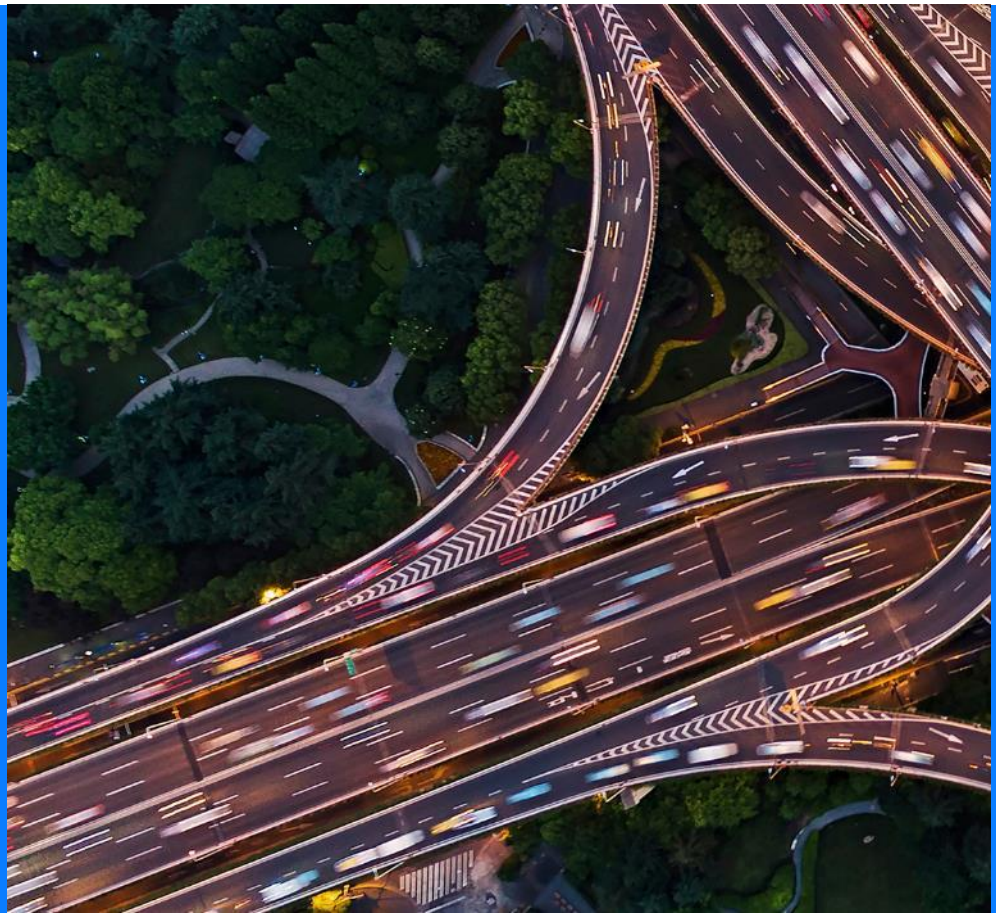
Environmental Impact Assessment (EIA) at DE170

Appendices Part 2 of 2 (Appendix 7 to Appendix 10)

Document no: D3591700-EIA-06
Revision no: 6

Environmental Impact Assessment (EIA) at DE170 Construction of Tengah Vehicular Interchange at Kranji Expressway (KJE)
6 April 2023



Appendix 7A: Ambient Air Monitoring Report

TEST REPORT

Our Reference No.	:	**R222635**	Date of Monitoring	:	28/03/22 to 19/04/22
Project Code / Ref.	:	-	Date Reported	:	27/04/2022

Customer Ref. No.	:	537000243
Customer Name	:	CH2M HILL Singapore Pte Ltd (Jacobs)
Customer Address	:	150 Beach Road Gateway West 34th Floor Singapore 189720

Attention To	:	Ms Catherine Baldedara
Subject	:	**Air Quality Monitoring at DE170 Tengah**
Description	:	Air Quality Monitoring at 3 locations, 1 week each from 28/03/2022 to 19/04/2022

Toh Teck Yeow

Manager, Env Services

Terms & Conditions:

1) This report shall not be reproduced except in full, unless approval in writing has been given by MLS.
2) The results in this report only apply to the sample received/analysed.
3) MLS agrees to use reasonable diligence in the performance of the service.

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SCOPE OF WORK

Ambient Air Monitoring was carried out at 3 locations over a period of 1 week each at DE170 Tengah. The description of location and scope of work are as described in Table 1A and 1B. Site photos can be found in Appendix C with the exception of AQ1 due to prohibition of photography.

