

ภาคผนวก ง

หนังสือรับรองผลการตรวจวัดและวิเคราะห์คุณภาพสิ่งแวดล้อม

ภาคผนวก ง.1

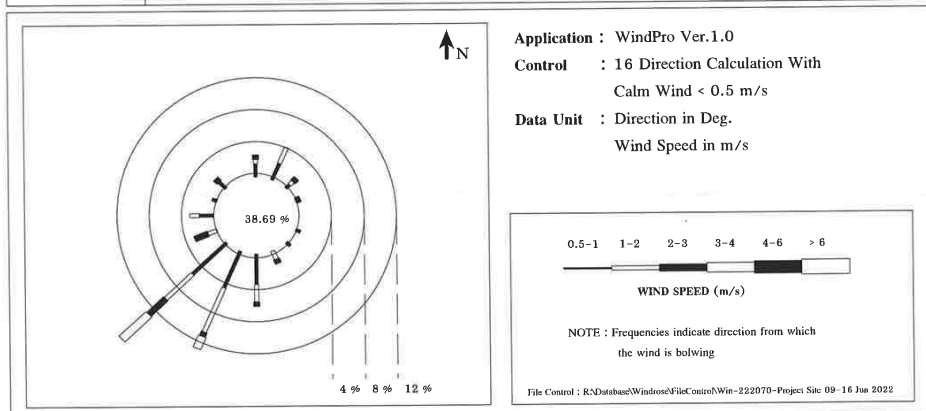
หนังสือรับรองผลการตรวจวัดและวิเคราะห์ คุณภาพอากาศในบรรยากาศ



Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Project Site Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : 17112002
Wind Direction Model : NRG Symphonie Serial No : 17112002

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0179	0.0060	0.0060	0.0000	0.0000	0.0000	0.0298
NNE	0.0238	0.0238	0.0000	0.0000	0.0000	0.0000	0.0476
NE	0.0060	0.0060	0.0060	0.0000	0.0000	0.0000	0.0179
ENE	0.0000	0.0000	0.0060	0.0000	0.0000	0.0000	0.0060
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
SE	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
SSE	0.0000	0.0119	0.0060	0.0000	0.0000	0.0000	0.0179
S	0.0417	0.0238	0.0060	0.0000	0.0000	0.0000	0.0714
SSW	0.0536	0.0655	0.0060	0.0179	0.0000	0.0000	0.1429
SW	0.0595	0.0476	0.0298	0.0476	0.0000	0.0000	0.1845
WSW	0.0000	0.0119	0.0179	0.0000	0.0000	0.0000	0.0298
W	0.0179	0.0119	0.0000	0.0000	0.0000	0.0000	0.0298
WNW	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
NW	0.0119	0.0000	0.0060	0.0000	0.0000	0.0000	0.0179
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.3869						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

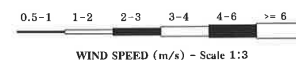


Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Project Site Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : 17112002
Wind Direction Model : NRG Symphonie Serial No : 17112002

Time	09-10 Jun 2022		10-11 Jun 2022		11-12 Jun 2022		12-13 Jun 2022	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
11:00 - 12:00	2.9	SW	3.3	SSW	2.3	WSW	1.8	NE
12:00 - 13:00	3.1	SSW	3.6	SW	2.9	SW	1.8	NNE
13:00 - 14:00	3.2	SW	3.3	SW	3.3	SW	1.3	SW
14:00 - 15:00	3.5	SW	2.8	SW	3.0	WSW	3.8	SSW
15:00 - 16:00	3.7	SW	1.8	SSW	2.4	SW	2.7	SSW
16:00 - 17:00	3.1	SW	1.9	S	1.7	SSW	1.3	SSW
17:00 - 18:00	2.4	SW	2.1	S	1.8	SSW	1.7	S
18:00 - 19:00	2.4	SSE	1.8	S	1.2	SW	1.1	SSW
19:00 - 20:00	1.6	SSE	1.9	SSW	1.1	SW	1.1	NNE
20:00 - 21:00	1.3	SSE	1.2	SSW	0.7	S	0.5	S
21:00 - 22:00	1.2	S	0.3	SE	0.4	SSW	0.1	SSW
22:00 - 23:00	0.6	S	0.6	S	0.1	SSW	0.5	SSW
23:00 - 24:00	0.4	SSW	0.2	S	0.6	SW	0.2	SSE
00:00 - 01:00	0.8	S	0.2	SSE	0.4	SSE	0.2	SSW
01:00 - 02:00	0.5	SW	0.4	ESE	0.3	SW	0.2	SW
02:00 - 03:00	0.2	S	0.5	SE	0.1	SW	0.3	ESE
03:00 - 04:00	0.3	S	0.8	ESE	0.2	S	2.2	NE
04:00 - 05:00	0.6	SSW	0.4	E	0.2	SW	1.1	N
05:00 - 06:00	0.2	SSW	0.1	SSW	0.0	SSW	0.7	S
06:00 - 07:00	0.2	S	0.0	S	0.4	SW	0.4	SSW
07:00 - 08:00	1.0	SSW	0.3	SSE	1.0	SW	0.4	S
08:00 - 09:00	1.6	SW	0.3	SSE	2.4	NW	0.4	SSW
09:00 - 10:00	1.9	SSW	0.3	SE	2.0	N	0.4	SSW
10:00 - 11:00	3.1	SW	0.3	SE	1.9	NNE	0.7	WNW

Wind Rose



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
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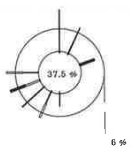


Meteorological Monitoring Results : Wind Rose MTR-GPD

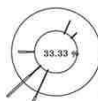
Location : Project Site Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : 17112002
Wind Direction Model : NRG Symphonie Serial No : 17112002

Time	13-14 Jun 2022		14-15 Jun 2022		15-16 Jun 2022	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
11:00 - 12:00	0.7	N	1.1	SW	0.5	NNE
12:00 - 13:00	0.9	N	0.9	NNE	0.5	W
13:00 - 14:00	1.6	WSW	0.1	SSW	0.2	S
14:00 - 15:00	1.5	W	0.3	SSW	0.5	S
15:00 - 16:00	2.3	ENE	1.1	SW	0.3	SW
16:00 - 17:00	2.6	WSW	0.6	SSW	0.6	NW
17:00 - 18:00	1.2	SSW	0.6	SSW	0.1	W
18:00 - 19:00	0.5	N	0.4	NNW	1.0	NW
19:00 - 20:00	0.4	SW	0.6	SW	0.4	S
20:00 - 21:00	0.5	SSW	0.3	S	0.9	SW
21:00 - 22:00	0.2	SW	0.8	NE	0.3	S
22:00 - 23:00	0.2	SE	0.8	NNE	0.3	SW
23:00 - 24:00	0.3	S	0.3	SSW	1.0	SW
00:00 - 01:00	0.1	N	1.0	SW	0.4	NNE
01:00 - 02:00	0.0	SSW	0.4	SSW	0.8	SW
02:00 - 03:00	0.6	NNE	0.8	SSW	1.1	WSW
03:00 - 04:00	1.0	W	1.1	SSW	1.0	NNE
04:00 - 05:00	1.0	S	0.9	SW	0.2	SW
05:00 - 06:00	0.2	WSW	1.1	W	0.1	SSW
06:00 - 07:00	0.7	NNE	1.0	SW	0.5	SSW
07:00 - 08:00	0.5	SW	0.3	NNE	0.4	SSW
08:00 - 09:00	0.5	SW	1.0	W	0.3	ENE
09:00 - 10:00	0.9	SSW	0.7	SSW	0.8	SSW
10:00 - 11:00	0.9	SW	0.5	SW	0.2	SW

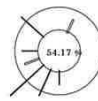
Wind Rose



6 %



12 %



6 %



File Control : R:\Database\Windrose\FileControl\Win-222070-Project Site 09-16 Jun 2022

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

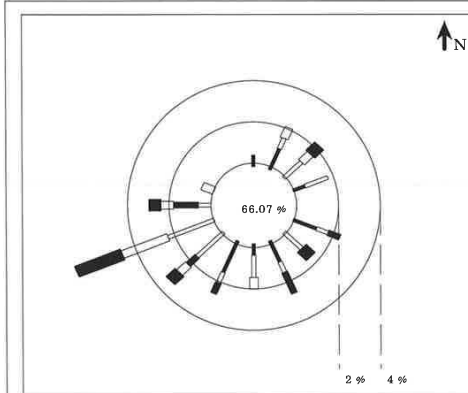
Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Moo 2 Ban Noen Sawan Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : 15102802
Wind Direction Model : NRG Symphonie Serial No : 15102802

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
NNE	0.0119	0.0060	0.0000	0.0060	0.0000	0.0000	0.0238
NE	0.0000	0.0119	0.0000	0.0060	0.0060	0.0000	0.0238
ENE	0.0060	0.0119	0.0000	0.0000	0.0000	0.0000	0.0179
E	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ESE	0.0119	0.0060	0.0060	0.0000	0.0000	0.0000	0.0238
SE	0.0000	0.0119	0.0000	0.0000	0.0060	0.0000	0.0179
SSE	0.0119	0.0060	0.0119	0.0000	0.0000	0.0000	0.0298
S	0.0060	0.0119	0.0000	0.0060	0.0000	0.0000	0.0238
SSW	0.0179	0.0060	0.0060	0.0000	0.0000	0.0000	0.0298
SW	0.0000	0.0179	0.0060	0.0060	0.0060	0.0000	0.0357
WSW	0.0000	0.0238	0.0000	0.0238	0.0238	0.0000	0.0714
W	0.0000	0.0060	0.0119	0.0060	0.0060	0.0000	0.0298
WNW	0.0000	0.0000	0.0000	0.0060	0.0000	0.0000	0.0060
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.6607						



Application : WindPro Ver.1.0

Control : 16 Direction Calculation With
Calm Wind < 0.5 m/s

Data Unit : Direction in Deg.
Wind Speed in m/s



NOTE : Frequencies indicate direction from which
the wind is blowing

File Control : R:\Database\Windrose\FileControl\Win-222070-Moo 2 Ban Noen Sawan 09-16 Jun 2022

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(Miss Preeda Somjai)
Technical Management Team

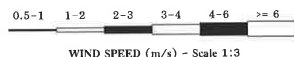
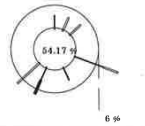
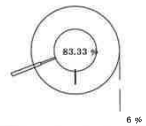
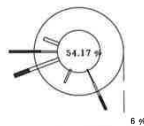
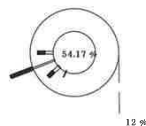


Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Moo 2 Ban Noen Sawan Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : 15102802
Wind Direction Model : NRG Symphonie Serial No : 15102802

Time	09-10 Jun 2022		10-11 Jun 2022		11-12 Jun 2022		12-13 Jun 2022	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
14:00 - 15:00	4.6	WSW	3.2	WSW	3.5	WSW	1.8	NE
15:00 - 16:00	5.2	WSW	1.3	SSW	3.3	WSW	0.5	SSE
16:00 - 17:00	3.2	SW	2.3	SSE	1.5	WSW	1.5	ESE
17:00 - 18:00	1.2	WSW	1.5	SSE	0.7	S	0.1	SSW
18:00 - 19:00	0.7	SSW	0.5	SSE	0.2	S	0.4	E
19:00 - 20:00	0.3	S	0.3	SSW	0.0	S	0.0	ENE
20:00 - 21:00	0.3	S	0.1	SSW	0.0	SSE	0.1	ESE
21:00 - 22:00	0.3	SSW	0.1	ESE	0.0	ESE	0.1	S
22:00 - 23:00	0.0	SSW	0.1	SSE	0.1	NE	0.2	WSW
23:00 - 24:00	0.0	SSW	0.0	ENE	0.1	NE	0.1	ENE
00:00 - 01:00	0.1	SSE	0.1	N	0.1	NE	0.2	ENE
01:00 - 02:00	0.1	SE	0.1	NNE	0.1	NNE	0.1	SSE
02:00 - 03:00	0.1	S	0.1	NE	0.1	NNE	0.1	N
03:00 - 04:00	0.0	SSE	0.1	NE	0.2	NNE	1.6	NNE
04:00 - 05:00	0.0	SSE	0.0	NE	0.0	NNE	0.1	NE
05:00 - 06:00	0.1	NNE	0.0	E	0.2	NNE	0.3	SSE
06:00 - 07:00	0.1	E	0.1	ENE	0.0	NNE	0.4	NNE
07:00 - 08:00	0.2	SSW	0.0	ENE	0.1	NNE	0.8	ESE
08:00 - 09:00	1.0	WSW	1.3	W	0.1	NNE	0.7	SSW
09:00 - 10:00	1.2	WSW	3.0	WNW	0.1	NNE	0.5	N
10:00 - 11:00	4.0	W	2.6	W	0.0	NNE	1.6	SW
11:00 - 12:00	4.6	W	2.9	W	0.1	N	1.5	SW
12:00 - 13:00	4.4	WSW	3.5	WSW	0.2	NNE	0.7	ESE
13:00 - 14:00	4.2	SW	4.2	WSW	0.2	SSE	2.9	SSW

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-222070-Moo 2 Ban Noen Sawan 09-16 Jun 2022

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

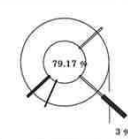
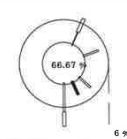
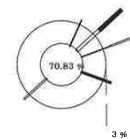


Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Moo 2 Ban Noen Sawan Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : 15102802
Wind Direction Model : NRG Symphonie Serial No : 15102802

Time	13-14 Jun 2022		14-15 Jun 2022		15-16 Jun 2022	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
14:00 - 15:00	0.3	SW	3.3	NNE	0.1	SSE
15:00 - 16:00	2.6	ESE	0.1	SSE	0.1	NE
16:00 - 17:00	1.7	SW	0.1	WSW	0.9	SSW
17:00 - 18:00	0.1	N	0.2	NE	0.1	SSE
18:00 - 19:00	0.1	SE	0.1	NNE	0.1	SW
19:00 - 20:00	0.1	WSW	0.3	SE	0.1	SE
20:00 - 21:00	0.2	NE	0.1	WSW	0.2	SW
21:00 - 22:00	0.1	SSE	0.1	WSW	0.1	S
22:00 - 23:00	0.2	N	0.2	WSW	0.2	SE
23:00 - 24:00	0.1	SW	0.1	NNE	0.1	ESE
00:00 - 01:00	0.1	WSW	0.5	NNE	0.2	S
01:00 - 02:00	0.1	WSW	0.1	SSE	0.1	SSW
02:00 - 03:00	0.1	ENE	0.2	SW	0.2	SE
03:00 - 04:00	0.2	SSE	0.1	NNE	0.1	S
04:00 - 05:00	0.1	N	0.2	SSE	0.1	SE
05:00 - 06:00	0.1	NE	0.1	N	0.2	NNE
06:00 - 07:00	0.2	ESE	0.2	WSW	0.1	E
07:00 - 08:00	0.1	ESE	0.2	SW	2.3	SW
08:00 - 09:00	0.8	ENE	1.5	SE	1.1	NE
09:00 - 10:00	0.9	NNE	1.8	ENE	1.4	SE
10:00 - 11:00	3.9	NE	1.6	S	4.3	SE
11:00 - 12:00	4.1	NE	2.2	SSE	0.3	E
12:00 - 13:00	1.8	ENE	3.3	S	0.2	NNE
13:00 - 14:00	0.3	E	1.1	S	0.1	SE

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-222070-Moo 2 Ban Noen Sawan 09-16 Jun 2022

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

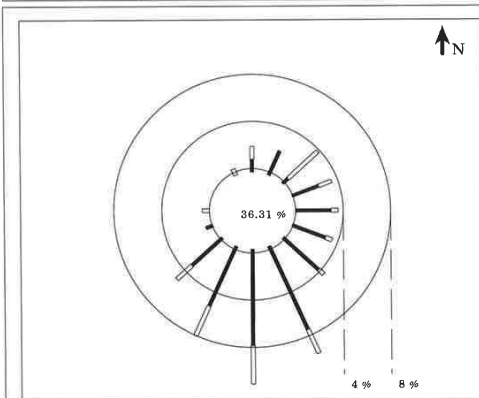
Preeda S.
(Miss Preeda Somjai)
Technical Management Team



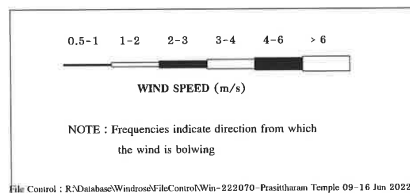
Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Prasitharam Temple Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : A4904
Wind Direction Model : NRG Symphonie Serial No : A4904

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0119	0.0119	0.0000	0.0000	0.0000	0.0000	0.0238
NNE	0.0238	0.0000	0.0000	0.0000	0.0000	0.0000	0.0238
NE	0.0060	0.0357	0.0000	0.0000	0.0000	0.0000	0.0417
ENE	0.0238	0.0119	0.0000	0.0000	0.0000	0.0000	0.0357
E	0.0298	0.0060	0.0000	0.0000	0.0000	0.0000	0.0357
ESE	0.0298	0.0060	0.0000	0.0000	0.0000	0.0000	0.0357
SE	0.0417	0.0060	0.0000	0.0000	0.0000	0.0000	0.0476
SSE	0.0833	0.0238	0.0000	0.0000	0.0000	0.0000	0.1071
S	0.0893	0.0357	0.0000	0.0000	0.0000	0.0000	0.1250
SSW	0.0595	0.0298	0.0000	0.0000	0.0000	0.0000	0.0893
SW	0.0357	0.0179	0.0000	0.0000	0.0000	0.0000	0.0536
WSW	0.0060	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
W	0.0000	0.0060	0.0000	0.0000	0.0000	0.0000	0.0060
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0060	0.0000	0.0000	0.0000	0.0000	0.0060
CALM	0.3631						



Application : WindPro Ver.1.0
Control : 16 Direction Calculation With
Calm Wind < 0.5 m/s
Data Unit : Direction in Deg.
Wind Speed in m/s



File Control : R:\Database\Windrose\FileControl\Win-222070-Prasitharam Temple 09-16 Jun 2022

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

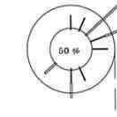
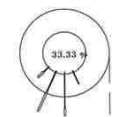


Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Prasitharam Temple Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : A4904
Wind Direction Model : NRG Symphonie Serial No : A4904

Time	09-10 Jun 2022		10-11 Jun 2022		11-12 Jun 2022		12-13 Jun 2022	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
15:00 - 16:00	0.3	WNW	0.6	S	0.3	SW	0.3	SW
16:00 - 17:00	0.4	SW	0.1	SSE	0.6	SSW	0.5	SSE
17:00 - 18:00	0.6	SSW	1.2	S	0.2	S	0.4	NNE
18:00 - 19:00	0.9	S	1.0	S	0.9	SSW	1.2	ENE
19:00 - 20:00	0.9	S	1.0	SSW	0.5	S	0.6	E
20:00 - 21:00	0.6	S	1.1	S	0.8	SSE	0.2	N
21:00 - 22:00	1.2	SSW	1.0	SSE	0.2	SSE	1.2	S
22:00 - 23:00	1.1	SSW	1.2	SSE	0.7	SE	0.2	S
23:00 - 24:00	0.4	SSW	0.5	S	0.5	SSE	1.0	NE
00:00 - 01:00	0.6	S	0.6	SE	0.9	SE	1.0	NE
01:00 - 02:00	0.2	SW	1.2	SE	1.1	SSE	0.3	ESE
02:00 - 03:00	0.5	SSE	0.1	SE	1.1	SSE	0.5	ENE
03:00 - 04:00	0.6	SSE	1.0	E	0.9	SE	0.7	N
04:00 - 05:00	0.9	S	1.0	ENE	0.8	SSE	0.2	SW
05:00 - 06:00	0.4	SSW	0.9	SSE	0.3	SSW	0.9	ENE
06:00 - 07:00	1.1	S	0.8	SSE	1.2	S	0.4	NNE
07:00 - 08:00	0.4	SSW	0.3	ENE	0.1	S	0.9	NNE
08:00 - 09:00	0.9	SW	1.0	SSW	0.3	SSW	0.2	E
09:00 - 10:00	1.2	SW	0.4	SSW	0.8	SW	0.7	S
10:00 - 11:00	0.2	S	0.3	W	0.4	WSW	0.1	NE
11:00 - 12:00	0.6	SSW	1.2	W	0.3	SW	1.2	NE
12:00 - 13:00	1.2	SSW	1.0	SSW	1.2	E	0.4	SSE
13:00 - 14:00	0.6	SSW	0.7	WSW	0.5	S	1.1	SW
14:00 - 15:00	0.4	SSW	1.2	NNW	0.3	WSW	0.3	SE

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-222070-Prasitharam Temple 09-16 Jun 2022

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

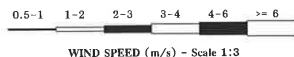
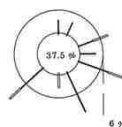


Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Prasitharam Temple Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : A4904
Wind Direction Model : NRG Symphonie Serial No : A4904

Time	13-14 Jun 2022		14-15 Jun 2022		15-16 Jun 2022	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
15:00 - 16:00	0.7	SSW	0.9	SSE	0.3	SW
16:00 - 17:00	0.5	ENE	0.5	ESE	0.6	SSW
17:00 - 18:00	1.2	N	0.5	ENE	1.0	N
18:00 - 19:00	1.0	NE	0.8	ESE	0.4	S
19:00 - 20:00	0.6	ESE	0.1	N	1.1	NE
20:00 - 21:00	0.5	SW	1.0	ENE	0.6	SE
21:00 - 22:00	0.6	SW	0.8	NNE	0.8	SSW
22:00 - 23:00	1.1	NE	0.1	N	1.2	SSW
23:00 - 24:00	0.4	SW	0.1	NNE	0.2	SW
00:00 - 01:00	0.8	NE	1.0	SSE	0.1	SW
01:00 - 02:00	0.5	E	1.2	S	0.9	ESE
02:00 - 03:00	0.9	NNE	0.2	ESE	0.8	SW
03:00 - 04:00	0.9	SSE	0.8	SW	0.1	ENE
04:00 - 05:00	0.4	WSW	0.5	SSE	0.7	SE
05:00 - 06:00	0.8	E	0.7	SW	0.9	ENE
06:00 - 07:00	0.6	E	1.1	ESE	0.1	ENE
07:00 - 08:00	0.2	NNE	0.7	N	1.2	SSE
08:00 - 09:00	0.9	NNE	0.4	SW	0.4	SW
09:00 - 10:00	0.1	ESE	0.2	ENE	0.4	SSW
10:00 - 11:00	0.4	E	0.3	SSE	0.9	SE
11:00 - 12:00	0.9	S	1.1	SW	0.7	ESE
12:00 - 13:00	0.8	S	0.4	ESE	1.0	S
13:00 - 14:00	0.6	S	0.8	E	0.4	SSE
14:00 - 15:00	0.4	E	0.3	ESE	0.7	SSE

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-222070-Prasitharam Temple 09-16 Jun 2022

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

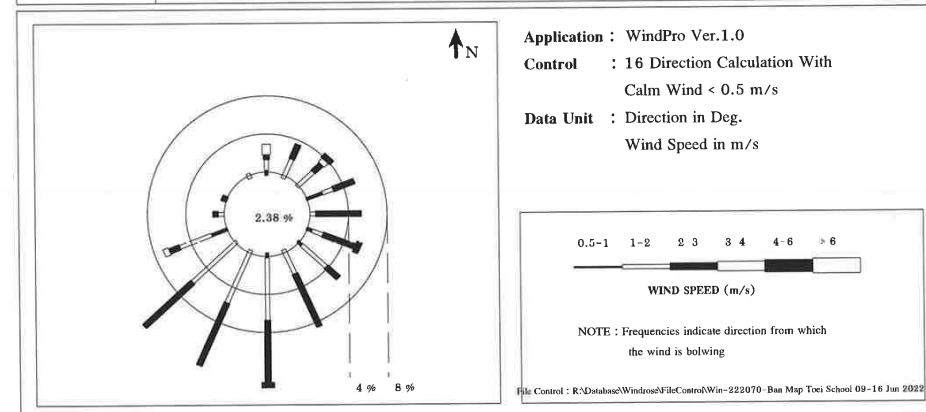
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Ban Map Toei School Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : 17112001
Wind Direction Model : NRG Symphonie Serial No : 17112001

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0060	0.0119	0.0060	0.0119	0.0000	0.0000	0.0357
NNE	0.0000	0.0238	0.0179	0.0000	0.0000	0.0000	0.0417
NE	0.0000	0.0238	0.0119	0.0060	0.0060	0.0000	0.0476
ENE	0.0179	0.0119	0.0238	0.0000	0.0000	0.0000	0.0536
E	0.0000	0.0060	0.0476	0.0000	0.0000	0.0000	0.0536
ESE	0.0060	0.0119	0.0357	0.0000	0.0060	0.0000	0.0595
SE	0.0060	0.0357	0.0179	0.0000	0.0000	0.0000	0.0595
SSE	0.0000	0.0298	0.0655	0.0000	0.0000	0.0000	0.0952
S	0.0060	0.0714	0.0714	0.0000	0.0060	0.0000	0.1548
SSW	0.0000	0.0655	0.0774	0.0000	0.0000	0.0000	0.1429
SW	0.0000	0.0655	0.0714	0.0000	0.0000	0.0000	0.1369
WSW	0.0179	0.0357	0.0119	0.0060	0.0000	0.0000	0.0714
W	0.0000	0.0060	0.0060	0.0000	0.0000	0.0000	0.0119
WNW	0.0000	0.0000	0.0060	0.0000	0.0000	0.0000	0.0060
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0060	0.0000	0.0000	0.0000	0.0000	0.0060
CALM	0.0238						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



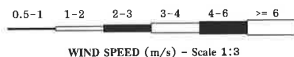
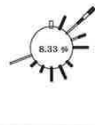
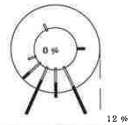
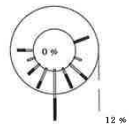
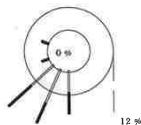
Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Ban Map Toei School
Wind Speed Model : NRG Symphonic
Wind Direction Model : NRG Symphonic

Monitor period : 09-16 Jun 2022
Serial No : 17112001
Serial No : 17112001

Time	09-10 Jun 2022		10-11 Jun 2022		11-12 Jun 2022		12-13 Jun 2022	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
14:00 - 15:00	2.7	SW	2.3	SW	1.3	NNW	1.8	WSW
15:00 - 16:00	2.4	WNW	1.1	S	1.5	SW	2.0	WSW
16:00 - 17:00	1.4	SW	1.1	S	2.2	SSW	2.9	SSE
17:00 - 18:00	2.6	SW	1.0	S	2.0	SSW	2.3	NNE
18:00 - 19:00	1.1	SSW	2.0	S	2.0	SSW	1.9	ENE
19:00 - 20:00	1.0	S	2.0	SSW	2.0	SSW	2.9	E
20:00 - 21:00	2.0	S	2.0	S	1.0	S	2.7	NNE
21:00 - 22:00	2.0	SSW	2.0	SSE	2.0	SSE	2.0	S
22:00 - 23:00	2.0	SSW	2.0	S	2.0	SSE	2.1	SSW
23:00 - 24:00	1.0	SSW	1.0	S	1.0	SSE	2.1	NE
00:00 - 01:00	2.0	S	1.0	SE	1.0	SSE	1.8	NE
01:00 - 02:00	2.0	SW	1.0	SE	2.0	SSE	2.3	SE
02:00 - 03:00	1.0	S	2.0	SE	1.0	SSE	0.1	E
03:00 - 04:00	2.0	S	1.0	ESE	2.0	SSE	0.2	NNE
04:00 - 05:00	2.0	SSW	2.0	ENE	2.0	S	2.2	SW
05:00 - 06:00	1.0	SSW	1.0	SSE	1.0	SSW	2.4	ENE
06:00 - 07:00	1.0	S	2.0	SSE	1.0	S	3.6	NE
07:00 - 08:00	1.0	SSW	2.0	ENE	1.0	SSW	3.1	N
08:00 - 09:00	2.1	WSW	1.0	SSW	2.1	SSW	2.7	E
09:00 - 10:00	1.5	SW	1.2	SW	2.4	SW	2.2	S
10:00 - 11:00	1.4	SSW	2.3	W	1.3	WSW	4.2	NE
11:00 - 12:00	1.6	SW	1.4	W	1.2	SW	1.4	NE
12:00 - 13:00	2.8	SW	1.4	SSW	2.0	E	2.3	SSE
13:00 - 14:00	1.5	SW	1.7	WSW	2.1	S	2.0	WSW

Wind Rose



File Control : R:\Database\Windrose\FitControl\Win-222070-Ban Map Toei School 09-16 Jun 2022

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



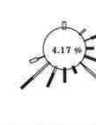
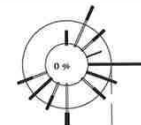
Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Ban Map Toei School
Wind Speed Model : NRG Symphonic
Wind Direction Model : NRG Symphonic

