

ภาคผนวกที่ 4

รายงานผลการตรวจวัดคุณภาพสิ่งแวดล้อม

- เอกสาร 4-1 รายงานผลการวิเคราะห์คุณภาพอากาศในบรรยากาศ
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- เอกสาร 4-8 รายงานผลการตรวจวัดระดับความร้อนและความเร็วลมในสถานประกอบการ

เอกสาร 4-1

รายงานผลการวิเคราะห์คุณภาพอากาศในบรรยากาศ



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

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Ref. No. AR280(1)-AR280(7)/11/24

Report No. 2411/274

65/1/67, 66/1/67

Ambient Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling by : Thitinan Ruangram
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 15-22 November 2024
Date Received : 25 November 2024
Date of Analysis : 25 November-6 December 2024
Date Reported : 9 December 2024

Parameter	Sampling Method	Analytical Method	Ban Map Tong area								Standard
			November 2024								
			15-16	16-17	17-18	18-19	19-20	20-21	21-22		
PM ₁₀ (mg/m ³)	High Volume PM10 Air Sampler	Gravimetric Method (U.S. EPA 40 CFR Part 50 Appendix J)	0.016	0.011	0.019	0.011	0.011	0.016	0.018	Less than 0.12	

Remark:

Standard = Ambient Air Quality Standards, Notification of the National Environment Board No. 24, B.E. 2547

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Supawadee Saentawisuk)

Laboratory Supervisor

09 / 12 / 24

----- End of Report -----



RY240/11/67

65/1/67, 66/1/67

Nitrogen Dioxide Level Report

Project : HRC & SKP Sampling Date : 15-22 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Ban Map Tong							Standard
	November 2024							
	15-16	16-17	17-18	18-19	19-20	20-21	21-22	
14:00-15:00	0.0338	0.0453	0.0384	0.0301	0.0348	0.0376	0.0370	-
15:00-16:00	0.0432	0.0360	0.0312	0.0229	0.0393	0.0451	0.0462	-
16:00-17:00	0.0435	0.0543	0.0254	0.0382	0.0477	0.0406	0.0408	-
17:00-18:00	0.0343	0.0370	0.0492	0.0490	0.0415	0.0407	0.0425	-
18:00-19:00	0.0329	0.0331	0.0444	0.0420	0.0307	0.0487	0.0359	-
19:00-20:00	0.0397	0.0454	0.0362	0.0456	0.0359	0.0327	0.0332	-
20:00-21:00	0.0372	0.0421	0.0290	0.0342	0.0257	0.0387	0.0304	-
21:00-22:00	0.0380	0.0373	0.0364	0.0354	0.0287	0.0320	0.0382	-
22:00-23:00	0.0327	0.0304	0.0346	0.0303	0.0314	0.0401	0.0381	-
23:00-00:00	0.0323	0.0249	0.0385	0.0351	0.0377	0.0339	0.0434	-
00:00-01:00	0.0330	0.0365	0.0307	0.0302	0.0469	0.0324	0.0401	-
01:00-02:00	0.0262	0.0291	0.0282	0.0296	0.0226	0.0315	0.0383	-
02:00-03:00	0.0285	0.0292	0.0245	0.0373	0.0347	0.0361	0.0337	-
03:00-04:00	0.0419	0.0228	0.0437	0.0231	0.0391	0.0297	0.0275	-
04:00-05:00	0.0319	0.0265	0.0337	0.0316	0.0327	0.0218	0.0357	-
05:00-06:00	0.0323	0.0394	0.0321	0.0352	0.0256	0.0296	0.0329	-
06:00-07:00	0.0337	0.0211	0.0248	0.0337	0.0297	0.0238	0.0212	-
07:00-08:00	0.0228	0.0368	0.0426	0.0298	0.0276	0.0278	0.0363	-
08:00-09:00	0.0344	0.0480	0.0408	0.0265	0.0316	0.0332	0.0336	-
09:00-10:00	0.0292	0.0337	0.0257	0.0395	0.0441	0.0392	0.0243	-
10:00-11:00	0.0372	0.0344	0.0258	0.0360	0.0372	0.0341	0.0236	-
11:00-12:00	0.0278	0.0335	0.0307	0.0232	0.0417	0.0375	0.0366	-
12:00-13:00	0.0420	0.0472	0.0287	0.0344	0.0430	0.0270	0.0444	-
13:00-14:00	0.0306	0.0318	0.0474	0.0376	0.0360	0.0366	0.0389	-
Max 1 hr [mg/m ³]	0.0435	0.0543	0.0492	0.0490	0.0477	0.0487	0.0462	Less Than 0.32 [mg/m ³]
Average 24 hr [mg/m ³]	0.0341	0.0357	0.0343	0.0338	0.0352	0.0346	0.0355	-
Analyzer Data	Analyzer No. : NO _x -R01						Brand : API	-
	Model : 200E						Serial No. : 769	

Remark:

Standard = Ambient Air Quality Standards (Nitrogen Dioxide), Notification of the National Environment Board, No. 33, B.E. 2552 (2009)
Sampling Method = Chemiluminescence Method

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Sulfur Dioxide Analysis Report

Project : HRC & SKP Sampling Date : 15-22 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Ban Map Tong							Standard
	November 2024							
	15-16	16-17	17-18	18-19	19-20	20-21	21-22	
14:00-15:00	0.0069	0.0057	0.0067	0.0053	0.0044	0.0057	0.0058	-
15:00-16:00	0.0052	0.0061	0.0055	0.0052	0.0065	0.0051	0.0059	-
16:00-17:00	0.0058	0.0068	0.0057	0.0051	0.0067	0.0062	0.0057	-
17:00-18:00	0.0050	0.0066	0.0056	0.0053	0.0058	0.0049	0.0065	-
18:00-19:00	0.0058	0.0057	0.0070	0.0049	0.0045	0.0058	0.0057	-
19:00-20:00	0.0066	0.0063	0.0052	0.0051	0.0046	0.0057	0.0060	-
20:00-21:00	0.0063	0.0046	0.0049	0.0049	0.0051	0.0063	0.0056	-
21:00-22:00	0.0055	0.0058	0.0050	0.0066	0.0059	0.0059	0.0051	-
22:00-23:00	0.0046	0.0058	0.0063	0.0053	0.0053	0.0063	0.0050	-
23:00-00:00	0.0052	0.0064	0.0063	0.0053	0.0048	0.0064	0.0047	-
00:00-01:00	0.0058	0.0059	0.0044	0.0055	0.0047	0.0055	0.0046	-
01:00-02:00	0.0059	0.0058	0.0065	0.0060	0.0048	0.0063	0.0053	-
02:00-03:00	0.0054	0.0056	0.0061	0.0052	0.0062	0.0059	0.0053	-
03:00-04:00	0.0058	0.0064	0.0068	0.0057	0.0059	0.0052	0.0063	-
04:00-05:00	0.0054	0.0065	0.0057	0.0064	0.0061	0.0055	0.0053	-
05:00-06:00	0.0051	0.0059	0.0059	0.0063	0.0054	0.0062	0.0053	-
06:00-07:00	0.0058	0.0064	0.0056	0.0064	0.0053	0.0065	0.0057	-
07:00-08:00	0.0048	0.0061	0.0063	0.0059	0.0058	0.0062	0.0064	-
08:00-09:00	0.0048	0.0047	0.0057	0.0058	0.0053	0.0062	0.0053	-
09:00-10:00	0.0057	0.0065	0.0059	0.0059	0.0056	0.0064	0.0059	-
10:00-11:00	0.0053	0.0045	0.0051	0.0068	0.0049	0.0063	0.0059	-
11:00-12:00	0.0062	0.0052	0.0059	0.0051	0.0054	0.0053	0.0063	-
12:00-13:00	0.0056	0.0062	0.0069	0.0058	0.0052	0.0069	0.0065	-
13:00-14:00	0.0067	0.0049	0.0058	0.0050	0.0055	0.0052	0.0059	-
Max 1 hr [mg/m ³]	0.0069	0.0068	0.0070	0.0068	0.0067	0.0069	0.0065	Less Than 0.78 ^[1] [mg/m ³]
Average 24 hr [mg/m ³]	0.0056	0.0059	0.0059	0.0056	0.0054	0.0059	0.0057	Less Than 0.30 ^[2] [mg/m ³]
Analyzer Data	Analyzer No. : SO ₂ -R06 Brand : API							-
	Model : 100E Serial No. : 066							

Remark:

Standard^[1] = Ambient Air Quality Standards (Sulfur Dioxide), Notification of the National Environment Board, No. 21, B.E. 2544 (2001)
Standard^[2] = Ambient Air Quality Standards, Notification of the National Environment Board, No. 24, B.E. 2547 (2004)
Sampling Method = UV Fluorescence Method

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



Ref. No. AR281(1)-AR281(7)/11/24

Report No. 2411/274

65/1/67, 66/1/67

Ambient Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling by : Thitinan Ruangram
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 15-22 November 2024
Date Received : 25 November 2024
Date of Analysis : 25 November-6 December 2024
Date Reported : 9 December 2024

Parameter	Sampling Method	Analytical Method	Ban Krachet Lang area								Standard
			November 2024								
			15-16	16-17	17-18	18-19	19-20	20-21	21-22		
PM ₁₀ (mg/m ³)	High Volume PM10 Air Sampler	Gravimetric Method (U.S. EPA 40 CFR Part 50 Appendix J)	0.011	0.016	0.018	0.016	0.020	0.014	0.012	Less than 0.12	

Remark:

Standard = Ambient Air Quality Standards, Notification of the National Environment Board No. 24, B.E. 2547

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.



(Supawadee Saentawisuk)

Laboratory Supervisor

09 / 12 / 24

----- End of Report -----



RY240/11/67

65/1/67, 66/1/67

Nitrogen Dioxide Level Report

Project : HRC & SKP Sampling Date : 15-22 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Ban Krachet Lang							Standard
	November 2024							
	15-16	16-17	17-18	18-19	19-20	20-21	21-22	
10:00-11:00	0.0331	0.0224	0.0316	0.0293	0.0225	0.0372	0.0267	-
11:00-12:00	0.0310	0.0273	0.0266	0.0207	0.0280	0.0324	0.0321	-
12:00-13:00	0.0276	0.0341	0.0188	0.0133	0.0374	0.0271	0.0303	-
13:00-14:00	0.0296	0.0335	0.0198	0.0323	0.0419	0.0263	0.0345	-
14:00-15:00	0.0364	0.0383	0.0219	0.0341	0.0335	0.0425	0.0352	-
15:00-16:00	0.0462	0.0379	0.0310	0.0492	0.0254	0.0414	0.0440	-
16:00-17:00	0.0308	0.0440	0.0341	0.0434	0.0368	0.0259	0.0166	-
17:00-18:00	0.0256	0.0345	0.0429	0.0343	0.0508	0.0176	0.0275	-
18:00-19:00	0.0256	0.0379	0.0246	0.0347	0.0378	0.0289	0.0347	-
19:00-20:00	0.0167	0.0281	0.0222	0.0293	0.0327	0.0252	0.0361	-
20:00-21:00	0.0278	0.0215	0.0269	0.0295	0.0357	0.0395	0.0312	-
21:00-22:00	0.0260	0.0265	0.0309	0.0259	0.0291	0.0239	0.0178	-
22:00-23:00	0.0183	0.0205	0.0213	0.0237	0.0266	0.0236	0.0260	-
23:00-00:00	0.0181	0.0185	0.0220	0.0228	0.0190	0.0171	0.0245	-
00:00-01:00	0.0133	0.0234	0.0213	0.0282	0.0218	0.0211	0.0237	-
01:00-02:00	0.0167	0.0257	0.0284	0.0322	0.0279	0.0178	0.0164	-
02:00-03:00	0.0209	0.0255	0.0247	0.0224	0.0179	0.0220	0.0183	-
03:00-04:00	0.0262	0.0163	0.0189	0.0300	0.0250	0.0184	0.0148	-
04:00-05:00	0.0157	0.0279	0.0264	0.0277	0.0153	0.0246	0.0212	-
05:00-06:00	0.0268	0.0299	0.0215	0.0198	0.0242	0.0298	0.0315	-
06:00-07:00	0.0288	0.0423	0.0252	0.0285	0.0161	0.0259	0.0357	-
07:00-08:00	0.0390	0.0319	0.0259	0.0314	0.0219	0.0238	0.0456	-
08:00-09:00	0.0255	0.0447	0.0288	0.0273	0.0265	0.0220	0.0168	-
09:00-10:00	0.0183	0.0238	0.0271	0.0352	0.0191	0.0170	0.0347	-
Max 1 hr [mg/m ³]	0.0462	0.0447	0.0429	0.0492	0.0508	0.0425	0.0456	Less Than 0.32 [mg/m ³]
Average 24 hr [mg/m ³]	0.0260	0.0298	0.0259	0.0294	0.0280	0.0263	0.0282	-
Analyzer Data	Analyzer No. : NO _x -R07						Brand : API	-
	Model : 200E						Serial No. : 4468	

Remark:

Standard = Ambient Air Quality Standards (Nitrogen Dioxide), Notification of the National Environment Board, No. 33, B.E. 2552 (2009)
Sampling Method = Chemiluminescence Method

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.



(Thunyaphat Lansethna)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Sulfur Dioxide Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 15-22 November 2024
Date Reported : 27 November 2024

Time	Ban Krachet Lang							Standard
	November 2024							
	15-16	16-17	17-18	18-19	19-20	20-21	21-22	
10:00-11:00	0.0048	0.0055	0.0059	0.0051	0.0055	0.0061	0.0068	-
11:00-12:00	0.0065	0.0051	0.0054	0.0049	0.0053	0.0057	0.0053	-
12:00-13:00	0.0062	0.0054	0.0059	0.0050	0.0049	0.0049	0.0056	-
13:00-14:00	0.0050	0.0054	0.0057	0.0048	0.0047	0.0048	0.0057	-
14:00-15:00	0.0058	0.0053	0.0057	0.0048	0.0047	0.0047	0.0065	-
15:00-16:00	0.0069	0.0052	0.0054	0.0053	0.0053	0.0046	0.0054	-
16:00-17:00	0.0055	0.0070	0.0062	0.0049	0.0052	0.0042	0.0051	-
17:00-18:00	0.0072	0.0068	0.0058	0.0055	0.0047	0.0061	0.0069	-
18:00-19:00	0.0051	0.0062	0.0054	0.0059	0.0050	0.0065	0.0049	-
19:00-20:00	0.0056	0.0055	0.0053	0.0071	0.0044	0.0055	0.0043	-
20:00-21:00	0.0057	0.0056	0.0054	0.0072	0.0043	0.0049	0.0046	-
21:00-22:00	0.0058	0.0047	0.0051	0.0049	0.0042	0.0047	0.0057	-
22:00-23:00	0.0055	0.0047	0.0043	0.0051	0.0047	0.0062	0.0050	-
23:00-00:00	0.0056	0.0048	0.0047	0.0044	0.0051	0.0046	0.0053	-
00:00-01:00	0.0051	0.0049	0.0049	0.0047	0.0055	0.0047	0.0062	-
01:00-02:00	0.0053	0.0052	0.0053	0.0049	0.0051	0.0056	0.0058	-
02:00-03:00	0.0051	0.0056	0.0051	0.0053	0.0055	0.0051	0.0065	-
03:00-04:00	0.0055	0.0056	0.0055	0.0059	0.0049	0.0057	0.0055	-
04:00-05:00	0.0053	0.0064	0.0055	0.0060	0.0046	0.0059	0.0055	-
05:00-06:00	0.0058	0.0063	0.0054	0.0064	0.0047	0.0062	0.0062	-
06:00-07:00	0.0067	0.0058	0.0056	0.0065	0.0049	0.0067	0.0066	-
07:00-08:00	0.0059	0.0053	0.0056	0.0069	0.0057	0.0053	0.0049	-
08:00-09:00	0.0053	0.0050	0.0060	0.0081	0.0062	0.0050	0.0062	-
09:00-10:00	0.0053	0.0075	0.0057	0.0065	0.0050	0.0053	0.0055	-
Max 1 hr [mg/m ³]	0.0072	0.0075	0.0062	0.0081	0.0062	0.0067	0.0069	Less Than 0.78 ^[1] [mg/m ³]
Average 24 hr [mg/m ³]	0.0057	0.0056	0.0054	0.0057	0.0050	0.0054	0.0057	Less Than 0.30 ^[2] [mg/m ³]
Analyzer Data	Analyzer No. : SO ₂ -B01 Brand : API							-
	Model : 100A Serial No. : 1749							

Remark:

Standard^[1] = Ambient Air Quality Standards (Sulfur Dioxide), Notification of the National Environment Board, No. 21, B.E. 2544 (2001)

Standard^[2] = Ambient Air Quality Standards, Notification of the National Environment Board, No. 24, B.E. 2547 (2004)

Sampling Method = UV Fluorescence Method

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



Ref. No. AR282(1)-AR282(7)/11/24

Report No. 2411/274

65/1/67, 66/1/67

Ambient Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling by : Thitinan Ruangram
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 15-22 November 2024
Date Received : 25 November 2024
Date of Analysis : 25 November-6 December 2024
Date Reported : 9 December 2024

Parameter	Sampling Method	Analytical Method	Ban Nong Lalok area								Standard
			November 2024								
			15-16	16-17	17-18	18-19	19-20	20-21	21-22		
PM ₁₀ (mg/m ³)	High Volume PM10 Air Sampler	Gravimetric Method (U.S. EPA 40 CFR Part 50 Appendix J)	0.019	0.021	0.020	0.024	0.016	0.028	0.018	Less than 0.12	

Remark:

Standard = Ambient Air Quality Standards, Notification of the National Environment Board No. 24, B.E. 2547