Table 1A: Scope of work carried out

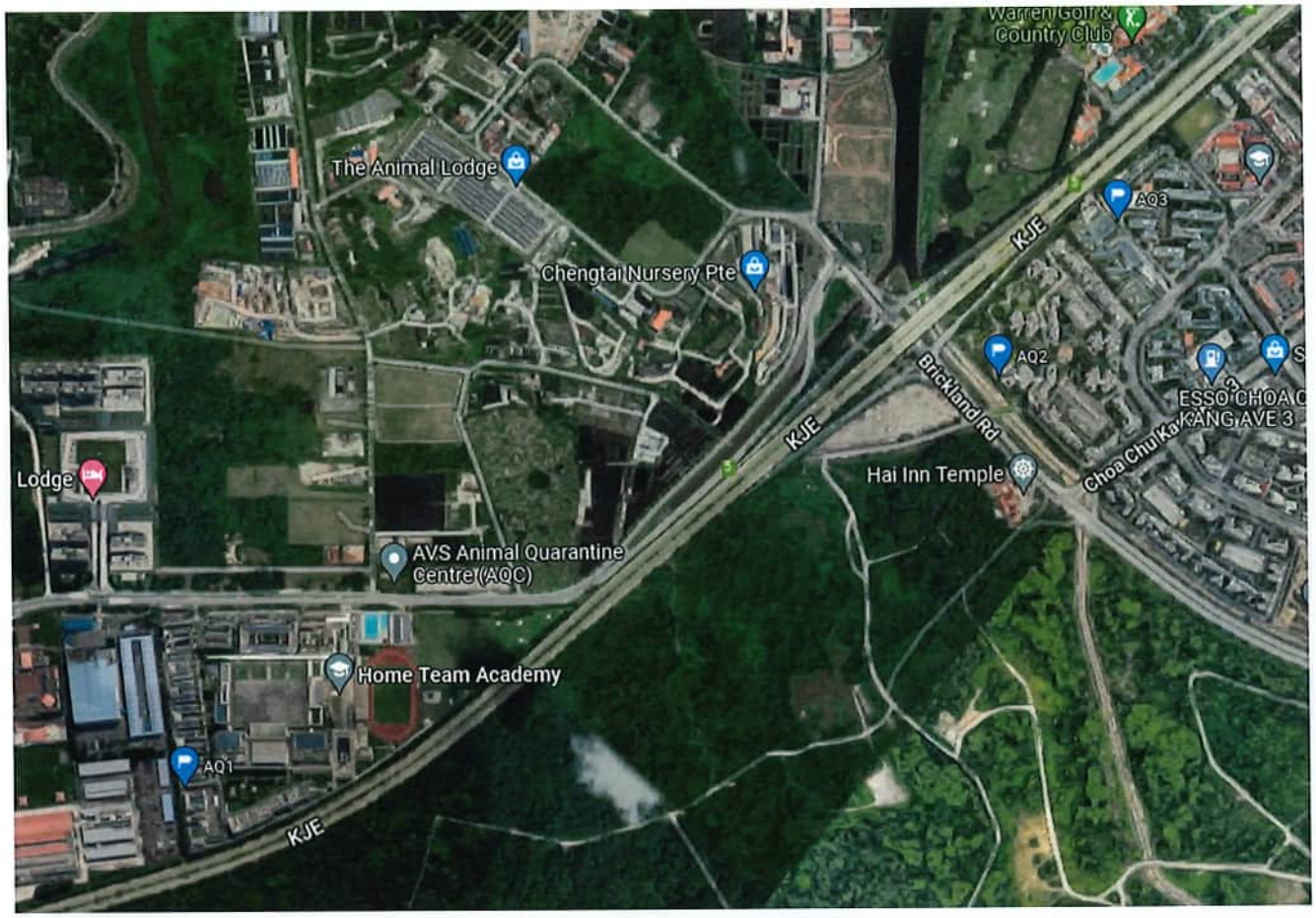
Locations	Parameters	Range of Detection	Data
AQ1, AQ2 and AQ3	PM_{10}	0 to 150 mg/m^3	10-min Ave
	$PM_{2.5}$		
	SO_2	0 to 10000 ppb	15-min Ave
	CO	0 to 6000 ppb	
	NO_2	0 to 4000 ppb	
	O_3	0 to 1800 ppb	

Table 1B: Scope of work carried out

Locations	GPS Coordinates	Monitoring Period	Description
AQ1	N 1°22'16.5" E 103°43'12.2"	28/03/2022 to 04/04/2022	At an open space outside the training facility and dormitory of Home Team Academy.
AQ2	N 1°22'41.6" E 103°44'03.3"	05/04/2022 to 11/04/2022	At an open space of the ground floor of Block 461 Choa Chu Kang Avenue 4.
AQ3	N 1°22'51.2" E 103°44'10.9"	13/04/2022 to 19/04/2022	At an open space between Concorde Primary School and multi-story carpark block 446.

MONITORING LOCATION

The monitoring location is shown in the Google Earth image below.



SAMPLING METHODOLOGY AND EQUIPMENT

PM10 and PM2.5

PM10 and PM2.5 were monitored using TSI DustTrak Aerosol Monitor Model 8543-M (Serial No: 8543210602). The analysers use light scattering laser photometer, providing real time aerosol mass reading and data logging for both PM10 and PM2.5. The instrument was designed for harsh outdoor environments, with a heated inlet sample conditioner to reduce humidity effects. This instrument model is UKAS M-CERTS certified (certificate number: Sira MC 160381/00).

The analyser was operating continuously on battery power with daily battery change throughout the week. Data logging was set at 10-minute intervals and the 24-hour daily averages were computed based on the averaging data obtained and the results were compared against the Singapore Ambient Air Quality Targets. Equipment calibration certificate is attached in Appendix A of this report.

SO_2, CO, NO_2 and O_3

SO_2, CO, NO_2 and O_3 were monitored using AQMesh Air Quality Monitoring System (Serial No: 2450718). The monitoring system was battery operated and uses electrochemical sensors for all 4 pollutants, providing real time concentration reading and data logging accessible online. The instrument is designed to be weatherproof.

Data logging was set at 15-minute intervals while the hourly and 24-hour daily averages were computed based on the averaging data obtained and the results were compared against the Singapore Ambient Air Quality Targets.

SINGAPORE AMBIENT AIR QUALITY TARGETS

Table 2: The following table summarises the Singapore Ambient Air Quality Guidelines

Pollutant	Singapore Targets by 2020	Singapore Long Term Targets
Particulate Matter ($PM_{2.5}$)	**24-hour mean: 37.5 μg/m³**	**24-hour mean: 25 μg/m³**
Particulate Matter (PM_{10})	**24-hour mean: 50 μg/m³**	**24-hour mean: 50 μg/m³**
Sulphur Dioxide (SO_2)	**24-hour mean: 50 μg/m³**	**24-hour mean: 20 μg/m³**
Carbon Monoxide (CO)	**8-hour mean: 10 mg/m³**	**8-hour mean: 10 mg/m³**
	1-hour mean: 30 mg/m³	**1-hour mean: 30 mg/m³**
Nitrogen Dioxide (NO_2)	**1-hour mean: 200 μg/m³**	**1-hour mean: 200 μg/m³**
Ozone (O_3)	**8-hour mean: 100 μg/m³**	**8-hour mean: 100 μg/m³**

MONITORING RESULTS

The results for the various parameters monitored were summarised in the following tables. Raw data can be found in Appendix B.

Table 3: Summary of 99th percentile 24-hour mean for PM_{10} and $PM_{2.5}$ for each day at AQ1

Pollutants		PM_{10}	$PM_{2.5}$
Averaging Period		24 hours	24 hours
Unit		µg/m³	µg/m³
24-hr mean Pollutant concentrations for each day	Day 1	17.9	14.7
	Day 2	17.9	14.8
	Day 3	29.6	24.9
	Day 4	23.2	19.3
	Day 5	26.6	22.4
	Day 6	39.2	33.4
	Day 7	47.5	40.9
99th percentile 24-hour mean over 7 days		47.0	40.5
Singapore's Ambient Air Quality Targets by 2020		**50**	**37.5**
Singapore's Ambient Air Quality Long Term Targets		**50**	**25**

Note:

1) The monitoring periods are from 28 March 2022 to 4 April 2022.