Monitor period : 09-16 Jun 2022
Serial No : 17112001
Serial No : 17112001

Time	13-14 Jun 2022		14-15 Jun 2022		15-16 Jun 2022	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
14:00 - 15:00	1.7	SE	0.6	ESE	0.1	ESE
15:00 - 16:00	2.1	SSW	2.9	SSE	3.1	WSW
16:00 - 17:00	2.2	E	4.7	ESE	2.4	SW
17:00 - 18:00	2.0	N	1.9	E	3.3	N
18:00 - 19:00	1.9	NE	2.3	ESE	2.0	SSW
19:00 - 20:00	2.1	SE	1.6	N	2.0	NE
20:00 - 21:00	2.0	SW	0.9	ENE	2.0	SE
21:00 - 22:00	2.0	WSW	1.1	NNE	2.5	SSW
22:00 - 23:00	0.7	ENE	0.9	N	1.4	SW
23:00 - 24:00	2.0	SW	1.5	NNE	0.7	WSW
00:00 - 01:00	2.0	NE	1.8	S	2.1	SW
01:00 - 02:00	2.0	E	0.9	S	2.1	ESE
02:00 - 03:00	2.1	NNE	1.0	ESE	2.0	SW
03:00 - 04:00	4.9	S	0.8	WSW	0.9	ENE
04:00 - 05:00	2.1	WSW	1.9	SSE	0.8	SE
05:00 - 06:00	2.1	E	0.9	WSW	2.0	E
06:00 - 07:00	2.2	ESE	1.3	SE	2.6	ENE
07:00 - 08:00	1.9	NNE	1.7	N	2.1	S
08:00 - 09:00	1.7	NNE	2.7	SW	1.8	SW
09:00 - 10:00	2.3	ESE	1.9	ENE	1.5	SSW
10:00 - 11:00	2.4	E	2.4	SSE	1.6	SE
11:00 - 12:00	1.6	S	1.3	SW	2.2	ESE
12:00 - 13:00	1.7	S	2.2	ESE	2.2	S
13:00 - 14:00	1.4	SSW	0.3	ESE	2.2	SSE

Wind Rose



File Control : R:\Database\Windrose\FitControl\Win-222070-Ban Map Toei School 09-16 Jun 2022

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

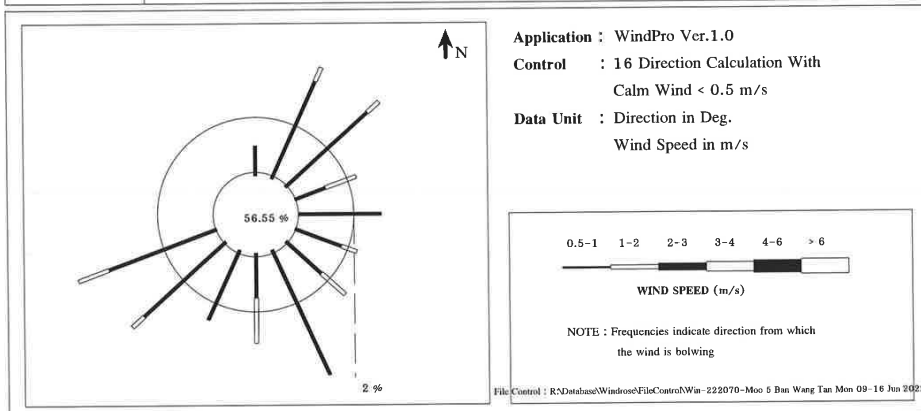
Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Moo 5 Ban Wang Tan Mon Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : 4901
Wind Direction Model : NRG Symphonie Serial No : 4901

Direction	Percentage of Occurrence of Wind Direct Grouped in Various Wind Speed						Total
	0.5-1 m/s	1-2 m/s	2-3 m/s	3-4 m/s	4-6 m/s	More than 6	
N	0.0119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0119
NNE	0.0417	0.0060	0.0000	0.0000	0.0000	0.0000	0.0476
NE	0.0417	0.0060	0.0000	0.0000	0.0000	0.0000	0.0476
ENE	0.0119	0.0119	0.0000	0.0000	0.0000	0.0000	0.0238
E	0.0298	0.0000	0.0000	0.0000	0.0000	0.0000	0.0298
ESE	0.0179	0.0060	0.0000	0.0000	0.0000	0.0000	0.0238
SE	0.0179	0.0119	0.0000	0.0000	0.0000	0.0000	0.0298
SSE	0.0536	0.0000	0.0000	0.0000	0.0000	0.0000	0.0536
S	0.0179	0.0179	0.0000	0.0000	0.0000	0.0000	0.0357
SSW	0.0298	0.0000	0.0000	0.0000	0.0000	0.0000	0.0298
SW	0.0417	0.0060	0.0000	0.0000	0.0000	0.0000	0.0476
WSW	0.0417	0.0119	0.0000	0.0000	0.0000	0.0000	0.0536
W	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NNW	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CALM	0.5655						



(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Meteorological Monitoring Results : Wind Rose MTR-GPD

Location : Moo 5 Ban Wang Tan Mon Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : 4901
Wind Direction Model : NRG Symphonie Serial No : 4901

Time	09-10 Jun 2022		10-11 Jun 2022		11-12 Jun 2022		12-13 Jun 2022	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
15:00 - 16:00	1.4	ESE	0.4	SW	0.4	WSW	0.4	NE
16:00 - 17:00	0.4	NNE	0.4	SW	0.4	WSW	0.5	ESE
17:00 - 18:00	0.5	NE	0.5	SSW	0.7	ENE	0.4	NE
18:00 - 19:00	0.4	ESE	0.4	SSE	0.4	NE	0.5	SSW
19:00 - 20:00	0.6	WSW	0.4	NNE	0.5	SSE	0.4	WSW
20:00 - 21:00	0.4	ESE	0.6	E	0.4	SW	0.4	NNE
21:00 - 22:00	0.5	ESE	0.4	SSE	0.5	WSW	0.4	NE
22:00 - 23:00	0.4	SSW	0.5	SE	0.4	WSW	0.5	S
23:00 - 24:00	0.4	SSW	0.4	WSW	0.4	SSW	0.4	NNE
00:00 - 01:00	0.5	WSW	0.4	SW	0.5	NNE	0.4	SW
01:00 - 02:00	0.4	WSW	0.4	S	0.4	NE	0.5	NNE
02:00 - 03:00	0.5	E	0.4	SW	0.5	S	0.4	SE
03:00 - 04:00	0.4	E	0.5	E	0.4	ESE	0.5	SE
04:00 - 05:00	0.4	SSE	0.4	SSW	0.5	WSW	0.4	S
05:00 - 06:00	0.4	SE	0.4	SW	0.4	NE	0.5	E
06:00 - 07:00	0.5	SSW	0.5	NNE	0.6	NNE	0.4	ESE
07:00 - 08:00	0.6	NE	0.4	NNE	0.4	ENE	0.4	SSE
08:00 - 09:00	0.4	ESE	1.8	S	0.7	ESE	0.4	ESE
09:00 - 10:00	0.6	SSW	1.0	ENE	0.6	E	0.7	NE
10:00 - 11:00	1.0	SE	1.0	WSW	0.4	WSW	0.4	N
11:00 - 12:00	0.8	N	1.3	NE	0.4	NE	0.4	SW
12:00 - 13:00	1.9	SW	1.0	WSW	0.5	SW	0.6	SSE
13:00 - 14:00	0.4	SW	1.5	NNE	0.6	NNE	0.4	SSW
14:00 - 15:00	0.5	SSE	0.4	WSW	0.4	SSW	0.6	WSW

Wind Rose



File Control : R:\Database\Windrose\FileControl\Win-222070-Moo 5 Ban Wang Tan Mon 09-16 Jun 2022

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

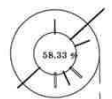


Meteorological Monitoring Results : Wind Rose MTR-GPD

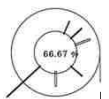
Location : Moo 5 Ban Wang Tan Mon Monitor period : 09-16 Jun 2022
Wind Speed Model : NRG Symphonie Serial No : 4901
Wind Direction Model : NRG Symphonie Serial No : 4901

Time	13-14 Jun 2022		14-15 Jun 2022		15-16 Jun 2022	
	WS(m/s)	WD	WS(m/s)	WD	WS(m/s)	WD
15:00 - 16:00	1.0	SE	0.5	NE	0.4	WSW
16:00 - 17:00	0.4	NNE	0.4	N	0.4	NNE
17:00 - 18:00	0.5	SW	0.4	E	0.5	SSE
18:00 - 19:00	0.4	WSW	0.4	SSE	0.4	NNE
19:00 - 20:00	0.4	NNE	0.5	SW	0.4	NE
20:00 - 21:00	0.4	NNE	0.4	NNE	0.5	WSW
21:00 - 22:00	0.5	SW	0.4	SE	0.4	S
22:00 - 23:00	0.4	ENE	0.4	SW	0.4	ESE
23:00 - 24:00	0.5	ENE	0.5	NNE	0.4	ENE
00:00 - 01:00	0.4	ESE	0.4	ENE	0.4	WSW
01:00 - 02:00	0.4	SSW	0.4	NNE	0.6	NNE
02:00 - 03:00	0.5	NE	0.6	SW	0.4	ESE
03:00 - 04:00	0.4	SSW	0.4	SE	0.4	NE
04:00 - 05:00	0.6	N	0.4	SSW	0.5	SW
05:00 - 06:00	0.4	S	0.7	SE	0.4	S
06:00 - 07:00	0.4	SE	0.4	E	0.4	NE
07:00 - 08:00	0.4	SE	1.6	S	0.6	WSW
08:00 - 09:00	0.5	SSE	0.4	S	0.5	SSW
09:00 - 10:00	0.5	NE	0.4	ESE	0.4	ESE
10:00 - 11:00	0.4	ENE	0.4	ENE	0.5	SSE
11:00 - 12:00	1.0	S	0.4	SSW	0.5	SSE
12:00 - 13:00	0.9	NE	1.3	ENE	0.5	S
13:00 - 14:00	0.4	NE	0.4	ESE	0.5	SSE
14:00 - 15:00	0.4	SSW	0.5	SW	0.5	SSE

Wind Rose



6 %



6 %



6 %



WIND SPEED (m/s) - Scale 1:3

File Control : R:\Database\Windrose\FileControl\Win-222070-Moo 5 Ban Wang Tan Mon 09-16 Jun 2022

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



SECOT CO., LTD.

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239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND
TEL : +66(0) 2959-3600 FAX : +66(0) 2959-3535 E-mail : envserv@secot.co.th

AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : Gulf PD Co., Ltd. REF. NO. : GPD-222070-COA-Amb/TSP
SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 09-16/06/2022
RECEIVED DATE : 18/06/2022 ANALYTICAL DATE : 18-21/06/2022
REPORT DATE : 24/06/2022 SAMPLE CONDITION : Normal
OPERATOR : Mr. Jakree Intasan
STATION DESCRIPTION : 1. Project Site 4. Ban Map Toei School
2. Moo 2 Ban Noen Sawan 5. Moo 5 Ban Wang Tan Mon
3. Prasitharam Temple

PARAMETER	SAMPLING DATE	UNITS	RESULTS					STANDARD*	REFERENCE METHODS
			1	2	3	4	5		
TSP (24 hr.)	09-10/06/2022	mg/m ³	0.083	0.164	0.027	0.091	0.042	0.330	High Volume
	10-11/06/2022	mg/m ³	0.070	0.135	0.045	0.136	0.049		Air Sampler/
	11-12/06/2022	mg/m ³	0.078	0.215	0.075	0.090	0.048		Gravimetric
	12-13/06/2022	mg/m ³	0.069	0.153	0.061	0.131	0.091		Method
	13-14/06/2022	mg/m ³	0.065	0.134	0.067	0.107	0.110		
	14-15/06/2022	mg/m ³	0.059	0.113	0.042	0.062	0.052		
	15-16/06/2022	mg/m ³	0.062	0.078	0.045	0.154	0.068		

Phatchara Samanchan
(Miss Phatchara Samanchan)

Analyst

Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. * Notification of the National Environment Board, No.24, B.E.2547.

**SECOT CO., LTD.**

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพฯ 10800

239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND

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AMBIENT AIR QUALITY ANALYSIS REPORT

CLIENT NAME : Gulf PD Co., Ltd. REF. NO. : GPD-222070-COA-Amb/PM10

SAMPLING BY : SECOT Co., Ltd. SAMPLING DATE : 09-16/06/2022

RECEIVED DATE : 18/06/2022 ANALYTICAL DATE : 18-21/06/2022

REPORT DATE : 24/06/2022 SAMPLE CONDITION : Normal

OPERATOR : Mr. Jakree Intasan

STATION DESCRIPTION : 1. Project Site 4. Ban Map Toei School
2. Moo 2 Ban Noen Sawan 5. Moo 5 Ban Wang Tan Mon
3. Prasitharam Temple

PARAMETER	SAMPLING DATE	UNITS	RESULTS					STANDARD*	REFERENCE METHODS
			1	2	3	4	5		
PM-10 (24 hr.)	09-10/06/2022	mg/m ³	0.059	0.115	0.013	0.047	0.019	0.120	High Volume
	10-11/06/2022	mg/m ³	0.030	0.101	0.024	0.098	0.033		Air Sampler
	11-12/06/2022	mg/m ³	0.043	0.111	0.029	0.050	0.019		(Hi-Vol PM-10 Size
	12-13/06/2022	mg/m ³	0.038	0.076	0.033	0.083	0.058		Selective Inlet)
	13-14/06/2022	mg/m ³	0.042	0.065	0.030	0.057	0.074		Gravimetric Method
	14-15/06/2022	mg/m ³	0.033	0.068	0.021	0.037	0.034		
	15-16/06/2022	mg/m ³	0.038	0.045	0.024	0.089	0.044		

Phatchara Samanchan
(Miss Phatchara Samanchan)

Analyst

Narisa Poowasanpetch
(Miss Narisa Poowasanpetch)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. * Notification of the National Environment Board, No.24, B.E.2547.



Ambient Air Monitoring Results : Nitrogen dioxide MTR-GPD

Location : Project Site Monitor Period : 09-16 Jun 2022
Analyzer Model : API 200A Station No : SCT-17
Serial No : 144 Site Operator : Mr.Jakree Intasan

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0108319
Certified Date : 13 Jan 2022 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 12 Jan 2023

Time	NO2 Concentration (ppb)						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
11:00 - 12:00	5.4	5.0	1.8	3.8	6.1	5.6	7.0
12:00 - 13:00	7.4	6.6	9.8	8.2	8.9	5.7	5.4
13:00 - 14:00	7.3	7.1	4.1	6.2	5.6	5.1	7.4
14:00 - 15:00	6.7	5.6	3.7	4.4	7.7	6.0	4.8
15:00 - 16:00	5.0	7.5	6.7	5.6	8.2	5.0	4.3
16:00 - 17:00	7.0	6.4	9.7	7.9	4.2	6.2	6.0
17:00 - 18:00	5.2	8.5	7.8	8.8	6.2	5.1	4.5
18:00 - 19:00	4.2	9.2	7.1	5.6	5.5	6.7	5.6
19:00 - 20:00	5.7	7.5	6.5	7.5	5.2	5.6	8.8
20:00 - 21:00	5.5	6.4	4.2	6.1	8.1	5.5	7.7
21:00 - 22:00	6.1	6.2	6.8	5.3	5.7	6.0	5.7
22:00 - 23:00	4.3	5.2	6.0	4.8	5.6	4.2	5.7
23:00 - 00:00	4.7	6.4	5.5	4.1	4.7	4.2	5.7
00:00 - 01:00	4.3	2.0	4.6	6.4	4.7	4.7	5.0
01:00 - 02:00	5.5	2.3	5.4	4.8	6.5	5.2	5.1
02:00 - 03:00	4.7	4.1	4.2	5.2	5.5	5.6	5.7
03:00 - 04:00	5.2	4.2	4.8	6.8	6.8	4.6	4.5
04:00 - 05:00	5.9	2.8	3.6	5.1	5.6	5.0	4.6
05:00 - 06:00	4.7	2.1	5.0	5.1	7.0	4.3	5.7
06:00 - 07:00	5.1	4.6	4.0	6.6	5.3	5.6	5.4
07:00 - 08:00	5.5	4.0	3.4	6.4	8.0	6.7	5.2
08:00 - 09:00	9.0	7.2	5.4	5.2	6.8	7.0	9.2
09:00 - 10:00	8.2	3.2	2.6	9.2	5.2	7.3	4.4
10:00 - 11:00	4.2	7.2	2.4	4.7	5.7	7.9	5.5
Average-24Hr*	5.7	5.5	5.2	6.0	6.2	5.6	5.8
Max-1Hr	9.0	9.2	9.8	9.2	8.9	7.9	9.2
Min-1Hr	4.2	2.0	1.8	3.8	4.2	4.2	4.3
Standard-1Hr	170 ppb(320 ug/cu.m)						
Standard-24Hr	-						

Remark : * Average time between 11:00-11:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Nitrogen dioxide MTR-GPD

Location : Moo 2 Ban Noen Sawan Monitor Period : 09-16 Jun 2022
Analyzer Model : API 200A Station No : SCT-15
Serial No : 1505 Site Operator : Mr.Jakree Intasan

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0108319
Certified Date : 13 Jan 2022 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 12 Jan 2023

Time	NO2 Concentration (ppb)						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
13:00 - 14:00	11.6	12.3	11.4	11.5	12.4	9.2	11.8
14:00 - 15:00	8.9	11.6	10.9	10.9	10.1	8.7	11.5
15:00 - 16:00	11.2	12.5	12.2	11.4	11.9	9.3	12.7
16:00 - 17:00	14.1	14.3	13.5	14.3	13.6	11.7	14.1
17:00 - 18:00	13.4	10.9	11.0	11.2	12.2	11.9	12.7
18:00 - 19:00	11.1	9.9	9.0	8.5	9.1	10.3	10.7
19:00 - 20:00	14.0	8.3	8.4	8.6	8.3	8.5	10.6
20:00 - 21:00	8.5	8.0	8.4	8.5	8.5	7.7	9.8
21:00 - 22:00	8.4	6.5	6.4	6.8	6.6	7.6	8.0
22:00 - 23:00	6.4	6.7	7.0	7.9	7.1	7.7	7.8
23:00 - 00:00	8.6	7.1	5.9	6.0	6.1	5.9	6.2
00:00 - 01:00	6.4	6.5	6.3	6.1	6.1	5.9	6.3
01:00 - 02:00	6.5	7.0	6.0	6.3	7.0	5.8	5.6
02:00 - 03:00	5.9	7.1	6.3	6.2	6.3	6.7	6.8
03:00 - 04:00	6.4	5.5	6.9	6.1	6.7	6.1	6.3
04:00 - 05:00	7.2	7.3	7.1	6.3	5.9	6.8	7.5
05:00 - 06:00	7.6	6.7	6.7	7.4	7.0	7.1	6.9
06:00 - 07:00	7.3	7.4	6.9	7.4	6.4	7.2	8.4
07:00 - 08:00	9.3	8.1	9.2	8.0	7.6	9.5	9.3
08:00 - 09:00	7.8	9.4	8.9	8.4	8.3	9.1	9.5
09:00 - 10:00	8.3	9.3	8.1	7.6	7.9	9.9	10.0
10:00 - 11:00	10.2	10.1	9.5	10.4	7.3	10.0	11.7
11:00 - 12:00	13.9	13.2	13.3	12.7	9.2	12.8	12.0
12:00 - 13:00	13.6	13.3	13.3	12.1	9.6	12.5	13.9
Average-24Hr*	9.4	9.1	8.9	8.8	8.4	8.7	9.6
Max-1Hr	14.1	14.3	13.5	14.3	13.6	12.8	14.1
Min-1Hr	5.9	5.5	5.9	6.0	5.9	5.8	5.6
Standard-1Hr	170 ppb(320 ug/cu.m)						
Standard-24Hr	-						

Remark : * Average time between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Nitrogen dioxide MTR-GPD

Location : Prasitharam Temple Monitor Period : 09-16 Jun 2022
Analyzer Model : API 200A Station No : SCT-13
Serial No : 1645 Site Operator : Mr.Jakree Intasan

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0108319
Certified Date : 13 Jan 2022 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 12 Jan 2023

Time	NO2 Concentration (ppb)						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
13:00 - 14:00	9.5	6.7	9.1	8.7	8.4	5.0	12.3
14:00 - 15:00	8.0	7.1	9.8	6.0	7.8	6.8	9.5
15:00 - 16:00	8.6	7.6	5.6	6.3	8.7	7.5	11.8
16:00 - 17:00	11.8	9.1	9.1	10.2	10.1	9.8	11.6
17:00 - 18:00	9.8	7.7	7.4	9.9	9.5	7.0	10.8
18:00 - 19:00	10.3	8.5	6.6	6.2	10.5	7.7	7.7
19:00 - 20:00	10.9	7.1	6.3	5.4	7.1	7.9	7.7
20:00 - 21:00	6.9	3.6	5.7	6.1	8.7	7.4	8.0
21:00 - 22:00	7.2	5.9	7.2	4.5	4.5	4.1	8.8
22:00 - 23:00	8.2	4.2	7.0	8.2	5.2	4.9	7.2
23:00 - 00:00	6.4	5.8	3.1	3.2	5.4	4.3	4.4
00:00 - 01:00	7.0	6.3	5.2	3.1	4.7	5.5	3.7
01:00 - 02:00	5.4	6.4	3.4	6.1	3.9	3.3	5.9
02:00 - 03:00	6.4	5.2	5.0	2.6	4.0	3.0	4.5
03:00 - 04:00	3.8	3.8	4.2	1.7	5.7	6.3	6.0
04:00 - 05:00	6.0	2.7	2.9	6.3	5.3	5.4	5.0
05:00 - 06:00	6.6	5.6	3.8	4.5	4.0	2.9	2.3
06:00 - 07:00	4.7	7.0	5.0	5.8	6.7	7.7	5.1
07:00 - 08:00	7.8	4.2	6.8	6.3	7.9	7.8	8.3
08:00 - 09:00	7.7	8.3	4.7	5.8	3.9	4.7	5.2
09:00 - 10:00	7.1	8.6	8.4	6.4	4.4	6.1	7.0
10:00 - 11:00	6.2	8.8	7.2	8.5	4.5	8.8	11.1
11:00 - 12:00	6.2	8.6	7.2	8.4	6.5	9.7	10.1
12:00 - 13:00	9.1	6.4	7.7	9.1	9.3	12.1	10.3
Average-24Hr*	7.6	6.5	6.2	6.2	6.5	6.5	7.7
Max-1Hr	11.8	9.1	9.8	10.2	10.5	12.1	12.3
Min-1Hr	3.8	2.7	2.9	1.7	3.9	2.9	2.3
Standard-1Hr	170 ppb(320 ug/cu.m)						
Standard-24Hr	-						

Remark : * Average time between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Nitrogen dioxide MTR-GPD

Location : Ban Map Toei School
Analyzer Model : Teledyne T200
Serial No : 110
Monitor Period : 09-16 Jun 2022
Station No : SCT-16
Site Operator : Mr.Jakree Intasan

Calibrator Model : Teledyne 700E
Calibration Gas Cylinder I.D.: EB0108319
Certified Date : 13 Jan 2022
Expire Date : 12 Jan 2023
Serial No : 587
Cal Concentration (ppb) : 0,100,200,400

Time	NO2 Concentration (ppb)						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
13:00 - 14:00	6.6	7.9	9.5	7.1	5.4	6.4	14.4
14:00 - 15:00	7.2	13.9	9.8	5.8	6.1	6.9	12.3
15:00 - 16:00	12.7	11.9	17.5	10.6	6.7	14.5	8.8
16:00 - 17:00	7.2	10.7	13.5	13.8	6.8	11.0	6.5
17:00 - 18:00	10.5	10.9	13.1	7.2	6.8	13.2	7.2
18:00 - 19:00	9.3	12.0	10.1	6.7	6.8	13.8	7.1
19:00 - 20:00	5.2	11.0	9.2	5.0	6.2	6.8	8.2
20:00 - 21:00	5.8	8.8	7.5	5.4	6.2	9.5	8.6
21:00 - 22:00	5.6	10.4	14.1	11.7	6.2	8.3	7.5
22:00 - 23:00	5.4	10.5	10.3	9.7	6.4	6.2	6.6
23:00 - 00:00	5.9	9.9	8.2	9.4	5.4	4.8	5.6
00:00 - 01:00	6.2	8.4	7.5	9.3	6.2	5.6	5.4
01:00 - 02:00	8.4	6.2	10.2	9.4	7.2	6.1	6.4
02:00 - 03:00	6.4	6.5	11.1	10.5	6.4	6.0	5.8
03:00 - 04:00	6.2	6.9	8.9	11.1	5.4	5.8	6.6
04:00 - 05:00	7.2	11.5	5.6	13.4	6.4	6.0	5.2
05:00 - 06:00	8.2	9.4	13.3	11.2	11.8	9.2	6.2
06:00 - 07:00	13.1	8.1	14.2	8.2	10.3	11.5	6.3
07:00 - 08:00	9.5	7.8	12.9	6.3	12.1	11.0	8.0
08:00 - 09:00	12.7	15.4	15.2	5.8	9.1	11.2	5.4
09:00 - 10:00	6.8	7.9	6.2	13.0	7.0	10.0	8.4
10:00 - 11:00	12.9	9.3	6.0	12.2	6.2	14.7	5.9
11:00 - 12:00	13.9	13.1	5.0	6.2	7.7	7.8	6.0
12:00 - 13:00	12.2	11.5	6.2	4.6	5.6	6.2	6.8
Average-24Hr*	8.5	10.0	10.2	8.9	7.1	8.9	7.3
Max-1Hr	13.9	15.4	17.5	13.8	12.1	14.7	14.4
Min-1Hr	5.2	6.2	5.0	4.6	5.4	4.8	5.2
Standard-1Hr	170 ppb(320 ug/cu.m)						
Standard-24Hr	-						

Remark : * Average time between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Nitrogen dioxide MTR-GPD

Location : Moo 5 Ban Wang Tan Mon
Analyzer Model : API 200A
Serial No : 2385
Monitor Period : 09-16 Jun 2022
Station No : SCT-14
Site Operator : Mr.Jakree Intasan

Calibrator Model : Teledyne 700E
Calibration Gas Cylinder I.D.: EB0108319
Certified Date : 13 Jan 2022
Expire Date : 12 Jan 2023
Serial No : 587
Cal Concentration (ppb) : 0,100,200,400

Time	NO2 Concentration (ppb)						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
13:00 - 14:00	9.9	10.5	10.3	10.6	9.6	6.2	12.3
14:00 - 15:00	8.9	10.1	10.2	7.9	9.5	6.9	7.5
15:00 - 16:00	7.5	12.2	9.1	9.0	10.3	7.5	10.8
16:00 - 17:00	10.7	13.7	13.6	12.1	12.0	11.3	12.6
17:00 - 18:00	10.1	8.3	9.1	9.0	9.1	9.0	11.7
18:00 - 19:00	8.4	8.8	8.1	6.8	7.7	10.3	8.6
19:00 - 20:00	11.2	6.4	7.3	4.8	7.6	5.5	9.2
20:00 - 21:00	4.9	5.9	6.8	6.1	7.0	6.7	8.4
21:00 - 22:00	6.2	5.0	4.6	4.8	6.6	5.1	8.2
22:00 - 23:00	4.5	3.3	3.6	6.0	3.0	5.4	5.7
23:00 - 00:00	6.1	6.0	4.5	4.6	5.3	3.9	3.8
00:00 - 01:00	4.1	5.2	3.6	5.5	4.8	2.5	4.9
01:00 - 02:00	5.1	5.6	5.9	3.6	3.8	5.3	5.0
02:00 - 03:00	5.2	4.3	4.0	3.6	1.9	4.0	5.2
03:00 - 04:00	4.9	5.9	5.0	2.0	5.0	6.0	2.7
04:00 - 05:00	5.1	3.7	5.0	5.7	5.1	6.8	3.4
05:00 - 06:00	4.1	4.0	4.6	4.8	4.4	5.4	3.9
06:00 - 07:00	5.5	6.1	6.0	5.6	6.4	5.8	7.1
07:00 - 08:00	7.9	6.0	5.2	7.0	7.9	8.1	7.2
08:00 - 09:00	7.7	8.8	6.1	6.2	6.4	5.0	5.8
09:00 - 10:00	7.7	7.4	7.5	8.5	5.3	7.0	8.5
10:00 - 11:00	6.6	8.9	6.5	8.6	6.1	8.0	9.1
11:00 - 12:00	11.3	13.2	9.9	9.7	9.2	10.6	8.5
12:00 - 13:00	12.5	10.7	11.3	10.3	7.6	9.8	11.9
Average-24Hr*	7.3	7.5	7.0	6.8	6.7	6.8	7.6
Max-1Hr	12.5	13.7	13.6	12.1	12.0	11.3	12.6
Min-1Hr	4.1	3.3	3.6	2.0	1.9	2.5	2.7
Standard-1Hr	170 ppb(320 ug/cu.m)						
Standard-24Hr	-						

Remark : * Average time between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-GPD

Location : Project Site Monitor Period : 09-16 Jun 2022
Analyzer Model : API 100A Station No : SCT-17
Serial No : 069 Site Operator : Mr.Jakree Intasan

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0108319
Certified Date : 13 Jan 2022 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 12 Jan 2023

Time	SO2 Concentration (ppb)						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
11:00 - 12:00	2.5	2.5	1.9	2.7	2.7	2.0	1.6
12:00 - 13:00	2.6	2.9	2.5	2.8	2.4	1.7	1.9
13:00 - 14:00	2.6	2.6	2.1	2.9	2.4	1.9	2.0
14:00 - 15:00	2.3	2.2	2.2	2.3	2.5	1.7	1.8
15:00 - 16:00	2.1	2.2	2.4	2.0	2.5	1.9	1.7
16:00 - 17:00	2.0	2.2	2.5	1.8	2.4	1.8	1.8
17:00 - 18:00	1.9	2.0	2.0	1.8	2.1	1.7	1.7
18:00 - 19:00	2.0	1.9	2.0	1.8	2.1	1.3	1.9
19:00 - 20:00	1.8	1.8	1.6	1.6	1.9	1.1	1.6
20:00 - 21:00	1.8	1.7	1.6	1.4	1.8	1.8	1.4
21:00 - 22:00	1.7	1.7	1.6	1.3	1.6	1.9	1.5
22:00 - 23:00	1.6	1.9	1.6	1.5	1.8	1.5	1.3
23:00 - 00:00	1.6	1.8	1.6	1.3	1.3	1.4	1.1
00:00 - 01:00	1.6	1.8	1.8	1.4	1.2	1.5	0.9
01:00 - 02:00	1.5	1.9	1.7	1.3	1.1	1.0	1.0
02:00 - 03:00	1.1	1.6	1.8	1.4	0.9	1.1	0.9
03:00 - 04:00	1.3	1.5	1.8	1.3	1.1	0.8	0.8
04:00 - 05:00	1.5	1.6	1.7	1.8	1.5	1.0	1.0
05:00 - 06:00	2.1	1.8	1.9	1.8	1.6	2.5	1.7
06:00 - 07:00	2.0	1.7	2.0	1.9	1.8	2.2	1.8
07:00 - 08:00	2.7	2.0	2.3	2.2	1.9	2.0	1.9
08:00 - 09:00	2.4	1.8	2.5	2.4	1.9	2.0	1.9
09:00 - 10:00	2.0	1.9	2.9	2.6	2.0	1.9	1.8
10:00 - 11:00	2.6	2.0	2.8	2.7	2.1	1.8	1.8
Average-24Hr*	2.0	2.0	2.0	1.9	1.9	1.6	1.5
Max-1Hr	2.7	2.9	2.9	2.9	2.7	2.5	2.0
Min-1Hr	1.1	1.5	1.6	1.3	0.9	0.8	0.8
Standard-1Hr	300 ppb(780 ug/cu.m)						
Standard-24Hr	120 ppb(300 ug/cu.m)						

