

ภาคผนวก ก

หนังสือรับรองผลการตรวจวิเคราะห์

---

คุณภาพอากาศในบรรยากาศ

**Report No. : 2024-500000580-4 / 001-1 (Page 1 of 8)** Issued date : May 17, 2024

**CLIENT :** BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS :** Ambient Air Quality **SAMPLING DATE :** April 25-28, 2024  
**SAMPLING LOCATION :** พื้นที่โครงการ **SAMPLING BY :**   
**LABORATORY NAME :** SGS (Thailand) Limited

Station	Date	Parameter	
		TSP (mg/m <sup>3</sup> )	PM10 (mg/m <sup>3</sup> )
พื้นที่โครงการ	April 25-26, 2024	0.017	0.009
	April 26-27, 2024	0.019	0.007
	April 27-28, 2024	0.018	0.007
Standard *		≤ 0.33	≤ 0.12

**Remark :** - Sampling and analytical technique for TSP based on High Volume Air Sampler / Gravimetric Method and PM10 based on Size Selective High Volume Air Sampler / Gravimetric Method.  
**Source :** \* The notification of the National Environment Board No. 24, B.E. 2547 (2004), subjected "The ambient air standards", published in the Royal Government Gazette, Vol. 121, Part 104D, dated September 22, B.E. 2547 (2004).

TY/SE/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279461

**Report No. : 2024-500000580-4 / 001-1 (Page 2 of 8)** **Issued date : May 17, 2024**

**CLIENT :** BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS :** Ambient Air Quality **SAMPLING DATE :** April 25-27, 2024  
**SAMPLING LOCATION :** พื้นที่โครงการ **SAMPLING BY :** Sekson Klankeson  
**LABORATORY NAME :** SGS (Thailand) Limited

Time	NO <sub>2</sub> Concentration (ppm)		
	April 25, 2024	April 26, 2024	April 27, 2024
00:00-01:00	0.007	0.002	0.002
01:00-02:00	0.007	0.002	0.002
02:00-03:00	0.006	0.002	0.002
03:00-04:00	0.006	0.003	0.001
04:00-05:00	0.006	0.003	0.001
05:00-06:00	0.005	0.002	0.002
06:00-07:00	0.006	0.002	0.002
07:00-08:00	0.005	0.001	0.002
08:00-09:00	0.008	0.001	0.003
09:00-10:00	0.010	0.003	0.004
10:00-11:00	0.007	0.005	0.003
11:00-12:00	0.007	0.009	0.002
12:00-13:00	0.004	0.003	0.004
13:00-14:00	0.003	0.006	0.004
14:00-15:00	0.003	0.009	0.005
15:00-16:00	0.005	0.005	0.009
16:00-17:00	0.008	0.004	0.002
17:00-18:00	0.004	0.003	0.002
18:00-19:00	0.003	0.002	0.004
19:00-20:00	0.005	0.005	0.006
20:00-21:00	0.008	0.007	0.003
21:00-22:00	0.007	0.007	0.002
22:00-23:00	0.010	0.005	0.002
23:00-00:00	0.005	0.004	0.002
1 hr-Minimum	0.003	0.001	0.001
1 hr-Maximum	0.010	0.009	0.009
Avg. 24 hr	0.006	0.004	0.003
Standard* (avg. 1 hr)	≤ 0.17		

**Analytical Method :** - Chemiluminescence Method.  
**Source :** \* The notification of the National Environment Board No. 33, B.E. 2552 (2009), subjected "The nitrogen dioxide in ambient air standards", published in the Royal Gazette Extraordinary, Special part 114D, dated August 14, B.E. 2552 (2009).



TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service printed hereafter. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

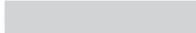
E 279462



**Report No. : 2024-500000580-4 / 001-1 (Page 3 of 8)** **Issued date : May 17, 2024**

**CLIENT :** BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  


## Analysis Report

**SAMPLE DESIGNATED AS :** Ambient Air Quality  
**SAMPLING LOCATION :** พื้นที่โครงการ  
**LABORATORY NAME :** SGS (Thailand) Limited  
**SAMPLING DATE :** April 25-27, 2024  
**SAMPLING BY :** 

Time	CO Concentration (ppm)		
	April 25, 2024	April 26, 2024	April 27, 2024
00:00-01:00	0.148	0.578	0.616
01:00-02:00	0.606	0.572	0.613
02:00-03:00	0.343	0.564	0.623
03:00-04:00	0.242	0.577	0.650
04:00-05:00	0.737	0.277	0.727
05:00-06:00	0.437	0.643	0.665
06:00-07:00	0.236	0.900	0.625
07:00-08:00	0.137	1.337	0.610
08:00-09:00	0.440	0.938	0.714
09:00-10:00	0.241	0.796	0.818
10:00-11:00	0.544	1.870	0.816
11:00-12:00	0.870	2.078	0.825
12:00-13:00	0.746	1.696	0.783
13:00-14:00	0.699	1.469	0.782
14:00-15:00	0.707	0.841	0.793
15:00-16:00	0.709	0.706	0.864
16:00-17:00	0.698	0.712	0.834
17:00-18:00	0.692	0.693	0.766
18:00-19:00	0.776	0.678	0.748
19:00-20:00	0.835	0.663	0.743
20:00-21:00	0.591	0.624	0.706
21:00-22:00	0.564	0.608	0.667
22:00-23:00	0.566	0.603	0.679
23:00-00:00	0.570	0.607	0.677
1 hr-Minimum	0.137	0.277	0.610
1 hr-Maximum	0.870	2.078	0.864
Avg. 8 hrs	00:00-08:00	0.361	0.681
	08:00-16:00	0.619	1.299
	16:00-00:00	0.661	0.648
Standard* (avg. 1 hr)		≤ 30	
Standard* (avg. 8 hrs)		≤ 9	

**Analytical Method :** - Non-dispersive Infrared (NDIR) Method.  
**Source :** \* The notification of the National Environment Board No.10, B.E. 2538 (1995) entitled "The ambient air standards", published in the Royal Government Gazette, Vol. 112, Part 42D, dated M

SGS (THAILAND) LIMITED

TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service and Terms of Reference. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279463

**Report No. : 2024-500000580-4 / 001-1 (Page 4 of 8)** **Issued date : May 17, 2024**

**CLIENT :** BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadi Rangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS :** Ambient Air Quality  
**SAMPLING LOCATION :** พื้นที่โครงการ  
**LABORATORY NAME :** SGS (Thailand) Limited

**SAMPLING DATE :** April 25-27, 2024  
**SAMPLING BY :**

Station	Date	THC (ppm)
พื้นที่โครงการ	April 25, 2024	3.80
	April 26, 2024	3.91
	April 27, 2024	3.38

TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



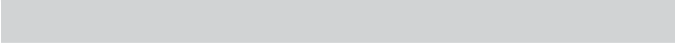
This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.


E 279464



**Report No. : 2024-500000580-4 / 001-1 (Page 5 of 8)** **Issued date : May 17, 2024**

**CLIENT :** BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  


## Analysis Report

**SAMPLE DESIGNATED AS :** Ambient Air Quality  
**SAMPLING LOCATION :** ฟันทีโครงการ  
**LABORATORY NAME :** SGS (Thailand) Limited  
**SAMPLING DATE :** April 25-27, 2024  
**SAMPLING BY :** 

Time	SO <sub>2</sub> Concentration (ppm)		
	April 25, 2024	April 26, 2024	April 27, 2024
00:00-01:00	0.002	0.003	0.002
01:00-02:00	0.002	0.003	0.002
02:00-03:00	0.002	0.002	0.002
03:00-04:00	0.003	0.003	0.003
04:00-05:00	0.002	0.003	0.003
05:00-06:00	0.002	0.003	0.003
06:00-07:00	0.002	0.006	0.003
07:00-08:00	0.004	0.003	0.004
08:00-09:00	0.002	0.003	0.003
09:00-10:00	0.002	0.003	0.003
10:00-11:00	0.006	0.001	0.003
11:00-12:00	0.003	0.002	0.002
12:00-13:00	0.005	0.005	0.002
13:00-14:00	0.003	0.002	0.004
14:00-15:00	0.004	0.003	0.002
15:00-16:00	0.001	0.003	0.002
16:00-17:00	0.002	0.003	0.002
17:00-18:00	0.002	0.001	0.002
18:00-19:00	0.002	0.002	0.001
19:00-20:00	0.002	0.003	0.002
20:00-21:00	0.004	0.003	0.002
21:00-22:00	0.001	0.003	0.002
22:00-23:00	0.002	0.003	0.001
23:00-00:00	0.002	0.002	0.002
1 hr-Minimum	0.001	0.001	0.001
1 hr-Maximum	0.006	0.006	0.004
Avg. 24 hr	0.003	0.003	0.002
Standard* (avg. 1 hr)	≤ 0.30		
Standard** (avg. 24 hr)	≤ 0.12		

**Analytical Method :** - UV Fluorescence Method.  
**Sources :** \* The notification of the National Environment Board No.21, B.E. 2544 (2001), subjected "The ambient air standards", published in the Royal Government Gazette, Vol. 118, Part 39E, dated April 30, B.E. 2544 (2001).  
 \*\* The notification of the National Environment Board No. 24, B.E. 2547 (2004), subjected "The ambient air standards", published in the Royal Government Gazette, Vol. 121, Part 104D, dated September 1, B.E. 2547 (2004).



TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279465

**Report No. : 2024-500000580-4/ 001-1 (Page 6 of 8)**

**Issued date : May 17, 2024**

**CLIENT :** BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS :** Ambient Air Quality

**SAMPLING DATE :** April 25-27, 2024

**SAMPLING LOCATION :** พื้นที่โครงการ

**SAMPLING BY :**

**LABORATORY NAME :** SGS (Thailand) Limited

TIME	April 25, 2024		April 26, 2024		April 27, 2024	
	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)
00:00-01:00	SSE	0.9	-	CALM	-	CALM
01:00-02:00	-	CALM	-	CALM	-	CALM
02:00-03:00	-	CALM	-	CALM	-	CALM
03:00-04:00	-	CALM	-	CALM	-	CALM
04:00-05:00	-	CALM	-	CALM	-	CALM
05:00-06:00	-	CALM	-	CALM	-	CALM
06:00-07:00	-	CALM	-	CALM	-	CALM
07:00-08:00	-	CALM	-	CALM	-	CALM
08:00-09:00	SE	0.9	-	CALM	-	CALM
09:00-10:00	SE	0.9	SE	1.3	-	CALM
10:00-11:00	SE	1.3	SE	1.3	WNW	1.3
11:00-12:00	SE	1.3	SSE	1.3	WNW	1.8
12:00-13:00	WNW	1.8	SSE	1.3	NW	2.2
13:00-14:00	NW	1.8	SSE	2.2	SE	1.8
14:00-15:00	SSE	2.2	SE	1.8	SE	2.2
15:00-16:00	SSE	1.8	SSE	1.8	SSE	1.8
16:00-17:00	SSE	1.8	SSE	1.8	SSE	1.8
17:00-18:00	SSE	1.8	SSE	1.8	SSE	1.3
18:00-19:00	SE	1.3	SSE	1.3	SSE	1.3
19:00-20:00	SE	0.9	-	CALM	SSE	0.9
20:00-21:00	-	CALM	-	CALM	-	CALM
21:00-22:00	-	CALM	-	CALM	-	CALM
22:00-23:00	-	CALM	-	CALM	-	CALM
23:00-00:00	-	CALM	-	CALM	-	CALM

**Measurement Method :** - Wind Speed and Wind Direction recording meter

**Remarks :** - WS = Wind Speed  
 - WD = Wind Direction

TY/SE/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279466



**Report No. : 2024-500000580-4/ 001-1 (Page 7 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : พื้นที่โครงการ**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

Wind Speed Wind Direction	Percent of Wind Speed (%)				
	0.5-1.0 m/s	1.1-2.0 m/s	2.1-3.0 m/s	3.1-4.0 m/s	>4.0 m/s
N	-	-	-	-	-
NNE	-	-	-	-	-
NE	-	-	-	-	-
ENE	-	-	-	-	-
E	-	-	-	-	-
ESE	-	-	-	-	-
SE	4.17	9.72	1.39	-	-
SSE	2.78	18.06	2.78	-	-
S	-	-	-	-	-
SSW	-	-	-	-	-
SW	-	-	-	-	-
WSW	-	-	-	-	-
W	-	-	-	-	-
WNW	-	4.17	-	-	-
NW	-	1.39	1.39	-	-
NNW	-	-	-	-	-
<b>CALM</b>	<b>54.17</b>				

TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279467

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group



**Report No. : 2024-500000580-4/ 001-1 (Page 8 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadiransit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

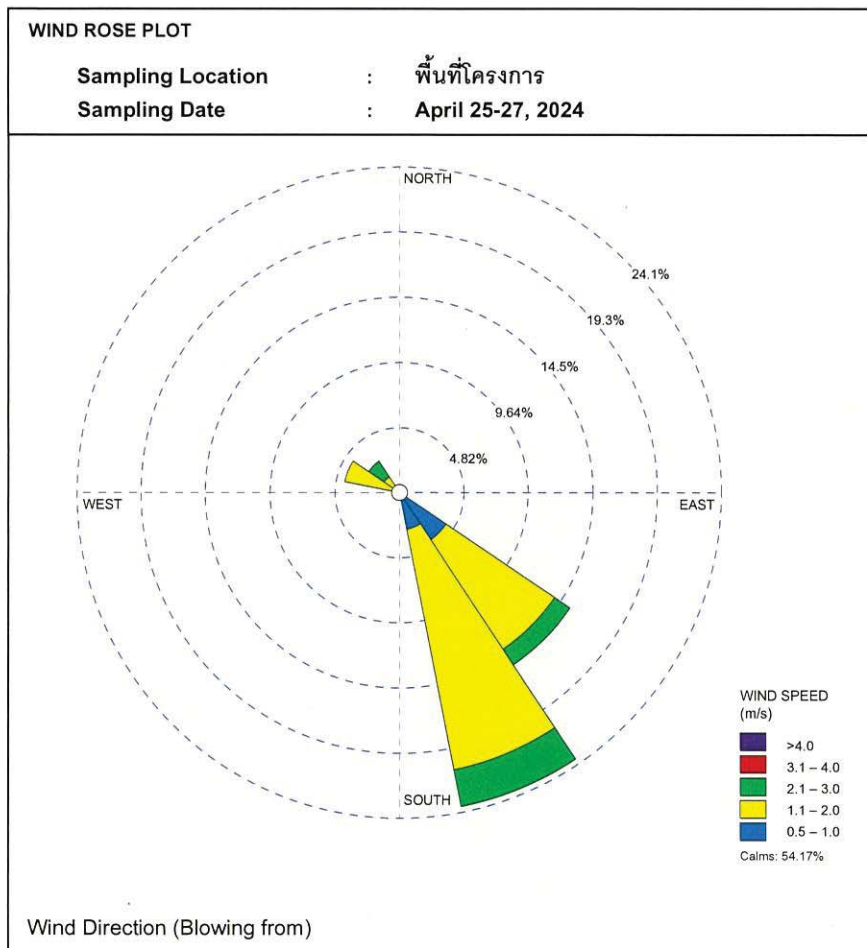
**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING LOCATION : พื้นที่โครงการ**

**LABORATORY NAME : SGS (Thailand) Limited**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING BY**



TY/SE/SJS/SJS

SGS (THAILAND) LIMITED

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279468

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group

**Report No. : 2024-500000580-4/ 001-2 (Page 1 of 8)**

**Issued date :** May 17, 2024

**CLIENT :** BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)

**CONTACT :**

**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS :** Ambient Air Quality

**SAMPLING DATE :** April 25-28, 2024

**SAMPLING LOCATION :** บ้านท่าโสม

**SAMPLING BY :**

**LABORATORY NAME :** SGS (Thailand) Limited

Station	Date	Parameter	
		TSP (mg/m <sup>3</sup> )	PM10 (mg/m <sup>3</sup> )
บ้านท่าโสม	April 25-26, 2024	0.022	0.014
	April 26-27, 2024	0.025	0.015
	April 27-28, 2024	0.017	0.012
Standard *		≤ 0.33	≤ 0.12

**Remark :** - Sampling and analytical technique for TSP based on High Volume Air Sampler / Gravimetric Method and PM10 based on Size Selective High Volume Air Sampler / Gravimetric Method.

**Source :** \* The notification of the National Environment Board No. 24, B.E. 2547 (2004), subjected "The ambient air standards", published in the Royal Government Gazette, Vol. 121, Part 104D, dated September 22, B.E. 2547 (2004).

TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279469

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group

**Report No. : 2024-500000580-4/ 001-2 (Page 2 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : บ้านท่าโสม**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

Time	NO <sub>2</sub> Concentration (ppm)		
	April 25, 2024	April 26, 2024	April 27, 2024
00:00-01:00	0.008	0.007	0.005
01:00-02:00	0.006	0.007	0.005
02:00-03:00	0.006	0.006	0.004
03:00-04:00	0.006	0.005	0.003
04:00-05:00	0.005	0.005	0.003
05:00-06:00	0.006	0.005	0.004
06:00-07:00	0.005	0.005	0.004
07:00-08:00	0.006	0.005	0.004
08:00-09:00	0.007	0.005	0.004
09:00-10:00	0.007	0.004	0.004
10:00-11:00	0.006	0.004	0.002
11:00-12:00	0.006	0.005	0.002
12:00-13:00	0.006	0.005	0.002
13:00-14:00	0.006	0.004	0.002
14:00-15:00	0.006	0.004	0.003
15:00-16:00	0.005	0.004	0.003
16:00-17:00	0.005	0.012	0.002
17:00-18:00	0.005	0.004	0.002
18:00-19:00	0.004	0.003	0.002
19:00-20:00	0.004	0.003	0.003
20:00-21:00	0.004	0.008	0.005
21:00-22:00	0.006	0.008	0.006
22:00-23:00	0.007	0.007	0.005
23:00-00:00	0.006	0.006	0.005
1 hr-Minimum	0.004	0.003	0.002
1 hr-Maximum	0.008	0.012	0.006
Avg. 24 hr	0.006	0.005	0.004
Standard* (avg. 1 hr)		≤ 0.17	

**Analytical Method : -** Chemiluminescence Method.

**Source : \*** The notification of the National Environment Board No. 33, B.E. 2552 (2009), subjected "The nitrogen dioxide in ambient air standards", published in the Royal Government Gazette. Vol. 126, Special part 114D, dated August 14, B.E. 2552 (2009).

SGS (THAILAND) LIMITED

TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279470

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group



**Report No. : 2024-500000580-4/ 001-2 (Page 3 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : บ้านท่าโสม**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

Time	CO Concentration (ppm)		
	April 25, 2024	April 26, 2024	April 27, 2024
00:00-01:00	0.839	0.791	0.775
01:00-02:00	0.823	0.786	0.808
02:00-03:00	0.814	0.772	0.798
03:00-04:00	0.809	0.768	0.816
04:00-05:00	0.789	0.767	0.856
05:00-06:00	0.788	0.769	0.882
06:00-07:00	0.774	0.800	0.883
07:00-08:00	0.794	0.821	0.870
08:00-09:00	0.833	0.823	0.874
09:00-10:00	0.858	0.848	0.874
10:00-11:00	0.931	0.881	0.900
11:00-12:00	1.001	0.925	0.908
12:00-13:00	0.987	0.917	0.920
13:00-14:00	0.985	0.892	0.920
14:00-15:00	0.942	0.908	0.922
15:00-16:00	0.951	0.923	0.922
16:00-17:00	0.932	0.917	0.913
17:00-18:00	0.928	0.894	0.898
18:00-19:00	0.890	0.884	0.866
19:00-20:00	0.850	0.825	0.834
20:00-21:00	0.824	0.839	0.839
21:00-22:00	0.824	0.830	0.821
22:00-23:00	0.810	0.807	0.843
23:00-00:00	0.798	0.786	0.826
1 hr-Minimum	0.774	0.767	0.775
1 hr-Maximum	1.001	0.925	0.922
Avg. 8 hrs	00:00-08:00	0.804	0.784
	08:00-16:00	0.936	0.890
	16:00-00:00	0.857	0.848
Standard* (avg. 1 hr)		≤ 30	
Standard* (avg. 8 hrs)		≤ 9	

**Analytical Method :** - Non-dispersive Infrared (NDIR) Method.

**Source :** \* The notification of the National Environment Board No.10, B.E. 2538 (1995), subjected "The ambient air standards", published in the Royal Government Gazette, Vol. 112, Part 42D, dated 1



SGS (THAILAND) LIMITED

This document is issued by the Company under its General Conditions of Service printed over and attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279471

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group

**Report No. : 2024-500000580-4/ 001-2 (Page 4 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : บ้านท่าโสม**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

Station	Date	THC (ppm)
บ้านท่าโสม	April 25, 2024	3.93
	April 26, 2024	3.41
	April 27, 2024	3.34

TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279472

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group



Report No. : 2024-500000580-4/ 001-2 (Page 5 of 8)

Issued date : May 17, 2024

CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)

CONTACT :

ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

SAMPLE DESIGNATED AS : Ambient Air Quality

SAMPLING DATE : April 25-27, 2024

SAMPLING LOCATION : บ้านท่าโสม

SAMPLING BY :

LABORATORY NAME : SGS (Thailand) Limited

Time	SO <sub>2</sub> Concentration (ppm)		
	April 25, 2024	April 26, 2024	April 27, 2024
00:00-01:00	0.003	0.005	0.004
01:00-02:00	0.003	0.007	0.003
02:00-03:00	0.004	0.005	0.004
03:00-04:00	0.004	0.005	0.003
04:00-05:00	0.004	0.005	0.004
05:00-06:00	0.004	0.005	0.004
06:00-07:00	0.005	0.004	0.008
07:00-08:00	0.005	0.004	0.007
08:00-09:00	0.002	0.006	0.006
09:00-10:00	0.003	0.006	0.005
10:00-11:00	0.002	0.005	0.004
11:00-12:00	0.002	0.004	0.004
12:00-13:00	0.002	0.005	0.003
13:00-14:00	0.003	0.005	0.004
14:00-15:00	0.004	0.003	0.004
15:00-16:00	0.004	0.004	0.005
16:00-17:00	0.004	0.005	0.004
17:00-18:00	0.004	0.005	0.003
18:00-19:00	0.004	0.003	0.003
19:00-20:00	0.005	0.003	0.005
20:00-21:00	0.006	0.004	0.005
21:00-22:00	0.005	0.004	0.006
22:00-23:00	0.005	0.004	0.006
23:00-00:00	0.005	0.004	0.006
1 hr-Minimum	0.002	0.003	0.003
1 hr-Maximum	0.006	0.007	0.008
Avg. 24 hr	0.004	0.005	0.005
Standard* (avg. 1 hr)	≤ 0.30		
Standard** (avg. 24 hr)	≤ 0.12		

Analytical Method :

Sources :

- UV Fluorescence Method.
- \* The notification of the National Environment Board No.21, B.E. 2544 (2001), subjected "The ambient air standards", published in the Royal Government Gazette, Vol. 118, Part 39E, dated April 30, B.E. 2544 (2001).
- \*\* The notification of the National Environment Board No. 24, B.E. 2547 (2004), subjected "The ambient air standards", published in the Royal Government Gazette, Vol. 121, Part 104D, dated September 1, B.E. 2547 (2004).



TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279473

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group

**Report No. : 2024-500000580-4/ 001-2 (Page 6 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : บ้านท่าโสม**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

TIME	April 25, 2024		April 26, 2024		April 27, 2024	
	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)
00:00-01:00	-	CALM	-	CALM	-	CALM
01:00-02:00	-	CALM	-	CALM	-	CALM
02:00-03:00	-	CALM	-	CALM	-	CALM
03:00-04:00	-	CALM	-	CALM	-	CALM
04:00-05:00	-	CALM	-	CALM	-	CALM
05:00-06:00	-	CALM	-	CALM	-	CALM
06:00-07:00	-	CALM	-	CALM	-	CALM
07:00-08:00	-	CALM	-	CALM	-	CALM
08:00-09:00	-	CALM	-	CALM	-	CALM
09:00-10:00	E	0.9	-	CALM	-	CALM
10:00-11:00	S	0.9	S	0.9	WSW	0.9
11:00-12:00	-	CALM	WNW	0.9	SSW	0.9
12:00-13:00	-	CALM	-	CALM	-	CALM
13:00-14:00	-	CALM	-	CALM	-	CALM
14:00-15:00	-	CALM	-	CALM	-	CALM
15:00-16:00	-	CALM	-	CALM	-	CALM
16:00-17:00	-	CALM	-	CALM	-	CALM
17:00-18:00	-	CALM	-	CALM	-	CALM
18:00-19:00	-	CALM	-	CALM	-	CALM
19:00-20:00	-	CALM	-	CALM	-	CALM
20:00-21:00	-	CALM	-	CALM	-	CALM
21:00-22:00	-	CALM	-	CALM	-	CALM
22:00-23:00	-	CALM	-	CALM	-	CALM
23:00-00:00	-	CALM	-	CALM	-	CALM

**Measurement Method :** - Wind Speed and Wind Direction recording meter

**Remarks :** - WS = Wind Speed  
- WD = Wind Direction



TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279474

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group



**Report No. : 2024-500000580-4/ 001-2 (Page 7 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : บ้านท่าโสม**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

Wind Direction \ Wind Speed	Percent of Wind Speed (%)				
	0.5-1.0 m/s	1.1-2.0 m/s	2.1-3.0 m/s	3.1-4.0 m/s	>4.0 m/s
N	-	-	-	-	-
NNE	-	-	-	-	-
NE	-	-	-	-	-
ENE	-	-	-	-	-
E	1.39	-	-	-	-
ESE	-	-	-	-	-
SE	-	-	-	-	-
SSE	-	-	-	-	-
S	2.78	-	-	-	-
SSW	1.39	-	-	-	-
SW	-	-	-	-	-
WSW	1.39	-	-	-	-
W	-	-	-	-	-
WNW	1.39	-	-	-	-
NW	-	-	-	-	-
NNW	-	-	-	-	-
<b>CALM</b>	<b>91.67</b>				

TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279475

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group

**Report No. : 2024-500000580-4/ 001-2 (Page 8 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

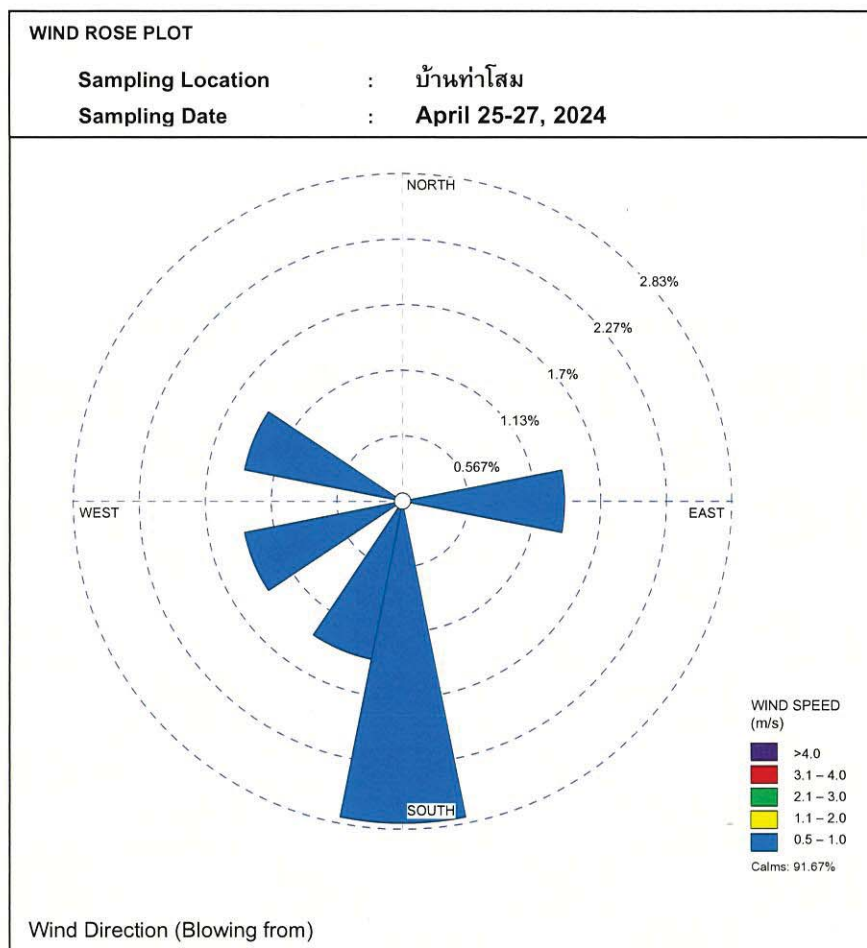
**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : บ้านท่าโสม**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**



SGS (THAILAND) LIMITED

TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279476

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

**Report No. : 2024-500000580-4/ 001-3 (Page 1 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-28, 2024**

**SAMPLING LOCATION : บ้านบางกระดาน**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

Station	Date	Parameter	
		TSP (mg/m <sup>3</sup> )	PM10 (mg/m <sup>3</sup> )
บ้านบางกระดาน	April 25-26, 2024	0.019	0.015
	April 26-27, 2024	0.022	0.012
	April 27-28, 2024	0.018	0.011
Standard *		≤ 0.33	≤ 0.12

**Remark :** - Sampling and analytical technique for TSP based on High Volume Air Sampler / Gravimetric Method and PM10 based on Size Selective High Volume Air Sampler / Gravimetric Method.

**Source :** \* The notification of the National Environment Board No. 24, B.E. 2547 (2004), subjected "The ambient air standards", published in the Royal Government Gazette, Vol. 121, Part 104D, dated September 22, B.E. 2547 (2004).

TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279477

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group



**Report No. : 2024-500000580-4/ 001-3 (Page 2 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : บ้านบางกระดาน**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

Time	NO <sub>2</sub> Concentration (ppm)		
	April 25, 2024	April 26, 2024	April 27, 2024
00:00-01:00	0.005	0.006	0.003
01:00-02:00	0.005	0.005	0.004
02:00-03:00	0.004	0.005	0.004
03:00-04:00	0.005	0.004	0.004
04:00-05:00	0.004	0.004	0.004
05:00-06:00	0.005	0.005	0.004
06:00-07:00	0.005	0.004	0.005
07:00-08:00	0.010	0.009	0.005
08:00-09:00	0.009	0.007	0.006
09:00-10:00	0.005	0.003	0.003
10:00-11:00	0.006	0.003	0.004
11:00-12:00	0.003	0.003	0.003
12:00-13:00	0.003	0.004	0.003
13:00-14:00	0.003	0.006	0.002
14:00-15:00	0.004	0.005	0.002
15:00-16:00	0.005	0.004	0.003
16:00-17:00	0.003	0.003	0.002
17:00-18:00	0.001	0.002	0.002
18:00-19:00	0.001	0.001	0.002
19:00-20:00	0.002	0.001	0.002
20:00-21:00	0.002	0.002	0.002
21:00-22:00	0.002	0.006	0.003
22:00-23:00	0.003	0.005	0.004
23:00-00:00	0.004	0.004	0.005
1 hr-Minimum	0.001	0.001	0.002
1 hr-Maximum	0.010	0.009	0.006
Avg. 24 hr	0.004	0.004	0.003
Standard* (avg. 1 hr)	≤ 0.17		

**Analytical Method : -** Chemiluminescence Method.

**Source : \*** The notification of the National Environment Board No. 33, B.E. 2552 (2009), subjected "The nitrogen dioxide in ambient air standards", published in the Royal Government Gazette, Vol. 126, Special part 114D, dated August 14, B.E. 2552 (2009).