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Supawadee Saentawisuk)

Laboratory Supervisor

04 / 12 / 24

----- End of Report -----



RY240/11/67

65/1/67, 66/1/67

Nitrogen Dioxide Level Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 15-22 November 2024
Date Reported : 27 November 2024

Time	Ban Nong Lalok							Standard
	November 2024							
	15-16	16-17	17-18	18-19	19-20	20-21	21-22	
14:00-15:00	0.0307	0.0341	0.0413	0.0385	0.0425	0.0326	0.0350	-
15:00-16:00	0.0313	0.0348	0.0352	0.0393	0.0360	0.0431	0.0327	-
16:00-17:00	0.0288	0.0337	0.0308	0.0403	0.0481	0.0278	0.0398	-
17:00-18:00	0.0351	0.0317	0.0284	0.0352	0.0385	0.0284	0.0483	-
18:00-19:00	0.0347	0.0350	0.0261	0.0320	0.0341	0.0272	0.0338	-
19:00-20:00	0.0311	0.0386	0.0350	0.0440	0.0312	0.0211	0.0367	-
20:00-21:00	0.0278	0.0383	0.0372	0.0501	0.0335	0.0352	0.0244	-
21:00-22:00	0.0401	0.0424	0.0350	0.0388	0.0216	0.0268	0.0310	-
22:00-23:00	0.0347	0.0351	0.0419	0.0495	0.0293	0.0345	0.0350	-
23:00-00:00	0.0391	0.0322	0.0349	0.0445	0.0265	0.0177	0.0451	-
00:00-01:00	0.0360	0.0339	0.0302	0.0292	0.0478	0.0284	0.0225	-
01:00-02:00	0.0374	0.0314	0.0342	0.0518	0.0462	0.0284	0.0360	-
02:00-03:00	0.0431	0.0326	0.0304	0.0524	0.0462	0.0249	0.0246	-
03:00-04:00	0.0378	0.0369	0.0420	0.0452	0.0448	0.0327	0.0369	-
04:00-05:00	0.0319	0.0323	0.0299	0.0425	0.0462	0.0345	0.0454	-
05:00-06:00	0.0533	0.0280	0.0439	0.0538	0.0351	0.0361	0.0249	-
06:00-07:00	0.0479	0.0244	0.0290	0.0263	0.0410	0.0308	0.0278	-
07:00-08:00	0.0367	0.0302	0.0241	0.0238	0.0371	0.0253	0.0273	-
08:00-09:00	0.0498	0.0301	0.0215	0.0301	0.0452	0.0265	0.0341	-
09:00-10:00	0.0406	0.0369	0.0281	0.0295	0.0411	0.0347	0.0346	-
10:00-11:00	0.0352	0.0435	0.0427	0.0335	0.0294	0.0345	0.0393	-
11:00-12:00	0.0385	0.0367	0.0525	0.0317	0.0465	0.0409	0.0403	-
12:00-13:00	0.0416	0.0331	0.0360	0.0353	0.0412	0.0381	0.0351	-
13:00-14:00	0.0380	0.0371	0.0378	0.0422	0.0382	0.0399	0.0340	-
Max 1 hr [mg/m ³]	0.0533	0.0435	0.0525	0.0538	0.0481	0.0431	0.0483	Less Than 0.32 [mg/m ³]
Average 24 hr [mg/m ³]	0.0375	0.0343	0.0345	0.0392	0.0386	0.0313	0.0344	-
Analyzer Data	Analyzer No. : NO _x -R10							

Remark:

Standard = Ambient Air Quality Standards (Nitrogen Dioxide), Notification of the National Environment Board, No. 33, B.E. 2552 (2009)
Sampling Method = Chemiluminescence Method

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Sulfur Dioxide Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 15-22 November 2024
Date Reported : 27 November 2024

Time	Ban Nong Lalok							Standard
	November 2024							
	15-16	16-17	17-18	18-19	19-20	20-21	21-22	
14:00-15:00	0.0051	0.0049	0.0046	0.0046	0.0054	0.0053	0.0047	-
15:00-16:00	0.0055	0.0051	0.0047	0.0050	0.0052	0.0058	0.0054	-
16:00-17:00	0.0055	0.0053	0.0054	0.0047	0.0052	0.0056	0.0058	-
17:00-18:00	0.0055	0.0051	0.0051	0.0049	0.0047	0.0060	0.0055	-
18:00-19:00	0.0058	0.0049	0.0054	0.0052	0.0064	0.0061	0.0059	-
19:00-20:00	0.0050	0.0052	0.0049	0.0049	0.0060	0.0057	0.0058	-
20:00-21:00	0.0052	0.0060	0.0052	0.0047	0.0052	0.0052	0.0054	-
21:00-22:00	0.0051	0.0052	0.0049	0.0064	0.0046	0.0058	0.0057	-
22:00-23:00	0.0047	0.0043	0.0048	0.0055	0.0055	0.0044	0.0049	-
23:00-00:00	0.0037	0.0040	0.0046	0.0049	0.0053	0.0042	0.0038	-
00:00-01:00	0.0055	0.0035	0.0038	0.0052	0.0044	0.0046	0.0040	-
01:00-02:00	0.0040	0.0038	0.0037	0.0060	0.0040	0.0044	0.0046	-
02:00-03:00	0.0047	0.0038	0.0038	0.0053	0.0046	0.0037	0.0046	-
03:00-04:00	0.0064	0.0035	0.0040	0.0064	0.0049	0.0044	0.0044	-
04:00-05:00	0.0041	0.0047	0.0042	0.0066	0.0068	0.0057	0.0049	-
05:00-06:00	0.0045	0.0046	0.0039	0.0053	0.0046	0.0055	0.0051	-
06:00-07:00	0.0046	0.0054	0.0040	0.0069	0.0043	0.0059	0.0043	-
07:00-08:00	0.0049	0.0054	0.0045	0.0052	0.0053	0.0062	0.0047	-
08:00-09:00	0.0049	0.0051	0.0041	0.0046	0.0055	0.0059	0.0048	-
09:00-10:00	0.0050	0.0053	0.0041	0.0065	0.0044	0.0055	0.0046	-
10:00-11:00	0.0066	0.0069	0.0053	0.0051	0.0062	0.0052	0.0046	-
11:00-12:00	0.0064	0.0046	0.0058	0.0041	0.0070	0.0052	0.0063	-
12:00-13:00	0.0060	0.0053	0.0067	0.0051	0.0066	0.0059	0.0044	-
13:00-14:00	0.0044	0.0062	0.0044	0.0054	0.0047	0.0064	0.0050	-
Max 1 hr [mg/m ³]	0.0066	0.0069	0.0067	0.0069	0.0070	0.0064	0.0063	Less Than 0.78 ^[1] [mg/m ³]
Average 24 hr [mg/m ³]	0.0051	0.0049	0.0047	0.0053	0.0053	0.0054	0.0050	Less Than 0.30 ^[2] [mg/m ³]
Analyzer Data	Analyzer No. : SO ₂ -R04							

Remark:

- Standard^[1] = Ambient Air Quality Standards (Sulfur Dioxide), Notification of the National Environment Board, No. 21, B.E. 2544 (2001)
Standard^[2] = Ambient Air Quality Standards, Notification of the National Environment Board, No. 24, B.E. 2547 (2004)
Sampling Method = UV Fluorescence Method

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24

เอกสาร 4-2

รายงานผลการตรวจวัดความเร็วและทิศทางการ



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72. Fax : (662) 513-4221. E-mail : sale@spscon.com., www.spscon.com

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RY240/11/67

65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

Project : HRC & SKP Sampling Date : 15-22 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Wind Speed Wind Direction	Ban Map Tong				
	Percent of Wind Speed (%)				
	Light Air	Light Breeze	Gentle Breeze	Moderate Breeze	Fresh Breeze
	0.3-1.6 m/s (1-5 km/hr)	1.7-3.3 m/s (6-11 km/hr)	3.4-5.5 m/s (12-19 km/hr)	5.6-8.0 m/s (20-28 km/hr)	8.1-10.8 m/s (29-38 km/hr)
N (349°-11°)	14.285	-	-	-	-
NNE (11°-34°)	9.524	-	-	-	-
NE (34°-56°)	4.167	-	-	-	-
ENE (56°-79°)	4.762	-	-	-	-
E (79°-102°)	5.357	-	-	-	-
ESE (102°-124°)	6.548	-	-	-	-
SE (124°-146°)	8.929	-	-	-	-
SSE (146°-169°)	5.952	-	-	-	-
S (169°-191°)	2.381	-	-	-	-
SSW (191°-214°)	3.571	-	-	-	-
SW (214°-236°)	4.167	-	-	-	-
WSW (236°-259°)	1.786	-	-	-	-
W (259°-281°)	6.548	-	-	-	-
WNW (281°-304°)	7.143	0.595	-	-	-
NW (304°-326°)	5.952	1.190	-	-	-
NNW (326°-349°)	7.143	-	-	-	-
Total	98.215	1.785	0.000	0.000	0.000
Calm <0.3 m/s (<1 km/hr)	0.000				

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Munyaphat Lansethna)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 15-22 November 2024
Date Reported : 27 November 2024

Time	Ban Map Tong											
	November 2024											
	15-16			16-17			17-18			18-19		
	WS		WD	WS		WD	WS		WD	WS		WD
	m/s	km/hr		m/s	km/hr		m/s	km/hr		m/s	km/hr	
14:00-15:00	0.9	3.2	N	0.9	3.2	W	0.4	1.6	W	0.4	1.6	SE
15:00-16:00	0.9	3.2	N	0.9	3.2	WNW	0.9	3.2	WNW	0.4	1.6	ESE
16:00-17:00	0.4	1.6	N	0.9	3.2	W	2.7	9.7	NW	0.4	1.6	ESE
17:00-18:00	0.4	1.6	WNW	1.3	4.8	WNW	2.2	8.0	NW	0.9	3.2	SE
18:00-19:00	0.9	3.2	NNW	1.8	6.4	WNW	1.3	4.8	N	0.4	1.6	SSE
19:00-20:00	0.9	3.2	NNE	0.9	3.2	WNW	1.3	4.8	NNE	0.4	1.6	SSE
20:00-21:00	0.9	3.2	NNE	0.9	3.2	N	1.3	4.8	NE	0.4	1.6	SSE
21:00-22:00	0.4	1.6	NNE	0.9	3.2	N	0.9	3.2	ENE	0.9	3.2	E
22:00-23:00	0.9	3.2	N	1.3	4.8	N	0.9	3.2	ENE	0.9	3.2	SSE
23:00-00:00	0.4	1.6	NNE	0.9	3.2	NW	0.9	3.2	ENE	0.4	1.6	SSE
00:00-01:00	0.4	1.6	NNW	0.4	1.6	N	1.3	4.8	E	0.4	1.6	SE
01:00-02:00	0.4	1.6	NNW	0.4	1.6	NW	0.4	1.6	SE	0.4	1.6	SE
02:00-03:00	0.4	1.6	NW	0.4	1.6	N	0.4	1.6	ENE	0.9	3.2	SE
03:00-04:00	0.9	3.2	NW	0.9	3.2	N	0.4	1.6	ENE	0.9	3.2	ESE
04:00-05:00	0.9	3.2	WSW	0.4	1.6	NW	0.9	3.2	NE	0.9	3.2	ESE
05:00-06:00	0.4	1.6	WSW	0.4	1.6	NNE	0.9	3.2	NE	1.3	4.8	E
06:00-07:00	0.4	1.6	SW	0.4	1.6	NNE	0.9	3.2	E	0.9	3.2	SSE
07:00-08:00	0.4	1.6	SSW	1.3	4.8	NNE	1.3	4.8	E	0.4	1.6	SE
08:00-09:00	1.3	4.8	S	0.9	3.2	N	0.9	3.2	ESE	0.4	1.6	SSE
09:00-10:00	0.9	3.2	S	0.9	3.2	WNW	0.9	3.2	SE	0.4	1.6	SSE
10:00-11:00	0.9	3.2	SSW	0.4	1.6	SW	0.4	1.6	SE	0.4	1.6	SW
11:00-12:00	0.9	3.2	SSW	0.4	1.6	SW	0.4	1.6	SE	0.9	3.2	NNW
12:00-13:00	1.3	4.8	SSW	0.4	1.6	SW	0.9	3.2	SSE	0.9	3.2	N
13:00-14:00	0.4	1.6	WSW	0.4	1.6	SSW	0.9	3.2	ESE	0.9	3.2	N
Temperature Average (°C)	31.8			33.6			31.6			28.3		
Barometric Pressure Average (mmHg)	754.06			753.33			754.10			754.63		
Sky Condition	Cloudy and Rainy			Fair			Cloudy and Rainy			Fair		

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 15-22 November 2024
Date Reported : 27 November 2024

Time	Ban Map Tong								
	November 2024								
	19-20			20-21			21-22		
	WS		WD	WS		WD	WS		WD
	m/s	km/hr		m/s	km/hr		m/s	km/hr	
14:00-15:00	0.4	1.6	WNW	0.9	3.2	NNW	0.9	3.2	N
15:00-16:00	0.9	3.2	WNW	0.9	3.2	E	0.9	3.2	NNE
16:00-17:00	0.9	3.2	WNW	0.9	3.2	E	0.4	1.6	NNE
17:00-18:00	0.9	3.2	NNW	0.9	3.2	ESE	0.4	1.6	N
18:00-19:00	0.4	1.6	NNW	0.4	1.6	SE	0.4	1.6	N
19:00-20:00	0.4	1.6	W	0.9	3.2	SE	0.9	3.2	WNW
20:00-21:00	0.4	1.6	W	0.4	1.6	SE	0.9	3.2	WNW
21:00-22:00	0.9	3.2	W	0.4	1.6	ESE	0.9	3.2	W
22:00-23:00	0.9	3.2	NNE	0.4	1.6	ESE	1.3	4.8	NE
23:00-00:00	0.9	3.2	NNE	1.3	4.8	ESE	1.3	4.8	NNE
00:00-01:00	1.3	4.8	NNE	0.9	3.2	SE	0.4	1.6	NNE
01:00-02:00	0.9	3.2	N	0.9	3.2	SE	0.4	1.6	NNE
02:00-03:00	0.9	3.2	N	1.3	4.8	E	0.4	1.6	N
03:00-04:00	0.9	3.2	N	0.4	1.6	SW	0.4	1.6	NE
04:00-05:00	0.4	1.6	ENE	0.4	1.6	SW	0.9	3.2	NE
05:00-06:00	0.4	1.6	ENE	0.4	1.6	W	0.4	1.6	NE
06:00-07:00	0.9	3.2	E	1.3	4.8	W	0.9	3.2	N
07:00-08:00	1.3	4.8	ESE	1.3	4.8	W	0.9	3.2	WNW
08:00-09:00	0.9	3.2	S	0.4	1.6	NW	0.9	3.1	NW
09:00-10:00	0.9	3.2	SSW	0.4	1.6	NW	0.4	1.6	NW
10:00-11:00	0.4	1.6	W	0.9	3.2	NNW	0.4	1.6	NW
11:00-12:00	0.9	3.2	ENE	0.9	3.2	NNW	0.9	3.2	NNW
12:00-13:00	0.9	3.2	SSE	0.9	3.2	N	0.4	1.6	NNW
13:00-14:00	0.9	3.2	S	0.9	3.2	NNW	0.4	1.6	N
Temperature Average (°C)	28.5			28.6			28.2		
Barometric Pressure Average (mmHg)	754.39			754.35			754.67		
Sky Condition	Fair			Fair			Fair		

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Munyaphat Lamsetha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

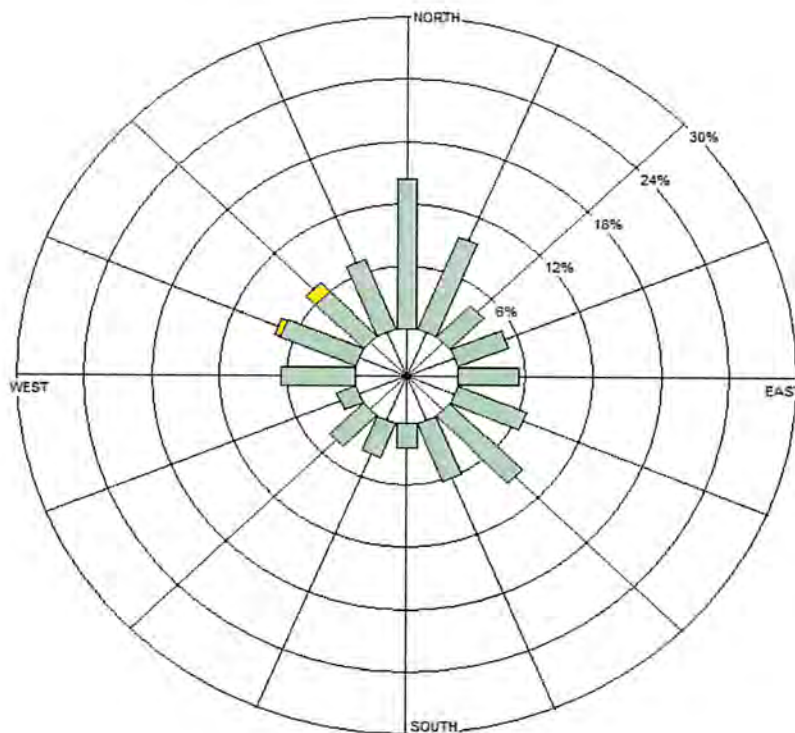
65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

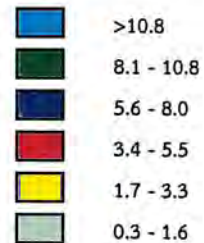
Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 15-22 November 2024
Date Reported : 27 November 2024