Remark : * Average time between 11:00-11:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-GPD

Location : Moo 2 Ban Noen Sawan Monitor Period : 09-16 Jun 2022
Analyzer Model : Teledyne T100 Station No : SCT-15
Serial No : 120 Site Operator : Mr.Jakree Intasan

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0108319
Certified Date : 13 Jan 2022 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 12 Jan 2023

Time	SO2 Concentration (ppb)						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
13:00 - 14:00	2.0	1.6	1.5	1.8	2.0	1.8	1.8
14:00 - 15:00	1.9	1.8	1.7	1.6	1.9	1.9	1.8
15:00 - 16:00	1.9	2.0	1.8	1.6	1.9	1.8	1.9
16:00 - 17:00	1.8	1.8	0.9	1.6	1.7	1.7	1.5
17:00 - 18:00	1.6	1.7	1.7	1.5	1.6	1.5	1.5
18:00 - 19:00	1.6	1.6	1.8	1.4	1.4	1.5	1.6
19:00 - 20:00	1.4	1.7	1.5	1.3	1.5	1.5	1.3
20:00 - 21:00	1.4	1.6	1.6	1.3	1.4	1.4	1.3
21:00 - 22:00	1.5	1.3	1.6	1.2	1.4	1.4	1.5
22:00 - 23:00	1.2	1.3	1.5	1.1	1.3	1.3	1.5
23:00 - 00:00	1.2	1.6	1.3	1.0	0.8	0.9	1.7
00:00 - 01:00	1.1	1.3	1.5	1.0	1.2	1.3	1.2
01:00 - 02:00	1.5	1.3	1.5	1.2	0.7	1.0	1.3
02:00 - 03:00	1.2	1.3	1.3	0.6	0.8	1.4	0.9
03:00 - 04:00	1.5	1.3	1.3	1.3	1.5	1.4	1.0
04:00 - 05:00	1.4	1.3	1.5	1.9	1.6	1.5	1.4
05:00 - 06:00	1.4	1.4	1.7	1.3	1.7	1.6	1.5
06:00 - 07:00	1.4	1.4	1.7	1.5	1.7	1.7	1.7
07:00 - 08:00	1.5	1.4	1.9	1.9	2.0	1.7	1.8
08:00 - 09:00	1.3	1.4	1.6	1.9	1.9	1.8	1.7
09:00 - 10:00	1.3	1.9	1.8	1.8	1.8	1.6	1.5
10:00 - 11:00	1.3	1.8	1.8	2.0	1.9	1.7	1.6
11:00 - 12:00	1.5	1.4	1.8	1.9	1.9	1.4	1.7
12:00 - 13:00	1.7	1.7	1.2	2.0	1.8	1.7	1.5
Average-24Hr*	1.5	1.5	1.6	1.5	1.6	1.5	1.5
Max-1Hr	2.0	2.0	1.9	2.0	2.0	1.9	1.9
Min-1Hr	1.1	1.3	0.9	0.6	0.7	0.9	0.9
Standard-1Hr	300 ppb(780 ug/cu.m)						
Standard-24Hr	120 ppb(300 ug/cu.m)						

Remark : * Average time between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-GPD

Location : Prasitharam Temple Monitor Period : 09-16 Jun 2022
Analyzer Model : API 100A Station No : SCT-13
Serial No : 238 Site Operator : Mr.Jakree Intasan

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0108319
Certified Date : 13 Jan 2022 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 12 Jan 2023

Time	SO2 Concentration (ppb)						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
14:00 - 15:00	1.7	1.3	1.6	1.6	1.3	1.1	1.3
15:00 - 16:00	1.2	1.4	1.4	1.7	1.2	0.9	1.2
16:00 - 17:00	1.2	1.5	1.5	1.5	1.1	1.3	1.1
17:00 - 18:00	1.0	1.3	1.5	1.2	1.1	1.0	1.0
18:00 - 19:00	1.2	1.1	1.3	1.1	1.1	0.8	0.9
19:00 - 20:00	1.2	1.1	0.8	0.9	1.0	1.0	0.9
20:00 - 21:00	1.1	1.1	0.7	1.1	0.9	0.7	0.9
21:00 - 22:00	0.6	0.9	0.5	0.9	0.9	0.6	0.8
22:00 - 23:00	0.4	0.8	0.5	0.9	0.8	0.7	0.8
23:00 - 00:00	0.5	0.6	1.0	0.8	0.8	0.8	0.7
00:00 - 01:00	0.1	0.5	0.3	0.7	0.8	0.6	0.7
01:00 - 02:00	0.4	0.6	0.1	0.5	0.5	0.6	0.7
02:00 - 03:00	0.9	0.7	0.3	0.6	0.9	0.6	0.5
03:00 - 04:00	0.7	0.6	0.2	0.9	0.7	0.5	0.8
04:00 - 05:00	0.6	0.6	0.5	0.9	0.5	0.5	0.7
05:00 - 06:00	0.6	1.1	0.6	0.9	0.8	1.1	1.0
06:00 - 07:00	1.4	1.3	0.9	1.2	0.8	1.2	1.0
07:00 - 08:00	1.5	1.3	1.6	1.3	1.3	1.1	1.2
08:00 - 09:00	1.5	1.5	1.4	1.7	1.3	1.2	1.1
09:00 - 10:00	1.3	1.5	1.5	1.4	1.1	1.1	1.2
10:00 - 11:00	1.2	1.3	1.6	1.5	1.0	1.0	1.3
11:00 - 12:00	1.1	1.7	1.2	1.7	1.1	1.2	1.2
12:00 - 13:00	1.0	0.7	1.3	1.4	0.9	1.2	1.1
13:00 - 14:00	1.3	1.4	1.2	1.5	0.7	1.1	1.0
Average-24Hr*	1.0	1.1	1.0	1.2	0.9	0.9	1.0
Max-1Hr	1.7	1.7	1.6	1.7	1.3	1.3	1.3
Min-1Hr	0.1	0.5	0.1	0.5	0.5	0.5	0.5
Standard-1Hr	300 ppb(780 ug/cu.m)						
Standard-24Hr	120 ppb(300 ug/cu.m)						

Remark : * Average time between 14:00-14:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-GPD

Location : Ban Map Toei School Monitor Period : 09-16 Jun 2022
Analyzer Model : Teledyne T100 Station No : SCT-16
Serial No : 2009 Site Operator : Mr.Jakree Intasan

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0108319
Certified Date : 13 Jan 2022 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 12 Jan 2023

Time	SO2 Concentration (ppb)						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
12:00 - 13:00	1.8	0.5	1.7	1.9	1.0	0.9	1.7
13:00 - 14:00	1.2	1.4	0.9	1.9	1.8	1.7	1.7
14:00 - 15:00	1.9	1.6	1.5	1.8	1.7	1.3	1.7
15:00 - 16:00	1.1	2.0	1.6	1.9	1.4	0.7	1.7
16:00 - 17:00	1.6	1.4	0.9	2.0	1.9	1.7	1.4
17:00 - 18:00	1.7	1.7	1.2	1.9	1.7	1.1	1.2
18:00 - 19:00	0.9	1.8	1.2	1.1	1.3	0.7	1.8
19:00 - 20:00	0.8	1.0	1.2	0.6	1.7	1.5	0.7
20:00 - 21:00	1.0	1.5	1.6	1.2	0.2	0.4	0.6
21:00 - 22:00	1.1	1.2	1.0	0.5	1.0	1.1	0.7
22:00 - 23:00	0.8	0.7	0.5	0.4	1.4	0.7	0.8
23:00 - 00:00	0.8	1.4	1.0	0.4	0.9	0.3	0.5
00:00 - 01:00	0.7	1.4	0.8	0.4	0.7	0.9	0.5
01:00 - 02:00	0.6	0.9	0.7	0.4	0.6	0.6	0.6
02:00 - 03:00	0.7	1.2	0.6	0.4	0.5	0.3	0.5
03:00 - 04:00	0.3	0.5	0.6	0.5	0.5	0.6	0.5
04:00 - 05:00	0.3	0.6	0.7	0.5	1.6	1.0	0.4
05:00 - 06:00	0.3	1.4	1.1	0.5	1.1	1.6	1.0
06:00 - 07:00	0.6	1.6	1.5	0.8	1.2	1.6	1.6
07:00 - 08:00	1.9	1.6	1.8	1.0	1.8	1.7	1.8
08:00 - 09:00	1.9	1.2	1.3	1.8	1.8	1.9	1.6
09:00 - 10:00	1.5	1.7	1.7	1.8	0.9	1.7	1.4
10:00 - 11:00	1.4	1.4	1.7	1.5	0.7	1.9	1.0
11:00 - 12:00	1.2	0.7	1.9	1.4	1.4	1.9	0.8
Average-24Hr*	1.1	1.3	1.2	1.1	1.2	1.2	1.1
Max-1Hr	1.9	2.0	1.9	2.0	1.9	1.9	1.8
Min-1Hr	0.3	0.5	0.5	0.4	0.2	0.3	0.4
Standard-1Hr	300 ppb(780 ug/cu.m)						
Standard-24Hr	120 ppb(300 ug/cu.m)						

Remark : * Average time between 12:00-12:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Ambient Air Monitoring Results : Sulfur dioxide MTR-GPD

Location : Moo 5 Ban Wang Tan Mon Monitor Period : 09-16 Jun 2022
Analyzer Model : API 100A Station No : SCT-14
Serial No : 1715 Site Operator : Mr.Jakree Intanas

Calibrator Model : Teledyne 700E Serial No : 587
Calibration Gas Cylinder I.D.: EB0108319
Certified Date : 13 Jan 2022 Cal Concentration (ppb) : 0,100,200,400
Expire Date : 12 Jan 2023

Time	SO2 Concentration (ppb)						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
14:00 - 15:00	1.8	1.5	1.4	1.7	1.4	1.2	1.7
15:00 - 16:00	1.7	1.7	1.2	1.5	1.3	1.3	1.5
16:00 - 17:00	1.6	1.7	0.5	1.5	1.2	1.6	1.3
17:00 - 18:00	1.5	1.5	1.5	1.5	1.2	1.3	1.3
18:00 - 19:00	0.9	1.4	1.3	1.5	1.5	1.4	1.4
19:00 - 20:00	0.9	1.1	0.6	1.3	1.8	1.8	1.3
20:00 - 21:00	0.9	1.3	1.2	1.1	0.7	0.7	1.2
21:00 - 22:00	0.8	0.7	0.8	1.2	1.0	1.3	1.0
22:00 - 23:00	0.6	0.5	1.2	1.0	0.7	0.8	1.0
23:00 - 00:00	0.7	1.4	1.3	0.9	0.5	0.9	0.9
00:00 - 01:00	0.5	1.4	1.1	0.8	0.5	0.8	0.8
01:00 - 02:00	0.6	0.6	1.0	0.7	0.6	0.9	0.7
02:00 - 03:00	0.4	1.2	0.8	0.7	0.6	0.8	0.7
03:00 - 04:00	0.3	0.9	0.7	0.8	0.5	0.8	0.7
04:00 - 05:00	0.8	0.6	0.6	0.8	0.7	0.9	0.9
05:00 - 06:00	0.8	1.2	1.5	0.9	1.3	1.4	1.0
06:00 - 07:00	0.9	0.8	0.6	1.0	1.4	1.5	1.3
07:00 - 08:00	1.3	0.9	1.5	1.4	1.5	1.9	1.4
08:00 - 09:00	1.4	1.4	1.5	1.4	1.6	1.6	1.5
09:00 - 10:00	1.5	1.5	1.3	1.4	1.5	1.6	1.6
10:00 - 11:00	1.5	1.3	1.5	1.5	1.5	1.4	1.5
11:00 - 12:00	1.6	1.2	1.4	1.5	1.2	1.4	1.4
12:00 - 13:00	1.1	1.4	1.5	1.6	1.4	1.5	1.4
13:00 - 14:00	1.5	1.2	1.6	1.4	1.7	1.5	1.5
Average-24Hr*	1.1	1.2	1.2	1.2	1.1	1.3	1.2
Max-1Hr	1.8	1.7	1.6	1.7	1.8	1.9	1.7
Min-1Hr	0.3	0.5	0.5	0.7	0.5	0.7	0.7
Standard-1Hr	300 ppb(780 ug/cu.m)						
Standard-24Hr	120 ppb(300 ug/cu.m)						

Remark : * Average time between 14:00-14:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team

SECOT CO.,LTD
239 Rungkongrups Rd.
Bangnae, Bangkok 10800
Tel : +66(0)2959-3600 Fax: +66(0)2959-3535



Ambient Temperature Measurement Results

MTR- GPD

Location : Project Site Equipment Model : 110-WS-16 THA
Measurement Date : 09-16 Jun 2022 Serial No. : F5110003
Site Operator : Mr. Siwanon Kulawong Calibration Date : 29 Jan 2022

Calibrator Model : 9140 Calibration Date : 28-30 Apr 2021
Serial No. : AOA890

Time	Measurement Results of Temperature (°C)						
	9-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
11:00-12:00	34.0	34.1	33.9	34.4	33.9	34.9	34.3
12:00-13:00	34.7	34.1	34.0	35.8	33.9	35.1	32.7
13:00-14:00	35.2	32.3	34.3	35.8	34.2	35.2	31.7
14:00-15:00	35.3	31.6	34.0	32.9	34.4	34.8	33.8
15:00-16:00	34.5	32.3	32.1	31.1	33.1	34.1	33.8
16:00-17:00	33.8	32.2	31.5	30.1	31.9	33.6	31.3
17:00-18:00	32.9	31.0	30.9	28.5	30.0	32.2	30.6
18:00-19:00	30.9	30.2	30.2	26.8	29.0	29.8	29.5
19:00-20:00	29.3	29.0	29.3	26.5	28.1	29.0	28.7
20:00-21:00	28.8	28.5	28.4	26.4	27.3	28.6	28.4
21:00-22:00	28.2	27.9	27.9	26.5	26.9	27.9	27.7
22:00-23:00	27.9	27.9	27.7	26.4	26.5	27.6	27.8
23:00-00:00	27.3	27.6	27.7	26.2	26.3	26.9	27.0
00:00-01:00	27.4	26.8	27.3	26.2	25.9	27.5	27.0
01:00-02:00	27.2	26.8	27.1	26.0	25.7	27.2	26.7
02:00-03:00	27.2	26.5	26.9	25.8	25.4	27.4	26.4
03:00-04:00	27.2	26.4	26.5	24.5	25.1	27.1	26.4
04:00-05:00	26.6	26.4	26.5	23.5	25.8	26.6	26.3
05:00-06:00	26.5	26.1	26.5	23.9	28.5	26.5	25.9
06:00-07:00	27.5	27.1	27.2	24.7	27.2	28.6	28.9
07:00-08:00	29.6	29.7	28.9	26.9	33.9	30.7	29.0
08:00-09:00	31.9	30.4	31.1	29.0	33.6	32.1	29.1
09:00-10:00	32.9	31.0	31.9	31.3	33.3	33.3	32.3
10:00-11:00	33.2	31.6	32.8	32.8	30.0	33.4	32.7
Average-24 hr*	30.4	29.5	29.8	28.4	29.6	30.4	30.9
Max-1 hr	35.3	34.1	34.3	35.8	34.4	35.2	34.3
Min-1 hr	26.5	26.1	26.5	23.5	25.1	26.5	25.9

Remarks : * Average time between 11:00-11:00.

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Ambient Temperature Measurement Results

MTR- GPD


Location	: Moo 2 Ban Nuen Sawan	Equipment Model	: 110-WS-16 THA
Measurement Date	: 09-16 Jun 2022	Serial No.	: G1340009
Site Operator	: Mr. Siwanon Kulawong	Calibration Date	: 28 Jan 2022

Calibrator Model	: 9140	Calibration Date	: 28-30 Apr 2021
Serial No.	: AOA890		

Time	Measurement Results of Temperature (°C)						
	9-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
14:00-15:00	37.8	34.7	36.3	37.1	34.9	34.6	36.1
15:00-16:00	36.8	34.7	33.6	37.1	35.8	33.0	34.6
16:00-17:00	35.6	33.9	32.8	34.6	32.4	32.8	32.7
17:00-18:00	34.1	32.0	31.9	33.4	31.3	31.4	30.7
18:00-19:00	32.2	30.9	30.9	30.7	30.3	30.4	29.9
19:00-20:00	30.2	30.1	29.9	29.8	29.9	29.4	29.4
20:00-21:00	29.4	29.7	29.1	29.0	29.2	28.8	29.0
21:00-22:00	28.9	28.0	28.5	28.7	27.7	28.1	29.5
22:00-23:00	28.5	28.0	28.2	28.8	28.1	27.7	28.7
23:00-00:00	29.0	27.7	27.9	28.5	27.3	27.5	28.1
00:00-01:00	28.2	27.0	27.6	27.9	26.7	28.3	28.3
01:00-02:00	27.6	26.9	27.5	27.4	26.8	23.9	28.3
02:00-03:00	27.8	26.8	27.5	28.1	26.6	26.2	27.6
03:00-04:00	27.8	26.5	27.6	27.1	26.6	29.7	27.3
04:00-05:00	27.1	26.2	27.6	27.3	26.0	31.3	28.0
05:00-06:00	26.8	25.8	27.7	26.5	25.6	29.7	31.6
06:00-07:00	27.5	26.7	27.7	28.9	28.5	26.7	36.2
07:00-08:00	31.1	30.2	27.6	33.4	31.8	31.2	38.5
08:00-09:00	35.7	35.0	27.6	38.7	38.4	26.8	38.5
09:00-10:00	38.0	39.2	27.5	36.4	40.2	26.0	39.9
10:00-11:00	38.0	40.2	27.4	39.2	40.9	29.9	40.0
11:00-12:00	39.4	40.7	27.4	39.4	35.8	28.3	36.2
12:00-13:00	39.5	36.6	36.5	37.9	36.4	37.8	35.2
13:00-14:00	35.7	36.9	36.2	34.2	36.8	37.3	36.0
Average-24 hr*	32.2	31.4	29.7	32.1	31.4	29.9	32.5
Max-1 hr	39.5	40.7	36.5	39.4	40.9	37.8	40.0
Min-1 hr	26.8	25.8	27.4	26.5	25.6	23.9	27.3

Remarks: * Average time between 14:00-14:00.


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Ambient Temperature Measurement Results

MTR- GPD


Location	: Prasitharam Temple	Equipment Model	: 110-WS-16 THA
Measurement Date	: 09-16 Jun 2022	Serial No.	: G1540004
Site Operator	: Mr. Siwanon Kulawong	Calibration Date	: 28 Jan 2022

Calibrator Model	: 9140	Calibration Date	: 28-30 Apr 2021
Serial No.	: AOA890		

Time	Measurement Results of Temperature (°C)						
	9-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
15:00-16:00	35.5	31.9	32.1	34.7	33.0	31.5	29.0
16:00-17:00	33.6	31.3	30.9	32.8	30.6	30.5	28.2
17:00-18:00	32.3	30.2	30.2	31.5	29.9	29.8	27.7
18:00-19:00	30.0	29.3	29.3	29.0	28.7	28.7	27.4
19:00-20:00	28.6	28.3	28.4	28.2	28.1	27.9	27.1
20:00-21:00	27.9	27.8	27.6	27.7	27.4	27.4	27.0
21:00-22:00	27.5	27.1	27.2	27.4	27.0	27.0	26.5
22:00-23:00	27.2	27.1	27.1	27.1	27.0	26.9	26.5
23:00-00:00	27.0	26.9	26.9	27.0	26.9	27.0	26.4
00:00-01:00	26.7	26.6	26.8	26.5	26.4	26.6	26.2
01:00-02:00	26.6	26.3	26.6	26.5	26.1	26.5	26.1
02:00-03:00	26.4	26.0	26.3	26.4	25.9	26.2	26.0
03:00-04:00	26.3	25.9	26.0	26.2	25.9	25.9	28.0
04:00-05:00	26.2	25.9	26.1	26.1	25.7	26.2	31.2
05:00-06:00	26.1	25.4	26.4	26.0	25.5	26.6	33.9
06:00-07:00	26.8	26.4	26.8	28.0	27.5	27.4	33.5
07:00-08:00	29.7	29.3	29.2	31.2	31.4	31.4	35.5
08:00-09:00	32.7	31.7	32.0	33.9	33.1	32.7	36.0
09:00-10:00	34.2	34.2	32.4	33.5	35.8	34.1	33.8
10:00-11:00	34.1	35.7	34.1	35.5	34.9	34.1	31.7
11:00-12:00	36.1	35.2	34.9	36.0	35.2	35.8	31.7
12:00-13:00	35.1	35.2	35.1	33.8	35.2	34.7	33.0
13:00-14:00	32.6	35.1	34.9	31.7	35.4	32.8	30.6
14:00-15:00	31.9	34.5	35.8	31.7	33.1	31.5	30.1
Average-24 hr*	30.0	29.7	29.7	29.9	29.8	29.5	29.7
Max-1 hr	36.1	35.7	35.8	36.0	35.8	35.8	36.0
Min-1 hr	26.1	25.4	26.0	26.0	25.5	25.9	26.0

Remarks: * Average time between 15:00-15:00.


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Ambient Temperature Measurement Results

MTR- GPD

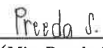
Location	: Ban Map Toei School	Equipment Model	: 110-WS-16 THA
Measurement Date	: 09-16 Jun 2022	Serial No.	: J3320026
Site Operator	: Mr. Siwanon Kulawong	Calibration Date	: 29 Jan 2022

Calibrator Model	: 9140	Calibration Date	: 28-30 Apr 2021
Serial No.	: AOA890		

Time	Measurement Results of Temperature (°C)						
	9-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
14:00-15:00	35.7	32.4	35.0	36.3	32.2	33.6	32.0
15:00-16:00	36.0	32.4	32.6	35.2	33.5	32.0	29.5
16:00-17:00	34.1	31.8	31.4	33.3	31.1	31.0	28.7
17:00-18:00	32.8	30.7	30.7	32.0	30.4	30.3	28.2
18:00-19:00	30.5	29.8	29.7	29.5	29.2	29.2	27.8
19:00-20:00	29.1	28.8	28.9	28.7	28.5	28.4	27.6
20:00-21:00	28.4	28.2	28.1	28.2	27.9	27.9	27.5
21:00-22:00	28.0	27.6	27.7	27.8	27.5	27.5	27.0
22:00-23:00	27.7	27.6	27.6	27.6	27.5	27.4	27.0
23:00-00:00	27.5	27.4	27.4	27.5	27.4	27.5	26.9
00:00-01:00	27.2	27.1	27.3	27.0	26.9	27.1	26.7
01:00-02:00	27.1	26.8	27.1	27.0	26.6	27.0	26.6
02:00-03:00	26.9	26.5	26.8	26.9	26.4	26.7	26.5
03:00-04:00	26.8	26.4	26.5	26.7	26.4	26.4	28.5
04:00-05:00	26.7	26.4	26.6	26.6	26.1	26.7	31.6
05:00-06:00	26.6	25.9	26.9	26.5	25.9	27.1	34.4
06:00-07:00	27.3	26.9	27.3	28.5	28.0	27.9	34.0
07:00-08:00	30.1	29.8	29.7	31.6	31.9	31.9	36.0
08:00-09:00	33.2	32.2	32.5	34.4	33.6	33.2	36.5
09:00-10:00	34.7	34.6	32.9	34.0	36.3	34.6	34.3
10:00-11:00	34.6	36.2	34.5	36.0	35.4	34.6	32.2
11:00-12:00	36.6	35.7	35.4	36.5	35.7	36.3	32.2
12:00-13:00	35.6	35.7	35.5	34.3	35.7	35.2	33.5
13:00-14:00	33.1	35.6	35.4	32.2	35.9	33.3	31.1
Average-24 hr*	30.7	30.1	30.2	30.6	30.3	30.1	30.3
Max-1 hr	36.6	36.2	35.5	36.5	36.3	36.3	36.5
Min-1 hr	26.6	25.9	26.5	26.5	25.9	26.4	26.5

Remarks: * Average time between 14:00-14:00.


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team



Ambient Temperature Measurement Results


MTR- GPD


Location	: Moo 5 Ban Wang Tan Mon	Equipment Model	: 110-WS-16 THA
Measurement Date	: 09-16 Jun 2022	Serial No.	: L3950311
Site Operator	: Mr. Siwanon Kulawong	Calibration Date	: 29 Jan 2022

Calibrator Model	: 9140	Calibration Date	: 28-30 Apr 2021
Serial No.	: AOA890		

Time	Measurement Results of Temperature (°C)						
	9-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
15:00-16:00	34.2	32.6	31.9	30.5	32.3	34.0	31.7
16:00-17:00	33.3	31.4	31.3	28.9	30.4	32.6	31.0
17:00-18:00	31.3	30.6	30.6	27.2	29.4	30.2	29.9
18:00-19:00	29.7	29.4	29.7	26.9	28.5	29.4	29.1
19:00-20:00	29.2	28.9	28.8	26.8	27.7	29.0	28.8
20:00-21:00	28.6	28.3	28.3	26.9	27.3	28.3	28.1
21:00-22:00	28.3	28.3	28.1	26.8	26.9	28.0	28.2
22:00-23:00	27.7	28.0	28.1	26.6	26.7	27.3	27.4
23:00-00:00	27.8	27.2	27.7	26.6	26.3	27.9	27.4
00:00-01:00	27.6	27.2	27.5	26.4	26.1	27.6	27.1
01:00-02:00	27.6	26.9	27.3	26.2	25.8	27.8	26.8
02:00-03:00	27.6	26.8	26.9	24.9	25.5	27.5	26.8
03:00-04:00	27.0	26.8	26.9	23.9	26.2	27.0	26.7
04:00-05:00	26.9	26.5	26.9	24.3	28.9	26.9	26.3
05:00-06:00	27.9	27.5	27.6	25.1	27.6	29.0	29.3
06:00-07:00	30.0	30.1	29.3	27.3	34.3	31.1	29.5
07:00-08:00	32.3	30.8	31.5	29.4	34.0	32.5	31.2
08:00-09:00	33.3	31.4	32.3	31.7	33.7	33.7	32.1
09:00-10:00	33.6	32.0	33.2	33.2	30.4	33.8	33.7
10:00-11:00	34.5	34.3	34.8	34.3	35.3	34.7	34.7
11:00-12:00	34.5	34.4	36.2	34.3	35.5	33.1	34.4
12:00-13:00	32.7	34.7	36.2	34.6	35.6	32.1	34.1
13:00-14:00	32.0	34.4	33.3	34.8	35.2	32.4	32.7
14:00-15:00	32.7	32.5	31.5	33.5	34.5	34.2	32.1
Average-24 hr*	30.4	30.0	30.2	28.8	30.2	30.4	31.2
Max-1 hr	34.5	34.7	36.2	34.8	35.6	34.7	34.7
Min-1 hr	26.9	26.5	26.9	23.9	25.5	26.9	26.3

Remarks: * Average time between 15:00-15:00.