SGS (THAILAND) LIMITED

TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279478

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group

**Report No. : 2024-500000580-4/ 001-3 (Page 3 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : บ้านบางกระดาน**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

Time	CO Concentration (ppm)		
	April 25, 2024	April 26, 2024	April 27, 2024
00:00-01:00	0.556	0.541	0.590
01:00-02:00	0.552	0.549	0.582
02:00-03:00	0.576	0.567	0.578
03:00-04:00	0.548	0.545	0.573
04:00-05:00	0.555	0.557	0.577
05:00-06:00	0.593	0.555	0.585
06:00-07:00	0.627	0.605	0.844
07:00-08:00	0.669	0.649	0.789
08:00-09:00	0.584	0.574	0.607
09:00-10:00	0.603	0.578	0.592
10:00-11:00	0.587	0.568	0.572
11:00-12:00	0.585	0.595	0.583
12:00-13:00	0.588	0.626	0.583
13:00-14:00	0.608	0.610	0.588
14:00-15:00	0.559	0.573	0.587
15:00-16:00	0.574	0.610	0.584
16:00-17:00	0.550	0.565	0.595
17:00-18:00	0.567	0.580	0.595
18:00-19:00	0.523	0.560	0.592
19:00-20:00	0.558	0.585	0.598
20:00-21:00	0.540	0.647	0.591
21:00-22:00	0.545	0.570	0.584
22:00-23:00	0.532	0.574	0.630
23:00-00:00	0.560	0.569	0.605
1 hr-Minimum	0.523	0.541	0.572
1 hr-Maximum	0.669	0.649	0.844
Avg. 8 hrs	00:00-08:00	0.585	0.640
	08:00-16:00	0.586	0.587
	16:00-00:00	0.547	0.599
Standard* (avg. 1 hr)		≤ 30	
Standard* (avg. 8 hrs)		≤ 9	

**Analytical Method :** - Non-dispersive Infrared (NDIR) Method.

**Source :** \* The notification of the National Environment Board No.10, B.E. 2538 (1995), subjected "The ambient air standards", published in the Royal Government Gazette, Vol. 112, Part 42D, dated M



SGS (THAILAND) LIMITED

TY/SE/SJS/SJS  
This document is issued by the Company under its General Conditions of Service printed on leaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279479

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group



**Report No. : 2024-500000580-4/ 001-3 (Page 4 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : บ้านบางกระดาน**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

Station	Date	THC (ppm)
บ้านบางกระดาน	April 25, 2024	3.86
	April 26, 2024	3.32
	April 27, 2024	3.57

TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279480

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group

**Report No. : 2024-500000580-4/ 001-3 (Page 5 of 8)** **Issued date : May 17, 2024**

**CLIENT :** BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  


## Analysis Report

**SAMPLE DESIGNATED AS :** Ambient Air Quality **SAMPLING DATE :** April 25-27, 2024  
**SAMPLING LOCATION :** บ้านบางกระดาน **SAMPLING BY :**   
**LABORATORY NAME :** SGS (Thailand) Limited

Time	SO <sub>2</sub> Concentration (ppm)		
	April 25, 2024	April 26, 2024	April 27, 2024
00:00-01:00	0.002	0.001	0.002
01:00-02:00	0.001	0.001	0.002
02:00-03:00	0.001	0.002	0.002
03:00-04:00	0.001	0.001	0.001
04:00-05:00	0.002	0.001	0.001
05:00-06:00	0.001	0.002	0.001
06:00-07:00	0.001	0.001	0.001
07:00-08:00	0.002	0.002	0.003
08:00-09:00	0.002	0.001	0.004
09:00-10:00	0.002	0.002	0.002
10:00-11:00	0.002	0.002	0.003
11:00-12:00	0.003	0.003	0.006
12:00-13:00	0.003	0.003	0.004
13:00-14:00	0.003	0.001	0.003
14:00-15:00	0.003	0.003	0.002
15:00-16:00	0.002	0.002	0.004
16:00-17:00	0.001	0.001	0.006
17:00-18:00	0.001	0.004	0.004
18:00-19:00	0.001	0.003	0.002
19:00-20:00	0.001	0.004	0.002
20:00-21:00	0.001	0.003	0.003
21:00-22:00	0.002	0.002	0.003
22:00-23:00	0.002	0.001	0.004
23:00-00:00	0.002	0.001	0.002
1 hr-Minimum	0.001	0.001	0.001
1 hr-Maximum	0.003	0.004	0.006
Avg. 24 hr	0.002	0.002	0.003
Standard* (avg. 1 hr)	≤ 0.30		
Standard** (avg. 24 hr)	≤ 0.12		

**Analytical Method :**  
**Sources :**

- UV Fluorescence Method.
- \* The notification of the National Environment Board No.21, B.E. 2544 (2001), subjected "The ambient air standards", published in the Royal Government Gazette, Vol. 118, Part 39E, dated April 30, B.E. 2544 (2001).
- \*\* The notification of the National Environment Board No. 24, B.E. 2547 (2004), subjected "The ambient air standards", published in the Royal Government Gazette, Vol. 121, Part 104D, dated September 1, B.E. 2547 (2004).



TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279481



**Report No. : 2024-500000580-4/ 001-3 (Page 6 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : บ้านบางกระดาน**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

TIME	April 25, 2024		April 26, 2024		April 27, 2024	
	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)	Wind Direction	Wind Speed (m/s)
00:00-01:00	-	CALM	-	CALM	-	CALM
01:00-02:00	-	CALM	-	CALM	-	CALM
02:00-03:00	-	CALM	-	CALM	-	CALM
03:00-04:00	-	CALM	-	CALM	-	CALM
04:00-05:00	-	CALM	-	CALM	-	CALM
05:00-06:00	-	CALM	-	CALM	-	CALM
06:00-07:00	-	CALM	-	CALM	-	CALM
07:00-08:00	-	CALM	-	CALM	-	CALM
08:00-09:00	-	CALM	SSW	0.9	-	CALM
09:00-10:00	SSE	1.3	SW	1.8	SSW	0.9
10:00-11:00	SSE	1.8	WSW	1.8	SSE	1.3
11:00-12:00	W	1.8	WSW	2.7	WSW	2.7
12:00-13:00	W	2.2	WSW	3.1	WSW	2.7
13:00-14:00	WSW	3.6	WSW	3.6	WSW	3.1
14:00-15:00	WSW	3.6	WSW	3.1	WSW	3.1
15:00-16:00	WSW	3.6	WSW	3.6	WSW	3.6
16:00-17:00	WSW	3.6	WSW	3.1	WSW	3.6
17:00-18:00	WSW	3.1	WSW	2.7	WSW	2.7
18:00-19:00	WSW	2.7	WSW	2.2	WSW	2.7
19:00-20:00	WSW	1.8	WSW	0.9	SW	1.8
20:00-21:00	WSW	0.9	-	CALM	SW	1.3
21:00-22:00	-	CALM	-	CALM	-	CALM
22:00-23:00	-	CALM	-	CALM	-	CALM
23:00-00:00	-	CALM	-	CALM	-	CALM

**Measurement Method :** - Wind Speed and Wind Direction recording meter

**Remarks :**  
 - WS = Wind Speed  
 - WD = Wind Direction

SGS (THAILAND) LIMITED

TY/SE/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279482

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
 t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group



**Report No. : 2024-500000580-4/ 001-3 (Page 7 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

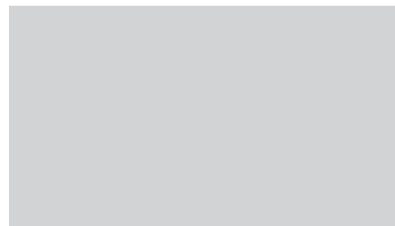
**SAMPLING LOCATION : บ้านบางกระดาน**

**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

Wind Direction \ Wind Speed	Percent of Wind Speed (%)				
	0.5-1.0 m/s	1.1-2.0 m/s	2.1-3.0 m/s	3.1-4.0 m/s	>4.0 m/s
N	-	-	-	-	-
NNE	-	-	-	-	-
NE	-	-	-	-	-
ENE	-	-	-	-	-
E	-	-	-	-	-
ESE	-	-	-	-	-
SE	-	-	-	-	-
SSE	-	4.17	-	-	-
S	-	-	-	-	-
SSW	2.78	-	-	-	-
SW	-	4.17	-	-	-
WSW	2.78	2.78	11.11	19.44	-
W	-	1.39	1.39	-	-
WNW	-	-	-	-	-
NW	-	-	-	-	-
NNW	-	-	-	-	-
CALM	50.00				

TY/SE/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279483

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group

**Report No. : 2024-500000580-4/ 001-3 (Page 8 of 8)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS (PUBLIC) COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Ambient Air Quality**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : บ้านบางกระดาน**

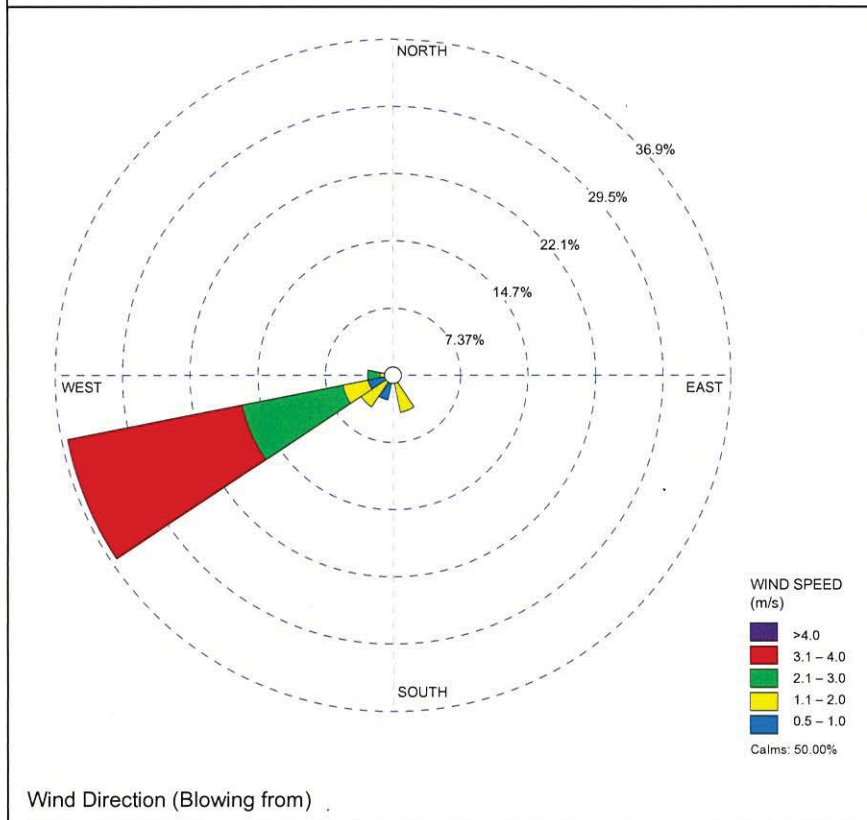
**SAMPLING BY :**

**LABORATORY NAME : SGS (Thailand) Limited**

### WIND ROSE PLOT

**Sampling Location : บ้านบางกระดาน**

**Sampling Date : April 25-27, 2024**



TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279484

SGS (Thailand) Limited



Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group


ระดับเสียงทั่วไป (Leq-24 hr)



**Report No. : 2024-500000580-4/ 002-1 (Page 1 of 1)** Issued date : May 17, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  


## Analysis Report

**SAMPLE DESIGNATED AS :** Noise Level **MEASUREMENT DATE :** April 25-27, 2024  
**MEASUREMENT LOCATION :** พื้นที่โครงการ **MEASUREMENT BY :**   
**CALIBRATION DATA :** Model CR:515, Cirrus Research plc, Serial No. 88350  
 Calibration Value Reference: 94.0 dB(A), Pre Cal. : 93.7 dB(A), Post Cal. : 93.7 dB(A)  
**SOUND LEVEL METER NO. :** Model CR:171B, Cirrus Research plc, Serial No. G078137

Time	Noise Level [dB(A)]									Standard <sup>1/</sup>
	April 25, 2024			April 26, 2024			April 27, 2024			
	Leq	Lmax	L90	Leq	Lmax	L90	Leq	Lmax	L90	
00:00-01:00	38.7	58.4	36.4	42.6	55.6	39.7	39.2	55.5	36.8	
01:00-02:00	37.9	50.1	34.7	42.8	57.5	39.8	39.7	56.8	36.5	
02:00-03:00	38.6	50.3	35.3	45.2	65.5	40.5	40.2	56.0	37.5	
03:00-04:00	43.2	67.3	34.7	42.3	53.8	39.2	39.3	51.8	37.5	
04:00-05:00	45.9	65.7	36.7	47.3	68.7	40.3	41.6	57.8	38.6	
05:00-06:00	51.4	73.1	38.2	52.2	75.9	41.2	46.8	73.0	40.3	
06:00-07:00	46.2	62.0	38.4	48.5	69.4	39.5	50.4	65.9	42.5	
07:00-08:00	50.3	73.9	35.5	50.4	79.0	38.5	52.0	69.0	43.0	
08:00-09:00	50.0	68.4	40.8	49.7	63.1	41.4	54.3	79.9	43.2	
09:00-10:00	52.1	70.1	39.3	52.3	63.4	46.7	63.9	82.3	46.6	
10:00-11:00	52.4	73.3	39.6	50.6	64.2	45.0	51.6	72.4	41.1	
11:00-12:00	59.0	84.1	41.3	49.3	64.6	42.3	46.2	68.9	39.4	
12:00-13:00	61.6	81.5	44.0	59.4	79.3	43.8	57.6	77.0	42.3	
13:00-14:00	62.7	82.7	43.6	63.3	90.1	44.5	62.2	84.3	41.8	
14:00-15:00	48.4	63.1	43.9	50.8	65.2	45.2	53.4	64.1	42.6	
15:00-16:00	48.3	68.6	43.1	50.1	65.6	44.8	50.3	63.6	41.3	
16:00-17:00	52.4	76.0	41.8	50.6	65.2	42.0	51.1	70.6	40.6	
17:00-18:00	63.1	81.2	43.1	63.5	83.1	43.9	63.2	87.5	42.5	
18:00-19:00	48.0	68.5	39.7	49.2	68.6	39.6	46.6	68.5	36.8	
19:00-20:00	46.5	68.8	39.0	45.4	62.5	38.3	43.4	58.5	36.1	
20:00-21:00	42.1	64.8	37.1	41.2	58.3	37.2	41.2	60.0	37.4	
21:00-22:00	40.6	57.3	37.2	42.0	56.4	38.6	40.8	54.6	37.5	
22:00-23:00	44.6	63.5	37.5	42.8	66.7	37.5	42.7	57.1	38.0	
23:00-00:00	44.1	63.8	38.5	39.9	55.7	37.5	40.4	59.4	37.5	
Leq 24 hrs	54.9	-	-	54.5	-	-	55.3	-	-	≤ 70
Ldn	56.3	-	-	56.4	-	-	56.3	-	-	-
Lmax	-	84.1	-	-	90.1	-	-	87.5	-	≤ 115

**Source :** <sup>1/</sup> Notification of the National Environment Board No.15, B.E. 2540 (1997)

TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279485

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
 t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group

**Report No. : 2024-500000580-4 / 002-2 (Page 1 of 1)** Issued date : May 17, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS :** Noise Level **MEASUREMENT DATE:** April 25-27, 2024  
**MEASUREMENT LOCATION :** บ้านท่าโสม **MEASUREMENT BY :**   
**CALIBRATION DATA :** Model CR:515, Cirrus Research plc, Serial No. 88350  
 Calibration Value Reference: 94.0 dB(A), Pre Cal. : 93.7 dB(A), Post Cal. : 93.7 dB(A)  
**SOUND LEVEL METER NO. :** Model CR:161B, Cirrus Research plc, Serial No. G078054

Time	Noise Level [dB(A)]									Standard <sup>1/</sup>
	April 25, 2024			April 26, 2024			April 27, 2024			
	Leq	Lmax	L90	Leq	Lmax	L90	Leq	Lmax	L90	
00:00-01:00	47.1	63.8	40.6	49.4	67.5	45.8	49.7	64.6	46.2	
01:00-02:00	48.1	67.2	41.5	49.5	65.1	45.9	49.4	61.6	46.6	
02:00-03:00	48.9	72.3	41.5	49.2	66.8	45.9	48.8	59.2	46.8	
03:00-04:00	45.6	61.0	41.7	49.1	63.0	46.1	48.7	64.7	45.4	
04:00-05:00	48.3	64.1	43.8	49.9	68.6	46.8	48.7	59.5	45.3	
05:00-06:00	50.6	66.8	44.0	51.3	60.6	47.7	51.3	66.2	46.2	
06:00-07:00	56.2	75.4	46.3	55.3	69.9	50.2	53.6	70.0	47.9	
07:00-08:00	55.4	70.0	46.5	55.3	72.7	48.8	54.6	68.9	48.9	
08:00-09:00	54.7	73.5	46.2	54.2	72.9	47.9	53.9	68.9	46.9	
09:00-10:00	55.3	66.3	47.8	56.5	76.1	49.0	52.3	69.5	46.8	
10:00-11:00	53.4	75.1	47.3	55.3	75.6	48.9	52.2	67.9	47.5	
11:00-12:00	53.5	68.9	48.5	54.5	69.2	49.0	52.1	67.3	48.3	
12:00-13:00	54.6	71.8	49.0	54.5	67.0	49.7	52.0	66.4	48.2	
13:00-14:00	54.4	69.8	49.3	55.2	72.7	49.5	51.8	72.5	48.1	
14:00-15:00	54.7	75.2	49.1	55.1	69.7	50.4	53.4	74.4	47.9	
15:00-16:00	55.4	76.5	49.4	54.7	71.2	49.8	54.0	74.0	49.0	
16:00-17:00	56.7	75.6	50.0	54.1	70.3	49.4	52.9	66.2	48.7	
17:00-18:00	54.5	72.2	49.3	53.7	65.3	49.4	53.6	67.6	49.1	
18:00-19:00	54.0	72.4	49.2	53.8	74.0	48.4	53.8	77.0	48.5	
19:00-20:00	51.8	66.3	46.6	52.6	64.9	47.4	52.7	66.6	48.3	
20:00-21:00	51.5	66.7	46.1	54.6	77.9	46.9	52.8	67.1	48.3	
21:00-22:00	51.5	63.9	46.9	53.5	74.6	47.1	52.8	64.3	49.0	
22:00-23:00	50.9	69.0	45.6	51.7	65.9	47.7	53.5	72.7	48.1	
23:00-00:00	51.2	69.3	45.9	54.3	78.7	47.3	50.1	62.9	47.5	
Leq 24 hrs	53.3	-	-	53.7	-	-	52.4	-	-	≤ 70
Ldn	57.9	-	-	58.7	-	-	57.7	-	-	-
Lmax	-	76.5	-	-	78.7	-	-	77.0	-	≤ 115