Ban Map Tong



WIND SPEED
(m/s)



Calms: 0.000%

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72. Fax : (662) 513-4221. E-mail : sale@spscon.com., www.spscon.com

1/3

RY240/11/67

65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

Project : HRC & SKP Sampling Date : 15-22 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Wind Speed Wind Direction	Ban Krachet Lang				
	Percent of Wind Speed (%)				
	Light Air	Light Breeze	Gentle Breeze	Moderate Breeze	Fresh Breeze
	0.3-1.6 m/s (1-5 km/hr)	1.7-3.3 m/s (6-11 km/hr)	3.4-5.5 m/s (12-19 km/hr)	5.6-8.0 m/s (20-28 km/hr)	8.1-10.8 m/s (29-38 km/hr)
N (349°-11°)	20.834	2.381	-	-	-
NNE (11°-34°)	1.786	-	-	-	-
NE (34°-56°)	5.357	-	-	-	-
ENE (56°-79°)	6.548	-	-	-	-
E (79°-102°)	7.738	-	-	-	-
ESE (102°-124°)	-	-	-	-	-
SE (124°-146°)	4.762	0.595	-	-	-
SSE (146°-169°)	1.786	0.595	-	-	-
S (169°-191°)	2.381	-	-	-	-
SSW (191°-214°)	5.952	-	-	-	-
SW (214°-236°)	3.571	-	-	-	-
WSW (236°-259°)	6.548	0.595	-	-	-
W (259°-281°)	3.571	0.595	-	-	-
WNW (281°-304°)	1.786	-	-	-	-
NW (304°-326°)	4.762	-	-	-	-
NNW (326°-349°)	16.071	1.786	-	-	-
Total	93.453	6.547	0.000	0.000	0.000
Calm <0.3 m/s (<1 km/hr)	0.000				

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 15-22 November 2024

Date Reported : 27 November 2024

Time	Ban Krachet Lang											
	November 2024											
	15-16			16-17			17-18			18-19		
	WS		WD	WS		WD	WS		WD	WS		WD
	m/s	km/hr		m/s	km/hr		m/s	km/hr		m/s	km/hr	
10:00-11:00	1.3	4.8	S	0.4	1.6	SSW	0.4	1.6	NW	0.9	3.2	NNW
11:00-12:00	1.3	4.8	SE	0.4	1.6	SSW	0.4	1.6	N	1.3	4.8	NNW
12:00-13:00	1.8	6.4	SE	0.9	3.2	SW	0.4	1.6	N	1.3	4.8	N
13:00-14:00	2.2	8.0	SSE	0.9	3.2	SW	0.4	1.6	SSE	0.9	3.2	N
14:00-15:00	1.3	4.8	SE	1.3	4.8	SSW	1.3	4.8	SSE	0.9	3.2	NNW
15:00-16:00	0.9	3.2	SE	1.3	4.8	SW	1.8	6.4	W	0.9	3.2	NNW
16:00-17:00	0.9	3.2	SE	1.3	4.8	WSW	1.8	6.4	WSW	0.9	3.2	NNW
17:00-18:00	0.4	1.6	WSW	1.3	4.8	WSW	1.3	4.8	W	1.3	4.8	N
18:00-19:00	0.9	3.2	SW	0.4	1.6	WSW	0.9	3.2	SE	0.4	1.6	NE
19:00-20:00	0.9	3.2	SW	0.9	3.2	W	0.4	1.6	N	0.9	3.2	N
20:00-21:00	0.9	3.2	SSW	0.9	3.2	WSW	0.9	3.2	N	0.9	3.2	N
21:00-22:00	0.4	1.6	SSW	0.9	3.2	SSW	1.3	4.8	ENE	0.9	3.2	NE
22:00-23:00	0.4	1.6	SSW	1.3	4.8	SSW	1.3	4.8	ENE	0.4	1.6	E
23:00-00:00	0.4	1.6	S	1.3	4.8	SSW	1.3	4.8	ENE	0.4	1.6	NE
00:00-01:00	0.9	3.2	S	0.9	3.2	W	0.9	3.2	ENE	0.4	1.6	NNW
01:00-02:00	0.4	1.6	S	0.9	3.2	WNW	0.9	3.2	SE	0.9	3.2	NNW
02:00-03:00	0.4	1.6	WSW	0.9	3.2	WNW	0.9	3.2	SE	1.3	4.8	E
03:00-04:00	0.4	1.6	WSW	0.4	1.6	NW	0.4	1.6	E	0.4	1.6	ENE
04:00-05:00	0.9	3.2	WSW	0.9	3.2	NW	0.9	3.2	E	0.4	1.6	E
05:00-06:00	0.9	3.2	SW	1.3	4.8	NW	0.9	3.2	SSE	0.4	1.6	NNW
06:00-07:00	0.9	3.2	WSW	1.3	4.8	W	0.9	3.2	SE	0.4	1.6	NNW
07:00-08:00	0.4	1.6	WSW	0.9	3.2	W	0.4	1.6	NNW	0.9	3.2	WNW
08:00-09:00	0.9	3.2	WSW	0.9	3.2	W	0.4	1.6	NNW	0.4	1.6	NW
09:00-10:00	0.4	1.6	SSW	0.9	3.2	NW	0.9	3.2	NNW	0.9	3.2	N
Temperature Average (°C)	27.3			31.4			29.9			33.0		
Barometric Pressure Average (mmHg)	776.71			776.11			776.66			777.14		
Sky Condition	Cloudy and Rainy			Cloudy and Rainy			Cloudy and Rainy			Fair		

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 15-22 November 2024
Date Reported : 27 November 2024

Time	Ban Krachet Lang								
	November 2024								
	19-20			20-21			21-22		
	WS		WD	WS		WD	WS		WD
	m/s	km/hr		m/s	km/hr		m/s	km/hr	
10:00-11:00	1.3	4.8	N	1.3	4.8	NNW	1.8	6.4	N
11:00-12:00	1.3	4.8	N	1.8	6.4	NNW	1.8	6.4	N
12:00-13:00	1.3	4.8	N	1.8	6.4	NNW	1.8	6.4	NNW
13:00-14:00	0.9	3.2	NNW	1.8	6.4	N	1.3	4.8	NW
14:00-15:00	1.3	4.8	N	1.3	4.8	NNW	1.3	4.8	NW
15:00-16:00	1.3	4.8	NE	1.8	6.4	N	1.3	4.8	N
16:00-17:00	1.3	4.8	N	1.3	4.8	N	0.9	3.2	NNW
17:00-18:00	0.9	3.2	NE	1.3	4.8	NNW	1.3	4.8	NE
18:00-19:00	0.4	1.6	E	0.4	1.6	ENE	0.4	1.6	ENE
19:00-20:00	0.4	1.6	ENE	0.9	3.2	N	0.9	3.2	ENE
20:00-21:00	0.4	1.6	E	0.4	1.6	N	0.9	3.2	ENE
21:00-22:00	0.9	3.2	ENE	0.4	1.6	N	0.9	3.2	N
22:00-23:00	0.4	1.6	N	0.4	1.6	E	0.4	1.6	N
23:00-00:00	0.4	1.6	NNW	0.9	3.2	E	0.4	1.6	N
00:00-01:00	0.4	1.6	NNW	0.9	3.2	E	0.4	1.6	NNW
01:00-02:00	0.9	3.2	E	0.9	3.2	NNW	0.4	1.6	NNE
02:00-03:00	0.9	3.2	NNW	1.3	4.8	NNW	0.9	3.2	NNE
03:00-04:00	0.4	1.6	N	0.9	3.2	NE	0.4	1.6	N
04:00-05:00	0.9	3.2	NNW	0.4	1.6	N	0.4	1.6	NNE
05:00-06:00	0.9	3.2	N	0.9	3.2	NNW	0.9	3.2	N
06:00-07:00	0.9	3.2	N	0.4	1.6	NE	0.4	1.6	NNW
07:00-08:00	0.4	1.6	N	0.9	3.2	NE	0.4	1.6	N
08:00-09:00	0.4	1.6	E	0.9	3.2	N	0.9	3.2	N
09:00-10:00	1.3	4.8	E	1.3	4.8	N	1.3	4.8	NNW
Temperature Average (°C)	32.3			32.0			32.2		
Barometric Pressure Average (mmHg)	777.31			777.22			777.27		
Sky Condition	Fair			Fair			Fair		

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

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7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72. Fax : (662) 513-4221. E-mail : sale@spscon.com., www.spscon.com

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RY240/11/67

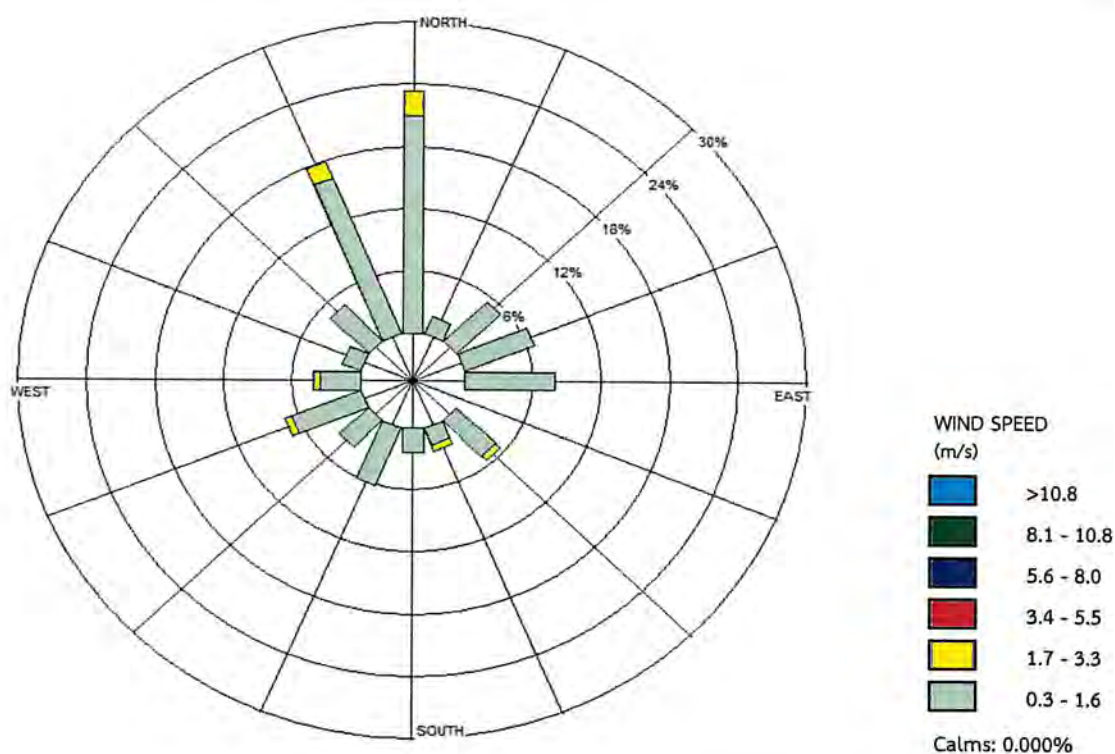
65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 15-22 November 2024
Date Reported : 27 November 2024

Ban Krachet Lang



Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67
65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

Project : HRC & SKP Sampling Date : 15-22 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Wind Speed Wind Direction	Ban Nong Lalok				
	Percent of Wind Speed (%)				
	Light Air	Light Breeze	Gentle Breeze	Moderate Breeze	Fresh Breeze
	0.3-1.6 m/s (1-5 km/hr)	1.7-3.3 m/s (6-11 km/hr)	3.4-5.5 m/s (12-19 km/hr)	5.6-8.0 m/s (20-28 km/hr)	8.1-10.8 m/s (29-38 km/hr)
N (349°-11°)	26.788	2.381	-	-	-
NNE (11°-34°)	18.452	2.381	-	-	-
NE (34°-56°)	3.571	0.595	-	-	-
ENE (56°-79°)	2.381	0.595	-	-	-
E (79°-102°)	6.548	-	-	-	-
ESE (102°-124°)	-	-	-	-	-
SE (124°-146°)	-	-	-	-	-
SSE (146°-169°)	-	-	-	-	-
S (169°-191°)	-	-	-	-	-
SSW (191°-214°)	-	0.595	-	-	-
SW (214°-236°)	0.595	-	-	-	-
WSW (236°-259°)	1.786	-	-	-	-
W (259°-281°)	3.571	0.595	-	-	-
WNW (281°-304°)	2.381	-	-	-	-
NW (304°-326°)	5.952	-	-	-	-
NNW (326°-349°)	20.238	0.595	-	-	-
Total	92.263	7.737	0.000	0.000	0.000
Calm <0.3 m/s (<1 km/hr)	0.000				

Reported results refer to measurement time only.

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(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

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Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

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RY240/11/67

65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

Project : HRC & SKP

Sampling Date : 15-22 November 2024

Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong

Date Reported : 27 November 2024

Client Name/Address : G Steel Public Limited Company

Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Ban Nong Lalok											
	November 2024											
	15-16			16-17			17-18			18-19		
	WS		WD	WS		WD	WS		WD	WS		WD
	m/s	km/hr		m/s	km/hr		m/s	km/hr		m/s	km/hr	
13:00-14:00	1.8	6.4	N	0.9	3.2	N	0.4	1.6	NNE	1.3	4.8	E
14:00-15:00	1.3	4.8	N	0.9	3.2	NNW	1.3	4.8	SW	0.9	3.2	E
15:00-16:00	1.3	4.8	N	0.4	1.6	NNW	1.8	6.4	SSW	0.9	3.2	E
16:00-17:00	1.3	4.8	NNW	0.9	3.2	NNW	2.2	8.0	W	1.3	4.8	NNE
17:00-18:00	0.9	3.2	NNW	0.9	3.2	NW	0.9	3.2	NNE	0.9	3.2	NNE
18:00-19:00	1.3	4.8	N	0.4	1.6	N	0.9	3.2	NNE	1.3	4.8	NNW
19:00-20:00	0.9	3.2	N	1.3	4.8	N	1.8	6.4	N	0.9	3.2	NNW
20:00-21:00	0.9	3.2	N	0.9	3.2	WNW	0.9	3.2	NNE	0.9	3.2	N
21:00-22:00	0.9	3.2	W	0.4	1.6	WNW	1.3	4.8	N	0.9	3.2	N
22:00-23:00	0.4	1.6	WSW	0.4	1.6	W	1.3	4.8	NNE	0.4	1.6	N
23:00-00:00	0.4	1.6	WSW	0.4	1.6	W	1.3	4.8	NNE	0.9	3.2	NNW
00:00-01:00	0.9	3.2	WSW	0.9	3.2	W	0.9	3.2	ENE	0.9	3.2	NNW
01:00-02:00	0.9	3.2	N	0.9	3.2	WNW	0.9	3.2	N	0.9	3.2	NNE
02:00-03:00	0.9	3.2	N	0.9	3.2	N	0.9	3.2	NNE	0.4	1.6	NNE
03:00-04:00	0.4	1.6	W	0.4	1.6	N	1.3	4.8	NNE	0.9	3.2	NNE
04:00-05:00	0.4	1.6	NNE	0.9	3.2	NNW	0.9	3.2	E	0.4	1.6	E
05:00-06:00	0.9	3.2	NNE	0.9	3.2	NNW	0.4	1.6	NE	0.4	1.6	E
06:00-07:00	0.9	3.2	NNE	1.3	4.8	NNW	0.4	1.6	NE	0.4	1.6	E
07:00-08:00	1.3	4.8	NNE	0.9	3.2	N	0.9	3.2	N	0.9	3.2	NNW
08:00-09:00	0.9	3.2	W	0.9	3.2	N	0.4	1.6	NNE	0.4	1.6	NNE
09:00-10:00	0.4	1.6	NNE	0.9	3.2	N	0.4	1.6	NNE	0.9	3.2	N
10:00-11:00	0.9	3.2	NE	0.4	1.6	NNE	0.9	3.2	NNE	0.9	3.2	NNE
11:00-12:00	0.4	1.6	N	0.9	3.2	N	0.9	3.2	N	1.3	4.8	N
12:00-13:00	0.9	3.2	NNW	0.9	3.2	E	1.3	4.8	ENE	1.3	4.8	N
Temperature Average (°C)	29.8			30.7			28.2			29.1		
Barometric Pressure Average (mmHg)	757.36			756.38			757.30			757.48		
Sky Condition	Cloudy and Rainy			Cloudy and Rainy			Cloudy and Rainy			Cloudy and Rainy		

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Mudiyaphat Laisethra)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