(Miss Katesarin Vorradetwittaya)
Environmental Scientist


(Miss Preeda Somjai)
Technical Management Team

ภาคผนวก ง.2

หนังสือรับรองผลการตรวจวัดระดับเสียง



Noise Monitoring Result : Community Noise MTR-Gluf PD (GPD)

Location : Project Site
SLM Model : RION NL-21
Site Operator : Mr. Sittichai Sawangwongchai

Monitor Period : 09-16 Jun 2022
Serial No : 00187497

Calibrator Model : RION NC-74
Calibration Ref dB(A) : 94.0
SLM Reading / Adjust dB(A) : 93.9/0.1
Cal Sheet No.: NC-74-2022-061

Serial No : 34283648
Certified Date : 24 Dec 2021
Expire Date : 23 Dec 2022

Time	Equivalent Sound Pressure Level (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
11:00 - 12:00	51.2	52.5	51.7	48.2	52.2	52.4	51.7
12:00 - 13:00	45.2	48.8	50.9	44.8	46.9	46.6	46.0
13:00 - 14:00	53.3	54.5	51.9	53.8	56.6	55.1	56.4
14:00 - 15:00	52.0	55.1	55.7	57.1	54.9	55.6	56.2
15:00 - 16:00	52.6	53.2	54.3	51.8	54.3	56.7	54.7
16:00 - 17:00	50.3	50.1	52.8	47.6	55.8	56.2	56.8
17:00 - 18:00	55.6	51.0	51.7	44.1	58.3	53.8	55.7
18:00 - 19:00	54.7	51.6	47.6	48.8	49.5	53.1	48.8
19:00 - 20:00	51.4	53.0	54.2	48.8	50.2	50.1	54.3
20:00 - 21:00	50.9	51.9	54.8	53.1	55.7	50.7	53.2
21:00 - 22:00	48.2	51.8	51.6	51.3	51.9	49.1	47.1
22:00 - 23:00	48.5	48.0	47.0	46.6	47.4	46.2	43.7
23:00 - 00:00	46.6	46.2	44.0	43.9	46.5	44.4	47.9
00:00 - 01:00	43.5	42.9	44.7	42.7	46.3	43.6	44.3
01:00 - 02:00	44.6	44.4	42.9	41.1	45.4	42.0	44.3
02:00 - 03:00	43.7	47.0	44.3	41.5	45.3	41.4	41.0
03:00 - 04:00	41.1	46.9	44.1	53.4	47.1	41.2	38.2
04:00 - 05:00	46.8	43.9	45.4	43.6	50.0	43.4	43.6
05:00 - 06:00	48.9	46.1	48.8	48.5	50.3	45.8	50.4
06:00 - 07:00	49.1	48.5	48.8	51.1	50.6	50.4	50.8
07:00 - 08:00	53.8	52.3	55.9	54.2	54.3	57.8	58.6
08:00 - 09:00	57.0	55.7	54.8	58.9	57.1	54.5	55.3
09:00 - 10:00	56.6	53.2	57.6	58.2	56.1	56.8	56.4
10:00 - 11:00	54.9	54.7	54.3	57.6	55.4	57.9	56.3
Leq(24)*	51.9	51.5	52.3	52.6	53.3	53.0	53.3
Ldn	54.9	54.6	54.9	55.9	56.4	55.0	55.7
Lmax **	81.4	83.2	77.7	80.4	79.6	81.1	81.2
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 11:00-11:00

** Maximum Sound Pressure Level between 11:00-11:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-Gluf PD (GPD)

Location : Project Site
SLM Model : RION NL-21
Site Operator : Mr. Sittichai Sawangwongchai

Monitor Period : 09-16 Jun 2022
Serial No : 00187497

Calibrator Model : RION NC-74
Calibration Ref dB(A) : 94.0
SLM Reading / Adjust dB(A) : 93.9/0.1
Cal Sheet No.: NC-74-2022-061

Serial No : 34283648
Certified Date : 24 Dec 2021
Expire Date : 23 Dec 2022

Time	L90 (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
11:00 - 12:00	44.3	44.7	43.7	39.7	42.4	45.8	41.3
12:00 - 13:00	39.4	41.3	40.4	37.1	36.3	40.3	40.8
13:00 - 14:00	46.5	47.7	46.1	42.2	47.3	50.0	50.5
14:00 - 15:00	47.7	47.8	47.6	50.0	46.8	49.9	50.3
15:00 - 16:00	46.6	46.0	49.3	46.4	49.4	49.2	49.3
16:00 - 17:00	44.8	44.9	45.4	39.5	49.7	47.5	45.6
17:00 - 18:00	48.2	43.8	42.2	39.8	49.4	45.2	47.0
18:00 - 19:00	45.3	42.5	42.4	44.9	43.3	43.9	42.8
19:00 - 20:00	47.7	46.9	45.8	44.8	47.1	45.9	49.0
20:00 - 21:00	48.4	50.7	53.6	50.8	51.5	49.2	49.1
21:00 - 22:00	45.6	50.0	46.8	48.1	48.6	47.3	44.3
22:00 - 23:00	45.1	45.2	45.3	45.0	45.9	45.1	41.9
23:00 - 00:00	44.6	43.5	42.9	42.4	45.4	43.2	44.4
00:00 - 01:00	41.8	41.9	42.9	41.4	44.4	42.4	41.3
01:00 - 02:00	41.9	41.8	40.6	39.8	43.6	40.8	39.3
02:00 - 03:00	41.1	45.8	42.1	39.6	42.6	40.3	37.2
03:00 - 04:00	40.2	42.7	40.7	42.9	40.7	38.5	36.3
04:00 - 05:00	39.9	41.8	44.2	40.8	45.3	38.2	39.3
05:00 - 06:00	45.6	41.8	42.7	42.4	43.6	43.5	41.1
06:00 - 07:00	43.9	44.2	43.2	45.4	43.0	44.4	44.3
07:00 - 08:00	44.9	44.9	44.8	46.2	45.2	46.8	43.5
08:00 - 09:00	47.1	47.3	50.1	53.6	49.9	48.7	49.8
09:00 - 10:00	46.5	47.4	48.8	53.4	49.4	51.3	49.3
10:00 - 11:00	47.6	46.0	47.4	49.6	49.8	49.7	49.8
L90(avg)*	45.5	45.8	46.4	46.9	47.1	46.7	46.4

Remark : * Average time between 11:00-11:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-Gluf PD (GPD)

Location : West of Project Site

Monitor Period : 09-16 Jun 2022

SLM Model : RION NL-21

Serial No : 00487719

Site Operator : Mr. Sittichai Sawangwongchai

Calibrator Model : RION NC-74

Serial No : 34283648

Calibration Ref dB(A) : 94.0

Certified Date : 24 Dec 2021

SLM Reading / Adjust dB(A) : 93.9/0.1

Expire Date : 23 Dec 2022

Cal Sheet No.: NC-74-2022-061

Time	Equivalent Sound Pressure Level (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
13:00 - 14:00	43.8	50.6	41.8	41.3	53.9	49.9	52.7
14:00 - 15:00	47.4	48.9	44.7	47.4	43.6	46.8	44.5
15:00 - 16:00	45.9	47.0	46.7	45.5	43.8	45.3	44.7
16:00 - 17:00	44.4	48.6	55.1	45.8	51.8	44.7	47.7
17:00 - 18:00	44.4	47.9	47.8	46.9	44.0	44.8	45.2
18:00 - 19:00	44.3	48.1	47.3	52.3	43.4	43.2	44.9
19:00 - 20:00	44.7	42.7	44.1	44.0	45.6	42.0	42.5
20:00 - 21:00	41.7	41.6	43.6	39.4	45.5	43.8	44.4
21:00 - 22:00	39.3	42.9	41.6	41.1	44.6	48.9	41.9
22:00 - 23:00	38.1	38.2	39.3	41.2	42.8	40.2	41.2
23:00 - 00:00	39.7	39.2	39.1	41.8	41.1	42.2	39.2
00:00 - 01:00	38.6	37.8	39.0	45.3	41.4	42.4	38.2
01:00 - 02:00	38.2	36.9	37.9	44.6	41.9	42.0	37.7
02:00 - 03:00	39.0	39.8	39.3	42.0	37.9	42.3	37.7
03:00 - 04:00	38.2	37.7	38.6	57.4	41.6	40.0	37.6
04:00 - 05:00	39.7	36.9	39.1	43.6	41.0	41.0	36.8
05:00 - 06:00	42.4	42.7	46.0	47.6	44.4	43.8	42.5
06:00 - 07:00	49.7	47.4	45.7	47.8	55.4	47.3	45.9
07:00 - 08:00	50.0	45.1	54.8	50.6	49.1	51.4	47.0
08:00 - 09:00	50.3	44.6	52.0	54.0	49.0	56.4	52.9
09:00 - 10:00	43.5	44.5	45.8	43.3	45.3	56.4	47.8
10:00 - 11:00	45.0	46.2	43.3	42.2	49.4	57.5	45.2
11:00 - 12:00	46.0	45.0	42.9	50.5	52.3	58.0	53.9
12:00 - 13:00	45.5	43.3	41.3	43.7	45.4	56.7	48.9
Leq(24)*	45.0	45.2	47.3	48.6	48.1	51.3	47.0
Ldn	49.7	48.9	50.1	55.7	53.8	53.0	49.5
Lmax **	73.3	72.5	83.0	80.1	84.9	77.8	80.5
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 13:00-13:00

** Maximum Sound Pressure Level between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-Gluf PD (GPD)

Location : West of Project Site

Monitor Period : 09-16 Jun 2022

SLM Model : RION NL-21

Serial No : 00487719

Site Operator : Mr. Sittichai Sawangwongchai

Calibrator Model : RION NC-74

Serial No : 34283648

Calibration Ref dB(A) : 94.0

Certified Date : 24 Dec 2021

SLM Reading / Adjust dB(A) : 93.9/0.1

Expire Date : 23 Dec 2022

Cal Sheet No.: NC-74-2022-061

Time	L90 (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
13:00 - 14:00	36.4	40.3	36.9	33.3	35.7	37.6	39.4
14:00 - 15:00	39.7	39.0	38.8	39.4	35.5	40.8	36.9
15:00 - 16:00	39.5	39.7	38.5	39.0	38.4	38.8	37.3
16:00 - 17:00	37.3	39.4	39.2	37.1	38.0	40.4	36.6
17:00 - 18:00	37.9	42.6	39.9	38.7	38.5	37.0	37.8
18:00 - 19:00	38.0	38.2	41.2	47.7	36.8	39.5	39.0
19:00 - 20:00	40.2	38.8	40.3	35.8	43.8	37.8	39.3
20:00 - 21:00	38.6	39.9	39.5	37.2	43.8	42.6	41.5
21:00 - 22:00	37.4	37.6	39.1	38.5	42.7	42.4	39.9
22:00 - 23:00	35.9	37.1	37.4	35.4	39.6	35.1	38.5
23:00 - 00:00	37.2	35.8	36.8	34.5	37.4	35.3	37.4
00:00 - 01:00	36.8	35.3	36.6	44.3	40.5	41.3	36.3
01:00 - 02:00	36.5	35.6	36.3	34.7	41.1	41.5	34.8
02:00 - 03:00	36.9	36.3	35.8	35.0	34.5	41.9	35.7
03:00 - 04:00	37.0	36.3	35.7	45.1	35.3	35.0	36.2
04:00 - 05:00	36.6	35.8	35.8	37.9	35.1	39.6	34.7
05:00 - 06:00	38.0	36.9	36.7	44.1	37.4	36.4	35.8
06:00 - 07:00	40.0	38.6	36.9	41.0	41.2	38.4	38.8
07:00 - 08:00	41.3	38.6	37.5	38.6	39.1	39.6	37.5
08:00 - 09:00	39.3	35.3	36.9	36.7	37.8	55.7	37.6
09:00 - 10:00	35.6	36.3	35.9	36.2	38.6	55.8	37.6
10:00 - 11:00	38.3	38.3	33.8	35.2	40.7	56.1	37.7
11:00 - 12:00	37.2	33.8	32.7	38.9	41.9	56.2	39.9
12:00 - 13:00	36.2	34.8	31.3	32.3	36.9	55.1	38.4
L90(avg)*	38.1	38.0	37.6	40.2	39.6	49.4	38.0

Remark : * Average time between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-Gluf PD (GPD)

Location : South of Project Site
SLM Model : RION NL-21
Site Operator : Mr. Sittichai Sawangwongchai

Monitor Period : 09-16 Jun 2022
Serial No : 00198276

Calibrator Model : RION NC-74
Calibration Ref dB(A) : 94.0
SLM Reading / Adjust dB(A) : 93.9/0.1
Cal Sheet No.: NC-74-2022-061

Serial No : 34283648
Certified Date : 24 Dec 2021
Expire Date : 23 Dec 2022

Time	Equivalent Sound Pressure Level (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
14:00 - 15:00	67.6	67.7	67.7	67.3	68.1	67.9	68.9
15:00 - 16:00	68.9	68.7	67.6	68.8	68.7	68.1	70.3
16:00 - 17:00	67.7	69.5	69.6	71.4	70.3	68.8	68.4
17:00 - 18:00	70.0	70.1	70.3	68.6	69.2	69.3	70.0
18:00 - 19:00	68.9	69.4	69.2	67.4	68.1	69.1	69.4
19:00 - 20:00	67.6	67.7	67.2	66.3	66.6	67.0	67.6
20:00 - 21:00	67.9	67.8	68.4	67.6	67.1	68.3	67.7
21:00 - 22:00	65.7	64.2	64.1	63.1	63.8	64.7	64.3
22:00 - 23:00	61.6	62.9	61.4	63.3	62.6	62.8	61.3
23:00 - 00:00	62.8	61.4	64.1	59.4	59.8	59.8	59.9
00:00 - 01:00	60.2	59.0	60.0	61.3	60.6	59.8	56.2
01:00 - 02:00	58.0	60.0	60.2	60.4	54.8	60.1	56.7
02:00 - 03:00	55.2	56.1	57.5	58.4	55.5	58.2	54.4
03:00 - 04:00	55.7	58.3	58.4	57.3	57.9	59.6	62.2
04:00 - 05:00	58.9	57.5	58.5	58.4	59.8	59.8	59.8
05:00 - 06:00	64.8	64.2	64.2	64.2	65.3	64.1	63.6
06:00 - 07:00	68.6	68.5	66.7	69.0	69.9	69.0	69.1
07:00 - 08:00	70.4	69.6	68.6	70.7	70.6	70.2	71.2
08:00 - 09:00	72.0	70.3	67.8	69.5	69.5	70.7	70.9
09:00 - 10:00	69.6	68.2	67.3	70.0	69.5	71.3	70.5
10:00 - 11:00	67.9	68.1	67.7	71.4	67.9	68.7	71.5
11:00 - 12:00	68.3	70.2	67.5	68.7	67.7	69.6	68.8
12:00 - 13:00	66.8	69.9	67.6	68.6	68.2	68.1	70.2
13:00 - 14:00	71.3	66.9	67.0	67.6	72.0	68.9	70.1
Leq(24)*	67.6	67.3	66.6	67.5	67.5	67.5	68.1
Ldn	70.8	70.6	70.1	70.9	71.1	70.9	71.0
Lmax**	98.1	97.6	94.8	97.8	101.0	95.3	100.5
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 14:00-14:00

** Maximum Sound Pressure Level between 14:00-14:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-Gluf PD (GPD)

Location : South of Project Site
SLM Model : RION NL-21
Site Operator : Mr. Sittichai Sawangwongchai

Monitor Period : 09-16 Jun 2022
Serial No : 00198276

Calibrator Model : RION NC-74
Calibration Ref dB(A) : 94.0
SLM Reading / Adjust dB(A) : 93.9/0.1
Cal Sheet No.: NC-74-2022-061

Serial No : 34283648
Certified Date : 24 Dec 2021
Expire Date : 23 Dec 2022

Time	L90 (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
14:00 - 15:00	52.3	51.7	51.3	47.5	49.0	51.9	53.1
15:00 - 16:00	52.3	51.5	55.0	48.0	51.7	48.4	51.2
16:00 - 17:00	50.6	50.1	55.0	52.5	54.1	52.3	53.8
17:00 - 18:00	54.7	55.9	56.3	51.7	56.2	55.3	55.1
18:00 - 19:00	53.9	52.8	50.6	53.6	50.7	52.9	52.6
19:00 - 20:00	54.9	50.5	50.5	49.4	49.9	50.1	50.6
20:00 - 21:00	55.5	50.6	50.2	48.3	50.7	52.1	50.9
21:00 - 22:00	52.8	48.8	48.7	49.7	47.1	46.8	45.6
22:00 - 23:00	49.9	48.6	48.3	47.6	45.7	46.2	45.0
23:00 - 00:00	49.1	49.6	48.5	46.8	45.9	45.8	44.6
00:00 - 01:00	48.0	48.7	49.5	46.5	45.4	45.5	45.0
01:00 - 02:00	47.7	48.1	48.1	46.6	46.2	45.5	44.9
02:00 - 03:00	46.3	47.8	46.8	45.6	46.4	45.0	44.5
03:00 - 04:00	46.3	45.3	46.3	47.8	46.3	43.9	44.0
04:00 - 05:00	44.2	44.4	44.0	45.0	44.0	43.7	43.9
05:00 - 06:00	45.7	46.1	45.3	48.3	45.2	44.8	45.0
06:00 - 07:00	50.7	49.9	48.0	52.3	52.8	51.5	52.6
07:00 - 08:00	58.5	57.5	49.5	56.4	58.2	58.4	59.5
08:00 - 09:00	57.7	57.9	50.0	53.3	56.1	57.1	56.3
09:00 - 10:00	54.0	53.9	48.3	50.0	52.5	56.7	54.8
10:00 - 11:00	50.7	53.2	48.3	52.1	53.9	55.7	50.0
11:00 - 12:00	53.2	53.7	47.4	50.4	50.3	53.4	52.7
12:00 - 13:00	47.0	48.0	46.0	46.8	46.9	48.0	52.5
13:00 - 14:00	55.2	53.6	46.7	50.1	52.8	51.5	51.7
L90(avg)*	52.9	52.2	50.3	50.4	51.8	52.3	52.2

Remark : * Average time between 14:00-14:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-Gluf PD (GPD)

Location : North of Project Site
SLM Model : RION NL-21
Site Operator : Mr. Sittichai Sawangwongchai

Monitor Period : 09-16 Jun 2022
Serial No : 00187505

Calibrator Model : RION NC-74
Calibration Ref dB(A) : 94.0
SLM Reading / Adjust dB(A) : 93.9/0.1
Cal Sheet No.: NC-74-2022-061

Serial No : 34283648
Certified Date : 24 Dec 2021
Expire Date : 23 Dec 2022

Time	Equivalent Sound Pressure Level (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
12:00 - 13:00	50.8	57.5	57.0	56.0	56.5	57.8	59.7
13:00 - 14:00	52.7	57.5	56.4	56.1	56.5	56.9	56.7
14:00 - 15:00	52.0	57.1	56.7	57.6	54.9	58.5	55.7
15:00 - 16:00	50.6	56.2	56.8	63.3	56.5	60.9	56.1
16:00 - 17:00	54.2	56.7	57.1	59.6	61.0	56.4	56.1
17:00 - 18:00	55.2	57.0	57.1	57.8	61.8	56.5	56.9
18:00 - 19:00	53.4	55.9	59.3	55.6	56.1	55.9	58.8
19:00 - 20:00	54.1	55.7	58.3	52.8	55.9	56.6	56.6
20:00 - 21:00	53.6	55.0	55.5	49.4	55.7	55.4	58.9
21:00 - 22:00	51.9	58.5	53.0	49.2	55.0	54.1	57.3
22:00 - 23:00	47.9	51.7	50.4	45.4	50.8	52.9	48.6
23:00 - 00:00	46.3	49.3	49.1	46.2	48.2	47.6	46.0
00:00 - 01:00	46.9	47.9	47.8	43.9	50.2	48.3	47.4
01:00 - 02:00	46.1	46.1	47.5	44.7	45.7	47.6	47.9
02:00 - 03:00	49.2	46.8	48.3	48.7	44.4	51.3	46.9
03:00 - 04:00	47.9	50.1	47.3	65.0	46.9	46.9	47.0
04:00 - 05:00	53.4	53.0	53.9	63.9	50.9	53.4	51.0
05:00 - 06:00	57.8	57.2	57.8	62.8	57.4	58.2	56.9
06:00 - 07:00	57.9	57.1	54.7	57.0	56.5	60.5	57.9
07:00 - 08:00	56.7	55.7	57.7	61.4	61.9	59.5	59.8
08:00 - 09:00	56.9	60.9	59.4	55.3	56.3	62.9	63.2
09:00 - 10:00	55.6	56.0	56.8	58.0	56.7	61.7	60.9
10:00 - 11:00	56.4	56.6	57.0	54.4	56.6	62.6	57.6
11:00 - 12:00	56.3	56.2	57.4	56.9	58.2	62.2	58.4
Leq(24)*	54.0	55.9	56.0	58.5	56.6	58.2	57.2
Ldn	59.6	60.2	59.9	65.8	60.1	62.1	60.5
Lmax **	78.6	86.8	81.0	83.9	84.3	83.8	85.7
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 12:00-12:00

** Maximum Sound Pressure Level between 12:00-12:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-Gluf PD (GPD)

Location : North of Project Site
SLM Model : RION NL-21
Site Operator : Mr. Sittichai Sawangwongchai

Monitor Period : 09-16 Jun 2022
Serial No : 00187505

Calibrator Model : RION NC-74
Calibration Ref dB(A) : 94.0
SLM Reading / Adjust dB(A) : 93.9/0.1
Cal Sheet No.: NC-74-2022-061

Serial No : 34283648
Certified Date : 24 Dec 2021
Expire Date : 23 Dec 2022

Time	L90 (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
12:00 - 13:00	40.9	54.8	55.0	55.0	54.1	55.0	54.6
13:00 - 14:00	41.3	54.8	55.0	55.1	46.9	54.9	54.6
14:00 - 15:00	41.3	54.6	54.9	55.3	45.1	54.8	54.3
15:00 - 16:00	42.3	54.5	54.8	55.2	54.7	53.9	54.2
16:00 - 17:00	43.3	54.6	54.9	54.2	54.9	53.8	54.4
17:00 - 18:00	44.9	54.4	54.7	53.8	54.8	53.8	54.6
18:00 - 19:00	44.7	53.5	54.6	52.6	44.1	52.6	54.4
19:00 - 20:00	48.4	53.6	54.2	45.3	51.8	53.8	54.4
20:00 - 21:00	47.1	51.3	52.7	44.2	51.8	52.5	57.6
21:00 - 22:00	45.6	49.7	50.5	43.6	51.9	51.3	55.8
22:00 - 23:00	44.2	47.9	48.2	42.1	46.8	45.6	44.0
23:00 - 00:00	42.4	46.3	46.5	42.4	46.5	42.7	42.0
00:00 - 01:00	44.1	45.0	46.2	42.2	42.8	42.8	44.8
01:00 - 02:00	43.6	44.1	45.5	40.8	41.5	44.2	46.3
02:00 - 03:00	41.8	43.2	44.0	40.6	40.8	43.8	45.6
03:00 - 04:00	41.6	41.5	43.0	41.2	40.7	44.9	39.6
04:00 - 05:00	42.5	41.7	42.6	56.1	40.9	45.7	40.6
05:00 - 06:00	42.8	42.8	43.6	48.2	42.6	47.0	44.5
06:00 - 07:00	47.0	45.4	44.8	48.4	47.2	48.9	47.2
07:00 - 08:00	46.2	48.3	47.6	47.1	47.2	49.2	47.4
08:00 - 09:00	52.8	53.0	55.3	43.6	49.7	55.6	47.9
09:00 - 10:00	54.1	54.5	55.8	48.2	53.6	59.0	54.1
10:00 - 11:00	54.6	54.7	56.1	52.1	54.7	58.1	54.6
11:00 - 12:00	54.7	54.8	56.1	53.8	55.0	60.2	54.7
L90(avg)*	48.2	52.0	52.8	51.3	50.9	53.7	52.6

Remark : * Average time between 12:00-12:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise MTR-Gluf PD (GPD)

Location : Northwest of Project Site				Monitor Period : 09-16 Jun 2022			
SLM Model : RION NL-21				Serial No : 00487734			
Site Operator : Mr. Sittichai Sawangwongchai							
Calibrator Model : RION NC-74				Serial No : 34283648			
Calibration Ref dB(A) : 94.0				Certified Date : 24 Dec 2021			
SLM Reading / Adjust dB(A) : 93.9/0.1				Expire Date : 23 Dec 2022			
Cal Sheet No.: NC-74-2022-061							
Time	Equivalent Sound Pressure Level (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
13:00 - 14:00	51.8	54.1	49.9	51.5	52.0	53.1	52.8
14:00 - 15:00	51.7	52.6	54.3	52.4	52.5	51.6	50.9
15:00 - 16:00	50.7	55.5	52.1	50.1	60.2	51.2	51.2
16:00 - 17:00	58.4	56.3	55.5	51.6	54.5	52.0	53.0
17:00 - 18:00	55.4	54.7	54.9	54.6	55.7	53.4	54.6
18:00 - 19:00	54.0	53.8	53.5	54.2	53.2	52.6	54.5
19:00 - 20:00	52.7	52.5	53.2	50.1	53.2	54.7	53.5
20:00 - 21:00	52.2	52.9	51.7	48.0	54.3	55.3	52.6
21:00 - 22:00	49.7	57.6	49.6	45.4	50.7	52.7	49.3
22:00 - 23:00	43.3	48.1	44.2	40.5	47.1	46.3	46.7
23:00 - 00:00	44.2	46.8	45.0	39.2	42.0	47.6	48.4
00:00 - 01:00	41.9	40.8	41.4	37.4	45.2	44.2	44.1
01:00 - 02:00	45.1	41.1	40.2	37.2	40.6	41.4	39.4
02:00 - 03:00	39.2	42.0	43.4	37.9	41.4	42.9	39.6
03:00 - 04:00	40.8	41.0	38.9	61.0	38.9	41.0	39.3
04:00 - 05:00	43.9	39.7	40.8	42.8	42.0	43.0	42.7
05:00 - 06:00	49.5	52.1	48.6	49.9	48.4	48.8	48.5
06:00 - 07:00	52.9	53.7	61.7	52.9	53.7	56.5	54.0
07:00 - 08:00	54.9	53.5	66.7	54.1	53.9	54.1	54.8
08:00 - 09:00	57.8	54.7	52.6	53.1	54.6	57.7	53.8
09:00 - 10:00	52.2	50.9	51.6	51.9	55.5	53.2	52.2
10:00 - 11:00	55.7	59.1	51.2	48.8	49.1	55.7	49.6
11:00 - 12:00	52.2	55.7	50.8	56.7	51.4	54.6	52.1
12:00 - 13:00	51.9	51.0	51.8	53.1	51.0	51.7	51.3
Leq(24)*	52.6	53.4	55.7	52.5	52.8	52.7	51.4
Ldn	55.3	56.4	60.0	58.9	55.5	56.6	55.2
Lmax **	84.6	85.7	87.1	78.2	83.4	81.3	80.6
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 13:00-13:00

** Maximum Sound Pressure Level between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise MTR-Gluf PD (GPD)

Location : Northwest of Project Site				Monitor Period : 09-16 Jun 2022			
SLM Model : RION NL-21				Serial No : 00487734			
Site Operator : Mr. Sittichai Sawangwongchai							
Calibrator Model : RION NC-74				Serial No : 34283648			
Calibration Ref dB(A) : 94.0				Certified Date : 24 Dec 2021			
SLM Reading / Adjust dB(A) : 93.9/0.1				Expire Date : 23 Dec 2022			
Cal Sheet No.: NC-74-2022-061							
Time	L90 (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
13:00 - 14:00	38.3	41.8	39.3	37.9	37.7	37.6	42.5
14:00 - 15:00	38.2	40.5	39.7	38.8	36.4	38.9	38.4
15:00 - 16:00	38.3	47.9	39.0	39.9	38.4	39.2	37.6
16:00 - 17:00	39.7	40.6	41.7	41.8	41.4	40.7	39.9
17:00 - 18:00	43.0	45.8	43.2	44.9	45.9	42.3	42.5
18:00 - 19:00	42.1	43.9	43.4	49.4	42.7	42.1	42.6
19:00 - 20:00	44.5	45.9	44.1	41.0	46.3	46.7	45.2
20:00 - 21:00	43.9	47.4	42.8	44.4	47.7	48.1	44.3
21:00 - 22:00	38.3	39.9	43.7	35.7	45.4	46.8	42.5
22:00 - 23:00	35.9	38.2	37.5	34.0	38.1	35.6	33.9
23:00 - 00:00	40.7	36.3	35.6	33.3	34.7	33.5	32.9
00:00 - 01:00	35.6	35.2	36.1	33.7	32.2	33.3	31.3
01:00 - 02:00	35.4	34.5	35.2	32.9	31.5	31.9	31.5
02:00 - 03:00	35.2	36.6	34.8	31.7	31.3	31.3	31.1
03:00 - 04:00	35.3	30.4	34.2	33.0	31.7	29.6	30.3
04:00 - 05:00	33.4	31.8	33.9	36.1	31.8	30.3	30.9
05:00 - 06:00	37.3	39.3	36.7	37.6	35.8	35.6	36.0
06:00 - 07:00	44.3	43.7	41.2	46.1	45.7	45.6	45.6
07:00 - 08:00	46.0	46.3	41.9	46.5	44.6	45.5	46.1
08:00 - 09:00	40.8	41.6	39.6	41.2	40.2	41.7	40.0
09:00 - 10:00	36.7	39.9	39.4	39.5	38.1	41.1	37.5
10:00 - 11:00	40.1	39.4	39.3	37.4	37.3	40.2	37.3
11:00 - 12:00	41.1	40.4	39.0	43.4	41.7	40.7	38.9
12:00 - 13:00	38.9	37.9	35.1	44.6	39.5	39.9	37.9
L90(avg)*	40.6	42.4	40.1	42.1	41.7	41.9	40.7

Remark : * Average time between 13:00-13:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Community Noise

MTR-Gluf PD (GPD)

Location : East of Project Site
SLM Model : RION NL-21
Site Operator : Mr. Sittichai Sawangwongchai

Monitor Period : 09-16 Jun 2022
Serial No : 00487723

Calibrator Model : RION NC-74
Calibration Ref dB(A) : 94.0
SLM Reading / Adjust dB(A) : 93.9/0.1
Cal Sheet No.: NC-74-2022-061

