Method used for this report is subject to change without notice. This report is valid for 12 months from the date of issuance.


**Link to document :** [www.alsglobal.com](http://www.alsglobal.com)

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## Analysis / Test Report



**TESTING**  
No: 0009

**Lot ID: 2443294**  
 Test Received : May 07, 2024  
 Date Reported : May 14, 2024  
 Report Number : 25981079-2

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**Client :** WMA Utilities and Power Public Company Limited  
 111 Moo 7, Nongneng Road, Nongneng, Nongneng, Saraburi Thailand 18140

**P/O :**

**Project Location :** WMA SHL

**Sample Number :** 240294-1

**Sample Date :** May 07, 2024 10:17 AM

**Sample Description :** Group 1 Wastewater WWR Plant

**Location :** WMA SHL - WWR (N) - Inlet Wastewater Tank

**Date Analysis Commenced :** May 08, 2024

**Condition of Sample :** Contained in one amber glass bottle and seven plastic bottles, sample containers comply to pretreatment - preservation

**Physical Property :** Yellow, a lot of oil, solid and bubbled

Page 1 of 3

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Analyte	Unit	LOD	LOQ (0.05%)	Result	Guideline / Specification	Method	Testing Location
<b>Mercury Testing</b>							
Iron	mg/L	0.003	0.005	0.14	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, pp. 3125 B, 3039 F	Singapore
<b>Microbiological Testing</b>							
Total Coliforms	MPN/100mL	-	-	4000000.0	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, pp. 9221 B	Singapore
<b>Water Testing</b>							
Ammonia Nitrogen *	mg/L	-	0.06	15.5	Not Standard	Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, pp. 9200-9001 (B, F)	Singapore
Conductivity at 25 degree C	microsiemen/cm	-	3.5	2503	No Standard	Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, pp. 2510 B	Singapore
Dissolved Oxygen (on site) *	mg/L	-	0.1	<0.1	No Standard	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, pp. 9200-9001 (B, F)	Singapore
Nitrite as N *	mg/L	0.06	0.2	Not Detected	No Standard	Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, pp. 9200-9001 (B, F)	Singapore
Nitrate as N *	mg/L	0.06	0.2	Not Detected	No Standard	Based on Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, pp. 9200-9001 (B, F)	Singapore

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**Guideline:** Standard of WMA Saraburi Industrial Plant, Maximum levels for wastewater discharging to central wastewater treatment plant.


**Sampling By :** Thomas Jarvis

Servers :

NOTE: This report is for information only. It is not intended to be used for legal or regulatory purposes. The results are based on the sample received and the methods used. The client is responsible for the accuracy of the sample and the results. The results are not a guarantee of performance. The results are not a guarantee of quality. The results are not a guarantee of safety. The results are not a guarantee of health. The results are not a guarantee of environment. The results are not a guarantee of anything else.

APPROVED BY: **Dr. Phrasitthornchai, Ms. Phrasitthornchai, Dr. Phrasitthornchai, Dr. Phrasitthornchai, Dr. Phrasitthornchai** | PHONE: +66 8 2766 8800 | FAX: +66 8 2766 8787

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Approved by 

Sathitorn Nongneng  
Manager

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**ALS**

# Analysis / Test Report



**TESTING**  
NO.0009

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**Client:** SINA Utilities and Power Public Company Limited  
112 Nong Nue, Nongpradit Road, Nongpradit, Nongpradit, Saraburi Thailand 32140

**P/O #:**

**Project Name:** SINA SL

**TESTING**  
NO.0009

**Lot ID: 2443303**  
Card Expiration: May 19, 2024  
Date Reported: May 17, 2024  
Report Number: 2569377-1

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**Sample Number:** 2443303-1

**Sampled Date:** May 14, 2024 10:30 AM

**Sample Description:** Group 1 Wastewater from Effluents

**Location:** WPA SS, WPA 20 - In Specification

**Date Analysis Commenced:** May 13, 2024

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

**Physical Property:** Yellow, a bit of solid, solid and turbid

**Page 1 of 1**

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Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing							
COD	mg/L	-	25	166	1,750	Standard Methods for the Determination of Water and Wastewater: APHA, AWWA & WEF, 19th ed., 2017, part 5210-D	Nongpradit
pH at 25 degrees C *		-	-	7.8	5.5-9.0	Standard Methods for the Determination of Water and Wastewater: APHA, AWWA & WEF, 19th ed., 2017, part 9100-B	Nongpradit
Total Suspended Solids Dried at 105-120 degrees C	mg/L	-	5	83	1,200	Standard Methods for the Determination of Water and Wastewater: APHA, AWWA & WEF, 19th ed., 2017, part 2540-D	Nongpradit

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

**Sampling:** 1) Timessat Pansakul (enclosed) v-204 v-008

**Remark:**

- LOD = Limit of Detection
- \* - " - " Lower than LOQ (Limit of Quantitation) / LOQ (Limit of Reporting)
- Supplies method " - " does not include in water of Accreditation (ISO/IEC 17025)
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

**Technical Management**



Nontawan Chantapong  
Scientist (S)  
enclosed/v-204 v-008

**Approved by**



Kiatkarnthorn  
Senior Manager  
enclosed/v-204 v-008

Website and data generated in accordance with the Laboratory Information Management System (LIMS) of the client. All data are subject to verification and approval by the client. The client is responsible for the accuracy and completeness of the data. The client is responsible for the accuracy and completeness of the data. The client is responsible for the accuracy and completeness of the data.


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	<h1 style="text-align: center;">Analysis / Test Report</h1>	 <p><b>TESTING</b>  <b>Lot ID:</b> 2443234  <b>Date Received:</b> May 14, 2024  <b>Date Reported:</b> May 13, 2024  <b>Report Number:</b> 2999010-1</p>				
<p><b>Client:</b> WTA Utilities and Power Public Company Limited          111 Bang Kaeo, Nongkhalang Road, Nongkhalang, Saraburi Thailand 18140</p>						
<p><b>P/O #:</b>  <b>Project Name:</b>  <b>Project Location:</b> WPA SSJ</p>						
<p><b>Sample Number:</b> 2443234-1  <b>Sampled Date:</b> May 14, 2024 10:40 AM</p>						
<p><b>Sample Description:</b> Group 1 Watermeter WWP Plant  <b>Location:</b> area B-1, WWP-40 / (at Western Pond)</p>						
<p><b>Data Analysis Commenced:</b> May 13, 2024</p>						
<p><b>Condition of Sample:</b> Contained in two plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA).</p>						
<p><b>Physical Property:</b> Green, some odour, solid and turbid.</p>						
<b>Analyte</b>	<b>Unit</b>	<b>LOD (µg/L)</b>	<b>Result</b>	<b>Guideline / Specification</b>	<b>Method</b>	<b>Testing Location</b>
<b>Water Testing</b>  <b>COD</b>	mg/L		25    27	<120	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005. 2510.45, 2511, open TOC-01	Bangkok
<b>pH (on site) *</b>			7.8	5.5-8.0	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005. open pH-40F-01-01	Bangkok
<b>Total Suspended Solids Dried At 120-150 degrees C</b>	mg/L		5    11	<50	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005. 2540.10, 2541, open COD-01	Bangkok
<p><b>Guideline:</b> Effluent standard for factories, industrial zones and industrial park set by notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by notification of the Ministry of Industry dated June 17, B.E.2564 (2021).  <b>Sampling By:</b> Technical Engineer individual# 1-204 + 0018</p>						
<p><b>Notes:</b>          - * Limit of Detection          - ** Lower than LOD (Limit of Quantification) / (Low Level of Reporting)          - Impaired result: Value not included in scope of Accreditation (ISO 17025)          - The laboratory has been accepted as an accredited institution complying with the ISO/IEC 17025.</p>						
<p><b>Technical Management</b></p> <p style="text-align: right;"><i>Sumrit C</i>          Sumrit Chantarasri          individual# +239 + 0018</p>				<p><b>Approved by</b></p> <p style="text-align: right;"><i>Kanit A</i>          Kanitkrit Arin          Senior Manager          individual# +239 + 0009</p>		
<p><small>* Note: When there are no parameters for analysis, please contact the Laboratory at 02-0262-9999 or email us at info@alsglobal.com</small></p> <p>©2023 by ALS Global Co., Ltd. Phrasakorn, Thai Samut Prakan, Bangkok 10130 Thailand   PHONE: +66 2 0262 9999   FAX: +66 2 0262 3179          Email: info@alsglobal.com   Website: www.alsglobal.com</p> <p><b>www.alsglobal.com</b></p> <p style="text-align: center;"><b>INSIGHT SOLUTIONS IN TODAY'S PRACTICE</b></p>						



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GOVERNMENT OF  
NAKHON PHANOM

## Analysis / Test Report

**Client** WPA Utilities and Power Public Company Limited  
 111 Moo 7, Nongnengdang Road, Nongnengdang, Nongnengdang, Saraburi (Thailand) (8140)

**P/O ID :**

**Project Name**

**Project Location** WPAE, SBL

**Sample Number** 2443322-1

**Sampled Date** May 21, 2024 9:35 AM

**Sample Description** Group 1 Wastewater WPA Plant

**Location** Area 102, (P1) (P2) (at Nongnengdang Plant)

**Date Analysis Commenced** May 23, 2024

**Condition of Sample** Collected in two plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA, USEPA)

**Physical Property** Wastewater, some odour, no solid and buffer

**TESTING**  
**Ref: 0509**  
**Lot ID: 2443322**  
**Date Received** May 21, 2024  
**Date Reported** May 27, 2024  
**Report Number** 29950819

Page 1 of 1

Analysis	Unit	LOD (LOB)	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>						
CO <sub>2</sub>	mg/L	—	25	30	Standard Methods for the Examination of Water and Wastewater, APHA, 1995B (9507, 9104-45, 9101, 9101-10)	Bangkok
pH (at 20°C) *		—	8.1	5.5-8.5	Standard Methods for the Examination of Water and Wastewater, APHA, 1995B (9104, 9104-10, 9104-10B, 9104-10C)	Bangkok
Total Suspended Solids (dried at 105-105 degrees C)	mg/L	—	5	10	Standard Methods for the Examination of Water and Wastewater, APHA, 1995B (9104, 9104-10, 9104-10B, 9104-10C)	Bangkok


**Guideline:** Effluent standard for factories, industrial estate and industrial park set by notification of the Ministry of Natural Resource and Environment and other standard for factories and industrial park set by notification of The Ministry of Industry dated June 01, 84, 2540 (251).

**Sampling by:** Internal Process (unaccredited) > 200 < 500.

**Remark:**


- 1- " " Limit of detection
- 2- " " Limit (Range LOD (Limit of Quantification) > LOD (Limit of Reporting)
- 3- Analytical method " " have not included in scope of Accreditation (ISO/IEC 17025)
- 4- The laboratory has been accepted as an accredited laboratory only with the ISO/IEC 17025.

**Technical Management**



Surin Chuanpradit  
Surin Chuanpradit  
Surin Chuanpradit  
Surin Chuanpradit  
Surin Chuanpradit

**Approved by**



Kerkkarn Aek  
Kerkkarn Aek  
Kerkkarn Aek  
Kerkkarn Aek  
Kerkkarn Aek

unaccredited > 200 < 500

Standard for Environmental Testing and Analysis (EN ISO 17025) is a standard for the competence of testing laboratories. It is not a standard for the accuracy of test results. The accuracy of test results is determined by the quality of the test method and the quality of the test material. The laboratory is not responsible for the accuracy of test results. The laboratory is not responsible for the accuracy of test results. The laboratory is not responsible for the accuracy of test results.

WPAE 102 (P1) (P2) (P3) (P4) (P5) (P6) (P7) (P8) (P9) (P10) (P11) (P12) (P13) (P14) (P15) (P16) (P17) (P18) (P19) (P20) (P21) (P22) (P23) (P24) (P25) (P26) (P27) (P28) (P29) (P30) (P31) (P32) (P33) (P34) (P35) (P36) (P37) (P38) (P39) (P40) (P41) (P42) (P43) (P44) (P45) (P46) (P47) (P48) (P49) (P50) (P51) (P52) (P53) (P54) (P55) (P56) (P57) (P58) (P59) (P60) (P61) (P62) (P63) (P64) (P65) (P66) (P67) (P68) (P69) (P70) (P71) (P72) (P73) (P74) (P75) (P76) (P77) (P78) (P79) (P80) (P81) (P82) (P83) (P84) (P85) (P86) (P87) (P88) (P89) (P90) (P91) (P92) (P93) (P94) (P95) (P96) (P97) (P98) (P99) (P100) (P101) (P102) (P103) (P104) (P105) (P106) (P107) (P108) (P109) (P110) (P111) (P112) (P113) (P114) (P115) (P116) (P117) (P118) (P119) (P120) (P121) (P122) (P123) (P124) (P125) (P126) (P127) (P128) (P129) (P130) (P131) (P132) (P133) (P134) (P135) (P136) (P137) (P138) (P139) (P140) (P141) (P142) (P143) (P144) (P145) (P146) (P147) (P148) (P149) (P150) (P151) (P152) (P153) (P154) (P155) (P156) (P157) (P158) (P159) (P160) (P161) (P162) (P163) (P164) (P165) (P166) (P167) (P168) (P169) (P170) (P171) (P172) (P173) (P174) (P175) (P176) (P177) (P178) (P179) (P180) (P181) (P182) (P183) (P184) (P185) (P186) (P187) (P188) (P189) (P190) (P191) (P192) (P193) (P194) (P195) (P196) (P197) (P198) (P199) (P200) (P201) (P202) (P203) (P204) (P205) (P206) (P207) (P208) (P209) (P210) (P211) (P212) (P213) (P214) (P215) (P216) (P217) (P218) (P219) (P220) (P221) (P222) (P223) (P224) (P225) (P226) (P227) (P228) (P229) (P230) (P231) (P232) (P233) (P234) (P235) (P236) (P237) (P238) (P239) (P240) (P241) (P242) (P243) (P244) (P245) (P246) (P247) (P248) (P249) (P250) (P251) (P252) (P253) (P254) (P255) (P256) (P257) (P258) (P259) (P260) (P261) (P262) (P263) (P264) (P265) (P266) (P267) (P268) (P269) (P270) (P271) (P272) (P273) (P274) (P275) (P276) (P277) (P278) (P279) (P280) (P281) (P282) (P283) (P284) (P285) (P286) (P287) (P288) (P289) (P290) (P291) (P292) (P293) (P294) (P295) (P296) (P297) (P298) (P299) (P300) (P301) (P302) (P303) (P304) (P305) (P306) (P307) (P308) (P309) (P310) (P311) (P312) (P313) (P314) (P315) (P316) (P317) (P318) (P319) (P320) (P321) (P322) (P323) (P324) (P325) (P326) (P327) (P328) (P329) (P330) (P331) (P332) (P333) (P334) (P335) (P336) (P337) (P338) (P339) (P340) (P341) (P342) (P343) (P344) (P345) (P346) (P347) (P348) (P349) (P350) (P351) (P352) (P353) (P354) (P355) (P356) (P357) (P358) (P359) (P360) (P361) (P362) (P363) (P364) (P365) (P366) (P367) (P368) (P369) (P370) (P371) (P372) (P373) (P374) (P375) (P376) (P377) (P378) (P379) (P380) (P381) (





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	 <b>TESTING No.0059</b> <b>Lot ID: 2455350</b> Gold Received : Jun 25, 2024 Date Reported : Jun 26, 2024 Report Number : 3000-737-1						
<b>Analysis / Test Report</b>							
<b>Client :</b> WEH Utilities and Power Public Company Limited							
113 Nua 7, Bangpakong Road, Nongprue, Samut Prakan (Thailand) 10140							
<b>P/O # :</b>							
<b>Project Name :</b>							
<b>Project Location :</b> (THAILAND, SS)							
<b>Sample Number :</b>	(240503-1)						
<b>Sampled Date :</b>	Jun 05, 2024 10:45 AM						
<b>Sample Description :</b>	Group 1 Wastewater - WW Plant						
	WW ST, 000 OF : see Client Contact Task						
<b>Date Analysis Commenced :</b>	Jun 26, 2024						
<b>Condition of Sample :</b>	Contained in two plastic bottles, sample containers comply to pre-treatment – preservation standards (APHA, USEPA).						
<b>Physical Property :</b>	Fedex, some odour, solid and no turbid						
Analyte	Unit	LOD	UCL	Result	Guideline / Specification	Method	Testing Location
Water Testing							
COD	mg/L	-	25	<25	1120	Standard Methods for the Examination of Water and Wastewater, APHA & ISO, 22nd ed., 1997, pp. 5275 D	Sangkok
pH at 25 degree C *				7.5	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA & ISO, 22nd ed., 1997, pp. 1006-1007	Sangkok
Total Suspended Solids Dried at 103-120 Degree C	mg/L	-	5	9	>50	Standard Methods for the Examination of Water and Wastewater, APHA, KJOM & JEF, 20th ed., 1995, pp. 254-6	Bangkok


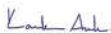
**Guideline:** Official standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resources and Environment and official standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2550 (2007).

**Sampling By:** National Inorganic Geochemical – 2024 = 0086

**Access:**

- \* LOD = Limit of Detection
- \*\* UCL = Upper Limit of Quantitation / UCL (Limit of Reporting)
- Anybody request "Access not included in scope of Accreditation ISO 17025"
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

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<b>Technical Management</b>   Siriluk Pannakorn Section Head ref:00000001-2024=0002	<b>Approved by</b>   Kachonchai Kiat Senior Manager ref:00000001-2024=0004
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We hereby declare that we are not providing any information or results from this report to any third party without the written consent of ALS. This report is confidential and its disclosure to any other person without the written consent of ALS is prohibited.


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ISO 9001:2015  
CERTIFIED

## Analysis / Test Report

**Client** WPP United and Power Public Company Limited  
111 Moo 7, Nongkroang Road, Nongkroang, Saraburi Thailand 18140

**P/O #** -

**Project Name** -

**Project Location** (WPP SS)

**Sample Number** Z0802091

**Sampled Date** Jun 03, 2024 11:00 AM

**Sample Description** Liquid (S) - (WPP SS) - (w/ Equalization Tank)

**Date Analysis Commenced** Jun 04, 2024

**Condition of Sample** Contained in new glass jars, not plastic bottles and three smaller glass bottles, sample containers comply to pre-treatment -

**Physical Property** Viscous, a bit of color, solid and lathal

Analyte	Unit	LOD	LOQ	Result	Standard / Specification	Method	Testing Location
Metals Testing							
	mg/L	0.0003	0.0005	0.004	<0.5	Standard Methods for the Examination of Water and Wastewater, APHA, KIRK & WELF, 23rd ed., 2012, pp. 152.9, 9, 3039	Saraburi
Boron	mg/L	0.0003	0.0005	0.12	<1	Standard Methods for the Examination of Water and Wastewater, APHA, KIRK & WELF, 23rd ed., 2012, pp. 152.9, 9, 3039	Saraburi
Calcium	mg/L	0.0003	0.0005	Not Detected	<0.01	Standard Methods for the Examination of Water and Wastewater, APHA, KIRK & WELF, 23rd ed., 2012, pp. 152.9, 9, 3039	Saraburi
Copper	mg/L	0.0003	0.0005	0.000	<1	Standard Methods for the Examination of Water and Wastewater, APHA, KIRK & WELF, 23rd ed., 2012, pp. 152.9, 9, 3039	Saraburi
Heavyweight Chromium	mg/L	0.003	0.01	Not Detected	<0.01	Standard Methods for the Examination of Water and Wastewater, APHA, KIRK & WELF, 23rd ed., 2012, pp. 152.9, 9, 3039	Saraburi
Lime	mg/L	0.0003	0.0005	0.003	<0.2	Standard Methods for the Examination of Water and Wastewater, APHA, KIRK & WELF, 23rd ed., 2012, pp. 152.9, 9, 3039	Saraburi
Manganese	mg/L	0.0003	0.0005	0.13	<1	Standard Methods for the Examination of Water and Wastewater, APHA, KIRK & WELF, 23rd ed., 2012, pp. 152.9, 9, 3039	Saraburi

**TESTING**  
No.0009

**Lab Ref:** 4555520

**Date Received** Jun 03, 2024

**Date Reported** Jun 11, 2024

**Report Number** 3000191-0

Page 1 of 1

**Technical Management**

*Saraburi N*  
Saraburi Nongkroang  
Manager  
michalee@wpp.com-0007

**Approved by**

*Wong A.H*  
Korakorn Awh  
Senior Manager  
michalee@wpp.com-0008

These results are for information only. They are not to be used for legal purposes. For more information, please contact the laboratory.

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**Lab. Technicians**

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**REPLY SOLIDITY TESTS ONLY**

[illegible]

ALS		ANALYTICAL CHEMISTRY		TESTING			
<b>Client</b> : WTA Utilities and Power Public Company Limited 112 Moo 7, Nongpracheng Road, Nongpracheng, Saraburi Thailand (18142)		<b>TESTING NO</b> : 001009 <b>Lot ID</b> : 2458520 <b>Calibration</b> : Jun 01, 2024 <b>Order Received</b> : Jun 11, 2024 <b>Report Number</b> : 3001709-1		<b>Page 1 of 1</b>			
<b>P/O #</b> : <b>Project Name</b> : <b>Project Location</b> : WTA SH,							
<b>Sample Number</b> : 21045012.01 <b>Sampled Date</b> : Jun 01, 2024 11:00 AM <b>Sample Description</b> : Group 1 Wastewater WWF Plant WTA SH, efflu (B) - on Effluentation Tank Jun 04, 2024 <b>Data Analysis Commanded</b> : <b>Condition of Sample</b> : Contained in two glass vials, ten plastic bottles and three amber glass bottles, sample containers comply to pre-treatment : preservative standard (ALMA, WSPA) Yellow, a bit of residue, solid and turbid							
<b>Physical Property</b> :							
Analyte	Unit	LOD	LOQ (LODx3)	Result	Guideline / Specification	Method	Testing Location
<b>Pesticides - Organochlorine Group</b>							
2,4-DEET *	µg/L	0.01	0.02	Not Detected	Not Standard	Standard Methods for the Examination of Water and Wastewater, ALPHA, ALPHA & WSP, 23rd ed., 2017, part 6630-01, part 6610-1	Bangkok
4,4-DDD *	µg/L	0.01	0.02	Not Detected	Not Standard	Standard Methods for the Examination of Water and Wastewater, ALPHA, ALPHA & WSP, 23rd ed., 2017, part 6630-01, part 6610-1	Bangkok
4,4-DDT *	µg/L	0.01	0.02	Not Detected	Not Standard	Standard Methods for the Examination of Water and Wastewater, ALPHA, ALPHA & WSP, 23rd ed., 2017, part 6630-01, part 6610-1	Bangkok
4,4'-DDT *	µg/L	0.01	0.02	Not Detected	Not Standard	Standard Methods for the Examination of Water and Wastewater, ALPHA, ALPHA & WSP, 23rd ed., 2017, part 6630-01, part 6610-1	Bangkok
Allylth *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, ALPHA, ALPHA & WSP, 23rd ed., 2017, part 6630-01, part 6610-1	Bangkok
allyth BHC *	µg/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, ALPHA, ALPHA & WSP, 23rd ed., 2017, part 6630-01, part 6610-1	Bangkok
Isob BHC *	µg/L	0.01	0.02	Not Detected	Not Standard	Standard Methods for the Examination of Water and Wastewater, ALPHA, ALPHA & WSP, 23rd ed., 2017, part 6630-01, part 6610-1	Bangkok
<b>Technical Management</b>		 Somsri Nongpracheng Manager 010-000-0000-0000		<b>Approved by</b>  Kanchana Kien Senior Manager 010-000-0000-0000			
<small>           *Method used for the analysis is in accordance with the following standards:            1. Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, part 6630-01, part 6610-1            2. Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, part 6630-01, part 6610-1            3. Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017, part 6630-01, part 6610-1         </small>							
<b>Link to documents</b> :		<b>www.alsphol.com</b>					
<b>Project</b> : SIDA-41-107574		<b>Project</b> : SIDA-41-107574					

[illegible]

## Analysis / Test Report

**Client** WPA Utilities and Power Public Company Limited  
113 Moo 1, Nongphak Road, Nongphak, Nongphak, Saraburi Thailand 18142

### TESTING

Ref: 05059

**Lot ID: 245520**

Test Method: Jem 10, 2024

Date Reported : Jun 11, 2024

Report Number : 3952709

Page 1 of 7

**P/O ID :**  
**Project Name**  
**Project Location** WPA, SS

**Sample Number** : 245520-1  
**Sample Date** : Jun 03, 2024 11:00 AM  
**Sample Description** : Group 1 Wastewater from Effluent Plant  
**Location** : (see 29) : se Effluent Tank  
**Date Analyzed/Commented** : Jun 04, 2024

**Condition of Sample** : Contained in two glass vials, ten plastic bottles and three amber glass bottles, sample containers comply to requirement - preservation standards (APHA, USEPA)  
**Physical Property** : Yellow, a lot of odor, solid and turbid

Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Pesticides - Organochlorine Group</b> Insecticide/Carboate *	mg/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 21st ed., 2017, part 9102.0, part 9102.1	Bangkok
Linoleic (gamma-BHC) *	mg/L	0.01	0.02	Not Detected	Not Detected	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 21st ed., 2017, part 9102.0, part 9102.1	Bangkok
Phthalonitrile *	mg/L	0.01	0.02	Not Detected	Not Standard	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 21st ed., 2017, part 9102.0, part 9102.1	Bangkok
<b>Water Testing</b> BOD (5 days @ 20 degree C)	mg/L		2.0	2.2	<500	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 21st ed., 2017, part 9102.0, part 9102.1	Bangkok
COD	mg/L		25	119	<750	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 21st ed., 2017, part 9102.0, part 9102.1	Bangkok
Color (at Original pH) *	ADME		5	17	Not Standard	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 21st ed., 2017, part 9102.0, part 9102.1	Bangkok
Color (at pH 12) *	ADME		5	21	Not Standard	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 21st ed., 2017, part 9102.0, part 9102.1	Bangkok