**Source :** <sup>1/</sup> Notification of the National Environment Board No.15, B.E. 2540 (1997)



TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

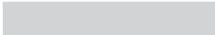
E 279486



**Report No. : 2024-500000580-4/ 002-3 (Page 1 of 1)** **Issued date : May 17, 2024**

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  


## Analysis Report

**SAMPLE DESIGNATED AS :** Noise Level **MEASUREMENT DATE:** April 25-27, 2024  
**SAMPLING LOCATION :** บ้านบางกระดาน **MEASUREMENT BY :**   
**CALIBRATION DATA :** Model CR:515, Cirrus Research plc, Serial No. 88350  
 Calibration Value Reference: 94.0 dB(A), Pre Cal. : 93.7 dB(A), Post Cal. : 93.7 dB(A)  
**SOUND LEVEL METER NO. :** Model CR:171B, Cirrus Research plc, Serial No. G078138

Time	Noise Level [dB(A)]									Standard <sup>1/</sup>
	April 25, 2024			April 26, 2024			April 27, 2024			
	Leq	Lmax	L90	Leq	Lmax	L90	Leq	Lmax	L90	
00:00-01:00	48.2	67.2	36.5	44.3	60.7	36.0	49.3	70.4	36.9	
01:00-02:00	46.5	66.8	33.4	44.6	66.6	35.7	43.5	62.5	37.6	
02:00-03:00	43.7	70.4	34.2	42.8	65.9	34.7	43.0	59.7	37.7	
03:00-04:00	40.0	59.4	33.4	42.7	60.8	36.3	44.0	62.2	37.8	
04:00-05:00	47.4	69.5	35.7	44.2	63.0	35.1	46.6	66.5	37.0	
05:00-06:00	52.6	74.1	37.7	51.6	70.2	39.7	52.4	72.1	40.0	
06:00-07:00	54.8	74.3	42.2	54.1	69.1	43.8	52.9	70.3	42.3	
07:00-08:00	57.1	78.8	42.9	56.3	78.2	42.3	54.4	73.0	41.3	
08:00-09:00	56.1	76.7	42.4	55.3	70.5	43.0	53.7	68.1	40.7	
09:00-10:00	54.2	72.9	41.8	54.3	73.6	42.6	54.5	71.4	40.3	
10:00-11:00	56.1	78.3	41.6	54.8	74.2	41.3	57.1	79.6	43.1	
11:00-12:00	55.9	76.7	42.3	54.9	71.9	42.4	55.1	71.8	41.8	
12:00-13:00	55.7	76.1	43.1	56.4	78.2	42.8	56.3	76.3	41.3	
13:00-14:00	56.3	81.0	42.7	55.5	76.5	42.2	55.7	76.6	41.4	
14:00-15:00	55.6	78.2	42.4	55.2	71.9	42.8	56.2	77.3	40.6	
15:00-16:00	53.3	68.4	42.4	55.4	74.0	42.7	53.7	68.0	42.4	
16:00-17:00	54.5	77.1	42.6	55.5	73.8	42.5	54.4	71.1	43.3	
17:00-18:00	61.6	85.1	44.9	60.7	81.3	43.8	55.3	73.8	44.2	
18:00-19:00	53.6	69.5	42.4	56.1	78.4	44.2	58.1	86.5	44.8	
19:00-20:00	51.7	71.9	40.4	52.5	72.3	42.7	54.1	77.5	44.4	
20:00-21:00	50.1	73.9	39.1	50.7	69.6	39.5	50.5	69.5	43.9	
21:00-22:00	49.1	71.7	37.0	48.2	67.4	38.2	51.5	76.3	42.3	
22:00-23:00	48.1	68.9	35.0	47.3	67.9	38.5	48.5	65.4	43.8	
23:00-00:00	45.8	62.7	35.4	48.2	72.6	38.1	48.7	63.2	44.4	
Leq 24 hrs	54.3	-	-	54.0	-	-	53.7	-	-	≤ 70
Ldn	57.5	-	-	56.9	-	-	57.0	-	-	-
Lmax	-	85.1	-	-	81.3	-	-	86.5	-	≤ 115

**Source :** <sup>1/</sup> Notification of the National Environment Board No.15, B.E. 2540 (1997)

SGS (THAILAND) LIMITED

TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279487

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
 t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com



ความสิ้นสะท้อน

**Report No. : 2024-500000580-4/ 003-1 (Page 1 of 2)** Issued date : May 17, 2024

**CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Vibration**

**SAMPLING DATE : April 25-27, 2024**

**SAMPLING LOCATION : ขอบสนามบินตำแหน่งที่เครื่องบิน**

**SAMPLING BY :**

แต่ะพื้นทางวิ่งขณะบินลง (UTM 48 P 0208033E, 1358171N)

Date	Time	Transverse			Vertical			Longitudinal		
		PPV (mm/s)	Frequency (Hz)	PD (mm)	PPV (mm/s)	Frequency (Hz)	PD (mm)	PPV (mm/s)	Frequency (Hz)	PD (mm)
April 25, 2024	-	<0.254	N/A	N/A	<0.254	N/A	N/A	<0.254	N/A	N/A
April 26, 2024	-	<0.254	N/A	N/A	<0.254	N/A	N/A	<0.254	N/A	N/A
April 27, 2024	-	<0.254	N/A	N/A	<0.254	N/A	N/A	<0.254	N/A	N/A
Standard <sup>1/</sup>	-	-	-	-	-	-	-	-	-	-

**Remarks :** - N/A = Not Applicable  
- PPV = Peak Particle Velocity  
- PD = Peak Displacement

**Source :** <sup>1/</sup> Notification of the National Environmental Board. No. 37, 2553 (B.E. 2010).

TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279491

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

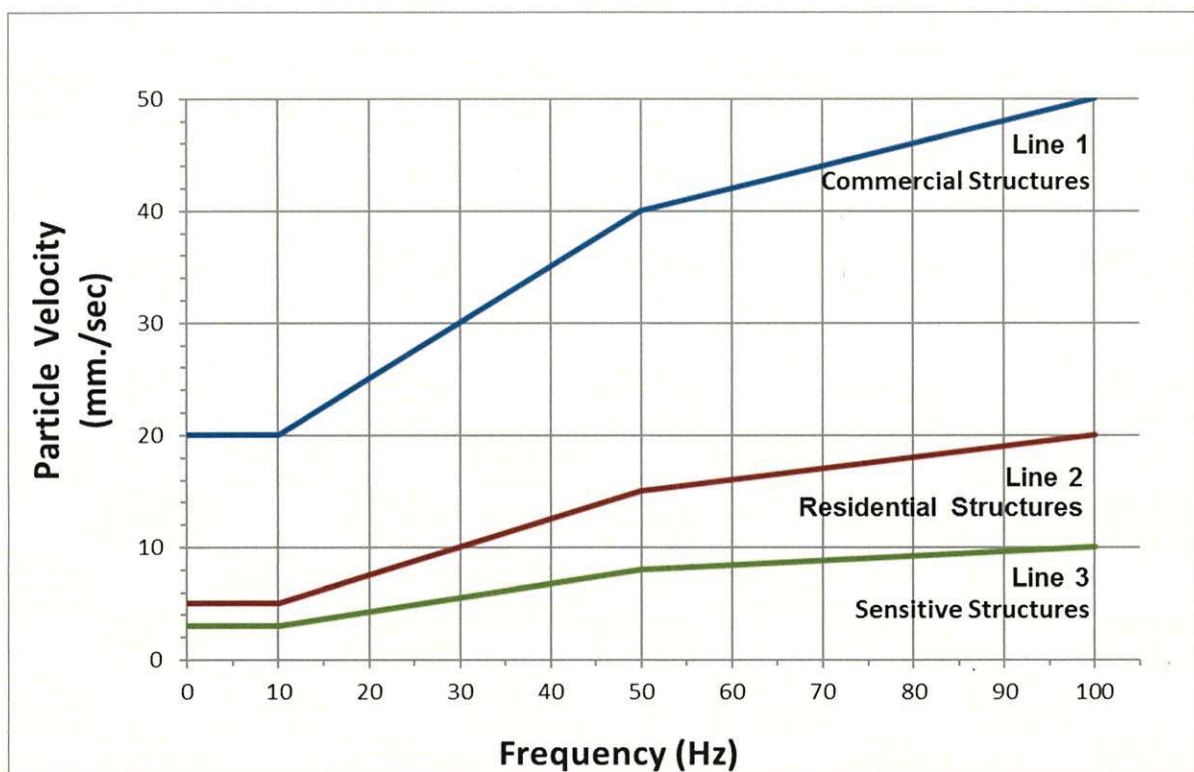
Member of the SGS Group

Report No. : 2024-500000580-4/ 003-1 (Page 2 of 2) Issued date : May 17, 2024

CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
CONTACT :   
ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

SAMPLE DESIGNATED AS : Vibration SAMPLING DATE : April 25-27, 2024  
SAMPLING LOCATION : ขอบสนามบินตำแหน่งที่เครื่องบิน  
และพื้นที่ทางวิ่งขณะบินลง (UTM 48 P 0208033E, 1358171N)  
SAMPLING BY :



หมายเหตุ : - เส้นที่ 1 = อาคารที่ใช้หรือออกแบบเพื่อใช้ในทางอุตสาหกรรมและพาณิชย์กรรม

- เส้นที่ 2 = อาคารที่พักอาศัยหรือออกแบบเพื่อใช้ในการอยู่อาศัย

- เส้นที่ 3 = โครงสร้างอาคารที่สามารถรับแรงสั่นสะเทือนได้น้อย

- สำหรับผลการตรวจวัดแรงสั่นสะเทือนระหว่างวันที่ 25-27 เมษายน 2567 ไม่พบเหตุการณ์ (PPV < 0.254 mm/s)

ที่มา : - ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ เรื่อง กำหนดมาตรฐานความสั่นสะเทือนเพื่อป้องกันผลกระทบต่ออาคาร พ.ศ. 2553 ประกาศ ณ วันที่ 26 เมษายน 2553  
ตีพิมพ์ในราชกิจจานุเบกษา ฉบับที่ 37 เล่มที่ 127 ตอนพิเศษ 69 ง วันที่ 2 มิถุนายน พ.ศ. 2553  
- มาตรฐานระดับแรงสั่นสะเทือนสำหรับอาคารที่ไวต่อผลกระทบตามมาตรฐานประเทศ



TY/SE/SJS/SJS

This document is issued by the Company under its General Conditions of Service printed on the back. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279492

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com



คุณภาพน้ำใต้ดิน

Report No. : 2024-500000580-4 / 004-1 (Page 1 of 1)

Issued date : May 17, 2024

CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)

CONTACT :

ADDRESS : 99 Moo 14, Vibhavadiranasit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

SAMPLE DESIGNATED AS : Groundwater Quality Analysis

SAMPLING DATE : April 25, 2024

SAMPLING LOCATION : บ่อบาดาลโรงกรองน้ำดิบ  
(UTM 48P 0208523E, 1358812N)  
Trat Airport, Trat Province

SAMPLING TIME : 11:04 hr.

SAMPLING BY :

LABORATORY NAME : SGS (Thailand) Limited

Parameter	Unit	Method	Analytical Value	Standard <sup>1/</sup>	
				Suitable Value	Maximum Allowable
pH	-	APHA, 4500-H <sup>+</sup> B	7.2	7.0-8.5	6.5-9.2
Color	Pt.Co	APHA, 2120 C	Less than 1	5	15
Turbidity	NTU	APHA, 2130 B	1.1	5	20
Suspended Solids (SS)	mg/l	APHA, 2540 D	Less than 2.5	-	-
Conductivity	µs/cm	APHA, 2510 B	343	-	-
Total Hardness (as CaCO <sub>3</sub> )	mg/l	APHA, 2340 C	147	Not more than 300	500
Chloride (Cl)	mg/l	APHA, 4500-Cl D	6	Not more than 250	600
Total Kjeldahl Nitrogen (TKN)	mg/l	APHA, 4500 N <sub>org</sub> B	Less than 1.00	-	-
Sulfate (SO <sub>4</sub> )	mg/l	APHA, 4500-SO <sub>4</sub> E	20	Not more than 200	250
Nitrate (NO <sub>3</sub> )	mg/l	APHA, 4110 B	0.02	Not more than 45	45
Iron (Fe)	mg/l	APHA, 3125 B	0.390	Not more than 0.5	1.0
Total Coliform Bacteria	MPN/100 ml	APHA, 9221 B	3.6	Less than 2.2	-
Fecal Coliform Bacteria	MPN/100 ml	APHA, 9221 E	Less than 1.1	-	-

Remarks : - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA, AWWA&WEF 24<sup>th</sup> edition., 2023.Source : <sup>1/</sup> - The groundwater from this source will be improved the quality before using in the airport.  
Notification of the Ministry of Natural Resources and Environment, B.E. 2551 (2008), published in the Royal Government Gazette, Vol. 125, Special Part 85D, dated May 21 B.E. 2551 (2008).

TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279493

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

**Report No. : 2024-500000580-4 / 004-2 (Page 1 of 1)**

**Issued date : May 17, 2024**

**CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Groundwater Quality Analysis**

**SAMPLING DATE : April 25, 2024**

**SAMPLING LOCATION : บ้านชุมแสง**

**SAMPLING TIME : 10:06 hr.**

(UTM 48P 0207420E, 1359494N)

**SAMPLING BY :**

Trat Airport, Trat Province

**LABORATORY NAME : SGS (Thailand) Limited**

Parameter	Unit	Method	Analytical Value	Standard <sup>1/</sup>	
				Suitable Value	Maximum Allowable
pH	-	APHA, 4500-H <sup>+</sup> B	6.6	7.0-8.5	6.5-9.2
Color	Pt.Co	APHA, 2120 C	Less than 1	5	15
Turbidity	NTU	APHA, 2130 B	2.6	5	20
Suspended Solids (SS)	mg/l	APHA, 2540 D	Less than 2.5	-	-
Conductivity	µs/cm	APHA, 2510 B	156	-	-
Total Hardness (as CaCO <sub>3</sub> )	mg/l	APHA, 2340 C	56	Not more than 300	500
Chloride (Cl)	mg/l	APHA, 4500-Cl D	3	Not more than 250	600
Total Kjeldahl Nitrogen (TKN)	mg/l	APHA, 4500 N <sub>org</sub> B	2.12	-	-
Sulfate (SO <sub>4</sub> )	mg/l	APHA, 4500-SO <sub>4</sub> E	Less than 1	Not more than 200	250
Nitrate (NO <sub>3</sub> )	mg/l	APHA, 4110 B	Less than 0.02	Not more than 45	45
Iron (Fe)	mg/l	APHA, 3125 B	0.593	Not more than 0.5	1.0
Total Coliform Bacteria	MPN/100 ml	APHA, 9221 B	>23	Less than 2.2	-
Fecal Coliform Bacteria	MPN/100 ml	APHA, 9221 E	Less than 1.1	-	-

**Remarks : - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA, AWWA&WEF 24<sup>th</sup> edition., 2023.**

**Source : <sup>1/</sup> Notification of the Ministry of Natural Resources and Environment, B.E. 2551 (2008), published in the Royal Government Gazette, Vol. 125, Special Part 85D, dated Ma**

TY/SE/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 279494

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com



คุณภาพน้ำผิวดิน



**Report No.** : 2024-500000580-7 / 006-1 (Page 1 of 1) **Issued date:** July 12, 2024

**CLIENT** : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT** :   
**ADDRESS** : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS** : Surface Water Quality Analysis  
**SAMPLING LOCATION** : ห้วยวังปลาต้นน้ำก่อนผ่านพื้นที่โครงการ  
(UTM 48P 0209006E, 1358715N)  
Trat Airport, Trat Province  
**LABORATORY NAME** : SGS (Thailand) Limited

**SAMPLING DATE** : June 27, 2024  
**SAMPLING TIME** : 11:55 hr.  
**SAMPLING BY** :

Parameter	Unit	Method	Analytical Value	Standard <sup>1/</sup>
Temperature	°C	APHA, 2550 B	28.7	-
pH	-	APHA, 4500-H <sup>+</sup> B	6.0	5.0-9.0
Turbidity	NTU	APHA, 2130 B	3.5	-
Dissolved Oxygen (DO)	mg/l	APHA, 4500-O C	6.09	Not less than 4.0
Biochemical Oxygen Demand (BOD)	mg/l	APHA, 5210 B	1.9	Not more than 2.0
Suspended Solids (SS)	mg/l	APHA, 2540 D	<2.5	-
Total Hardness (as CaCO <sub>3</sub> )	mg/l	APHA, 2340 C	10	-
Chloride (Cl)	mg/l	APHA, 4500-Cl D	3	-
Nitrate (as N)	mg/l	APHA, 4500-NO <sub>3</sub> E	0.577	Not more than 5.0
Total Coliform Bacteria	MPN/100ml	APHA, 9221 B	790	Not more than 20,000
Fecal Coliform Bacteria	MPN/100ml	APHA, 9221 E	13	Not more than 4,000

**Remark** : - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF.

**Standard** : <sup>1/</sup> Notification of the National Environment Board No. 8, B.E. 2537 (1994), which was issued under the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992) dated January 20, B.E. 2537 (1994) Class 3 Moderately clean fresh surface water resources use for:  
(1) Consumption, but the water should be treated before use.  
(2) Agriculture.