Serial No : 34283648
Certified Date : 24 Dec 2021
Expire Date : 23 Dec 2022

Time	Equivalent Sound Pressure Level (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
14:00 - 15:00	46.9	44.8	43.9	52.4	43.7	55.2	57.4
15:00 - 16:00	46.9	56.9	51.5	61.2	56.8	59.7	50.4
16:00 - 17:00	47.1	43.7	57.9	55.8	63.1	54.4	52.4
17:00 - 18:00	63.0	44.6	52.1	52.3	64.2	54.7	43.9
18:00 - 19:00	60.2	62.3	60.5	53.9	51.1	45.7	53.3
19:00 - 20:00	59.0	61.3	50.9	43.2	46.5	52.0	55.6
20:00 - 21:00	49.7	63.2	53.1	54.5	54.2	62.2	56.8
21:00 - 22:00	54.5	61.3	62.7	45.0	49.5	56.0	62.7
22:00 - 23:00	44.7	54.5	39.7	39.5	45.5	40.1	61.6
23:00 - 00:00	42.6	39.0	38.9	38.7	39.5	43.4	58.7
00:00 - 01:00	39.1	57.1	60.9	37.6	41.5	52.6	38.6
01:00 - 02:00	38.4	58.1	47.4	37.6	44.3	45.9	55.1
02:00 - 03:00	39.6	38.2	47.8	36.1	42.9	39.1	51.2
03:00 - 04:00	45.7	36.5	37.6	47.6	58.4	38.2	36.1
04:00 - 05:00	41.8	37.1	38.8	39.5	46.4	38.2	37.4
05:00 - 06:00	46.7	47.6	45.1	47.7	45.1	46.7	47.5
06:00 - 07:00	45.6	45.4	47.1	47.6	46.6	46.9	47.2
07:00 - 08:00	44.4	56.6	45.1	52.3	57.2	55.2	60.9
08:00 - 09:00	47.2	54.3	51.4	45.3	50.7	47.4	49.9
09:00 - 10:00	43.9	50.6	51.2	43.6	50.3	46.0	56.9
10:00 - 11:00	43.9	49.0	54.5	45.3	45.4	47.3	44.7
11:00 - 12:00	51.8	51.6	48.0	44.7	46.9	48.2	46.9
12:00 - 13:00	43.6	44.9	39.9	42.0	45.1	46.7	49.5
13:00 - 14:00	45.1	48.1	48.7	53.4	55.6	45.7	47.0
Leq(24)*	53.1	56.1	54.3	51.5	55.1	53.3	55.5
Ldn	54.5	60.0	59.1	53.4	58.3	55.5	61.4
Lmax**	87.5	83.7	83.4	79.1	87.9	84.8	83.4
Standard-24Hr	70 dB(A)						
Standard-Max	115 dB(A)						

Remark : * Average time between 14:00-14:00

** Maximum Sound Pressure Level between 14:00-14:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team



Noise Monitoring Result : Background Noise

MTR-Gluf PD (GPD)

Location : East of Project Site
SLM Model : RION NL-21
Site Operator : Mr. Sittichai Sawangwongchai

Monitor Period : 09-16 Jun 2022
Serial No : 00487723

Calibrator Model : RION NC-74
Calibration Ref dB(A) : 94.0
SLM Reading / Adjust dB(A) : 93.9/0.1
Cal Sheet No.: NC-74-2022-061

Serial No : 34283648
Certified Date : 24 Dec 2021
Expire Date : 23 Dec 2022

Time	L90 (dB(A))						
	09-10 Jun 2022	10-11 Jun 2022	11-12 Jun 2022	12-13 Jun 2022	13-14 Jun 2022	14-15 Jun 2022	15-16 Jun 2022
14:00 - 15:00	39.2	40.8	40.5	40.8	37.8	40.6	38.1
15:00 - 16:00	41.0	39.3	40.8	40.2	40.2	39.8	38.3
16:00 - 17:00	39.7	37.6	40.7	37.2	40.8	38.3	35.1
17:00 - 18:00	39.8	38.9	39.0	36.4	40.1	39.7	36.5
18:00 - 19:00	40.3	40.5	38.8	41.9	39.9	39.9	38.3
19:00 - 20:00	38.8	39.3	40.2	38.4	40.8	39.6	41.4
20:00 - 21:00	39.8	40.2	41.5	37.8	39.2	39.4	40.4
21:00 - 22:00	38.0	39.7	39.9	39.6	38.3	38.5	39.0
22:00 - 23:00	39.0	37.8	37.8	36.4	37.4	37.0	36.7
23:00 - 00:00	35.7	37.7	36.3	35.8	36.8	35.9	36.2
00:00 - 01:00	36.3	35.7	36.3	36.1	37.1	36.8	33.7
01:00 - 02:00	36.4	35.1	35.0	35.8	34.6	35.7	33.2
02:00 - 03:00	35.6	36.2	35.1	34.9	34.1	34.7	33.4
03:00 - 04:00	35.3	33.9	35.0	36.3	33.3	34.2	33.3
04:00 - 05:00	35.1	33.9	34.0	35.5	33.4	34.7	33.6
05:00 - 06:00	37.0	36.8	35.9	36.9	36.1	37.4	36.5
06:00 - 07:00	38.3	38.2	39.9	40.6	39.3	40.4	39.6
07:00 - 08:00	38.7	38.2	38.5	40.3	38.4	39.5	38.0
08:00 - 09:00	40.9	40.7	40.5	39.7	39.3	41.6	40.5
09:00 - 10:00	38.3	39.7	37.9	37.8	39.7	40.6	39.1
10:00 - 11:00	39.9	39.4	38.2	35.6	41.1	39.8	39.7
11:00 - 12:00	37.3	37.4	35.7	37.4	41.8	41.8	41.3
12:00 - 13:00	37.1	36.6	31.7	34.1	38.8	41.2	40.0
13:00 - 14:00	40.1	39.3	35.9	39.4	40.9	40.4	40.3
L90(avg)*	38.6	38.4	38.4	38.2	38.9	39.2	38.3

Remark : * Average time between 14:00-14:00

(Miss Katesarin Vorradetwittaya)
Environmental Scientist

Preeda S.
(Miss Preeda Somjai)
Technical Management Team

ภาคผนวก ง.3

หนังสือรับรองผลการตรวจวัดและวิเคราะห์คุณภาพน้ำทิ้ง



Analysis / Test Report

Client : Tang Sia Ping Metal Works Co., Ltd.
72 Moo 4, Nong Sam Sak, Ban Bueng, Chonburi Thailand 20170
P/O : PO21007401
Project Name :
Project Location :



TESTING
No.0042

Lot ID: 21144931
Date Received : Dec 29, 2021
Date Reported : Jan 04, 2022
Report Number : 2185473-1

Page 1 of 1

Sample Number 21144931-1
Sampled Date Dec 29, 2021 9:20 AM
Sample Description Wastewater
Location น้ำผั่งงา Hydrostatic test
Date Analysis Commenced Dec 29, 2021
Condition of Sample Contained in one amber glass bottle and one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
pH at 25 degree C		-	-	7.3	5.5-9.0	Based on APHA (2017), 4500-H (B)	Rayong
Temperature *	Degree C	-	-	30.4	≤40	Based on APHA (2017), 2550 B	Rayong
Total Suspended Solids Dried at 103-105 degree C	mg/L	-	5	<5	≤200	APHA (2017), 2540 D	Rayong

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.

Sampled By : Wanlop Hunchainaow , Thanasoun Namakunna

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

Technical Management

N. Banmhit

Narumon Banchongkit
Supervisor
โทรศัพท์ 0-323-9-9445

Approved by

D. Changchon

Dej Changchon
Senior Manager
โทรศัพท์ 0-323-9-9442

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18753-21 / PBF



Analysis / Test Report

Client : Tang Sia Ping Metal Works Co., Ltd.
72 Moo 4, Nong Sam Sak, Ban Bueng, Chonburi Thailand 20170
P/O : PO21007401
Project Name :
Project Location :

Lot ID: 21144931
Date Received : Dec 29, 2021
Date Reported : Jan 04, 2022
Report Number : 2185473-2

Page 1 of 1

Sample Number 21144931-1
Sampled Date Dec 29, 2021 9:20 AM
Sample Description Wastewater
Location น้ำผั่งงา Hydrostatic test
Date Analysis Commenced Dec 30, 2021
Condition of Sample Contained in one amber glass bottle and one plastic bottle, sample containers comply to pretreatment - preservation standards (APHA, USEPA)

Analyte	Unit	LOD	LOQ (LOR)	Result	Guideline / Specification	Method	Testing Location
Water Testing							
Oil & Grease	mg/L	-	3	<3	≤10	Based on APHA (2017), 5520 D	Bangkok

Guideline : Standard of Rojana Industrial park (Rayong) No.2/2559 and No.1/2560, Criteria of wastewater drainage from the factory to central wastewater treatment plant.

Sampled By : Wanlop Hunchainaow , Thanasoun Namakunna

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

Technical Management

Siriluk P.

Siriluk Puengpang
Supervisor
โทรศัพท์ 0-204-9-4720

Approved by

Kanokkorn Anek

Kanokkorn Anek
Senior Manager
โทรศัพท์ 0-204-9-6111

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18753-21 / PBF



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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 0128/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 27/01/2022	SAMPLING TIME	: 15.18
RECEIVED DATE	: 28/01/2022	ANALYTICAL DATE	: 28/01/2022-03/02/2022
REPORT DATE	: 04/02/2022	SITE OPERATOR	: Mr. Aniwat Pimwanna
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_January

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	
				บ่อกักน้ำทิ้งบริเวณบ้านพักคนงาน (Workers Camp Site)	STANDARD ^{1/}
pH	-	4500-H ⁺ B	< 0.10	7.42	5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	252	≤ 500
Suspended Solids	mg/l	2540 D	< 5	28	≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1	≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ²⁺ F	< 0.20	ND	≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 20
BOD ₅	mg/l	5210 B	< 1.0	13.5	≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	3.6	≤ 40
Fecal Coliform Bacteria *	MPN/100 ml	9221 E	< 1.8	< 1.8	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA,APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. 2-239-ก-5976

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 2-239-ก-5863

Remark : 1. Reported analysis refers to submitted sample only.

2. This report shall not be reproduced, except in full, without official approval.

3. ^{1/} Notification of the Ministry of Natural Resources and Environment (Category C), B.E.2548 (2005).

4.* Fecal Coliform Bacteria analysis was performed by TEST TECH Co., Ltd.

5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 0255/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/02/2022	SAMPLING TIME	: 13.50
RECEIVED DATE	: 10/02/2022	ANALYTICAL DATE	: 10-20/02/2022
REPORT DATE	: 24/02/2022	SITE OPERATOR	: Mr. Aniwat Pimwanna
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_February

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	
				บ่อกักน้ำทิ้งบริเวณบ้านพักคนงาน (Workers Camp Site)	STANDARD ^{1/}
pH	-	4500-H ⁺ B	< 0.10	7.40	5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	346	≤ 500
Suspended Solids	mg/l	2540 D	< 5	29	≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1	≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ²⁺ F	< 0.20	ND	≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 20
BOD ₅	mg/l	5210 B	< 1.0	6.8	≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	3.2	≤ 40
Fecal Coliform Bacteria *	MPN/100 ml	9221 E	< 1.8	< 1.8	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA,APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. 2-239-ก-5976

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 2-239-ก-5863

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4.* Fecal Coliform Bacteria analysis was performed by TEST TECH Co., Ltd.

5. - Not available.



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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 0628/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 25/03/2022	SAMPLING TIME	: 13.21
RECEIVED DATE	: 26/03/2022	ANALYTICAL DATE	: 26/03/2022-04/04/2022
REPORT DATE	: 19/04/2022	SITE OPERATOR	: Mr. Chanatip Singkasemsak
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_March

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		STANDARD ^{1/}
				บ่อกักน้ำทิ้งบริเวณบ้านพักคนงาน		
				(Workers Camp Site)		
pH	-	4500-H ⁺ B	< 0.10	7.21		5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	276		≤ 500
Suspended Solids	mg/l	2540 D	< 5	36		≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1		≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND		≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND		≤ 20
BOD ₅	mg/l	5210 B	< 1.0	12.8		≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	3.5		≤ 40
Fecal Coliform Bacteria *	MPN/100 ml	9221 E	< 1.8	< 1.8		-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ก-5976

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 7-239-ก-5863

Remark : 1. Reported analysis refers to submitted sample only.

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3. ^{1/} Notification of the Ministry of Natural Resources and Environment (Category C), B.E.2548 (2005),

4.* Fecal Coliform Bacteria analysis was performed by TEST TECH Co., Ltd.

5. - Not available.



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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 0741/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 06/04/2022	SAMPLING TIME	: 14.48
RECEIVED DATE	: 07/04/2022	ANALYTICAL DATE	: 07-18/04/2022
REPORT DATE	: 18/04/2022	SITE OPERATOR	: Mr. Chanatip Singkasemsak
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		STANDARD ^{1/}
				บ่อกักน้ำทิ้งบริเวณบ้านพักคนงาน		
				(Workers Camp Site)		
pH	-	4500-H ⁺ B	< 0.10	6.90		5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	278		≤ 500
Suspended Solids	mg/l	2540 D	< 5	34		≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1		≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ₂ ⁻ F	< 0.20	ND		≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND		≤ 20
BOD ₅	mg/l	5210 B	< 1.0	24.2		≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	3.5		≤ 40
Fecal Coliform Bacteria *	MPN/100 ml	9221 E	< 1.8	240		-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

REG. NO. 7-239-ก-5976

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

REG. NO. 7-239-ก-5863

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4.* Fecal Coliform Bacteria analysis was performed by TEST TECH Co., Ltd.

5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 0967/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 07/05/2022	SAMPLING TIME	: 15.00
RECEIVED DATE	: 08/05/2022	ANALYTICAL DATE	: 08-17/05/2022
REPORT DATE	: 18/05/2022	SITE OPERATOR	: Mr. Chanatip Singkasemsak
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		STANDARD ^{1/}
				บ่อกักน้ำทิ้งบริเวณบ้านพักคนงาน		
				(Workers Camp Site)		
pH	-	4500-H ⁺ B	< 0.10	7.20		5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	280		≤ 500
Suspended Solids	mg/l	2540 D	< 5	33		≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1		≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND		≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND		≤ 20
BOD ₅	mg/l	5210 B	< 1.0	1.9		≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	3.5		≤ 40
Fecal Coliform Bacteria *	MPN/100 ml	9221 E	< 1.8	< 1.8		-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 1264/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/06/2022	SAMPLING TIME	: 14.32
RECEIVED DATE	: 10/06/2022	ANALYTICAL DATE	: 10-17/06/2022
REPORT DATE	: 17/06/2022	SITE OPERATOR	: Mr. Chanatip Singkasemsak
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_June

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		STANDARD ^{1/}
				บ่อพักน้ำทิ้งบริเวณบ้านพักคนงาน (Workers Camp Site)		
pH	-	4500-H ⁺ B	< 0.10	7.83		5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	318		≤ 500
Suspended Solids	mg/l	2540 D	< 5	33		≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1		≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND		≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND		≤ 20
BOD ₅	mg/l	5210 B	< 1.0	< 1.0		≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	11.4		≤ 40
Fecal Coliform Bacteria *	MPN/100 ml	9221 E	< 1.8	< 1.8		-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

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5. - Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 0128/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 27/01/2022	SAMPLING TIME	: 15.05
RECEIVED DATE	: 28/01/2022	ANALYTICAL DATE	: 28/01/2022-03/02/2022
REPORT DATE	: 04/02/2022	SITE OPERATOR	: Mr. Aniwat Pimwanna
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_January

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	
				บ่อพักน้ำทิ้งบริเวณอาคารสำนักงาน (Construction Office Building)	STANDARD ^{1/}
pH	-	4500-H ⁺ B	< 0.10	7.30	5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	132	≤ 500
Suspended Solids	mg/l	2540 D	< 5	16	≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1	≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 20
BOD ₅	mg/l	5210 B	< 1.0	3.3	≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	5.2	≤ 40
Fecal Coliform Bacteria*	MPN/100 ml	9221 E	< 1.8	< 1.8	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 0255/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/02/2022	SAMPLING TIME	: 13.35
RECEIVED DATE	: 10/02/2022	ANALYTICAL DATE	: 10-20/02/2022
REPORT DATE	: 24/02/2022	SITE OPERATOR	: Mr. Aniwat Pimwanna
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_February

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	
				บ่อพักน้ำทิ้งบริเวณอาคารสำนักงาน (Construction Office Building)	STANDARD ^{1/}
pH	-	4500-H ⁺ B	< 0.10	7.39	5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	166	≤ 500
Suspended Solids	mg/l	2540 D	< 5	18	≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1	≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 20
BOD ₅	mg/l	5210 B	< 1.0	19.8	≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	7.9	≤ 40
Fecal Coliform Bacteria*	MPN/100 ml	9221 E	< 1.8	< 1.8	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED., 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

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Araya Tipparuk

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 0628/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 25/03/2022	SAMPLING TIME	: 14.23
RECEIVED DATE	: 26/03/2022	ANALYTICAL DATE	: 26/03/2022-04/04/2022
REPORT DATE	: 19/04/2022	SITE OPERATOR	: Mr. Chanatip Singkasemsak
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_March

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	
				บ่อพักน้ำทิ้งบริเวณอาคารสำนักงาน (Construction Office Building)	STANDARD ^{1/}
pH	-	4500-H ⁺ B	< 0.10	7.63	5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	142	≤ 500
Suspended Solids	mg/l	2540 D	< 5	9	≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1	≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 20
BOD ₅	mg/l	5210 B	< 1.0	9.8	≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	5.6	≤ 40
Fecal Coliform Bacteria*	MPN/100 ml	9221 E	< 1.8	< 1.8	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

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REG. NO. 2-239-ก-5976

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 0741/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 06/04/2022	SAMPLING TIME	: 14.36
RECEIVED DATE	: 07/04/2022	ANALYTICAL DATE	: 07-18/04/2022
REPORT DATE	: 18/04/2022	SITE OPERATOR	: Mr. Chanatip Singkasemsak
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_April

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	
				บ่อพักน้ำทิ้งบริเวณอาคารสำนักงาน (Construction Office Building)	STANDARD ^{1/}
pH	-	4500-H ⁺ B	< 0.10	7.26	5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	162	≤ 500
Suspended Solids	mg/l	2540 D	< 5	8	≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1	≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 20
BOD ₅	mg/l	5210 B	< 1.0	15.4	≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	4.6	≤ 40
Fecal Coliform Bacteria*	MPN/100 ml	9221 E	< 1.8	< 1.8	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 0967/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 07/05/2022	SAMPLING TIME	: 14.30
RECEIVED DATE	: 08/05/2022	ANALYTICAL DATE	: 08-17/05/2022
REPORT DATE	: 18/05/2022	SITE OPERATOR	: Mr. Chanatip Singkasemsak
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_May

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				บ่อพักน้ำทิ้งบริเวณอาคารสำนักงาน (Construction Office Building)	
pH	-	4500-H ⁺ B	< 0.10	7.17	5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	118	≤ 500
Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1	≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 20
BOD ₅	mg/l	5210 B	< 1.0	5.2	≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	13.1	≤ 40
Fecal Coliform Bacteria*	MPN/100 ml	9221 E	< 1.8	< 1.8	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd	REQUEST SERVICE No.	: 1264/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/06/2022	SAMPLING TIME	: 14.05
RECEIVED DATE	: 10/06/2022	ANALYTICAL DATE	: 10-17/06/2022
REPORT DATE	: 17/06/2022	SITE OPERATOR	: Mr. Chanatip Singkasemsak
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_WW_June

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION	STANDARD ^{1/}
				บ่อพักน้ำทิ้งบริเวณอาคารสำนักงาน (Construction Office Building)	
pH	-	4500-H ⁺ B	< 0.10	7.63	5 - 9
Total Dissolved Solids	mg/l	2540 C	< 50	144	≤ 500
Suspended Solids	mg/l	2540 D	< 5	< 5	≤ 50
Settleable Solids	ml/l	2540 F	< 0.1	< 0.1	≤ 0.5
Sulfide as H ₂ S	mg/l	4500-S ²⁻ F	< 0.20	ND	≤ 3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND	≤ 20
BOD ₅	mg/l	5210 B	< 1.0	4.2	≤ 40
TKN	mg/l	4500-N _{org} B	< 0.20	13.7	≤ 40
Fecal Coliform Bacteria*	MPN/100 ml	9221 E	< 1.8	< 1.8	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

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5. - Not available.

ภาคผนวก ง.4

หนังสือรับรองผลการตรวจวัดและวิเคราะห์คุณภาพน้ำผิวดิน



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 0256/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/02/2022	SAMPLING TIME	: 14.55
RECEIVED DATE	: 10/02/2022	ANALYTICAL DATE	: 10/02/2022-07/03/2022
REPORT DATE	: 10/03/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_February
LOCATION DESCRIPTION	: SW 1 = หัวขุไทร ก่อนถึงจุดปล่อยน้ำทิ้งของนิคมอุตสาหกรรมอมตะซิตี้ (ระยอง)		

ห่างจากจุดระบายน้ำทิ้งของสวนอุตสาหกรรมปลวกแดง ประมาณ 4 กม.

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION SW1	STANDARD ^{1/}	
					Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.1	-	-
Depth	m	-	-	0.1	-	-
Temperature	°C	2550 B	< 0.5	29.6	n'	n'
pH	-	4500-H ⁺ B	< 0.10	7.21	5 -9	5 -9
Conductivity	µS/cm	2510 B	< 1.0	385	-	-
Total Dissolved Solids	mg/l	2540 C	< 50	154	-	-
Total Suspended Solids	mg/l	2540 D	< 5	17	-	-
BOD ₅	mg/l	5210 B	< 1.0	4.0	≤ 2.0	≤ 4.0
Dissolved Oxygen	mg/l	4500-O C	-	5.0	≥ 4.0	≥ 2.0
Chlorite (ClO ₂ ⁻)	mg/l	DPD Glycine Method	< 0.10	ND	-	-
Sodium (Na)	meq/l	3120 B	< 0.004	1.54	-	-
Calcium (Ca)	meq/l	3120 B	< 0.005	0.91	-	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.37	-	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	1.93	-	-
Chlorophyll A*	µg/l	In-house Method 10200 H	-	4.0	-	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED., 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

(Mrs. Araya Tipparuk)

(Mrs. Araya Tipparuk)

Technical Management Team

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 - 6.- Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 0256/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/02/2022	SAMPLING TIME	: 11.55
RECEIVED DATE	: 10/02/2022	ANALYTICAL DATE	: 10/02/2022-07/03/2022
REPORT DATE	: 10/03/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_February
LOCATION DESCRIPTION	: SW 2 = หัวขุไทร ก่อนถึงจุดระบายน้ำทิ้งจากบ่อพักน้ำหล่อเย็นของโรงไฟฟ้าของสวนอุตสาหกรรมปลวกแดง ประมาณ 1 กม.		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION SW2	STANDARD ^{1/}	
					Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.1	-	-
Depth	m	-	-	2.7	-	-
Temperature	°C	2550 B	< 0.5	28.9	n'	n'
pH	-	4500-H ⁺ B	< 0.10	7.40	5 -9	5 -9
Conductivity	µS/cm	2510 B	< 1.0	687	-	-
Total Dissolved Solids	mg/l	2540 C	< 50	374	-	-
Total Suspended Solids	mg/l	2540 D	< 5	48	-	-
BOD ₅	mg/l	5210 B	< 1.0	4.1	≤ 2.0	≤ 4.0
Dissolved Oxygen	mg/l	4500-O C	-	4.8	≥ 4.0	≥ 2.0
Chlorite (ClO ₂ ⁻)	mg/l	DPD Glycine Method	< 0.10	ND	-	-
Sodium (Na)	meq/l	3120 B	< 0.004	3.23	-	-
Calcium (Ca)	meq/l	3120 B	< 0.005	1.55	-	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.42	-	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	3.25	-	-
Chlorophyll A*	µg/l	In-house Method 10200 H	-	2.7	-	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED., 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

(Mrs. Araya Tipparuk)

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 - 6.- Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 0256/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/02/2022	SAMPLING TIME	: 11.40
RECEIVED DATE	: 10/02/2022	ANALYTICAL DATE	: 10/02/2022-07/03/2022
REPORT DATE	: 10/03/2022	SITE OPERATOR	: Mr. Watcharakon Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_February
LOCATION DESCRIPTION	: SW 3 = ห้วยภูไท บริเวณจุดปล่อยน้ำทิ้งจากบ่อกักน้ำเสียของโรงไฟฟ้าของสวนอุตสาหกรรมปาล์มแดง		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		STANDARD ^{1/}	
				SW3		Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.1	-	-	-
Depth	m	-	-	2.0	-	-	-
Temperature	°C	2550 B	< 0.5	30.1	n'	n'	-
pH	-	4500-H ⁺ B	< 0.10	7.43	5 -9	5 -9	-
Conductivity	µS/cm	2510 B	< 1.0	550	-	-	-
Total Dissolved Solids	mg/l	2540 C	< 50	274	-	-	-
Total Suspended Solids	mg/l	2540 D	< 5	175	-	-	-
BOD ₅	mg/l	5210 B	< 1.0	5.3	≤ 2.0	≤ 4.0	-
Dissolved Oxygen	mg/l	4500-O C	-	4.4	≥ 4.0	≥ 2.0	-
Chlorite (ClO ₂)	mg/l	DPD Glycine Method	< 0.10	ND	-	-	-
Sodium (Na)	meq/l	3120 B	< 0.004	2.00	-	-	-
Calcium (Ca)	meq/l	3120 B	< 0.005	1.09	-	-	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.30	-	-	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	2.39	-	-	-
Chlorophyll A*	µg/l	In-house Method 10200 H	-	3.6	-	-	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

(Mrs. Araya Tipparuk)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 0256/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/02/2022	SAMPLING TIME	: 11.30
RECEIVED DATE	: 10/02/2022	ANALYTICAL DATE	: 10/02/2022-07/03/2022
REPORT DATE	: 10/03/2022	SITE OPERATOR	: Mr. Watcharakon Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_February
LOCATION DESCRIPTION	: SW 4 = ห้วยภูไท บริเวณท้ายสันฝายริมถนน รพ 2026 ประมาณ 1 กม.		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		STANDARD ^{1/}	
				SW4		Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.4	-	-	-
Depth	m	-	-	0.4	-	-	-
Temperature	°C	2550 B	< 0.5	29.7	n'	n'	-
pH	-	4500-H ⁺ B	< 0.10	7.42	5 -9	5 -9	-
Conductivity	µS/cm	2510 B	< 1.0	409	-	-	-
Total Dissolved Solids	mg/l	2540 C	< 50	290	-	-	-
Total Suspended Solids	mg/l	2540 D	< 5	269	-	-	-
BOD ₅	mg/l	5210 B	< 1.0	5.3	≤ 2.0	≤ 4.0	-
Dissolved Oxygen	mg/l	4500-O C	-	4.5	≥ 4.0	≥ 2.0	-
Chlorite (ClO ₂)	mg/l	DPD Glycine Method	< 0.10	ND	-	-	-
Sodium (Na)	meq/l	3120 B	< 0.004	1.77	-	-	-
Calcium (Ca)	meq/l	3120 B	< 0.005	1.00	-	-	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.27	-	-	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	2.21	-	-	-
Chlorophyll A*	µg/l	In-house Method 10200 H	-	0.0	-	-	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

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Technical Management Team

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 0256/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/02/2022	SAMPLING TIME	: 10.45
RECEIVED DATE	: 10/02/2022	ANALYTICAL DATE	: 10/02/2022-07/03/2022
REPORT DATE	: 10/03/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_February
LOCATION DESCRIPTION	: SW 5 = หัวขุโหล่ ท้ายน้ำหลังจุดปล่อยน้ำทิ้งจากบ่อกักน้ำหล่อเย็นของโรงไฟฟ้าของสวนอุตสาหกรรมปาล์มแดง ประมาณ 3 กม.		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		STANDARD ^{1/}	
				SW5		Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.0	-	-	-
Depth	m	-	-	3.2	-	-	-
Temperature	°C	2550 B	< 0.5	31.2	n'	n'	
pH	-	4500-H ⁺ B	< 0.10	7.60	5-9	5-9	
Conductivity	µS/cm	2510 B	< 1.0	399	-	-	
Total Dissolved Solids	mg/l	2540 C	< 50	200	-	-	
Total Suspended Solids	mg/l	2540 D	< 5	6	-	-	
BOD ₅	mg/l	5210 B	< 1.0	3.3	≤ 2.0	≤ 4.0	
Dissolved Oxygen	mg/l	4500-O C	-	6.0	≥ 4.0	≥ 2.0	
Chlorite (ClO ₂ ⁻)	mg/l	DPD Glycine Method	< 0.10	ND	-	-	
Sodium (Na)	meq/l	3120 B	< 0.004	1.27	-	-	
Calcium (Ca)	meq/l	3120 B	< 0.005	0.80	-	-	
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.31	-	-	
Sodium Adsorption Ratio (SAR)	-	3120 B	-	1.72	-	-	
Chlorophyll A*	µg/l	In-house Method 10200 H	-	6.2	-	-	

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 0256/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/02/2022	SAMPLING TIME	: 10.00
RECEIVED DATE	: 10/02/2022	ANALYTICAL DATE	: 10/02/2022-07/03/2022
REPORT DATE	: 10/03/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_February
LOCATION DESCRIPTION	: SW 6 = อ่างเก็บน้ำดอกรายห่างจากปากหัวขุโหล่ 1 กม.		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		STANDARD ^{1/}	
				SW6		Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.1	-	-	-
Depth	m	-	-	5.6	-	-	-
Temperature	°C	2550 B	< 0.5	30.7	n'	n'	
pH	-	4500-H ⁺ B	< 0.10	8.23	5-9	5-9	
Conductivity	µS/cm	2510 B	< 1.0	249	-	-	
Total Dissolved Solids	mg/l	2540 C	< 50	154	-	-	
Total Suspended Solids	mg/l	2540 D	< 5	13	-	-	
BOD ₅	mg/l	5210 B	< 1.0	4.5	≤ 2.0	≤ 4.0	
Dissolved Oxygen	mg/l	4500-O C	-	6.6	≥ 4.0	≥ 2.0	
Chlorite (ClO ₂ ⁻)	mg/l	DPD Glycine Method	< 0.10	ND	-	-	
Sodium (Na)	meq/l	3120 B	< 0.004	0.98	-	-	
Calcium (Ca)	meq/l	3120 B	< 0.005	0.67	-	-	
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.29	-	-	
Sodium Adsorption Ratio (SAR)	-	3120 B	-	1.42	-	-	
Chlorophyll A*	µg/l	In-house Method 10200 H	-	32.9	-	-	

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 0256/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/02/2022	SAMPLING TIME	: 10.10
RECEIVED DATE	: 10/02/2022	ANALYTICAL DATE	: 10/02/2022-07/03/2022
REPORT DATE	: 10/03/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_February
LOCATION DESCRIPTION	: SW 7 = ช่างเก็บน้ำคอกกรวยห่างจากปากห้วยภูไท 2 กม.		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		STANDARD ^{1/}	
				SW7		Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.1	-	-	-
Depth	m	-	-	6.5	-	-	-
Temperature	°C	2550 B	< 0.5	31.4	n'	n'	
pH	-	4500-H ⁺ B	< 0.10	8.46	5 -9	5 -9	
Conductivity	µS/cm	2510 B	< 1.0	297	-	-	
Total Dissolved Solids	mg/l	2540 C	< 50	132	-	-	
Total Suspended Solids	mg/l	2540 D	< 5	11	-	-	
BOD ₅	mg/l	5210 B	< 1.0	4.9	≤ 2.0	≤ 4.0	
Dissolved Oxygen	mg/l	4500-O C	-	6.4	≥ 4.0	≥ 2.0	
Chlorite (ClO ₂ ⁻)	mg/l	DPD Glycine Method	< 0.10	ND	-	-	
Sodium (Na)	meq/l	3120 B	< 0.004	0.93	-	-	
Calcium (Ca)	meq/l	3120 B	< 0.005	0.66	-	-	
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.28	-	-	
Sodium Adsorption Ratio (SAR)	-	3120 B	-	1.35	-	-	
Chlorophyll A*	µg/l	In-house Method 10200 H	-	37.4	-	-	

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

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 - 6.- Not available.