Technical Management

*Sarathin N*  
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Approved by

*Kanokkorn Aue*  
Kanokkorn Aue  
Senior Manager  
kanokkorn@wpa.co.th

Standard and Test Method: APHA 1995, 21st ed., 2017, part 9102.0, part 9102.1; USEPA 821-B-97-010; ISO 15705-1:2006; JIS S 5017:2005; JIS S 5018:2005; JIS S 5019:2005; JIS S 5020:2005; JIS S 5021:2005; JIS S 5022:2005; JIS S 5023:2005; JIS S 5024:2005; JIS S 5025:2005; JIS S 5026:2005; JIS S 5027:2005; JIS S 5028:2005; JIS S 5029:2005; JIS S 5030:2005; JIS S 5031:2005; JIS S 5032:2005; JIS S 5033:2005; JIS S 5034:2005; JIS S 5035:2005; JIS S 5036:2005; JIS S 5037:2005; JIS S 5038:2005; JIS S 5039:2005; JIS S 5040:2005; JIS S 5041:2005; JIS S 5042:2005; JIS S 5043:2005; JIS S 5044:2005; JIS S 5045:2005; JIS S 5046:2005; JIS S 5047:2005; JIS S 5048:2005; JIS S 5049:2005; JIS S 5050:2005; JIS S 5051:2005; JIS S 5052:2005; JIS S 5053:2005; JIS S 5054:2005; JIS S 5055:2005; JIS S 5056:2005; JIS S 5057:2005; JIS S 5058:2005; JIS S 5059:2005; JIS S 5060:2005; JIS S 5061:2005; JIS S 5062:2005; JIS S 5063:2005; JIS S 5064:2005; JIS S 5065:2005; JIS S 5066:2005; JIS S 5067:2005; JIS S 5068:2005; JIS S 5069:2005; JIS S 5070:2005; JIS S 5071:2005; JIS S 5072:2005; JIS S 5073:2005; JIS S 5074:2005; JIS S 5075:2005; JIS S 5076:2005; JIS S 5077:2005; JIS S 5078:2005; JIS S 5079:2005; JIS S 5080:2005; JIS S 5081:2005; JIS S 5082:2005; JIS S 5083:2005; JIS S 5084:2005; JIS S 5085:2005; JIS S 5086:2005; JIS S 5087:2005; JIS S 5088:2005; JIS S 5089:2005; JIS S 5090:2005; JIS S 5091:2005; JIS S 5092:2005; JIS S 5093:2005; JIS S 5094:2005; JIS S 5095:2005; JIS S 5096:2005; JIS S 5097:2005; JIS S 5098:2005; JIS S 5099:2005; JIS S 5100:2005; JIS S 5101:2005; JIS S 5102:2005; JIS S 5103:2005; JIS S 5104:2005; JIS S 5105:2005; JIS S 5106:2005; JIS S 5107:2005; JIS S 5108:2005; JIS S 5109:2005; JIS S 5110:2005; JIS S 5111:2005; JIS S 5112:2005; JIS S 5113:2005; JIS S 5114:2005; JIS S 5115:2005; JIS S 5116:2005; JIS S 5117:2005; JIS S 5118:2005; JIS S 5119:2005; JIS S 5120:2005; JIS S 5121:2005; JIS S 5122:2005; JIS S 5123:2005; JIS S 5124:2005; JIS S 5125:2005; JIS S 5126:2005; JIS S 5127:2005; JIS S 5128:2005; JIS S 5129:2005; JIS S 5130:2005; JIS S 5131:2005; JIS S 5132:2005; JIS S 5133:2005; JIS S 5134:2005; JIS S 5135:2005; JIS S 5136:2005; JIS S 5137:2005; JIS S 5138:2005; JIS S 5139:2005; JIS S 5140:2005; JIS S 5141:2005; JIS S 5142:2005; JIS S 5143:2005; JIS S 5144:2005; JIS S 5145:2005; JIS S 5146:2005; JIS S 5147:2005; JIS S 5148:2005; JIS S 5149:2005; JIS S 5150:2005; JIS S 5151:2005; JIS S 5152:2005; JIS S 5153:2005; JIS S 5154:2005; JIS S 5155:2005; JIS S 5156:2005; JIS S 5157:2005; JIS S 5158:2005; JIS S 5159:2005; JIS S 5160:2005; JIS S









## TESTING

Lot ID: 2458536  
Date Received : Jun 25, 2022  
Date Reported : Jun 28, 2022  
Report Number : 3007437-1

Page 2 of 3

<b>Date Analysis Commenced</b>	Jun 26, 2024
<b>Condition of Sample</b>	Contained in two plastic bottles, sample containers comply to pretreatment - preservation standards (APHA, US EPA)

Physical Property	Green, a bit of odour, solid and turbid
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Analysis	Unit	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Feeding Location
Water Testing							
COD	mg/L	-	25	31	<120	Standard Methods for the Examination of Water and Wastewater, APHA, ASTM & WEF, 19th ed., 2005, pp. 5219-20	Rangeek
pH (in tank)	-	-	8.2	8.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, ASTM & WEF, 19th ed., 2005, pp. 4500 - 4501	Rangeek
Total Suspended Solids (dried at 125-135 degrees C)	mg/L	-	5	18	150	Standard Methods for the Examination of Water and Wastewater, APHA, ASTM & WEF, 19th ed., 2005, pp. 2540-2541	Rangeek

**Guideline:** Effluent standard for factories, industrial estate and industrial park set by Notification of the Ministry of Natural Resource and Environment and effluent standard for factories and industrial park set by Notification of The Ministry of Industry dated June 07, B.E.2560 (2017).  
**Sampling By:** National Instrument Pollution 1-204-0000

Remarks:

- LOD = Limit of Detection
- "n" = Lower than LOQ (Limit of Quantitation) / LOR (Limit of Reporting)
- Analysis marked \* where not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

### Technical Management

Siriluk P.

**Assessment fee**

Karl Andre

Source: data not available; as certified, unless the sampling was indicated in this format. All the figures may be expressed in any form without further notice from the publisher.

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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, 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, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26





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ภาคผนวก ค-6

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คุณภาพน้ำทิ้ง (โรงงานอุตสาหกรรม)

 <div style="text-align: right;">  </div>							
Analysis / Test Report							
Client : <b>Alsa Utilities and Power Public Company Limited</b> 111 Moo 7, Nongkhai Road, Nongkhai, Nakhon Phanom 58143 (Thailand)			<b>TESTING</b> <b>Lot ID: 00509</b> <b>Lot ID: 23147509</b> <b>Date Received : Jan 15, 2019</b> <b>Date Reported : Jan 17, 2019</b> <b>Report Number : 28375214</b>				
<b>Project Name : Factory - Monthly</b> <b>Project Location : NAVA 32</b>							
Page 1 of 1							
<b>Sample Number</b>	23147509-1						
<b>Sampled Date</b>	Jan 15, 2019 9:30 AM						
<b>Sample Description</b>	Sludge / Wastewater	WWT	PH	48.5			
<b>Container ID</b>	ISO, 20L, 2000						
<b>Date Analysis Commenced</b>	Jan 15, 2019						
<b>Condition of Sample</b>	Collected in three plastic bottles and one amber glass bottle, samples containers comply to requirements - preservation conditions (ALSA, ISO779)						
<b>Physical Property</b>	Visible, some solid, white and turbid						
Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
SS (or TSS) at 20 degree (C)	mg/L	—	2.8	7.2	0.050	Standard Methods for the Examination of water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 5123.8	Bangkok
DOC	mg/L	—	25	40	3.750	Standard Methods for the Examination of water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 5123.9	Bangkok
Chl & Green *	mg/L	—	3	<3	125	Standard Methods for the Examination of water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 5123.8	Bangkok
ph (or calc) *				7.36	5.5-9.0	Standard Methods for the Examination of water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 5123.9	Bangkok
Temperature *	Degree C	—	—	28.3	0-40	Standard Methods for the Examination of water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 5123.8	Bangkok
Total Suspended Solids (Total at 103-105 Degree C	mg/L	—	5	61	<100	Standard Methods for the Examination of water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, part 2490.3	Bangkok
<b>Guideline :</b> Standard of WWTP Sludge/Industrial LAGO, Maximum levels for wastewater discharging to central wastewater treatment plant.							
<b>Sampling By :</b> In-house Chemist evidenced by 103-17517							
<b>Remarks :</b> <ul style="list-style-type: none"> <li>- LOD : Limit of Detection</li> <li>- LOQ : Lowest limit (LOQ) of concentration / LOQ (Limit of Quantification)</li> <li>- Analytical method * refers not evaluated in scope of Accreditation ISO/IEC 17025.</li> <li>- The results have been accepted as an accredited laboratory complying with the ISO/IEC 17025.</li> </ul>							
<b>Technical Management</b>  Nont Somb Senior Technical Supervisor evidenced by 2204-4778		<b>Approved by</b>  Kanchana Kiat Senior Manager evidenced by 2204-4811					
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[illegible]



Lot ID: 23147318  
Date Received : Jan 04, 2011  
Date Reported : Jan 13, 2011  
Receipt Number : 3872954-4

Date Reported : Jan 18, 2016  
Report Number : 3872954-1

[illegible]

**Guideline:** Standard of WHO Sewer Industrial Limit, Maximum level for wastewater discharging to central wastewater treatment plant.

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Analyses marked \* where not included in scope of accreditation ISO/IEC 17025.

Approved by: Carl Ash  
 Karickhoff Ash  
 Senior Manager  
 ext 20446-6111

Results given in the summary are consistent with the analysis, and consistent with the fact that the report may be interpreted in a way that reflects neither content from the document. It is therefore likely that the report is not a summary of the document.

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No 0009  
**Lot 10: 23147259**  
 Date Received : Jan 10, 20  
 Date Reported : Jan 17, 20  
 Report Number : 2872613

Case Reported : Jan 17, 2018

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Sample Description	GRI-28126B HW-CT					Site	
Contract ID	US-25-2756	Plot	146			Kruak (Kaplan) (Thailand) Co., Ltd.	
Date Analyzed	Jan 11, 2024						
Chemical Component	Combined as three plastic bottles and one amber glass bottle, sample containers comply by pre-treatment - preservation (state)						
Chemical Name	AMPA, AMPA, Toluene, none other, a trace of solid and some water						
Physical Property							
Analyte	Units	LOD	LOQ / LOD	Result	Guideline / Specification	Method	Test Date
Water Testing							
ROD (3 Days @ 28 degree C)	mg/L	-	2.0	15.3	1300	Standard Methods for the Examination of Water and Wastewater: EPA, ASTM & NSF, 23rd ed., 2017, page 1023B to page 4050 10-15	
COO	mg/L	-	25	87	1750	Standard Methods for the Examination of Water and Wastewater: EPA, ASTM & NSF, 23rd ed., 2017, page 1023B to 1023C	Jan 11, 2024
Oil & Grease +	mg/L	-	3	6	115	Standard Methods for the Examination of Water and Wastewater: EPA, ASTM & NSF, 23rd ed., 2017, page 1023C	Jan 11, 2024
pH (at 25 degree C)	-	-	-	8.0	5.5-9.2	Standard Methods for the Examination of Water and Wastewater: EPA, ASTM & NSF, 23rd ed., 2017, page 4040 + (B)	Jan 11, 2024
Temperature +	degree C	-	-	27.8	1-45	Standard Methods for the Examination of Water and Wastewater: EPA, ASTM & NSF, 23rd ed., 2017, page 4040 + (B)	Jan 11, 2024
Total Suspended Solids (at 105 degree C)	mg/L	-	5	78	1200	Standard Methods for the Examination of Water and Wastewater: EPA, ASTM & NSF, 23rd ed., 2017, page 1023B to 1023C	Jan 11, 2024

**Guideline:** Standard of WHO Sewerage Sanitation Code, Maximum levels for wastewater discharging to central wastewater treatment plant.

Sampling By : Jerald Chowace vrs20000976 v 204-v 2517

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

Approved by: Karl Auk  
Karl Auk  
Service Manager

[illegible]

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Lot ID: 23147261

Date Reported : Jan 19, 2011

*Journal of Management Education* 32(10)

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Section/Description	Group 2: Whitehead WBVET					Site: Whitehead Swan Co., Ltd.	
Contract ID	SA_012_2534	Plot	SA/3/51				
<b>Date Analysis Commenced</b>	Contracted in three phases (water and air under glass bottles, sample containers comply by permitment – preservation class 1)						
<b>Condition of Sample</b>	(APHA, ISO 9246) Liquid, some water, solid and turbid						
<b>Physical Property</b>							
<b>Analyte</b>	Unit	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Test Label
<b>Water Testing</b>							
DOC (3 days at 20 degree C)	mg/L	1.8	23.1	<1000		Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 2nd ed., 2012; ISO 15828, 2nd ed. 2010	
COD	mg/L	-	25	79	<750	Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 2nd ed., 2012; ISO 15828, 2nd ed. 2010	
Oil & Grease +	mg/L	3	5	<110		Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 2nd ed., 2012; ISO 15828, 2nd ed. 2010	
pH (in air)		-	-	6.8	5.5-8.5	Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 2nd ed., 2012, 2017, 2019	
Temperature +	degree C	-	32.0	<45		Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 2nd ed., 2012, 2017, 2019	
Total Suspended Solids (at 103-101 degree C)	mg/L	5	11	<1000		Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 2nd ed., 2012, 2017, 2019	

**Guideline:** Standard of WPA Serabut Industrial Park, Maximum levels for wastewater discharging to central wastewater treatment plant.

Sampling By : Nathanael Segerson w/Incentive 1-204-s-7832

- "C" (Lower than LOD (Limit of Detection) / OR (Limit of Reporting))

Approved by: Karl Auk  
Karl Auk  
Senior Manager  
and Business Unit 2004-03-11

Results apply to the scenarios as described, unless the scenario was constrained by A-2. No part of this report may be reproduced in any form without written consent from the publisher.

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**ALS**

**ANALYSIS / TEST REPORT**



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**Client** : WUA L30THs and Power Public Company Limited  
 111 Moo 2, Nongkhaeng Road, Nongkhaeng, Saraburi Thailand 18140

**P/P ID** :  
**Project Name** : Factory / Monthly  
**Project Location** : Sarab 13

**Sample Number** : 21573473 5  
**Received Date** : Jan 08, 2012 11:00 AM  
**Sample Description** : Group 2 Wastewater WQ-C  
**Contract ID** : SAR-200-2007      **Test** : 14209      **Site** : NE SHULS(THAILAND) CO., LTD.  
**Date Analysis Commenced** : Jan 09, 2012  
**Condition of Sample** : Combined in one amber glass bottle and three plastic bottles, sample containers comply to pre-treatment - preservation instructions (SAR050509)  
**Physical Property** : Volume, a kit of volume, solid and turbid

**TESTING**  
**Ref. NO.009**  
**Lot ID: 231427311**  
**Date Issued** : Jan 08, 2012  
**Date Reported** : Jan 15, 2012  
**Report Number** : 18735013 4

Page 1 of 1

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Analyte	Unit	LOD	LOQ	LLOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>								
SSD (3 days at 20 degree C)	mg/L	-	1.0	45.2	6.000	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2011, part 1910 (19)	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2011, part 1910 (19)	Bangkok
COD	mg/L	-	25	267	1750	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2011, part 1910 (19)	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2011, part 1910 (19)	Bangkok
Oil & Grease *	mg/L	-	3	8	110.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2011, part 1910 (19)	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2011, part 1910 (19)	Bangkok
pH (in situ) *	-	-	-	-	7.4	5.5 to 8	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2011, part 9000 (19)	Bangkok
Temperature *	Degree C	-	-	-	29.3	1-6	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2011, part 2550 (9)	Bangkok
Total Suspended Solids (Grit at 150-190 Degree C)	mg/L	-	5	107	1200	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2011, part 2540 (9)	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2011, part 2540 (9)	Bangkok

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**Guideline** : Standard of WUA Saraburi Industrial Limit, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By** : Normant Kanokkarn (wv2004-3-200-3-0411)


\* - LOD : Limit of Detection  
 \* - LQ : Lower than LOQ (Limit of Quantitation) (Unit of Reporting)  
 \* - (Accepted) method : Allow not exceeded a range of Acceptable Deviation (10%)  
 \* - The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.

---

**Technical Management**

  
 Sirinluk Pumpang  
 Section Head  
 wv2004wv2-3-200-4-0221

**Approved by**

  
 Kanokkarn Aue  
 Senior Manager  
 wv2004wv2-3-200-4-0111


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Reference: ISO 17025:2005, Calibration and testing of laboratories in accordance with the requirements of ISO 9001:2008

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## Analysis / Test Report

**Client** : WWA (Sattara and Power Public Company Limited)  
 111 Moo 5, Nongkajung Road, Nongkajung, Nongkajung, Saraburi Thailand 18140

**P/P ID** :

**Project Name** : Factory / Monthly  
**Project Location** : (link 13)

**Sample Number** : 21247079-1

**Collection ID** : (Jan 10, 2024 10:40 AM)

**Sample Description** : Group 2 Wastewater WWS-C  
 (Jan 10, 2024)

**Date Analysis Completed** : Jan 13, 2024

**Condition of Sample** : Combined 5 brown plastic bottles and one silver glass bottle, sample containers comply to (pre-treatment - preservation standards: (SAPM, ISO 9001)

**Physical Property** : Soluble, some color, solid and no baral

**TESTING**  
**Lot ID: 23142270**  
**Date Recd** : Jan 12, 2024  
**Date Reported** : Jan 15, 2024  
**Report Number** : 2874741-1

Page 1 of 1

Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
SS (50 ml at 20 degree C)	mg/L	-	1.0	14.3	6500	Standard Methods for the Examination of Water and Wastewater, APHA 5210 B, 23rd ed., 2013, part 5110 B and 2400 C-2	Bangkok
COD	mg/L	-	25	<25	1750	Standard Methods for the Examination of Water and Wastewater, APHA 5210 B, 23rd ed., 2013, part 5210 B	Bangkok
Oil & Grease *	mg/L	-	3	<3	1151 B	Standard Methods for the Examination of Water and Wastewater, APHA 5210 B, 23rd ed., 2013, part 5210 B	Bangkok
pH (in air) *		-		7.3	5.5 to 8	Standard Methods for the Examination of Water and Wastewater, APHA 5210 B, 23rd ed., 2013, part 9000 - (1) B	Bangkok
Temperature *	Degree C	-		30.2	1-6	Standard Methods for the Examination of Water and Wastewater, APHA 5210 B, 23rd ed., 2013, part 2500 B	Bangkok
Total Suspended Solids (Grit at 150-180 degree C)	mg/L	-	5	<5	1200	Standard Methods for the Examination of Water and Wastewater, APHA 5210 B, 23rd ed., 2013, part 2540 D	Bangkok

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

**Sampling By** : National Engineering Laboratory V-204-V-382

**Lab** :

- LOD : Limit of Detection
- LQ : Lower than LOQ (Limit of Quantitation) (Link of Reporting)
- Analytical method : Same as requested or scope of Accreditation ISO/IEC 17025
- The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.

**Technical Management**

*Siriluk P.*

Siriluk Pumpuang  
 Section Head  
 mwsiriluk@v-204-v-4221

**Approved by**

*Kanokkarn A.*

Kanokkarn Aue  
 Senior Manager  
 mwsiriluk@v-204-v-4221

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Analysis / Test Report					TESTING No. 0009	
Client : WMA Utilities and Power Public Company Limited (111 Moo 2, Nongkhai Road, Nongkhai, Nakhon Phanom Thailand 18040)					Lot ID: <b>23147266</b> Report Number : 23147266-1	
P/P / Project Name : Factory Facility Project Location : BKK 15					Date Reported : 16 Jan 25, 2024 Date Issued : 16 Jan 25, 2024 Reference No. : 387362-1	
					Page 1 of 3	
Sample Number	23147266-1					
Collection Date	Jan 04, 2024 10:00 AM-VT					
Sample Description	Group 2 Wastewater WWS-CF		Flt		Site	Siam SGC Technopark Co.,Ltd.
Contract Ref	AE_2023_2554					
Date Analysis Commenced	Jan 05, 2024					
Kind of Sample	Combined in three plastic bottles and one amber glass bottle, samples contains comply to pretreatment - preservation conditions. (WWTU, WTPFA)					
Physical Property	Liquid, some solid, sealed and bottled					
Analyte	Unit	LOD	LOQ	Result	Coefficient / Specification	Method/ Testing Location
BOD (5 days at 20 degree C)	mg/L	-	1.8	9.8	0.990	Standard Methods for the Determination of Water and Wastewater, APHA & APT, 23rd ed., 2017, part 5113 B, part 4909, 15-2
COD	mg/L	-	25	76	1.750	Standard Methods for the Determination of Water and Wastewater, APHA & APT, 23rd ed., 2017, part 5212 D
Oil & Grease *	mg/L	-	3	<3	1.00	Standard Methods for the Determination of Water and Wastewater, APHA & APT, 23rd ed., 2017, part 1601 B
pH (in air) *	-	-	-	7.5	5.5-9.0	Standard Methods for the Determination of Water and Wastewater, APHA & APT, 23rd ed., 2017, part 4500 H-1/2
Temperature *	Degree C	-	-	27.8	1-45	Standard Methods for the Determination of Water and Wastewater, APHA & APT, 23rd ed., 2017, part 2550 B
Total Suspended Solids (Grit at 150 mesh Degree C)	mg/L	-	9	18	1.200	Standard Methods for the Determination of Water and Wastewater, APHA & APT, 23rd ed., 2017, part 2540 D
<b>Guideline :</b> * Standard of WMA Sanitary Industrial Limit, Maximum levels for wastewater discharging to central wastewater treatment plant. <b>Sampling By :</b> * National Wastewater Audit Bureau # 384 + 1/2021 Notes : = LOD (Limit of Detection) = LOQ (Lower than LOQ) of Quantitation / LOQ (Limit of Reporting) = "Acceptable" result ** value not included a range of Acceptability Standard (100%). * The laboratory has been accredited as an external laboratory company and by the ISO/IEC 17025.						
Technical Management		 Sumrit Chaiyapattana Section 1 (S) Incharge/analyst 23147266-1-231473		Approved by  Kachakorn Kanchanarak Senior Manager mduw@wma-ud.com+45111		
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**ALS**  
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## Analysis / Test Report



**TESTING**  
No.009

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**Client** WTA (Straits and Power Public Company Limited)  
 111 No.7, Nongpakdee Road, Nongpakdee, Saraburi Thailand (26140)  
**P/P / I**  
**Project Name** : Factory / Monthly  
**Project Location** : NWA 152

**Lot ID: 247830**  
**Date Received** : 16th Feb, 2024  
**Date Reported** : Feb 16, 2024  
**Report Number** : 24910241

Page 1 of 1

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**Sample Number** 247830-9  
**Feb 05, 2024 10:40 AM**  
**Customer ID** Group 2 Westernmost WVC  
**Feb 05, 2024**      **Test 1**  
**Date Analysis Commenced** Feb 10, 2024  
**Condition of Sample** (APHA/ISO/PP)  
 bottles, some sealed, sealed and in barrel

**Site** Air Liquide (Thailand) Co., Ltd.

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Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
SSD : (30 to 200 mg/L)	mg/L	—	3.0	14.4	6.000	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WEF, 2nd ed., 2011, part 1115 & part 2400, C-2	Bangkok
COD	mg/L	—	25	76	1.750	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WEF, 2nd ed., 2011, part 1221-1	Bangkok
Oil & Grease *	mg/L	—	3	3	1.10	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WEF, 2nd ed., 2011, part 1020-B	Bangkok
pH (in air) *		—		8.4	5.5 to 8	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WEF, 2nd ed., 2011, part 9000 - H-100	Bangkok
Temperature *	Degree C	—		33.9	<40	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WEF, 2nd ed., 2011, part 2550-B	Bangkok
Total Suspended Solids (Total at 103-105 Degree C)	mg/L	—	5	10	1.200	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WEF, 2nd ed., 2011, part 2540-D	Bangkok

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

**Sampling By** : National Pongphak Industrial Plant > 204 > 1131

**Notes** :

- LOD : Limit of Detection
- LOQ : Lower than LOQ (Limit of Quantitation) < LOQ (Limit of Reporting)
- \* required : "Asterisk included in a column of Accreditation (ISO) 17025."
- The laboratory has been accredited as an approved laboratory company with the ISO/IEC 17025.