TY/MM/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283156

SGS (Thailand) Limited | Environment, Health and Safety | 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group



**Report No. : 2024-500000580-7 / 006-2 (Page 1 of 1)** Issued date: July 12, 2024

**CLIENT** : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT** :   
**ADDRESS** : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS** : Surface Water Quality Analysis  
**SAMPLING LOCATION** : ห้วยสลักหมู (ในจุดก่อนผ่านพื้นที่โครงการ)  
(UTM 48P 0208641E, 1358442N)  
Trat Airport, Trat Province  
**LABORATORY NAME** : SGS (Thailand) Limited

**SAMPLING DATE** : June 27, 2024  
**SAMPLING TIME** : 13:44 hr.  
**SAMPLING BY** :

Parameter	Unit	Method	Analytical Value	Standard <sup>1/</sup>
Temperature	°C	APHA, 2550 B	30.0	-
pH	-	APHA, 4500-H <sup>+</sup> B	6.2	5.0-9.0
Turbidity	NTU	APHA, 2130 B	6.6	-
Dissolved Oxygen (DO)	mg/l	APHA, 4500-O C	7.61	Not less than 4.0
Biochemical Oxygen Demand (BOD)	mg/l	APHA, 5210 B	1.9	Not more than 2.0
Suspended Solids (SS)	mg/l	APHA, 2540 D	<2.5	-
Total Hardness (as CaCO <sub>3</sub> )	mg/l	APHA, 2340 C	12	-
Chloride (Cl)	mg/l	APHA, 4500-Cl D	3	-
Nitrate (as N)	mg/l	APHA, 4500-NO <sub>3</sub> E	0.824	Not more than 5.0
Total Coliform Bacteria	MPN/100ml	APHA, 9221 B	7,900	Not more than 20,000
Fecal Coliform Bacteria	MPN/100ml	APHA, 9221 E	22	Not more than 4,000

**Remark** : - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF.

**Standard** : <sup>1/</sup> Notification of the National Environment Board No. 8, B.E. 2537 (1994), which was issued under the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992) dated January 20, B.E. 2537 (1994) Class 3 Moderately clean fresh surface water resources use for:  
(1) Consumption, but the water should be treated before use.  
(2) Agriculture.

TY/MW/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283157





Report No. : 2024-500000580-7/ 006-3 (Page 1 of 1)

Issued date: July 12, 2024

CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
CONTACT :   
ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

SAMPLE DESIGNATED AS : Surface Water Quality Analysis  
SAMPLING LOCATION : ห้วยสลักหมู (ในจุดหลังผ่านพื้นที่โครงการ)  
(UTM 48P 0208718E, 1359065N)  
Trat Airport, Trat Province  
LABORATORY NAME : SGS (Thailand) Limited  
SAMPLING DATE : June 27, 2024  
SAMPLING TIME : 10:59 hr.  
SAMPLING BY :

Parameter	Unit	Method	Analytical Value	Standard <sup>1/</sup>
Temperature	°C	APHA, 2550 B	28.6	-
pH	-	APHA, 4500-H <sup>+</sup> B	6.2	5.0-9.0
Turbidity	NTU	APHA, 2130 B	3.7	-
Dissolved Oxygen (DO)	mg/l	APHA, 4500-O C	6.97	Not less than 4.0
Biochemical Oxygen Demand (BOD)	mg/l	APHA, 5210 B	1.8	Not more than 2.0
Suspended Solids (SS)	mg/l	APHA, 2540 D	<2.5	-
Total Hardness (as CaCO <sub>3</sub> )	mg/l	APHA, 2340 C	16	-
Chloride (Cl)	mg/l	APHA, 4500-Cl D	4	-
Nitrate (as N)	mg/l	APHA, 4500-NO <sub>3</sub> E	0.501	Not more than 5.0
Total Coliform Bacteria	MPN/100ml	APHA, 9221 B	110	Not more than 20,000
Fecal Coliform Bacteria	MPN/100ml	APHA, 9221 E	21	Not more than 4,000

Remark : - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF.

Standard : <sup>1/</sup> Notification of the National Environment Board No. 8, B.E. 2537 (1994), which was issued under the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992) dated January 20, B.E. 2537 (1994) Class 3 Moderately clean fresh surface water resources use for:  
(1) Consumption, but the water should be treated before use.  
(2) Agriculture.

TY/MW/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283158

SGS (Thailand) Limited Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group



**Report No. : 2024-500000580-7 / 006-4 (Page 1 of 1)** Issued date: July 12, 2024

**CLIENT** : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT** :   
**ADDRESS** : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS** : Surface Water Quality Analysis  
**SAMPLING LOCATION** : ห้วยชุมแสง (ในจุดก่อนผ่านพื้นที่โครงการ)  
(UTM 48P 0207854E, 1357801N)  
Trat Airport, Trat Province  
**LABORATORY NAME** : SGS (Thailand) Limited  
**SAMPLING DATE** : June 27, 2024  
**SAMPLING TIME** : 14:30 hr.  
**SAMPLING BY** :

Parameter	Unit	Method	Analytical Value	Standard <sup>1/</sup>
Temperature	°C	APHA, 2550 B	30.3	-
pH	-	APHA, 4500-H <sup>+</sup> B	6.2	5.0-9.0
Turbidity	NTU	APHA, 2130 B	5.2	-
Dissolved Oxygen (DO)	mg/l	APHA, 4500-O C	5.69	Not less than 4.0
Biochemical Oxygen Demand (BOD)	mg/l	APHA, 5210 B	1.7	Not more than 2.0
Suspended Solids (SS)	mg/l	APHA, 2540 D	<2.5	-
Total Hardness (as CaCO <sub>3</sub> )	mg/l	APHA, 2340 C	12	-
Chloride (Cl)	mg/l	APHA, 4500-Cl D	3	-
Nitrate (as N)	mg/l	APHA, 4500-NO <sub>3</sub> E	0.036	Not more than 5.0
Total Coliform Bacteria	MPN/100ml	APHA, 9221 B	2,300	Not more than 20,000
Fecal Coliform Bacteria	MPN/100ml	APHA, 9221 E	46	Not more than 4,000

**Remark** : - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF.

**Standard** : <sup>1/</sup> Notification of the National Environment Board No. 8, B.E. 2537 (1994), which was issued under the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992) dated January 20, B.E. 2537 (1994) Class 3 Moderately clean fresh surface water resources use for:  
(1) Consumption, but the water should be treated before use.  
(2) Agriculture.

TY/MW/SJS/SJS



SGS (THAILAND) LIMITED

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283159

SGS (Thailand) Limited | Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group





**Report No.** : 2024-500000580-7 / 006-5 (Page 1 of 1) **Issued date:** July 12, 2024

**CLIENT** : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT** :   
**ADDRESS** : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS** : Surface Water Quality Analysis  
**SAMPLING LOCATION** : ห้วยชุมแสง (ในจุดหลังผ่านพื้นที่โครงการ)  
(UTM 48P 0207659E, 1357930N)  
Trat Airport, Trat Province  
**LABORATORY NAME** : SGS (Thailand) Limited

**SAMPLING DATE** : June 27, 2024  
**SAMPLING TIME** : 09:39 hr.  
**SAMPLING BY** :

Parameter	Unit	Method	Analytical Value	Standard <sup>1/</sup>
Temperature	°C	APHA, 2550 B	27.5	-
pH	-	APHA, 4500-H <sup>+</sup> B	6.1	5.0-9.0
Turbidity	NTU	APHA, 2130 B	5.3	-
Dissolved Oxygen (DO)	mg/l	APHA, 4500-O C	7.62	Not less than 4.0
Biochemical Oxygen Demand (BOD)	mg/l	APHA, 5210 B	1.8	Not more than 2.0
Suspended Solids (SS)	mg/l	APHA, 2540 D	<2.5	-
Total Hardness (as CaCO <sub>3</sub> )	mg/l	APHA, 2340 C	13	-
Chloride (Cl)	mg/l	APHA, 4500-Cl D	5	-
Nitrate (as N)	mg/l	APHA, 4500-NO <sub>3</sub> E	0.072	Not more than 5.0
Total Coliform Bacteria	MPN/100ml	APHA, 9221 B	3,300	Not more than 20,000
Fecal Coliform Bacteria	MPN/100ml	APHA, 9221 E	11	Not more than 4,000

**Remark** : - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF.

**Standard** : <sup>1/</sup> Notification of the National Environment Board No. 8, B.E. 2537 (1994), which was issued under the Enhancement and Conservation of National Environmental Quality Act B.E. 2535 (1992) dated January 20, B.E. 2537 (1994) Class 3 Moderately clean fresh surface water resources use for:  
(1) Consumption, but the water should be treated before use.  
(2) Agriculture.

TY/MW/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283160

SGS (Thailand) Limited | Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group



เพลงก็ตอนพีช



**Report No. : 2024-500000580-7/ 007-1 (Page 1 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vidnavadairangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
[REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification  
**SAMPLING LOCATION :** ห้วยวังปลาตันน้ำก่อนผ่านพื้นที่โครงการ  
**COORDINATE :** UTM 48P 0209006E, 1358715N  
**SAMPLING DATE :** June 27, 2024  
**SAMPLING TIME :** 11:55 hr.  
**SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
<b>Division Cyanophyta</b>	
<b>Class Cyanophyceae (Blue - Green Algae)</b>	
<b>Order Chroococcales</b>	
<b>Family Chroococcaceae</b>	
<i>Chroococcus minutus</i>	24,890
<i>Merismopedia convoluta</i>	29,210
<i>Microcystis aeruginosa</i>	-
<b>Order Nostocales</b>	
<b>Family Oscillatoriaceae</b>	
<i>Oscillatoria Thiebautii</i>	64,308
<i>Oscillatoria limnetica</i>	-
<b>Family Nostocaceae</b>	
<i>Anabaena affinis</i>	19,916
<i>Cylindrospermopsis phillipinensis</i>	37,255
<b>Division Chlorophyta</b>	
<b>Class Chlorophyceae (Green algae)</b>	
<b>Order Volvocales</b>	
<b>Family Volvocaceae</b>	
<i>Volvox tertius</i>	32,006
<b>Order Chlorococcales</b>	
<b>Family Botryococcaceae</b>	
<i>Botryococcus braunii</i>	29,210
<b>Family Oocystaceae</b>	
<i>Dictyosphaerium ehrenbergianum</i>	64,615
<i>Oocystis elliptica</i>	-
<i>Tetraedron caudatum</i>	52,832

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283161

SGS (Thailand) Limited | Environment, Health and Safety | 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group

**Report No. : 2024-500000580-7/ 007-1 (Page 2 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification  
**SAMPLING LOCATION :** ห้วยวังปลาต้นน้ำก่อนผ่านพื้นที่โครงการ  
**COORDINATE :** UTM 48P 0209006E, 1358715N  
**SAMPLING DATE :** June 27, 2024  
**SAMPLING TIME :** 11:55 hr.  
**SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
<b>Division Chlorophyta</b>	
<b>Class Chlorophyceae (Green algae)</b>	
<b>Order Chlorococcales</b>	
<b>Family Scenedesmaceae</b>	
<i>Scenedesmus obliquus</i>	83,869
<i>Actinastrum gracillimum</i>	-
<i>Kirchneriella contorta</i>	-
<b>Family Hydrodictyceae</b>	
<i>Pediastrum duplex</i>	38,122
<i>P.simplex</i>	-
<b>Family Coelastraceae</b>	
<i>Coelastrum astroideum</i>	44,234
<i>C.cambricum Archer</i>	-
<b>Order Zygnematales</b>	
<b>Family Zygnemataceae</b>	
<i>Mougeotia scalaris</i>	19,757
<b>Family Desmidiaceae</b>	
<i>Closterium acerosum</i>	-
<i>C.limneticum Lemmermann</i>	34,235
<i>Staurastrum tetracerum</i>	24,163
<b>Class Euglenophyceae (Euglenoids)</b>	
<b>Order Euglenales</b>	
<b>Family Euglenaceae</b>	
<i>Euglena acus</i>	36,428
<i>Phacus angulatus</i>	24,307
<i>Trachelomonas armata</i>	54,461
<i>T.hispida</i>	-

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



**Report No. : 2024-500000580-7/ 007-1 (Page 3 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification  
**SAMPLING LOCATION :** ห้วยวังปลาตันน้ำก่อนผ่านพื้นที่โครงการ  
**COORDINATE :** UTM 48P 0209006E, 1358715N  
**SAMPLING DATE :** June 27, 2024  
**SAMPLING TIME :** 11:55 hr.  
**SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m3)
<b>Division Chlorophyta</b>	
<b>Class Bacillariophyceae (Diatoms)</b>	
<b>Order Biddulphiales (Centric diatoms)</b>	
<b>Family Thalassiosiraceae</b>	
<i>Cyclotella meneghiniana</i>	37,121
<b>Family Aulacoseiraceae</b>	
<i>Aulacoseira granulata</i>	29,345
<b>Order Bacillariales (Pennate diatoms)</b>	
<b>Suborder Fragiariineae</b>	
<b>Family Fragilariaceae</b>	
<i>Fragilaria sp.</i>	67,379
<b>Suborder Bacillariineae</b>	
<b>Family Achnantheaceae</b>	
<i>Achnanthes sp.</i>	74,158
<b>Family Cymbellaceae</b>	
<i>Cymbella tumida</i>	40,846
<b>Family Naviculaceae</b>	
<i>Gyrosigma spencerii</i>	57,914
<i>Navicula sculpta</i>	23,600
<b>Family Bacillariaceae</b>	
<i>Nitzschia sp.</i>	63,750
<b>Family Surirellaceae</b>	
<i>Surirella angusta</i>	-
<i>Stenopterobia elegans</i>	47,018

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7/ 007-1 (Page 4 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  


## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification  
**SAMPLING LOCATION :** ห้วยวังปลาตันน้ำก่อนผ่านพื้นที่โครงการ  
**COORDINATE :** UTM 48P 0209006E, 1358715N  
**SAMPLING DATE :** June 27, 2024  
**SAMPLING TIME :** 11:55 hr.  
**SAMPLING BY :** 

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
Division Chromophyta	
Class Chrysophyceae	
Order Ochromonadales	
Family Dinobryaceae	
<i>Dinobryon sertularia</i>	42,424
Class Xanthophyceae (Yellow – green algae)	
Order Mischococcales	
Family Scidiaceae	
<i>Centritractus belanophorus</i>	63,893
Class Dinophyceae (Dinoflagellates)	
Order Peridinales	
Family Peridiniaceae	
<i>Peridinium borgei</i>	31,940
<i>Peridinium cunningonii</i>	-
<b>Total Species of Phytoplankton (Species)</b>	<b>30</b>
<b>Total Density of Phytoplankton (Cell/m<sup>3</sup>)</b>	<b>1,293,206</b>
<b>Species Richness Index<sup>1/</sup></b>	<b>2.06</b>
<b>Biodiversity Index<sup>2/</sup></b>	<b>3.32</b>
<b>Evenness Index<sup>3/</sup></b>	<b>0.98</b>

**Remarks :** - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF (APHA, 10200F)

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index.

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.