Project : HRC & SKP Sampling Date : 15-22 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Ban Nong Lalok								
	November 2024								
	19-20			20-21			21-22		
	WS		WD	WS		WD	WS		WD
	m/s	km/hr		m/s	km/hr		m/s	km/hr	
13:00-14:00	1.3	4.8	NNE	1.8	6.4	NNW	1.8	6.4	ENE
14:00-15:00	1.8	6.4	NNE	2.2	8.0	NNE	2.2	8.0	NE
15:00-16:00	1.3	4.8	NNE	1.8	6.4	NNE	1.3	4.8	ENE
16:00-17:00	1.8	6.4	N	1.8	6.4	NNE	1.3	4.8	N
17:00-18:00	0.4	1.6	NNE	1.3	4.8	NE	0.9	3.2	N
18:00-19:00	0.9	3.2	NNE	0.4	1.6	E	0.4	1.6	NNW
19:00-20:00	0.9	3.2	N	1.3	4.8	E	0.9	3.2	NNW
20:00-21:00	0.9	3.2	N	0.9	3.2	E	1.3	4.8	NNW
21:00-22:00	1.3	4.8	N	1.3	4.8	ENE	0.9	3.2	NNW
22:00-23:00	0.9	3.2	NNW	1.3	4.8	NE	0.9	3.2	N
23:00-00:00	1.3	4.8	NNW	1.3	4.8	NE	0.9	3.2	N
00:00-01:00	0.9	3.2	NNW	0.9	3.2	NNE	0.4	1.6	NNW
01:00-02:00	0.9	3.2	N	0.4	1.6	N	0.4	1.6	NNE
02:00-03:00	1.3	4.8	NNW	0.9	3.2	NNW	0.4	1.6	NNW
03:00-04:00	0.9	3.2	NW	0.9	3.2	NNW	0.9	3.2	N
04:00-05:00	0.4	1.6	N	0.9	3.2	NNW	1.3	4.8	WNW
05:00-06:00	0.9	3.2	N	0.9	3.2	NW	0.9	3.2	NNE
06:00-07:00	0.9	3.2	NW	0.4	1.6	NNW	0.4	1.6	NNW
07:00-08:00	0.4	1.6	NW	0.4	1.6	N	0.4	1.6	NW
08:00-09:00	0.4	1.6	NNW	0.4	1.6	NNW	0.4	1.6	N
09:00-10:00	0.4	1.6	N	0.9	3.2	NW	0.9	3.2	N
10:00-11:00	1.3	4.8	NW	1.3	4.8	N	0.9	3.2	N
11:00-12:00	0.9	3.2	NW	1.3	4.8	NNW	1.3	4.8	NNW
12:00-13:00	0.9	3.2	NNW	1.8	6.4	N	0.9	3.2	NW
Temperature Average (°C)	29.1			29.1			28.9		
Barometric Pressure Average (mmHg)	757.74			757.60			757.09		
Sky Condition	Fair			Fair			Fair		

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lanseththa)

Technical Supervisor

27 / 11 / 24



RY240/11/67

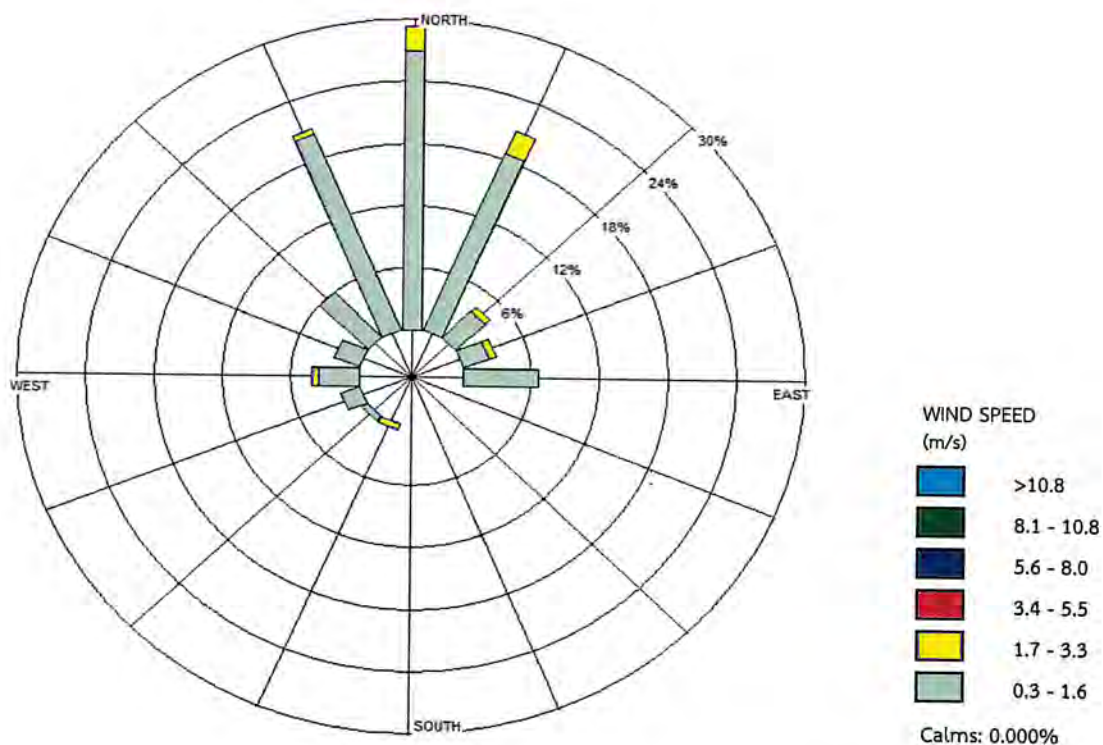
65/1/67, 66/1/67

Wind Speed and Wind Direction Measurement Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Sampling Date : 15-22 November 2024
Date Reported : 27 November 2024

Ban Nong Lalok



Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Mahaiphat Laesetha)

Technical Supervisor
27 / 11 / 24

เอกสาร 4-3

รายงานผลการตรวจวิเคราะห์คุณภาพอากาศจากปล่อง



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

1/1

Ref. No. AR260/11/24

Report No. 2411/273

65/1/67

Stack Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling by : Heeson Lormae
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 16 November 2024
Date Received : 18 November 2024
Date of Analysis : 18-28 November 2024
Date Reported : 29 November 2024

Parameter	Unit	Sampling Method	Analytical Method	Bag Filter Inlet (Set1)
Sampling Time	-	-	-	10:30-11:18
Height	m.	-	-	50.0
Diameter	cm.	-	-	450* x 350
Barometric Pressure	mmHg	-	-	756.06
Absolute Stack Gas Pressure	mmHg	-	-	738.41
Dry Gas Meter Temperature	°C	-	-	33.8
Stack Temperature	°C	-	-	89.0
Moisture	%	-	-	3.91
Velocity	m/s	-	-	26.29
Flow Rate (Qsd)	m ³ /s	-	-	318.274
Oxygen	%	-	-	20.3
Total Suspended Particulate	mg/m ³	Isokinetic	Gravimetric Method (U.S. EPA Method 5)	532
Emission Rate of Total Suspended Particulate	g/s	-	Calculate	169

Remark:

* The side used for determine the number of traverse points.

- Flow rate (Qsd) and pollutants are calculated under standard condition at 1 atmosphere or 760 mmHg and temperature 25 degree celsius and dry basis.

Reported results refer to submitted samples only.

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(Phenpha Vipasthawatt)

Laboratory Supervisor

29 / 11 / 24

----- End of Report -----



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

1/1

Ref. No. AR252/11/24

Report No. 2411/273

65/1/67

Stack Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling by : Heeson Lormae
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 16 November 2024
Date Received : 18 November 2024
Date of Analysis : 18-28 November 2024
Date Reported : 29 November 2024

Parameter	Unit	Sampling Method	Analytical Method	Bag Filter Inlet (SET 2)
Sampling Time	-	-	-	11:30-12:18
Height	m.	-	-	50.0
Diameter	cm.	-	-	450* x 350
Barometric Pressure	mmHg	-	-	756.06
Absolute Stack Gas Pressure	mmHg	-	-	739.88
Dry Gas Meter Temperature	°C	-	-	34.8
Stack Temperature	°C	-	-	90.0
Moisture	%	-	-	3.84
Velocity	m/s	-	-	26.86
Flow Rate (Qsd)	m ³ /s	-	-	325.104
Oxygen	%	-	-	20.3
Total Suspended Particulate	mg/m ³	Isokinetic	Gravimetric Method (U.S. EPA Method 5)	1,473
Emission Rate of Total Suspended Particulate	g/s	-	Calculate	479

Remark:

* The side used for determine the number of traverse points.

- Flow rate (Qsd) and pollutants are calculated under standard condition at 1 atmosphere or 760 mmHg and temperature 25 degree celsius and dry basis.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.



(Phenpha Vipphasthawatt)

Laboratory Supervisor

29 / 11 / 24

----- End of Report -----



Ref. No. AR253/11/24

Report No. 2411/273

65/1/67

Stack Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling by : Heeson Lormae
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 16 November 2024
Date Received : 18 November 2024
Date of Analysis : 18-28 November 2024
Date Reported : 29 November 2024

Parameter	Unit	Sampling Method	Analytical Method	Bag Filter Outlet (SET 1)	Standard	
					[1]	[2]
Sampling Time	-	-	-	10:30-11:18	-	-
Height	m.	-	-	50.0	-	-
Diameter	cm.	-	-	450* x 350	-	-
Barometric Pressure	mmHg	-	-	756.06	-	-
Absolute Stack Gas Pressure	mmHg	-	-	734.00	-	-
Dry Gas Meter Temperature	°C	-	-	33.7	-	-
Stack Temperature	°C	-	-	83.0	-	-
Moisture	%	-	-	3.70	-	-
Velocity	m/s	-	-	26.70	-	-
Flow Rate (Qsd)	m ³ /s	-	-	327.408	-	-
Oxygen	%	-	-	20.4	-	-
Total Suspended Particulate	mg/m ³	Isokinetic	Gravimetric Method (U.S. EPA Method 5)	5.2	120	50
Emission Rate of Total Suspended Particulate	g/s	-	Calculate	1.70	-	17.99

Remark:

* The side used for determine the number of traverse points.

- Flow rate (Qsd) and pollutants are calculated under standard condition at 1 atmosphere or 760 mmHg and temperature 25 degree celsius and dry basis.

Standard^[1] = Ministry of Science Announcement Technology and Environment Determining the amount of contaminants in the air emitted from (new) steel factory, 2001.

Standard^[2] = Standards according to conditions according to the environmental impact analysis report EIA

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Phenpha Vipasthawatt)

Laboratory Supervisor

29 / 11 / 24

----- End of Report -----



Ref. No. AR254/11/24

Report No. 2411/273

65/1/67

Stack Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling by : Heeson Lormae
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 16 November 2024
Date Received : 18 November 2024
Date of Analysis : 18-28 November 2024
Date Reported : 29 November 2024

Parameter	Unit	Sampling Method	Analytical Method	Bag Filter Outlet (SET 2)	Standard	
					[1]	[2]
Sampling Time	-	-	-	11:30-12:18	-	-
Height	m.	-	-	50.0	-	-
Diameter	cm.	-	-	450* x 350	-	-
Barometric Pressure	mmHg	-	-	756.06	-	-
Absolute Stack Gas Pressure	mmHg	-	-	732.53	-	-
Dry Gas Meter Temperature	°C	-	-	34.8	-	-
Stack Temperature	°C	-	-	82.0	-	-
Moisture	%	-	-	3.87	-	-
Velocity	m/s	-	-	26.38	-	-
Flow Rate (Qsd)	m ³ /s	-	-	323.113	-	-
Oxygen	%	-	-	20.4	-	-
Total Suspended Particulate	mg/m ³	Isokinetic	Gravimetric Method (U.S. EPA Method 5)	8.8	120	50
Emission Rate of Total Suspended Particulate	g/s	-	Calculate	2.84	-	17.99

Remark:

* The side used for determine the number of traverse points.

- Flow rate (Qsd) and pollutants are calculated under standard condition at 1 atmosphere or 760 mmHg and temperature 25 degree celsius and dry basis.

Standard^[1] = Ministry of Science Announcement Technology and Environment Determining the amount of contaminants in the air emitted from (new) steel factory, 2001.

Standard^[2] = Standards according to conditions according to the environmental impact analysis report EIA

Reported results refer to submitted samples only.

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(Phenpha Vipasthawatt)

Laboratory Supervisor

29 / 11 / 24

----- End of Report -----



Ref. No. AR255/11/24

Report No. 2411/273

65/1/67

Stack Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling by : Heeson Lormae (ว-011-ค-0019)
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 16 November 2024
Date Received : 18 November 2024
Date of Analysis : 18-28 November 2024
Date Reported : 29 November 2024

Parameter	Unit	Sampling Method	Analytical Method	TF Set 1 Stack (Outlet)		Standard		
						[1]	[2]	[3]
Sampling Time	-	-	-	11:00-11:40		-	-	-
Height	m.	-	-	41.0		-	-	-
Diameter	cm.	-	-	220		-	-	-
Barometric Pressure	mmHg	-	-	756.06		-	-	-
Absolute Stack Gas Pressure	mmHg	-	-	754.97		-	-	-
Dry Gas Meter Temperature	°C	-	-	34.0		-	-	-
Stack Temperature	°C	-	-	624		-	-	-
Molsture	%	-	-	6.97		-	-	-
Velocity	m/s	-	-	9.15		-	-	-
Flow Rate (Qsd)	m ³ /s	-	-	10.677		-	-	-
Oxygen	%	-	-	9.1	7.0	-	-	-
Oxides of Nitrogen	ppm	Vacuum Flask	Colorimetric Method (U.S. EPA Method 7)	13	15	180	200 ^{AV}	81
Oxides of Nitrogen	mg/m ³	Vacuum Flask	Colorimetric Method (U.S. EPA Method 7)	24	27	338	376	153
Emission Rate of Oxides of Nitrogen	g/s	-	Calculate	0.256	-	-	-	2.17
Carbon Monoxide	ppm	Gas Bag	Non-Dispersive Infrared Detection Method (U.S. EPA Method 10)	14	16	-	690	-
Carbon Monoxide	mg/m ³	Gas Bag	Non-Dispersive Infrared Detection Method (U.S. EPA Method 10)	16	18	-	790	-
Emission Rate of Carbon Monoxide	g/s	-	Calculate	0.171	-	-	-	-
Sulfur Dioxide	ppm	Midget Impinger	Titrimetric Method (U.S. EPA Method 6)	1	1	800	60 ^{B/}	-
Sulfur Dioxide	mg/m ³	Midget Impinger	Titrimetric Method (U.S. EPA Method 6)	3	3	2,094	157	-
Emission Rate of Sulfur Dioxide	g/s	-	Calculate	0.032	-	-	-	-



Ref. No. AR255/11/24

Report No. 2411/273

65/1/67

Stack Air Quality Analysis Report

Remark:

- Type of Fuel: Natural Gas
- Fuel Consumption Rate 55,404.90 Nm³/day
- Capacity 2,405.48 ton/day
- Flow rate (Qsd) and pollutants are calculated under standard condition at 1 atmosphere or 760 mmHg and temperature 25 degree celsius and dry basis.

Standard⁽¹⁾ = Ministry of Science Announcement Technology and Environment Determining the amount of contaminants in the air emitted from (new) steel factory, 2001.

Standard⁽²⁾ = Industrial Emission Standards, Notification of the Ministry of Industry, B.E. 2549 (Production process with fuel combustion)

^{A/} Oxides of nitrogen from heat generating source other fuel

^{B/} Sulfur dioxide from heat generating source other fuel

Standard⁽³⁾ = Standards according to conditions according to the environmental impact analysis report EIA

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Phenpha Vipphasthawatt)

ว-011-ค-0013

Laboratory Supervisor

29 / 11 / 24

----- End of Report -----



Ref. No. AR256/11/24

Report No. 2411/273

65/1/67

Stack Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling by : Heeson Lormae (ว-011-ค-0019)
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 16 November 2024
Date Received : 18 November 2024
Date of Analysis : 18-28 November 2024
Date Reported : 29 November 2024

Parameter	Unit	Sampling Method	Analytical Method	TF Set 2 Stack (Outlet)		Standard		
						[1]	[2]	[3]
Sampling Time	-	-	-	14:30-15:10		-	-	-
Height	m.	-	-	15.0		-	-	-
Diameter	cm.	-	-	146		-	-	-
Barometric Pressure	mmHg	-	-	756.06		-	-	-
Absolute Stack Gas Pressure	mmHg	-	-	755.39		-	-	-
Dry Gas Meter Temperature	°C	-	-	34.0		-	-	-
Stack Temperature	°C	-	-	245		-	-	-
Moisture	%	-	-	6.97		-	-	-
Velocity	m/s	-	-	7.26		-	-	-
Flow Rate (Qsd)	m ³ /s	-	-	6.465		-	-	-
Oxygen	%	-	-	14.9	7.0	-	-	-
Oxides of Nitrogen	ppm	Vacuum Flask	Colorimetric Method (U.S. EPA Method 7)	11	24	180	200 ^{AV}	81
Oxides of Nitrogen	mg/m ³	Vacuum Flask	Colorimetric Method (U.S. EPA Method 7)	21	45	338	376	153
Emission Rate of Oxides of Nitrogen	g/s	-	Calculate	0.136	-	-	-	2.17
Carbon Monoxide	ppm	Gas Bag	Non-Dispersive Infrared Detection Method (U.S. EPA Method 10)	3.5	7.6	-	690	-
Carbon Monoxide	mg/m ³	Gas Bag	Non-Dispersive Infrared Detection Method (U.S. EPA Method 10)	4.0	8.6	-	790	-
Emission Rate of Carbon Monoxide	g/s	-	Calculate	0.026	-	-	-	-
Sulfur Dioxide	ppm	Midget Impinger	Titrimetric Method (U.S. EPA Method 6)	1	2	800	60 ^{BV}	-
Sulfur Dioxide	mg/m ³	Midget Impinger	Titrimetric Method (U.S. EPA Method 6)	3	6	2,094	157	-
Emission Rate of Sulfur Dioxide	g/s	-	Calculate	0.019	-	-	-	-



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

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7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

2/2

Ref. No. AR256/11/24

Report No. 2411/273

65/1/67

Stack Air Quality Analysis Report

Remark:

- Type of Fuel: Natural Gas
- Fuel Consumption Rate 23,744.96 Nm³/day
- Capacity 2,405.48 ton/day
- Flow rate (Qsd) and pollutants are calculated under standard condition at 1 atmosphere or 760 mmHg and temperature 25 degree celsius and dry basis.

Standard^[1] = Ministry of Science Announcement Technology and Environment Determining the amount of contaminants in the air emitted from (new) steel factory, 2001.