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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 1265/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/06/2022	SAMPLING TIME	: 15.02
RECEIVED DATE	: 10/06/2022	ANALYTICAL DATE	: 10-28/06/2022
REPORT DATE	: 04/07/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_June
LOCATION DESCRIPTION	: SW 1 = ห้วยภูไท ก่อนถึงจุดปล่อยน้ำทิ้งของนิคมอุตสาหกรรมอมตะซิตี้ (ระยอง)		

ห่างจากจุดระบายน้ำทิ้งของนิคมอุตสาหกรรมปลวกแดง ประมาณ 4 กม.

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		STANDARD ^{1/}	
				SW1		Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.3	-	-	-
Depth	m	-	-	0.5	-	-	-
Temperature	°C	2550 B	< 0.5	33.4	n'	n'	
pH	-	4500-H ⁺ B	< 0.10	7.53	5 -9	5 -9	
Conductivity	µS/cm	2510 B	< 1.0	274	-	-	
Total Dissolved Solids	mg/l	2540 C	< 50	186	-	-	
Total Suspended Solids	mg/l	2540 D	< 5	64	-	-	
BOD ₅	mg/l	5210 B	< 1.0	3.6	≤ 2.0	≤ 4.0	
Dissolved Oxygen	mg/l	4500-O C	-	4.9	≥ 4.0	≥ 2.0	
Chlorite (ClO ₂ ⁻)	mg/l	DPD Glycine Method	< 0.10	ND	-	-	
Sodium (Na)	meq/l	3120 B	< 0.004	0.78	-	-	
Calcium (Ca)	meq/l	3120 B	< 0.005	0.70	-	-	
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.30	-	-	
Sodium Adsorption Ratio (SAR)	-	3120 B	-	1.10	-	-	
Chlorophyll A*	µg/l	In-house Method 10200 H	-	10.8	-	-	

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 1265/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/06/2022	SAMPLING TIME	: 14.45
RECEIVED DATE	: 10/06/2022	ANALYTICAL DATE	: 10-28/06/2022
REPORT DATE	: 04/07/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_June
LOCATION DESCRIPTION	: SW 2 = ห้วยภูไทกร ก่อนถึงจุดระบายน้ำทิ้งจากบ่อพักน้ำหล่อเย็นของโรงไฟฟ้าของสวนอุตสาหกรรมปาล์มแดง ประมาณ 1กม.		

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ^{1/}	
		METHODS	(non-detectable)		Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.3	-	-
Depth	m	-	-	2.4	-	-
Temperature	°C	2550 B	< 0.5	34.3	n'	n'
pH	-	4500-H ⁺ B	< 0.10	7.61	5 -9	5 -9
Conductivity	µS/cm	2510 B	< 1.0	477	-	-
Total Dissolved Solids	mg/l	2540 C	< 50	326	-	-
Total Suspended Solids	mg/l	2540 D	< 5	56	-	-
BOD ₅	mg/l	5210 B	< 1.0	1.9	≤ 2.0	≤ 4.0
Dissolved Oxygen	mg/l	4500-O C	-	5.0	≥ 4.0	≥ 2.0
Chlorite (ClO ₂)	mg/l	DPD Glycine Method	< 0.10	ND	-	-
Sodium (Na)	meq/l	3120 B	< 0.004	2.40	-	-
Calcium (Ca)	meq/l	3120 B	< 0.005	1.31	-	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.38	-	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	2.61	-	-
Chlorophyll A*	µg/l	In-house Method 10200 H	-	8.1	-	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

Araya Tipparuk

(Mrs. Araya Tipparuk)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 1265/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/06/2022	SAMPLING TIME	: 13.50
RECEIVED DATE	: 10/06/2022	ANALYTICAL DATE	: 10-28/06/2022
REPORT DATE	: 04/07/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_June
LOCATION DESCRIPTION	: SW 3 = ห้วยภูไทกร บริเวณจุดปล่อยน้ำทิ้งจากบ่อพักน้ำหล่อเย็นของโรงไฟฟ้าของสวนอุตสาหกรรมปาล์มแดง		

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ^{1/}	
		METHODS	(non-detectable)		Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.2	-	-
Depth	m	-	-	1.5	-	-
Temperature	°C	2550 B	< 0.5	33.3	n'	n'
pH	-	4500-H ⁺ B	< 0.10	7.77	5 -9	5 -9
Conductivity	µS/cm	2510 B	< 1.0	445	-	-
Total Dissolved Solids	mg/l	2540 C	< 50	292	-	-
Total Suspended Solids	mg/l	2540 D	< 5	46	-	-
BOD ₅	mg/l	5210 B	< 1.0	2.7	≤ 2.0	≤ 4.0
Dissolved Oxygen	mg/l	4500-O C	-	4.2	≥ 4.0	≥ 2.0
Chlorite (ClO ₂)	mg/l	DPD Glycine Method	< 0.10	ND	-	-
Sodium (Na)	meq/l	3120 B	< 0.004	2.30	-	-
Calcium (Ca)	meq/l	3120 B	< 0.005	1.31	-	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.38	-	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	2.49	-	-
Chlorophyll A*	µg/l	In-house Method 10200 H	-	11.7	-	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 21st ED. 2017 (AWWA, APHA, WEF)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 1265/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/06/2022	SAMPLING TIME	: 13.45
RECEIVED DATE	: 10/06/2022	ANALYTICAL DATE	: 10-28/06/2022
REPORT DATE	: 04/07/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_June
LOCATION DESCRIPTION	: SW 4 = ห้วยคูไทร บริเวณท้ายสันฝ้ายริมถนน รพ 2026 ประมาณ 1 กม.		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		
				SW4	Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.3	-	-
Depth	m	-	-	0.3	-	-
Temperature	°C	2550 B	< 0.5	32.5	n'	n'
pH	-	4500-H ⁺ B	< 0.10	7.32	5 -9	5 -9
Conductivity	µS/cm	2510 B	< 1.0	523	-	-
Total Dissolved Solids	mg/l	2540 C	< 50	306	-	-
Total Suspended Solids	mg/l	2540 D	< 5	55	-	-
BOD ₅	mg/l	5210 B	< 1.0	3.0	≤ 2.0	≤ 4.0
Dissolved Oxygen	mg/l	4500-O C	-	4.6	≥ 4.0	≥ 2.0
Chlorite (ClO ₂)	mg/l	DPD Glycine Method	< 0.10	ND	-	-
Sodium (Na)	meq/l	3120 B	< 0.004	2.22	-	-
Calcium (Ca)	meq/l	3120 B	< 0.005	1.26	-	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.37	-	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	2.46	-	-
Chlorophyll A*	µg/l	In-house Method 10200 H	-	9.9	-	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

Araya Tipparuk

(Mrs. Araya Tipparuk)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 1265/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/06/2022	SAMPLING TIME	: 11.39
RECEIVED DATE	: 10/06/2022	ANALYTICAL DATE	: 10-28/06/2022
REPORT DATE	: 04/07/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_June
LOCATION DESCRIPTION	: SW 5 = ห้วยคูไทร ท้ายน้ำหลังจุดปล่อยน้ำทิ้งจากบ่อกักน้ำหล่อเย็นของโรงไฟฟ้าของสวนอุตสาหกรรมปทุมคงคา ประมาณ 3 กม.		

PARAMETER	UNIT	ANALYSIS METHODS	ND (non-detectable)	STATION		
				SW5	Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.2	-	-
Depth	m	-	-	1.0	-	-
Temperature	°C	2550 B	< 0.5	34.2	n'	n'
pH	-	4500-H ⁺ B	< 0.10	7.64	5 -9	5 -9
Conductivity	µS/cm	2510 B	< 1.0	435	-	-
Total Dissolved Solids	mg/l	2540 C	< 50	298	-	-
Total Suspended Solids	mg/l	2540 D	< 5	51	-	-
BOD ₅	mg/l	5210 B	< 1.0	1.8	≤ 2.0	≤ 4.0
Dissolved Oxygen	mg/l	4500-O C	-	6.0	≥ 4.0	≥ 2.0
Chlorite (ClO ₂)	mg/l	DPD Glycine Method	< 0.10	ND	-	-
Sodium (Na)	meq/l	3120 B	< 0.004	2.25	-	-
Calcium (Ca)	meq/l	3120 B	< 0.005	1.07	-	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.35	-	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	2.67	-	-
Chlorophyll A*	µg/l	In-house Method 10200 H	-	10.8	-	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 1265/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/06/2022	SAMPLING TIME	: 10.40
RECEIVED DATE	: 10/06/2022	ANALYTICAL DATE	: 10-28/06/2022
REPORT DATE	: 04/07/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_Junc
LOCATION DESCRIPTION	: SW 6 = อ่างเก็บน้ำดอกกรายห่างจากปากห้วยไทร 1 กม.		

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ^{1/}	
		METHODS	(non-detectable)	SW6	Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.3	-	-
Depth	m	-	-	8.5	-	-
Temperature	°C	2550 B	< 0.5	33.7	n'	n'
pH	-	4500-H ⁺ B	< 0.10	8.04	5 -9	5 -9
Conductivity	µS/cm	2510 B	< 1.0	304	-	-
Total Dissolved Solids	mg/l	2540 C	< 50	160	-	-
Total Suspended Solids	mg/l	2540 D	< 5	12	-	-
BOD ₅	mg/l	5210 B	< 1.0	1.8	≤ 2.0	≤ 4.0
Dissolved Oxygen	mg/l	4500-O C	-	5.3	≥ 4.0	≥ 2.0
Chlorite (ClO ₂ ⁻)	mg/l	DPD Glycine Method	< 0.10	ND	-	-
Sodium (Na)	meq/l	3120 B	< 0.004	0.97	-	-
Calcium (Ca)	meq/l	3120 B	< 0.005	0.74	-	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.29	-	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	1.35	-	-
Chlorophyll A*	µg/l	In-house Method 10200 H	-	24.3	-	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

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WATER AND WASTEWATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 1265/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Grab
SAMPLING DATE	: 09/06/2022	SAMPLING TIME	: 10.56
RECEIVED DATE	: 10/06/2022	ANALYTICAL DATE	: 10-28/06/2022
REPORT DATE	: 04/07/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_SW_Junc
LOCATION DESCRIPTION	: SW 7 = อ่างเก็บน้ำดอกกรายห่างจากปากห้วยไทร 2 กม.		

PARAMETER	UNIT	ANALYSIS	ND	STATION	STANDARD ^{1/}	
		METHODS	(non-detectable)	SW7	Class 3	Class 4
Flow Rate	m ³ /s	-	-	0.2	-	-
Depth	m	-	-	10.0	-	-
Temperature	°C	2550 B	< 0.5	32.5	n'	n'
pH	-	4500-H ⁺ B	< 0.10	8.32	5 -9	5 -9
Conductivity	µS/cm	2510 B	< 1.0	256	-	-
Total Dissolved Solids	mg/l	2540 C	< 50	164	-	-
Total Suspended Solids	mg/l	2540 D	< 5	8	-	-
BOD ₅	mg/l	5210 B	< 1.0	2.1	≤ 2.0	≤ 4.0
Dissolved Oxygen	mg/l	4500-O C	-	6.1	≥ 4.0	≥ 2.0
Chlorite (ClO ₂ ⁻)	mg/l	DPD Glycine Method	< 0.10	ND	-	-
Sodium (Na)	meq/l	3120 B	< 0.004	0.88	-	-
Calcium (Ca)	meq/l	3120 B	< 0.005	0.68	-	-
Magnesium (Mg)	meq/l	3120 B	< 0.002	0.28	-	-
Sodium Adsorption Ratio (SAR)	-	3120 B	-	1.27	-	-
Chlorophyll A*	µg/l	In-house Method 10200 H	-	35.1	-	-

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

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ภาคผนวก ง.5

หนังสือรับรองผลการตรวจวัดและวิเคราะห์คุณภาพน้ำใต้ดิน



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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 0778/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Pneumatic Bladder Pump
SAMPLING DATE	: 08/04/2022	SAMPLING TIME	: 11.22-11.34
RECEIVED DATE	: 09/04/2022	ANALYTICAL DATE	: 09-20/04/2022
REPORT DATE	: 20/04/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_GW_April

PARAMETER	UNIT	ANALYSIS	ND	STATION
		METHODS	(non-detectable)	MW-1
Temperature	°C	2550 B	< 0.5	30.1
pH	-	4500-H ⁺ B	< 0.10	7.71
Conductivity	µS/cm	2510 B	< 1.0	246
Total Dissolved Solids	mg/l	2540 C	< 50	202
Total Suspended Solids	mg/l	2540 D	< 5	80
BOD ₅	mg/l	5210 B	< 1.0	< 1.0
Dissolved Oxygen	mg/l	4500-O C	< 0.10	4.2
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND
Chlorite (ClO ₂)	mg/l	DPD Glycine Method	< 0.10	ND

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED, 2017 (AWWA, APHA, WEF)

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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 0778/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Pneumatic Bladder Pump
SAMPLING DATE	: 08/04/2022	SAMPLING TIME	: 10.45-10.57
RECEIVED DATE	: 09/04/2022	ANALYTICAL DATE	: 09-20/04/2022
REPORT DATE	: 20/04/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_GW_April

PARAMETER	UNIT	ANALYSIS	ND	STATION
		METHODS	(non-detectable)	MW-2
Temperature	°C	2550 B	< 0.5	30.1
pH	-	4500-H ⁺ B	< 0.10	7.14
Conductivity	µS/cm	2510 B	< 1.0	274
Total Dissolved Solids	mg/l	2540 C	< 50	268
Total Suspended Solids	mg/l	2540 D	< 5	13
BOD ₅	mg/l	5210 B	< 1.0	1.1
Dissolved Oxygen	mg/l	4500-O C	< 0.10	3.0
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND
Chlorite (ClO ₂)	mg/l	DPD Glycine Method	< 0.10	ND

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED, 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

(Mrs. Araya Tipparuk)

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บริษัท ซีคอต จำกัด
SECOT CO., LTD.

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร 10800
239 RIMKLONGPRAPA ROAD, BANGSUE, BANGKOK 10800, THAILAND
TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

GROUND WATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 0778/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Pneumatic Bladder Pump
SAMPLING DATE	: 08/04/2022	SAMPLING TIME	: 10.08-10.24
RECEIVED DATE	: 09/04/2022	ANALYTICAL DATE	: 09-20/04/2022
REPORT DATE	: 20/04/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_GW_April

PARAMETER	UNIT	ANALYSIS	ND	STATION
		METHODS	(non-detectable)	MW-3
Temperature	°C	2550 B	< 0.5	29.6
pH	-	4500-H ⁺ B	< 0.10	6.62
Conductivity	µS/cm	2510 B	< 1.0	463
Total Dissolved Solids	mg/l	2540 C	< 50	262
Total Suspended Solids	mg/l	2540 D	< 5	40
BOD ₅	mg/l	5210 B	< 1.0	3.5
Dissolved Oxygen	mg/l	4500-O C	< 0.10	2.7
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND
Chlorite (ClO ₂)	mg/l	DPD Glycine Method	< 0.10	ND

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

(Mrs. Araya Tipparuk)

Technical Management Team

- Remark :** 1. Reported analysis refers to submitted sample only.
2. This report shall not be reproduced, except in full, without official approval.
3.- Not available.



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GROUND WATER ANALYSIS REPORT

CLIENT NAME	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 0778/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Pneumatic Bladder Pump
SAMPLING DATE	: 08/04/2022	SAMPLING TIME	: 12.05-12.15
RECEIVED DATE	: 09/04/2022	ANALYTICAL DATE	: 09-20/04/2022
REPORT DATE	: 20/04/2022	SITE OPERATOR	: Mr. Watcharakan Pramakhate
SAMPLE CONDITION	: Normal	FILE CODE	: 222070_GW_April

PARAMETER	UNIT	ANALYSIS	ND	STATION
		METHODS	(non-detectable)	MW-4
Temperature	°C	2550 B	< 0.5	30.1
pH	-	4500-H ⁺ B	< 0.10	7.26
Conductivity	µS/cm	2510 B	< 1.0	599
Total Dissolved Solids	mg/l	2540 C	< 50	420
Total Suspended Solids	mg/l	2540 D	< 5	50
BOD ₅	mg/l	5210 B	< 1.0	< 1.0
Dissolved Oxygen	mg/l	4500-O C	< 0.10	3.2
Fat Oil & Grease	mg/l	5520 B	< 0.50	ND
Chlorite (ClO ₂)	mg/l	DPD Glycine Method	< 0.10	ND

REFERENCE : STANDARD METHODS FOR EXAMINATION OF WATER AND WASTEWATER 23rd ED. 2017 (AWWA, APHA, WEF)

(Miss Khemchuda Insorn)

Analyst

(Mrs. Araya Tipparuk)

Technical Management Team

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ภาคผนวก ง.6

หนังสือรับรองผลการตรวจวัดและวิเคราะห์คุณภาพดิน



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SOIL SAMPLES ANALYSIS REPORT

PROJECT	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 1335/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Hand Auger
SAMPLING DATE	: 18/06/2022	SAMPLING TIME	: 10.40
RECEIVED DATE	: 18/06/2022	ANALYTICAL DATE	: 18-30/06/2022
REPORT DATE	: 04/07/2022	SAMPLE CONDITION	: Normal
FILE CODE	: 222070_June_2022	SITE OPERATOR	: Mr. Chitpon Somprasong

PARAMETER	UNIT	ANALYSIS	ND	RESULTS
		METHODS	(non-detectable)	Project Construction Area
pH	-	Electrometric Method	-	5.89
Electrical Conductivity	dS/m	EC ₂₅ (1:5) / Electrical Conductivity	-	0.048
Sulfate	mg/kg	Extraction ,Tubidimetric Method	1.0	623.0
Nitrate	mg/kg	Extraction ,Colorimetric Method	2.0	0.71
Organic Matter	%	Digestion,Titrimetric Method	0.05	0.18

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

- This report shall not be reproduce, except in full, without official approval.
- Reference method :Test Methods of Evaluating Solid Waste , Physical/Chemical Methods SW-846 , 3rd edition, US.EPA 2014.
- Reference method : Soil Sampling and Method of Analysis, Second Edition 2006, Canadian Society of Soil Science.
- Reference method : Operation Manual Chemical Analysis in Soil. Land Development Department.
- Not available.



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TEL. (662) 959-3600 FAX (662) 959-3535 Website : secot.co.th E-mail : envserv@secot.co.th

SOIL SAMPLES ANALYSIS REPORT

PROJECT	: Gulf PD Co., Ltd.	REQUEST SERVICE No.	: 1335/65
SAMPLING BY	: SECOT Co., Ltd.	SAMPLING METHOD	: Hand Auger
SAMPLING DATE	: 18/06/2022	SAMPLING TIME	: 14.00
RECEIVED DATE	: 18/06/2022	ANALYTICAL DATE	: 18-30/06/2022
REPORT DATE	: 04/07/2022	SAMPLE CONDITION	: Normal
FILE CODE	: 222070_June_2022	SITE OPERATOR	: Mr. Chitpon Somprasong

PARAMETER	UNIT	ANALYSIS	ND	RESULTS
		METHODS	(non-detectable)	Agricultural Area Near Song Pee Nong Mountain (Northwest of Project)
pH	-	Electrometric Method	-	7.77
Electrical Conductivity	dS/m	EC ₂₅ (1:5) / Electrical Conductivity	-	0.271
Sulfate	mg/kg	Extraction ,Tubidimetric Method	1.0	76.5
Nitrate	mg/kg	Extraction ,Colorimetric Method	2.0	4.3
Organic Matter	%	Digestion,Titrimetric Method	0.05	0.29

Khemchuda Insorn

(Miss Khemchuda Insorn)

Analyst

Araya Tipparuk

(Mrs. Araya Tipparuk)

Technical Management Team

Remark : 1. Reported analysis refers to submitted sample only.

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- Reference method :Test Methods of Evaluating Solid Waste , Physical/Chemical Methods SW-846 , 3rd edition, US.EPA 2014.
- Reference method : Soil Sampling and Method of Analysis, Second Edition 2006, Canadian Society of Soil Science.
- Reference method : Operation Manual Chemical Analysis in Soil. Land Development Department.
- Not available.

ภาคผนวก จ

ข้อมูลการตรวจเทียบเครื่องมือ
(Calibration Data Sheets)

CERTIFICATE OF ANALYSIS

Grade of Product: EPA Protocol

Part Number: E04NI99E15AC084 Reference Number: 82-401409170-1
Cylinder Number: EB0102326 Cylinder Volume: 144.4 CF
Laboratory: 124 - Riverton (SAP) - NJ Cylinder Pressure: 2015 PSIG
PGVP Number: B52019 Valve Outlet: 660
Gas Code: CO,NO,NOX,SO2,BALN Certification Date: Feb 05, 2019

Expiration Date: Feb 05, 2027

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals

ANALYTICAL RESULTS					
Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	50.00 PPM	51.01 PPM	G1	+/- 0.9% NIST Traceable	01/28/2019, 02/05/2019
NITRIC OXIDE	50.00 PPM	50.86 PPM	G1	+/- 0.9% NIST Traceable	01/28/2019, 02/05/2019
SULFUR DIOXIDE	50.00 PPM	50.87 PPM	G1	+/- 1.0% NIST Traceable	01/28/2019, 02/05/2019
CARBON MONOXIDE	0.5000 %	0.5050 %	G1	+/- 0.7% NIST Traceable	01/31/2019
NITROGEN	Balance				

CALIBRATION STANDARDS					
Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	13060206	CC401947	4950 PPM CARBON MONOXIDE/NITROGEN	+/- 0.4%	Feb 15, 2019
PRM	12367	APEX1099237	9.82 PPM NITROGEN DIOXIDE/AIR	+/- 2.0%	Jun 02, 2017
NTRM	12010724	KAL004497	50.03 PPM NITRIC OXIDE/NITROGEN	+/- 0.8%	Mar 12, 2024
GMIS	1114201601	CC506710	4.971 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Nov 14, 2019
NTRM	14010327	KAL004376	49.08 PPM SULFUR DIOXIDE/NITROGEN	+/- 1.0%	Apr 17, 2024

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT		
Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Siemens Ultramat 6 J3-599 COHIGH	NDIR	Jan 18, 2019
Nicolet 6700 APW1100391 NO	FTIR	Jan 10, 2019
Nicolet 6700 APW1100391 NO2	FTIR	Jan 10, 2019
Nicolet 6700 APW1100391 SO2	FTIR	Jan 10, 2019

Triad Data Available Upon Request

PERMANENT NOTES: PRODUCED IN ACCORDANCE WITH ISO17025 REQUIREMENTS

NOTES:

Gross Weight: 27806.3 grams

Net Weight: 4733.2 grams

This calibration std. has been certified in accordance with the May 2012 EPA Traceability Protocol. Document EPA-600/R-12/531. All testing processes and measurements conform to the requirements of ISO/IEC 17025 and to Airgas ISO 9001:2008 and relate only to items identified on this certificate. All items are certified to be NIST Traceable with total uncertainty as detailed under Analytical Uncertainty. This document shall not be reproduced in full without written approval of the issuer.



TESTING CERT No. 3082.05

[Signature]
Approved for Release



High Volume TSP & PM-10 Calibration Data Sheet

Calibration Location : SECOT Co.,Ltd. Calibration Date : Jan 14, 2022

Hi-Vol Pump No. : BH-001 Indicator No. : CM-01

Amb. Temp (°C) : 25 Press (mmHg) : 760

Calibration by : Mr.Punkawin K.

Plate	Indicate (X) (cm.)	True H ₂ O (in.)	Actual Flow (Y) (cfm)	XY	X ²	Remark
18	17.40	12.60	59.07	1,027.82	302.76	
13	14.40	10.10	53.20	766.08	207.36	
10	11.40	7.80	46.90	534.66	129.96	
7	7.20	5.00	37.81	272.23	51.84	
5	4.40	3.00	226.60	997.04	19.36	
Sum	54.80	38.50	423.58	3,597.83	711.28	

Calibrated by : *[Signature]* Approved by : *[Signature]*



High Volume TSP & PM-10 Calibration Data Sheet

Calibration Location : SECOT Co.,Ltd. Calibration Date : Jan 13, 2022
 Hi-Vol Pump No. : BH-002 Indicator No. : CM-01
 Amb. Temp (°C) : 25 Press (mmHg) : 760
 Calibration by : Mr.Punkawin K.

Plate	Indicate (X) (cm.)	True H ₂ O (in.)	Actual Flow (Y) (cfm)	XY	X ²	Remark
18	16.20	11.90	57.45	930.69	262.44	
13	13.40	9.30	51.10	684.74	179.56	
10	11.00	7.40	45.72	502.92	121.00	
7	7.00	4.90	37.44	262.08	49.00	
5	4.20	3.00	29.58	124.24	17.64	
Sum	51.80	36.50	221.29	2,504.67	629.64	

Calibrated by : Runkawin Approved by : W.Haya K.



High Volume TSP & PM-10 Calibration Data Sheet

Calibration Location : SECOT Co.,Ltd. Calibration Date : Jan 14, 2022
 Hi-Vol Pump No. : BH-015 Indicator No. : CM-01
 Amb. Temp (°C) : 25 Press (mmHg) : 760
 Calibration by : Mr.Punkawin K.

Plate	Indicate (X) (cm.)	True H ₂ O (in.)	Actual Flow (Y) (cfm)	XY	X ²	Remark
18	19.20	12.80	59.53	1,142.98	368.64	
13	15.60	10.20	53.45	833.82	243.36	
10	12.40	8.00	47.48	588.75	153.76	
7	8.20	5.20	38.53	315.95	67.24	
5	5.20	3.20	30.50	158.60	27.04	
Sum	60.60	39.40	229.49	3,040.09	860.04	

Calibrated by : Runkawin Approved by : W.Haya K.



High Volume TSP & PM-10 Calibration Data Sheet

Calibration Location : SECOT Co.,Ltd. Calibration Date : Feb 3, 2022

Hi-Vol Pump No. : BH-017 Indicator No. : CM-01

Amb. Temp (°C) : 25 Press (mmHg) : 760

Calibration by : Mr.Punkawin K.

Plate	Indicate (X) (cm.)	True H ₂ O (in.)	Actual Flow (Y) (cfm)	XY	X ²	Remark
18	19.00	13.00	59.98	1,139.70	361.00	
13	15.20	10.30	53.71	816.30	231.00	
10	11.60	8.00	47.48	550.80	134.60	
7	7.60	5.20	38.53	292.80	57.80	
5	4.40	3.20	30.50	134.20	19.40	
Sum	57.80	39.70	230.20	2,933.80	803.80	

Calibrated by : Punkawin Approved by : W. Haya K.



High Volume TSP & PM-10 Calibration Data Sheet

Calibration Location : SECOT Co.,Ltd. Calibration Date : Jan 13, 2022

Hi-Vol Pump No. : BH-010 Indicator No. : CM-01

Amb. Temp (°C) : 25 Press (mmHg) : 760

Calibration by : Mr.Punkawin K.

Plate	Indicate (X) (cm.)	True H ₂ O (in.)	Actual Flow (Y) (cfm)	XY	X ²	Remark
18	18.40	13.20	60.43	1,111.91	338.56	
13	14.60	10.40	53.96	787.82	213.16	
10	11.40	7.90	47.19	537.97	129.96	
7	7.60	5.20	38.53	292.83	57.76	
5	4.60	3.20	30.50	140.30	21.16	
Sum	56.60	39.90	230.61	2,870.82	760.60	

Calibrated by : Punkawin Approved by : W. Haya K.



High Volume TSP & PM-10 Calibration Data Sheet

Calibration Location : SECOT Co.,Ltd. Calibration Date : Jan 14, 2022
 Hi-Vol Pump No. : BH-008 Indicator No. : CM-01
 Amb. Temp (°C) : 25 Press (mmHg) : 760
 Calibration by : Mr.Punkawin K.

Plate	Indicate (X) (cm.)	True H ₂ O (in.)	Actual Flow (Y) (cfm)	XY	X ²	Remark
18	17.40	12.50	58.84	1,023.82	302.76	
13	14.40	10.10	53.20	766.08	207.36	
10	11.60	7.80	46.90	544.04	134.56	
7	7.60	5.10	38.17	290.09	57.76	
5	4.80	3.10	30.04	144.19	23.04	
Sum	55.80	38.60	227.15	2,768.22	725.48	

Calibrated by : Punkawin K. Approved by : Mr. Panya K.



High Volume TSP & PM-10 Calibration Data Sheet

Calibration Location : SECOT Co.,Ltd. Calibration Date : Feb 3, 2022
 Hi-Vol Pump No. : BH-014 Indicator No. : CM-01
 Amb. Temp (°C) : 25 Press (mmHg) : 760
 Calibration by : Mr.Punkawin K.