**Technical Management**

*Siriluk P.*

Siriluk Pongphak  
Section Head  
industrial&w > 204 > 4220

**Approved by**

*Kanokkarn A.*

Kanokkarn Aue  
Senior Manager  
industrial&w > 204 > 4111

Reference: [www.als.com.au](http://www.als.com.au)      [www.iso.org](http://www.iso.org)      [www.irs.com](http://www.irs.com)

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**Lab. No.** 24910241

**www.als.com.au**

**INDUSTRIAL ANALYTICAL REPORT / P-07616-40-1**



	 <b>SINGAPORE ENVIRONMENT AGENCY</b> NEA					
<b>Analysis / Test Report</b>						
Client : WTA Utilities and Power Public Company Limited (111 Moo 7, Nongnenglad Road, Nongnenglad, Saraburi Thailand 18140)	TESTING No. 0009					
P/P# : 1	Lot ID: 247837					
Project Name : Factory Facility	Date Received : Feb 05, 2024					
Project Location : Srisak.	Report Number : Feb 16, 2024					
	Date Taken : 29/01/24					
Page 1 of 1						
Sample Number : 247837-1						
Received Date : Feb 05, 2024 9:30 AM						
Sample Description : Group 2 Wastewater WW-CF						
Contract Ref : ISL_2024_2354	Plot : 2					
Location : Plot 3	Site : Guardian Industries Corp Ltd.					
Date Analysis Commenced : Feb 16, 2024						
<b>Condition of Sample</b> Container used: amber glass bottle and three plastic bottles, samples containers comply to pretestimony - preservation standards (APHA/CLEPFA).						
<b>Physical Property</b> Inlet, minor outlet, & effluent of water and sewerage treatment plant.						
Analyte	Unit	LOQ (LOD)	Result	Guideline / Specification	Method	Testing Location
BOD (5 days at 20 degree C)	mg/L	< 2.8	12.7	>1000	Standard Methods for the Examination of Water and Wastewater, APHA, 8220B & WEI, 23rd ed., 2017, page 1218-B & page 4900 - D-5	Singapore
COD	mg/L	25	81	>750	Standard Methods for the Examination of Water and Wastewater, APHA, 8210B & WEI, 23rd ed., 2017, page 5230-D	Singapore
Oil & Grease *	mg/L	< 3	<3	<10	Standard Methods for the Examination of Water and Wastewater, APHA, 9250B & WEI, 23rd ed., 2017, page 1520-B	Singapore
pH (on site) *	-	-	7.4	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, 9245B & WEI, 23rd ed., 2017, page 4030 - H-20	Singapore
Temperature *	Degree C	-	31.4	<45	Standard Methods for the Examination of Water and Wastewater, APHA, 9245B & WEI, 23rd ed., 2017, page 4030 - H-20	Singapore
Total Suspended Solids (2nd at 103-105 degree C)	mg/L	< 5	37	>1000	Standard Methods for the Examination of Water and Wastewater, APHA, 9245B & WEI, 23rd ed., 2017, page 2030-B	Singapore
<hr/> <p><b>Guideline :</b> Standard of WTA Saraburi Industrial Land Maximum levels for wastewater discharging to central wastewater treatment plant.</p> <p><b>Sampling by :</b> Tamsat Pumpang Pongkumwong &amp; VDA-47238</p> <p>Remark :</p> <ul style="list-style-type: none"> <li>- LOQ = Limit of Detection</li> <li>- "&lt;" = Lower than LOQ (Limit of Quantification) &amp; LOQ (Limit of Reporting)</li> <li>- "negative/not detect" = does not included in range of Accreditation ISO/IEC 17025.</li> <li>- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.</li> </ul>						
Technical Management		 Sirinuk Pumpang Incharge Quality Assurance inhouseNo. V-204-A-4728		Approved by  Kachay An. Senior Manager inhouseNo. V-204-A-4728		
 <a href="http://www.alsglobal.com">www.alsglobal.com</a>						



Lot ID: 249585  
Date Received: Feb 08, 2024  
Date Reported: Feb 15, 2024  
Receipt Number: 2897062-1

Page 2 of 4

[illegible]

Lot ID: 247838  
Date Received : Feb 06, 2024  
Date Reported : Feb 13, 2024  
Report Number : 3894977.1

Page 3 of 3

Sample Number	21781				
Sample Date	01/28/2024				
Sample Description	Group 2 12000000 HWCT				
Contract ID	ES_S09_2024	Plant	41.44	Site	JCY HED Technology Co., Ltd.
Data Analysis Commenced					
On 07/02/2024					
Conducted in three plants, field and one and/or glass bottle, sample techniques comply to pre-treatment, preservation etc.					
Condition of Sample					
(APHA, US EPA, Chinese, Japan, Korea, India, and so on) as listed					
Physical Property					
Analyte	Unit	LOD	LOQ	Result	Guideline / Specification
Method					
Testing Location					
Water Testing					
ROD (1 in 20 @ 25 degree C)	mg/L	0.01	3.0	<2.0	1500
					Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & EPA, 23rd ed., 2012, pp. 2510 & pp. 9500 - G.6
COO	mg/L	-	25	26	1750
					Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & EPA, 23rd ed., 2012, pp. 5370 D
Oil & Grease *	mg/L	-	3	<3	110
					Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & EPA, 23rd ed., 2012, pp. 5520 B
pH (at 25 °C)	-	-	-	-	5.5-9.0
					Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & EPA, 23rd ed., 2012, pp. 4510
Temperature *	°C	-	-	30.2	14.0
					Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & EPA, 23rd ed., 2012, pp. 2550 B
Total Suspended Solids (Total & LOQ) mg/L	mg/L	-	5	<5	1200
					Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & EPA, 23rd ed., 2012, pp. 2540 D

10

**Guideline:** Standard of WHO Sewage industrial Limit, Maximum levels for wastewater discharging to central wastewater treatment plant.  
**Sampling by:** Nirmal Kumar Singh (9811-201-5411)

**Notes:**

- LOD (Limit of Detection)
- "n" (Lower than LOD (Limit of Quantitation) / UCL (Limit of Reporting)
- Average marked \* Acre 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.

Technical Manager	<u>Sinluk P.</u>	Approved by <u>Kasit A.</u>	Kasit Ake Senior Manager instructed 9/20/2011
	Sinluk Pungang Section Head instructed 9/20/2011		
<p>Read and sign off in indicated or authorized position. Do not authorize any personnel to sign off in position not authorized or in position not authorized. Do not authorize any personnel to sign off in position not authorized or in position not authorized.</p>			
<p>ADDRESS: 80/Phatthanabulue Rd., Phatthanabulue Sub-Town, Long, Bangkok 10250 Thailand TEL: 0066-02-67789000 FAX: 0066-02-67789001</p>			
<p>www.adpinfo.com</p>			
<p>INDOAT NON-APPROVED</p>			

Lot ID: 247845  
Date Received : Feb 08, 2024  
Date Reported : Feb 15, 2024  
Report Number : 2893371-1

1999

Sample Number	24780-1						
Sample Date	Feb 05, 2024 9:40 AM						
Sample Description	Group 2: Water/Glycerol						
Contract ID	SA_018_2024 Prod 18,403						
Contract Address Commercial	Feb 05, 2024						
Contract of Sample	Customer of sample: amber glass bottles and three plastic bottles; plastic containers comply to pharmaceutical - pharmaceutical containers (AMCA/OSPD) Wine, wine cellar, cold water						
Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Treated	mg/L	20	60.6	1000		Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 22nd ed., pp. 1513-14, part 900: C-01	Berkeley
COD	mg/L	—	25	133	1750	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 22nd ed., pp. 1513-14, part 900: C-01	Berkeley
Oil & Grease *	mg/L	—	3	10	110	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 22nd ed., pp. 953-9	Berkeley
pH (in air) *		—	—	—	6.5	5.5-8.5 Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 22nd ed., pp. 650-1, 653	Berkeley
Temperature *	(Degree C)	—	—	13.2	4	10-20 Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 22nd ed., pp. 250-1	Berkeley
Total Suspended Solids (meq/L)	mg/L	—	5	40	1200	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 22nd ed., pp. 254-5	Berkeley

10


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

**Sampling by:** Tirmasat Pumping station and Suanwit 204-s-7037


**Remark:**

- LOD (Limit of Detection)
- "L" (Lower than LOD (Limit of Quantitation) / OR (Limit of Reporting))
- Analytical method "L" 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.

Technical Manager	 Siruk Pungpan Section Head Endorsed on: 25/04/4738	Approved by  Kade Adu Senior Manager Endorsed on: 25/04/4738
	Declaration: I/We, the undersigned, certify that the attached work submitted by me/ us is part of the technical work done by me/ us and that the technical work is original and has not been published elsewhere. I/We, the undersigned, warrant that the technical work submitted by me/ us is true and correct and that it does not contain any false or misleading information.	
REGISTERED: 138 (Thailand) 40: Phrayathong Rd., Phrayathong, Bangkok, Thailand 10200, Thailand. Phone: +66 (0) 2 7765 3000, Fax: +66 (0) 2 7765 3001 20, 21 & 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774		



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## Analysis / Test Report

**Client** : WTA, Sribata and Power Public Company Limited  
 111 Moo 7, Nongkhalang Road, Nongkhalang, Saraburi Thailand (2540)

**P/P #** :  
**Project Name** : Factory / Plant  
**Project Location** : SRWA 152

**Sample Number** : 241887-1  
**Sample Date** : Feb 05, 2024 11:40 AM  
**Sample Description** : Group 2 Wastewater WFF-C7  
**Container ID** : 16, 202, 2940  
**Date Analysis Commenced** : Feb 15, 2024  
**Final Status** :  
**Condition of Sample** : Contained to one amber glass bottle and three plastic bottles. Sample containers comply to pre-treatment - preservation standards (APHA/USEPA).  
**Physical Property** : Yellow, a bit of solid, solid and some turbid

**TESTING**  
 No. 0059  
**Lot ID: 247827**  
 Date Received : Feb 05, 2024  
 Date Reported : Feb 15, 2024  
 Report Number : 295180-1

Page 1 of 1

Analyte	Unit	LOD	LOQ	LOD	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>								
SSC (1 in 10 at 20 degree C)	mg/L	—	1.8	7.8	1500	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., part 5115 (1-10) part 4909, 15-2		Nongkhalang
COO	mg/L	—	25	49	1750	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., part 5120 (1-10) part 5120 (1-10)		Nongkhalang
Oil & Grease *	mg/L	—	3	<3	151	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., part 5105 (1-10) part 5105 (1-10)		Nongkhalang
pH (in air) *	—	—	—	7.5	5.5-6.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., part 4505 (1-10) part 4505 (1-10)		Nongkhalang
Temperature *	Degree C	—	—	32.7	34.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., part 2510 (1-10) part 2510 (1-10)		Nongkhalang
Total Suspended Solids Direct at (10-100 degree C)	mg/L	—	9	20	1200	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., part 2540 (1-10) part 2540 (1-10)		Nongkhalang

**Guideline** : Standard of WTA, Saraburi Industrial Zone, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By** : Tameen Pongkajornchai 0-284-13327

**Notes** :

- LOD : Limit of Detection
- LOQ : Lowest level LOQ (Limit of Quantitation) / LOQ (Limit of Reporting)
- \* : Parameter which is not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accredited as an approved secondary company using the ISO/IEC 17025.

Siriluk P.

Siriluk Pumpuang  
Senior Manager  
siriluk@als.com.my 0284-14228

Kachakorn K.

Kachakorn Kien  
Senior Manager  
kachakorn@als.com.my 0284-14233

We warrant that the information on this report was prepared by our staff using the best available information and that the information is true and correct to the best of our knowledge.

00287827-104 Phatthanasak Road, Phatthanasak Sub-town, Phatthanasak Sub-town, Bangkok, 10120 Thailand | PHONE: +66 2 2788 2000 | FAX: +66 2 2788 2107

00287827-104 Phatthanasak Road, Phatthanasak Sub-town, Phatthanasak Sub-town, Bangkok, 10120 Thailand | PHONE: +66 2 2788 2000 | FAX: +66 2 2788 2107

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## Analysis / Test Report

**TESTING**  
No. 0059  
**Lot ID: 247896**  
Date Received : 1-Feb-18, 2024  
Date Reported : Feb 15, 2024  
Report Number : 249151-1

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**Client :** WTA Sribata and Power Public Company Limited  
**111 Moo 7, Nongkhalang Road, Nongkhalang, Saraburi Thailand (ST-84)**

**P/P / I :** \_\_\_\_\_  
**Project Name :** Factory / Wastewater  
**Project Location :** SRWA 152

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**Sample Number :** 247896-1  
**Sampled Date :** Feb 08 2024 11:29 AM  
**Sample Description :** Group 2 Wastewater WWS-C7  
**Container ID :** ISE\_200\_2540      **Plot :** 14      **Site :** SCG Landwong

**Data Analysis Commanded :** Feb 08, 2024

**Condition of Sample :** Contained in one amber glass bottle and three plastic bottles. Sample containers comply to pretestment – preservation standards (APHA/USEPA).

**Physical Property :** Green, some solid, solid and no turbid

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Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
SS (Silt in 20 degree C)	mg/L	-	8.8	19.1	1500	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 19th ed., 2017, part 5110 & part 4900, 15-2	Nongkhalang
COD	mg/L	-	25	76	1750	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 19th ed., 2017, part 5210-9	Nongkhalang
Oil & Grease *	mg/L	-	3	4	150	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 19th ed., part 1605-B	Nongkhalang
pH (in air) *	-	-	-	7.3	5.5-8.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 19th ed., 2017, part 4500-19 (H)	Nongkhalang
Temperature *	Degree C	-	-	33.3	3-40	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 19th ed., 7611, part 1910-B	Nongkhalang
Total Suspended Solids Direct at (10-100 degree C)	mg/L	-	9	20	1200	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 19th ed., 2017, part 2540-D	Nongkhalang

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**Guideline :** \* Standard of WTA Saraburi Industrial Limit, Maximum levels for wastewater discharging to central wastewater treatment plant.


**Sampling By :** \* Normal Pumping and/or Grab at 150-1700

**Notes :**

- LOD : Limit of Detection
- LOQ : Lower than LOQ (Limit of Quantitation) / LOQ (Limit of Reporting)
- \* : Laboratory "have not included in scope of Accreditation ISO/IEC 17025."
- \* : The laboratory "have not accepted as an approved laboratory company using the ISO/IEC 17025."


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**Technical Management**



Siriluk Pumpang  
Senior Level  
siriluk@wta-152-84229

**Approved by**





Kanyakorn Kien  
Senior Manager  
wta@wta-152-84229

---

We warrant that the information on this report was prepared by our laboratory and that the analysis was performed in accordance with the methods specified. We warrant that the information on this report was prepared by our laboratory and that the analysis was performed in accordance with the methods specified.

**www.alsglobal.com**  
 0035035104 Phatthanaburi Rd., Phatthanaburi Dist., Khwaeng Phatthanaburi (Old South Road), Saraburi, 19120 Thailand | PHONE : +66 8 2788 0000 | FAX : +66 8 2789 0107  
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# Analysis / Test Report



**TESTING**  
No. 0009

**Client:** UTM Utilities and Power Public Company Limited  
 111 Haei 7, Nongpladeng Road, Nongpladeng, Saraburi Thailand 85140

**P/P of 1**

**Project Name:** Factory 5 (Worlthly)  
**Project Location:** 00th SCL

**Sample Number:** 247894-1

**Sampled Date:** Feb 02, 2024 10:30 AM

**Sample Description:** Flow 2: Wastewater WWT-C

**Container ID:** 62, 000, 2043      **Plot:** 02

**Location:** (N-95)

**Date Analysis Completed:** Feb 02, 2024

**Analysis of Sample:** (AQUA, 100004)

**Physical Property:** Yellow, a bit of orange, some solid and a bit of foam

**Site:** Saini Haeamwadi Co., Ltd.

Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
BCO (15 days at 20 degrees C)	mg/L	—	2.0	273	<500	Standard Methods for the Examination of Water and Wastewater, APHA, 8160 & 9001, 23th ed., 2017, pp. 513.8, pp. 5107, 9100-1	Bangkok
CO2	mg/L	—	25	546	<700	Standard Methods for the Examination of Water and Wastewater, APHA, 8160 & 9001, 23th ed., 2017, pp. 513.8, pp. 5107, 9100-1	Bangkok
Oil & Grease *	mg/L	—	3	8	100	Standard Methods for the Examination of Water and Wastewater, APHA, 8160 & 9001, 23th ed., 2017, pp. 513.8	Bangkok
pH (on site) *		—		7.1	5.5-8.6	Standard Methods for the Examination of Water and Wastewater, APHA, 8160 & 9001, 23th ed., 2017, pp. 513.8	Bangkok
Temperature *	degree C	—		30.0	14-5	Standard Methods for the Examination of Water and Wastewater, APHA, 8160 & 9001, 23th ed., 2017, pp. 513.8	Bangkok
Total Suspended Solid limit at 103-105 degree C	mg/L	—	3	76	1000	Standard Methods for the Examination of Water and Wastewater, APHA, 8160 & 9001, 23th ed., 2017, pp. 513.8	Bangkok


**Guideline:** Standard of Thai Sanitation Industrial Land, Maximum limits for wastewater discharging to central wastewater treatment plant.

**Sampling By:** (Therment Phumwong) indoc00456-204-7337


**Items:**

- ✓ LOD : Limit of Detection
- ✓ "—" : Upper limit, LOQ (Limit of Quantification) / (OR : Limit of Reporting)
- ✓ Analytical method : "As per not included in scope of accreditation (EQUIC, 1820)
- ✓ The laboratory has been accredited in an accredited laboratory complying with the EQUIC 1820.

**Technical Management**

  
 Sinluk P.  
 (Saini Pumping)  
 (Section Head)  
 indoc00456-204-4720

**Approved by**

  
 Kankitorn Aon  
 Senior Manager  
 indoc00456-204-6111





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PHOT & ANALYSTS REPORT P-001-001

002024-01-19 09:40:00  
 002024-01-19 09:40:00

							
Analysis / Test Report				TESTING			
Client : WWA Utilities and Power Public Company Limited 113 Nua-2, Bangsepet Road, Nongkham, Nongkhai, Saraburi Thailand (8142)				Lot ID: <b>247846</b> No.0009			
P/P/D :				Date Received : Feb 06, 2024			
Project Name : Factory / Moribury				Date Reported : Feb 13, 2024			
Project Location : SWS SL				Report Number : SRB23A-1			
Sample Number		Page 1 of 1					
247846-01							
Taken Date		Feb 06, 2024 11:00 AM CT					
Sample Description		Group 2 Wastewater WW-CF					
Contract ID		SLD, SLD-2014					
Data Analysis Commenced		Feb 06, 2024					
Conditional Sample		Collected as one single glass bottle and three plastic bottles, sample containers comply for pre-treatment - preservation standards (APHA-1975)					
Physical Property		Turbidity, some visible, solid and turbid					
Analyzer	Unit	LOD	LOQ [LOD]	Basis#	Quadrant / Specification	Method	Testing Location
Water Testing							
KOD-25 Diss O <sub>2</sub> (mg/L Degree C)	mg/L	-	2.6	18.2	<500	Standard Methods for the Examination of Water and Wastewater, APHA, 1975, 2nd ed., 2017, part 1923 B-WF,	Sarangk
COD	mg/L	-	25	83	1750	Standard Methods for the Examination of Water and Wastewater, APHA, 1975, 2nd ed., 2017, part 1923 B-WF,	Sarangk
Oil & Grease *	mg/L	-	3	4	110	Standard Methods for the Examination of Water and Wastewater, APHA, 1975, 2nd ed., 2017, part 1923 B-WF,	Sarangk
pH (at site) *	-	-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1975, 2nd ed., 2017, part 1923 B-WF,	Sarangk
Temperature *	Degree C	-	-	30.3	140	Standard Methods for the Examination of Water and Wastewater, APHA, 1975, 2nd ed., 2017, part 1923 B-WF,	Sarangk
Total Suspended Solids (turb at 103-105 degree C)	mg/L	-	5	21	1,000	Standard Methods for the Examination of Water and Wastewater, APHA, 1975, 2nd ed., 2017, part 1923 B-WF,	Sarangk
Guidance : Standard of WWA Saraburi Industrial Unit, Maximum limits for wastewater discharging to central wastewater treatment plant, Sewerage By : Thermal Pollution (environment) > 20°C + 1(°C)							
<b>Note:</b> * LOD = Limit of Detection. * LOQ = Lower limit (LOQ (of Quadrants) & LOQ (Unit of Reporting). * Analytical method * same not include or type of Accreditation ISO/IEC 17025. The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.							
Technical Management		 Siriluk Pungmuang Section Head environmental > 20°C + 1(°C)		Approved by  Kanichan Anit Senior Manager environmental > 20°C + 1(°C)			
We warrant that our testing was performed in accordance with the methods specified in the contract documents, and that we have followed good laboratory practices and quality control procedures.							
ADDRESS: 101 Prachinburi Rd., Prachinburi Rd., Phrao, Prachinburi, Sakon Nakhon, Bangkok 10250 Thailand   Phone: +66 2 678 0000   Fax: +66 2 678 0100 E-MAIL: info@als.com.th   Web: www.alsglobal.com							
ALS® Technology		www.alsglobal.com					
REPLY TO: SLD-2014-001 REPLY PARTNER							



# Analysis / Test Report



**Client :** WTA Utilities and Power Public Company Limited  
113 Moo 3, Nongkhai Road, Nongkhai, Nongkhai, Saraburi Thailand 18640

**P/O # :**

**Project Name :** Factory 1 Monthly

**Project Location :** WNA SS.

**TESTING NO:** 00-0009

**Lot ID: 247847**

**Date Sampled :** Feb 16, 2024

**Report Number :** Feb 14, 2024

**Report Number :** 285319 P-1

**Sample Number** 247847-0

**Sampled Date** Feb 07, 2024 1:35 PM

**Sample Description** Group 2 Wastewater W9-CF

**Contract ID** 16, 2024 **Plot** 16

**Date Analysis Commenced** Feb 07, 2024

**Condition of Sample** Coloured, some plastic and glass bottles, sample containers comply to government - preservation standards (APHA, ISO 9001)

**Physical Property** contained in three plastic, a lot of solid and turbid

**Site** Siam Tissue Ceramics Co., Ltd.

Analysis	Unit	LOD	LOQ	Result	Guideline / Test Method	Method	Testing Location
Water Treating SDO-20 at 20.2 degree (C)	mg/L	-	2.0	62.6	<500	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, per 2121.6 (B)	Bangkok
COO	mg/L	-	25	180	<750	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, per 5220.9 (B)	Bangkok
Oil & Grease *	mg/L	-	1	5	<10	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, per 5520.9 (B)	Bangkok
pH (at 20.2)	-	-	-	7.2	5.5-9.2	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, per 4500 (B)	Bangkok
Temperature *	Degree C	-	-	30.4	<45	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, per 2120.8 (B)	Bangkok
Total Suspended Solids (total at 105-180 °C)	mg/L	-	5	180	<500	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 23rd ed., 2017, per 2540.2 (B)	Bangkok

**Guideline :** Standard of WTA Sewer Industrial Land, Maximum levels for wastewater (discharging to central wastewater treatment plant).

**Sampling By :** Thermal Pollution (industrial) > 30°C > 7200

**Notes:**

- LOD = Limit of detection
- LOQ = Lower limit LOQ (Limit of Reporting)
- Analytical method \* was not included in scope of Accreditation (ISIRI, 1762)
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025

**Technical Management:**

*Siriluk P.*

(Siluk Pongtong)

Saraburi mobile +924 4-4720

**Approved by**

*Kasornkorn Anis*


Kasornkorn Anis


Saraburi Heritage

mobile +924 4-6112

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## Analysis / Test Report

**Client** : WIRA USHEA and Power Public Company Limited  
113, No. 7, Nongsemlak Road, Nongsemlak, Nongsemlak, Saraburi Thailand (81842)

**R/P D** :  
**Project Name** : Factory / Municipality  
**Project Location** : WIRA, SS.

**Sample Number** : 254943-1

**Sampled Date** : Feb 05, 2024 / 1:20 PM

**Sample Description** : Group 2 Wastewater WWS-C  
**Contract ID** : SS-024-2024 / **Flot** : 23  
**Location** : Plant 3

**QA/QC Analysis Commented** : Feb 05, 2024

**Condition of Sample** : Combined 5 mm amber glass bottle and three plastic bottles, sample containers comply to preservation / preservation standards (APHA-CLEPFA)

**Physical Property** : Colorless, some odorless, solid and no H<sub>2</sub>S

**TESTING**  
**No. 0009**  
**Lot ID: 247849**  
**Date Received** : Feb 05, 2024  
**Report Number** : Feb 06, 2024  
**Date Reported** : 202406-1

Page 1 of 1


Analysis	Unit	LOD	Result	Guideline / specification	Method	Testing Location
Water Testing BOD (5 days at 20 degree C)	mg/L	-	2.8	3.2	<500	Saraburi
COD	mg/L	-	29	<25	<750	Saraburi
Oil & Grease *	mg/L	-	3	<3	<10	Saraburi
pH (at 25 °C) *	-	-	-	~ 7.8	5.5-9.0	Saraburi
Temperature *	Degree C	-	-	33.3	1-40	Saraburi
Total Suspended Solid Strain at 153-155 degree C	mg/L	-	3	<5	<200	Saraburi

**Guideline** : Standard of WWS (Saraburi Industrial Land, Phumthong) levels the wastewater (discharging to central wastewater treatment plant).

**Sampling By** : Tomsart Phumthong (independent > 2014 > 1507)


**Notes** :

- 1. LOD : Limit of Detection
- 2. " < " : Lower than (LOD (Limit of Quantitation) / LOQ (Limit of Reporting)
- 3. "Automatic method" : Value not evaluated in view of Accreditation (ISO/IEC 17025)
- 4. The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.



Sirinuk P.  
Section Manager  
independent > 2014 > 4750

Approved by



Kach Anuk  
Senior Manager  
independent > 2014 > 8111


This report is for information only and is not intended to be used for legal purposes. It is the responsibility of the client to ensure that the sample is representative of the material being tested. The laboratory is not responsible for the accuracy of the results if the sample is not representative or if the test method is not followed correctly.