TY/MW/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283164

**Report No. : 2024-500000580-7/ 007-2 (Page 1 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 13:44 hr.  
**COORDINATE :** UTM 48P 0208641E, 1358442N **SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
<b>Division Cyanophyta</b>	
<b>Class Cyanophyceae (Blue - Green Algae)</b>	
<b>Order Chroococcales</b>	
<b>Family Chroococcaceae</b>	
<i>Chroococcus minutus</i>	-
<i>Merismopedia convoluta</i>	27,986
<i>Microcystis aeruginosa</i>	-
<b>Order Nostocales</b>	
<b>Family Oscillatoriaceae</b>	
<i>Oscillatoria Thiebautii</i>	39,647
<i>Oscillatoria limnetica</i>	44,311
<b>Family Nostocaceae</b>	
<i>Anabaena affinis</i>	19,823
<i>Cylindrospermopsis phillipinensis</i>	34,585
<b>Division Chlorophyta</b>	
<b>Class Chlorophyceae (Green algae)</b>	
<b>Order Volvocales</b>	
<b>Family Volvocaceae</b>	
<i>Volvox tertius</i>	33,233
<b>Order Chlorococcales</b>	
<b>Family Botryococcaceae</b>	
<i>Botryococcus braunii</i>	39,064
<b>Family Oocystaceae</b>	
<i>Dictyosphaerium ehrenbergianum</i>	23,038
<i>Oocystis elliptica</i>	55,890
<i>Tetraedron caudatum</i>	-

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



**Report No. : 2024-500000580-7/ 007-2 (Page 2 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 13:44 hr.  
**COORDINATE :** UTM 48P 0208641E, 1358442N **SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
<b>Division Chlorophyta</b>	
<b>Class Chlorophyceae (Green algae)</b>	
<b>Order Chlorococcales</b>	
<b>Famiy Scenedesmaceac</b>	
<i>Scenedesmus obliquus</i>	23,038
<i>Actinastrum gracillimum</i>	-
<i>Kirchneriella contorta</i>	-
<b>Family Hydrodictyaceae</b>	
<i>Pediastrum duplex</i>	37,267
<i>P. simplex</i>	39,603
<b>Family Coelastraceae</b>	
<i>Coelastrum astroideum</i>	67,081
<i>C. cambricum Archer</i>	-
<b>Order Zygnematales</b>	
<b>Family Zygnemataceae</b>	
<i>Mougeotia scalaris</i>	-
<b>Family Desmidiaceae</b>	
<i>Closterium acerosum</i>	-
<i>C. limneticum Lemmermann</i>	21,822
<i>Staurostrum tetracerum</i>	24,374
<b>Class Euglenophyceae (Euglenoids)</b>	
<b>Order Euglenales</b>	
<b>Family Euglenaceae</b>	
<i>Euglena acus</i>	30,492
<i>Phacus angulatus</i>	15,494
<i>Trachelomonas armata</i>	-
<i>T. hispida</i>	32,251

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7/ 007-2 (Page 3 of 4)** Issued date : July 15, 2024

**CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :** [REDACTED]

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Phytoplankton Identification**

**SAMPLING DATE : June 27, 2024**

**SAMPLING LOCATION : ห้วยสลักหมู (ในจุดก่อนผ่านพื้นที่โครงการ)**

**SAMPLING TIME : 13:44 hr.**

**COORDINATE : UTM 48P 0208641E, 1358442N**


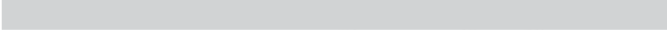
**SAMPLING BY : [REDACTED]**

Scientific Classification	Phytoplankton (Cell/m3)
<b>Division Chlorophyta</b>	
<b>Class Bacillariophyceae (Diatoms)</b>	
<b>Order Biddulphiales (Centric diatoms)</b>	
<b>Family Thalassiosiraceae</b>	
<i>Cyclotella meneghiniana</i>	39,241
<b>Family Aulacoseiraceae</b>	
<i>Aulacoseira granulata</i>	45,264
<b>Order Bacillariales (Pennate diatoms)</b>	
<b>Suborder Fragiariineae</b>	
<b>Family Fragilariaceae</b>	
<i>Fragilaria sp.</i>	42,137
<b>Suborder Bacillariineae</b>	
<b>Family Achnantheaceae</b>	
<i>Achnanthes sp.</i>	26,325
<b>Family Cymbellaceae</b>	
<i>Cymbella tumida</i>	53,583
<b>Family Naviculaceae</b>	
<i>Gyrosigma spencerii</i>	45,398
<i>Navicula sculpta</i>	23,825
<b>Family Bacillariaceae</b>	
<i>Nitzschia sp.</i>	45,128
<b>Family Surirellaceae</b>	
<i>Surirella angusta</i>	30,966
<i>Stenopterobia elegans</i>	-

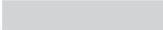
This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7/ 007-2 (Page 4 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  


## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 13:44 hr.  
**COORDINATE :** UTM 48P 0208641E, 1358442N **SAMPLING BY :** 

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
Division Chromophyta	
Class Chrysophyceae	
Order Ochromonadales	
Family Dinobryaceae	
<i>Dinobryon sertularia</i>	50,273
Class Xanthophyceae (Yellow – green algae)	
Order Mischococcales	
Family Scidiaceae	
<i>Centritractus belanophorus</i>	54,181
Class Dinophyceae (Dinoflagellates)	
Order Peridinales	
Family Peridiniaceae	
<i>Peridinium borgei</i>	37,267
<i>Peridinium cunningonii</i>	18,589
<b>Total Species of Phytoplankton (Species)</b>	<b>31</b>
<b>Total Density of Phytoplankton (Cell/m<sup>3</sup>)</b>	<b>1,121,178</b>
<b>Species Richness Index<sup>1/</sup></b>	<b>2.15</b>
<b>Biodiversity Index<sup>2/</sup></b>	<b>3.38</b>
<b>Evenness Index<sup>3/</sup></b>	<b>0.98</b>

**Remarks :** - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF (APHA, 10200F)

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index.

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.

TY/MW/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283168



**Report No. : 2024-500000580-7/ 007-3 (Page 1 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดหลังผ่านพื้นที่โครงการ) **SAMPLING TIME :** 10:59 hr.  
**COORDINATE :** UTM 48P 0208718E, 1359065N **SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
<b>Division Cyanophyta</b>	
<b>Class Cyanophyceae (Blue - Green Algae)</b>	
<b>Order Chroococcales</b>	
<b>Family Chroococcaceae</b>	
<i>Chroococcus minutus</i>	-
<i>Merismopedia convoluta</i>	8,510
<i>Microcystis aeruginosa</i>	-
<b>Order Nostocales</b>	
<b>Family Oscillatoriaceae</b>	
<i>Oscillatoria Thiebautii</i>	45,129
<i>Oscillatoria limnetica</i>	33,374
<b>Family Nostocaceae</b>	
<i>Anabaena affinis</i>	31,353
<i>Cylindrospermopsis phillipinensis</i>	20,902
<b>Division Chlorophyta</b>	
<b>Class Chlorophyceae (Green algae)</b>	
<b>Order Volvocales</b>	
<b>Family Volvocaceae</b>	
<i>Volvox tertius</i>	36,578
<b>Order Chlorococcales</b>	
<b>Family Botryococcaceae</b>	
<i>Botryococcus braunii</i>	41,804
<b>Family Oocystaceae</b>	
<i>Dictyosphaerium ehrenbergianum</i>	-
<i>Oocystis elliptica</i>	30,916
<i>Tetraedron caudatum</i>	41,406

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7/ 007-3 (Page 2 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดหลังผ่านพื้นที่โครงการ) **SAMPLING TIME :** 10:59 hr.  
**COORDINATE :** UTM 48P 0208718E, 1359065N **SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
<b>Division Chlorophyta</b>	
<b>Class Chlorophyceae (Green algae)</b>	
<b>Order Chlorococcales</b>	
<b>Family Scenedesmaceae</b>	
<i>Scenedesmus obliquus</i>	32,318
<i>Actinastrum gracillimum</i>	25,666
<i>Kirchneriella contorta</i>	42,510
<b>Family Hydrodictyceae</b>	
<i>Pediastrum duplex</i>	53,011
<i>P.simplex</i>	54,655
<b>Family Coelastraceae</b>	
<i>Coelastrum astroideum</i>	32,020
<i>C.cambricum Archer</i>	40,853
<b>Order Zygnematales</b>	
<b>Family Zygnemataceae</b>	
<i>Mougeotia scalaris</i>	42,510
<b>Family Desmidiaceae</b>	
<i>Closterium acerosum</i>	25,947
<i>C.limneticum Lemmermann</i>	-
<i>Staurastrum tetracerum</i>	41,406
<b>Class Euglenophyceae (Euglenoids)</b>	
<b>Order Euglenales</b>	
<b>Family Euglenaceae</b>	
<i>Euglena acus</i>	20,979
<i>Phacus angulatus</i>	-
<i>Trachelomonas armata</i>	36,989
<i>T.hispida</i>	49,694

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



**Report No. : 2024-500000580-7/ 007-3 (Page 3 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
[REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดหลังผ่านพื้นที่โครงการ) **SAMPLING TIME :** 10:59 hr.  
**COORDINATE :** UTM 48P 0208718E, 1359065N **SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
<b>Division Chlorophyta</b>	
<b>Class Bacillariophyceae (Diatoms)</b>	
<b>Order Biddulphiales (Centric diatoms)</b>	
<b>Family Thalassiosiraceae</b>	
<i>Cyclotella meneghiniana</i>	56,312
<b>Family Aulacoseiraceae</b>	
<i>Aulacoseira granulata</i>	-
<b>Order Bacillariales (Pennate diatoms)</b>	
<b>Suborder Fragiariineae</b>	
<b>Family Fragilariaceae</b>	
<i>Fragilaria sp.</i>	46,374
<b>Suborder Bacillariineae</b>	
<b>Family Achnantheaceae</b>	
<i>Achnanthes sp.</i>	64,593
<b>Family Cymbellaceae</b>	
<i>Cymbella tumida</i>	48,583
<b>Family Naviculaceae</b>	
<i>Gyrosigma spencerii</i>	49,135
<i>Navicula sculpta</i>	-
<b>Family Bacillariaceae</b>	
<i>Nitzschia sp.</i>	31,468
<b>Family Surirellaceae</b>	
<i>Surirella angusta</i>	-
<i>Stenopterobia elegans</i>	95,288

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283171





**Report No. : 2024-500000580-7/ 007-4 (Page 1 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยขุมแสง (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 14:30 hr.  
**COORDINATE :** UTM 48P 0207848E, 1357804N **SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
<b>Division Cyanophyta</b>	
<b>Class Cyanophyceae (Blue - Green Algae)</b>	
<b>Order Chroococcales</b>	
<b>Family Chroococcaceae</b>	
<i>Chroococcus minutus</i>	12,364
<i>Merismopedia convoluta</i>	19,341
<i>Microcystis aeruginosa</i>	-
<b>Order Nostocales</b>	
<b>Family Oscillatoriaceae</b>	
<i>Oscillatoria Thiebautii</i>	51,385
<i>Oscillatoria limnetica</i>	-
<b>Family Nostocaceae</b>	
<i>Anabaena affinis</i>	13,072
<i>Cylindrospermopsis phillipinensis</i>	-
<b>Division Chlorophyta</b>	
<b>Class Chlorophyceae (Green algae)</b>	
<b>Order Volvocales</b>	
<b>Family Volvocaceae</b>	
<i>Volvox tertius</i>	12,303
<b>Order Chlorococcales</b>	
<b>Family Botryococcaceae</b>	
<i>Botryococcus braunii</i>	-
<b>Family Oocystaceae</b>	
<i>Dictyosphaerium ehrenbergianum</i>	52,666
<i>Oocystis elliptica</i>	56,593
<i>Tetraedron caudatum</i>	-

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



**Report No. : 2024-500000580-7/ 007-4 (Page 2 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
[REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification  
**SAMPLING LOCATION :** ห้วยขุมแสง (ในจุดก่อนผ่านพื้นที่โครงการ)  
**COORDINATE :** UTM 48P 0207848E, 1357804N  
**SAMPLING DATE :** June 27, 2024  
**SAMPLING TIME :** 14:30 hr.  
**SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
<b>Division Chlorophyta</b>	
<b>Class Chlorophyceae (Green algae)</b>	
<b>Order Chlorococcales</b>	
<b>Family Scenedesmaceae</b>	
<i>Scenedesmus obliquus</i>	-
<i>Actinastrum gracillimum</i>	-
<i>Kirchneriella contorta</i>	43,506
<b>Family Hydrodictyceae</b>	
<i>Pediastrum duplex</i>	39,846
<i>P.simplex</i>	19,661
<b>Family Coelastraceae</b>	
<i>Coelastrum astroideum</i>	56,735
<i>C.cambricum Archer</i>	46,470
<b>Order Zygnematales</b>	
<b>Family Zygnemataceae</b>	
<i>Mougeotia scalaris</i>	42,968
<b>Family Desmidiaceae</b>	
<i>Closterium acerosum</i>	34,226
<i>C.limneticum Lemmermann</i>	-
<i>Staurastrum tetracerum</i>	35,860
<b>Class Euglenophyceae (Euglenoids)</b>	
<b>Order Euglenales</b>	
<b>Family Euglenaceae</b>	
<i>Euglena acus</i>	36,356
<i>Phacus angulatus</i>	35,684
<i>Trachelomonas armata</i>	39,846
<i>T.hispida</i>	-

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283174



**Report No. : 2024-500000580-7/ 007-4 (Page 3 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยชุมแสง (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 14:30 hr.  
**COORDINATE :** UTM 48P 0207848E, 1357804N **SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m3)
<b>Division Chlorophyta</b>	
<b>Class Bacillariophyceae (Diatoms)</b>	
<b>Order Biddulphiales (Centric diatoms)</b>	
<b>Family Thalassiosiraceae</b>	
<i>Cyclotella meneghiniana</i>	-
<b>Family Aulacoseiraceae</b>	
<i>Aulacoseira granulata</i>	40,357
<b>Order Bacillariales (Pennate diatoms)</b>	
<b>Suborder Fragiariineae</b>	
<b>Family Fragilariaceae</b>	
<i>Fragilaria sp.</i>	53,577
<b>Suborder Bacillariineae</b>	
<b>Family Achnantheaceae</b>	
<i>Achnanthes sp.</i>	34,267
<b>Family Cymbellaceae</b>	
<i>Cymbella tumida</i>	-
<b>Family Naviculaceae</b>	
<i>Gyrosigma spencerii</i>	38,013
<i>Navicula sculpta</i>	-
<b>Family Bacillariaceae</b>	
<i>Nitzschia sp.</i>	-
<b>Family Surirellaceae</b>	
<i>Surirella angusta</i>	-
<i>Stenopterobia elegans</i>	47,954

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Report No. : 2024-500000580-7/ 007-4 (Page 4 of 4) Issued date : July 15, 2024

CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)

CONTACT

ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

SAMPLE DESIGNATED AS : Phytoplankton Identification

SAMPLING DATE : June 27, 2024

SAMPLING LOCATION : ห้วยชุมแสง (ในจุดก่อนผ่านพื้นที่โครงการ)

SAMPLING TIME : 14:30 hr.

COORDINATE : UTM 48P 0207848E, 1357804N

SAMPLING BY

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
Division Chromophyta	
Class Chrysophyceae	
Order Ochromonadales	
Family Dinobryaceae	
<i>Dinobryon sertularia</i>	91,431
Class Xanthophyceae (Yellow – green algae)	
Order Mischococcales	
Family Scidiaceae	
<i>Centritractus belanophorus</i>	-
Class Dinophyceae (Dinoflagellates)	
Order Peridinales	
Family Peridiniaceae	
<i>Peridinium borgei</i>	54,224
<i>Peridinium cunningonii</i>	-
Total Species of Phytoplankton (Species)	25
Total Density of Phytoplankton (Cell/m <sup>3</sup> )	1,008,705
Species Richness Index <sup>1/</sup>	1.74
Biodiversity Index <sup>2/</sup>	3.13
Evenness Index <sup>3/</sup>	0.97

Remarks : - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF (APHA, 10200F)

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.