Table 4: Summary of 99th percentile 24-hour mean for PM_{10} and $PM_{2.5}$ for each day at AQ2

Pollutants		PM_{10}	$PM_{2.5}$
Averaging Period		24 hours	24 hours
Unit		µg/m³	µg/m³
24-hr mean Pollutant concentrations for each day	Day 1	19.6	16.3
	Day 2	19.5	16.1
	Day 3	22.1	18.7
	Day 4	25.1	21.4
	Day 5	14.7	12.1
	Day 6	25.7	21.7
	Day 7	45.8	39.3
99th percentile 24-hour mean over 7 days		44.6	38.2
Singapore's Ambient Air Quality Targets by 2020		**50**	**37.5**
Singapore's Ambient Air Quality Long Term Targets		**50**	**25**

Note:

1) The monitoring periods are from 5 April 2022 to 11 April 2022.

Table 5: Summary of 99th percentile 24-hour mean for PM_{10} and $PM_{2.5}$ for each day at AQ3

Pollutants		PM_{10}	$PM_{2.5}$
Averaging Period		24 hours	24 hours
Unit		µg/m³	µg/m³
24-hr mean Pollutant concentrations for each day	Day 1	59.2	51.3
	Day 2	17.7	14.9
	Day 3	22	18.9
	Day 4	25.6	21.8
	Day 5	30.3	26
	Day 6	26.4	22.7
	Day 7	29.2	25
99th percentile 24-hour mean over 7 days		57.5	49.8
Singapore's Ambient Air Quality Targets by 2020		**50**	**37.5**
Singapore's Ambient Air Quality Long Term Targets		**50**	**25**

Note:

1) The monitoring periods are from 13 April 2022 to 19 April 2022.

Table 6: Summary of Maximum Pollutant Concentrations (CO, NO_2, SO_2 and O_3) for each day at AQ1

Pollutants		CO	CO	NO_2	SO_2	O_3
Averaging Period		1 hour	8 hours	1 hour	24 hours	8 hours
Unit		mg/m³	mg/m³	µg/m³	µg/m³	µg/m³
Maximum Pollutant concentrations for each day and Daily Average SO_2 concentrations	Day 1	0.64	0.32	136	5.1	34.3
	Day 2	0.74	0.39	119	5.6	28.2
	Day 3	0.71	0.47	127	< 5.0	37.6
	Day 4	0.72	0.42	133	< 5.0	22.0
	Day 5	0.97	0.64	122	< 5.0	51.6
	Day 6	0.86	0.47	133	6.3	35.7
	Day 7	1.13	0.88	104	7.2	27.8
Maximum over 7 days		1.13	0.88	136	7.2	51.6
Singapore's Ambient Air Quality Targets by 2020		**30**	**10**	**200**	**50**	**100**
Singapore's Ambient Air Quality Long Term Targets		**30**	**10**	**200**	**20**	**100**

Note:

1) The monitoring periods are from 28 March 2022 to 4 April 2022.

Table 7: Summary of Maximum Pollutant Concentrations (CO, NO_2, SO_2 and O_3) for each day at AQ2

Pollutants		CO	CO	NO_2	SO_2	O_3
Averaging Period		1 hour	8 hours	1 hour	24 hours	8 hours
Unit		mg/m³	mg/m³	µg/m³	µg/m³	µg/m³
Maximum Pollutant concentrations for each day and Daily Average SO_2 concentrations	Day 1	0.59	0.35	76.6	< 5.0	31.3
	Day 2	0.57	0.38	132	< 5.0	35.6
	Day 3	0.52	0.29	76.6	< 5.0	18.2
	Day 4	0.52	0.35	115	< 5.0	41.9
	Day 5	0.31	0.27	149	< 5.0	39.0
	Day 6	0.88	0.51	71.5	< 5.0	31.7
	Day 7	0.76	0.64	114	< 5.0	19.7
Maximum over 7 days		0.88	0.64	149	< 5.0	41.9
Singapore's Ambient Air Quality Targets by 2020		30	10	200	50	100
Singapore's Ambient Air Quality Long Term Targets		30	10	200	20	100

Note:

1) The monitoring periods are from 5 April 2022 to 11 April 2022.

Table 8: Summary of Maximum Pollutant Concentrations (CO, NO_2, SO_2 and O_3) for each day at AQ3

Pollutants		CO	CO	NO_2	SO_2	O_3
Averaging Period		1 hour	8 hours	1 hour	24 hours	8 hours
Unit		mg/m³	mg/m³	µg/m³	µg/m³	µg/m³
Maximum Pollutant concentrations for each day and Daily Average SO_2 concentrations	Day 1	1.19	0.96	126	14.4	23.2
	Day 2	0.81	0.34	121	< 5.0	32.4
	Day 3	0.77	0.52	84.3	< 5.0	27.7
	Day 4	0.90	0.57	120	7.1	29.4
	Day 5	0.81	0.65	120	< 5.0	33.9
	Day 6	0.52	0.37	147	7.2	28.9
	Day 7	0.79	0.52	109	< 5.0	28.8
Maximum over 7 days		1.19	0.96	147	14.4	33.9
Singapore's Ambient Air Quality Targets by 2020		**30**	**10**	**200**	**50**	**100**
Singapore's Ambient Air Quality Long Term Targets		**30**	**10**	**200**	**20**	**100**

Note:

1) The monitoring periods are from 13 April 2022 to 19 April 2022.

CERTIFICATE OF CALIBRATION AND TESTING

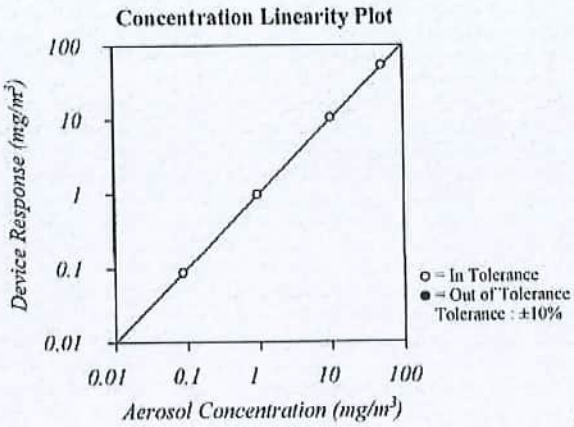
TSI Singapore Pte Ltd 150, Kampong Ampat
#05-05, KA Centre Singapore 368324
Phone: +65 6595 6391

Environment Conditions		
Temperature	23.5	°C
Relative Humidity	50	%RH
Barometric Pressure	1004.1	hPa

Model	8543-M
Serial Number	8543210602

☒ As Left ☐ As Found

☒ In Tolerance ☐ Out of Tolerance



System ID: DTH04-01

FLOW AND PRESSURE VERIFICATION — **SYSTEM DTH04-01**

Parameter	Standard	Measured	Allowable Range	Parameter	Standard	Measured	Allowable Range
Flow lpm	3.00	3.11	2.88 ~ 3.12	Pressure kPa	100.6	100.6	95.58 ~ 105.64
Full Flow lpm	N/A	6.52	>3.80				

TSI Incorporated does hereby certify that all materials, components, and workmanship used in the manufacture of this equipment are in strict accordance with the applicable specifications agreed upon by TSI and the customer and with all published specifications. All performance and acceptance tests required under this contract were successfully conducted according to required specifications. There is no NIST standard for optical mass measurements. Calibration of this instrument performed by TSI has been done using emery oil and has been nominally adusted to respirable mass of standard ISO 12103-1, A1 test dust (Arizona dust). Our calibration ratio is greater than 1.2:1.