**Link, Subscription**


**www.alsphol.com**

PHUMTHONG 153-155 degree C, Phumthong Road, Phumthong, Saraburi, Thailand 81842-1507 / Phone: 08-2706-0000 / 110-110-2706 / 08-2706-0000

**PHUMTHONG 153-155 degree C, Phumthong Road, Phumthong, Saraburi, Thailand 81842-1507**



# Analysis / Test Report



**Client** : WTA Utilities and Power Public Company Limited  
112, No.1, Nongpradeng Road, Nongpradeng, Nongkhua, Saraburi Thailand 18140

**P/O D** : \_\_\_\_\_

**Project Name** : Factory 1 Moribity  
**Project Location** : (sing, 35)

**Sample Number** : 247912.1

**Sampled Date** : Feb 09, 2024 1 40 AM

**Sample Description** : Group 2 Wastewater WW-CF  
**Contract ID** : SR, 013, 2024 **Plot** : 25

**Date Analysis Commenced** : Feb 03, 2024

**Analysis of Sample** : (ASAP)  
**Comments** : use amber glass bottles and three plastic bottles, sample containers comply to government – preservation standards

**Physical Property** : Coloured, some odour, solid and no turbid

Analysis	Unit	LOD	LOQ (LOD)	Result	Codeword / New Factor	Method	Feeding Location
<b>Water Testing</b> BOD-5 @ 20 ± 0.2 degree C	mg/L	—	2.8	16.7	<500	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 2nd ed., 2012, para 5121.9	Saraburi
<b>COD</b>	mg/L	—	25	83	<750	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 2nd ed., 2012, para 5121.9	Saraburi
<b>Oil &amp; Grease</b> *	mg/L	—	1	5	<10	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 2nd ed., 2012, para 5120.9	Saraburi
<b>pH (in air) *</b>	—	—	—	7.6	3.5-12	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 2nd ed., 2012, para 2550.9	Saraburi
<b>Temperature *</b>	Degree C	—	—	33.5	<40	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 2nd ed., 2012, para 2550.9	Saraburi
<b>Total Suspended Solids Dried at 103 ± 0.2 degree C</b>	mg/L	—	5	<3	<100	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 2nd ed., 2012, para 2540.9	Saraburi

**TESTING**  
**NO-0009**

**Lot ID: 247912.1**  
**Sale Contract** : Feb 09, 2024  
**Report Number** : 2891947-1

Page 1 of 1

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

**Sampling By** : Tienmett Pungpung (wastewater) > 264 > 7307

**Notes** :

- LOD : Limit of detection
- "C" : Client letter LOQ (Limit of Quantitation) < LOQ (Limit of Reporting)
- Analytical method \* same not included in order of Accreditation (ISO/IEC 17025)
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

**Technical Management**

*Siriluk P.*

Siriluk Pungpung  
Section Head  
environment & water & effluent

**Approved By**

*Kaew Anu*

Kanitkarn Anu  
Senior Manager  
environment & water & effluent

\*Note: we do not accept or provide any services for the following countries: Afghanistan, Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Central African Republic, Chad, Chile, China, Colombia, Costa Rica, Czech Republic, Democratic Republic of Congo, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Finland, France, Gabon, Gambia, Germany, Ghana, Greece, Guatemala, Guinea, Guinea-Bissau, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Iraq, Ireland, Israel, Italy, Ivory Coast, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Mauritius, Mexico, Moldova, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, North Macedonia, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Rwanda, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Taiwan, Tanzania, Thailand, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Uzbekistan, Venezuela, Vietnam, West Bank, Yemen, Zambia, Zimbabwe.

**ALS** Thailand Laboratory


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40/250-40 Phatthana-Rong Rd., Phatthana-Rong Sub., Phrayangthong District, Bangkok 10120 Thailand | **Phone** : +66 2 2757 8811 | **Fax** : +66 2 2757 8812


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REG-17 | RALPH E. SCHNEIDER, President & CEO



# Analysis / Test Report



**Client** WWA Utilities and Power Plant Company Limited  
113 No.1, Nongprue Road, Nongprue, Nongprue, Saraburi Thailand 18142

**P/O ID** :  
**Project Name** Factory Pithly  
**Project Location** WWA, SL

**Sample Number** 247914.1  
**Sample Date** Feb 08, 2014 9:00 AM  
**Sample Description** Group 2 Wastewater WWCT  
**Ref ID** SL, 005, 2947  
**Date Analyzed** Feb 14, 2014  
**Analysis/Commented** Collected in six amber glass bottle and three plastic bottles, sample containers comply to pre-treatment - preservation standards  
**Physical Property** WWA, 100%  
Yellow, a bit of solid, some solid and turbid

Analyzer	Unit	LOD	LOQ (LOD)	Result	Guideline / Note/Reference	Method	Testing Location
<b>Water Testing</b>							
<b>SOD</b> (3 Days at 20 degree C)	mg/L	—	2.8	88.3	<100	Standard Methods for the Examination of water and wastewater: APHA, AWWA & WEF, 23rd ed., 2012, part 1910 B, 2nd ed., 2012, part 1910 B, 2nd ed., 2012, part 1910 B	Saraburi
<b>COO</b>	mg/L	—	25	139	<150	Standard Methods for the Examination of water and wastewater: APHA, AWWA & WEF, 23rd ed., 2012, part 1910 C	Saraburi
<b>Oil &amp; Grease</b>	mg/L	—	3	6	<10	Standard Methods for the Examination of water and wastewater: APHA, AWWA & WEF, 23rd ed., 2012, part 1910 B	Saraburi
<b>pH</b> (at 25 °C)	—	—	—	7.6	5.5-8.5	Standard Methods for the Examination of water and wastewater: APHA, AWWA & WEF, 23rd ed., 2012, part 1910 B	Saraburi
<b>Temperature</b> °	degree C	—	—	33.3	<45	Standard Methods for the Examination of water and wastewater: APHA, AWWA & WEF, 23rd ed., 2012, part 1910 B	Saraburi
<b>Total Suspended Solids Dried at 103 to 105 degree C</b>	mg/L	—	5	26	<100	Standard Methods for the Examination of water and wastewater: APHA, AWWA & WEF, 23rd ed., 2012, part 1910 D	Saraburi

**TESTING**  
**Lot ID:** 00009  
**Lot ID:** 247914  
**Date Received:** Feb 08, 2014  
**Date Reported:** Feb 14, 2014  
**Report Number:** 2891970.1


Page 1 of 1

**Conclusion** Standard of WWA Saraburi Industrial Limit, Maximum 5 levels for wastewater discharging to central wastewater treatment plant.


**Satisfying By** 7 Treated Wastewater (industrial) 5-29-2307

**Remark:**  
- LOD : Limit of Detection  
- "C" : Limit from 100 (unit of measurement) (20K (unit of 100))  
analytical method " when not mentioned is case of Accreditation (ISO/IEC 17025)  
The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.

**Technical Management**


  
Sirinuk Pungtong  
Section Head  
industrial@w.wa-1204-1470

**Approved by**

  
Kankana Anuk  
Senior Manager  
industrial@w.wa-1401-4111

Standard of WWA Saraburi Industrial Limit, Maximum 5 levels for wastewater discharging to central wastewater treatment plant

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TESTING  
No. 0009  
**Lot ID: 2422165**  
Date Received : Mar 12, 2024  
Date Reported : Mar 18, 2024  
Report Number : 2820254-1

Date Received: Mar 12, 2024  
Date Reported: Mar 18, 2024  
Report Number: 2920254-2

Page 1 of 1

<b>Contract ID</b>	SE_012_2556	<b>Plot</b>	1-01	<b>Site</b>	Hygiene (Thailand) Co., Ltd. (Jvnt)
<b>Date Analysis Commenced</b>	Mar 13, 2024				
<b>Condition of Sample</b>	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standard (coffee, coffee)				

<b>Physical Property</b>	Yellow, some odour, solid and no luster
--------------------------	---

Analysis	Unit	LOO	LOO	Result	Guideline / Classification	Method	Testing Location
Water Testing BCD 15 in 20 days @ 20°C	mg/L		± 0.8	< ± 0.8	1:20	Standard Methods for the Examination of Water and Wastewater, APHA, 18th ed., 204, 2nd ed., part 1813 B, part 4000, 19-9	Bangkok
COO	mg/L		± 25	< ± 25	2:50	Standard Methods for the Examination of Water and Wastewater, APHA, 18th ed., 2nd ed., part 1813 B, part 5210	Bangkok
Oil & Grease *	mg/L		3	< ± 3	1:10	Standard Methods for the Examination of Water and Wastewater, APHA, 18th ed., 2nd ed., part 1813 B, part 5520	Bangkok
pH (at site) *				7.5	5.5-8.5	Standard Methods for the Examination of Water and Wastewater, APHA, 18th ed., 2nd ed., part 1813 B, part 4100	Bangkok
Temperature *	Degree C			30.8	< 40	Standard Methods for the Examination of Water and Wastewater, APHA, 18th ed., 2nd ed., part 1813 B, part 1910	Bangkok
Total Dissolved Solids Dried at 180 degree C	mg/L		5	872	< 1000	Standard Methods for the Examination of Water and Wastewater, APHA, 18th ed., 2nd ed., part 1813 B, part 2510	Bangkok
Total Suspended Solids Dried at 180-200 degree C	mg/L		4	< 48	1:200	Standard Methods for the Examination of Water and Wastewater, APHA, 18th ed., 2nd ed., part 1813 B, part 2540	Bangkok

**Guideline:** Standard of WMA Sanibel Industrial Park, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By:** Tolmestor Puangtuk [tolmestor@uconn.edu](mailto:tolmestor@uconn.edu) 2014-05-05

**Notes:**

- LOD = Limit of Detection
- "x" = Lower than LOD (Limit of Quantitation) / OR (Limit of Reporting)
- Analytical values \* value not included in source of Accreditation ISO/IEC 17025

Technical Management: Siriluk P Approved by: Karun Auk

<p><b>Dr. Srinivas Bhusan</b>          Section Head          emd@oscar.vsnl.net</p>	<p><b>Kavitha Anil</b>          Senior Manager          emd@oscar.vsnl.net</p>
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 3020E10 144 พัทธanasak Rd., พัทธanasak Rd., แขวง พัทธanasak เขต สาน Luang, Bangkok 10250 Thailand | โทร: +66-2-278-9000 | โทร: +66-2-278-1197

Lot ID: 2422142  
Date Received: Mar 22, 2024  
Date Reported: Mar 28, 2024  
Report Number: 2920224-1

Date Received : Mar 22, 2024  
Date Reported : Mar 18, 2024  
Report Number : 2920224-q

Page 1 of 1

Contract ID	58_003_2565	Plot	130-140	Site	Insight Technology (Thailand) Co., Ltd.
Date Analysis Completed	Mar 13, 2024				

<b>Condition of Sample</b>	Contained in one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards
----------------------------	--

Analytical Property	Units, a list of units, a list of units, a list of units and a list of units					Method	Testing Location
	Unit	LOQ	LOD	LOC	Guideline / Specification		
Water Testing BOD (3 days at 20 degrees C)	mg/L		2.0	196	1500	Standard Methods for the Examination of Water and Wastewater, 19th ed., APHA, 2005, pp. 2051, and 2113; ISO 15705-2	Bangkok
COD	mg/L		25	362	1500	Standard Methods for the Examination of Water and Wastewater, 19th ed., APHA, 2005, pp. 2051, and 2113; ISO 15705-2	Bangkok
Oil & Grease +	mg/L		3	10	110	Standard Methods for the Examination of Water and Wastewater, 19th ed., APHA, 2005, pp. 2051, and 2113; ISO 15705-2	Bangkok
pH (Jan 2014)				7.4	5.5-8.8	Standard Methods for the Examination of Water and Wastewater, 19th ed., APHA, 2005, pp. 2051, and 2113; ISO 15705-2	Bangkok
Temperature	Degree C			32.2	14-6	Standard Methods for the Examination of Water and Wastewater, 19th ed., APHA, 2005, pp. 2051, and 2113; ISO 15705-2	Bangkok
Total Suspended Solids (Test of 100 mg/L)	mg/L		5	80	1200	Standard Methods for the Examination of Water and Wastewater, 19th ed., APHA, 2005, pp. 2051, and 2113; ISO 15705-2	Bangkok

**Sampling By :** Tinnawat Pungpak and Deesee P 204-V-0058

Notes:

- LOQ : Limit of Detection
- \*n° : Lower than LOQ (Limit of Quantification) / UGR (Limit of Reporting)
- Analysis marked \* is/are not included in scope of accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management: Siriluk P.  
Siriluk Burruik  
Senior Analyst

Approved by: Kasokorn Anit  
Kasokorn Anit  
Senior Manager

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Lot ID: 2422084  
Date Received: Mar 12, 2024  
Date Reported: Mar 18, 2024  
Report Number: 2920543-1

Report Number : 2920143-1

Page 1 of 1  
 10/27/2017 12:12

Contract ID	SA_010_2556	Plot	146	Site	Knauf Gypsum (Thailand) Co., Ltd.
Date Analysis Commenced	Mar 13, 2014				

<b>Condition of Sample</b>	Contained in one amber glass bottle and three plastic bottles; sample containers comply to pretreatment - preservation standards (FARMAS 000000)
----------------------------	--

<b>Analytical Property</b>		<b>Method</b>					
		<b>Reference Method: Gravimetric Analysis, A to F, solid and loose material</b>					
<b>Analyte</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ</b>	<b>Result</b>	<b>Guideline / Specification</b>	<b>Method</b>	<b>Testing Location</b>
<b>Water Testing</b>							
SDI (3 Day @ 23 Degrees C)	mg/L	-	2.0	84.0	1500	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 19th ed., 2017, part V11B p. 679-692	Brighton
COD	mg/L *	-	25	17.1	1750	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 19th ed., 2017, part V11B p. 1215-1216	Brighton
Oil & Grease *	mg/L *	-	3	5	110	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 19th ed., 2017, part V11B p. 1029-1030	Brighton
pH (in air) *	-	-	-	7.8	5.5-8.8	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 19th ed., 2017, part V11B p. 1006-1007	Brighton
Temperature *	Degrees C	-	1	31.7	<40	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 19th ed., 2017, part V11B p. 2310-2311	Brighton
Total Suspended Solids (Total at 100-1000 Degrees C)	mg/L	-	5	124	<1000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 19th ed., 2017, part V11B p. 2542-2543	Brighton

**Sampling By :** Terevut Punguk indonesi@f s-204-s-0038

Notes:

- LOD : Limit of Detection
- "N" : Lower than LOD (Limit of Quantitation) / LOQ (Limit of Reporting)
- Analytes marked \* : Not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.



Technical Management: Siriluk P.  
Serik Bunak  
Section Head

Approved by: Leah Auk  
Korolkov Auk  
Senior Manager

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www.stc.co.th



ALS		LABORATORY FOR ANALYTICAL SCIENCE	
		<b>Analysis / Test Report</b>	
<b>Client</b>	WHA Utilities and Power Public Company Limited 111 Moo 7, Nongkhalang Road, Nongkhalang, Saraburi Thailand 35140		
<b>P/P #</b>			
<b>Project Name</b>	Factory / Plant		
<b>Project Location</b>	SRNA ISL		
<b>Sample Number</b>	240208H-1		
<b>Sampling Date</b>	Mar 13, 2024 at 10:58 AM		
<b>Sample Description</b>	Group 2 Wastewater WHCW-T		
<b>Container ID</b>	LSL_2013_2024	<b>Plot</b>	Plot 3,6/3,30
<b>Date Analysis Commenced</b>	Mar 13, 2024		
<b>Kind of Sample</b>	Silt		
<b>Physical Property</b>	Contained to one amber glass bottle and three plastic bottles. sample containers comply to pretreatment - preservation standards (APHA/ISO/USEPA), clean, some solid, sealed and labeled		
<b>Analyte</b>	<b>Unit</b>	<b>LOD</b> <b>I.O.Q.</b>	<b>Result</b>
<b>Water Testing</b>			
SSOC (in mg/L @ 20 degree C)	mg/L	-	1.8    17.0
			1500
			Standard Methods for the Determination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1113.8, part 4000-12.5
COO	mg/L	-	25    30
			2750
			Standard Methods for the Determination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1222.0
COD as Chromium *	mg/L	-	3    6
			110
			Standard Methods for the Determination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1620.8
pH (on site) *		-	8.3
			5.5-9.0
			Standard Methods for the Determination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4500-11.01
Temperature *	Degree C	-	35.6
			140
			Standard Methods for the Determination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2510.8
Total Suspended Solids Direct at 103-105 degree C	mg/L	-	26
			1200
			Standard Methods for the Determination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540.0
<b>Guarantee:</b> Standard of WHA Saraburi Industrial Level, Maximum levels for wastewater discharging to central wastewater treatment plant.			
<b>Sampling By:</b> Terminal Pumping Inlandwaste # 264 + 605B			
<b>Note:</b>			
① LOD : Limit of Detection			
② I.O.Q : Lowest limit LOQ (Limit of Quantitation) (LOQ Limit of Reporting)			
③ exception: "As found" will include a report of Accreditation ISO/IEC 17025.			
④ The laboratory has been accredited as an external reference company under the ISO/IEC 17025.			
<b>Technical Management</b>	 Siriluk P. Senior Bureau Saraburi Water Inlandwaste # 204 + 0023		
<b>Approved by</b>	 Kachakorn An Senior Manager Inlandwaste # 204 + 0004		
<small>           Issued on: 13-Mar-2024 at 10:58 AM, revised on: 13-Mar-2024 at 10:58 AM            Approved by: Siriluk P. (Inlandwaste # 204 + 0023)            Checked by: Kachakorn An (Inlandwaste # 204 + 0004)            Reviewed by: Siriluk P. (Inlandwaste # 204 + 0023)            Approved by: Kachakorn An (Inlandwaste # 204 + 0004)         </small>			
<small>           ORDER NO: PHU-THANONG-BS-PhuThangNong-Bangkok, BANGKOK, THAILAND            ADDRESS: PHU-THANONG-BS-PhuThangNong-Industrial Estate, Bang Pakong, Samut Prakan, 10130, Thailand            TEL: 02-924-8888 FAX: 02-924-8889            E-MAIL: info@als.co.th            WEBSITE: www.alsglobal.com         </small>			





ALS					LABORATORY OF SCIENCE Kuala Lumpur		TESTING No.DS09	
<b>Client:</b> WTA Utilities and Power Public Company Limited							<b>Lot ID:</b> 2421311	
113 No.7, Nongasembil Road, Nongasembil, Seremban (Thailand) SE40							Date Received:	May 18, 2024
<b>P/P / I:</b>							Date Reported:	May 18, 2024
<b>Project Name :</b> Factory / Plant/Bldg							Report Number : 2020121-01	
<b>Project Location :</b> SEREMBAN, SEL.							Page 1 of 1	
<b>Sample Number</b>	2421311-01							
<b>Sampled Date</b>	Mon 13, 2024 11:00 AM							
<b>Sample Description</b>	Group 2 Wastewater WWT-C							
<b>Customer Ref.</b>	MOE, 2020		<b>Test 1st</b>	<b>Site:</b> SCS Cemetery C&D				
<b>Data Analysis Recommended</b>	On 12, 2024							
<b>Condition of Sample</b>	(Contained in one amber glass bottle and three plastic bottles, sample containers comply to pre-treatment - preservation standards. Solids, some visible, solid and no barbed)							
<b>Physical Property</b>								
<b>Analyte</b>	<b>Unit</b>	<b>LOO</b>	<b>LOQ</b>	<b>Result</b>	<b>Gesdetive / Specification</b>	<b>Method</b>	<b>Testing Laboratory</b>	
<b>Water Testing</b>								
SS (at 100 µm @ 20 degree C)	mg/L	-	0.0	5.0	6.000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1510 & part 4000 - G-2	Bangkok	
COD	mg/L	-	25	34	1.780	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1220-G	Bangkok	
Oil & Grease *	mg/L	-	3	<3	1.10	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1020-B	Bangkok	
pH (in air) *	-	-	-	7.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 9000 - H-100	Bangkok	
Temperature *	Degree C	-	-	36.1	y=0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2500-B	Bangkok	
Total Suspended Solids (Heat at 103-105 Degree C)	mg/L	-	9	<9	1.200	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540-D	Bangkok	
<b>Conclusion :</b> Standard of World Sanitary Industrial Limit, Maximum levels for wastewater discharging to central wastewater treatment plant.								
<b>Sampling By :</b> Chompradit Subphakorn (email:waaw@wta.co.th)								
<ul style="list-style-type: none"> <li>* LOQ = Limit of Detection</li> <li>* y = Lower than LOQ (Limit of Quantitation) or LOQ (Limit of Reporting)</li> <li>* Imprecision: "None" not included in range of Acceptable Precision (APES).</li> <li>* The laboratory has been accredited as an approved competency authority with ISO/IEC 17025.</li> </ul>								
<b>Technical Management</b>		 Siriluk Pannik Section Head Inchusalee V-DNA-00217		<b>Approved by</b> Kanchana Aue Senior Manager Wachiraporn V-DNA-00008				
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<small>             OFFICE: 88 Phahonyothin Rd., Phahonyothin Bldg., Phahonyothin Suburb Samut Prakan, Bangkok 10260 Thailand   Phone: +66 2 678 37700 Email: waaw@wta.co.th              88 หมู่ที่ 1 ถนนพหลโยธิน แขวงสามยุค กรุงเทพมหานคร 10260 ประเทศไทย   โทรศัพท์: +66 2 678 37700 อีเมล: waaw@wta.co.th           </small>								
<b>Lab. Information</b>		<b>www.als-lab.com</b>						
<b>ISO 15189:2013 CERTIFIED PLANT/CITY</b>								





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<b>Client</b> : Win Utilities and Power Company Limited 118 Moo 3, Nongkang Road, Nongkang, Nongkang, Saraburi Thailand 35141				<b>Lot ID</b> : DA34661 <b>Date Received</b> : Apr 10, 2024 <b>Date Requested</b> : Apr 10, 2024 <b>Request Number</b> : 249131-1	
<b>Plant / Project Name</b> : Factory / Monthly <b>Project Location</b> : Hanoi, VN					
<b>Sample Number</b> : 247862-1 <b>Sample Date</b> : Apr 02, 2024 13:31 AM <b>Sample Description</b> : Group 3 Wastewater WW-T <b>Container ID</b> : 25_068_257 <b>Flow</b> : 10 <b>Site</b> : Sitabakha (Thailand), Co., Ltd. <b>Date and Analyst Communicated</b> : Page 2					
<b>Container Details of Samples</b> (AWQS/CSFAs)		Combined in one amber glass bottle and three plastic bottles, sample containers comply to requirement : pre-rinsed with deionized water, no air, no color, smell and taste notice			
<b>Physical Property</b>		<b>Guideline / Specification</b>		<b>Method</b>	
<b>Unit</b>		<b>mg/L</b>		<b>mg/L</b>	
<b>Flow</b>		<b>mg/L</b>		<b>mg/L</b>	
<b>Water Quality</b>		<b>mg/L</b>		<b>mg/L</b>	
<b>DOC (in 25 degree C)</b>		<b>mg/L</b>		<b>&lt;500</b>	
<b>DOC</b>		<b>mg/L</b>		<b>&lt;500</b>	
<b>CO<sub>2</sub></b>		<b>mg/L</b>		<b>&lt;500</b>	
<b>Oil &amp; Grease +</b>		<b>mg/L</b>		<b>&lt;10</b>	
<b>pH (in 25 degree C)</b>		<b>mg/L</b>		<b>5.5-9.0</b>	
<b>Temperature +</b>		<b>mg/L</b>		<b>14-15</b>	
<b>Total Dissolved Solids (in 25 degree C)</b>		<b>mg/L</b>		<b>&lt;1000</b>	

**Guideline:** Standard of WSA Section Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.

Technical Management

Sunil Kumar C  
Senior Consultant  
Seymour D.  
mskumar@vsnl.com

Approved by

Karthi Ann  
Karthi Ann  
Senior Manager  
mskumar@vsnl.com

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Client : WPA Utilities and Power Company Limited  
 111 Moo 7, Nonglathai Road, Nonglathai, Nongkhae, Saraburi Thailand (8140)  
 P/O :  
 Project Name : Factory 1 Monthly  
 Project Location : WPA SS

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

Technical Manager

SUNIMON C.  
Sociedad Chetumal  
Sociedad LT  
meximex@y24.com.mx

Approved by

Karel Añel  
Karel Añel  
Senior Manager  
meximex@y24.com.mx

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 E-Mail: [info@alsglobal.com](mailto:info@alsglobal.com)  
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<b>Client</b> LBS Utilities and Power Company Limited 111 Hill St., Nongkhal Road, Nongkhal, Panglath, Sarabot Thlangai (SE-4)					<b>Lot ID:</b> WH-0059 <b>Date Received:</b> April 02, 2024 <b>Date Reported:</b> April 09, 2024 <b>Report Number:</b> 219-001-1	
<b>Project Name</b> Factory Monthly <b>Project Location:</b> 09W-52					<b>Page:</b> 1	
<b>Sample Number</b>	2143-701-1					
<b>Sample Date</b>	April 02, 2024 @ 9:45 AM					
<b>Sample Description</b>	Group 2 Water Filter					
<b>Contact ID No.</b>	SHE-2024				<b>Title</b>	Slant Fermentation CO <sub>2</sub> Lab (LMS)
<b>Analysis Completed On</b>	April 02, 2024					
<b>Data Analyzed Consistent with Sample</b>	Contained in one amber glass bottle and four plastic bottles, sample containers comply as pretreatment - preservation procedures					
<b>Physical Property</b>	Colorless, neutral odor, solid and no turbid					
Analyte	Unit	LOD	LOQ	Result	Certificate / Specification	Testing Location
<b>Metal Testing</b>						
Lithium	mg/L	5.00E3	5.00E4	0.01	≤0.2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, para 11.21 B, 1020 F
<b>Water Testing</b>						
BOD (5 days at 20 degree C)	mg/L	-	< 2.0	<2.0	≤300	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, para 1413 B, 1419 B, 1000 - G-G
COD	mg/L	-	<25	<25	≤1750	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, para 1413 B, 1419 B, 1000 - G-G
Oil & Grease +	mg/L	-	<3	<3	≤10	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, para 1920 B
pH (at site)	-	-	-	7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, para 1920 B
Temperature +	Degree C	-	-	35.5	≤45	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, para 1920 B

Total Dissolved Solids (Dist at 180 degree C)	mg/L	3	984	1,000	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 1995, 2012, part 2550-B	Residue
Total Suspended Solids (Dist at 103-105 degree C)	mg/L	5	<5	<100	Standard Methods for the Examination of Water and Wastewater: APHA, AWWA & WEF, 1995, 2012, part 2550-C	Residue

**Guideline:** Standard of WtM Sanitar Industrial Level, Maximum levels for wastewater discharging to central wastewater treatment plant.