Standard^[2] = Industrial Emission Standards, Notification of the Ministry of Industry, B.E. 2549 (Production process with fuel combustion)

^{A/} Oxides of nitrogen from heat generating source other fuel

^{B/} Sulfur dioxide from heat generating source other fuel

Standard^[3] = Standards according to conditions according to the environmental impact analysis report EIA

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Phenpha Vipasthawatt)

ว-011-ค-0013

Laboratory Supervisor

29 / 11 / 25

----- End of Report -----

เอกสาร 4-4

รายงานผลการตรวจวิเคราะห์คุณภาพน้ำเสีย



Ref. No. WR416/07/24

Report No. 2407/171

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Heeson Lormae (จ-011-ค-0019)
S.P.S. Consulting Service Co., Ltd. (จ-011)

Sampling Date : 10 July 2024
Date Received : 10 July 2024
Date of Analysis : 10-18 July 2024
Date Reported : 19 July 2024

Parameter	Analytical Method	Effluent Cooling Tower	Standard
pH	Electrometric Method (4500-H ⁺ B.)	7.47	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	9.8	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	2	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	25	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	<2	Less than 5

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Phenpha Vipphasthawatt)

จ-011-ค-0013

Laboratory Supervisor

19 / 07 / 24

----- End of Report -----



Ref. No. WR417/07/24

Report No. 2407/171

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Heeson Lormae (จ-011-ค-0019)
S.P.S. Consulting Service Co., Ltd. (จ-011)
Sampling Date : 10 July 2024
Date Received : 10 July 2024
Date of Analysis : 10-18 July 2024
Date Reported : 19 July 2024

Parameter	Analytical Method	Septic Tank	Standard
pH	Electrometric Method (4500-H ⁺ B.)	7.70	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	15.8	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	4	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	44	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	<2	Less than 5
TKN (mg/L)	Macro-Kjeldahl Method (4500-N _{org} B.) & Titrimetric Method (4500-NH ₃ C.)	7.6	Less than 100

Remark:

Sample Characteristics: Yellow turbid with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Phenpha Vipasthawatt)

จ-011-ค-0013

Laboratory Supervisor

19 / 07 / 24

----- End of Report -----



Ref. No. WR417/07/24

Report No. 2407/171_1

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Heeson Lormae
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 10 July 2024
Date Received : 10 July 2024
Date of Analysis : 10-18 July 2024
Date Reported : 19 July 2024

Parameter	Analytical Method	Septic Tank	Standard
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	110,000	-

Remark:

Sample Characteristics: Yellow turbid with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

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(Phenpha Vipasthawatt)

Laboratory Supervisor

19 / 07 / 24

----- End of Report -----



Ref. No. WR380/08/24

Report No. 2408/172

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Locat : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Udomsak Janjirawit (จ-011-จ-0013)
S.P.S. Consulting Service Co., Ltd. (จ-011)
Sampling Date : 9 August 2024
Date Received : 9 August 2024
Date of Analysis : 9-20 August 2024
Date Reported : 21 August 2024

Parameter	Analytical Method	Effluent Cooling Tower	Standard
pH	Electrometric Method (4500-H ⁺ B.)	7.56	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	15.6	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	2	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	25	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	<2	Less than 5

Remark:

Sample Characteristics: Yellow turbid with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Thanutporn Numtrakulpattana)

จ-011-ค-0015

Laboratory Supervisor

21/08/24

----- End of Report -----



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

1/1

Ref. No. WR381/08/24

Report No. 2408/172

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Locat : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Udomsak Janjirawit (จ-011-จ-0013)
S.P.S. Consulting Service Co., Ltd. (จ-011)

Sampling Date : 9 August 2024
Date Received : 9 August 2024
Date of Analysis : 9-20 August 2024
Date Reported : 21 August 2024

Parameter	Analytical Method	Septic Tank	Standard
pH	Electrometric Method (4500-H ⁺ B.)	6.92	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	2.8	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	3	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	25	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	<2	Less than 5
TKN (mg/L)	Macro-Kjeldahl Method (4500-N _{org} B.) & Titrimetric Method (4500-NH ₃ C.)	10	Less than 100

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.



(Thanutporn Numtrakulpattana)

จ-011-ค-0015

Laboratory Supervisor

21/08/24

----- End of Report -----



Ref. No. WR381/08/24

Report No. 2408/172_1

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Locat : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Udomsak Janjirawit
S.P.S. Consulting Service Co., Ltd.
Sampling Date : 9 August 2024
Date Received : 9 August 2024
Date of Analysis : 9-20 August 2024
Date Reported : 21 August 2024

Parameter	Analytical Method	Septic Tank	Standard
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	54,000	

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.



(Thanutporn Numtrakulpattana)

Laboratory Supervisor

21/08/24

----- End of Report -----



Ref. No. WR600/09/24

Report No. 2409/292

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Locat : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Thitinan Ruangram (๖-011-๖-0024)
S.P.S. Consulting Service Co., Ltd. (๖-011)
Sampling Date : 19 September 2024
Date Received : 19 September 2024
Date of Analysis : 19-27 September 2024
Date Reported : 30 September 2024

Parameter	Analytical Method	Effluent Cooling Tower	Standard
pH	Electrometric Method (4500-H ⁺ B.)	7.41	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	8.0	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	4	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	44	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	<2	Less than 5

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Benjawan Sapphawong)

๖-011-๖-0032

Laboratory Supervisor

๓๐ / ๙ / ๒๕

----- End of Report -----



Ref. No. WR601/09/24

Report No. 2409/292

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Locat : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Thitinan Ruangram (๖-011-๖-0024)
S.P.S. Consulting Service Co., Ltd. (๖-011)
Sampling Date : 19 September 2024
Date Received : 19 September 2024
Date of Analysis : 19-27 September 2024
Date Reported : 30 September 2024

Parameter	Analytical Method	Septic Tank	Standard
pH	Electrometric Method (4500-H ⁺ B.)	7.08	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	18.7	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	4	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	25	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	<2	Less than 5
TKN (mg/L)	Macro-Kjeldahl Method (4500-N _{org} B.) & Titrimetric Method (4500-NH ₃ C.)	2.4	Less than 100

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Benjawan Sapphawong)

๖-011-๖-0032

Laboratory Supervisor

30 / ๙ / ๖4

----- End of Report -----



Ref. No. WR601/09/24

Report No. 2409/292_1

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Local : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Thitinan Ruangram
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 19 September 2024
Date Received : 19 September 2024
Date of Analysis : 19-27 September 2024
Date Reported : 30 September 2024

Parameter	Analytical Method	Septic Tank	Standard
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	92,000	-

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Benjawan Sapphawong)

Laboratory Supervisor

30 / 09 / 24

----- End of Report -----



Ref. No, WR421/10/24
65/1/67

Report No. 2410/188

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Local : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Thitinan Ruangram (ว-011-จ-0024)
S.P.S. Consulting Service Co., Ltd. (ว-011)
Sampling Date : 11 October 2024
Date Received : 11 October 2024
Date of Analysis : 11-22 October 2024
Date Reported : 24 October 2024

Parameter	Analytical Method	Effluent Cooling Tower	Standard
pH	Electrometric Method (4500-H ⁺ B.)	7.53	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	10.4	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	2	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	25	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	<2	Less than 5

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Benjawan Sapphawong)

ว-011-ค-0032

Laboratory Supervisor

24 / 10 / 24

----- End of Report -----



Ref. No. WR422/10/24

Report No. 2410/188

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Locat : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Thitinan Ruangram (จ-011-จ-0024)
S.P.S. Consulting Service Co., Ltd. (จ-011)
Sampling Date : 11 October 2024
Date Received : 11 October 2024
Date of Analysis : 11-22 October 2024
Date Reported : 24 October 2024

Parameter	Analytical Method	Septic Tank	Standard
pH	Electrometric Method (4500-H ⁺ B.)	7.44	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	4.6	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	3	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	25	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	<2	Less than 5
TKN (mg/L)	Macro-Kjeldahl Method (4500-N _{org} B.) & Titrimetric Method (4500-NH ₃ C.)	15	Less than 100

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Benjawan Sapphawong)

จ-011-ท-0032

Laboratory Supervisor

24 / 10 / 24

----- End of Report -----



Ref. No. WR422/10/24

Report No. 2410/188_1

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Local : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Thitinan Ruangram
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 11 October 2024
Date Received : 11 October 2024
Date of Analysis : 11-22 October 2024
Date Reported : 24 October 2024

Parameter	Analytical Method	Septic Tank	Standard
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	110,000	-

Remark:

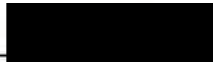
Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.


(Benjawan Sapphawong)

Laboratory Supervisor

24 / 10 / 24

----- End of Report -----



Ref. No. WR331/11/24

Report No. 2411/123

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Locat : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Udomsak Janjirawit (จ-011-จ-0013)
S.P.S. Consulting Service Co., Ltd. (จ-011)

Sampling Date : 7 November 2024
Date Received : 7 November 2024
Date of Analysis : 7-15 November 2024
Date Reported : 18 November 2024

Parameter	Analytical Method	Effluent Cooling Tower	Standard
pH	Electrometric Method (4500-H ⁺ B.)	7.94	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	9.5	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	3	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	45	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	<2	Less than 5

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Benjawan Sapphawong)

จ-011-ค-0032

Laboratory Supervisor

18 / 11 / 24

----- End of Report -----



Ref. No. WR332/11/24

Report No. 2411/123

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Locat : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Udomsak Janjirawit (๖-011-๖-0013)
S.P.S. Consulting Service Co., Ltd. (๖-011)

Sampling Date : 7 November 2024
Date Received : 7 November 2024
Date of Analysis : 7-15 November 2024
Date Reported : 18 November 2024

Parameter	Analytical Method	Septic Tank	Standard
pH	Electrometric Method (4500-H ⁺ B.)	7.28	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	13.2	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	17	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	86	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	3	Less than 5
TKN (mg/L)	Macro-Kjeldahl Method (4500-N _{org} B.) & Titrimetric Method (4500-NH ₃ C.)	49	Less than 100

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Benjawan Sapphawong)

๖-011-๖-0032

Laboratory Supervisor

18 / 11 / 24

----- End of Report -----



Ref. No. WR332/11/24

Report No. 2411/123_1

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Locat : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Udomsak Janjirawit
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 7 November 2024
Date Received : 7 November 2024
Date of Analysis : 7-15 November 2024
Date Reported : 18 November 2024

Parameter	Analytical Method	Septic Tank	Standard
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	110,000	

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Benjawan Sapphawong)

Laboratory Supervisor

18 / 11 / 24

----- End of Report -----



Ref. No. WR337/12/24

Report No. 2412/176

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Local : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Heeson Lormae (๖-011-๓-0019)
S.P.S. Consulting Service Co., Ltd. (๖-011)
Sampling Date : 9 December 2024
Date Received : 9 December 2024
Date of Analysis : 9-18 December 2024
Date Reported : 19 December 2024

Parameter	Analytical Method	Effluent Cooling Tower	Standard
pH	Electrometric Method (4500-H ⁺ B.)	7.52	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	7.3	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	2	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	25	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	<2	Less than 5

Remark:

Sample Characteristics: Yellow with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Waraphon Phooowat)

๖-011-๓-0038

Laboratory Supervisor

11 / 12 / 24

----- End of Report -----



Ref. No. WR338/12/24

Report No. 2412/176

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Locat : 55 Moo 5, Nong Latok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Heeson Lormae (ว-011-ค-0019)
S.P.S. Consulting Service Co., Ltd. (ว-011)

Sampling Date : 9 December 2024
Date Received : 9 December 2024
Date of Analysis : 9-18 December 2024
Date Reported : 19 December 2024

Parameter	Analytical Method	Septic Tank	Standard
pH	Electrometric Method (4500-H ⁺ B.)	7.05	5.5-9.0
Total Suspended Solids (mg/L)	Total Suspended Solids Dried at 103-105 °C (2540 D.)	13.3	Less than 50
BOD ₅ (mg/L)	5 Day BOD Test (5210 B.) & Membrane Electrode Method (4500-O G.)	16	Less than 20
COD (mg/L)	Closed Reflux, Titrimetric Method (5220 C.)	96	Less than 120
Grease & Oil (mg/L)	Liquid-Liquid, Partition-Gravimetric Method (5520 B.)	3	Less than 5
TKN (mg/L)	Macro-Kjeldahl Method (4500-N _{org} B.) & Titrimetric Method (4500-NH ₃ C.)	46	Less than 100

Remark:

Sample Characteristics: Yellow turbid with slightly precipitate

Standard = Industrial Effluent Standards, Notification of the Ministry of Industry, B.E. 2560

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Waraphon Phoowat)

ว-011-ค-0038

Laboratory Supervisor

19 / 12 / 24

----- End of Report -----



Ref. No. WR338/12/24

Report No. 2412/176_1

65/1/67

Wastewater Quality Analysis Report

Project : HRC & SKP
Project Local : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling Method : Grab
Sampling by : Heeson Lormae
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 9 December 2024
Date Received : 9 December 2024
Date of Analysis : 9-18 December 2024
Date Reported : 19 December 2024

Parameter	Analytical Method	Septic Tank
Fecal Coliform Bacteria (MPN/100 mL)	Multiple-Tube Fermentation Technique (9221 E.)	110,000

Remark:

Sample Characteristics: Yellow turbid with slightly precipitate

Method = Standard Methods for the Examination of Water and Wastewater, APHA, AWWA, WEF, 24th Edition, 2023.

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Waraphon Phoowat)

Laboratory Supervisor

19 / 12 / 24

----- End of Report -----

เอกสาร 4-5

รายงานผลการตรวจวัดระดับเสียงในบรรยากาศ



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP Sampling Date : 15-18 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Fence of the North			Standard	
	November 2024				
	15-16				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
11:00-12:00	55.8	60.0	50.8	-	
12:00-13:00	55.0	59.8	50.9	-	
13:00-14:00	56.8	63.3	53.5	-	
14:00-15:00	54.8	59.4	49.8	-	
15:00-16:00	54.9	60.9	49.7	-	
16:00-17:00	52.9	59.7	47.7	-	
17:00-18:00	53.4	58.0	47.9	-	
18:00-19:00	50.3	56.7	45.0	-	
19:00-20:00	49.8	52.1	44.8	-	
20:00-21:00	47.9	48.3	45.2	-	
21:00-22:00	51.8	56.5	50.1	-	
22:00-23:00	55.3	60.0	53.2	-	
23:00-00:00	57.0	59.1	53.7	-	
00:00-01:00	57.3	59.1	53.6	-	
01:00-02:00	56.7	57.8	53.3	-	
02:00-03:00	56.5	57.8	53.8	-	
03:00-04:00	56.7	56.8	53.1	-	
04:00-05:00	55.7	57.0	53.6	-	
05:00-06:00	56.2	57.7	52.2	-	
06:00-07:00	55.8	57.9	51.7	-	
07:00-08:00	56.3	58.2	52.0	-	
08:00-09:00	56.6	58.5	53.3	-	
09:00-10:00	58.7	59.5	54.4	-	
10:00-11:00	57.7	60.4	53.1	-	
L _{eq} 24 hr [dB(A)]	55.6	-	-	Less Than 70.0	
L _{max} [dB(A)]	101.1	-	-	Less Than 115.0	
L _{dn} [dB(A)]	62.6	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R11	ACO	6236		00172038
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9		93.9		

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lanseththa)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 15-18 November 2024
Date Reported : 27 November 2024

Time	Fence of the North			Standard	
	November 2024				
	16-17				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
11:00-12:00	56.2	58.3	50.7	-	
12:00-13:00	55.2	58.2	50.0	-	
13:00-14:00	56.1	61.9	53.5	-	
14:00-15:00	57.4	62.6	54.4	-	
15:00-16:00	59.1	62.8	54.6	-	
16:00-17:00	58.5	60.0	53.5	-	
17:00-18:00	57.9	60.1	53.8	-	
18:00-19:00	58.6	60.1	54.0	-	
19:00-20:00	57.7	59.5	54.5	-	
20:00-21:00	56.7	58.5	54.5	-	
21:00-22:00	56.8	58.3	53.5	-	
22:00-23:00	57.5	58.9	54.6	-	
23:00-00:00	58.7	60.1	54.7	-	
00:00-01:00	56.9	58.8	53.3	-	
01:00-02:00	57.3	58.7	53.7	-	
02:00-03:00	56.6	58.3	52.5	-	
03:00-04:00	55.9	55.7	53.8	-	
04:00-05:00	56.4	57.6	52.5	-	
05:00-06:00	56.6	58.1	52.7	-	
06:00-07:00	58.0	60.6	53.1	-	
07:00-08:00	55.3	57.2	51.2	-	
08:00-09:00	57.7	59.4	53.0	-	
09:00-10:00	56.7	58.8	52.1	-	
10:00-11:00	55.5	57.7	50.4	-	
L _{eq} 24 hr [dB(A)]	57.2	-	-	Less Than 70.0	
L _{max} [dB(A)]	86.9	-	-	Less Than 115.0	
L _{dn} [dB(A)]	63.6	-	-	-	
	Sound Level Meter Data				
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R11	ACO	6236		00172038
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9		93.9		

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 15-18 November 2024
Date Reported : 27 November 2024