Measurement Variable	System ID	Last Cal.	Cal. Due	Measurement Variable	System ID	Last Cal.	Cal. Due
DC Voltage	E020187	12-05-21	31-05-22	Pressure	E020123	20-01-22	31-01-23
Microbalance	E020125	25-01-22	31-01-23	Photometer	E020114	13-08-21	28-02-22
Flowmeter	E020119	29-04-21	30-04-22	3 um PSL	206030	n/a	n/a
1um PSL	698880	n/a	n/a	10 um PSL	212455	n/a	n/a

ESLEUER

Calibrated

16 February, 2022

Date

TSI P/N 2500157

ENVIRONMENTAL Instruments

Tel. +44 (0)1789 207459
Email. info@aqmesh.com
www.aqmesh.com

AQMesh

Certificate of calibration

This is to certify that the AQMesh pod(s) of the following serial number

2450718

Have been calibrated against certified reference equipment for the following measurements:

NO2	Thermo Scientific 42i
O3	Monitor Labs ML9810B
CO	Thermo Environmental Instruments 48C
SO2	Thermo Scientific 43i

Date of manufacture: 1ST June 2021

Richard Handy

Operations Manager

Raw data for AQ1

Hourly Average			Daily Average	
Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
28/3/2022 12:00	25.5	21.5	19.6	16.3
28/3/2022 13:00	25.7	21.8		
28/3/2022 14:00	26.5	21.8		
28/3/2022 15:00	22.0	17.8		
28/3/2022 16:00	14.8	12.0		
28/3/2022 17:00	19.5	17.0		
28/3/2022 18:00	22.2	18.5		
28/3/2022 19:00	14.3	11.5		
28/3/2022 20:00	13.7	11.3		
28/3/2022 21:00	16.7	13.5		
28/3/2022 22:00	21.0	17.2		
28/3/2022 23:00	20.7	17.3		
29/3/2022 0:00	19.7	16.7		
29/3/2022 1:00	19.8	16.2		
29/3/2022 2:00	19.2	16.3		
29/3/2022 3:00	21.8	18.3		
29/3/2022 4:00	21.7	17.7		
29/3/2022 5:00	23.0	19.2		
29/3/2022 6:00	27.8	23.5		
29/3/2022 7:00	24.7	20.8		
29/3/2022 8:00	16.2	13.5		
29/3/2022 9:00	10.0	7.7		
29/3/2022 10:00	12.2	9.3		
29/3/2022 11:00	12.7	10.5		
29/3/2022 12:00	11.8	10.0	23.9	19.9
29/3/2022 13:00	13.3	11.2		
29/3/2022 14:00	12.3	10.3		
29/3/2022 15:00	19.7	16.3		
29/3/2022 16:00	15.0	11.8		
29/3/2022 17:00	7.0	5.7		
29/3/2022 18:00	13.8	11.7		
29/3/2022 19:00	14.3	11.7		
29/3/2022 20:00	12.5	10.3		
29/3/2022 21:00	21.3	17.5		
29/3/2022 22:00	26.7	22.0		
29/3/2022 23:00	32.8	26.5		
30/3/2022 0:00	33.8	28.2		
30/3/2022 1:00	32.7	27.3		
30/3/2022 2:00	34.7	28.7		
30/3/2022 3:00	38.5	32.8		
30/3/2022 4:00	39.0	32.7		
30/3/2022 5:00	36.7	30.8		
30/3/2022 6:00	37.5	32.0		
30/3/2022 7:00	35.5	30.3		
30/3/2022 8:00	32.8	27.7		
30/3/2022 9:00	23.0	18.8		
30/3/2022 10:00	16.3	13.5		
30/3/2022 11:00	12.8	10.7		

Hourly Average			Daily Average	
Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
30/3/2022 12:00	11.0	9.3	28.9	24.3
30/3/2022 13:00	14.8	12.2		
30/3/2022 14:00	22.8	18.5		
30/3/2022 15:00	23.3	19.0		
30/3/2022 16:00	17.0	14.2		
30/3/2022 17:00	13.8	11.5		
30/3/2022 18:00	18.5	15.2		
30/3/2022 19:00	27.7	22.5		
30/3/2022 20:00	37.8	32.5		
30/3/2022 21:00	53.3	46.2		
30/3/2022 22:00	57.7	49.8		
30/3/2022 23:00	40.5	34.2		
31/3/2022 0:00	37.3	31.3		
31/3/2022 1:00	40.0	34.0		
31/3/2022 2:00	31.5	26.3		
31/3/2022 3:00	30.8	26.3		
31/3/2022 4:00	33.2	27.7		
31/3/2022 5:00	38.3	32.7		
31/3/2022 6:00	39.5	34.0		
31/3/2022 7:00	35.7	30.5		
31/3/2022 8:00	32.3	27.3		
31/3/2022 9:00	14.7	11.8		
31/3/2022 10:00	13.0	9.8		
31/3/2022 11:00	9.5	7.3		
31/3/2022 12:00	13.5	10.7	24.4	20.4
31/3/2022 13:00	16.0	13.3		
31/3/2022 14:00	20.3	17.0		
31/3/2022 15:00	18.5	15.5		
31/3/2022 16:00	13.2	10.8		
31/3/2022 17:00	9.0	7.7		
31/3/2022 18:00	7.3	6.0		
31/3/2022 19:00	14.3	11.8		
31/3/2022 20:00	16.3	13.3		
31/3/2022 21:00	22.2	17.8		
31/3/2022 22:00	24.7	20.0		
31/3/2022 23:00	25.7	21.0		
1/4/2022 0:00	29.3	23.7		
1/4/2022 1:00	28.2	22.7		
1/4/2022 2:00	25.5	20.7		
1/4/2022 3:00	26.0	21.2		
1/4/2022 4:00	33.0	27.7		
1/4/2022 5:00	42.0	35.7		
1/4/2022 6:00	44.7	37.8		
1/4/2022 7:00	52.3	45.2		
1/4/2022 8:00	38.8	33.3		
1/4/2022 9:00	24.3	20.7		
1/4/2022 10:00	18.5	15.7		
1/4/2022 11:00	22.7	19.7		

Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
1/4/2022 12:00	19.2	16.5	32.7	27.7
1/4/2022 13:00	17.8	14.7		
1/4/2022 14:00	15.7	13.2		
1/4/2022 15:00	14.8	12.2		
1/4/2022 16:00	20.5	16.8		
1/4/2022 17:00	24.2	20.3		
1/4/2022 18:00	18.8	15.3		
1/4/2022 19:00	14.8	11.8		
1/4/2022 20:00	19.7	16.8		
1/4/2022 21:00	27.2	23.3		
1/4/2022 22:00	32.8	28.0		
1/4/2022 23:00	28.7	24.2		
2/4/2022 0:00	30.7	25.5		
2/4/2022 1:00	32.0	26.2		
2/4/2022 2:00	33.3	28.2		
2/4/2022 3:00	43.2	37.5		
2/4/2022 4:00	44.8	38.5		
2/4/2022 5:00	56.0	48.8		
2/4/2022 6:00	56.8	49.2		
2/4/2022 7:00	63.7	55.0		
2/4/2022 8:00	53.0	45.8		
2/4/2022 9:00	35.8	30.3		
2/4/2022 10:00	47.7	40.3		
2/4/2022 11:00	33.3	27.5		
2/4/2022 12:00	15.7	13.2	40.3	34.4
2/4/2022 13:00	19.7	16.7		
2/4/2022 14:00	25.7	22.0		
2/4/2022 15:00	21.2	18.0		
2/4/2022 16:00	17.5	14.8		
2/4/2022 17:00	21.5	17.8		
2/4/2022 18:00	30.8	25.7		
2/4/2022 19:00	39.0	33.5		
2/4/2022 20:00	52.3	45.0		
2/4/2022 21:00	72.2	62.7		
2/4/2022 22:00	47.5	40.8		
2/4/2022 23:00	47.3	39.7		
3/4/2022 0:00	51.7	44.0		
3/4/2022 1:00	54.2	46.5		
3/4/2022 2:00	53.0	45.2		
3/4/2022 3:00	52.0	44.0		
3/4/2022 4:00	52.8	44.8		
3/4/2022 5:00	49.7	42.3		
3/4/2022 6:00	48.5	41.5		
3/4/2022 7:00	54.5	46.7		
3/4/2022 8:00	37.3	32.0		
3/4/2022 9:00	26.8	22.7		
3/4/2022 10:00	46.7	39.3		
3/4/2022 11:00	29.2	25.5		

Hourly Average			Daily Average	
Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
3/4/2022 12:00	26.7	23.0	32.0	27.5
3/4/2022 13:00	41.5	36.3		
3/4/2022 14:00	41.5	36.5		
3/4/2022 15:00	38.5	33.5		
3/4/2022 16:00	49.5	43.2		
3/4/2022 17:00	60.7	53.0		
3/4/2022 18:00	42.7	37.3		
3/4/2022 19:00	50.8	44.3		
3/4/2022 20:00	70.8	61.8		
3/4/2022 21:00	62.5	53.7		
3/4/2022 22:00	65.2	57.2		
3/4/2022 23:00	32.7	28.0		
4/4/2022 0:00	7.5	6.0		
4/4/2022 1:00	9.0	7.7		
4/4/2022 2:00	11.5	9.7		
4/4/2022 3:00	16.3	13.0		
4/4/2022 4:00	17.8	14.5		
4/4/2022 5:00	18.3	14.7		
4/4/2022 6:00	22.0	18.0		
4/4/2022 7:00	21.7	18.0		
4/4/2022 8:00	22.7	18.5		
4/4/2022 9:00	13.7	10.3		
4/4/2022 10:00	13.5	11.0		
4/4/2022 11:00	11.8	9.7		

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
28/3/2022 12:00	0.30	47.66	62.97	0.00	0.24	43.86	4.84
28/3/2022 13:00	0.20	56.5	66.19	0.00			
28/3/2022 14:00	0.14	56.61	76.4	0.00			
28/3/2022 15:00	0.20	62.45	91	0.00			
28/3/2022 16:00	0.19	46.92	90.43	1.99			
28/3/2022 17:00	0.28	41.73	128.41	48.20			
28/3/2022 18:00	0.31	20.22	136.27	51.84			
28/3/2022 19:00	0.32	18.79	96.24	7.68			
28/3/2022 20:00	0.36	9.73	98.57	5.32	0.35	7.78	
28/3/2022 21:00	0.29	8.24	94.52	0.00			
28/3/2022 22:00	0.39	7.79	84.95	1.15			
28/3/2022 23:00	0.43	8.15	75.34	0.00			
29/3/2022 0:00	0.45	8.24	74.95	0.00			
29/3/2022 1:00	0.37	6.64	71.84	0.00			
29/3/2022 2:00	0.27	7.66	61.72	0.00			
29/3/2022 3:00	0.21	5.79	58.58	0.00			
29/3/2022 4:00	0.21	4.61	56.28	0.00	0.30	4.81	
29/3/2022 5:00	0.28	0.09	59.73	0.00			
29/3/2022 6:00	0.29	0.22	54.52	0.00			
29/3/2022 7:00	0.64	0.48	54.45	0.00			
29/3/2022 8:00	0.30	0.3	50.24	0.00			
29/3/2022 9:00	0.23	3.17	49.65	0.00			
29/3/2022 10:00	0.19	8.52	41.83	0.00			
29/3/2022 11:00	0.25	21.05	35.47	0.00			
29/3/2022 12:00	0.18	39.47	34.86	0.00	0.20	46.02	5.64
29/3/2022 13:00	0.13	46.15	53.98	0.00			
29/3/2022 14:00	0.14	50.55	63.74	0.00			
29/3/2022 15:00	0.14	56.16	77.87	0.00			
29/3/2022 16:00	0.24	82.43	119.25	0.14			
29/3/2022 17:00	0.22	55.59	118.1	37.70			
29/3/2022 18:00	0.26	25.4	106.44	31.90			
29/3/2022 19:00	0.30	12.43	112.77	27.27			
29/3/2022 20:00	0.30	6.07	102.69	13.33	0.55	2.12	
29/3/2022 21:00	0.53	4.52	80.47	10.74			
29/3/2022 22:00	0.74	0.71	83.18	12.47			
29/3/2022 23:00	0.53	0.17	78.8	0.52			
30/3/2022 0:00	0.71	0.56	66.97	1.25			
30/3/2022 1:00	0.59	1.02	57.03	0.00			
30/3/2022 2:00	0.50	2.72	53.49	0.00			
30/3/2022 3:00	0.48	1.22	50.4	0.00			
30/3/2022 4:00	0.35	1	52.68	0.00	0.35	4.25	
30/3/2022 5:00	0.36	1.06	47.75	0.00			
30/3/2022 6:00	0.39	1.92	44.96	0.00			
30/3/2022 7:00	0.38	0.94	42.03	0.00			
30/3/2022 8:00	0.52	1.42	45.81	0.00			
30/3/2022 9:00	0.31	0.27	48.08	0.00			
30/3/2022 10:00	0.24	5.69	38.97	0.00			
30/3/2022 11:00	0.28	21.67	22.61	0.00			