Technical Management	 Santhosh Nataraj Manager enw04swd@vsnl.com	Approved by	 Karthick Anand Senior Manager enw04swd@vsnl.com
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Lot ID: 2434636

Date Received : Apr 02, 2024  
Date Reported : Apr 09, 2024  
Report Number : 24-07413-1

Page 1 of 1

Sampled Date		Apr 02, 2013 1:34 AM					
Sample Description		Group 1: Waterbody W9-C7					
Container ID		W_002_2013 Feb 15					
Data Analysis Commenced		Apr 03, 2013					
Definition of Sample		Continued to use open glass bottles and three plastic bottles. Sample containers comply to pretesters' preservation instructions (APHA 1995).					
Physical Property		Unit, a lot, of one and some lot					
Acquire	Unit	Lot	Result	Guideline / Specification	Method	Testing Location	
Acquire	Unit	Lot	Result	Guideline / Specification	Method	Testing Location	
Water Testing	100 L (33.8 degrees C)	ng/L	9	96.2	1500	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2011, pp:5115-61 pp: 4950 - C-2	Bangkok
CCO	ng/L	25	284	1750	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2011, pp:5115-61 pp: 4950 - C-2	Bangkok	
Oil & Grease +	ng/L	1	9	110	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2011, pp:5115-61 pp: 4950 - C-2	Bangkok	
pH (on site) *	ng/L	7	7.4	5.5-8.6	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2011, pp:5115-61 pp: 4950 - C-2	Bangkok	
Temperature *	Degree C	33.8	33.8	14-18	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2011, pp:5115-61 pp: 4950 - C-2	Bangkok	
Total Suspended Solids (Direct at 100 LSS degree C)	ng/L	9	48	1700	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2011, pp:5115-61 pp: 4950 - C-2	Bangkok	

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

**Sampling By:** Joranal Khosrawi wendawendaw 1-204 v-0072

**Notes:**

- ISO : Limit of Detection
- "v" : lower than ISO (Limit of Quantification) < LOQ (Limit of Reporting)
- Analysis method: A scope 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 Karl A. Ault  
Karl A. Ault  
Senior Manager

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Lot ID: 2434682

Date Received : Apr 04, 2024  
Date Reported : Apr 11, 2024  
Report Number : 2947547-1

Page 2 of 4

Sampled Date	Apr 24, 2024 11:40 AM		
Sample Description	Group 2 Wadsworth WWCT		
Contract ID	SR_000_7562	Plot	63
		Site	San Bernardino Co, 135

<b>Condition of Sample</b>	Controlled in one amber glass bottle and three plastic bottles, sample containers tightly pre-treated - preservation standards (APHA/USEPA)						
<b>Physical Property</b>	Yellow, a bit of odour, acid, and bitter						
<b>Analyte</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ</b>	<b>Result</b>	<b>Guideline /</b>	<b>Method</b>	<b>Testing</b>

Water Testing	Location		Description		
800 (15 days ± 28 degree C)	mg/L	1.8	303	Standard Methods for the Examination of Water and Wastewater, 19th ed., 2012, pp.1313	Bangladesh
COO	mg/L	20	622	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 19th ed., 2012, pp.1029	Bangladesh
OM & Grams *	mg/L	3	5	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 21st ed., 2017, pp.1051-9	Bangladesh
pH (on site +)		7.8	5.5-8.6	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 21st ed., 2017, pp.4526	Bangladesh
Temperature *	Degree C		32.8	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 21st ed., 2017, pp.4526	Bangladesh
Total Suspended Solids (on site at 103.10 degree C)	mg/L	8	1000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 21st ed., 2017, pp.1051-9	Bangladesh

**Guideline:** Standard of WHO Sanitation Industrial Lines, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By:** Terrestrial Puergang wu@soe.ac.cn + 86-4-6056

**Remark:**

- LOD : Limit of Detection
- "u" : lower than LOD (Limit of Quantification) / LOD (Limit of Reporting)
- Analysis method : plant not included in scope of Accredited SACS/ISO.
- Note: Data recorded as "u" indicated that the detected level is below LOD.

Approved by: Karl Aul  
Karl Aul  
Senior Manager  
on 02/04/2014 10:20:00 AM

Results were in the direction as expected, with the sensitivity rate increased in 82%. As part of the report need to emphasize to pay more attention on the control from the interview. 82% substance group (Technical group) mentioned that the report is an important source of job.

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Lot ID: 2434653

Date Received : Apr 02, 2024  
Date Reported : Apr 08, 2024  
Report Number : 2947484-1

22

Sampled Date	Apr 22, 2024 9:45 AM		
Sample Description	Group 2 Wadsworth WWCT		
Contract ID	SR_046_2756	Plot	132
		Site	SLK (Thailand) Co., Ltd.

Physical Property							
Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location

RSD (1 days @ 70 degrees C)	n/a	2.8	49.9	<500	Standard Methods for the Examination of Water and Wastewater: APHA, 18th ed., 2nd ed., 1995 and 1515, pp. 6007-10	Biological
COD	mg/L	25	125	<500	Standard Methods for the Examination of Water and Wastewater: APHA, 18th ed., 2nd ed., 1995 and 1515, pp. 6007-10	Chemical
O <sub>2</sub> & Green +	mg/L	3	11	110	Standard Methods for the Examination of Water and Wastewater: APHA, 18th ed., 2nd ed., 1995 and 1515, pp. 6007-10	Biological
pH (at 25°C) *	n/a	-	-	7.4	Standard Methods for the Examination of Water and Wastewater: APHA, 18th ed., 2nd ed., 1995 and 1515, pp. 6007-10	Biological
Temperature *	Degree C	-	36.5	<45	Standard Methods for the Examination of Water and Wastewater: APHA, 18th ed., 2nd ed., 1995 and 1515, pp. 6007-10	Biological
Total Suspended Solids (at 100 °C) mg/L	mg/L	-	5	3000	Standard Methods for the Examination of Water and Wastewater: APHA, 18th ed., 2nd ed., 1995 and 1515, pp. 6007-10	Chemical

**Outfall:** Standard of WSA Sarawak Industrial (WSI), Maximum levels for wastewater discharging to central wastewater treatment plant.  
**Sampling By:** Temasek Putekugku (sd060402) 9-204-0058

**Notes:**

- LOD = Limit of Detection
- "<" = Lower than LOD (Limit of Quantitation) / LOQ (Limit of Reporting)
- Analytical method 1: Nitrate 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 Karl A. ...  
Karl A. ...  
Senior Manager  
enclaw@... 204-0000

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## Analysis / Test Report

TESTING

No. 0009

Lot ID: 2436628

Date Received: April 16, 2024

Date Reported: April 16, 2024

Report Number: 24470319

Page 1 of 1

Client: WWA Utilities and Power Public Company Limited  
111 Moo 9, Nongnuek Road, Nongnuek, Nongnuek, Saraburi Thailand (SR40)

P/P/O:

Project Name : Factory / Hospital

Project Location: WWA SL

Sample Number	241902619									
Sample Date	Apr 02, 2024 2:00 PM									
Container ID	Group 2: Wastewater WWC-T									
Sample Description	SL-2412-2024	Field	4.32	Site	Villayay & Both (Thailand) Co., Ltd					
Date Analysis Commenced	Apr 03, 2024									
Condition of Sample	Contained in two amber glass bottles and three plastic bottles. Sample containers comply with pretreatment - preservation standards (AWWA/USEPA)									
Physical Property	Yellow, a bit of odor, some solid and turbid									
Analysis	Unit	LOD	LOQ	Result	Guideline / Reference	Method	Testing Location			
Water Testing										
BOD (5 days @ 20 degree C)	mg/L	-	1.8	58.5	1500	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 19th ed., 2017, part 1915 B, part 4000, 19-2	Bangkok			
COO	mg/L	-	25	122	1750	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 19th ed., 2017, part 1915 B, part 4000, 19-2	Bangkok			
Oil & Grease *	mg/L	-	3	6	150	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 19th ed., 2017, part 1915 B	Bangkok			
pH (at 25°C) *	-	-	7.5	-	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 19th ed., 2017, part 1915 B	Bangkok			
Temperature *	Degree C	-	-	33.9	14-61	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 19th ed., 2017, part 1915 B	Bangkok			
Total Suspended Solids (dried at 103 to 105 degree C)	mg/L	-	8	24	1200	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 19th ed., 2017, part 1915 B	Bangkok			

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

Compliance: Factory: Discharge Maximum Value >100 <1000

Notes:

- <LOQ = Limit of Detection
- > = Lower than LOQ (in Quantity) or <LOQ (in Units)
- > = Lower than LOQ (in Quantity) or <LOQ (in Units)
- \* The laboratory has been accredited at scope of Environment (ISO 17025).

Technical Management

Sumrit Chantagun

Scientist (1)

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Approved by

Karkkarn Aon

Senior Manager

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Waste and Environmental Management Laboratory

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Waste and Environmental Management Laboratory



 				
Analysis / Test Report				
Client			TESTING	
WTA (Waters and Power Public Company Limited) 111 Moo 7, Nongkluang Road, Nongkluang, Saraburi Thailand (26140)			Lot ID: <b>2443083</b> Date Received : May 10, 2024 Date Reported : May 15, 2024 Report Number : 29467510	
Page 1 of 1				
P/P : Project Name : Factory / Plant Project Location : NWA 152				
Sample Number	29463510			
Sampled Date	May 16, 2024 10:00 AM			
Sample Description	Group 2 Wastewater WFF-C			
Contract ID	LS-204-2024	Test	28	Site
Date Analysis Commenced	May 15, 2024			
Condition of Sample	Combined to one amber glass bottle and three plastic bottles, sample containers comply to pretreatment - preservation standards (APHA/ISO/EN).			
Physical Property	Turbidity, coloration, some solid and no hazard			
Analyte	Unit	LOD	LOQ	Result
Waste Testing				
SSG (1:10 at 20 degree C)	mg/L	—	3.8	5.8
CCD	mg/L	—	25	80
Oil & Grease *	mg/L	—	3	<3
pH (in air) *		—		8.3
Temperature *	Degree C	—		31.4
Total Suspended Solids (Grit at 150-199 degree C)	mg/L	—	9	4
Standard : Standard of WTA Saraburi Industrial Plant, Maximum levels for wastewater discharging to central wastewater treatment plant. Sampling By : National Pongphik Engineering >204-0058				
Note : * LOD : Limit of Detection * LOQ : Lower than LOQ (Limit of Quantitation) <LOQ (Limit of Reporting) * Suspended : Some not included in scope of Accreditation ISO/IEC 17025. * The laboratory has been accredited as an approved secondary receiving unit (ISO/IEC 17025).				
Technical Management  Siriluk Buranok Section Head WTA/204-0058		Approved by  Kanchanaporn Senior Manager WTA/204-0058		
Note: This report is the property of ALS. It is to be used for the purpose for which it was prepared and is not to be distributed outside the organization for which it was prepared.				
ORDERED BY: Mr. Phattanasakorn K. Phattanasakorn, Mr. Apichart Phattanasakorn, Chai Sam-Long, Bangkok, 10250 Thailand.   PHONE: +66 89 87788 0000   FAX: +66 89 87788 0107 E-MAIL: <a href="mailto:phattanasakorn@als.com">phattanasakorn@als.com</a>   <a href="mailto:als.thailand@als.com">als.thailand@als.com</a>   <a href="http://www.als.com">www.als.com</a>   <a href="http://www.alslab.com">www.alslab.com</a>				







Client : Win Win Win & Power, Corp. Company Limited				Lot ID: 2443130			
118 Wits W., Nongkang Road, Nongkang, Nongkang, Saraburi Thailand 82414				Date Received : 16 May 2024			
				Report Number : 16 May 2024			
				Sample Number : 7708811-1			
Project Name : Factory Monthly							
Project Location : RWB SL							
Page : 1							
Sample Number	2443131-1						
Sample Date	May 16, 2024 11:30 AM						
Sample Description	Group 2 Wheatstone WW-C						
Contact ID	SL_2007_2450 Plot #8 Site Natchuwi Pond (Thailand) Co., Ltd						
Date Analysis Commenced	May 16, 2024						
Condition of Sample	Contained in two 250 plastic bottles and one amber glass bottle, sample containers closed to petroleum - permeation container (APMA, 2005, 2012)						
Physical Property	Yellow, brown, odor, solid and wet based						
Analysis Unit LOD LOQ LOU Result Guidelines / Specifications Method Testing Location							
Water Testing							
RCD (15 to 25 degrees C)	mg/L		1.0 4.5	1500	Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed., 2005, 2012, para 1515 B-WF, 9505 C-W	Saraburi	
COO	mg/L		25 28	1700	Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed., 2005, 2012, para 1522 B	Saraburi	
Oil & Grease			3 3	150	Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed., 2005, 2012, para 1522 B	Saraburi	
pH (in air)			7.3	5.5-9.5	Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed., 2005, 2012, para 1522 B	Saraburi	
Temperature	Degree C		31.2	1-45	Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed., 2005, 2012, para 1522 B	Saraburi	
Total Suspended Solids (20 to 25 degrees C)	mg/L		5 12	1200	Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed., 2005, 2012, para 1522 B	Saraburi	

**Guideline:** Standard of WHO Sanitasi Industri Level, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By:** (Ternate) Puangkuak indosusail@v304-0028

**Notes:**

- ISO : Limit of Detection
- "L" : Lower than LOQ (Limit of Quantitation) / LOQ (Limit of Reporting)
- Analytical method "A" alone not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management Swamin C. Approved by Karthi Ann  
 Supervisor, Chemtanning  
 Scientist (I)  
 MCHM/AN/2014-0018  
 Karkkav Ann  
 Senior Manager  
 MCHM/AN/2014-0008

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e-mail: shs@shsglobal.com shs@shs.co.th shs@shs.com

Client: WPA, Utilities and Power, Company Limited					Lot ID: 2493179						
111 Hoo 7, Nongseang Road, Nongseang, Nongthas, Sarabhai Thantong (SR40)					Date Received: 19 May 2024						
Project Name: Factory Monthly					Date Reported: 19 May 2024						
Project Location: WPAH SS					Report Number: 2493179						
Page 1											
Sample Number	2493179.1										
Sampled Date	09 May 2024 12:00 AM										
Sample Description	Ground Water - WPAH										
Contract ID	SR_03_2024		Plot	10							
Site	Nongthas SOC Plant, C116										
Date Analysis Commenced	09 May 2024										
Condition of Sample	Container is an amber glass bottle and three plastic bottles, sample containers comply to requirement - preservation achieved										
Condition of Sample	(APHA, USEPA, ...)										
Physical Property	None, color, odor, solid and taste										
Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method					
Water (Temp)											
R03 (31 days @ 20 degree C)	mg/L		1.0	79.7	<1000	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed & USEPA, 2002, 2017 and 8210-B, 8210-B, 8210-B	Non-potable				
COO	mg/L		25	189	<150	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed & USEPA, 2002, 2017 and 8210-B, 8210-B, 8210-B	Non-potable				
Oil & Grease *	mg/L		3	<2	110	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed & USEPA, 2002, 2017 and 8210-B, 8210-B, 8210-B	Non-potable				
pH (in air) *					7.3	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed & USEPA, 2002, 2017 and 8210-B, 8210-B, 8210-B	Non-potable			
Temperature *	degree C			36.9	<45		Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed & USEPA, 2002, 2017 and 8210-B, 8210-B, 8210-B	Non-potable			
Total Dissolved with Distil at 180 °C	mg/L		5	2684	<1000		Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed & USEPA, 2002, 2017 and 8210-B, 8210-B, 8210-B	Non-potable			

Total Suspended Solids (TSS) at 103-105 degree C	mg/L	5	15	<200	230 ed., 2017, part 2300.1 Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, part 2340 D	Sample
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**Guideline :** Standard of WSA Sanitub Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling by :** Terevatu Pangkajene Indonesia 81204+0056.

Technical Management

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Approved by Karl A. Ash  
Karl A. Ash  
Senior Manager  
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 E-Mail: [info@alsglobal.com](mailto:info@alsglobal.com)  
**PHOT SOLITHOPS PHOT PARTNER**

<div> <div>Client</div> <div>118 Utilities and Power Co., Company Limited</div> <div>170, 175 No. 7, Nongkhal Road, Nongkhal, Panglathang, Sarath Thanglam (B&amp;G)</div> </div> <div> <div>Lot ID:</div> <div>24343140</div> <div>no 0055</div> </div>									
<div> <div>P/O</div> <div>118 Utilities and Power Co., Company Limited</div> </div> <div> <div>Date Received</div> <div>19 Jul 2024</div> </div>									
<div> <div>Project Name</div> <div>Factory Monthly</div> </div> <div> <div>Report Number</div> <div>24343140-1</div> </div>									
<div> <div>Project Location</div> <div>1974, SL</div> </div>									
<div> <div>Sample Number</div> <div>24343140-1</div> </div>									
<div> <div>Sample Date</div> <div>Mon 27 Jun 2024 1:40 PM</div> </div>									
<div> <div>Sample Description</div> <div>Group 3 Wastewater WPT CT</div> </div>									
<div> <div>Contract ID</div> <div>SL_008_2566</div> <div>Plant 14/24</div> </div>									
<div> <div>Date Analysis Commenced</div> <div>27 Jun 2024</div> </div>									
<div> <div>Date Analysis Completed</div> <div>27 Jun 2024</div> </div>									
<div> <div>Tested in accordance with</div> <div>ISO 15629-2:2018 and ISO 15629-1:2018</div> </div>									
<div> <div>Physical Property</div> <div>Wastewater, hot at intake, solid and settled</div> </div>									
Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location		
Water Testing									
SDI (30 min, 25 deg Celcius)	mg/L		2.0	154	<1500	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017 and ISO 15629-1:2018	Langkhal		
COO	mg/L		25	222	<750	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017 and ISO 15629-1:2018	Langkhal		
Oil & Grease	mg/L		3	9	<10	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017 and ISO 15629-1:2018	Langkhal		
pH (in situ)				7.5	5.5-8.5	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017 and ISO 15629-1:2018	Langkhal		
Temperature	°C			33.4	<45	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017 and ISO 15629-1:2018	Langkhal		
Total Suspended Solids (dried at 103°C)	mg/L		5	238	<1200	Standard Methods for the Examination of Water and Wastewater - APHA, AWWA & WEF, 23rd ed., 2017 and ISO 15629-1:2018	Langkhal		

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

**Sampling By:** Terrestrial Puangluk Industries P-204-s-0058.

**Remark:**

- LOD : Limit of Detection
- "<" : Lower than LOD (Limit of Quantification) / LOD (Limit of Reporting)
- Analytical method: GC/MS not included in scope of accreditation (ISO/IEC 17025).
- The laboratory has not been accredited for this method, but the method is used for the purpose of this report.

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Approved by: Kadek Arah  
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 Senior Manager  
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ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Sample Number: 2443166. Sample Date: May 03, 2024. Sample Description: Group 2 Wastewater WPP CT. Contract ID: SA\_063\_2554. Plot: 36. Site: Sirey Co., Ltd. Data Analysis Commenced: May 04, 2024. Condition of Sample: Contained in one amber glass bottle and four plastic bottles. Physical Property: Analyte, Unit, LOD, LOQ, Result, Guideline / Specification, Method, Testing Location. Water Testing: BOD (5 days at 20 degree C), mg/L, 2.0, 4.9, 1500. COD, mg/L, 25, 26, 270. Oil & Grease, mg/L, 3, <3, 110. pH (at 25°C), -, 7.8, 5.5-9.0. Temperature, Degree C, 34.0, 140. Total Suspended Solids (TSS) at 100-100 degree C, mg/L, 9, 9, 1200. Guidelines: Standard of WWA Sanitary Industrial Land. Sampling By: Tienarat Pungkum (endowed) >204 <0008. Technical Management: Sirinuk P. Approved by: Kaiti Aik. www.alghobal.com

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ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Sample Number: 2443169. Sample Date: May 03, 2024. Sample Description: Group 2 Wastewater WPP CT. Contract ID: SA\_063\_2554. Plot: 47. Site: Sirey Co., Ltd. Data Analysis Commenced: May 04, 2024. Condition of Sample: Contained in one amber glass bottle and three plastic bottles. Physical Property: Analyte, Unit, LOD, LOQ, Result, Guideline / Specification, Method, Testing Location. Water Testing: BOD (5 days at 20 degree C), mg/L, 2.0, 2.1, 1500. COD, mg/L, 25, <25, 270. Oil & Grease, mg/L, 3, <3, 110. pH (at 25°C), -, 7.3, 5.5-9.0. Temperature, Degree C, 33.0, 140. Total Suspended Solids (TSS) at 100-100 degree C, mg/L, 9, <5, 1200. Guidelines: Standard of WWA Sanitary Industrial Land. Sampling By: Tienarat Pungkum (endowed) >204 <0008. Technical Management: Sirinuk P. Approved by: Kaiti Aik. www.alghobal.com

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ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Sample Number: 2443168. Sample Date: May 02, 2024. Sample Description: Group 2 Wastewater WPP CT. Contract ID: SA\_063\_2554. Plot: 138. Site: Sirey Co., Ltd. Data Analysis Commenced: May 04, 2024. Condition of Sample: Contained in one amber glass bottle and three plastic bottles. Physical Property: Analyte, Unit, LOD, LOQ, Result, Guideline / Specification, Method, Testing Location. Water Testing: BOD (5 days at 20 degree C), mg/L, 2.0, 5.1, 1500. COD, mg/L, 25, 30, 1750. Oil & Grease, mg/L, 3, <3, 110. pH (at 25°C), -, 7.4, 5.5-9.0. Temperature, Degree C, 34.2, 140. Total Suspended Solids (TSS) at 100-100 degree C, mg/L, 9, 6, 1200. Guidelines: Standard of WWA Sanitary Industrial Land. Sampling By: Tienarat Pungkum (endowed) >204 <0008. Technical Management: Sirinuk P. Approved by: Kaiti Aik. www.alghobal.com

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ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Sample Number: 2443171. Sample Date: May 03, 2024. Sample Description: Group 2 Wastewater WPP CT. Contract ID: SA\_063\_2554. Plot: 15. Site: Sirey Co., Ltd. Data Analysis Commenced: May 04, 2024. Condition of Sample: Contained in one amber glass bottle and three plastic bottles. Physical Property: Analyte, Unit, LOD, LOQ, Result, Guideline / Specification, Method, Testing Location. Water Testing: BOD (5 days at 20 degree C), mg/L, 2.0, 10.8, 1500. COD, mg/L, 25, 67, 1750. Oil & Grease, mg/L, 3, 4, 110. pH (at 25°C), -, 7.8, 5.5-9.0. Temperature, Degree C, 33.9, 140. Total Suspended Solids (TSS) at 100-100 degree C, mg/L, 5, 17, 1200. Guidelines: Standard of WWA Sanitary Industrial Land. Sampling By: Tienarat Pungkum (endowed) >204 <0008. Technical Management: Sirinuk P. Approved by: Kaiti Aik. www.alghobal.com

ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Sample Number: 2443172. Sample Date: May 03, 2024. Sample Description: Group 2 Wastewater WPP CT. Contract ID: SA\_063\_2554. Plot: 15. Site: Sirey Co., Ltd. Data Analysis Commenced: May 04, 2024. Condition of Sample: Contained in one amber glass bottle and three plastic bottles. Physical Property: Analyte, Unit, LOD, LOQ, Result, Guideline / Specification, Method, Testing Location. Water Testing: BOD (5 days at 20 degree C), mg/L, 2.0, 3.4, 1500. COD, mg/L, 25, 30, 1750. Oil & Grease, mg/L, 3, <3, 110. pH (at 25°C), -, 7.6, 5.5-9.0. Temperature, Degree C, 30.4, 140. Total Suspended Solids (TSS) at 100-100 degree C, mg/L, 5, 10, 1200. Guidelines: Standard of WWA Sanitary Industrial Land. Sampling By: Tienarat Pungkum (endowed) >204 <0008. Technical Management: Sirinuk P. Approved by: Kaiti Aik. www.alghobal.com





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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. Sampling By: Tensent Pungkum Indusdara S-204-K-0008. Results table with columns: Analyte, Unit, LOD, LOQ, Result, Guidelines / Specification, Method, Testing Location. Includes sections for Technical Management, Approved by, and footer information.


ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Project Location: WWA SS. Sampling By: Tensent Pungkum Indusdara S-204-K-0008. Results table with columns: Analyte, Unit, LOD, LOQ, Result, Guidelines / Specification, Method, Testing Location. Includes sections for Technical Management, Approved by, and footer information.

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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. Sampling By: Tensent Pungkum Indusdara S-204-K-0008. Results table with columns: Analyte, Unit, LOD, LOQ, Result, Guidelines / Specification, Method, Testing Location. Includes sections for Technical Management, Approved by, and footer information.