Plate	Indicate (X) (cm.)	True H ₂ O (in.)	Actual Flow (Y) (cfm)	XY	X ²	Remark
18	17.60	12.60	59.07	1,039.70	309.80	
13	14.00	10.20	53.45	748.30	196.00	
10	11.20	7.80	46.90	525.30	125.40	
7	7.20	5.20	38.50	277.40	51.80	
5	4.00	3.10	30.04	120.20	16.00	
Sum	54.00	38.90	227.96	2,710.90	699.00	

Calibrated by : Punkawin K. Approved by : Mr. Panya K.



High Volume TSP & PM-10 Calibration Data Sheet

Calibration Location : SECOT Co.,Ltd. Calibration Date : Feb 3, 2022

Hi-Vol Pump No. : BH-030 Indicator No. : CM-01

Amb. Temp (°C) : 25 Press (mmHg) : 760

Calibration by : Mr.Punkawin K.

Plate	Indicate (X) (cm.)	True H ₂ O (in.)	Actual Flow (Y) (cfm)	XY	X ²	Remark
18	19.60	12.40	58.61	1,148.80	384.16	
13	16.20	10.20	53.45	865.90	262.40	
10	12.80	8.00	47.48	607.80	163.80	
7	8.20	5.20	38.53	316.00	67.20	
5	4.80	3.20	30.50	146.40	23.00	
Sum	61.60	39.00	228.57	3,084.90	900.56	

Calibrated by : Punkawin Approved by : W. Haya K.



High Volume TSP & PM-10 Calibration Data Sheet

Calibration Location : SECOT Co.,Ltd. Calibration Date : Jan 13, 2022

Hi-Vol Pump No. : BH-003 Indicator No. : CM-01

Amb. Temp (°C) : 25 Press (mmHg) : 760

Calibration by : Mr.Punkawin K.

Plate	Indicate (X) (cm.)	True H ₂ O (in.)	Actual Flow (Y) (cfm)	XY	X ²	Remark
18	18.20	12.30	58.38	1,062.52	331.24	
13	15.00	9.80	52.42	786.30	225.00	
10	11.80	7.50	46.02	543.04	139.24	
7	7.80	5.00	37.81	294.92	60.84	
5	4.60	3.00	29.58	136.07	21.16	
Sum	57.40	37.60	224.21	2,822.84	777.48	

Calibrated by : Punkawin Approved by : W. Haya K.



High Volume TSP & PM-10 Calibration Data Sheet

Calibration Location : SECOT Co.,Ltd. Calibration Date : Jan 14, 2022

Hi-Vol Pump No. : BH-013 Indicator No. : CM-01

Amb. Temp (°C) : 25 Press (mmHg) : 760

Calibration by : Mr.Punkawin K.

Plate	Indicate (X) (cm.)	True H ₂ O (in.)	Actual Flow (Y) (cfm)	XY	X ²	Remark
18	18.40	12.30	58.38	1,074.19	338.56	
13	15.00	9.80	52.42	786.30	225.00	
	12.00	7.60	46.31	555.72	144.00	
7	7.80	5.00	37.81	294.92	60.84	
5	4.80	3.00	29.58	141.98	23.04	
Sum	58.00	37.70	224.50	2,853.11	791.44	

Calibrated by : Punkawin Approved by : Wittaya K.

SHEET No.: F5110003/01/22



Temperature Sensor Calibration

Date : 29 Jan 22

Temp: (°C) 24

Barometric Pressure: Pb (mmHg) 758

REFERENCE STANDARD INSTRUMENT

Equipment : Dry Well Calibrator

Model No. 9140

Serial No. A0A890

ManuFacterer : Hart Scientific

UNIT UNDER TEST

Equipment : TEMP / HUMIDITY SENSOR

Model No. 110-WS-16 THA

Serial No. F5110003

ManuFacterer : NOVA LYNX

Standard Reading	Temperature Reading
20.0	19.75
25.0	24.70
30.0	30.10
35.0	35.14
40.0	40.16

Calibrated by : Wittaya K.

Approved by : [Signature]

SHEET No.: G1340009/01/22



Temperature Sensor Calibration

Date : 28 Jan 22

Temp: (°C) 24

Barometric Pressure: Pb (mmHg) 758

REFERENCE STANDARD INSTRUMENT

Equipment : Dry Well Calibrator
 Model No. 9140
 Serial No. A0A890
 Manufacturer : Hart Scientific

UNIT UNDER TEST

Equipment : TEMP / HUMIDITY SENSOR
 Model No. 110-WS-16 THA
 Serial No. G1340009
 Manufacturer : NOVA LYNX

Standard Reading	Temperature Reading
20.0	20.13
25.0	24.91
30.0	29.82
35.0	35.00
40.0	40.10

Calibrated by : Wittaya K.Approved by : [Signature]

SHEET No.: G1540004/01/22



Temperature Sensor Calibration

Date : 28 Jan 22

Temp: (°C) 24

Barometric Pressure: Pb (mmHg) 759

REFERENCE STANDARD INSTRUMENT

Equipment : Dry Well Calibrator
 Model No. 9140
 Serial No. A0A890
 Manufacturer : Hart Scientific

UNIT UNDER TEST

Equipment : TEMP / HUMIDITY SENSOR
 Model No. 110-WS-16 THA
 Serial No. G1540004
 Manufacturer : NOVA LYNX

Standard Reading	Temperature Reading
20.0	20.14
25.0	25.04
30.0	30.11
35.0	35.11
40.0	40.10

Calibrated by : Wittaya K.Approved by : [Signature]

SHEET No.: J3320026/01/22



Temperature Sensor Calibration

Date : 29 Jan 22

Temp: (°C) 23

Barometric Pressure: Pb (mmHg) 759

REFERENCE STANDARD INSTRUMENT

Equipment : Dry Well Calibrator
 Model No. 9140
 Serial No. A0A890
 Manufacturer : Hart Scientific

UNIT UNDER TEST

Equipment : TEMP / HUMIDITY SENSOR
 Model No. 110-WS-16 THA
 Serial No. J3320026
 Manufacturer : NOVA LYNX

Standard Reading	Temperature Reading
20.0	20.12
25.0	25.25
30.0	30.21
35.0	35.12
40.0	40.27

Calibrated by : W. Haya K.Approved by : [Signature]

SHEET No.: L3950311/01/22



Temperature Sensor Calibration

Date : 29 Jan 22

Temp: (°C) 24

Barometric Pressure: Pb (mmHg) 758

REFERENCE STANDARD INSTRUMENT

Equipment : Dry Well Calibrator
 Model No. 9140
 Serial No. A0A890
 Manufacturer : Hart Scientific

UNIT UNDER TEST

Equipment : TEMP / HUMIDITY SENSOR
 Model No. 110-WS-16 THA
 Serial No. L3950311
 Manufacturer : NOVA LYNX

Standard Reading	Temperature Reading
20.0	20.12
25.0	24.96
30.0	30.12
35.0	34.97
40.0	39.99

Calibrated by : W. Haya K.Approved by : [Signature]



ELECTRICAL AND ELECTRONICS INSTITUTE
FOUNDATION FOR INDUSTRIAL DEVELOPMENT

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Tel: +66 2709 4860-8 Fax: +66 2324 0917-8



Certificate No.: CP20210095EA
Operation No.: CP2021120016

Certificate of Calibration

Equipment: Sound Calibrator
Manufacturer: RION
Model/Type: NC-74
Serial No.: 34283648
ID No.: -
Customer: SECOT Co.,Ltd.
Address: 239 Rimklongprapa Rd., Bangsue,
Bangkok 10800 Thailand
Received Date: 21 December 2021
Calibrated Date: 24 December 2021
Issued Date: 28 December 2021
Calibrated by: Ms. Juntaporn Kunhakom

Approved by: _____

(Mr. Sittichai Swaksuriyawong)
Group Manager

This report was prepared electronically using applicable electronic signature. Printing or copy of file are considered as a copy of the document.

The reported uncertainty of measurement was based on standard uncertainty multiplied by a coverage factor $k = 2.00$, providing a level of confidence of approximately 95%. This certificate may not be reproduced other than in full except with the prior written approval of the Electrical and Electronics Institute, Foundation for Industrial Development.



ELECTRICAL AND ELECTRONICS INSTITUTE
FOUNDATION FOR INDUSTRIAL DEVELOPMENT

Certificate No.: CP20210095EA

Calibration Report

Equipment: Sound Calibrator
Manufacturer: RION
Model/Type: NC-74
Serial No.: 34283648
ID No.: -
Ambient Temperature: $(23 \pm 2) ^\circ\text{C}$
Relative Humidity: $(50 \pm 15) \%$
Pressure: $(101.3 \pm 1.5) \text{ kPa}$

Method of Calibration :-

IEC 60942:2017

Condition of this result of calibration

1. Reference standards instrument :-

Instrument	Model	Serial No.	Cert. No.	Due Date
1) Standard microphone	4180	2661000	AA-1010-21	13 June 2022
2) Waveform Generator	33511B	MY52302264	0144RF21	17 June 2022
3) Audio Analyzing DMM	2015-P	4079144	E1U210398	2 February 2022
4) Pressure humidity and Temperature Transmitter	PTU301	F0640002	CL1-P210047 0255TE21	16 June 2022 7 July 2022

2. This result of calibration was found accurate as shown on date and place of calibration only.

3. This certification is traceable to the international system of unit maintained at :-

Reference standards instrument for Acoustic function

- National Institute of Metrology (Thailand)

Reference standards instrument for Electrical function

- Electrical and Electronics Institute; ONSC Accredited Calibration No.0119

Result of Calibration:-

1. Function : Sound pressure level

Normal	Specified Sound	Measured value	Deviated value ⁽¹⁾	Acceptance limit ⁽³⁾
Frequency (Hz)	Pressure level (dB)	(dB)	(dB)	(dB)
1000	94	94.22	0.22	± 0.25

2. Function : Frequency

Normal Sound	Specified Frequency	Measured value	Deviated value ⁽²⁾	Acceptance limit ⁽³⁾
Pressure level (dB)	(Hz)	(Hz)	(%)	(%)
94	1000	1003.0	0.3	± 0.7



ELECTRICAL AND ELECTRONICS INSTITUTE
FOUNDATION FOR INDUSTRIAL DEVELOPMENT

Certificate No.: CP20210095EA

Calibration Report

3. Function : Total distortion + noise

Normal Sound Pressure level (dB)	Normal Frequency (Hz)	Measured value ^[4] (%)	Acceptance limit ^[5] (%)
94	1000	1.3	2.5

Uncertainty of measurement

Function	Uncertainty	Maximum-permitted uncertainty of measurement
Sound pressure level	0.10 dB	0.15 dB
Frequency	0.10 %	0.20 %
Total distortion + noise	0.40 %	0.50 %

Note: [1] The deviated value is the absolute value of the difference between the measured value and the corresponding specified sound pressure level.
[2] The deviated value is the absolute value of the difference in percent between the measured value and the corresponding specified frequency.
[3] The acceptance limit is for the deviated value.
[4] The measured value is the total distortion + noise, measured over the frequency range from 20 Hz to 20 kHz.
[5] The acceptance limit is for the Measured value.
Remarks: 1. Using the 1/2-inch microphone adaptor NC-74-002.
2. Acceptance limit was IEC 60942:2017 Class 1.

-- End of Report --

Sheet No. : NC-74-2022-061



SOUND LEVEL METER CALIBRATION

Calibration Location: SECOT

Calibration Date: Jun 9, 22

SOUND LEVEL CALIBRATOR

Brand	Model	Serial No.	Calibrated (dB)	Frequency (Hz)
RION	NC-74	34283648	94.00	1000

No.	Brand	Model	Serial No.	Microphone Serial No.	SLM Reading (dB)	dB Adjust
42	RION	NL-21	00187497	117801	93.9	0.1
50	RION	NL-21	00187505	117809	93.9	0.1
62	RION	NL-21	00487719	118988	93.9	0.1
66	RION	NL-21	00487723	118993	93.9	0.1
77	RION	NL-21	00487734	119006	93.9	0.1
94	RION	NL-21	00198276	123479	93.9	0.1

Calibrated by :

Approved by :

Preeda S.



MEASUREMENT INDUSTRY GROUP CO., LTD.
INDUSTRIAL CALIBRATION LABORATORY

Measurement Industry Group Co., Ltd.

155/36 Moo 7, Soi 20 Sriracha-Nongkho Rd., T.Surasak, A.Sriracha, Chonburi 20110

Mobile : 062-239-5459, Tel. (038) 065-116-8 Fax. (038) 065-119, E-mail : info@mig.co.th, www.mig.co.th

Certificate No. : 65C05005

Page 1 of 2

Certificate of Calibration

Customer : SINO-THAI ENGINEERING & CONSTRUCTION

PUBLIC COMPANY LIMITED.

32/59-60,29-30 Floor,Sino-Thai Tower,

Sukhumvit Soi 21, Asoke Road,

Klongtoey-Nua,Wattana,Bangkok 10110.

Equipment : pH Meter

Manufacturer : Lutron

Model : WA-2017SD

Serial No : R.004228

ID No : A-110300

Made in : N/A

Ambient Temperature : (23 \pm 2) °C

Relative Humidity : (50 \pm 20) %

Received Date : 6 May 2022

Calibration Date : 7 May 2022

Issue Date : 9 May 2022

Calibration Location : Dimension Laboratory , MIG

Calibration by : Mr. Nuttapong B.

Approved by :



Smas Joongphan

Reference Job No.

65-J05603

MIG-FM-7.8-001, R00 (3/Feb/2020)



Measurement Industry Group Co., Ltd.

Measurement Industry Group Co., Ltd.

Mobile : 062-239-5459, Tel. (038) 065-116-8 Fax. (038) 065-119

E-mail : info@mig.co.th, www.mig.co.th

Certificate No. : 65C05005

Page 2 of 2

Report of Calibration

Reference standard used :

Instrument	Model	Serial No.	Test Report No.	Due Date
- PH Buffer Solution	EC-BU-4BT	54X054202	162/02	21-Apr-23
- PH Buffer Solution	EC-BU-7BT	54X054203	137/01	30-Mar-23
- PH Buffer Solution	EC-BU-10BT	54X054204	097/02	3-Mar-23

This certificate is traceable to SI Units maintained by :

- Eutech Instruments Technology Laboratory And Industrial USE Only.

Calibration Method :

- The calibration control system followed an in-house method according to H-CP001 by direct measurement with PH Buffer solution. This report is traceable to SI unit.

Condition of this result of calibration

- This result of calibration was found accurate as shown on date and place of calibration only.

Results of Calibration : (☒) Without adjustment (☐) After adjustment

Function : pH Meter Measurement Test

STD Setting pH	UUC. Reading pH	Error pH	Uncertainty of Measurement (\pm)
4.01	4.01	0.00	0.060 pH
7.00	7.00	0.00	0.062 pH
10.01	10.01	0.00	0.064 pH

UUC : Unit Under Calibration

....End....

The reported expanded uncertainty is based on standard uncertainty multiplied by a coverage factor $k = 2$ providing a level of confidence of approximately 95%

Reference Job No.

65-J05603

MIG-FM-7.8-002, R00 (3/Feb/2020)

ภาคผนวก จ

หนังสืออนุญาตขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
จากกรมโรงงานอุตสาหกรรม



ที่อก ๐๓๑๐(๑)/๑๑ ๘ ๐ ๕

กรมโรงงานอุตสาหกรรม
ถนนพระรามที่ ๖ เขตราชเทวี
กรุงเทพมหานคร ๑๐๔๐๐

๒๑ ตุลาคม ๒๕๖๓

เรื่อง ต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

เรียน กรรมการผู้จัดการ บริษัท ซีคอต จำกัด

อ้างถึง คำขอขึ้นทะเบียน/ต่ออายุ/เปลี่ยนแปลงบุคลากร และชนิดสารมลพิษของห้องปฏิบัติการวิเคราะห์เอกชน
ลงวันที่ ๒๔ มีนาคม ๒๕๖๓

สิ่งที่ส่งมาด้วย ๑. รายชื่อผู้ควบคุมดูแลห้องปฏิบัติการวิเคราะห์ จำนวน ๑ แผ่น
๒. รายชื่อเจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๑ แผ่น
๓. ขอบข่ายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๓๒ แผ่น

ตามหนังสือที่อ้างถึง บริษัท ซีคอต จำกัด ขอต่ออายุหนังสือรับขึ้นทะเบียนห้องปฏิบัติการ
วิเคราะห์เอกชน เลขทะเบียน ว-๒๓๙ สถานที่ตั้งเลขที่ ๒๓๙ ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ
กรุงเทพมหานคร ต่อกรมโรงงานอุตสาหกรรม นั้น

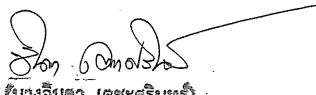
กรมโรงงานอุตสาหกรรมพิจารณาแล้ว ให้บริษัท ซีคอต จำกัด ต่ออายุหนังสือรับขึ้นทะเบียน
ห้องปฏิบัติการวิเคราะห์เอกชน โดยมีองค์ประกอบดังนี้

ก. ผู้ควบคุมดูแลห้องปฏิบัติการวิเคราะห์ จำนวน ๑๐ ราย ตามสิ่งที่ส่งมาด้วย ๑
ข. เจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๓๑ ราย ตามสิ่งที่ส่งมาด้วย ๒
ค. ขอบข่ายสารมลพิษที่ได้รับขึ้นทะเบียนไว้วิเคราะห์ในน้ำเสีย จำนวน ๔๖ รายการ น้ำใต้ดิน
จำนวน ๑๒๓ รายการ อากาศเสีย จำนวน ๒๗ รายการ สิ่งปฏิกูลหรือวัสดุที่ไม่ใช้แล้ว จำนวน ๓๔ รายการ
และดิน จำนวน ๑๒๒ รายการ รวมทั้งสิ้นจำนวน ๓๕๒ รายการ ตามสิ่งที่ส่งมาด้วย ๓

หนังสือฉบับนี้จะหมดอายุในวันที่ ๒ พฤษภาคม ๒๕๖๖ หากประสงค์จะต่ออายุหนังสือ
รับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน ให้ยื่นคำขอต่ออายุพร้อมเอกสารประกอบคำขอต่อ
กรมโรงงานอุตสาหกรรมภายใน ๓๐ วัน ก่อนวันสิ้นอายุของหนังสือรับขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน
ซึ่งคำขอต่ออายุดังกล่าวขอรับได้ที่กรมโรงงานอุตสาหกรรม

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ


(นางจินตนา เดชะศรีนทร์)
ผู้อำนวยการกองวิจัยและเตือนภัยมลพิษโรงงาน
ปฏิบัติราชการแทนอธิบดีกรมโรงงานอุตสาหกรรม

กองวิจัยและเตือนภัยมลพิษโรงงาน

กลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบมลพิษและทะเบียนห้องปฏิบัติการ

โทร. ๐ ๒๒๐๒ ๔๐๐๒ ๐ ๒๒๐๒ ๔๑๔๖

โทรสาร ๐ ๒๓๕๔ ๓๒๐๘ ๐ ๒๓๕๔ ๓๔๑๕

เอกสารแนบท้ายหนังสือรับต่ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

บริษัท ซีคอต จำกัด

เลขทะเบียน ว-๒๓๙

ที่อก ๐๓๑๐(๑)/ ๑๑ ๘ ๐ ๕

ลงวันที่ ๒๑ ตุลาคม ๒๕๖๓

ก. ผู้ควบคุมดูแลห้องปฏิบัติการวิเคราะห์ จำนวน ๑๐ ราย

๑) นางสาวสมฤดี เกรียงไกรอุดม	ทะเบียนเลขที่ ว-๒๓๙-ค-๕๘๒๐
๒) นางสาวอารยา ทิพรัักษ์	ทะเบียนเลขที่ ว-๒๓๙-ค-๕๘๖๓
๓) นายขรรชัย เกรียงไกรอุดม	ทะเบียนเลขที่ ว-๒๓๙-ค-๕๙๗๕
๔) นางสาวเชมชุตตา อินทร์ศรี	ทะเบียนเลขที่ ว-๒๓๙-ค-๕๙๗๖
๕) นางสาวปรีดา สมใจ	ทะเบียนเลขที่ ว-๒๓๙-ค-๕๙๗๘
๖) นางสาวอรัญญา มาตา	ทะเบียนเลขที่ ว-๒๓๙-ค-๕๙๗๙
๗) นางสาวลดาวัลย์ วงศ์เจริญ	ทะเบียนเลขที่ ว-๒๓๙-ค-๕๙๘๐
๘) นางสาวณัฏฐวรรณ เกตะวันดี	ทะเบียนเลขที่ ว-๒๓๙-ค-๕๙๘๒
๙) นางสาวนริสา ภูวสรเพ็ชญ์	ทะเบียนเลขที่ ว-๒๓๙-ค-๖๔๑๙
๑๐) นางสาวศิริวรรณ นิมนต์สง	ทะเบียนเลขที่ ว-๒๓๙-ค-๖๔๒๐

เอกสารแนบท้ายหนังสือรับต่ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

บริษัท ซีคอท จำกัด

เลขทะเบียน ว-๒๓๙

ที่ อก ๐๓๑๐(๑)/ ๑๑ ๘ ๐ ๔

ลงวันที่ ๒๑ ตุลาคม ๒๕๖๓

ข. เจ้าหน้าที่ประจำห้องปฏิบัติการวิเคราะห์ จำนวน ๓๑ ราย

๑) นางสาวสุรชวดี ชัยธรรม	ทะเบียนเลขที่	ว-๒๓๙-จ-๕๕๒๕
๒) นางสาวสุรชวดี เทียนเตี้ย	ทะเบียนเลขที่	ว-๒๓๙-จ-๕๕๒๖
๓) นางสาวสุนันทา ศิริคุณานนท์	ทะเบียนเลขที่	ว-๒๓๙-จ-๕๕๕๓
๔) นายบวร ดีชัยยะ	ทะเบียนเลขที่	ว-๒๓๙-จ-๕๕๕๖
๕) นางสาวเกศรินทร์ วรรณวิทยา	ทะเบียนเลขที่	ว-๒๓๙-จ-๕๕๕๑
๖) นายอนันต์ ภูมิวันนา	ทะเบียนเลขที่	ว-๒๓๙-จ-๖๐๐๑
๗) นายชิตพล สมประสงค์	ทะเบียนเลขที่	ว-๒๓๙-จ-๖๐๐๒
๘) นางสาวศศิธร พรหมประเสริฐ	ทะเบียนเลขที่	ว-๒๓๙-จ-๖๐๐๓
๙) นายศิวะนนท์ กุลวงษ์	ทะเบียนเลขที่	ว-๒๓๙-จ-๖๐๐๕
๑๐) นางสาวโชติมาส ไทยเจริญ	ทะเบียนเลขที่	ว-๒๓๙-จ-๖๐๐๖
๑๑) นางสาวปิยขวัญ สุระโคตร	ทะเบียนเลขที่	ว-๒๓๙-จ-๖๔๒๑
๑๒) นางสาวณัฐศิริ เลิศธีรพัฒน์	ทะเบียนเลขที่	ว-๒๓๙-จ-๖๔๒๓
๑๓) นางสาวเกษวรินทร์ ศิลศึก	ทะเบียนเลขที่	ว-๒๓๙-จ-๖๔๒๔
๑๔) นางสาวอลิษา คณิรานนท์	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๒๓๑
๑๕) นางสาวจิรนนท์ จิตุทธศรี ปิยะธนากร	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๒๓๒
๑๖) นางสาวสิริวรรณ แก้วจิงดวง	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๒๓๓
๑๗) นางสาวปัทมวรรณ สุวรรณวิโรจน์	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๒๓๔
๑๘) นางสาวกนิษฐา เจริญเชื้อ	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๒๓๖
๑๙) นายจิรากร ลิมศิลา	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๒๓๗
๒๐) นายชนาธิป สิงห์เกษมศักดิ์	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๒๓๘
๒๑) นายวัชรกานต์ ประมาคเต	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๒๔๐
๒๒) นายทอง เฮงขวัญกุล	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๒๔๒
๒๓) นางสาวกฤษณา จันทุม	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๘๐๒
๒๔) นางสาวพรนภา บุตรธรรม	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๘๐๓
๒๕) นางสาวธาริณี อางปลิว	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๘๐๔
๒๖) นายธนโชติ ช่างล้อ	ทะเบียนเลขที่	ว-๒๓๙-จ-๗๘๐๖
๒๗) นางสาวพัชรา สมานฉันท	ทะเบียนเลขที่	ว-๒๓๙-จ-๘๑๘๓
๒๘) นางสาวจุฑารัตน์ แจ่มเรือน	ทะเบียนเลขที่	ว-๒๓๙-จ-๘๔๔๓
๒๙) นางสาวจณิสตา กุ้ยอ่อน	ทะเบียนเลขที่	ว-๒๓๙-จ-๘๔๔๗
๓๐) นางสาววรัญญา เขียนมัน	ทะเบียนเลขที่	ว-๒๓๙-จ-๘๔๔๘
๓๑) นางสาวจิรารัตน์ นุริตมนต์	ทะเบียนเลขที่	ว-๒๓๙-จ-๘๔๔๙

เอกสารแนบท้ายหนังสือรับต่ออายุขึ้นทะเบียนห้องปฏิบัติการวิเคราะห์เอกชน

บริษัท ซีคอท จำกัด

เลขทะเบียน ว-๒๓๙

ที่ อก ๐๓๑๐(๑)/ ๑๑ ๘ ๐ ๔

ลงวันที่ ๒๑ ตุลาคม ๒๕๖๓

ขอขยายสารมลพิษที่ได้รับขึ้นทะเบียนจากกรมโรงงานอุตสาหกรรม จำนวน ๓๕๒ รายการ

น้ำเสีย จำนวน 46 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
2	Arsenic	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Inductively Coupled Plasma Method ^[4]
3	Barium	1) Digestion, Direct Nitrous Oxide-Acetylene Flame Method ^[4] 2) Digestion, Inductively Coupled Plasma Method ^[4]
4	α-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
5	β-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
6	γ-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
7	δ-BHC	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
8	Biochemical Oxygen Demand	1) 5-Day BOD Test, Azide Modification Method ^[4] 2) 5-Day BOD Test, Membrane Electrode Method ^[4]
9	Cadmium	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]



(นางริกาญจน์ สัตร์สกุลไชย)

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10 Chemical...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
10	Chemical Oxygen Demand	1) Open Reflux, Titrimetric method ^[4] 2) Close Reflux, Colorimetric method ^[4] 3) Closed Reflux, Titrimetric Method ^[4]
11	Chlordane	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
12	Chromium	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]
13	Color	ADMI Weighted-Ordinate Spectrophotometric Method ^[4]
14	Copper	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]
15	Cyanide	Distillation, Colorimetric method ^[4]
16	2,4-D	Liquid-Liquid Extraction, Gas Chromatographic Method ^[4]
17	4,4'-DDD	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
18	4,4'-DDE	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
19	4,4'-DDT	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
20	Dieldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]



21 Endosulfan I...

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
21	Endosulfan I	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
22	Endosulfan II	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
23	Endosulfan Sulfate	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
24	Endrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
25	Endrin Aldehyde	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
26	Formaldehyde	Distillation, Colorimetric Method ^[3]
27	Free Chlorine	1) Iodometric Method ^[4] 2) DPD Colorimetric Method ^[4]
28	Heptachlor	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
29	Heptachlor epoxide	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
30	Hexavalent Chromium	1) Colorimetric Method ^[4] 2) Extraction, Air-Acetylene Flame Method ^[4]
31	Lead	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]



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32 Manganese...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
32	Manganese	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]
33	Mercury	Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[4]
34	Methoxychlor	Liquid-Liquid Extraction, Gas Chromatographic Method ^[4]
35	Nickel	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]
36	Oil & Grease	1) Liquid-Liquid, Partition-Gravimetric Method ^[4] 2) Soxhlet Extraction Method ^[4]
37	pH	Electrometric Method ^[4]
38	Phenols	1) Distillation, Chloroform Extraction Method ^[4] 2) Distillation, Direct Photometric Method ^[4]
39	Selenium	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Inductively Coupled Plasma Method ^[4]
40	Sulfide	1) Iodometric method ^[4] 2) Methylene blue method ^[4]
41	Temperature	Laboratory and Field Methods ^[4]
42	Total Dissolved Solids	Dried at 180 °C ^[4]
43	Total Kjeldahl Nitrogen	1) Macro Kjeldahl Method ^[4] 2) Semi-Micro Kjeldahl Method ^[4]
44	Total Suspended Solids	Dried at 103-105 °C ^[4]
45	Trivalent Chromium	1) Digestion, Direct Air-Acetylene Flame Method; Colorimetric Method; Calculation ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method; Colorimetric Method; Calculation ^[4] 3) Digestion, Inductively Coupled Plasma Method; Colorimetric Method; Calculation ^[4]
46	Zinc	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Method ^[4]

วิฑูรย์

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น้ำใต้ดิน...