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
30/3/2022 12:00	0.21	38.79	18.42	0.00	0.22	55.09	3.12
30/3/2022 13:00	0.13	52.28	33.61	0.00			
30/3/2022 14:00	0.16	65.18	73.74	0.00			
30/3/2022 15:00	0.27	66.72	114.49	0.00			
30/3/2022 16:00	0.26	78.34	107.57	0.00			
30/3/2022 17:00	0.22	57.55	97.1	1.47			
30/3/2022 18:00	0.26	42.3	100.63	0.00			
30/3/2022 19:00	0.28	39.52	120.72	11.67			
30/3/2022 20:00	0.30	32.52	95.35	0.00	0.43	13.14	
30/3/2022 21:00	0.34	22.39	102.25	5.26			
30/3/2022 22:00	0.44	17.14	127.46	24.79			
30/3/2022 23:00	0.52	10.93	121.07	25.04			
31/3/2022 0:00	0.53	8.25	99.99	6.69			
31/3/2022 1:00	0.48	7.02	84.5	0.00			
31/3/2022 2:00	0.45	5.03	72.91	0.00			
31/3/2022 3:00	0.38	1.84	62.77	0.00			
31/3/2022 4:00	0.31	3.06	60.57	0.00	0.32	5.47	
31/3/2022 5:00	0.33	0.98	54.57	0.00			
31/3/2022 6:00	0.32	0.78	51.33	0.00			
31/3/2022 7:00	0.54	0.66	55.23	0.00			
31/3/2022 8:00	0.33	1.49	52	0.00			
31/3/2022 9:00	0.33	2.54	52.35	0.00			
31/3/2022 10:00	0.27	11.34	41.47	0.00			
31/3/2022 11:00	0.16	22.91	25.53	0.00			
31/3/2022 12:00	0.13	39.27	26.77	0.00	0.19	30.49	5.14
31/3/2022 13:00	0.11	47.45	55.1	0.00			
31/3/2022 14:00	0.26	29.68	123.44	23.94			
31/3/2022 15:00	0.27	21.67	133.1	20.33			
31/3/2022 16:00	0.25	18.42	117.96	3.80			
31/3/2022 17:00	0.20	27.96	69.11	0.00			
31/3/2022 18:00	0.15	31.36	45.76	0.00			
31/3/2022 19:00	0.18	28.07	42.96	0.00			
31/3/2022 20:00	0.31	22.62	75.24	0.00	0.60	9.53	
31/3/2022 21:00	0.36	17.91	84.44	0.00			
31/3/2022 22:00	0.64	11.97	92.38	17.31			
31/3/2022 23:00	0.72	9.13	84.37	16.42			
1/4/2022 0:00	0.87	7	77.21	18.60			
1/4/2022 1:00	0.84	3.97	64.96	9.22			
1/4/2022 2:00	0.54	2.45	57.02	0.00			
1/4/2022 3:00	0.51	1.16	53.71	0.00			
1/4/2022 4:00	0.43	0.84	50.03	0.00	0.54	5.75	
1/4/2022 5:00	0.38	0.94	47.86	0.00			
1/4/2022 6:00	0.60	0.18	46.53	0.00			
1/4/2022 7:00	0.97	0.57	48.18	5.75			
1/4/2022 8:00	0.79	1.18	53.65	2.89			
1/4/2022 9:00	0.74	2.61	57.11	5.06			
1/4/2022 10:00	0.26	11.21	42.35	0.00			
1/4/2022 11:00	0.17	28.46	32.36	0.00			

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
1/4/2022 12:00	0.15	59.55	18.68	0.00	0.18	71.07	3.97
1/4/2022 13:00	0.15	65.72	19.75	0.00			
1/4/2022 14:00	0.13	74.25	47.83	0.00			
1/4/2022 15:00	0.13	77.66	67.58	0.00			
1/4/2022 16:00	0.13	79.3	89	0.00			
1/4/2022 17:00	0.20	87.39	112.75	0.03			
1/4/2022 18:00	0.24	71.49	107.64	6.86			
1/4/2022 19:00	0.30	53.22	121.79	21.09			
1/4/2022 20:00	0.27	38.02	122.31	23.35	0.41	21.41	
1/4/2022 21:00	0.30	35.5	74.97	0.00			
1/4/2022 22:00	0.30	29.3	76.27	0.00			
1/4/2022 23:00	0.40	18.65	94.91	12.25			
2/4/2022 0:00	0.38	16.7	79.73	0.00			
2/4/2022 1:00	0.57	11.65	87.4	13.19			
2/4/2022 2:00	0.56	9.38	80.24	7.12			
2/4/2022 3:00	0.46	12.05	69.52	0.00			
2/4/2022 4:00	0.39	12.97	59.01	0.00	0.39	16.29	
2/4/2022 5:00	0.35	12.26	56.13	0.00			
2/4/2022 6:00	0.40	7.08	60.22	0.00			
2/4/2022 7:00	0.67	3.72	64.92	5.23			
2/4/2022 8:00	0.64	4.81	65.26	6.15			
2/4/2022 9:00	0.32	11.04	54.6	0.00			
2/4/2022 10:00	0.21	32.46	42.06	0.00			
2/4/2022 11:00	0.15	46	37.21	0.00			
2/4/2022 12:00	0.23	31.36	89.1	0.00	0.20	50.04	11.96
2/4/2022 13:00	0.21	30.91	56.13	0.00			
2/4/2022 14:00	0.15	54.35	48.03	0.00			
2/4/2022 15:00	0.15	73.21	54.06	0.00			
2/4/2022 16:00	0.11	64.19	73.01	0.00			
2/4/2022 17:00	0.19	56.77	88.8	0.00			
2/4/2022 18:00	0.25	46.75	72.67	0.00			
2/4/2022 19:00	0.32	42.81	103.16	2.60			
2/4/2022 20:00	0.42	27.79	133.01	22.64	0.77	13.15	
2/4/2022 21:00	0.60	19.77	132.33	36.92			
2/4/2022 22:00	0.68	15.71	102.39	24.51			
2/4/2022 23:00	0.86	11.88	91.77	33.84			
3/4/2022 0:00	0.96	8.69	81.21	32.85			
3/4/2022 1:00	0.80	8.38	73.49	16.56			
3/4/2022 2:00	0.88	7.94	67.5	18.08			
3/4/2022 3:00	0.97	5.05	60.35	20.65			
3/4/2022 4:00	0.97	3.64	56.64	18.92	0.72	10.51	
3/4/2022 5:00	0.94	3.09	55.88	17.07			
3/4/2022 6:00	0.79	2.58	53.85	9.83			
3/4/2022 7:00	0.72	3.73	54.24	3.95			
3/4/2022 8:00	1.13	3.15	55.72	26.33			
3/4/2022 9:00	0.60	8.71	55.93	2.28			
3/4/2022 10:00	0.31	20.36	50.4	0.00			
3/4/2022 11:00	0.28	38.79	44.01	0.00			