TY/MW/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283176

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com



**Report No. : 2024-500000580-7/ 007-5 (Page 1 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
[REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification  
**SAMPLING LOCATION :** ห้วยชุมแสง (ในจุดหลังผ่านพื้นที่โครงการ)  
**COORDINATE :** UTM 48P 0207638E, 1357929N  
**SAMPLING DATE :** June 27, 2024  
**SAMPLING TIME :** 09:39 hr.  
**SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
<b>Division Cyanophyta</b>	
<b>Class Cyanophyceae (Blue - Green Algae)</b>	
<b>Order Chroococcales</b>	
<b>Family Chroococcaceae</b>	
<i>Chroococcus minutus</i>	15,822
<i>Merismopedia convoluta</i>	18,000
<i>Microcystis aeruginosa</i>	15,863
<b>Order Nostocales</b>	
<b>Family Oscillatoriaceae</b>	
<i>Oscillatoria Thiebautii</i>	68,625
<i>Oscillatoria limnetica</i>	
<b>Family Nostocaceae</b>	
<i>Anabaena affinis</i>	12,375
<i>Cylindrospermopsis phillipinensis</i>	-
<b>Division Chlorophyta</b>	
<b>Class Chlorophyceae (Green algae)</b>	
<b>Order Volvocales</b>	
<b>Family Volvocaceae</b>	
<i>Volvox tertius</i>	18,563
<b>Order Chlorococcales</b>	
<b>Family Botryococcaceae</b>	
<i>Botryococcus braunii</i>	-
<b>Family Oocystaceae</b>	
<i>Dictyosphaerium ehrenbergianum</i>	67,396
<i>Oocystis elliptica</i>	-
<i>Tetraedron caudatum</i>	-

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283177

SGS (Thailand) Limited | Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group





**Report No. : 2024-500000580-7/ 007-5 (Page 2 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
[REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification  
**SAMPLING LOCATION :** ห้วยชุมแสง (ในจุดหลังผ่านพื้นที่โครงการ)  
**COORDINATE :** UTM 48P 0207638E, 1357929N  
**SAMPLING DATE :** June 27, 2024  
**SAMPLING TIME :** 09:39 hr.  
**SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m <sup>3</sup> )
<b>Division Chlorophyta</b>	
<b>Class Chlorophyceae (Green algae)</b>	
<b>Order Chlorococcales</b>	
<b>Family Scenedesmaceae</b>	
<i>Scenedesmus obliquus</i>	-
<i>Actinastrum gracillimum</i>	59,488
<i>Kirchneriella contorta</i>	64,064
<b>Family Hydrodictyceae</b>	
<i>Pediastrum duplex</i>	31,378
<i>P.simplex</i>	25,159
<b>Family Coelastraceae</b>	
<i>Coelastrum astroideum</i>	86,944
<i>C.cambricum Archer</i>	129,436
<b>Order Zygnematales</b>	
<b>Family Zygnemataceae</b>	
<i>Mougeotia scalaris</i>	42,492
<b>Family Desmidiaceae</b>	
<i>Closterium acerosum</i>	41,932
<i>C.limneticum Lemmermann</i>	-
<i>Staurastrum tetracerum</i>	28,110
<b>Class Euglenophyceae (Euglenoids)</b>	
<b>Order Euglenales</b>	
<b>Family Euglenaceae</b>	
<i>Euglena acus</i>	32,021
<i>Phacus angulatus</i>	-
<i>Trachelomonas armata</i>	-
<i>T.hispida</i>	22,532

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283178

SGS (Thailand) Limited

Environment, Health and Safety 100 Nanglinchee Road Chongnonsee Yannawa Bangkok 10120  
t +66 (0)2 678 18 13 f +66 (0)2 678 06 22 www.sgs.com

Member of the SGS Group

**Report No. : 2024-500000580-7/ 007-5 (Page 3 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Phytoplankton Identification  
**SAMPLING LOCATION :** ห้วยชุมแสง (ในจุดหลังผ่านพื้นที่โครงการ)  
**COORDINATE :** UTM 48P 0207638E, 1357929N  
**SAMPLING DATE :** June 27, 2024  
**SAMPLING TIME :** 09:39 hr.  
**SAMPLING BY :** [REDACTED]

Scientific Classification	Phytoplankton (Cell/m3)
<b>Division Chlorophyta</b>	
<b>Class Bacillariophyceae (Diatoms)</b>	
<b>Order Biddulphiales (Centric diatoms)</b>	
<b>Family Thalassiosiraceae</b>	
<i>Cyclotella meneghiniana</i>	-
<b>Family Aulacoseiraceae</b>	
<i>Aulacoseira granulata</i>	24,648
<b>Order Bacillariales (Pennate diatoms)</b>	
<b>Suborder Fragiariineae</b>	
<b>Family Fragilariaceae</b>	
<i>Fragilaria sp.</i>	107,857
<b>Suborder Bacillariineae</b>	
<b>Family Achnantheaceae</b>	
<i>Achnanthes sp.</i>	24,648
<b>Family Cymbellaceae</b>	
<i>Cymbella tumida</i>	23,916
<b>Family Naviculaceae</b>	
<i>Gyrosigma spencerii</i>	48,645
<i>Navicula sculpta</i>	16,800
<b>Family Bacillariaceae</b>	
<i>Nitzschia sp.</i>	59,467
<b>Family Surirellaceae</b>	
<i>Surirella angusta</i>	43,080
<i>Stenopterobia elegans</i>	39,493

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.





เพลงก็ตอณสัตว์

**Report No. : 2024-500000580-7 / 008-1 (Page 2 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยวังปลาต้นน้ำก่อนผ่านพื้นที่โครงการ **SAMPLING TIME :** 11:55 hr.  
**COORDINATE :** UTM 48P 0209006E, 1358715N **SAMPLING BY :** [REDACTED]

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
<b>Phylum Protozoa (Protozoans) (cont'd)</b>	
<b>Subphylum Ciliophora</b>	
<b>Class Ciliata</b>	
<b>Subclass Spirotricha</b>	
<b>Order Tintinnida</b>	
<b>Family Codonellidae</b>	
<i>Tintinnopsis lohmanni</i>	8,869
<b>Subclass Peritrichia</b>	
<b>Order Peritrichida</b>	
<b>Family Vorticellidae</b>	
<i>Vorticella campanula</i>	14,821
<b>Phylum Rotifera (Rotifers)</b>	
<b>Class Monogononta</b>	
<b>Order Ploima</b>	
<b>Family Brachionidae</b>	
<i>Brachionus angularis</i>	6,700
<i>Keratella cochlearis</i>	8,063
<i>Trichotria tetractis</i>	-
<b>Family Lecanidae</b>	
<i>Lecane aculeata</i>	9,181
<b>Family Trichocercidae</b>	
<i>Trichocerca capucina</i>	6,853

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7 / 008-1 (Page 3 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยวังปลาต้นน้ำก่อนผ่านพื้นที่โครงการ **SAMPLING TIME :** 11:55 hr.  
**COORDINATE :** UTM 48P 0209006E, 1358715N **SAMPLING BY :** [REDACTED]

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
<b>Phylum Rotifera (Rotifers) (cont'd)</b>	
<b>Class Monogononta</b>	
<b>Order Ploima</b>	
<b>Family Asplanchnidae</b>	
<i>Asplanchna brightwelli</i>	-
<b>Family Gastropodidae</b>	
<i>Ascomorpha agilis</i>	10,958
<b>Family Synchaetidae</b>	
<i>Polyarthra vulgaris</i>	10,720
<i>Synchaeta stylata</i>	18,599
<b>Order Flosculariacea</b>	
<b>Family Testudinellidae</b>	
<i>Fillinia brachita</i>	-
<b>Phylum Arthropoda (Arthropods)</b>	
<b>Class Crustacea (Crustaceans)</b>	
<b>Subclass Branchiopoda</b>	
<b>Order Diplostraca</b>	
<b>Suborder Cladocera (Cladocerans)</b>	
<b>Family Sididae</b>	
<i>Diaphanosoma excisum</i>	47,259
<b>Family Daphnidae</b>	
<i>Ceriodaphnia cornuta</i>	37,080
<b>Family Moinidae</b>	
<i>Moina macrocopa</i>	11,848

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



**Report No. : 2024-500000580-7 / 008-1 (Page 4 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยวังปลาตันน้ำก่อนผ่านพื้นที่โครงการ **SAMPLING TIME :** 11:55 hr.  
**COORDINATE :** UTM 48P 0209006E, 1358715N **SAMPLING BY :**

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
Phylum Arthropoda (Arthropods) (cont'd)	
Class Crustacea (Crustaceans)	
Subclass Branchiopoda	
Order Diplostraca	
Suborder Cladocera (Cladocerans)	
Family Bosminidae	
<i>Bosmina longirostris</i>	-
Family Chydoridae	
<i>Alona affinis</i>	23,191
Subclass Copepoda	
Order Calanoida	
Family Diaptomidae	
<i>Heliodiaptomus viduus</i>	-
<i>Phyllodiaptomus christineae</i>	17,449
<b>Total Species of Zooplankton (Species)</b>	<b>16</b>
<b>Total Density of Zooplankton (individuals/m<sup>3</sup>)</b>	<b>256,001</b>
<b>Species Richness Index<sup>1/</sup></b>	<b>1.20</b>
<b>Biodiversity Index<sup>2/</sup></b>	<b>2.58</b>
<b>Evenness Index<sup>3/</sup></b>	<b>0.93</b>

**Remarks :** - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF (APHA, 10200G)

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index.

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.

TY/MW/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283184

**Report No. : 2024-500000580-7 / 008-2 (Page 1 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 13:44 hr.  
**COORDINATE :** UTM 48P 0208641E, 1358442N **SAMPLING BY :**

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
Phylum Protozoa (Protozoans)	
Subphylum Plasmodroma	
Class Sarcodina	
Subclass Rhizopoda	
Order Testacida	
Family Diffugiidae	
<i>Diffugia lobostoma</i>	15,011
Family Euglyphidae	
<i>Euglypha tuberculata</i>	16,403
Subclass Actinopoda	
Order Heliozoidea	
Family Actinophryidae	
<i>Actinophrys sol</i>	21,400
Subphylum Ciliophora	
Class Ciliata	
Subclass Holotricha	
Order Gymnostomatida	
Family Colepidae	
<i>Didinium nasutum</i>	24,755

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7 / 008-2 (Page 2 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 13:44 hr.  
**COORDINATE :** UTM 48P 0208641E, 1358442N **SAMPLING BY :** [REDACTED]

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
<b>Phylum Protozoa (Protozoans) (cont'd)</b>	
<b>Subphylum Ciliophora</b>	
<b>Class Ciliata</b>	
<b>Subclass Spirotricha</b>	
<b>Order Tintinnida</b>	
<b>Family Codonellidae</b>	
<i>Tintinnopsis lohmanni</i>	15,127
<b>Subclass Peritrichia</b>	
<b>Order Peritrichida</b>	
<b>Family Vorticellidae</b>	
<i>Vorticella campanula</i>	20,727
<b>Phylum Rotifera (Rotifers)</b>	
<b>Class Monogononta</b>	
<b>Order Ploima</b>	
<b>Family Brachionidae</b>	
<i>Brachionus angularis</i>	13,428
<i>Keratella cochlearis</i>	-
<i>Trichotria tetractis</i>	12,975
<b>Family Lecannidae</b>	
<i>Lecane aculeata</i>	13,965
<b>Family Trichocercidae</b>	
<i>Trichocerca capucina</i>	17,667

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



**Report No. : 2024-500000580-7 / 008-2 (Page 3 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 13:44 hr.  
**COORDINATE :** UTM 48P 0208641E, 1358442N **SAMPLING BY :** [REDACTED]

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
<b>Phylum Rotifera (Rotifers) (cont'd)</b>	
<b>Class Monogononta</b>	
<b>Order Ploima</b>	
<b>Family Asplanchnidae</b>	
<i>Asplanchna brightwelli</i>	23,280
<b>Family Gastropodidae</b>	
<i>Ascomorpha agilis</i>	-
<b>Family Synchaetidae</b>	
<i>Polyarthra vulgaris</i>	17,280
<i>Synchaeta stylata</i>	12,203
<b>Order Flosculariacea</b>	
<b>Family Testudinellidae</b>	
<i>Fillinia brachita</i>	14,322
<b>Phylum Arthropoda (Arthropods)</b>	
<b>Class Crustacea (Crustaceans)</b>	
<b>Subclass Branchiopoda</b>	
<b>Order Diplostraca</b>	
<b>Suborder Cladocera (Cladocerans)</b>	
<b>Family Sididae</b>	
<i>Diaphanosoma excisum</i>	11,056
<b>Family Daphnidae</b>	
<i>Ceriodaphnia cornuta</i>	17,900
<b>Family Moinidae</b>	
<i>Moina macrocopa</i>	22,332

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7 / 008-2 (Page 4 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadiransit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 13:44 hr.  
**COORDINATE :** UTM 48P 0208641E, 1358442N **SAMPLING BY :** [REDACTED]

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
Phylum Arthropoda (Arthropods) (cont'd)	
Class Crustacea (Crustaceans)	
Subclass Branchiopoda	
Order Diplostraca	
Suborder Cladocera (Cladocerans)	
Family Bosminidae	
<i>Bosmina longirostris</i>	16,347
Family Chydoridae	
<i>Alona affinis</i>	10,711
Subclass Copepoda	
Order Calanoida	
Family Diaptomidae	
<i>Heliodiaptomus viduus</i>	-
<i>Phyllodiaptomus christineae</i>	23,164
<b>Total Species of Zooplankton (Species)</b>	<b>20</b>
<b>Total Density of Zooplankton (individuals/m<sup>3</sup>)</b>	<b>340,052</b>
<b>Species Richness Index<sup>1/</sup></b>	<b>1.49</b>
<b>Biodiversity Index<sup>2/</sup></b>	<b>2.97</b>
<b>Evenness Index<sup>3/</sup></b>	<b>0.99</b>

**Remarks :** - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF (APHA, 10200G)

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index.

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.

TY/MW/SJS/SJS



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283188





**Report No. : 2024-500000580-7 / 008-3 (Page 2 of 4)** Issued date : July 15, 2024

**CLIENT** : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT** :   
**ADDRESS** : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS** : Zooplankton Identification **SAMPLING DATE** : June 27, 2024  
**SAMPLING LOCATION** : ห้วยสลักหมู (ในจุดหลังผ่านพื้นที่โครงการ) **SAMPLING TIME** : 10:59 hr.  
**COORDINATE** : UTM 48P 0208718E, 1359065N **SAMPLING BY** :

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
<b>Phylum Protozoa (Protozoans) (cont'd)</b>	
<b>Subphylum Ciliophora</b>	
<b>Class Ciliata</b>	
<b>Subclass Spirotricha</b>	
<b>Order Tintinnida</b>	
<b>Family Codonellidae</b>	
<i>Tintinnopsis lohmanni</i>	-
<b>Subclass Peritrichia</b>	
<b>Order Peritrichida</b>	
<b>Family Vorticellidae</b>	
<i>Vorticella campanula</i>	11,185
<b>Phylum Rotifera (Rotifers)</b>	
<b>Class Monogononta</b>	
<b>Order Ploima</b>	
<b>Family Brachionidae</b>	
<i>Brachionus angularis</i>	-
<i>Keratella cochlearis</i>	9,321
<i>Trichotria tetractis</i>	-
<b>Family Lecanidae</b>	
<i>Lecane aculeata</i>	-
<b>Family Trichocercidae</b>	
<i>Trichocerca capucina</i>	4,367

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7 / 008-3 (Page 3 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดหลังผ่านพื้นที่โครงการ) **SAMPLING TIME :** 10:59 hr.  
**COORDINATE :** UTM 48P 0208718E, 1359065N **SAMPLING BY :** [REDACTED]

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
<b>Phylum Rotifera (Rotifers) (cont'd)</b>	
<b>Class Monogononta</b>	
<b>Order Ploima</b>	
<b>Family Asplanchnidae</b>	
<i>Asplanchna brightwelli</i>	-
<b>Family Gastropodidae</b>	
<i>Ascomorpha agilis</i>	12,566
<b>Family Synchaetidae</b>	
<i>Polyarthra vulgaris</i>	5,161
<i>Synchaeta stylata</i>	-
<b>Order Flosculariacea</b>	
<b>Family Testudinellidae</b>	
<i>Fillinia brachita</i>	-
<b>Phylum Arthropoda (Arthropods)</b>	
<b>Class Crustacea (Crustaceans)</b>	
<b>Subclass Branchiopoda</b>	
<b>Order Diplostraca</b>	
<b>Suborder Cladocera (Cladocerans)</b>	
<b>Family Sididae</b>	
<i>Diaphanosoma excisum</i>	40,416
<b>Family Daphnidae</b>	
<i>Ceriodaphnia cornuta</i>	-
<b>Family Moinidae</b>	
<i>Moina macrocopa</i>	-

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7 / 008-3 (Page 4 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยสลักหมู (ในจุดหลังผ่านพื้นที่โครงการ) **SAMPLING TIME :** 10:59 hr.  
**COORDINATE :** UTM 48P 0208718E, 1359065N **SAMPLING BY :**

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
Phylum Arthropoda (Arthropods) (cont'd)	
Class Crustacea (Crustaceans)	
Subclass Branchiopoda	
Order Diplostraca	
Suborder Cladocera (Cladocerans)	
Family Bosminidae	
<i>Bosmina longirostris</i>	-
Family Chydoridae	
<i>Alona affinis</i>	-
Subclass Copepoda	
Order Calanoida	
Family Diaptomidae	
<i>Heliodiaptomus viduus</i>	-
<i>Phyllodiaptomus christineae</i>	19,393
<b>Total Species of Zooplankton (Species)</b>	<b>9</b>
<b>Total Density of Zooplankton (individuals/m<sup>3</sup>)</b>	<b>127,473</b>
<b>Species Richness Index<sup>1/</sup></b>	<b>0.68</b>
<b>Biodiversity Index<sup>2/</sup></b>	<b>1.96</b>
<b>Evenness Index<sup>3/</sup></b>	<b>0.89</b>

**Remarks :** - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF (APHA, 10200G)

- <sup>1/</sup> The species richness was calculated by using the Margalef's Index.  
<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index.  
<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.