น้ำใต้ดิน จำนวน 123 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Acenaphthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
2	Acetone	Purge and Trap Gas Chromatographic/ Mass Spectrometric Method ^[4]
3	Aldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
4	Anthracene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
5	Antimony	Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
6	Arsenic	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Inductively Coupled Plasma Method ^[4]
7	Atrazine	Liquid-Liquid Extraction, Gas Chromatographic Method ^[4]
8	Barium	1) Digestion, Direct Nitrous Oxide-Acetylene Flame Method ^[4] 2) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
9	Benz(a)anthracene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
10	Benzene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
11	Benzo(b)fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
12	Benzo(k)fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
13	Benzoic acid	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
14	Benzo(a)pyrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
15	Benzo(g,h,i)perylene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]

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16 Beryllium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
16	Beryllium	Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
17	Bis(2-chloroethyl)ether	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
18	Bis(2-ethylhexyl)phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
19	Bromodichloromethane	Purge and Trap Gas Chromatographic/Mass spectrometric Method ^[4]
20	Bromoform	Purge and Trap Gas Chromatographic/Mass spectrometric Method ^[4]
21	Butanol	Purge and Trap Gas Chromatographic/Mass spectrometric Method ^[4]
22	Butyl benzyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
23	Cadmium	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
24	Carbazole	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
25	Carbon disulfide	Purge and Trap Gas Chromatographic/Mass spectrometric Method ^[4]
26	Carbon tetrachloride	Purge and Trap Gas Chromatographic/Mass spectrometric Method ^[4]
27	Chlordane	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
28	p-Chloroaniline	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
29	Chlorobenzene	Purge and Trap Gas Chromatographic/Mass spectrometric Method ^[4]
30	Chlorodibromomethane	Purge and Trap Gas Chromatographic/Mass spectrometric Method ^[4]
31	Chloroform	Purge and Trap Gas Chromatographic/Mass spectrometric Method ^[4]

(นางริกาญจน์ ฉัตรสกุลวิไล) 32 2-Chlorophenol...
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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
32	2-Chlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
33	Chromium	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
34	Chromium (III)	1) Digestion, Direct Air-Acetylene Flame Method; Colorimetric Method; Calculation ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method; Colorimetric Method; Calculation ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method; Colorimetric Method; Calculation ^[4]
35	Chromium (VI)	1) Colorimetric Method ^[4] 2) Extraction, Air-Acetylene Flame Method ^[4]
36	Chrysene	Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
37	Cyanide	1) Distillation, Titrimetric Method ^[4] 2) Distillation, Colorimetric Method ^[4]
38	2,4-D	Liquid-Liquid Extraction, Gas Chromatographic Method ^[4]
39	DDD	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
40	DDE	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]
41	DDT	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[4]

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42 Dibenz(a,h)...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
42	Dibenz(a,h)anthracene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
43	Di-n-butyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
44	1,2-Dichlorobenzene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
45	1,3-Dichlorobenzene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
46	1,4-Dichlorobenzene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
47	3,3'-Dichlorobenzidine	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
48	1,1-Dichloroethane	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
49	1,2-Dichloroethane	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
50	1,1-Dichloroethylene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
51	cis-1,2-Dichloroethylene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
52	trans-1,2-Dichloroethylene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
53	2,4-Dichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
54	1,2-Dichloropropane	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
55	1,3-Dichloropropane	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
56	1,3-Dichloropropene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
57	Dieldrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
58	Diethyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]



59 2,4-Dimethylphenol...

(นางรวิภาญจน์ ชัตรสกุลไธ)

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
59	2,4-Dimethylphenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
60	2,4-Dinitrophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
61	2,4-Dinitrotoluene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
62	2,6-Dinitrotoluene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
63	Di-n-Octyl phthalate	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
64	Endosulfan	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
65	Endrin	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
66	Ethylbenzene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
67	Fluoranthene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
68	Fluorene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
69	Heptachlor	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
70	Heptachlor epoxide	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
71	Hexachlorobenzene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
72	Hexachloro-1,3-butadiene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]




73 n-Hexane...

(นางรวิภาญจน์ ชัตรสกุลไธ)


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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
73	n-Hexane	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
74	α-HCH	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
75	β-HCH	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
76	γ-HCH	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
77	Hexachlorocyclopentadiene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
78	Hexachloroethane	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
79	Indeno(1,2,3-cd)pyrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
80	Isophorone	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
81	Lead	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
82	Manganese	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
83	Mercury	Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[4]
84	Methanol	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]


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85 Methoxychlor...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
85	Methoxychlor	Liquid-Liquid Extraction, Gas Chromatographic Method ^[4]
86	Methyl bromide	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
87	Methylene chloride	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
88	2-Methylphenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
89	2-Methylnaphthalene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
90	Methyl tert-butyl ether	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
91	Naphthalene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
92	Nickel	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
93	Nitrobenzene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
94	N-Nitrosodiphenylamine	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
95	Polychlorinated Biphenyls - PCB-1016 - PCB-1221 - PCB-1232 - PCB-1242 - PCB-1248 - PCB-1254 - PCB-1260	Liquid-Liquid Extraction, Gas Chromatographic Method ^[4]
96	Pentachlorophenol	1) Liquid-Liquid Extraction, Gas Chromatographic Method ^[4] 2) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]


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97 pH...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
97	pH	Electrometric method ^[4]
98	Phenanthrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
99	Phenol	1) Distillation, Chloroform Extraction Method ^[4] 2) Distillation, Direct Photometric Method ^[4] 3) Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
100	Pyrene	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
101	Selenium	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[4] 2) Digestion, Inductively Coupled Plasma Method ^[4]
102	Silver	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Inductively Coupled Plasma Method ^[4]
103	Styrene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
104	1,1,2,2-Tetrachloroethane	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
105	Tetrachloroethylene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
106	Toluene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
107	TPH (C ₅ -C ₈)	Purge and Trap, Gas Chromatographic/ Mass spectrometric Method ^[7,9]
108	TPH (C ₈ -C ₁₆)	1) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[6,8] 2) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass spectrometric Method ^[6,9]
109	TPH (C ₁₆ -C ₃₅)	1) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[6,8] 2) Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass spectrometric Method ^[6,9]
110	1,2,4-Trichlorobenzene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
111	1,1,1-Trichloroethane	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]



112 1,1,2-Trichloroethane...

(นางรวิภาญจน์ ถังตรสกุลวิไล)

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
112	1,1,2-Trichloroethane	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
113	Trichloroethylene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
114	2,4,5-Trichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
115	2,4,6-Trichlorophenol	Liquid-Liquid Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[4]
116	1,3,5-Trimethylbenzene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
117	Vanadium	Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]
118	Vinyl chloride	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
119	m-Xylene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
120	o-Xylene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
121	p-Xylene	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
122	Xylene (Total)	Purge and Trap Gas Chromatographic/ Mass spectrometric Method ^[4]
123	Zinc	1) Digestion, Direct Air-Acetylene Flame Method ^[4] 2) Digestion, Electrothermal Atomic Absorption Spectrometric Method ^[4] 3) Digestion, Inductively Coupled Plasma Spectrometric Method ^[4]

อากาศเสีย (ปล่อยระบาย) จำนวน 27 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Antimony	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]



2 Arsenic...

(นางรวิภาญจน์ ถังตรสกุลวิไล)


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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
2	Arsenic	1) Isokinetic Sampling, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
3	Beryllium	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
4	Cadmium	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
5	Carbon monoxide	Instrumental Analyzer Method ^[5]
6	Chlorine	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]
7	Chromium	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
8	Cobalt	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
9	Copper	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
10	Cresol	Adsorption Sampling, Gas Chromatographic Method ^[5]
11	Dioxin/Furans	Isokinetic Sampling, Analysis by ISO/IEC 17025 Accredited Laboratory or Analysis by Department of Industrial Works Registered Laboratory (Dioxins/Furans Analysis Approved) ^[5]
12	Hydrogen chloride	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]
13	Hydrogen Fluoride	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Isokinetic Sampling, Ion Chromatographic Method ^[5]


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14 Hydrogen Sulfide...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
14	Hydrogen Sulfide	Absorption Sampling, Iodometric Method ^[5]
15	Lead	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
16	Manganese	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
17	Mercury	Isokinetic Sampling, Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[5]
18	Nickel	1) Isokinetic Sampling, Digestion, Direct Air-Acetylene Flame Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
19	Opacity	Ringelmann's Method ^[2]
20	Oxide of Nitrogen	1) Absorption Sampling, Ion Chromatographic Method ^[5] 2) Absorption Sampling, Phenoldisulfonic acid Method ^[5] 3) Instrumental Analyzer Method ^[5]
21	Selenium	1) Isokinetic Sampling, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[5] 2) Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
22	Sulfur dioxide	1) Isokinetic Sampling, Barium-Thorin Titrimetric Method ^[5] 2) Instrumental Analyzer Method ^[5]
23	Sulfuric acid	Isokinetic Sampling, Barium-Thorin Titrimetric Method ^[5]
24	Tin	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
25	Total Suspended Particulate	Isokinetic Sampling, Gravimetric Method ^[5]



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26 Vanadium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
26	Vanadium	Isokinetic Sampling, Digestion, Inductively Coupled Plasma Method ^[5]
27	Xylene	1) Adsorption Sampling, Gas Chromatographic Method ^[5] 2) Adsorption Sampling, Gas Chromatographic/Mass Spectrometric Method ^[5]

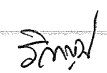
สิ่งปฏิกูลหรือวัสดุที่ไม่ใช้แล้ว จำนวน 34 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Aldrin	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[1,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[1,9,26] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26]
2	Antimony	1) Waste Extraction, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[1,6,16] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 3) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,16] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
3	Arsenic	1) Waste Extraction, Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[1,6,16] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 3) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,16] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
4	Barium	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[1,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14]


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3) Digestion...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
5	Beryllium	3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14] 1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
6	Cadmium	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[1,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
7	Chlordane	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[1,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[1,9,26] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26]
8	Chromium	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[1,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
9	Chromium (III)	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method; Waste Extraction, Colorimetric Method; Calculation Method ^[1,6,15,17] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method; Waste Extraction, Colorimetric Method; Calculation Method ^[1,6,16,17]


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3) Digestion...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
10	Chromium (VI)	3) Digestion, Flame Atomic Absorption Spectrometric Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^[7,8,15,17] 4) Digestion, Inductively Coupled Plasma Method; Alkaline Digestion, Colorimetric Method; Calculation Method ^[7,8,14,17]
11	Cobalt	1) Waste Extraction, Colorimetric Method ^[1,17] 2) Alkaline Digestion, Colorimetric Method ^[8,17]
12	Copper	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
13	2,4-D	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[1,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
14	DDD	1) Waste Extraction, Gas Chromatographic/Mass Spectrometric Method ^[1,24] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[24]
15	DDE	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[1,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[1,9,26] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26]

3) Soxhlet...

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
16	DDT	3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26] 1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[1,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[1,9,26] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22]
17	Dieldrin	4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26] 1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[1,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[1,9,26] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22]
18	Endrin	4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26] 1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[1,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[1,9,26] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22]
19	Heptachlor	4) Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26] 1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[1,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[1,9,26] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22]

4) Soxhlet...

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
20	Lead	4) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26] 1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[1,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
21	Lindane	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[1,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[1,9,26] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
22	Mercury	1) Waste Extraction, Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[1,18] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 3) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[19] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
23	Methoxychlor	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[1,9,22] 2) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic/Mass Spectrometric Method ^[1,9,26] 3) Soxhlet Extraction, Gas Chromatographic Method ^[10,22] 4) Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
24	Molybdenum	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]

วิฑูรย์

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25 Nickel...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
25	Nickel	1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[1,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
26	Polychlorinated Biphenyls - Aroclor 1016 - Aroclor 1221 - Aroclor 1232 - Aroclor 1242 - Aroclor 1254 - Aroclor 1260	1) Waste Extraction, Separatory Funnel Liquid-Liquid Extraction, Gas Chromatographic Method ^[1,9,23] 2) Soxhlet Extraction, Gas Chromatographic Method ^[10,23]
27	Pentachlorophenol	1) Waste Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[1,24] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[24]
28	pH	Electrometric Method ^[30,31]
29	Selenium	1) Waste Extraction, Digestion, Hydride Generation/ Atomic Absorption Spectrometric Method ^[1,6,20] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 3) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,20] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]
30	Silver	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
31	Thallium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
32	Trichloroethylene	1) Waste Extraction, Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[1,12,25] 2) Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[12,25]

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33 Vanadium...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
33	Vanadium	1) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14]
34	Zinc	2) Digestion, Inductively Coupled Plasma Method ^[7,14] 1) Waste Extraction, Digestion, Flame Atomic Absorption Spectrometric Method ^[1,6,15] 2) Waste Extraction, Digestion, Inductively Coupled Plasma Method ^[1,6,14] 3) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 4) Digestion, Inductively Coupled Plasma Method ^[7,14]

ดิน จำนวน 122 รายการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
1	Acenaphthene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
2	Acetone	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
3	Aldrin	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
4	Anthracene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
5	Antimony	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,16] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
6	Arsenic	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,16] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
7	Atrazine	Ultrasonic Extraction, Gas Chromatographic Method ^[11,22]
8	Barium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]

9 Benz(a)anthracene...

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
9	Benz(a)anthracene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
10	Benzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
11	Benzo(b)fluoranthene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
12	Benzo(k)fluoranthene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
13	Benzoic acid	Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
14	Benzo(a)pyrene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
15	Benzo(g,h,i)perylene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
16	Beryllium	Digestion, Inductively Coupled Plasma Method ^[7,14]
17	Bis(2-chloroethyl)ether	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
18	Bis(2-ethylhexyl)phthalate	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
19	Bromodichloromethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
20	Bromoform	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
21	Butanol	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
22	Butyl benzyl phthalate	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
23	Cadmium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
24	Carbazole	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
25	Carbon disulfide	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
26	Carbon tetrachloride	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]

27 Chlordane...

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
27	Chlordane	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
28	p-Chloroaniline	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
29	Chlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
30	Chlorodibromomethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
31	Chloroform	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
32	2-Chlorophenol	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
33	Chromium	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
34	Chromium (III)	1) Digestion, Flame Atomic Absorption Spectrometric Method; Colorimetric Method; Calculation Method ^[7,8,15,17] 2) Digestion, Inductively Coupled Plasma Method; Colorimetric Method; Calculation Method ^[7,8,14,17]
35	Chromium (VI)	Alkaline Digestion, Colorimetric Method ^[8,17]
36	Chrysene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
37	Cyanide	1) Extraction, Distillation, Titrimetric Method ^[27,28,29] 2) Extraction, Distillation, Colorimetric Method ^[27,28,29]
38	2,4-D	Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[24]
39	DDD	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
40	DDE	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]



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41 DDT...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
41	DDT	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
42	Dibenz(a,h)anthracene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
43	Di-n-butyl phthalate	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
44	1,2-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
45	1,3-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
46	1,4-Dichlorobenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
47	3,3'-Dichlorobenzidine	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
48	1,1-Dichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
49	1,2-Dichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
50	1,1-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
51	cis-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
52	trans-1,2-Dichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
53	2,4-Dichlorophenol	Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
54	1,2-Dichloropropane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
55	1,3-Dichloropropane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
56	1,3-Dichloropropene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]



(นางรียาญจน์ อัครสกุลวิไล)
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57 Dieldrin...

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
57	Dieldrin	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
58	Diethyl phthalate	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
59	2,4-Dimethylphenol	Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
60	2,4-Dinitrophenol	Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
61	2,4-Dinitrotoluene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
62	2,6-Dinitrotoluene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
63	Di-n-Octyl phthalate	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
64	Endosulfan	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
65	Endrin	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
66	Ethylbenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
67	Fluoranthene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
68	Fluorene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
69	Heptachlor	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]

วิมล

70 Heptachlor epoxide...

(นางริภาญจน์ ฉัตรสกุลวิไล)

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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
70	Heptachlor epoxide	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
71	Hexachlorobenzene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
72	Hexachloro-1,3-butadiene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
73	n-Hexane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
74	α-HCH	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
75	β-HCH	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
76	γ-HCH	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
77	Hexachlorocyclopentadiene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
78	Hexachloroethane	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
79	Indeno(1,2,3-cd)pyrene	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
80	Isophorone	Soxhlet Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[10,26]
81	Lead	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
82	Manganese	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]

วิมล


83 Mercury...

(นางริภาญจน์ ฉัตรสกุลวิไล)


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และทะเบียนห้องปฏิบัติการ

ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
83	Mercury	1) Digestion, Cold-Vapor Atomic Absorption Spectrometric Method ^[19] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
84	Methanol	Ultrasonic Extraction, Direct Aqueous Injection, Gas Chromatographic Method ^[11,21]
85	Methoxychlor	1) Ultrasonic Extraction, Gas Chromatographic Method ^[11,22] 2) Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,26]
86	Methyl bromide	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,25]
87	Methylene chloride	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,25]
88	2-Methylphenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,26]
89	2-Methylnaphthalene	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,26]
90	Methyl tert-butyl ether	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,25]
91	Naphthalene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26]
92	Nickel	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
93	Nitrobenzene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26]
94	N-Nitrosodiphenylamine	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26]
95	Polychlorinated Biphenyls - Aroclor 1016 - Aroclor 1221 - Aroclor 1232 - Aroclor 1242 - Aroclor 1248 - Aroclor 1254 - Aroclor 1260	Soxhlet Extraction, Gas Chromatographic Method ^[10,23]


 (นางริกาญจน์ จิตรสกุลไฉ่)
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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
96	Pentachlorophenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[24]
97	Phenanthrene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26]
98	Phenol	Ultrasonic Extraction, Gas Chromatographic/Mass Spectrometric Method ^[11,26]
99	Pyrene	Soxhlet Extraction, Gas Chromatographic/Mass Spectrometric Method ^[10,26]
100	Selenium	1) Digestion, Hydride Generation/Atomic Absorption Spectrometric Method ^[7,20] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
101	Silver	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]
102	Styrene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,25]
103	1,1,2,2-Tetrachloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,25]
104	Tetrachloroethylene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,25]
105	Toluene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,25]
106	TPH (C ₅ -C ₈)	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,25]
107	TPH (C ₈ -C ₁₆)	1) Soxhlet Extraction, Gas Chromatographic Method ^[10,21] 2) Soxhlet Extraction, Gas Chromatographic/Mass spectrometric Method ^[10,21]
108	TPH (C ₁₆ -C ₃₅)	1) Soxhlet Extraction, Gas Chromatographic Method ^[10,21] 2) Soxhlet Extraction, Gas Chromatographic/Mass spectrometric Method ^[10,25]
109	1,2,4-Trichlorobenzene	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,25]
110	1,1,1-Trichloroethane	Purge and Trap, Gas Chromatographic/Mass Spectrometric Method ^[13,25]


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ลำดับที่	สารมลพิษ	วิธีวิเคราะห์
111	1,1,2-Trichloroethane	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
112	Trichloroethylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
113	2,4,5-Trichlorophenol	Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
114	2,4,6-Trichlorophenol	Ultrasonic Extraction, Gas Chromatographic/ Mass Spectrometric Method ^[11,26]
115	1,3,5-Trimethylbenzene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
116	Vanadium	Digestion, Inductively Coupled Plasma Method ^[7,14]
117	Vinyl chloride	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
118	m-Xylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
119	o-Xylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
120	p-Xylene	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
121	Xylene (Total)	Purge and Trap, Gas Chromatographic/ Mass Spectrometric Method ^[13,25]
122	Zinc	1) Digestion, Flame Atomic Absorption Spectrometric Method ^[7,15] 2) Digestion, Inductively Coupled Plasma Method ^[7,14]

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(นางริกาญจน์ ฉัตรสกุลวิไล)

ผู้อำนวยการกลุ่มมาตรฐานวิธีการวิเคราะห์ทดสอบมลพิษและทะเบียนห้องปฏิบัติการ
และทะเบียนห้องปฏิบัติการ

ภาคผนวก ข

ใบรับรองความสามารถห้องปฏิบัติการและขอขยายการรับรอง
ห้องปฏิบัติการทดสอบ ตามมาตรฐาน ISO/IEC 17025
จากสำนักงานมาตรฐานอุตสาหกรรม



ใบรับรองเลขที่ 20T173/1151

ใบรับรองห้องปฏิบัติการ

อาศัยอำนาจตามความในพระราชบัญญัติการมาตรฐานแห่งชาติ พ.ศ. ๒๕๕๑

เลขานุการสำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม

ออกใบรับรองฉบับนี้ให้

บริษัท ซีคोट จำกัด

มีห้องปฏิบัติการตั้งอยู่เลขที่

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร

ได้รับการรับรองความสามารถห้องปฏิบัติการทดสอบ

ตามมาตรฐานเลขที่ มอก. 17025-2561 (ISO/IEC 17025 : 2017)

ข้อกำหนดทั่วไปว่าด้วยความสามารถห้องปฏิบัติการทดสอบและสอบเทียบ

หมายเลขการรับรองที่ ทดสอบ ๐๓๙๔

โดยมีสาขาการรับรองตามรายละเอียดแนบท้ายใบรับรอง

ตั้งแต่วันที่ ๙ กันยายน พ.ศ. ๒๕๖๓

ถึง วันที่ ๘ กันยายน พ.ศ. ๒๕๖๖

ออกให้ ณ วันที่ ๒๓ กันยายน ๒๕๖๓

(นายวีระกิตติ์ รินทกิจธนวัชร)

รองเลขาธิการ ปฏิบัติราชการแทน

เลขานุการสำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม



กระทรวงอุตสาหกรรม สำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม

รายละเอียดแนบท้ายใบรับรองห้องปฏิบัติการทดสอบ

ใบรับรองเลขที่ 20T173/1151

ชื่อห้องปฏิบัติการ

ห้องปฏิบัติการทดสอบ บริษัท ซีคोट จำกัด

ที่อยู่

239 ถนนริมคลองประปา แขวงบางซื่อ เขตบางซื่อ กรุงเทพมหานคร

หมายเลขการรับรองที่

ทดสอบ 0394

สถานภาพห้องปฏิบัติการ

☒ ถาวร ☐ นอกสถานที่ ☐ชั่วคราว ☐เคลื่อนที่

สาขาการทดสอบ	รายการทดสอบ	วิธีทดสอบ
สาขาสิ่งแวดล้อม 1. น้ำและน้ำเสีย (water and wastewater)	<ul style="list-style-type: none"> - Arsenic 0.000 5 mg/l to 0.090 0 mg/l - Arsenic 0.05 mg/l to 4.50 mg/l - Barium 0.02 mg/l to 4.50 mg/l - Cadmium 0.01 mg/l to 4.50 mg/l - Chromium 0.01 mg/l to 4.50 mg/l - Copper 0.02 mg/l to 4.50 mg/l - Iron 0.05 mg/l to 9.00 mg/l - Lead 0.03 mg/l to 4.50 mg/l - Manganese 0.01 mg/l to 9.00 mg/l - Nickel 0.01 mg/l to 4.50 mg/l - Zinc 0.02 mg/l to 9.00 mg/l 	<ul style="list-style-type: none"> - Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd edition, 2017, Part 3030 F and Part 3114 C - Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd edition, 2017, Part 3030 E and Part 3120 B

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กระทรวงอุตสาหกรรม สำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม

รายละเอียดแนบท้ายใบรับรองห้องปฏิบัติการทดสอบ

ใบรับรองเลขที่ 20T173/1151

หมายเลขการรับรองที่ ทดสอบ 0394

สถานภาพห้องปฏิบัติการ ☒ ถาวร ☐ นอกสถานที่ ☐ชั่วคราว ☐เคลื่อนที่

สาขาการทดสอบ	รายการทดสอบ	วิธีทดสอบ
<p>สาขาสังแวดล้อม</p> <p>1. น้ำและน้ำเสีย (ต่อ) (water and wastewater) (cont.)</p> <p>2. คุณภาพอากาศ (air quality)</p> <p>2.1 บริเวณทำงาน (workplace)</p>	<p>- COD 100 mg/l to 4 000 mg/l</p> <p>- Total dust 0.10 mg/filter to 2.00 mg/filter</p> <p>- Respirable dust 0.10 mg/filter to 2.00 mg/filter</p> <p>- Benzene 1.10 µg/tube to 420 µg/tube</p> <p>- Toluene 1.10 µg/tube to 420 µg/tube</p> <p>- Total xylenes 2.20 µg/tube to 840 µg/tube</p> <p>• m,p-xylene 1.10 µg/tube to 420 µg/tube</p> <p>• o-xylene 1.10 µg/tube to 420 µg/tube</p>	<p>- Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 23rd edition, 2017, Part 5220 D</p> <p>- NIOSH Manual of Analytical Methods (NMAM), method 0500, 4th edition, 15th August 1994 (Exclude Sampling)</p> <p>- NIOSH Manual of Analytical Method(NMAM), method 0600, 4th edition, 15th January 1998 (Exclude Sampling)</p> <p>- NIOSH Manual of Analytical Methods (NMAM) , method 1501, 4th edition, 15th March 2003 (Exclude Sampling)</p>

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หน้า 2/5

กระทรวงอุตสาหกรรม สำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม

รายละเอียดแนบท้ายใบรับรองห้องปฏิบัติการทดสอบ

ใบรับรองเลขที่ 20T173/1151

หมายเลขการรับรองที่ ทดสอบ 0394

สถานภาพห้องปฏิบัติการ ☒ ถาวร ☐ นอกสถานที่ ☐ชั่วคราว ☐เคลื่อนที่

สาขาการทดสอบ	รายการทดสอบ	วิธีทดสอบ
<p>สาขาสังแวดล้อม</p> <p>2. คุณภาพอากาศ (ต่อ) (air quality) (cont.)</p> <p>2.2 อากาศในปล่องระบาย อากาศ (stack)</p> <p>2.3 บรรยากาศทั่วไป (ambient air)</p>	<p>- Sulfur dioxide 1.00 mg/l to 16 000 mg/l (solution)</p> <p>- Hydrogen fluoride 5 µg/sample to 400 µg/sample</p> <p>- Hydrogen chloride 5 µg/sample to 400 µg/sample</p> <p>- Volatile organic compounds (VOCs)</p> <ul style="list-style-type: none"> Chloroethene 0.05 µg/m³ to 51.00 µg/m³ 1,3 - butadiene 0.04 µg/m³ to 44.00 µg/m³ Bromomethane 0.08 µg/m³ to 77.00 µg/m³ Acrolein 0.05 µg/m³ to 45.00 µg/m³ Acrylonitrile 0.04 µg/m³ to 43.00 µg/m³ Dichloromethane 0.14 µg/m³ to 69.00 µg/m³ Carbon disulfide 0.06 µg/m³ to 62.00 µg/m³ Trichloromethane 0.20 µg/m³ to 97.00 µg/m³ 	<p>- US.EPA , Code of Federal Regulations, 40 CFR 60 appendix A, Method 6, July 2019 (Exclude Sampling)</p> <p>- In-house method : WI-7.2-1-22 based on US.EPA, Code of Federal Regulations, 40 CFR 60 appendix A Method 26, 2019 (Exclude Sampling)</p> <p>- In-house method :WI-7.2-1-24 based on US.EPA , Compendium Method TO - 15, EPA / 625 / R-96 / 010b, January 1999 (Include sampling)</p>

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หน้า 3/5

กระทรวงอุตสาหกรรม สำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม

รายละเอียดแนบท้ายใบรับรองห้องปฏิบัติการทดสอบ
ใบรับรองเลขที่ 20T173/1151

หมายเลขการรับรองที่ ทดสอบ 0394

สถานภาพห้องปฏิบัติการ ☒ ถาวร ☐ นอกสถานที่ ☐ชั่วคราว ☐เคลื่อนที่

สาขาการทดสอบ	รายการทดสอบ	วิธีทดสอบ
<p>สาขาสิ่งแวดล้อม</p> <p>2. คุณภาพอากาศ (ต่อ) (air quality) (cont.)</p> <p>2.3 บรรยากาศทั่วไป (ต่อ) (ambient air) (cont.)</p>	<p>- Volatile organic compounds (VOCs) (cont.)</p> <ul style="list-style-type: none"> 1,2 - dichloroethane 0.08 $\mu\text{g}/\text{m}^3$ to 80.00 $\mu\text{g}/\text{m}^3$ Benzene 0.06 $\mu\text{g}/\text{m}^3$ to 63.00 $\mu\text{g}/\text{m}^3$ Carbon tetrachloride 0.25 $\mu\text{g}/\text{m}^3$ to 125 $\mu\text{g}/\text{m}^3$ Trichloroethylene 0.21 $\mu\text{g}/\text{m}^3$ to 107 $\mu\text{g}/\text{m}^3$ 1,2 - dichloropropane 0.18 $\mu\text{g}/\text{m}^3$ to 92.00 $\mu\text{g}/\text{m}^3$ Tetrachloroethylene 0.27 $\mu\text{g}/\text{m}^3$ to 135 $\mu\text{g}/\text{m}^3$ 1,2 - dibromoethane 0.31 $\mu\text{g}/\text{m}^3$ to 153 $\mu\text{g}/\text{m}^3$ 1,1,2,2 - tetrachloroethane 0.69 $\mu\text{g}/\text{m}^3$ to 137 $\mu\text{g}/\text{m}^3$ 	<p>- In-house method :WI-7.2-1-24 US.EPA , Compendium Method TO - 15, EPA / 625 / R-96 / 010b, January 1999 (Include sampling)</p>

รายละเอียดแนบท้ายใบรับรองห้องปฏิบัติการทดสอบ
ใบรับรองเลขที่ 20T173/1151

หมายเลขการรับรองที่ ทดสอบ 0394

สถานภาพห้องปฏิบัติการ ☒ ถาวร ☐ นอกสถานที่ ☐ชั่วคราว ☐เคลื่อนที่

สาขาการทดสอบ	รายการทดสอบ	วิธีทดสอบ
<p>สาขาสิ่งแวดล้อม</p> <p>2. คุณภาพอากาศ (ต่อ) (air quality) (cont.)</p> <p>2.3 บรรยากาศทั่วไป (ต่อ) (ambient air) (cont.)</p>	<p>- Volatile organic compounds (VOCs) (cont.)</p> <ul style="list-style-type: none"> Benzyl chloride 0.52 $\mu\text{g}/\text{m}^3$ to 103 $\mu\text{g}/\text{m}^3$ 1,4 - dichlorobenzene 0.24 $\mu\text{g}/\text{m}^3$ to 120 $\mu\text{g}/\text{m}^3$ 	<p>- In-house method :WI-7.2-1-24 US.EPA , Compendium Method TO - 15, EPA / 625 / R-96 / 010b, January 1999 (Include sampling)</p>

ออกให้ ณ วันที่ 13 กันยายน 2563



(นายวีระกิตติ์ รันทกิจธนวิษฐ์)
รองเลขาธิการ ปฏิบัติราชการแทน
เลขาธิการสำนักงานมาตรฐานผลิตภัณฑ์อุตสาหกรรม