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
3/4/2022 12:00	0.16	54.34	47.28	0.00	0.25	28.01	0.46
3/4/2022 13:00	0.20	40.28	73.44	0.00			
3/4/2022 14:00	0.24	26.84	103.64	5.62			
3/4/2022 15:00	0.24	29.92	76.65	0.00			
3/4/2022 16:00	0.25	21.85	73.2	0.00			
3/4/2022 17:00	0.22	21.28	58.71	0.00			
3/4/2022 18:00	0.36	14.47	70.74	0.00			
3/4/2022 19:00	0.32	15.1	63.85	0.00			
3/4/2022 20:00	0.31	13.21	61.24	0.00	0.40	11.91	
3/4/2022 21:00	0.59	5.62	68.85	0.00			
3/4/2022 22:00	0.92	3.26	59.64	0.00			
3/4/2022 23:00	0.56	5.65	60.7	0.00			
4/4/2022 0:00	0.26	14.61	33.37	0.00			
4/4/2022 1:00	0.17	18.07	23.63	0.00			
4/4/2022 2:00	0.16	18.06	25.73	0.00			
4/4/2022 3:00	0.19	16.83	29.96	0.00			
4/4/2022 4:00	0.25	7.55	39.55	0.00	0.33	8.78	
4/4/2022 5:00	0.26	5.65	40.16	0.00			
4/4/2022 6:00	0.32	3.1	42.19	0.00			
4/4/2022 7:00	0.64	3.01	44.17	4.04			
4/4/2022 8:00	0.48	1.15	43.59	1.33			
4/4/2022 9:00	0.27	5.37	41.59	0.00			
4/4/2022 10:00	0.23	15.89	26.19	0.00			
4/4/2022 11:00	0.17	28.53	21.92	0.00			

Raw data for AQ2

Hourly Average			Daily Average	
Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
5/4/2022 0:00	19.3	15.8	19.6	16.3
5/4/2022 1:00	25.7	20.2		
5/4/2022 2:00	27.2	21.5		
5/4/2022 3:00	26.0	21.5		
5/4/2022 4:00	27.0	22.8		
5/4/2022 5:00	37.5	31.7		
5/4/2022 6:00	40.3	34.8		
5/4/2022 7:00	36.7	30.8		
5/4/2022 8:00	37.2	31.7		
5/4/2022 9:00	23.7	19.8		
5/4/2022 10:00	12.2	10.2		
5/4/2022 11:00	11.0	9.2		
5/4/2022 12:00	11.0	9.2		
5/4/2022 13:00	8.3	6.8		
5/4/2022 14:00	13.7	11.5		
5/4/2022 15:00	15.8	13.5		
5/4/2022 16:00	16.0	13.3		
5/4/2022 17:00	15.8	13.5		
5/4/2022 18:00	12.5	10.5		
5/4/2022 19:00	12.5	10.5		
5/4/2022 20:00	11.2	9.2		
5/4/2022 21:00	9.3	7.8		
5/4/2022 22:00	8.5	6.2		
5/4/2022 23:00	12.0	9.5		
6/4/2022 0:00	15.0	12.2	19.5	16.1
6/4/2022 1:00	21.7	17.2		
6/4/2022 2:00	23.3	19.3		
6/4/2022 3:00	22.7	18.5		
6/4/2022 4:00	26.3	22.3		
6/4/2022 5:00	25.3	21.7		
6/4/2022 6:00	28.5	24.0		
6/4/2022 7:00	26.7	22.5		
6/4/2022 8:00	20.7	17.5		
6/4/2022 9:00	14.5	11.8		
6/4/2022 10:00	10.0	7.5		
6/4/2022 11:00	12.7	10.3		
6/4/2022 12:00	16.8	14.2		
6/4/2022 13:00	18.2	15.5		
6/4/2022 14:00	17.0	14.2		
6/4/2022 15:00	17.8	14.8		
6/4/2022 16:00	16.2	13.3		
6/4/2022 17:00	9.8	7.8		
6/4/2022 18:00	9.5	7.8		
6/4/2022 19:00	12.8	11.0		
6/4/2022 20:00	15.7	13.2		
6/4/2022 21:00	26.2	21.7		
6/4/2022 22:00	32.8	25.3		
6/4/2022 23:00	28.3	23.5		

Hourly Average			Daily Average	
Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
7/4/2022 0:00	25.2	21.3	22.1	18.7
7/4/2022 1:00	20.8	17.5		
7/4/2022 2:00	17.2	14.2		
7/4/2022 3:00	19.7	16.3		
7/4/2022 4:00	11.2	9.3		
7/4/2022 5:00	7.5	6.0		
7/4/2022 6:00	9.7	7.7		
7/4/2022 7:00	19.0	16.0		
7/4/2022 8:00	14.0	11.8		
7/4/2022 9:00	10.2	8.5		
7/4/2022 10:00	12.3	10.5		
7/4/2022 11:00	12.0	10.2		
7/4/2022 12:00	12.2	10.2		
7/4/2022 13:00	9.0	7.5		
7/4/2022 14:00	14.8	12.3		
7/4/2022 15:00	17.2	14.3		
7/4/2022 16:00	14.8	12.3		
7/4/2022 17:00	15.0	12.5		
7/4/2022 18:00	17.0	14.2		
7/4/2022 19:00	24.5	19.7		
7/4/2022 20:00	31.2	25.7		
7/4/2022 21:00	42.0	35.8		
7/4/2022 22:00	52.8	45.8		
7/4/2022 23:00	101.2	88.8		
8/4/2022 0:00	77.3	67.5	25.1	21.4
8/4/2022 1:00	38.7	33.7		
8/4/2022 2:00	40.2	35.2		
8/4/2022 3:00	37.5	32.5		
8/4/2022 4:00	39.8	34.3		
8/4/2022 5:00	32.3	28.0		
8/4/2022 6:00	28.8	24.7		
8/4/2022 7:00	22.0	18.3		
8/4/2022 8:00	28.0	23.3		
8/4/2022 9:00	24.8	20.7		
8/4/2022 10:00	24.0	18.3		
8/4/2022 11:00	17.5	14.2		
8/4/2022 12:00	16.7	14.0		
8/4/2022 13:00	20.8	17.8		
8/4/2022 14:00	19.7	17.2		
8/4/2022 15:00	15.2	13.0		
8/4/2022 16:00	10.7	9.0		
8/4/2022 17:00	15.5	13.2		
8/4/2022 18:00	21.5	18.3		
8/4/2022 19:00	19.7	16.8		
8/4/2022 20:00	13.2	10.8		
8/4/2022 21:00	13.2	11.2		
8/4/2022 22:00	13.2	10.7		
8/4/2022 23:00	12.3	9.8		