Time	Fence of the North			Standard	
	November 2024				
	17-18				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
11:00-12:00	54.8	56.8	50.0	-	
12:00-13:00	54.3	56.9	51.5	-	
13:00-14:00	57.3	62.1	55.0	-	
14:00-15:00	56.4	58.5	51.6	-	
15:00-16:00	56.1	57.9	52.9	-	
16:00-17:00	58.4	73.8	56.3	-	
17:00-18:00	57.1	59.3	52.5	-	
18:00-19:00	54.9	54.6	50.2	-	
19:00-20:00	52.9	54.5	49.3	-	
20:00-21:00	51.9	52.6	49.8	-	
21:00-22:00	51.3	52.1	48.3	-	
22:00-23:00	50.7	52.0	47.7	-	
23:00-00:00	50.6	52.4	48.4	-	
00:00-01:00	54.2	53.3	49.9	-	
01:00-02:00	53.9	55.5	50.1	-	
02:00-03:00	51.3	52.8	47.4	-	
03:00-04:00	51.8	53.8	48.6	-	
04:00-05:00	51.7	53.1	47.5	-	
05:00-06:00	52.9	54.4	48.9	-	
06:00-07:00	52.7	53.4	48.9	-	
07:00-08:00	52.9	53.8	47.9	-	
08:00-09:00	53.8	57.4	50.9	-	
09:00-10:00	55.9	59.0	52.2	-	
10:00-11:00	55.5	58.7	50.1	-	
L _{eq} 24 hr [dB(A)]	54.5	-	-	Less Than 70.0	
L _{max} [dB(A)]	106.0	-	-	Less Than 115.0	
L _{dn} [dB(A)]	59.4	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R11	ACO	6236		00172038
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9		93.9		

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 15-18 November 2024
Date Reported : 27 November 2024

Time	Fence of the South			Standard	
	November 2024				
	15-16				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
12:00-13:00	53.3	53.9	51.1	-	
13:00-14:00	52.6	53.6	49.8	-	
14:00-15:00	50.8	51.0	48.8	-	
15:00-16:00	50.3	50.4	48.9	-	
16:00-17:00	50.3	50.5	49.1	-	
17:00-18:00	50.9	51.1	49.6	-	
18:00-19:00	51.7	51.7	50.5	-	
19:00-20:00	51.6	51.7	50.7	-	
20:00-21:00	53.0	53.4	51.8	-	
21:00-22:00	53.9	54.3	52.8	-	
22:00-23:00	54.6	55.2	52.7	-	
23:00-00:00	53.8	54.1	52.3	-	
00:00-01:00	55.2	55.6	50.9	-	
01:00-02:00	52.7	57.3	51.3	-	
02:00-03:00	52.3	56.9	51.2	-	
03:00-04:00	56.0	56.7	55.0	-	
04:00-05:00	55.8	56.3	54.4	-	
05:00-06:00	55.9	56.3	54.3	-	
06:00-07:00	55.8	56.2	54.7	-	
07:00-08:00	56.4	56.9	55.0	-	
08:00-09:00	55.8	56.4	54.7	-	
09:00-10:00	55.2	55.9	53.1	-	
10:00-11:00	54.4	54.9	53.0	-	
11:00-12:00	54.4	54.8	53.3	-	
L _{eq} 24 hr [dB(A)]	54.0	-	-	Less Than 70.0	
L _{max} [dB(A)]	87.8	-	-	Less Than 115.0	
L _{dn} [dB(A)]	61.1	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R15	ACO	6236		00172062
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	94.0		93.9		

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lanseththa)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 15-18 November 2024
Date Reported : 27 November 2024

Time	Fence of the South			Standard	
	November 2024				
	16-17				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
12:00-13:00	53.9	54.3	52.9	-	
13:00-14:00	53.8	54.1	52.7	-	
14:00-15:00	53.3	53.5	52.3	-	
15:00-16:00	53.8	54.3	53.0	-	
16:00-17:00	53.8	54.0	52.5	-	
17:00-18:00	54.1	54.4	53.4	-	
18:00-19:00	54.5	54.8	53.6	-	
19:00-20:00	55.0	54.9	54.0	-	
20:00-21:00	54.7	54.9	53.9	-	
21:00-22:00	55.1	55.5	54.2	-	
22:00-23:00	55.0	55.1	53.9	-	
23:00-00:00	54.8	55.0	54.0	-	
00:00-01:00	55.5	55.7	54.3	-	
01:00-02:00	55.9	56.2	53.7	-	
02:00-03:00	55.2	55.2	53.7	-	
03:00-04:00	54.6	54.9	52.8	-	
04:00-05:00	55.1	55.2	53.7	-	
05:00-06:00	55.5	55.6	54.4	-	
06:00-07:00	55.8	56.4	54.7	-	
07:00-08:00	55.5	54.6	53.2	-	
08:00-09:00	55.1	55.1	53.7	-	
09:00-10:00	54.3	54.6	53.2	-	
10:00-11:00	54.3	54.4	52.6	-	
11:00-12:00	54.1	54.2	52.5	-	
L _{eq} 24 hr [dB(A)]	54.8	-	-	Less Than 70.0	
L _{max} [dB(A)]	94.5	-	-	Less Than 115.0	
L _{dn} [dB(A)]	61.6	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R15	ACO	6236		00172062
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	94.0	93.9			

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lanseththa)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP Sampling Date : 15-18 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Fence of the South			Standard	
	November 2024				
	17-18				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
12:00-13:00	53.1	53.2	52.0	-	
13:00-14:00	55.4	55.7	53.3	-	
14:00-15:00	55.9	56.4	54.7	-	
15:00-16:00	55.7	56.3	54.5	-	
16:00-17:00	59.8	73.3	56.4	-	
17:00-18:00	57.3	58.9	55.4	-	
18:00-19:00	57.6	57.8	57.0	-	
19:00-20:00	57.8	58.0	56.6	-	
20:00-21:00	58.0	58.0	56.9	-	
21:00-22:00	58.6	59.1	56.0	-	
22:00-23:00	58.1	58.5	56.9	-	
23:00-00:00	57.8	58.3	56.9	-	
00:00-01:00	57.9	58.7	53.0	-	
01:00-02:00	54.0	59.7	52.7	-	
02:00-03:00	54.1	59.7	53.2	-	
03:00-04:00	54.6	60.2	53.6	-	
04:00-05:00	54.4	60.2	52.7	-	
05:00-06:00	53.6	59.0	50.5	-	
06:00-07:00	56.8	57.6	55.0	-	
07:00-08:00	56.3	57.0	55.3	-	
08:00-09:00	55.9	56.7	54.6	-	
09:00-10:00	55.6	56.1	54.3	-	
10:00-11:00	54.9	55.5	53.5	-	
11:00-12:00	54.3	55.0	53.3	-	
L _{eq} 24 hr [dB(A)]	56.5	-	-	Less Than 70.0	
L _{max} [dB(A)]	98.8	-	-	Less Than 115.0	
L _{dn} [dB(A)]	62.6	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R15	ACO	6236		00172062
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	94.0	93.9			

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP Sampling Date : 15-18 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Fence of the East			Standard	
	November 2024				
	15-16				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
12:00-13:00	52.2	51.9	49.2	-	
13:00-14:00	54.5	55.7	51.3	-	
14:00-15:00	55.3	56.5	51.6	-	
15:00-16:00	54.3	54.3	50.6	-	
16:00-17:00	52.1	53.1	49.9	-	
17:00-18:00	55.4	57.7	51.4	-	
18:00-19:00	57.3	50.4	54.6	-	
19:00-20:00	61.2	64.1	60.6	-	
20:00-21:00	62.5	62.8	61.8	-	
21:00-22:00	63.7	63.8	61.4	-	
22:00-23:00	62.2	68.6	59.9	-	
23:00-00:00	60.4	65.9	58.7	-	
00:00-01:00	61.6	68.4	59.1	-	
01:00-02:00	61.0	66.5	59.1	-	
02:00-03:00	61.4	67.4	58.5	-	
03:00-04:00	64.1	64.7	60.4	-	
04:00-05:00	62.5	62.6	59.2	-	
05:00-06:00	63.4	62.9	60.6	-	
06:00-07:00	62.7	63.5	60.5	-	
07:00-08:00	63.2	64.0	59.7	-	
08:00-09:00	63.0	64.0	60.4	-	
09:00-10:00	63.8	65.2	60.5	-	
10:00-11:00	61.8	62.3	59.6	-	
11:00-12:00	63.7	65.1	60.5	-	
L _{eq} 24 hr [dB(A)]	61.4	-	-	Less Than 70.0	
L _{max} [dB(A)]	86.3	-	-	Less Than 115.0	
L _{dn} [dB(A)]	68.5	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R18	ACO	6236		00172065
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9	93.9			

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP Sampling Date : 15-18 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Fence of the East			Standard	
	November 2024				
	16-17				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
12:00-13:00	62.6	62.5	59.2	-	
13:00-14:00	62.8	63.4	59.9	-	
14:00-15:00	63.0	63.4	59.9	-	
15:00-16:00	61.5	62.6	59.8	-	
16:00-17:00	62.0	63.1	59.8	-	
17:00-18:00	61.4	62.2	59.6	-	
18:00-19:00	61.0	61.8	59.5	-	
19:00-20:00	61.0	61.9	59.8	-	
20:00-21:00	62.2	61.8	60.0	-	
21:00-22:00	62.9	61.7	59.9	-	
22:00-23:00	63.3	64.5	60.3	-	
23:00-00:00	63.1	63.6	60.1	-	
00:00-01:00	62.2	63.6	58.3	-	
01:00-02:00	59.0	65.1	55.7	-	
02:00-03:00	59.9	63.4	54.6	-	
03:00-04:00	60.0	62.0	58.0	-	
04:00-05:00	63.8	65.7	59.2	-	
05:00-06:00	62.0	62.1	59.5	-	
06:00-07:00	62.4	63.5	59.3	-	
07:00-08:00	61.1	61.9	59.9	-	
08:00-09:00	61.8	62.8	60.6	-	
09:00-10:00	63.5	63.2	60.9	-	
10:00-11:00	62.6	64.0	59.6	-	
11:00-12:00	63.6	62.8	60.0	-	
L _{eq} 24 hr [dB(A)]	62.2	-	-	Less Than 70.0	
L _{max} [dB(A)]	77.9	-	-	Less Than 115.0	
L _{dn} [dB(A)]	68.5	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R18	ACO	6236		00172065
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9		93.9		

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lanseththa)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 15-18 November 2024
Date Reported : 27 November 2024

Time	Fence of the East			Standard	
	November 2024				
	17-18				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
12:00-13:00	61.6	61.3	59.5	-	
13:00-14:00	63.7	66.5	59.6	-	
14:00-15:00	61.2	55.6	54.8	-	
15:00-16:00	55.9	54.6	51.2	-	
16:00-17:00	53.6	55.3	50.7	-	
17:00-18:00	54.3	54.4	50.2	-	
18:00-19:00	53.0	52.5	51.0	-	
19:00-20:00	57.7	53.1	51.5	-	
20:00-21:00	58.1	62.7	56.9	-	
21:00-22:00	63.2	65.5	59.2	-	
22:00-23:00	61.4	66.0	59.7	-	
23:00-00:00	61.3	66.6	59.2	-	
00:00-01:00	61.1	65.8	59.1	-	
01:00-02:00	61.6	66.0	59.4	-	
02:00-03:00	61.7	67.8	59.8	-	
03:00-04:00	60.4	66.1	56.6	-	
04:00-05:00	61.8	62.6	59.8	-	
05:00-06:00	63.6	63.3	60.6	-	
06:00-07:00	63.2	64.0	60.0	-	
07:00-08:00	63.7	63.0	60.0	-	
08:00-09:00	62.3	62.7	59.6	-	
09:00-10:00	62.4	63.5	59.3	-	
10:00-11:00	59.8	60.8	58.1	-	
11:00-12:00	58.9	60.1	57.3	-	
L _{eq} 24 hr [dB(A)]	61.1	-	-	Less Than 70.0	
L _{rmax} [dB(A)]	83.5	-	-	Less Than 115.0	
L _{dn} [dB(A)]	68.1	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R18	ACO	6236		00172065
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9		93.9		

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

[Redacted Signature]

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 15-18 November 2024
Date Reported : 27 November 2024

Time	Fence of the West			Standard	
	November 2024				
	15-16				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
12:00-13:00	55.2	65.9	51.6	-	
13:00-14:00	57.5	66.3	52.9	-	
14:00-15:00	56.6	66.8	51.8	-	
15:00-16:00	55.3	66.2	51.9	-	
16:00-17:00	56.5	66.7	52.2	-	
17:00-18:00	55.9	65.8	51.6	-	
18:00-19:00	53.3	63.6	49.6	-	
19:00-20:00	52.7	59.7	48.9	-	
20:00-21:00	54.9	52.1	52.1	-	
21:00-22:00	58.8	62.3	54.8	-	
22:00-23:00	57.0	66.7	54.5	-	
23:00-00:00	57.4	64.4	54.5	-	
00:00-01:00	59.1	64.9	55.0	-	
01:00-02:00	59.0	65.4	55.0	-	
02:00-03:00	59.5	65.3	56.0	-	
03:00-04:00	58.0	63.0	54.4	-	
04:00-05:00	58.2	63.8	54.8	-	
05:00-06:00	58.6	63.4	55.0	-	
06:00-07:00	63.4	64.8	60.0	-	
07:00-08:00	64.6	65.5	59.5	-	
08:00-09:00	64.4	66.8	59.8	-	
09:00-10:00	65.7	69.0	60.8	-	
10:00-11:00	65.1	69.0	59.8	-	
11:00-12:00	66.5	69.5	60.3	-	
L _{eq} 24 hr [dB(A)]	60.8	-	-	Less Than 70.0	
L _{max} [dB(A)]	88.8	-	-	Less Than 115.0	
L _{dn} [dB(A)]	66.1	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R14	ACO	6236		00172061
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9		93.9		

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP Sampling Date : 15-18 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Fence of the West			Standard	
	November 2024				
	16-17				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
12:00-13:00	65.4	68.2	60.9	-	
13:00-14:00	65.4	69.0	59.8	-	
14:00-15:00	63.6	68.4	58.3	-	
15:00-16:00	63.0	68.1	58.3	-	
16:00-17:00	64.2	67.9	58.6	-	
17:00-18:00	63.8	66.6	59.3	-	
18:00-19:00	62.7	64.3	59.2	-	
19:00-20:00	62.6	63.6	59.8	-	
20:00-21:00	62.5	62.3	59.5	-	
21:00-22:00	62.5	63.6	59.7	-	
22:00-23:00	63.3	64.2	59.7	-	
23:00-00:00	63.7	64.5	60.1	-	
00:00-01:00	63.8	65.2	60.1	-	
01:00-02:00	63.2	64.2	60.5	-	
02:00-03:00	62.9	63.5	59.5	-	
03:00-04:00	62.8	61.8	59.8	-	
04:00-05:00	63.5	65.1	59.8	-	
05:00-06:00	62.2	63.4	59.4	-	
06:00-07:00	63.9	64.9	60.0	-	
07:00-08:00	63.2	65.2	60.0	-	
08:00-09:00	65.3	67.0	60.2	-	
09:00-10:00	65.6	68.5	60.6	-	
10:00-11:00	65.5	68.9	60.4	-	
11:00-12:00	65.3	68.1	59.6	-	
L _{eq} 24 hr [dB(A)]	63.9	-	-	Less Than 70.0	
L _{max} [dB(A)]	93.5	-	-	Less Than 115.0	
L _{dn} [dB(A)]	69.8	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R14	ACO	6236		00172061
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9		93.9		

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lanseththa)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 15-18 November 2024
Date Reported : 27 November 2024

Time	Fence of the West			Standard	
	November 2024				
	17-18				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
12:00-13:00	64.1	67.4	59.3	-	
13:00-14:00	65.4	68.2	60.5	-	
14:00-15:00	63.4	67.9	58.5	-	
15:00-16:00	62.4	64.8	59.5	-	
16:00-17:00	65.9	75.0	59.0	-	
17:00-18:00	65.3	68.0	61.1	-	
18:00-19:00	63.9	64.3	59.9	-	
19:00-20:00	63.3	64.0	60.2	-	
20:00-21:00	61.4	62.2	59.9	-	
21:00-22:00	62.3	62.9	60.3	-	
22:00-23:00	61.9	62.9	60.4	-	
23:00-00:00	61.2	62.1	60.0	-	
00:00-01:00	62.2	63.0	59.2	-	
01:00-02:00	63.6	65.1	59.6	-	
02:00-03:00	63.0	62.8	59.9	-	
03:00-04:00	64.0	64.8	59.4	-	
04:00-05:00	62.4	62.7	59.4	-	
05:00-06:00	63.5	65.5	60.4	-	
06:00-07:00	63.9	65.7	59.7	-	
07:00-08:00	63.2	64.5	58.7	-	
08:00-09:00	64.5	66.3	59.4	-	
09:00-10:00	62.4	65.3	58.7	-	
10:00-11:00	63.2	65.1	59.0	-	
11:00-12:00	62.1	64.4	58.0	-	
L _{eq} 24 hr [dB(A)]	63.4	-	-	Less Than 70.0	
L _{max} [dB(A)]	100.0	-	-	Less Than 115.0	
L _{dn} [dB(A)]	69.5	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: R 686/24		14 November 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-R14	ACO	6236		00172061
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9		93.9		

Remark:

Standard = Nuisance Noise and Noise Level from Factory Activities, Notification of the Ministry of Industry, B.E. 2548 (2005)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP Sampling Date : 15-22 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wat Map Tong			Standard	
	November 2024				
	15-16				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
14:00-15:00	50.0	64.9	45.8	-	
15:00-16:00	47.0	61.7	42.4	-	
16:00-17:00	47.5	54.9	43.1	-	
17:00-18:00	49.8	60.1	45.2	-	
18:00-19:00	47.9	64.0	43.5	-	
19:00-20:00	49.9	64.1	44.3	-	
20:00-21:00	48.4	63.7	44.0	-	
21:00-22:00	48.6	71.1	44.3	-	
22:00-23:00	50.3	65.5	44.6	-	
23:00-00:00	50.9	68.4	46.5	-	
00:00-01:00	51.8	68.7	47.0	-	
01:00-02:00	53.0	69.5	46.7	-	
02:00-03:00	49.4	64.4	43.7	-	
03:00-04:00	49.5	63.7	46.2	-	
04:00-05:00	50.6	72.9	46.6	-	
05:00-06:00	52.7	69.3	49.0	-	
06:00-07:00	54.0	67.3	51.1	-	
07:00-08:00	55.6	70.8	51.4	-	
08:00-09:00	53.7	69.8	50.0	-	
09:00-10:00	54.7	71.6	49.0	-	
10:00-11:00	52.1	67.8	49.1	-	
11:00-12:00	50.4	67.2	45.2	-	
12:00-13:00	50.6	63.6	47.3	-	
13:00-14:00	52.8	66.3	49.9	-	
L _{eq} 24 hr [dB(A)]	51.5	-	-	Less Than 70.0	
L _{max} [dB(A)]	90.7	-	-	Less Than 115.0	
L _{dn} [dB(A)]	58.0	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: Noise R 686-1/24		02 May 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-C1-B01	ACO	6238		00223038
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9	93.9			

Remark:

Standard = Community Noise Standards, Notification of the National Environment Board, No. 15, B.E. 2540 (1997)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

[Redacted Signature]

(Thunyaphat Lansettha)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP Sampling Date : 15-22 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wat Map Tong			Standard	
	November 2024				
	16-17				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
14:00-15:00	56.6	65.6	53.1	-	
15:00-16:00	56.7	68.6	52.6	-	
16:00-17:00	59.5	65.6	53.6	-	
17:00-18:00	54.2	64.3	48.1	-	
18:00-19:00	49.7	49.0	43.9	-	
19:00-20:00	46.1	44.3	40.5	-	
20:00-21:00	44.2	44.1	40.4	-	
21:00-22:00	44.1	43.2	39.7	-	
22:00-23:00	45.1	45.0	40.0	-	
23:00-00:00	41.2	42.3	38.8	-	
00:00-01:00	41.7	42.2	39.3	-	
01:00-02:00	44.8	46.8	41.0	-	
02:00-03:00	45.1	47.8	41.0	-	
03:00-04:00	46.9	49.9	42.2	-	
04:00-05:00	46.2	48.6	41.5	-	
05:00-06:00	43.8	44.4	38.0	-	
06:00-07:00	42.5	44.0	38.7	-	
07:00-08:00	42.4	44.2	39.0	-	
08:00-09:00	43.8	45.2	38.9	-	
09:00-10:00	44.1	45.3	39.4	-	
10:00-11:00	41.9	41.5	38.4	-	
11:00-12:00	41.1	42.8	38.1	-	
12:00-13:00	46.8	64.0	43.3	-	
13:00-14:00	46.8	62.5	41.3	-	
L _{eq} 24 hr [dB(A)]	50.5	-	-	Less Than 70.0	
L _{max} [dB(A)]	91.5	-	-	Less Than 115.0	
L _{dn} [dB(A)]	53.2	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: Noise R 686-1/24		02 May 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-C1-B01	ACO	6238		00223038
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9	93.9			

Remark:

Standard = Community Noise Standards, Notification of the National Environment Board, No. 15, B.E. 2540 (1997)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Munhyaphat Lamserttra)

Technical Supervisor

27 / 11 / 24



RY240/11/67

65/1/67, 66/1/67

Noise Level Report

Project : HRC & SKP Sampling Date : 15-22 November 2024
Project Location : 55 Moo 5 Nong Lalok, Ban Khai, Rayong Date Reported : 27 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Wat Map Tong			Standard	
	November 2024				
	17-18				
	L _{eq} 1 hr [dB(A)]	L ₁₀ [dB(A)]	L ₉₀ [dB(A)]		
14:00-15:00	53.0	62.6	50.0	-	
15:00-16:00	56.8	63.5	52.0	-	
16:00-17:00	58.6	76.6	55.5	-	
17:00-18:00	59.2	68.0	53.7	-	
18:00-19:00	55.7	52.6	48.8	-	
19:00-20:00	49.5	49.5	45.7	-	
20:00-21:00	47.8	49.1	44.5	-	
21:00-22:00	48.6	48.3	43.7	-	
22:00-23:00	45.7	46.5	41.3	-	
23:00-00:00	46.1	46.3	42.7	-	
00:00-01:00	45.7	47.0	42.8	-	
01:00-02:00	44.1	45.7	41.5	-	
02:00-03:00	46.1	46.2	41.6	-	
03:00-04:00	47.4	45.4	43.6	-	
04:00-05:00	48.9	74.5	44.0	-	
05:00-06:00	49.9	75.3	44.3	-	
06:00-07:00	50.3	71.8	44.4	-	
07:00-08:00	46.8	66.5	44.0	-	
08:00-09:00	46.1	66.2	42.6	-	
09:00-10:00	46.6	71.2	42.0	-	
10:00-11:00	42.4	63.3	38.9	-	
11:00-12:00	42.1	63.6	39.0	-	
12:00-13:00	41.0	63.8	36.2	-	
13:00-14:00	42.3	64.7	38.1	-	
L _{eq} 24 hr [dB(A)]	51.7	-	-	Less Than 70.0	
L _{max} [dB(A)]	104.7	-	-	Less Than 115.0	
L _{dn} [dB(A)]	55.3	-	-	-	
-	Sound Level Meter Data			-	
	Calibrate Sheet No.: Noise R 686-1/24		02 May 2024		
	SLM No.	Brand	Model		Serial No.
	ACO-C1-B01	ACO	6238		00223038
	Actual Reading [dB]				
	Before Adjustment		After Adjustment		
	93.9		93.9		

Remark:

Standard = Community Noise Standards, Notification of the National Environment Board, No. 15, B.E. 2540 (1997)

Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Munhyaphat Lansettha)

Technical Supervisor
27 / 11 / 24

เอกสาร 4-6

รายงานผลการตรวจวิเคราะห์คุณภาพอากาศในสถานประกอบการ



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
Tel : (662) 939-4370-72. Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

1/1

Ref. No. AR251/11/24

Report No. 2411/272

65/05/67

Workplace Air Quality Analysis Report

Project : HRC & SKP Sampling Date : 16-17 November 2024
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong Date Received : 18 November 2024
Client Name/Address : G Steel Public Company Limited Date of Analysis : 18-28 November 2024
Sampling by : Thitinan Ruangram Date Reported : 29 November 2024
S.P.S. Consulting Service Co., Ltd.

Parameter	Sampling Method	Analytical Method	Preparation Scrap Metal Area
PM ₁₀ (mg/m ³)	High Volume PM ₁₀ Air Sampler	Gravimetric Method (U.S. EPA 40 CFR Part 50 Appendix J)	0.174

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.



(Supawadee Saentawisuk)

Laboratory Supervisor

29/11/24

----- End of Report -----



Ref. No. AR249/11/24

Report No. 2411/272

65/05/67

Workplace Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Company Limited
Sampling by : Thitinan Ruangram
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 16-17 November 2024
Date Received : 18 November 2024
Date of Analysis : 18-28 November 2024
Date Reported : 29 November 2024

Parameter	Sampling Method	Analytical Method	Electric Furnace Area
PM ₁₀ (mg/m ³)	High Volume PM ₁₀ Air Sampler	Gravimetric Method (U.S. EPA 40 CFR Part 50 Appendix J)	0.171

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Supawadee Saentawisuk)

Laboratory Supervisor

29 / 11 / 24

----- End of Report -----



Ref. No. AR248/11/24

Report No. 2411/272

65/05/67

Workplace Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Company Limited
Sampling by : Thitinan Ruangram
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 16 November 2024
Date Received : 18 November 2024
Date of Analysis : 18-28 November 2024
Date Reported : 29 November 2024

Parameter	Sampling Method	Analytical Method	Employee In Front of Electric Furnace (K. Natthawat Pracharoen)	Standard
Respirable Dust (mg/m ³)	Cyclone-Filter	Gravimetric Method (NIOSH 0600)	0.60	5

หมายเหตุ:

Standard = Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELS) on 8-hour time weighted averages (TWAs)

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Supawadee Saentawisuk)

Laboratory Supervisor

29 / 11 / 24

----- End of Report -----



บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด
S.P.S. CONSULTING SERVICE CO., LTD.
7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900
7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900
Tel : (662) 939-4370-72 Fax : (662) 513-4221 E-mail : sale@spscon.com, www.spscon.com

1/1

Ref. No. AR250/11/24

Report No. 2411/272

65/05/67

Workplace Air Quality Analysis Report

Project : HRC & SKP
Project Location : 55 Moo 5, Nong Lalok, Ban Khai, Rayong
Client Name/Address : G Steel Public Company Limited
Sampling by : Thitinan Ruangram
S.P.S. Consulting Service Co., Ltd.

Sampling Date : 16 November 2024
Date Received : 18 November 2024
Date of Analysis : 18-28 November 2024
Date Reported : 29 November 2024

Parameter	Sampling Method	Analytical Method	Preparing Scrap Metal (K. Amarin Anantapoom)	Standard
Respirable Dust (mg/m ³)	Cyclone-Filter	Gravimetric Method (NIOSH 0600)	0.82	5

หมายเหตุ:

Standard = Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELS) on 8-hour time weighted averages (TWAs)

Reported results refer to submitted samples only.

Do not copy partial of this analysis report without official approval.

(Supawadee Saentawisuk)

Laboratory Supervisor

29 / 11 / 24

----- End of Report -----

เอกสาร 4-7

รายงานผลการตรวจวัดระดับเสียงในสถานประกอบการ



RY071/09/67

65/1/67

Noise Level Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nonglalog, Bankhai, Rayong
Client Name/Address : G Steel Public Company Limited
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 22 September 2024
Date Reported : 25 September 2024

Time	Melt Shop Department					Standard
	Electric Furnace Area					
	L _{eq} 1 hr [dB(A)]					
09:00-10:00	106.2					-
10:00-11:00	104.4					-
11:00-12:00	101.0					-
12:00-13:00	107.4					-
13:00-14:00	105.6					-
14:00-15:00	105.2					-
15:00-16:00	104.3					-
16:00-17:00	106.0					-
L _{eq} 8 hr [dB(A)]	105.3					Less Than 90.0 ^[1]
TWA 8 hr [dB(A)]	105.4					Less Than 85.0 ^[3]
L _{max} [dB(A)]	118.5					Less Than 140.0 ^[1]
						Less Than 115.0 ^[2]
L _{min} [dB(A)]	75.7					-
-	Sound Level Meter Data					-
	Calibrate Sheet No.: R 584/24			20 September 2024		
	Equipment	Brand	Model	Serial No.	Standard	
	Sound Level Meter (No.R40)	ACO	6236	00192052	IEC 61672	
	Actual Reading [dB]					
	Before Adjustment			After Adjustment		
	93.9			93.9		

Remark:

- Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)
- Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016) Published in the Government Gazette on 17 October B.E. 2559 (2016)
- Standard^[3] = Standard of the Allowable Average Noise Level for Employees Obtain in a Working Day, Notification of the Department of Labour Protection and Welfare, Dated 13 December B.E. 2560 (2017) B.E., Published in the Government Gazette on 26 January B.E. 2561 (2018)
- Sampling Method = Sound Level Meter
- Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Phenpha Vipasthawatt)

Technician and Analysis of Work Environment

25 / 09 / 24



RY071/09/67

65/1/67

Noise Level Report

Project : HRC & SKP Sampling Date : 22 September 2024
Project Location : 55 Moo 5 Nonglalog, Bankhai, Rayong Date Reported : 25 September 2024
Client Name/Address : G Steel Public Company Limited
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hot Strip Mill Department					Standard
	Iron Press Area					
	L _{eq} 1 hr [dB(A)]					
09:00-10:00	88.2					-
10:00-11:00	88.0					-
11:00-12:00	88.7					-
12:00-13:00	88.5					-
13:00-14:00	88.3					-
14:00-15:00	86.2					-
15:00-16:00	85.6					-
16:00-17:00	87.4					-
L _{eq} 8 hr [dB(A)]	87.7					Less Than 90.0 ⁽¹⁾
TWA 8 hr [dB(A)]	87.7					Less Than 85.0 ⁽³⁾
L _{max} [dB(A)]	101.0					Less Than 140.0 ⁽¹⁾
						Less Than 115.0 ⁽²⁾
L _{min} [dB(A)]	83.9					-
-	Sound Level Meter Data					-
	Calibrate Sheet No.: R_584/24			20 September 2024		
	Equipment	Brand	Model	Serial No.	Standard	
	Sound Level Meter (No.R41)	ACO	6236	00192053	IEC 61672	
	Actual Reading [dB]					
	Before Adjustment			After Adjustment		
	94.0			93.9		

Remark:

- Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)
- Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016) Published in the Government Gazette on 17 October B.E. 2559 (2016)
- Standard⁽³⁾ = Standard of the Allowable Average Noise Level for Employees Obtain in a Working Day, Notification of the Department of Labour Protection and Welfare, Dated 13 December B.E. 2560 (2017) B.E., Published in the Government Gazette on 26 January B.E. 2561 (2018)
- Sampling Method = Sound Level Meter
- Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

Do not copy partial of this measurement report without official approval.

(Phenpha Vipasthawatt)

Technician and Analysis of Work Environment

25 / 09 / 24



RY071/09/67

65/1/67

Noise Level Report

Project : HRC & SKP Sampling Date : 21 September 2024
Project Location : 55 Moo 5 Nonglalog, Bankhai, Rayong Date Reported : 25 September 2024
Client Name/Address : G Steel Public Company Limited
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Finishing Mill-Skin Pass Slitting Cut Sheet Department					Standard
	Iron Press Area, Surface Conditioning (Extension)					
	L _{eq} 1 hr [dB(A)]					
07:00-08:00	71.9					-
08:00-09:00	76.1					-
09:00-10:00	76.6					-
10:00-11:00	76.2					-
11:00-12:00	75.2					-
12:00-13:00	71.6					-
13:00-14:00	72.0					-
14:00-15:00	72.4					-
L _{eq} 8 hr [dB(A)]	74.5					Less Than 90.0 ^[1]
TWA 8 hr [dB(A)]	74.5					Less Than 85.0 ^[3]
L _{max} [dB(A)]	99.7					Less Than 140.0 ^[1]
						Less Than 115.0 ^[2]
L _{min} [dB(A)]	66.4					-
-	Sound Level Meter Data					-
	Calibrate Sheet No.: R_584/24			20 September 2024		
	Equipment	Brand	Model	Serial No.	Standard	
	Sound Level Meter (No.R50)	ACO	6236	00192062	IEC 61672	
	Actual Reading [dB]					
	Before Adjustment			After Adjustment		
	93.9			93.9		

Remark:

- Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)
- Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016) Published in the Government Gazette on 17 October B.E. 2559 (2016)
- Standard^[3] = Standard of the Allowable Average Noise Level for Employees Obtain in a Working Day, Notification of the Department of Labour Protection and Welfare, Dated 13 December B.E. 2560 (2017) B.E., Published in the Government Gazette on 26 January B.E. 2561 (2018)
- Sampling Method = Sound Level Meter
- Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

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Technician and Analysis of Work Environment

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RY071/12/67

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Noise Level Report

Project : HRC & SKP Sampling Date : 5 December 2024
Project Location : 55 Moo 5 Nonglalog, Bankhai, Rayong Date Reported : 12 December 2024
Client Name/Address : G Steel Public Company Limited
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Melt Shop Department				Standard
	Electric Furnace Area				
	L _{eq} 1 hr [dB(A)]				
08:00-09:00	100.1				-
09:00-10:00	103.4				-
10:00-11:00	99.6				-
11:00-12:00	104.0				-
12:00-13:00	103.0				-
13:00-14:00	103.9				-
14:00-15:00	103.1				-
15:00-16:00	104.7				-
L _{eq} 8 hr [dB(A)]	103.0				Less Than 90.0 ⁽¹⁾
TWA 8 hr [dB(A)]	103.1				Less Than 85.0 ⁽³⁾
L _{max} [dB(A)]	117.9				Less Than 140.0 ⁽¹⁾
					Less Than 115.0 ⁽²⁾
L _{min} [dB(A)]	74.3				-
-	Sound Level Meter Data				
	Calibrate Sheet No.: R 762/24			03 November 2024	
	Equipment	Brand	Model	Serial No.	Standard
	Sound Level Meter (No.40)	ACO	6236	00192052	IEC 61672
	Actual Reading [dB]				
	Before Adjustment			After Adjustment	
	93.9			93.9	

Remark:

- Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)
- Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016) Published in the Government Gazette on 17 October B.E. 2559 (2016)
- Standard^[3] = Standard of the Allowable Average Noise Level for Employees Obtain in a Working Day, Notification of the Department of Labour Protection and Welfare, Dated 13 December B.E. 2560 (2017) B.E., Published in the Government Gazette on 26 January B.E. 2561 (2018)
- Sampling Method = Sound Level Meter
- Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

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Technician and Analysis of Work Environment

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RY071/12/67

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Noise Level Report

Project : HRC & SKP Sampling Date : 4-5 December 2024
Project Location : 55 Moo 5 Nonglalog, Bankhai, Rayong Date Reported : 12 December 2024
Client Name/Address : G Steel Public Company Limited
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hot Strip Mill Department					Standard
	Iron Press Area					
	L _{eq} 1 hr [dB(A)]					
21:00-22:00	85.6					-
22:00-23:00	83.9					-
23:00-00:00	83.9					-
00:00-01:00	83.9					-
01:00-02:00	85.3					-
02:00-03:00	87.5					-
03:00-04:00	87.6					-
04:00-05:00	87.4					-
L _{eq} 8 hr [dB(A)]	85.9					Less Than 90.0 ^[1]
TWA 8 hr [dB(A)]	85.9					Less Than 85.0 ^[3]
L _{max} [dB(A)]	98.4					Less Than 140.0 ^[1]
						Less Than 115.0 ^[2]
L _{min} [dB(A)]	77.8					-
-	Sound Level Meter Data					-
	Calibrate Sheet No.: R 762/24			03 November 2024		
	Equipment	Brand	Model	Serial No.	Standard	
	Sound Level Meter (No.R41)	ACO	6236	00192053	IEC 61672	
	Actual Reading [dB]					
	Before Adjustment			After Adjustment		
	93.9			93.9		

Remark:

- Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)
- Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016) Published in the Government Gazette on 17 October B.E. 2559 (2016)
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- Sampling Method = Sound Level Meter
- Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

Reported results refer to measurement time only.