ALS logo and company information. Analysis / Test Report. Client: WWA Utilities and Power Public Company Limited. Project Name: Factory / Municipality. Project Location: WWA SS. Sampling By: Tensent Pungkum Indusdara S-204-K-0008. Results table with columns: Analyte, Unit, LOD, LOQ, Result, Guidelines / Specification, Method, Testing Location. Includes sections for Technical Management, Approved by, and footer information.



# Analysis / Test Report



**Client** : WTA Lintas and Power Public Company Limited  
 111 Moo 7, Nongkhalang Road, Nongkhalang, Saraburi Thailand (25440)

**P/P#** :  
**Project Name** : Factory / Plant  
**Project Location** : SIVA 52.

**Sample Number** : 2405091-1  
**Sample Date** : May 09, 2024 1:00 PM  
**Sample Description** : Group 2 wastewater WWT-C  
**Container ID** : 16, 204, 204    **Plot** : 22  
**Location** : Plot 22  
**Date Analysis Commenced** : May 10, 2024

**Condition of Sample** : 100% clear and colorless glass bottle and three plastic bottles, samples container comply to pre-treatment - pre-treatment standards (APHA/USEPA)  
**Physical Property** : Soluble substances, no solid and buried.

Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
ROD (5 days at 20 degree C)	mg/L	—	2.8	18.4	<100	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 23rd ed., 2017, 2015 210 B, 2011 9201 D, 2005 9201 D, 2002 9201 D, 2000 9201 D.	Singapore
COD	mg/L	—	20	100	<750	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 23rd ed., 2017, 2015 5210 D.	Singapore
OR & Conduct *	mg/L	—	3	4	<10	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 23rd ed., 2017, 2015 5210 B.	Singapore
pH (on site) *		—		7.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 23rd ed., 2017, 2015 4500 H+ (2).	Singapore
Temperature *	Degree C	—		34.9	<45	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 23rd ed., 2017, 2015 210 B.	Singapore
Total Suspended Solids (Strat at 103-105 degree C)	mg/L	—	5	9	<1000	Standard Methods for the Examination of Water and Wastewater, APHA & WEF, 23rd ed., 2017, 2015 2540 D.	Singapore

**TESTING**  
**Lot ID: 2443909**  
 Date Received : May 09, 2024  
 Date Reported : May 16, 2024  
 Report Number : 2994750-1

Page 1 of 1

**Outliner** : Standard of WTA Saraburi Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By** : (Themsak) Pongkumthorn & WTA 204-0509

**Remark** :  
 - LOD : Limit of Detection  
 - LOQ : Lower than LOQ (Limit of Quantitation) (20% range of Reporting)  
 - Suspended material : Paper not included in scope of Accreditation (ISO/IEC 17025).  
 - The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

**Technical Management**

*Siriluk P.*

Siriluk Buranok  
 Section Head  
 0905544550-2024-0023

**Approved by**

*Kasikorn K.*

Kasikorn Kiat  
 Senior Manager  
 0905544550-2024-0006

Report generated by: [WTA@alsglobal.com](mailto:WTA@alsglobal.com)    Report generated on: 2024-05-10 10:00:00

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Lot ID: 2443101  
Date Received: May 08, 2024

Date Reported : May 15, 2024  
Report Number : Z948740-1

Page 1

Sampled Date	May 08, 2024 (11:55 AM)						
Sample Description	Group 2: Distilleries WWT-C						
Contract ID	SL_237_2534	Plot	53.68	Site Thammasat (Thailand) Corp. Ltd.			
Date Analyzed	May 08, 2024						
Condition of Sample	Contained in three plastic bottles and one smaller glass bottle, sample containers comply to pre-treatment - generative data						
Physical Property	Water, USEPA, Yellow, none other, a bit of solid and foamy						
Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Tested Location
Water Testing							
ECO (15 days at 20 degrees C)	mg/L	-	1.0	20.0	1000	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005, part 1915 B and part 4900 - C-1	Sample
COO	mg/L	-	25	100	1750	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005, part 5120 D	Sample
Oil & Grease *		-	3	4	150	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005, part 5120 B	Sample
pH (25 °C) *		-	-	8.2	5.5-8.6	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005, part 4500 - H-1	Sample
Temperature *	Degree C	-	-	33.1	1-40	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005, part 2550 B	Sample
Total Suspended Solids Direct at 103-105 degree C	mg/L	-	9	37	1200	Standard Methods for the Examination of Water and Wastewater, APHA, 19th ed., 2005, part 2550 C	Sample

**Guideline:** Standard of WMA Sanabat Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By:** I. Tarmest Punguk indobase@vni v 2014-0-0058

**Notes:**

- 1. LOD : Limit of Detection
- 2. "u" : Lower than LOD (Limit of Quantitation) / LOQ (Limit of Reporting)
- 3. Analysis method : Aqueous not included in scope of Accreditation ISO/IEC 17025.
- 4. The laboratory has been accepted as an accredited laboratory operating with the ISO/IEC 17025.

Technical Management Siriluk P.  
Siriluk Buran  
Section Head  
Approved by Kanokorn Aoi  
Kanokorn Aoi  
Senior Manager  
ms.Buran@p-204-a-0004

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Lot ID: 2443124

Date Reported : May 13, 2024  
Report Number : 2948827-1

Page 1

Sample Description	GRU/Industrial RWQ CT						
Sampling Date	18/02/2013 Plot 130/1						
Sample Analysis Commenced	18/02/2014						
Condition of Sample	Contained in one glass jar and three plastic bottles, samples containers comply to permitment - preservation standards (AWWA/ISO/US EPA)						
Physical Property	Yellow, a lot of odour (gas and taste) and turbid						
Analyte	UNA	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Test Location
Water Testing							
DOC (1 day @ 20 degree C)	mg/L		2.6	16.6	<1500	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & DEF, 2nd ed, 2011, pp 1512 B, pp 1509 C - G	Simple
COD	mg/L	< 25	180	180	<1750	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & DEF, 2nd ed, 2011, pp 1225 D	Simple
Oil & Grease +	mg/L		3	6	<10	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & DEF, 2nd ed, 2011, pp 1522 B	Simple
pH (in 20°C)				7.6	5.5-8.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & DEF, 2nd ed, 2011, pp 1010 (B) - (D)	Simple
Temperature +	Degree C			32.8	<45	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & DEF, 2nd ed, 2011, pp 1010 (B) - (D)	Simple
Total Suspended Solids (Dried at 103-105 degree C)	mg/L		5	25	<100	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & DEF, 2nd ed, 2011, pp 1010 (B) - (D)	Simple

Guideline / Standard of WVA Sandesh Industrial Plant, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By:** Thermo Janyx incubator® v-204-a-0018

**Notes:**

- 1. LOD = Limit of Detection
- 2.  $\frac{\text{Lower than } (LQ) \text{ (Limit of Quantitation)}}{(LQR) \text{ (Limit of Reporting)}}$

**Accepted:** method \* have not included in scope of Accreditation ISO/IEC 17025.

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

Technical Management

*Siriluk P.*

Siriluk P.  
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mslmsk@kpi.go.th 204-0012

Approved by

*Karokorn Anuk*

Karokorn Anuk  
Senior Manager  
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Lot ID: 2443107  
Date Received : May 09, 2024

Date Reported - May 15, 2024  
Report Number - 2948772-1

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Sample Description	Group 2: Washwater HWCT			Group 3: Washwater HWCT			Site		
Container ID	S6, S94, S95			P01, P02			WSPF Quality Class 118		
Location	Point 1			Point 1					
Date Analysis Commenced	May 15, 2011								
Condition of Sample	Contained in one amber glass bottle and three plastic bottles, sample containers comply to ASTM D 1505 - permeation container								
Physical Property	Unknown, some colour, solid and turbid								
Analyte	Unit	LOD	LOQ	LOQ (LOD/10)	Result	Guidelines / Specifications	Method	Tested Location	
Water Testing									
CO <sub>2</sub> @ 10 days @ 20 degree C	mg/L	-	3.8	0.45	1500	Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed. 1995, 23rd ed. 2011, 2005 1512.0 B	23rd ed. 2011, 2005 1512.0 B	Sample	
						Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed. 1995, 23rd ed. 2011, 2005 1512.0 B	23rd ed. 2011, 2005 1512.0 B	Sample	
CF & Grams *	mg/L	-	3	0.7	530	Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed. 1995, 23rd ed. 2011, 2005 1512.0 B	23rd ed. 2011, 2005 1512.0 B	Sample	
pH (in situ) *		-	-	-	7.5	Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed. 1995, 23rd ed. 2011, 2005 4500 - 10	23rd ed. 2011, 2005 4500 - 10	Sample	
Temperature *	Degree C	-	-	-	32.1	Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed. 1995, 23rd ed. 2011, 2005 2550 B	23rd ed. 2011, 2005 2550 B	Sample	
Total Suspended Solids (dry weight)	mg/L	-	5	48	5200	Standard Methods for the Examination of Water and Wastewater: APHA, 19th ed. 1995, 23rd ed. 2011, 2005 2540 D	23rd ed. 2011, 2005 2540 D	Sample	

**Guideline:** Standard of WHO, Sars-CoV-2 Infection Level, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By:** Tseemee Puangpoo Engineering® s.204-s-0058.

**Notes:**

- LOD : Limit of Detection
- "L" : Lower than LOD (Limit of Quantitation) / LOQ (Limit of Reporting)
- Analysis named "A" were not included in scope of Accreditation (DOHS, DQMS)
- The Laboratory has been accepted as an accredited laboratory following the ISO/IEC 17025.

Technical Management

*Siriluk P.*

Siriluk Puzak  
Section Head  
enl0000001 v 204-a-0013

Approved by

*Kanakkara Anil*

Kanakkara Anil  
Senior Manager  
enl0000001 v 204-a-0004

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# Analysis / Test Report



**Client:** Uthair Uthair and Power Public Company Limited  
113, Nno 3, Nongseang Road, Nongseang, Saraburi Thailand 12140

**P/P ID:**

**Project Name:** Factory / Moribity  
**Project Location:** (Uthair, S)

**Sample Number:** 254816-1

**Sampled Date:** Jun 11, 2024 8:45 AM

**Sample Description:** Group 2 Wastewater W9-C7  
**Customer ID:** 16, 208, 2254 **Plot 2**

**Location:** Plot 2

**Date Analysis Commenced:** Jun 11, 2024

**Condition of Sample:** Samples collected under glass bottles and three plastic bottles, sample containers comply to pre-treatment preservation standards (APHA, USEPA).  
**Yellows:** Yellow, wine colour, solid and no water

Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Quality</b>							
BOD (5 Days at 20 degree C)	mg/L	-	2.0	5.1	<500	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd edn, 2017, test 5212-B, test 4008 - D-G	Saraburi
COD	mg/L	-	20	20	1750	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd edn, 2017, test 5212-D	Saraburi
Oil & Grease *	mg/L	-	3	<3	610	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd edn, 2017, test 5124-B	Saraburi
pH (in air) **	-	-	-	7.6	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd edn, 2017, test 4020 - H (3)	Saraburi
Temperature *	degree C	-	-	32.7	1-40	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd edn, 2017, test 2290-B	Saraburi
Total Suspended Solids (dried at 103-105 degree C)	mg/L	-	5	6	1200	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd edn, 2017, test 2540-D	Saraburi

**TESTING**  
No. 0009

**Lot ID: 2458416**  
Valid until: Jun 11, 2024  
Data Reported: Jun 18, 2024  
Report Number: 330591-1

Page 1 of 1

**Guideline:** Standard of Uthair Uthair Industrial Land, Maximum limits for wastewater discharging to central wastewater treatment plant.

**Sampling by:** Nantarat Promrakon (wincodex@1204-00012)

**Sample:**

- ↳ LOD : Limit of Detection
- ↳ \*T\* : Lower than 1/10 (Limit of Quantitation) 1/20 (Limit of Reporting)
- ↳ Analytical method : \*Apex not included in scope of Accreditation ISO/IEC 17025.
- ↳ The laboratory has been accepted in an accredited laboratory complying with the ISO/IEC 17025.

**Technical Management**

*Siriluk P.*

Siriluk Promrakon  
Section head  
wincodex@1204-00012

**Approved by**

*Kate Aih*

Kanyarat Kiat  
Senior Manager  
wincodex@1204-00012

Method of this report is based on the information provided by the client. The laboratory is not responsible for the accuracy of the information provided by the client. The laboratory is not responsible for the accuracy of the information provided by the client. The laboratory is not responsible for the accuracy of the information provided by the client.

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## Analysis / Test Report

**Lot ID: 2458504**  
 Date Received : Jun 06, 2024  
 Date Reported : Jun 13, 2024  
 Report Number : 2005049-2

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**Client :** ENH Utilities and Power Public Company Limited  
 111 Moo 2, Bangpakdi Road, Nongnueang, Nongbua (Thailand) 38140

**P/O :**

**Project Name :** Factory / Hospitality

**Project Location :** (SWS SL)

**Sample Number :** 2005004-1

**Sampled Date :** Jun 06, 2024 11:00 AM

**Sample Description :** Group 2 Wastewater PPH CT

**Contract ID :** 68, 027, 2017 **Plot No**

**Date Analysis Commenced :** Jun 07, 2024

**Condition of Sample :** Contained in one amber glass bottle and four 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 (LODx3)	Result	Guideline / Specification	Method	Testing Location
Water Twisting							
Conductivity at 25 degree C	microsiemens/cm	0.5	2149		See Standard	Based on Standard Methods for the Determination of Water and Wastewater (APHA, AWWA & WEF, 23rd ed., 2017), part 2510 B	Bangkok

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

**Sample by :** Tossawat Puangpuk

**Remarks :**

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

**Approved by**

  
 Sumrit Chuanrakong  
 Scientist (C)

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	<b>ANALYSIS / Test Report</b>	
<b>Client :</b> SPN Lubbock and Power Public Company Limited 111 Moo 1, Nongpradeng Road, Nongpradeng, Nongphai, Saraburi Thailand 18140		<b>TESTING No</b> 0009 <b>Lot ID:</b> 2458516 <b>Date Received :</b> Jan 06, 2024 <b>Date Reported :</b> Jan 12, 2024 <b>Report Number :</b> 3003604-1
<b>P/O :</b> <b>Project Name :</b> Factory 1 Monthly <b>Project Location :</b> SPN SL		Page 1 of 1
This laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.		
<b>Technical Management</b>	 Siriluk P. Section Head endusecard v.204-v.0011	<b>Approved by</b>
		 Kanchana Aree Sector Manager endusecard v.204-v.0004
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Lot ID: 2458480  
Date Received : Jun 11, 2011  
Date Reported : Jun 18, 2011  
Report Number : 3001514

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Sample Number							Page 1
Sample Date	Jun 12, 2024 2:00 PM						
Sample Description	Group 3 Wastewater WSP-C						
Sample ID	06_001_2540						
Date Analysis Commenced	Jun 12, 2024						
Physical Description of Sample	Coloured to very amber glass bottle and three plastic bottles. Sample containers comply to pretreatment - preservation standards (USEPA 8210-9)						
Physical Property	White, lot of colour, solid and lustrous						
Analyte	Unit	LOD	LOQ (10x LOD)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
DOC (5 days at 20°C)	mg/L	-	1.8	151	1500	Standard Methods for the Examination of Water and Wastewater, 23rd ed., 2017, page 1513 B, 1500 mg/L	Amperon
COO	mg/L	-	25	317	1700	Standard Methods for the Examination of Water and Wastewater: APHA, 1995 and USEPA, 20th ed., 2005, page 1222-9	Amperon
Oil & Grease +	mg/L	-	3	4	133	Standard Methods for the Examination of Water and Wastewater: APHA, 1995 and USEPA, 20th ed., 2005, page 1222-9	Amperon
pH (25°C)	-	-	-	7.8	5.5-9	Standard Methods for the Examination of Water and Wastewater: APHA, 1995 and USEPA, 20th ed., 2005, page 4050, 4050-9	Amperon
Temperature +	Degree C	-	-	31.8	14-6	Standard Methods for the Examination of Water and Wastewater: APHA, 1995 and USEPA, 20th ed., 2005, page 2114-9	Amperon
Total Suspended Solids (dried at 103 ± 0.5°C)	mg/L	-	5	92	1200	Standard Methods for the Examination of Water and Wastewater: APHA, 1995 and USEPA, 20th ed., 2005, page 2550-5	Amperon

**Guideline:** Standard of WHO Sanitat Industrial Level, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling by:** Nematik Perpipaan Industriasi (NPI) = 204 + 0071

**Notes:**

- 1. ISO : Limit of Detection
- 2. "L" : Lower than LOQ (Limit of Quantitation) / LOQ (Limit of Reporting)
- 3. Average (n) tested  $\geq$  3, not included in scope of Accreditation ISO/IEC 17025.
- 4. The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.

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Lot ID: 2458418  
Date Received : Jun 15, 2015  
Date Reported : Jun 18, 2015  
Report Number : 3000953

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, 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, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

Sample Number	Page 1 of 1						
<b>Sample Date</b>	2/24/24						
<b>Sample Description</b>	Group 2 Westmaster HW-CT						
<b>Sample Date</b>	04_01/2025						
<b>Date Analysis Commenced</b>	Jan 12, 2024						
<b>Condition of Sample</b>	Contained in one amber glass bottle and three plastic bottles, sample containers capped as per instruction - preservation conditions maintained						
<b>Physical Property</b>	Solid, white color, solid and subbed						
Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
DOC (5 days @ 20 degree C)	mg/L	—	2.8	60.2	<500	Standard Method for the Determination of Water and Wastewater DOC, 2nd ed., 2005, using 5110 B, part 9006-01-0	Amperage
COD	mg/L	—	25	200	<150	Standard Method for the Determination of Water and Wastewater APHA, APHA & WFT, 2nd ed., 2005, using 5210 D	Amperage
Oil & Grease *	mg/L	—	3	4	<10	Standard Method for the Determination of Water and Wastewater APHA, APHA & WFT, 2nd ed., 2005, using 9215 B	Amperage
pH (in air) **	—	—	—	8.4	5.5-8.5	Standard Method for the Determination of Water and Wastewater APHA, APHA & WFT, 2nd ed., 2005, using 9105-10-10	Amperage
Temperature *	(Degree C)	—	—	32.0	<45	Standard Method for the Determination of Water and Wastewater APHA, APHA & WFT, 2nd ed., 2005, using 9105-10-10	Amperage
Total Suspended Solids (5 days @ 20 degree C)	mg/L	—	5	46	<100	Standard Method for the Determination of Water and Wastewater APHA, APHA & WFT, 2nd ed., 2005, using 9210 B	Amperage

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

**Sampling By:** Sanatहत पीपलूम विसर्जक (S-204-007)

**Notes:**

- 1. ISO : Limit of Detection
- 2. "L" : Lower than ISO (Limit of Quantitation) / ISO (Limit of Reporting)
- 3. Asterisk marked "L" sign are included in scope of Accreditation ISO 15189:2013
- 4. The sampling has been conducted as an accredited laboratory against the ISO/IEC 17025.

<b>Technical Management</b>  Sirik Serech Section Head 001600441 / 2004 + 0017	<b>Approved by</b>  Kankhachan Sereh Senior Manager 001600441 / 2004 + 0008
Sample copy of this document, unless the service has been provided to the full, will not be returned to the sender and will be destroyed. All documents (including electronic documents) must be signed and dated upon receipt.	
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Lot ID: 2458420  
Date Received : Jun 13, 2011  
Date Reported : Jun 18, 2011  
Report Number : 20000993

1

								Page 1
Sample Number	2594-11							
Sample Date	Jan 13, 2024 10:40 AM CT							
Sample Description	Group 2 Wastewater WW-CT							
Control ID	58, 011, 2594	File	5.81.95					Site: Hatcher Steel Co., Ltd.
Date Analysis Commenced	Jan 13, 2024							
Condition of Sample	Collected in three plastic bottles and two amber glass bottles, sample containers comply to pretreatment - preincubation standards (ASTM, EPA)							
Physical Property	Yellow, neutral odors, solids not turbid							
Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location	
Water Testing								
DOC (30 min analysis)	mg/L		2.0	18.5	<100	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, AWWA, & WEF, 23rd ed., 2017 and 1110 B, 2017	EnviroLab	
COD *	mg/L		25	69	<150	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, AWWA, & WEF, 23rd ed., 2017 and 1120 B, 2017	EnviroLab	
Oil & Grease *	mg/L		3	4	110	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, AWWA, & WEF, 23rd ed., 2017 and 1120 B, 2017	EnviroLab	
pH (25 min analysis)				8.0	5.5-8.8	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, AWWA, & WEF, 23rd ed., 2017 and 4500-10, 2017	EnviroLab	
Temperature *	Degree C			35.9	0-45	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, AWWA, & WEF, 23rd ed., 2017 and 2550 B, 2017	EnviroLab	
Total Suspended Solids (20 min at 103-105 Degree C)	mg/L		5	14	<100	Standard Methods for the Examination of Water and Wastewater, 19th Edition, APHA, AWWA, & WEF, 23rd ed., 2017 and 2550 B, 2017	EnviroLab	

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







**Sampling By:** Torment Pongrak Indusaveit s-294-s-0058

**Notes:**




- ✓ LOD (Limit of Detection)
- ✓ "C" (Lower than LOD (Limit of Quantitation) / LOD (Limit of Reporting))
- ✓ Analytical results "X" does not include in scope of accreditation (SCOPE 1) (2015)
- ✓ The laboratory has been approved by the Accredited Laboratory for the ISO/IEC 17025

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Analysis / Test Report							
Client : UIN Ar-Raniry and Power Public Company Limited 112, No. 2, Nongsepat Road, Nongsepat, Seratus Tahunan 12140			TESTING No. 00509	Lot ID: 2458469			
P/P ID :			Order Number : 3365.12.24	Test Date : Jun 15, 2024			
Project Name : Factory / Hospitality			Date Reported : Jun 18, 2024	Report Number : 3365.12.24			
Project Location : (link: 55)			Page 1 of 1				
Sample Number	235480-1						
Sampled Date	Jun 13, 2024 10:45 AM						
Sample Description	Group 2: Wastewater - WW-C	Flot	Site	Michelo Sae Co., Ltd			
Contract No.	HS_202_2350						
Date Analysis Commenced	Jun 13, 2024						
Condition of Sample	Yellow, a clear plastic bottles and low acidic bottle, sample contains comply to pretreatment - preservation standards (ALS, 05/2018)						
Physical Property	Yellow, a lot of solid, some solid and buried						
Analysis	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
Water Testing							
ISO-TSS (at 20 degree C)	mg/L	-	2.8	36.4	1500	Standard Methods for the Examination of water and Wastewater, APHA & WFT, 23rd ed., 2017, part 5213 B-1	Bangkok
COD	mg/L	-	25	118	670	Standard Methods for the Examination of water and Wastewater, APHA & WFT, 23rd ed., 2017, part 5212 D-1	Bangkok
Oil & Grease *	mg/L	-	3	4	0.10	Standard Methods for the Examination of water and Wastewater, APHA & WFT, 23rd ed., 2017, part 5307 B-1	Bangkok
pH (at 20 degree C)	-	-	-	7.4	5.5-8.0	Standard Methods for the Examination of water and Wastewater, APHA & WFT, 23rd ed., 2017, part 4505 C-1(B)	Bangkok
Temperature *	Degree C	-	-	35.7	1-40	Standard Methods for the Examination of water and Wastewater, APHA & WFT, 23rd ed., 2017, part 1910 B-1	Bangkok
Total Suspended Solids (dried at 103-105 degree C)	mg/L	-	5	43	1200	Standard Methods for the Examination of water and Wastewater, APHA & WFT, 23rd ed., 2017, part 2540 D-1	Bangkok
Guidance : Standard of EPA Standard, Industrial Latent, Maximum levels for wastewater discharging to central wastewater treatment plant.							
Sampling By : Thermal Pumping and Discharge > 200 x 1000 mm							
Note : * LOD : Limit of Detection * LOQ : Lower than LOQ (Limit of Quantities) < LOQ (Limit of Reporting) * Analytical results * may not include in range of Accreditation Scope (1) : The laboratory has been accredited as an analytical laboratory complying with the ISO/IEC 17025.							
Technical Management		 Siriluk Parnak Section head micr001234@234-0123		Approved by  Kadee Ahe Senior Manager micr001234@234-0004			
<div>   </div>							
JCR0010140 (Pharmaceuticals, Bio-Pharmaceuticals, Chemicals, Pharmaceuticals, Small Scale Units), Bangkok, 162520 Thailand. Phone: +66 2 7962 0000   Fax: +66 2 7962 0100   Email: info@alsglobal.com							