TY/MW/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283192





**Report No. : 2024-500000580-7 / 008-4 (Page 1 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
[REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยชุมแสง (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 14:30 hr.  
**COORDINATE :** UTM 48P 0207848E, 1357804N **SAMPLING BY :** [REDACTED]

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
Phylum Protozoa (Protozoans)	
Subphylum Plasmodroma	
Class Sarcodina	
Subclass Rhizopoda	
Order Testacida	
Family Diffugiidae	
<i>Diffugia lobostoma</i>	11,839
Family Euglyphidae	
<i>Euglypha tuberculata</i>	6,069
Subclass Actinopoda	
Order Heliozoida	
Family Actinophryidae	
<i>Actinophrys sol</i>	-
Subphylum Ciliophora	
Class Ciliata	
Subclass Holotricha	
Order Gymnostomatida	
Family Colepidae	
<i>Didinium nasutum</i>	17,004

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283193

**Report No. : 2024-500000580-7 / 008-4 (Page 2 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยชุมแสง (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 14:30 hr.  
**COORDINATE :** UTM 48P 0207848E, 1357804N **SAMPLING BY :** [REDACTED]

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
<b>Phylum Protozoa (Protozoans) (cont'd)</b>	
<b>Subphylum Ciliophora</b>	
<b>Class Ciliata</b>	
<b>Subclass Spirotricha</b>	
<b>Order Tintinnida</b>	
<b>Family Codonellidae</b>	
<i>Tintinnopsis lohmanni</i>	-
<b>Subclass Peritrichia</b>	
<b>Order Peritrichida</b>	
<b>Family Vorticellidae</b>	
<i>Vorticella campanula</i>	-
<b>Phylum Rotifera (Rotifers)</b>	
<b>Class Monogononta</b>	
<b>Order Ploima</b>	
<b>Family Brachionidae</b>	
<i>Brachionus angularis</i>	13,166
<i>Keratella cochlearis</i>	-
<i>Trichotria tetractis</i>	-
<b>Family Lecanidae</b>	
<i>Lecane aculeata</i>	-
<b>Family Trichocercidae</b>	
<i>Trichocerca capucina</i>	5,233

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7 / 008-4 (Page 3 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยชุมแสง (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 14:30 hr.  
**COORDINATE :** UTM 48P 0207848E, 1357804N **SAMPLING BY :** [REDACTED]

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
<b>Phylum Rotifera (Rotifers) (cont'd)</b>	
<b>Class Monogononta</b>	
<b>Order Ploima</b>	
<b>Family Asplanchnidae</b>	
<i>Asplanchna brightwelli</i>	12,771
<b>Family Gastropodidae</b>	
<i>Ascomorpha agilis</i>	-
<b>Family Synchaetidae</b>	
<i>Polyarthra vulgaris</i>	-
<i>Synchaeta stylata</i>	9,284
<b>Order Flosculariacea</b>	
<b>Family Testudinellidae</b>	
<i>Fillinia brachita</i>	-
<b>Phylum Arthropoda (Arthropods)</b>	
<b>Class Crustacea (Crustaceans)</b>	
<b>Subclass Branchiopoda</b>	
<b>Order Diplostraca</b>	
<b>Suborder Cladocera (Cladocerans)</b>	
<b>Family Sididae</b>	
<i>Diaphanosoma excisum</i>	-
<b>Family Daphnidae</b>	
<i>Ceriodaphnia cornuta</i>	-
<b>Family Moinidae</b>	
<i>Moina macrocopa</i>	56,139

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



**Report No. : 2024-500000580-7 / 008-4 (Page 4 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยขุมแสง (ในจุดก่อนผ่านพื้นที่โครงการ) **SAMPLING TIME :** 14:30 hr.  
**COORDINATE :** UTM 48P 0207848E, 1357804N **SAMPLING BY :**

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
Phylum Arthropoda (Arthropods) (cont'd)	
Class Crustacea (Crustaceans)	
Subclass Branchiopoda	
Order Diplostraca	
Suborder Cladocera (Cladocerans)	
Family Bosminidae	
<i>Bosmina longirostris</i>	27,864
Family Chydoridae	
<i>Alona affinis</i>	-
Subclass Copepoda	
Order Calanoida	
Family Diaptomidae	
<i>Heliodiaptomus viduus</i>	489,554
<i>Phyllodiaptomus christineae</i>	-
<b>Total Species of Zooplankton (Species)</b>	<b>10</b>
<b>Total Density of Zooplankton (individuals/m<sup>3</sup>)</b>	<b>648,923</b>
<b>Species Richness Index<sup>1/</sup></b>	<b>0.67</b>
<b>Biodiversity Index<sup>2/</sup></b>	<b>1.03</b>
<b>Evenness Index<sup>3/</sup></b>	<b>0.45</b>

**Remarks :** - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF (APHA, 10200G)

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index.

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.

TY/MW/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7 / 008-5 (Page 1 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยชุมแสง (ในจุดหลังผ่านพื้นที่โครงการ) **SAMPLING TIME :** 09:39 hr.  
**COORDINATE :** UTM 48P 0207638E, 1357929N **SAMPLING BY :** [REDACTED]

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
Phylum Protozoa (Protozoans)	
Subphylum Plasmodroma	
Class Sarcodina	
Subclass Rhizopoda	
Order Testacida	
Family Diffugiidae	
<i>Diffugia lobostoma</i>	4,487
Family Euglyphidae	
<i>Euglypha tuberculata</i>	-
Subclass Actinopoda	
Order Heliozoidea	
Family Actinophryidae	
<i>Actinophrys sol</i>	9,485
Subphylum Ciliophora	
Class Ciliata	
Subclass Holotricha	
Order Gymnostomatida	
Family Colepidae	
<i>Didinium nasutum</i>	8,332

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.





**Report No. : 2024-500000580-7 / 008-5 (Page 3 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :** [REDACTED]  
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  
 [REDACTED]

## Analysis Report

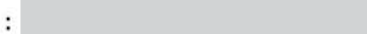

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยขุมแสง (ในจุดหลังผ่านพื้นที่โครงการ) **SAMPLING TIME :** 09:39 hr.  
**COORDINATE :** UTM 48P 0207638E, 1357929N **SAMPLING BY :** [REDACTED]

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
Phylum Rotifera (Rotifers) (cont'd)	
Class Monogononta	
Order Ploima	
Family Asplanchnidae	
<i>Asplanchna brightwelli</i>	16,661
Family Gastropodidae	
<i>Ascomorpha agilis</i>	-
Family Synchaetidae	
<i>Polyarthra vulgaris</i>	-
<i>Synchaeta stylata</i>	10,724
Order Flosculariacea	
Family Testudinellidae	
<i>Fillinia brachita</i>	12,870
Phylum Arthropoda (Arthropods)	
Class Crustacea (Crustaceans)	
Subclass Branchiopoda	
Order Diplostraca	
Suborder Cladocera (Cladocerans)	
Family Sididae	
<i>Diaphanosoma excisum</i>	43,337
Family Daphnidae	
<i>Ceriodaphnia cornuta</i>	-
Family Moinidae	
<i>Moina macrocopa</i>	37,146

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7 / 008-5 (Page 4 of 4)** Issued date : July 15, 2024

**CLIENT :** BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)  
**CONTACT :**   
**ADDRESS :** 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900  


## Analysis Report

**SAMPLE DESIGNATED AS :** Zooplankton Identification **SAMPLING DATE :** June 27, 2024  
**SAMPLING LOCATION :** ห้วยขุมแสง (ในจุดหลังผ่านพื้นที่โครงการ) **SAMPLING TIME :** 09:39 hr.  
**COORDINATE :** UTM 48P 0207638E, 1357929N **SAMPLING BY :** 

Scientific Classification	Zooplankton (individuals/m <sup>3</sup> )
Phylum Arthropoda (Arthropods) (cont'd)	
Class Crustacea (Crustaceans)	
Subclass Branchiopoda	
Order Diplostraca	
Suborder Cladocera (Cladocerans)	
Family Bosminidae	
<i>Bosmina longirostris</i>	43,337
Family Chydoridae	
<i>Alona affinis</i>	-
Subclass Copepoda	
Order Calanoida	
Family Diaptomidae	
<i>Heliodiaptomus viduus</i>	-
<i>Phyllodiaptomus christineae</i>	-
<b>Total Species of Zooplankton (Species)</b>	<b>11</b>
<b>Total Density of Zooplankton (individuals/m<sup>3</sup>)</b>	<b>206,181</b>
<b>Species Richness Index<sup>1/</sup></b>	<b>0.82</b>
<b>Biodiversity Index<sup>2/</sup></b>	<b>2.13</b>
<b>Evenness Index<sup>3/</sup></b>	<b>0.89</b>

**Remarks :** - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF (APHA, 10200G)

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index.

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.

TY/MW/SJS/SJS

SGS (THAILAND) LIMITED



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283200

สัตว์หน้าดิน



**Report No. : 2024-500000580-7/ 009-1 (Page 1 of 1)** Issued date : July 15, 2024

**CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :** [REDACTED]

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

[REDACTED]

## Analysis Report

**SAMPLE DESIGNATED AS : Benthos Identification**

**SAMPLING DATE : June 27, 2024**

**SAMPLING LOCATION : ห้วยวังปลาต้นน้ำก่อนผ่านพื้นที่โครงการ**

**SAMPLING TIME : 11:55 hr..**

**COORDINATE : UTM 48P 0209006E, 1358715N**

**SAMPLING BY : [REDACTED]**

Scientific Classification	Benthos (Individuals/m <sup>2</sup> )
<b>Phylum Annelida</b> <b>Class Clitellata</b> <b>Order Oligochaeta</b> <b>Family Naididae</b> <i>Tubifex sp.</i>	-
<b>Phylum Arthropoda</b> <b>Class Insecta</b> <b>Order Diptera</b> <b>Family Chironomidae</b> <i>Chironomus sp.</i>	90
<b>Order Ephemeroptera</b> <b>Family Baetidae</b> <i>Baetis pygmaeus</i>	90
<b>Phylum Mollusca</b> <b>Class Gastropoda</b> <b>Order Architaenioglossa</b> <b>Family Ampullariidae</b> <i>Pomacea canaliculata</i>	180
<b>Order Caenogastropoda</b> <b>Family Thiaridae</b> <i>Melanoides Tuberculata</i>	-
<b>Total Family of Benthos (Species)</b>	<b>3</b>
<b>Total Density of Benthos (individuals/m<sup>2</sup>)</b>	<b>360</b>
<b>Richness Index<sup>1/</sup></b>	<b>0.34</b>
<b>Biodiversity Index<sup>2/</sup></b>	<b>1.04</b>
<b>Evenness Index<sup>3/</sup></b>	<b>0.95</b>

**Remarks :** - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF.

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index.

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.



SGS (THAILAND) LIMITED

This document is issued by the Company under its General Conditions of Sale. The printed overleaf attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7/ 009-2 (Page 1 of 1)** Issued date : July 15, 2024

**CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Benthos Identification**

**SAMPLING DATE : June 27, 2024**

**SAMPLING LOCATION : ห้วยสลักหมู (ในจุดก่อนผ่านพื้นที่โครงการ)**

**SAMPLING TIME : 13:44 hr.**

**COORDINATE : UTM 48P 0208641E, 1358442N**

**SAMPLING BY :**

Scientific Classification	Benthos (Individuals/m <sup>2</sup> )
Phylum Annelida Class Clitellata Order Oligochaeta Family Naididae <i>Tubifex</i> sp.	45
Phylum Arthropoda Class Insecta Order Diptera Family Chironomidae <i>Chironomus</i> sp.	180
Order Ephemeroptera Family Baetidae <i>Baetis pygmaeus</i>	90
Phylum Mollusca Class Gastropoda Order Architaenioglossa Family Ampullariidae <i>Pomacea canaliculata</i>	90
Order Caenogastropoda Family Thiariidae <i>Melanoides Tuberculata</i>	45
<b>Total Family of Benthos (Species)</b>	<b>5</b>
<b>Total Density of Benthos (individuals/m<sup>2</sup>)</b>	<b>450</b>
<b>Richness Index<sup>1/</sup></b>	<b>0.65</b>
<b>Biodiversity Index<sup>2/</sup></b>	<b>1.47</b>
<b>Evenness Index<sup>3/</sup></b>	<b>0.91</b>

**Remarks :** - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF.

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener Index.

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.

SGS (THAILAND) LIMITED

This document is the property of SGS (Thailand) Limited and is loaned to the Client under its General Conditions of Service. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7/ 009-3 (Page 1 of 1)** Issued date : July 15, 2024

**CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Benthos Identification**

**SAMPLING DATE : June 27, 2024**

**SAMPLING LOCATION : ห้วยสลักหมู (ในจุดหลังผ่านพื้นที่โครงการ)**

**SAMPLING TIME : 10:59 hr.**

**COORDINATE : UTM 48P 0208718E, 1359065N**

**SAMPLING BY**

Scientific Classification	Benthos (Individuals/m <sup>2</sup> )
Phylum Annelida Class Clitellata Order Oligochaeta Family Naididae <i>Tubifex</i> sp.	45
Phylum Arthropoda Class Insecta Order Diptera Family Chironomidae <i>Chironomus</i> sp.	180
Order Ephemeroptera Family Baetidae <i>Baetis pygmaeus</i>	45
Phylum Mollusca Class Gastropoda Order Architaenioglossa Family Ampullariidae <i>Pomacea canaliculata</i>	90
Order Caenogastropoda Family Thiariidae <i>Melanoides Tuberculata</i>	45
<b>Total Family of Benthos (Species)</b>	<b>5</b>
<b>Total Density of Benthos (individuals/m<sup>2</sup>)</b>	<b>405</b>
<b>Richness Index<sup>1/</sup></b>	<b>0.67</b>
<b>Biodiversity Index<sup>2/</sup></b>	<b>1.43</b>
<b>Evenness Index<sup>3/</sup></b>	<b>0.89</b>

**Remarks :** - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF.

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index.

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.



This document is issued by the Company under its General Conditions of Service printed over and attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.



**Report No. : 2024-500000580-7/ 009-4 (Page 1 of 1)** Issued date : July 15, 2024

**CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Benthos Identification**

**SAMPLING DATE : June 27, 2024**

**SAMPLING LOCATION : ห้วยชุมแสง (ในจุดก่อนผ่านพื้นที่โครงการ)**

**SAMPLING TIME : 14:30 hr.**

**COORDINATE : UTM 48P 0207848E, 1357804N**

**SAMPLING BY :**

Scientific Classification	Benthos (Individuals/m <sup>2</sup> )
<b>Phylum Annelida</b> <b>Class Clitellata</b> <b>Order Oligochaeta</b> <b>Family Naididae</b> <i>Tubifex sp.</i>	90
<b>Phylum Arthropoda</b> <b>Class Insecta</b> <b>Order Diptera</b> <b>Family Chironomidae</b> <i>Chironomus sp.</i>	180
<b>Order Ephemeroptera</b> <b>Family Baetidae</b> <i>Baetis pygmaeus</i>	180
<b>Phylum Mollusca</b> <b>Class Gastropoda</b> <b>Order Architaenioglossa</b> <b>Family Ampullariidae</b> <i>Pomacea canaliculata</i>	45
<b>Order Caenogastropoda</b> <b>Family Thiaridae</b> <i>Melanoides Tuberculata</i>	45
<b>Total Family of Benthos (Species)</b>	<b>5</b>
<b>Total Density of Benthos (individuals/m<sup>2</sup>)</b>	<b>540</b>
<b>Richness Index<sup>1/</sup></b>	<b>0.64</b>
<b>Biodiversity Index<sup>2/</sup></b>	<b>1.45</b>
<b>Evenness Index<sup>3/</sup></b>	<b>0.90</b>

**Remarks : -** Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF.

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index.

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.



This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Report No. : 2024-500000580-7/ 009-5 (Page 1 of 1)** Issued date : July 15, 2024

**CLIENT : BANGKOK AIRWAYS PUBLIC COMPANY LIMITED (TRAT AIRPORT)**

**CONTACT :**

**ADDRESS : 99 Moo 14, Vibhavadirangsit Road, Chom Phon, Chatuchak, Bangkok 10900**

## Analysis Report

**SAMPLE DESIGNATED AS : Benthos Identification**

**SAMPLING DATE : June 27, 2024**

**SAMPLING LOCATION : ห้วยชุมแสง (ในจุดหลังผ่านพื้นที่โครงการ)**

**SAMPLING TIME : 09:39 hr.**

**COORDINATE : UTM 48P 0207638E, 1357929N**

**SAMPLING BY :**

Scientific Classification	Benthos (Individuals/m <sup>2</sup> )
<b>Phylum Annelida</b> Class Clitellata Order Oligochaeta Family Naididae <i>Tubifex</i> sp.	-
<b>Phylum Arthropoda</b> Class Insecta Order Diptera Family Chironomidae <i>Chironomus</i> sp.	180
Order Ephemeroptera Family Baetidae <i>Baetis pygmaeus</i>	90
<b>Phylum Mollusca</b> Class Gastropoda Order Architaenioglossa Family Ampullariidae <i>Pomacea canaliculata</i>	180
Order Caenogastropoda Family Thiariidae <i>Melanoides Tuberculata</i>	45
<b>Total Family of Benthos (Species)</b>	4
<b>Total Density of Benthos (individuals/m<sup>2</sup>)</b>	495
<b>Richness Index<sup>1/</sup></b>	0.48
<b>Biodiversity Index<sup>2/</sup></b>	1.26
<b>Evenness Index<sup>3/</sup></b>	0.91

**Remarks :** - Analytical Methods followed to Standard Methods for the Examination of Water and Wastewater, recommended by APHA-AWWA-WEF.

<sup>1/</sup> The species richness was calculated by using the Margalef's Index.

<sup>2/</sup> The biodiversity index was calculated by using the Shannon-Wiener's Index.

<sup>3/</sup> The evenness index was calculated by using the Pielou's Index.



SGS (THAILAND) LIMITED

This document is issued by the Company under its General Conditions of Service printed overleaf. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

E 283205