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Noise Level Report

Project : HRC & SKP Sampling Date : 7 December 2024
Project Location : 55 Moo 5 Nonglalog, Bankhai, Rayong Date Reported : 12 December 2024
Client Name/Address : G Steel Public Company Limited
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Finishing Mill-Skin Pass Slitting Cut Sheet Department				Standard
	Iron Press Area, Surface Conditioning (Extension)				
	L _{eq} 1 hr [dB(A)]				
10:00-11:00	77.1				-
11:00-12:00	76.2				-
12:00-13:00	76.1				-
13:00-14:00	79.9				-
14:00-15:00	80.4				-
15:00-16:00	80.2				-
16:00-17:00	79.3				-
17:00-18:00	77.0				-
L _{eq} 8 hr [dB(A)]	78.6				Less Than 90.0 ^[1]
TWA 8 hr [dB(A)]	78.6				Less Than 85.0 ^[3]
L _{max} [dB(A)]	97.4				Less Than 140.0 ^[1]
					Less Than 115.0 ^[2]
L _{min} [dB(A)]	75.0				-
-	Sound Level Meter Data				
	Calibrate Sheet No.: R 762/24			03 November 2024	
	Equipment	Brand	Model	Serial No.	Standard
	Sound Level Meter (No.R50)	ACO	6236	00192062	IEC 61672
	Actual Reading [dB]				
	Before Adjustment			After Adjustment	
	94.0			93.9	

Remark:

- Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)
- Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016) Published in the Government Gazette on 17 October B.E. 2559 (2016)
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Sampling Method = Sound Level Meter

Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

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Noise Level Report

Project : HRC & SKP
Project Location : 55 Moo 5 Nonglalog, Bankhai, Rayong
Client Name/Address : G Steel Public Company Limited
Sampling By : S.P.S. Consulting Service Co., Ltd.
Sampling Date : 4-5 December 2024
Date Reported : 12 December 2024

Time	CCM (Continuous Caster Machine) Department					Standard
	Steel Foundry Area					
	L _{eq} 1 hr [dB(A)]					
21:00-22:00	80.3					-
22:00-23:00	84.0					-
23:00-00:00	81.3					-
00:00-01:00	81.9					-
01:00-02:00	83.2					-
02:00-03:00	82.9					-
03:00-04:00	82.8					-
04:00-05:00	83.7					-
L _{eq} 8 hr [dB(A)]	82.7					Less Than 90.0 ^[1]
TWA 8 hr [dB(A)]	82.7					Less Than 85.0 ^[3]
L _{max} [dB(A)]	98.9					Less Than 140.0 ^[1]
						Less Than 115.0 ^[2]
L _{min} [dB(A)]	77.5					-
-	Sound Level Meter Data					-
	Calibrate Sheet No.: R 762/24			03 November 2024		
	Equipment	Brand	Model	Serial No.	Standard	
	Sound Level Meter (No.R51)	ACO	6236	00192063	IEC 61672	
	Actual Reading [dB]					
	Before Adjustment			After Adjustment		
	93.9			93.9		

Remark:

- Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment, Notification of the Ministry of Industry, B.E. 2546 (2003)
- Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016) Published in the Government Gazette on 17 October B.E. 2559 (2016)
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- Sampling Method = Sound Level Meter
- Acoustic Calibrator, ACO, Model 2127, S/N. 130006, IEC 60942

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Noise Level Report

Project : HRC & SKP Sampling Date : 16 November 2024
Project Location : 55 Moo 5 Nonglalog, Bankhai, Rayong Date Reported : 20 November 2024
Client Name/Address : G Steel Public Company Limited
Sampling By : S.P.S. Consulting Service Co., Ltd.

No.	Department	Stations	Name	Date	Time	Results Refer		Calculation Results from Workers Wear Personal Protective Equipment		
						%Dose	TWA [dB(A)]	Sound Level [dB(A)]	NRR _{adj} [dB(A)]	Protected [dB(A)]
1	Melt Shop	Steel Making Area	Mr. Anuchit Nakkan	16/11/2024	08:33-16:33	1,255.31	96.0*	96.0*	21.8	81.2
Standard						-	Less Than 85.0	-	-	Less Than 85.0
Sound Level Meter Data										
Calibrate Sheet No.: Noise Dose R_693/24					15 November 2024					
No.	Equipment	Brand	Model	Serial No.	Standard	Actual Reading [dB]				
						Before Adjustment	After Adjustment			
1	Noise Dosimeter (No.B01)	SVANTEK	SV-104IS	80840	IEC 61252	113.5		113.5		

Remark :

Standard

- = Standard of the Allowable Average Noise Level for Employees Obtain in a Working Day, Notification of the Department of Labour Protection and Welfare, B.E. 2561 (2018)
Dated 13 December B.E. 2560 (2017) Published in the Government Gazette on 26 January B.E. 2561 (2018)
Sound Level Calculation in Ear when Wear Personal Protective Equipment,
Notification of the Department of Labour Protection and Welfare, Date 18 January B.E. 2561 (2018),
Published in the Government Gazette on 14 February B.E. 2561 (2018)
- = Noise Dose Level Report (Workers Obtain in a Working Day Without Personal Protective Equipment)

Protected [dB(A)]

- = Sound Level [dB(A)] - (NRR_{adj} - 7)

Protected [dB(A)]

- = Sound Level in Ear when Wear Personal Protective Equipment on the Scale A or Decibel A

Sound Level [dB(A)]

- = Average Sound Level in 8 Hour Working Day on the Scale A or Decibel A

NRR_{adj}

- = Values of Noise Reduction Provided by Personal Protective Equipment

Noise Reduction Rating (NRR) is 29 [dB(A)], 25% of Noise Reduction is 21.8 [dB(A)]

Sampling Method

- = Noise Dosimeter

Workers Wear Foam EarMuff, Brand 3M, Model H10B

Acoustic Calibrator, SVANTEK, Model SV34, S/N. 33137, IEC 60942

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บริษัท เอส.พี.เอส. คอนซัลติ้ง เซอร์วิส จำกัด

S.P.S. CONSULTING SERVICE CO., LTD.

7 ซอยพหลโยธิน 24 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900

7 Soi Phaholyothin 24, Phaholyothin Rd., Jompol, Chatuchak, Bangkok 10900

Tel : (662) 939-4370-72, Fax : (662) 513-4221, E-mail : sale@spscon.com., www.spscon.com

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Noise Level Report

Project : HRC & SKP Sampling Date : 16 November 2024
Project Location : 55 Moo 5 Nonglalog, Bankhai, Rayong Date Reported : 20 November 2024
Client Name/Address : G Steel Public Company Limited
Sampling By : S.P.S. Consulting Service Co., Ltd.

No.	Department	Stations	Name	Date	Time	Results Refer		Calculation Results from Workers Wear Personal Protective Equipment		
						%Dose	TWA [dB(A)]	Sound Level [dB(A)]	NRR _{adj} [dB(A)]	Protected [dB(A)]
1	Hot Strip Mill	Hot Rolling Mill Area	Mr. Papon Bunchan	16/11/2024	08:32-16:32	321.27	90.1*	90.1*	16.5	80.6
Standard						-	Less Than 85.0	-	-	Less Than 85.0
Sound Level Meter Data										
Calibrate Sheet No.: Noise Dose R_693/24						15 November 2024				
No.	Equipment	Brand	Model	Serial No.	Standard	Actual Reading [dB]				
						Before Adjustment	After Adjustment			
1	Noise Dosimeter (No.802)	SVANTEK	SV-104IS	80842	IEC 61252	113.5		113.5		

Remark :

Standard

- = Standard of the Allowable Average Noise Level for Employees Obtain in a Working Day, Notification of the Department of Labour Protection and Welfare, B.E. 2561 (2018)
Dated 13 December B.E. 2560 (2017) Published in the Government Gazette on 26 January B.E. 2561 (2018)
Sound Level Calculation in Ear when Wear Personal Protective Equipment,
Notification of the Department of Labour Protection and Welfare, Date 18 January B.E. 2561 (2018),
Published in the Government Gazette on 14 February B.E. 2561 (2018)

- * = Noise Dose Level Report (Workers Obtain in a Working Day Without Personal Protective Equipment)

Protected [dB(A)] = Sound Level [dB(A)] - [NRR_{adj} - 7]

Protected [dB(A)] = Sound Level in Ear when Wear Personal Protective Equipment on the Scale A or Decibel A

Sound Level [dB(A)] = Average Sound Level in 8 Hour Working Day on the Scale A or Decibel A

NRR_{adj} = Values of Noise Reduction Provided by Personal Protective Equipment

Noise Reduction Rating (NRR) is 33 [dB(A)], 50% of Noise Reduction is 16.5 [dB(A)]

Sampling Method = Noise Dosimeter

Workers Wear Foam EarMuff, Brand 3M

Acoustic Calibrator, SVANTEK, Model SV34, S/N. 33137, IEC 60942

Reported results refer to measurement time only.

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RS/G026/24/NOV



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Noise Level Report

Project : HRC & SKP Sampling Date : 16 November 2024
Project Location : 55 Moo 5 Nonglalog, Bankhai, Rayong Date Reported : 20 November 2024
Client Name/Address : G Steel Public Company Limited
Sampling By : S.P.S. Consulting Service Co., Ltd.

No.	Department	Stations	Name	Date	Time	Results Refer		Calculation Results from Workers Wear Personal Protective Equipment		
						%Dose	TWA [dB(A)]	Sound Level [dB(A)]	NRR _{adj} [dB(A)]	Protected [dB(A)]
1	Finishing Mill-Skin Pass	Iron Press Area (Extension)	Mr. Jessada Sunthornprasit	16/11/2024	09:51-17:51	19.24	77.8*	77.8*	16.5	68.3
Standard						-	Less Than 85.0	-	-	Less Than 85.0
Sound Level Meter Data										
Calibrate Sheet No.: Noise Dose R_693/24					15 November 2024					
No.	Equipment	Brand	Model	Serial No.	Standard	Actual Reading [dB]				
						Before Adjustment	After Adjustment			
1	Noise Dosimeter (No.B03)	SVANTEK	SV-104IS	80852	IEC 61252	113.6		113.5		

Remark :

Standard = Standard of the Allowable Average Noise Level for Employees Obtain in a Working Day, Notification of the Department of Labour Protection and Welfare, B.E. 2561 (2018)
Dated 13 December B.E. 2560 (2017) Published in the Government Gazette on 26 January B.E. 2561 (2018)
Sound Level Calculation in Ear when Wear Personal Protective Equipment, Notification of the Department of Labour Protection and Welfare, Date 18 January B.E. 2561 (2018), Published in the Government Gazette on 14 February B.E. 2561 (2018)
= Noise Dose Level Report (Workers Obtain in a Working Day Without Personal Protective Equipment)
Protected [dB(A)] : Sound Level [dB(A)] - [NRR_{adj} - 7]
Protected [dB(A)] = Sound Level in Ear when Wear Personal Protective Equipment on the Scale A or Decibel A
Sound Level [dB(A)] = Average Sound Level in 8 Hour Working Day on the Scale A or Decibel A
NRR_{adj} = Values of Noise Reduction Provided by Personal Protective Equipment
Noise Reduction Rating (NRR) is 33 [dB(A)], 50% of Noise Reduction is 16.5 [dB(A)]
Sampling Method = Noise Dosimeter
Workers Wear Foam EarMuff, Brand 3M
Acoustic Calibrator, SVANTEK, Model SV34, S/N. 33137, IEC 60942

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เอกสาร 4-8

รายงานผลการตรวจวัดระดับความร้อน
และความเร็วลมในสถานประกอบการ



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Heat Level Report

Project : HRC & SKP Sampling Date : 16 November 2024
Project Location : 55 Moo 5, Nong Lalog, Ban Khai, Rayong Date Reported : 20 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Melt Shop Department				Average (°C)	Standard
	Steel Making Area					
	09:00-09:30	09:30-10:00	10:00-10:30	10:30-11:00	(09:00-11:00)	
DB (°C)	33.8	34.0	34.1	34.1	34.0	
GT (°C)	35.2	35.5	35.8	36.2	35.7	
NWB (°C)	28.5	28.6	28.8	28.9	28.7	
WBGT (°C)	30.5	30.7	30.9	31.1	30.8	
Type of Work	Control Orderliness in front of the Furnace					Moderate Work Load
	Heat Stress WBGT Meter Data					
	Calibrate Sheet No.: SPR23090267-4		18 September 2023			
	Equipment	Brand	Model	Serial No.	Standard	
	Heat Stress WBGT Meter (No.R04)	Quest Technologies	QUESTemp 36	TEN040005	ISO 7243	

Remark :

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)
Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016) Published in the Government Gazette
on 17 October B.E. 2559 (2016)

Indoor With No Solar Load : WBGT = 0.7 NWB + 0.3 GT

DB = Dry Bulb Temperature (°C)
GT = Globe Temperature (°C)
NWB = Natural Wet Bulb Temperature (°C)
WBGT = Wet Bulb Globe Temperature (°C)
Sampling Method = Wet Bulb Globe Temperature Index

Heat Stress WBGT Meter (No.R04) Calibrate before Measurement on 15 November 2024

Reported results refer to measurement time only.

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Heat Level Report

Project : HRC & SKP Sampling Date : 16 November 2024
Project Location : 55 Moo 5, Nong Lalog, Ban Khai, Rayong Date Reported : 20 Novemver 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	Hot Strip Mill Department				Average (°C)	Standard
	Hot Rolling Mil Area					
	09:20-09:50	09:50-10:20	10:20-10:50	10:50-11:20	(09:20-11:20)	
DB (°C)	32.8	33.3	33.7	34.9	33.7	
GT (°C)	34.8	34.9	35.1	35.3	35.0	
NWB (°C)	27.5	27.9	28.0	28.1	27.9	
WBGT (°C)	29.7	30.0	30.1	30.3	30.0	
Type of Work	Iron Press Operator					Moderate Work Load
	Heat Stress WBGT Meter Data					
	Calibrate Sheet No.: SPR24030285-6		20 March 2024			
	Equipment	Brand	Model	Serial No.	Standard	
	Heat Stress WBGT Meter (No,R05)	METROSONICS	hs-32	MCD070035	ISO 7243	

Remark :

- Standard^[1] = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
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- Standard^[2] = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016) Published in the Government Gazette
on 17 October B.E. 2559 (2016)

Indoor With No Solar Load : WBGT = 0.7 NWB + 0.3 GT

- DB = Dry Bulb Temperature (°C)
GT = Globe Temperature (°C)
NWB = Natural Wet Bulb Temperature (°C)
WBGT = Wet Bulb Globe Temperature (°C)
Sampling Method = Wet Bulb Globe Temperature Index

Heat Stress WBGT Meter (No.R05) Calibrate before Measurement on 15 November 2024

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Heat Level Report

Project : HRC & SKP Sampling Date : 16 November 2024
Project Location : 55 Moo 5, Nong Lalog, Ban Khai, Rayong Date Reported : 20 November 2024
Client Name/Address : G Steel Public Limited Company
Sampling By : S.P.S. Consulting Service Co., Ltd.

Time	CCM (Continuous Caster Machine) Department				Average (°C) (09:20-11:20)	Standard
	Continuous Casting Area					
	09:20-09:50	09:50-10:20	10:20-10:50	10:50-11:20		
DB (°C)	33.3	33.4	33.5	33.9	33.5	
GT (°C)	34.2	34.5	34.8	34.8	34.6	
NWB (°C)	28.3	28.4	28.5	28.5	28.4	
WBGT (°C)	30.1	30.2	30.4	30.4	30.3	
Type of Work	Steel Casting Machine Operator					Moderate Work Load
-	Heat Stress WBGT Meter Data					-
	Calibrate Sheet No.: SPR23090267-2		18 September 2023			
	Equipment	Brand	Model	Serial No.	Standard	
	Heat Stress WBGT Meter (No.R06)	METROSONICS	hs-32	MCD070028	ISO 7243	

Remark :

Standard⁽¹⁾ = Safety Protection Measures in Industrial Plant Operation Concerning Working Environment,
Notification of the Ministry of Industry, B.E. 2546 (2003)
Standard⁽²⁾ = Standard for Administration, Management and Implementation of Safety, Occupational Health and Working Environment
in Relation to Heat, Light and Noise, Regulation of the Ministry of Labour, B.E. 2559 (2016) Published in the Government Gazette
on 17 October B.E. 2559 (2016)

Indoor With No Solar Load : WBGT = 0.7 NWB + 0.3 GT

DB = Dry Bulb Temperature (°C)
GT = Globe Temperature (°C)
NWB = Natural Wet Bulb Temperature (°C)
WBGT = Wet Bulb Globe Temperature (°C)
Sampling Method = Wet Bulb Globe Temperature Index

Heat Stress WBGT Meter (No.R06) Calibrate before Measurement on 15 November 2024

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