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		<b>Analysis / Test Report</b>					
<b>Client</b>	WHA Utilities and Power Public Company Limited 111 Moo 7, Nongkluang Road, Nongkluang, Nongkhuai, Saraburi Thailand 18140		<b>TESTING</b> No.D009				
<b>P/P/I</b>			<b>Lot ID:</b> 2455442				
<b>Project Name</b>	Factory / Facility		Date Recd: June 11, 2019				
<b>Project Location</b>	Risk HS		Date Reported : Jun 14, 2019				
			Report Number : 300121-19				
Page 1 of 1							
<b>Sample Number</b>	P25H47-1						
<b>Sampling Date</b>	Jun 11, 2019 10:30 AM						
<b>Sample Description</b>	Group 2 Wastewater WW-CF						
<b>Contract No.</b>	SLS_2018_2504	Test: 165, 166, 162, 166, 166	<b>Site</b> Muhi (Thailand) Co., Ltd.				
<b>Data Analysis Comment</b>	June 12, 2019						
<b>Condition of Sample</b>	Contained in six amber glass bottles and three plastic bottles, sample containers comply to pre-treatment - preservation standards.						
<b>Physical Property</b>	Yellow, x 6 of colour, some solid and turbid						
Analyte	Unit	LOD (LOG)	Result	Guideline / Specification	Method	Testing Location	
<b>Water Testing</b>							
BOD (5 days @ 20 degree C)	mg/L	—	2.5	36.7	<100	Sequenced Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 19th ed., 2017, part 521B (part 521C-10)	Bangkok
COD	mg/L	—	25	164	<750	Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 19th ed., 2017, part 521B (part 521C-10)	Bangkok
Oil & Grease *	mg/l	—	3	8	<10	Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 19th ed., 2017, part 521B (part 521C-10)	Bangkok
pH (at 25°C) *	°	—	7.2	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 19th ed., 2017, part 450B (in 450)	Bangkok
Temperature *	Degree C	—	32.4	32.4	<40	Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 19th ed., 2017, part 2551 (part 2551A-10)	Bangkok
Total Suspended Solids Direct at 150-180 degree C *	mg/L	—	5	51	<100	Standard Methods for the Examination of Water and Wastewater: APHA, ASTM & ISO, 19th ed., 2017, part 2542 (part 2542A-10)	Bangkok
<b>Guideline :</b> Standard of WHA Subsector Industrial Land Maximum levels for wastewater discharging to central wastewater treatment plant. <b>Sampling :</b> 1. Nonacute Parameter Monitoring by EPA + 201 + 057 Range: → LOD = Limit of Detection → "L" Lower than LOD (Less of Quantified) or LOQ (Limit of Reporting) → Analytical method * does not include a record of Accreditation (ISO/IEC 17025). → The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.							
<b>Technical Management</b>	 Siriluk Buranik Section Head mudrasakul@wpa-doe.go.th		<b>Approved by</b>  Karkachai Keer Senior Manager mudrasakul@wpa-doe.go.th				
							
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ENVIRONMENTAL HEALTH DEPARTMENT, MINISTRY OF NATURAL RESOURCES AND ENVIRONMENTAL CONSERVATION							

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	 <b>TESTING</b> <b>Lot ID: 2458448</b> Data Received - Jun 13, 2024 Date Reported - Jun 13, 2024 Report Number - 300319-1						
<b>Analysis / Test Report</b>							
<b>Client:</b> WWA Industrial and Power Public Company Limited 111 Moo 7, Nongkhaeng Road, Nongkhaeng, Saraburi Thailand 18140							
<b>P/V/I :</b>							
<b>Project Name:</b> Factory 1 Monthly							
<b>Project Location:</b> WWA SD.							
<b>Sample Number</b>	ZHGB48-1						
<b>Sampled Date</b>	Jun 06, 2024 11:10 AM						
<b>Sample Description</b>	Group 2 Wastewater HW-CF						
<b>Container ID</b>	L&B, 005, 2004      Plot #01						
<b>Date Analysis Commenced</b>	Jun 07, 2024						
<b>Condition of Sample</b>	Collected in one amber glass bottle and three plastic bottles, sample containers comply per government – preservation standards (APHA/USEPA)						
<b>Physical Property</b>	Coldwater, some acidic, solid and no turbid						
Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
SOD <= 100 at 20 degree C	mg/L	-	2.0	2.9	>500	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2017, page 5215, 5216 and 5217, 2nd ed., 2017, page 5215	Bangkok
COO	mg/L	-	25	31	>750	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2017, 2nd ed., 2017, page 5220 D	Bangkok
Oil & Grease *	mg/L	-	1	<1	>10	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2017, 2nd ed., 2017, page 5225 B	Bangkok
pH (at 20°C) *	-	-	-	-	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2017, 2nd ed., 2017, page 4508 - (10)	Bangkok
Temperature *	Degree C	-	-	23.5	<45	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2017, 2nd ed., 2017, page 4505 B	Bangkok
Total Suspended Solids (Tested at 103-105 Degree C)	mg/L	-	5	100	>3000	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2017, 2nd ed., 2017, page 2542 D	Bangkok
<b>Guideline:</b> Standard of WWA Saraburi Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant. <b>Sampling:</b> By Dipnetted Wastewater discharge >50 L @ 0:05							
<b>Interpretation:</b> * "<" Lower than LOQ (Limit of Quantification) (LQR Range of Reporting) "ND" Not Detected "N/A" Not Applicable The laboratory has been accepted as an authorized laboratory complying with the ISO/IEC 17025.							
<b>Technical Management</b>	 Sumrit Chongsang-nguan Manager mcsurach@wva.co.th			<b>Approved by</b>  Kanchana Aree Senior Manager mkachana@wva.co.th			
<small>We warrant that the information contained herein was obtained from reliable sources and that the analysis was performed in accordance with the methods specified above.</small>							
00000001-04 Phrayatharung Rd., Phrayatharung Sub-township, Phra Pradaeng District, Samut Prakan Province, 10130 Thailand   PHONE: +66 2 5702 8888   FAX: +66 2 5702 8757 00000001-04 Phrayatharung Rd., Phrayatharung Sub-township, Phra Pradaeng District, Samut Prakan Province, 10130 Thailand   PHONE: +66 2 5702 8888   FAX: +66 2 5702 8757							
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## Analysis / Test Report

**Client:** WPP Media and Power Public Company Limited  
111 Nop 7, Nongprue Road, Nongprue, Nonthaburi, Sarayut Thailand 10640

**P/R #:**

**Project Name:** Factory 1 Monthly

**Project Location:** SPNA 52.

**Sample Number:** 2745H-31

**Sampling Date:** Jun 12, 2024 16:30 AM

**Sample Description:** Group 2 Wastewater Influent CT

**Container ID:** US, 001, 2004      **Plot:** 33

**Date Analysis Commenced:** Jun 13, 2024

**Condition of Sample:** (WPPA/SGS/SGS)

**Physical Property:** Contained in one amber glass bottle and three plastic bottles, sample containers comply per prearrangement - preservation standards. None, some odour, solid and no hazard

**Lot ID:** 24594338

**Date Received:** Jun 12, 2024

**Date Reported:** Jun 18, 2024

**Report Number:** 3000147-1

Page 1 of 1

**Analyte**      **Unit**      **LOD**      **LOQ**      **Result**      **Guideline / Specification**      **Method**      **Testing Location**

Water Testing SDI-5 (at 20 degree C)	mg/L	-	2.0	8.9	0.000	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2012, 9190-SDI, 2012 ed., 2017, 9190-SDI, 2012 ed.	Bangkok
COO	mg/L	-	25	300	0.750	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2012, 9190-SDI, 2012 ed., 2017, 9190-SDI, 2012 ed.	Bangkok
Oil & Grease *	mg/L	-	1	<1	<10	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2012, 9190-SDI, 2012 ed., 2017, 9190-SDI, 2012 ed.	Bangkok
pH (at 20 degree C)		-	-	7.2	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2012, 9190-SDI, 2012 ed., 2017, 9190-SDI, 2012 ed.	Bangkok
Temperature *	Degree C	-	-	28.8	8.0	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2012, 9190-SDI, 2012 ed., 2017, 9190-SDI, 2012 ed.	Bangkok
Total Suspended Solids Diluted at 100x 100 degree C	mg/L	-	5	100	0.000	Standard Methods for the Examination of Water and Wastewater, 19th Edition, 2012, 9190-SDI, 2012 ed., 2017, 9190-SDI, 2012 ed.	Bangkok

**Guideline:** Standard of WPP Group Industrial Limit, Maximum limit for wastewater discharge to central wastewater treatment plant.

**Sampling by:** Technical Management (wastewater) >200 = 0.008

**Remarks:**

- "L" Limit of Detection
- "N" Lower than 10% (LOD of Quantitation) (200 hours or Reporting)
- Analytical method \* does not include in scope of Accreditation (ISO) 17025
- The laboratory has been accepted as an authorized laboratory complying with the ISO/IEC 17025.

Siriluk P.

Senior Engineer  
Technical Head  
enliluk@wpp.com >200 = 0.001

Approved by

Kant Aue

Technical Director  
Senior Manager  
teichawee@wpp.com >200 = 0.009





\* Note: Not to be misused for purposes not intended. This report is valid only for the purpose stated and is not to be used for any other purpose. The results are based on the information provided by the client and are not to be used for any other purpose. The results are not to be used for any other purpose. The results are not to be used for any other purpose.

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Analysis / Test Report					TESTING No.009			
Client : WTA Ltd., Estates and Power Public Company Limited 111 Moo 7, Nongkajung Road, Nongkajung, Saraburi Thailand (SE-40)					Lot ID: 3458515			
P/P/Y :					Date Received : Jun 13, 2009			
Project Name : Factory / Monthly					Date Reported : Jun 18, 2009			
Project Location : Sema ES,					Report Number : 3050453-2			
					Page 1 of 2			
Sample Number	TH05E13-1							
Sampled Date	Jun 13, 2009 1:20 PM							
Sample Description	Group 2 Wastewater BPP/CCT							
Contract ID	LS-018-2004	Cust. Part	20	Site	Norlaksir SC, Paster Co.,L.M.			
Data Analysis Commanded	Jun 13, 2009							
Condition of Sample	Contained in three plastic bottles and one amber glass bottle, samples conforms comply to preservation - preservation conditions: yellow, some odor, solid not turbid							
Physical Property	Analyte	Unit	LOD	UCL (LOQ)	Result	Complies / Specifications	Method	Bottling Location
Water Testing								
BOD 5 @ 20°C @ 20 mg/L	mg/L	-	2.0	145	<500		Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WPCF, 20e ed., 2005, part 511B-518, 519, 520, 521, 2007	Singkok
COD	mg/L	-	25	236	1,750		Standard methods for the Examination of water and Wastewater, APHA, AWWA & WPCF, 20e ed., 2005, part 512B-518	Singkok
Oil & Grease *	mg/L	-	3	12	1.10		Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WPCF, 20e ed., 2005, part 552B-5	Singkok
pH (at 20°C) °F	-	-	-	-	7.4	5.5-8.0	Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WPCF, 20e ed., 2005, part 910B-915	Singkok
Temperature °C	Degree C	-	-	33.3	0-45		Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WPCF, 20e ed., 2005, part 255B-5	Singkok
Total Dissolved solids Dried at 180 °C/mg/L degree C	mg/L	-	5	1868	<5000		Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WPCF, 20e ed., 2005, part 255B-5	Singkok
Total Suspended Solids Dried at 183-189 degree C	mg/L	-	5	58	6200		Standard Methods for the Examination of water and Wastewater, APHA, AWWA & WPCF, 20e ed., 2005, part 254B-5	Singkok
<b>Guideline:</b> * Standard of WWA-CSD Industrial Limit, Maximum levels for wastewater discharge to central wastewater treatment plant. <b>Sampling by:</b> Tassanont Puangpak ecology@wpc.com + 204 + 0058								
Remark: * LOD = Limit of Detection * "<" = Lower than LOQ (Limit of Quantitation) / LQM (Limit of Reporting) * Analytical result "N/A" does not indicate a report of Non-detectable / ND/NL								
Technical Management		 Siriluk Purnak Section Head ecology@wpc.com + 204 + 0011		Approved by		 Kanchana Fork Senior Manager ecology@wpc.com + 204 + 0004		
Note: This report was prepared from information provided by the client. It is not the responsibility of ALS to verify the accuracy or completeness of the information provided. The client is responsible for ensuring the accuracy and completeness of the information provided.								
005052-018 Phosphorus-Mg, Phosphorus-Mg, Phosphate Phosphorus, Water Sampling, Singkok 12751 Thelard Phone: +66 6 2766 3000 Fax: +66 6 2766 3707 005052-018 Phosphorus-Mg, Phosphorus-Mg, Phosphate Phosphorus, Water Sampling, Singkok 12751 Thelard Phone: +66 6 2766 3000 Fax: +66 6 2766 3707								
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Lot ID: 2458472  
Date Received : Jun 11, 2024  
Date Reported : Jun 18, 2024  
Report Number : 3001232-1

Sample Number	P19H02-13						
Sampled Date	Jun 12, 2012 9:50 AM						
Sample Description	Group 3 Intermediate WWCCT						
Container ID	18_109_2600	Plat	14214	Site	NW HEDGE (THANEMAR), CO., LTD.		
Date/Analysis Commenced	Jun 12, 2012						
Contents of Sample	Combined 100 ml of water glass and three plastic bottles, combined sample (pre-processed) - preservation details:						
Physical Property	Yellows, a bit of residue, solid and lumpy						
Analysis	Unit	LOD	LOQ	LOQ (LOB)	Guideline / Specification	Method	Trailing Decimals
Water Testing							
NO3 (N in 30 ml @ 20°C)	mg/L			1.8	4.0/5	Standard Methods for the Examination of Water and Wastewater: APHA, 1995a & 95b, 2nd ed., 2017, part 1913.6, part 9505, C-1	None
COO	mg/L		25	227	1700	Standard Methods for the Examination of Water and Wastewater: APHA, 1995a & 95b, 2nd ed., 2017, part 522.0	None
Oil & Grease *	mg/L		3	6	110	Standard Methods for the Examination of Water and Wastewater: APHA, 1995a & 95b, 2nd ed., 2017, part 1620.8	None
pH (in air) *					5.5-9.6	Standard Methods for the Examination of Water and Wastewater: APHA, 1995a & 95b, 2nd ed., 2017, part 9100.1	None
Temperature *					35.3	14-6	Standard Methods for the Examination of Water and Wastewater: APHA, 1995a & 95b, 2nd ed., 2017, part 2100.8
Total Suspended Solids (dried at 103-105 °C)	mg/L		5	82	1200	Standard Methods for the Examination of Water and Wastewater: APHA, 1995a & 95b, 2nd ed., 2017, part 2540.2	

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

**Sampling by:** Sanatub Persepolis wastewater  $\geq 204$  m<sup>3</sup>/day

**Notes:**

- 1. LOD : Limit of Detection
- 2. "u" : Lower than LOD (Limit of Quantitation) / LOQ (Limit of Reporting)
- 3. Analyses marked \* have not included in scope of Accreditation ISO/IEC 17025.
- 4. The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management

*Siriluk P.*

Siriluk Burak  
Section Head  
msl@swsarl.com 1-204-4-0012

Approved by

*Karl A. Auk*

Karl Auk  
Senior Manager  
msl@swsarl.com 1-204-4-0008

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Lot ID: 2458439  
Date Received : Jun 07, 2024  
Date Reported : Jun 14, 2024  
Report Number : J9931154-1

Sample Date	Jan 02, 2004 1:05 PM					
Sample Description	Group 2 Wellbore WWCT					
Contract ID	ENR_2004	Plant	47	Site	EverRPO K&P & Paper Company Limited (24)	
Data Acquisition Comments	Jan 06, 2004					
Contents of Sample	Combined in one amber glass bottle and three plastic bottles, sample containers comply to international - preservation standards					
Physical Property	NPAH (C20-22) Yellow, clear, odorless, solid and turbid					
Analyte	Unit	LOD (LOB)	Result	Guideline / Spec/Fraction	Method	Testing Location
Water Testing						
WCO (3 Days @ 25 Degree C)	mg/L	1.0	23.2	<500	Standard Methods for the Examination of Water and Wastewater: A9, ASTM D 591, 2nd ed., 1972, and 513.8, 1st ed. WQ5 - G	Beijing
COO	mg/L	—	25	132	Standard Methods for the Examination of Water and Wastewater: A9, ASTM D 591, 2nd ed., 1972, and 512.0	Beijing
Oil & Grease *	mg/L	3	4	112	Standard Methods for the Examination of Water and Wastewater: A9, ASTM D 591, 2nd ed., 1972, and 512.0	Beijing
pH (in air) *				5.5-8.0	Standard Methods for the Examination of Water and Wastewater: A9, ASTM D 591, 2nd ed., 1972, and 512.0	Beijing
Temperature *	Degree C	—	—	14.0	Standard Methods for the Examination of Water and Wastewater: A9, ASTM D 591, 2nd ed., 1972, and 512.0	Beijing
Total Suspended Solids (Inch at 103 to 105 Degree C)	mg/L	5	87	<200	Standard Methods for the Examination of Water and Wastewater: A9, ASTM D 591, 2nd ed., 1972, and 512.0	Beijing

**Guideline:** Standard of WHO Sewerbycatcher Lax, Platinum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By:** Tienwei Pungpak and Saeed S. 204-v-0058

**Notes:**

- LOD = Limit of Detection
- "u" = Lower than LOD (Limit of Quantitation) / ULN (Limit of Reporting)
- Analytes marked \* Acute not included in scope of Accreditation ISO/IEC 17025.
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Technical Management: Siriluk P. Approved by: Kanokorn Anit  
 Siriluk Buranik Kanokorn Anit  
 Section Head Senior Manager  
 mcdmca0013-2004-0-0013 mcdmca0013-2004-0-0009

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 10 51 ABW411079 C0509 C7463 6802 C75 | ETO, An 8/5, United Company

12345 56789101112131415161718192021222324252627282930313233343536373839404142434445464748495051525354555657585960616263646566676869707172737475767778798081828384858687888990919293949596979899100101102103104105106107108109110111112113114115116117118119120121122123124125126127128129130131132133134135136137138139140141142143144145146147148149150151152153154155156157158159160161162163164165166167168169170171172173174175176177178179180181182183184185186187188189190191192193194195196197198199200201202203204205206207208209210211212213214215216217218219220221222223224225226227228229230231232233234235236237238239240241242243244245246247248249250251252253254255256257258259260261262263264265266267268269270271272273274275276277278279280281282283284285286287288289290291292293294295296297298299300301302303304305306307308309310311312313314315316317318319320321322323324325326327328329330331332333334335336337338339340341342343344345346347348349350351352353354355356357358359360361362363364365366367368369370371372373374375376377378379380381382383384385386387388389390391392393394395396397398399400401402403404405406407408409410411412413414415416417418419420421422423424425426427428429430431432433434435436437438439440441442443444445446447448449450451452453454455456457458459460461462463464465466467468469470471472473474475476477478479480481482483484485486487488489490491492493494495496497498499500501502503504505506507508509510511512513514515516517518519520521522523524525526527528529530531532533534535536537538539540541542543544545546547548549550551552553554555556557558559560561562563564565566567568569570571572573574575576577578579580581582583584585586587588589590591592593594595596597598599600601602603604605606607608609610611612613614615616617618619620621622623624625626627628629630631632633634635636637638639640641642643644645646647648649650651652653654655656657658659660661662663664665666667668669670671672673674675676677678679680681682683684685686687688689690691692693694695696697698699700701702703704705706707708709710711712713714715716717718719720721722723724725726727728729730731732733734735736737738739740741742743744745746747748749750751752753754755756757758759760761762763764765766767768769770771772773774775776777778779780781782783784785786787788789790791792793794795796797798799800801802803804805806807808809810811812813814815816817818819820821822823824825826827828829830831832833834835836837838839840841842843844845846847848849850851852853854855856857858859860861862863864865866867868869870871872873874875876877878879880881882883884885886887888889890891892893894895896897898899900901902903904905906907908909910911912913914915916917918919920921922923924925926927928929930931932933934935936937938939940941942943944945946947948949950951952953954955956957958959960961962963964965966967968969970971972973974975976977978979980981982983984985986987988989990991992993994995996997998999100010011002100310041005100610071008100910101011101210131014101510161017101810191020102110221023102410251026102710281029103010311032103310341035103610371038103910401041104210431044104510461047104810491050105110521053105410551056105710581059106010611062106310641065106610671068106910701071107210731074107510761077107810791080108110821083108410851086108710881089109010911092109310941095109610971098109911001100111002110031100411005110061100711008110091101011011110121101311014110151101611017110181101911020110211102211023110241102511026110271102811029110301103111032110331103411035110361103711038110391104011041110421104311044110451104611047110481104911050110511105211053110541105511056110571105811059110601106111062110631106411065110661106711068110691107011071110721107311074110751107611077110781107911080110811108211083110841108511086110871108811089110901109111092110931109411095110961109711098110991110011100111100211100311100411100511100611100711100811100911101011101111101211101311101411101511101611101711101811101911102011102111102211102311102411102511102611102711102

Lot ID: 2458468  
Date Received : Jun 12, 2024  
Date Reported : Jun 16, 2024  
Report Number : 3906222-1

Sample ID	Jan 16, 2024 11:13 AM						
Sample Date/Time	City of Rochester WSWCT						
Sample Description	AS, 100, 7560	Flot	Flt	1			
Contract ID	AS, 100, 7560						
Notes/Analysis Comments	Conducted in two amber glass bottles and three plastic bottles, sample containers comply to pretreatment - preservation of samples (APHA/2005)						
Container of Sample	Yellow, some clear, solid and not						
Physical Property							
Analyte	Unit	LOD (LOE)	Result	Guideline / Specification	Method	Testing Location	
Water Testing							
DOC (3.0 at 25 degree C)	mg/L	2.0	2.4	<100	Standard Methods for the Examination of Water and Wastewater - APHA, 1995 & NSF, 2nd ed., 2007, part 1513 B, part 1500 - G-0	Beijing	
COD	mg/L	~ 25	<25	15750	Standard Methods for the Examination of Water and Wastewater - APHA, 1995 & NSF, 2nd ed., 2007, part 1522 D	Beijing	
Oil & Grease +	mg/L	3	<3	110	Standard Methods for the Examination of Water and Wastewater - APHA, 1995 & NSF, 2nd ed., 2007, part 1523 B	Beijing	
pH (in air) ^C				5.5-8.0	Standard Methods for the Examination of Water and Wastewater - APHA, 1995 & NSF, 2nd ed., 2007, part 4500 - H-02	Beijing	
Temperature ^C	(Degree C)			10.6	Standard Methods for the Examination of Water and Wastewater - APHA, 1995 & NSF, 2nd ed., 2007, part 2550 B	Beijing	
Total Suspended Solids (dried at 103-105 degree C)	mg/L	~ 3	<5	1300	Standard Methods for the Examination of Water and Wastewater - APHA, 1995 & NSF, 2nd ed., 2007, part 2540 D	Beijing	

**Guideline:** Standard of 19th Serabi Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By:** Timorwast Pungbuk Industries s/204-s-0508.


**Remark:**

- LOD : Limit of Detection
- " $<$ " : lower than LOD (Limit of Quantitation) / OR (Limit of Reporting)
- Analytical method : ICMS not included in scope of Accreditation (00010) / 0.025
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

<p><b>Technical Management</b></p> <p style="text-align: center;"><u>Sirluk P.</u></p> <p style="text-align: center;">Genet Bureau Section Head msl00000000 v 204-a-0013</p>	<p><b>Approved by</b></p> <p style="text-align: center;"><u>Karl A.</u></p> <p style="text-align: center;">KARL A. AOKI Senior Manager msl00000000 v 204-a-0008</p>
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[illegible]





**ALS**  
ANALYTICAL  
LABORATORIES

## Analysis / Test Report



TESTING  
No. 0009

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**Client** WTA (Lodna and Power Public Company Limited)  
111 Moo 9, Nongkhaeng Road, Nongkhaeng, Saraburi Thailand 18140

**P/P ID** \_\_\_\_\_

**Project Name** Factory Monthly  
**Project Location** Saraburi, Thailand

**Sample Number** P25H9124

**Collection Date** Jun 12, 2024 11:10 AM

**Sample Description** Group 2 Wastewater WWT-CT

**Contract ID** SL-229-2354 **Test 1/3/4**

**Date Analysis Commenced** Jun 13, 2024

**Condition of Sample** Collected on site and/or glass bottle and three plastic bottles, sample containers comply to pre-treatment - preservation standards (APHA/ISO/EN)  
**Physical Property** Contains, some solids, solid and not turbid

**Site** SOC Saraburi Co., Ltd

**TESTING**  
Lot ID: 24554924  
Date Recd: Jun 13, 2024  
Date Reported: Jun 18, 2024  
Report Number: 300112-1

Page 1 of 1

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Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
SOC (in 20 degree C)	mg/L	-	1.0	<1.0	6500	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2013, part 1910 (19)	Bangkok
COD	mg/L	-	25	<25	1750	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2013, part 1910 (19)	Bangkok
Oil & Grease *	mg/L	-	3	<3	1510	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2013, part 1910 (19)	Bangkok
pH (in site) *	-	-	-	7.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2013, part 9000 (19)	Bangkok
Temperature *	Degree C	-	-	32.0	1-40	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2013, part 1910 (19)	Bangkok
Total Suspended Solids (Grit at 150-190 degree C)	mg/L	-	5	<5	1200	Standard Methods for the Examination of Water and Wastewater, APHA, 1995, 23rd ed., 2013, part 2540 (5)	Bangkok

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

**Sampling By:** \*Saraburi Wastewater Industrial Plant > 200-4000

- LOD : Limit of Detection  
 - LQ : Lower than LOD (Limit of Quantitation) (Limit of Reporting)  
 - (Accepted result) : value not exceeded a value of Acceptation Standard (EN).  
 - The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.

**Technical Management**




*Siriluk P.*


Siriluk Buranok  
Section Head  
Industrial & WWT > 200-4000

**Approved by**




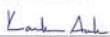
*Kanokkany A.*

Kanokkany Aek  
Senior Manager  
Industrial & WWT > 200-4000




Saraburi Wastewater Industrial Plant > 200-4000  
 111 Moo 9, Nongkhaeng Road, Nongkhaeng, Saraburi, Thailand 18140  
 Tel: 036-229-2354 Fax: 036-229-2355  
 E-mail: info@als.co.th  
 Website: www.als.co.th

							
		TESTING No.009					
Client : WTA Utilities and Power Public Company Limited 111 Moo 7, Nongkluang Road, Nongkluang, Saraburi Thailand 18140		Lot ID: 2455512 Date Received : Jun 18, 2024 Date Reported : Jun 18, 2024 Report Number : 300309-1					
P/P / I: Project Name : Factory / Monthly Project Location : HWA 152.		Page 1 of 1					
<b>Sample Number</b>	PH0812-1						
<b>Sampled Date</b>	Jun 11, 2024 9:35 AM						
<b>Sample Description</b>	Group 2 Wastewater WWC-T						
<b>Container ID</b>	LC, 200L, 2014						
<b>Date Analysis Commenced</b>	Jun 12, 2024						
<b>Condition of Sample</b>	Contains three plastic bottles and one amber glass bottle, sample containers comply for pre-treatment - preservation standards. (APHA, USEPA)						
<b>Physical Property</b>	Colorless, some residue, solid and no turbid						
Analyte	Unit	LOD (µg/L)	Result	Method / Specification	Method	Testing Location	
<b>Heavy Testing</b>							
Cadmium	mg/L	0.0003	0.0000	0.50	101.2	Standard Method for the Determination of Water and Wastewater, APHA, 1995 & ISO 9142, 2013, Part 31.1 & 3155	Bangkok
<b>Water Testing</b>							
NO3- (I) as nit at 20 degree C	mg/L	—	3.6	<+0	3.900	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & ISO 9142, 2013, Part 3218 & 3241, Part 4000 - D-G	Bangkok
COD	mg/L	—	25	<-25	1.700	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & ISO 9142, 2013, Part 5207	Bangkok
Oil or Grease *	mg/L	—	3	<-3	3.10	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & ISO 9142, 2013, Part 3520-B	Bangkok
pH (at 20 °C) *				7.8	5.9-8.9	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & ISO 9142, 2013, Part 4050 - B	Bangkok
Temperature *	Degree C			33.6	1-45	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & ISO 9142, 2013, Part 2550-B	Bangkok
Total Dissolved Solids (Drad at 180 degree C)	mg/L	—	3	1.756	<1000	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & ISO 9142, 2013, Part 2540-C	Bangkok
Total Suspended Solids (Drad at 153-155 degree C)	mg/L	—	5	<-5	3.000	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & ISO 9142, 2013, Part 2540-D	Bangkok
<b>Guarantee :</b> Standard of WWA Saraburi Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.							
Technical Management  Sawadee Pongpanung Manager msw@wta-u.com + 204-0007		Approved by  Kanchana Keer Senior Manager mks@wta-u.com + 204-0008					
<small>We warrant that the analysis was performed in accordance with the methods specified in our contract and that we are not responsible for errors resulting from misinterpretation of results or misuse of the report. We warrant that the analysis was performed in accordance with the methods specified in our contract and that we are not responsible for errors resulting from misinterpretation of results or misuse of the report.</small>							
<small>ORDERED BY: Mr. Prachinthan KOL, Phrasarak Phrasathan, Chief Sanitary Engineer, Bangkok 10250 Thailand   PHOTON-408-77333-0000   FAX: 408-67338-0107</small>							
<small>ANALYST: Ms. Sittichaiwan KOL, Phrasarak Phrasathan, Senior Sanitary Engineer, Bangkok 10250 Thailand   PHOTON-408-77333-0000   FAX: 408-67338-0107</small>							
<a href="http://www.als-laboratory.com">www.als-laboratory.com</a> <a href="http://www.alsglobal.com">www.alsglobal.com</a>							
<small>Lab. No. : 300309-1      REPORT NO.: 300309-1      DATE OF REPORT: 18 JUN 2024      LAB. ADDRESS: 111 MOO 7, NONGKLUA ROAD, NONGKLUA, SARABURI 18140 THAILAND</small>							





# Analysis / Test Report



**Client:** IMAH Utilities and Power Public Company Limited  
113, Nno 3, Nongseang Road, Nongseang, Saraburi Thailand 12140

**P/P ID:**

**Project Name:** Factory / Moribity  
**Project Location:** IMAH S.S.

**Sample Number:** 2104021-1  
**Sampled Date:** Jun 11, 2024 11:40:49

**Sample Description:** Group 2 Wastewater W99-C1  
**Container ID:** 165, 207, 2254 **Flat:** 42, 75, 98 **Site:** Sarn Oopany Industry (Saraburi) Co., Ltd.

**Location:** Factory 2  
**Date Analysis Commenced:** Jun 11, 2024

**Condition of Sample:** Physical Parameters: (solids, liquids and one amber glass bottle, sample containers comply to pre-treatment – preservation standards (APHA, 1995))

**TESTING**  
No.0009

**Lot ID: 2458423**  
**Valid until:** Jun 11, 2024  
**Date Reported:** Jun 10, 2024  
**Report Number:** 3305901-9

Page 1 of 1

Analyte	Unit	LOD	LOQ (LOD)	Result	Guideline / Specification	Method	Testing Location
Water Heating 800-13 (20 at 25 degree C)	mg/L	-	2.0	40.1	<500	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WET, 23rd edn., 2017, page 5123 D	Saraburi
COD	mg/L	-	25	120	1750	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WET, 23rd edn., 2017, page 5123 D	Saraburi
Oil & Grease *	mg/L	-	3	<1	610	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WET, 23rd edn., 2017, page 5123 D	Saraburi
pH (in air) *	-	-	-	7.8	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WET, 23rd edn., 2017, page 4030 H (13)	Saraburi
Temperature *	degree C	-	-	33.3	1-40	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WET, 23rd edn., 2017, page 2310 B	Saraburi
Total Suspended Solids (20 at 103-105 degree C)	mg/L	-	5	33	1200	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & WET, 23rd edn., 2017, page 5146 D	Saraburi

**Guideline:** Standard of IMAH Saraburi Industrial Land, Minimum levels for wastewater discharging to central wastewater treatment plant.

**Sampling By:** Jirapol Chomwong email:wpaw@2104-0009

**Signature**

\_\_\_\_\_  
Unit: Saraburi  
Section: waste  
email:wpaw@2104-0009

**Approved by**

\_\_\_\_\_  
Section Manager  
email:wpaw@2104-0009


**Analyst**

\_\_\_\_\_  
Analyst  
email:wpaw@2104-0009


Method of this report is based on the following information: The laboratory is not responsible for the accuracy of the results if the sample is not properly collected, stored, handled, or if the sample is not representative of the material being tested. The laboratory is not responsible for the accuracy of the results if the sample is not properly collected, stored, handled, or if the sample is not representative of the material being tested. The laboratory is not responsible for the accuracy of the results if the sample is not properly collected, stored, handled, or if the sample is not representative of the material being tested.

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# Analysis / Test Report



**Client :** WATA (Sri Lanka and Power Public Company Limited)  
111, Main 7, Nongkolai Road, Nongkolai, Nongkolai, Sri Lanka (Thailand) (S143)

**P/V# :** 1

**Project Name :** Factors / Monthly

**Project Location :** Sri Lanka

**Sample Number :** 2024/07/1

**Collection Date :** Jun 12, 2024 10:30 AM

**Sample Descriptions :** Group 2 Wastewater from  
92-001, 2042 **Plot #1 :**

**Location :** (See Map)

**Collection Analysis Commenced :** Jun 13, 2024

**Details of Sample :** Consistent with the primer glass bottle and three plastic bottles, sample contains sludge by precipitation, concentrated standards

**Physical Property :** Yellow, a bit of color, some solid and a bit of oil

**TESTING**  
No. 0009  
**Lot Id: 24549477**  
Report Date: Jun 13, 2024  
Report Number: 2024/04-1

Page 1 of 1

Analyte	Unit	LOD	LOQ	Result	Guideline / Specifications	Method	Testing Location
<b>Water Testing</b>							
BOD (5 days at 20 degree C)	mg/L	-	2.0	330	<500	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5212 A to part 5212 G	Sri Lanka
COD	mg/L	-	25	536	0750	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5220 D	Sri Lanka
Oil & Grease +	mg/L	-	3	4	110	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5520 B	Sri Lanka
pH (25 deg) *		-		6.9	5.5-9.0	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 4505 (B)	Sri Lanka
Temperature +	Degree C	-		33.0	<45	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2550 B	Sri Lanka
Total Suspended Solids dried at 105-105 degree C	mg/L	-	3	92	<100	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 D	Sri Lanka

**Guideline :** Standard of Wata Industrial Landfill, Maximum limits for wastewater discharging to central wastewater treatment plant.


**Sanitizing by :** Thermal Sanitizing (incubated at 120+4-008)

**Remark :**

- LOD = Limit of Detection
- "N" = Lower than 1/10 of Limit of Quantification / LOQ (Limit of Reporting)
- <sup>+</sup> equals mean ± SD and not included in scope of Accreditation (ISO/IEC 17025)
- The laboratory has been accepted as an accredited laboratory complying with the ISO/IEC 17025.

Srinuk P.





Sri Lanka Bureau  
Sanction Head  
incubated at 120+4-002





**Approved by** 


Kankarath Ariyaratne  
Senior Manager  
incubated at 120+4-008A

When used for the purpose of accreditation, this report shall be read in conjunction with the following documents:

ISO 15189:2013 (Part 1) and Part 2:2013, ISO 15189:2013 (Part 2) and Part 2:2013, ISO 15189:2013 (Part 3) and Part 3:2013, ISO 15189:2013 (Part 4) and Part 4:2013, ISO 15189:2013 (Part 5) and Part 5:2013, ISO 15189:2013 (Part 6) and Part 6:2013, ISO 15189:2013 (Part 7) and Part 7:2013, ISO 15189:2013 (Part 8) and Part 8:2013, ISO 15189:2013 (Part 9) and Part 9:2013, ISO 15189:2013 (Part 10) and Part 10:2013, ISO 15189:2013 (Part 11) and Part 11:2013, ISO 15189:2013 (Part 12) and Part 12:2013, ISO 15189:2013 (Part 13) and Part 13:2013, ISO 15189:2013 (Part 14) and Part 14:2013, ISO 15189:2013 (Part 15) and Part 15:2013, ISO 15189:2013 (Part 16) and Part 16:2013, ISO 15189:2013 (Part 17) and Part 17:2013, ISO 15189:2013 (Part 18) and Part 18:2013, ISO 15189:2013 (Part 19) and Part 19:2013, ISO 15189:2013 (Part 20) and Part 20:2013, ISO 15189:2013 (Part 21) and Part 21:2013, ISO 15189:2013 (Part 22) and Part 22:2013, ISO 15189:2013 (Part 23) and Part 23:2013, ISO 15189:2013 (Part 24) and Part 24:2013, ISO 15189:2013 (Part 25) and Part 25:2013, ISO 15189:2013 (Part 26) and Part 26:2013, ISO 15189:2013 (Part 27) and Part 27:2013, ISO 15189:2013 (Part 28) and Part 28:2013, ISO 15189:2013 (Part 29) and Part 29:2013, ISO 15189:2013 (Part 30) and Part 30:2013, ISO 15189:2013 (Part 31) and Part 31:2013, ISO 15189:2013 (Part 32) and Part 32:2013, ISO 15189:2013 (Part 33) and Part 33:2013, ISO 15189:2013 (Part 34) and Part 34:2013, ISO 15189:2013 (Part 35) and Part 35:2013, ISO 15189:2013 (Part 36) and Part 36:2013, ISO 15189:2013 (Part 37) and Part 37:2013, ISO 15189:2013 (Part 38) and Part 38:2013, ISO 15189:2013 (Part 39) and Part 39:2013, ISO 15189:2013 (Part 40) and Part 40:2013, ISO 15189:2013 (Part 41) and Part 41:2013, ISO 15189:2013 (Part 42) and Part 42:2013, ISO 15189:2013 (Part 43) and Part 43:2013, ISO 15189:2013 (Part 44) and Part 44:2013, ISO 15189:2013 (Part 45) and Part 45:2013, ISO 15189:2013 (Part 46) and Part 46:2013, ISO 15189:2013 (Part 47) and Part 47:2013, ISO 15189:2013 (Part 48) and Part 48:2013, ISO 15189:2013 (Part 49) and Part 49:2013, ISO 15189:2013 (Part 50) and Part 50:2013, ISO 15189:2013 (Part 51) and Part 51:2013, ISO 15189:2013 (Part 52) and Part 52:2013, ISO 15189:2013 (Part 53) and Part 53:2013, ISO 15189:2013 (Part 54) and Part 54:2013, ISO 15189:2013 (Part 55) and Part 55:2013, ISO 15189:2013 (Part 56) and Part 56:2013, ISO 15189:2013 (Part 57) and Part 57:2013, ISO 15189:2013 (Part 58) and Part 58:2013, ISO 15189:2013 (Part 59) and Part 59:2013, ISO 15189:2013 (Part 60) and Part 60:2013, ISO 15189:2013 (Part 61) and Part 61:2013, ISO 15189:2013 (Part 62) and Part 62:2013, ISO 15189:2013 (Part 63) and Part 63:2013, ISO 15189:2013 (Part 64) and Part 64:2013, ISO 15189:2013 (Part 65) and Part 65:2013, ISO 15189:2013 (Part 66) and Part 66:2013, ISO 15189:2013 (Part 67) and Part 67:2013, ISO 15189:2013 (Part 68) and Part 68:2013, ISO 15189:2013 (Part 69) and Part 69:2013, ISO 15189:2013 (Part 70) and Part 70:2013, ISO 15189:2013 (Part 71) and Part 71:2013, ISO 15189:2013 (Part 72) and Part 72

							
		<b>Analysis / Test Report</b>					
<b>Client :</b> WWA Utilities and Power Public Company Limited 111 Muai T., Nongpladung Road, Nongpladung, Bangkok, Thailand 10240	<b>TESTING</b> <b>No.0009</b>						
<b>P/O ID :</b>	<b>Lot ID:</b> 2458425						
<b>Project Name :</b> Factory / Hospital	<b>Report Date:</b> Jun 11, 2024						
<b>Project Location :</b> WWA SS	<b>Date Received :</b> Jun 18, 2024 <b>Report Number :</b> 303587-1						
		<b>Page 1 of 1</b>					
<b>Sample Number</b>	2404584-1						
<b>Collection Date</b>	Jun 12, 2024 10:30 AM						
<b>Sample Description</b>	Group 2: Wastewater WW-CF						
<b>Lab. Order No.</b>	SL_2024_2054	<b>Prod. #</b>					
<b>Date Analysis Commenced</b>	Jun 13, 2024						
<b>Description of Sample</b>	Collected in one glass bottle and three plastic bottles, sample containers comply to pretestment - preservation standards. Twisted, some colour, a bit of solid and turbid						
<b>Physical Property</b>							
Analyte	Unit	LOQ	LOQ (JL)	Result	Uncertainty	Method	Testing Location
<b>Water Testing</b>							
BOD (5 days at 20 degree C)	mg/L	-	1.8	36.7	+50%	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5213 B, part 4909, 15-2	Bangkok
COD	mg/L	-	25	124	+75%	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5212 D	Bangkok
Oil & Grease *	mg/L	-	3	4	+13	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 5510 B	Bangkok
pH (at 25 °C) *		-	-	7.8	+5.4 (B)	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1905 B	Bangkok
Temperature *	Degree C	-	-	33.4	+40	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 1905 B	Bangkok
Total Suspended Solids Direct at 103 degree C	mg/L	-	5	84	+20%	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA & WEF, 23rd ed., 2017, part 2540 C	Bangkok
<b>Reference :</b> Standard of Wastewater Industrial Land, Maximum levels for wastewater discharging to central wastewater treatment plant.							
<b>Sampling by :</b> Terence Pangnuek (In-house) + 234 + 0020							
<b>Notes :</b>							
- (D) Limit of Detection							
- (*) Lower Limit LOQ (of Quantities) + (2X Limit of Reporting)							
- *Assessors' remark* : None not suitable or limit of measurement (SDRC) = 100%.							
The laboratory has been accredited as an independent reference company under the ISO/IEC 17025.							
<b>Technical Manager</b>		 Sinluk Panak Section Head INDUSLAB-0239+0023		<b>Approved by</b>  Kachon An Senior Manager INDUSLAB-0239+0004			
<small>Please do not write over this area. If you need more space, please contact your account manager. This report is valid for 12 months from the date of issue. The results are based on the information provided by the client. The laboratory is not responsible for any errors arising from incorrect sampling or handling of samples. The results are for informational purposes only and should not be used for legal or regulatory compliance without consulting the relevant authorities.</small>							
<small>ADDRESS: 104 Phahonyothin Rd., Phahonyothin Subd., Chomphon, Pathumwan District, East Bangkok, Bangkok, 10240 Thailand. PHONE: +66 2 2788 0000 FAX: +66 2 2788 0107 E-MAIL: info@alsglobal.com</small>							
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<small>Set up in Hong Kong</small>				<small>Incorporated in Hong Kong</small>			

 							
Analysis / Test Report				TESTING NO 0009			
Client: WHA Utilities and Power Public Company Limited 111 Nua 1, Nongprue Road, Nongprue, Samut Prakan (Thailand) 10140				Lot ID: 24524824			
P/P/D :				Date Received : Jun 11, 2024			
Project Name : Factory / Hospitality				Date Reported : Jun 18, 2024			
Project Location : (SMA SL)				Report Number : 200-101-1			
Page 1 of 1							
Sample Number	250420-12						
Sampled Date	Jun 11, 2024 9:50 AM						
Sample Description	Group 2 Wastewater W9-C1	Flot	Site	Siem Tebo Chonabua Co.,Ltd			
Contract ID	146, 161, 2154						
Date Analysis Completed	Jun 11, 2024						
Condition of Sample	Collected in three plastic bottles and one amber glass bottle, sample containers comply to pre-treatment - preservation standards (APHA, CEN, ISO)						
Physical Property	Yellow, some cloudy, d of solid and turbid						
Analysis	Unit	LOD (50%)	Result	Guideline / Specification	Method	Testing Location	
Water Twisting							
KOD-20 test (20 degree C)	mg/L	—	2.8	25.2	<500	Standard Methods for the Examination of Water and Wastewater, APHA & WFT, 23rd ed., 2017, part 5121 B, part 6000, 10-2	Samutprak
COO	mg/L	—	25	290	2750	Standard Methods for the Examination of Water and Wastewater, APHA & WFT, 23rd ed., 2017, part 5121 B, part 6000, 10-2	Samutprak
Oil & Grease *	mg/L	—	3	7	110	Standard Methods for the Examination of Water and Wastewater, APHA & WFT, 23rd ed., 2017, part 5121 B, part 6000, 10-2	Samutprak
jar (jar test) *	—	—	—	7.7	5.5-6.0	Standard Methods for the Examination of Water and Wastewater, APHA & WFT, 23rd ed., 2017, part 6000, 10-1(B)	Samutprak
Temperature *	Degree C	—	—	35.4	1-40	Standard Methods for the Examination of Water and Wastewater, APHA & WFT, 23rd ed., 2017, part 5121 B, part 6000, 10-2	Samutprak
Total Suspended Solids (dried at 105-108 degree C)	mg/L	—	5	172	1,000	Standard Methods for the Examination of Water and Wastewater, APHA & WFT, 23rd ed., 2017, part 5121 B, part 6000, 10-2	Samutprak
<b>Guideline :</b> Standard of WWA, Standard Industrial Lat, Maximum levels for wastewater discharge to central wastewater treatment plant, (Sewerage by J. Jornt Khosuee wastewater - 2004 v-002)							
<b>Notes:</b> <ul style="list-style-type: none"> <li>LOD = Limit of detection</li> <li>* " - " Lower than LOD (percentage) (LOM (Jan of Reporting)</li> <li>Ambiguity marked * "same not included in scope of Accreditation ISO/IEC 17025</li> <li>The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.</li> </ul>							
<b>Technical Management</b>  Siriluk P. Section Head 2024-05-18		<b>Approved by</b>  Kanchana Kiat Senior Manager 2024-05-18					
We hereby certify that this analysis was performed in accordance with the requirements of the ISO/IEC 17025:2017 standard.							
ACCREDITED TO: Pollution Monitoring, Wastewater Monitoring, Water Sampling, Bangkok, 10250 Thailand Phone: +66 2 7760 0000 / 344-444-0789 3187							
www.alsglobal.com							



**ALS**  
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## Analysis / Test Report

**TESTING**  
No.0009  
**Lab ID: 345845**  
Date Received : 16-11-2024  
Date Reported : 16-11-2024  
Report Number : 3001-01-19

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**Client :** WPP United and Power Public Company Limited  
**131 Phlo 7, Nongkroksad Road, Nongkroksad, Saraburi Thailand 18140**

**P/O # :**  
**Project Name :** Factory /Plasticity  
**Project Location :** WPP US

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**Sample Number :** ZVGH10-1  
**Sampled Date :** Jun 11, 2024 8:30 AM  
**Sample Description :** Group 2 Wastewater WPP CT  
**Contract ID :** 68\_104\_2006  
**Lab File # :** **Site :** S038 (Thailand) Ca,SS  
**Date Analysis Commenced :** 10 Jun 2024

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**Condition of Sample :** Contained in one amber glass bottle and three plastic bottles, sample containers comply to government - preservation standards (WPP, AWWA, EPA)  
**Physical Property :** color, a bit of odor, were solid and turbid

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Analyte	Unit	LOD (µg/L)	LOQ (µg/L)	Result	Standard / Specification	Method	Testing Location
Water Testing							
SSD < 30 mg (dry @ 105°C)	mg/L	-	2.0	54.2	5000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 23rd ed., 2017, part 9212, 9-10	Bangkok
COD	mg/L	-	25	187	2754	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 23rd ed., 2017, part 9212.9	Bangkok
Cr & Oil Grease *	mg/L	-	1	6	100	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 23rd ed., 2017, part 9200.8	Bangkok
pH (in air) *		-	-	7.6	6.5-8.2	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 23rd ed., 2017, part 9200.10	Bangkok
Temperature *	Degree C	-	-	31.4	1-43	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 23rd ed., 2017, part 9200.8	Bangkok
Total Suspended Solids (dry @ 103-105°C, Degree C)	mg/L	-	5	43	5000	Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, & WEF, 23rd ed., 2017, part 9240.1	Bangkok

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**Conclusion:** Standard of WPP Saraburi Industrial Land, Maximum limits for wastewater discharging to central wastewater treatment plant.

**Sampling By :** Saraburi Phosporine (Indonesia) - (2004-10-03)

**Notes:**

- LOD = Limit of detection
- LOQ = Lower than LOQ (Limit of Quantitation) (1/5 of Limit of Reporting)
- AWWA/2017 method \* were not included in scope of Accreditation (ISO/IEC 17025). The laboratory has been equipped in an accredited laboratory complying with the ISO/IEC 17025.

---

**Technical Management**

*Siruluk P.*

Siruluk Dwidari  
Section head  
michandana@2004-10-03

**Approved by**

*Kant A.H.*

Kantakorn Aye  
Senior Technican  
michandana@2004-10-03

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This report and its contents are confidential and shall not be disclosed to any third party without the written consent of ALS. The results of this report are only valid for the specific sample and test method described herein. The laboratory is not responsible for any errors or omissions in the sample collection, handling, or analysis. The results of this report are only valid for the specific sample and test method described herein. The laboratory is not responsible for any errors or omissions in the sample collection, handling, or analysis.

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## Analysis / Test Report

TESTING

**Client** : WMA Utilities and Power Policy Company Limited  
 111 Mile 7, Nongprue Road, Nongprue, Nongprue, Saraburi Thailand (8140)  
**P/O :** :  
**Project Name** : Factory / Monthly  
**Project Location** : WMA SE

**No.0009**  
**Lot ID: 2458428**  
**Date Received** : Jan 12, 2024  
**Report Number** : Jan 16, 2024  
**Date Report** : 3003109

Page 1 of 1

**Sample Number** : 240634-1  
**Sampled Date** : Jan 12, 2024 11:58 AM CT  
**Sample Description** : Gm2 : Wastewater WWCT  
**Container ID** : 68\_004\_2024 **Plot** : 3  
**Location** : Plot 3  
**Date Analysis Commenced** : Jan 13, 2024

**Site** : Thai Beverage Co., Ltd.

**Container and/or bags** : glass bottles and three plastic bottles, sample containers comply to pretest/pre- preservation standards  
**Preservation** : (NMA/MS/SEA)  
**Condition** : clean, cool, sealed and not sealed

Analyte	Unit	LOD	LOQ	Result	Guideline / Specification	Method	Testing Location
<b>Water Testing</b>							
DOC (1 day @ 20 degree C)	mg/L	-	1.8	<+0	1500	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & NSF, 2nd ed., 2012, part 51218 D, part 4000 : Cl D	Bangkok
COB	mg/L	-	25	<+25	4750	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & NSF, 2nd ed., 2012, part 51218 D	Bangkok
Cl & Sulfates *	mg/L	-	3	<+3	523	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & NSF, 2nd ed., 2012, part 51218 D	Bangkok
pH (at 25°C)				6.8	5.9-6.9	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & NSF, 2nd ed., 2012, part 4020 : B	Bangkok
Temperature *	degree C	-	32.0	34.0		Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & NSF, 2nd ed., 2012, part 2103 D	Bangkok
Total Suspended Solids (dried at 103-105 degree C)	mg/L	-	5	<+5	1200	Standard Methods for the Examination of Water and Wastewater, APHA, 1995 & NSF, 2nd ed., 2012, part 2104 D	Bangkok

**Guideline** : Standard of Thai Saraburi Industrial Limit, Maximum limits for wastewater discharging to central wastewater treatment plant.

**Sampling by** : Terence Pongpanwong (60046-4056)

**Remark** :

- LOD : Limit of Detection
- "<" : Lower than 10% (Limit of Quantitation) / (LOQ / Limit of Reporting)
- Accredited method : "Labor and facilities in scope of Accreditation ISO/IEC 17025"
- The laboratory has been accredited as an accredited laboratory complying with the ISO/IEC 17025.

**Technical Management**

Sinluk P.

Sinluk Pongpanwong  
 (00046-4056-209-0017)

**Approved by**

Kachon Kachon

Kachon Kachon  
 (00046-4056-209-0009)

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