Hourly Average			Daily Average	
Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
9/4/2022 0:00	15.2	12.3	14.7	12.1
9/4/2022 1:00	13.5	11.3		
9/4/2022 2:00	15.8	12.2		
9/4/2022 3:00	9.7	8.0		
9/4/2022 4:00	11.5	9.5		
9/4/2022 5:00	7.0	5.5		
9/4/2022 6:00	4.8	3.8		
9/4/2022 7:00	7.2	6.0		
9/4/2022 8:00	7.5	6.3		
9/4/2022 9:00	10.7	8.7		
9/4/2022 10:00	13.2	11.2		
9/4/2022 11:00	8.0	6.5		
9/4/2022 12:00	9.3	7.0		
9/4/2022 13:00	14.8	12.0		
9/4/2022 14:00	14.7	12.2		
9/4/2022 15:00	20.0	16.7		
9/4/2022 16:00	31.2	26.3		
9/4/2022 17:00	28.7	24.2		
9/4/2022 18:00	23.7	19.8		
9/4/2022 19:00	31.5	26.0		
9/4/2022 20:00	22.2	17.8		
9/4/2022 21:00	11.3	9.7		
9/4/2022 22:00	11.3	9.7		
9/4/2022 23:00	9.2	7.5		
10/4/2022 0:00	9.7	7.8	25.7	21.7
10/4/2022 1:00	10.8	8.7		
10/4/2022 2:00	17.3	13.7		
10/4/2022 3:00	34.3	28.8		
10/4/2022 4:00	33.5	27.7		
10/4/2022 5:00	38.0	31.5		
10/4/2022 6:00	35.0	29.2		
10/4/2022 7:00	41.5	35.2		
10/4/2022 8:00	54.7	46.5		
10/4/2022 9:00	28.7	24.7		
10/4/2022 10:00	16.0	13.8		
10/4/2022 11:00	15.0	12.8		
10/4/2022 12:00	15.8	13.5		
10/4/2022 13:00	23.7	20.3		
10/4/2022 14:00	25.5	22.0		
10/4/2022 15:00	22.7	19.3		
10/4/2022 16:00	22.0	19.0		
10/4/2022 17:00	17.3	15.0		
10/4/2022 18:00	17.7	15.5		
10/4/2022 19:00	24.0	20.3		
10/4/2022 20:00	25.0	21.0		
10/4/2022 21:00	27.7	23.2		
10/4/2022 22:00	30.3	25.7		
10/4/2022 23:00	31.0	26.7		

Hourly Average			Daily Average	
Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
11/4/2022 0:00	39.0	33.2	45.8	39.3
11/4/2022 1:00	48.5	41.8		
11/4/2022 2:00	49.0	41.8		
11/4/2022 3:00	50.0	43.0		
11/4/2022 4:00	57.8	49.7		
11/4/2022 5:00	55.8	48.3		
11/4/2022 6:00	63.7	54.5		
11/4/2022 7:00	62.0	53.2		
11/4/2022 8:00	73.5	62.5		
11/4/2022 9:00	60.7	51.8		
11/4/2022 10:00	18.0	15.3		
11/4/2022 11:00	22.5	18.8		
11/4/2022 12:00	27.2	23.3		
11/4/2022 13:00	31.0	26.8		
11/4/2022 14:00	23.2	19.8		
11/4/2022 15:00	19.7	16.2		
11/4/2022 16:00	26.0	22.3		
11/4/2022 17:00	33.8	29.2		
11/4/2022 18:00	45.7	39.3		
11/4/2022 19:00	52.3	44.7		
11/4/2022 20:00	49.0	42.2		
11/4/2022 21:00	57.5	49.5		
11/4/2022 22:00	67.3	58.3		
11/4/2022 23:00	65.7	56.5		

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
5/4/2022 0:00	0.28	15.04	70.81	0.00	0.35	7.69	0.00
5/4/2022 1:00	0.28	14.78	60.89	0.00			
5/4/2022 2:00	0.29	10.89	58.27	0.00			
5/4/2022 3:00	0.30	7.43	59.68	0.00			
5/4/2022 4:00	0.30	4.53	55.17	0.00			
5/4/2022 5:00	0.34	4.86	56.03	0.00			
5/4/2022 6:00	0.45	0.77	54.03	0.00			
5/4/2022 7:00	0.59	3.18	54.9	0.00			
5/4/2022 8:00	0.55	2.18	55.34	0.00	0.31	22.08	
5/4/2022 9:00	0.39	8.64	53.39	0.00			
5/4/2022 10:00	0.33	16.75	56.58	0.00			
5/4/2022 11:00	0.31	24.07	60.33	0.00			
5/4/2022 12:00	0.23	29.49	52.79	0.00			
5/4/2022 13:00	0.23	31.54	47.33	0.00			
5/4/2022 14:00	0.22	29.81	48.78	0.00			
5/4/2022 15:00	0.23	34.16	54.59	0.00			
5/4/2022 16:00	0.21	40.08	52.82	0.00	0.24	31.28	
5/4/2022 17:00	0.21	52.99	47.29	0.00			
5/4/2022 18:00	0.21	44.48	55.45	0.00			
5/4/2022 19:00	0.21	30.23	58.75	0.00			
5/4/2022 20:00	0.26	24.74	71.46	0.00			
5/4/2022 21:00	0.27	20.29	76.63	0.00			
5/4/2022 22:00	0.25	19.86	66.87	0.00			
5/4/2022 23:00	0.27	17.53	70.02	0.00			
6/4/2022 0:00	0.28	14.13	72.39	0.00	0.38	6.38	4.98
6/4/2022 1:00	0.28	11.34	66.36	0.00			
6/4/2022 2:00	0.31	7.84	58.98	0.00			
6/4/2022 3:00	0.40	4.59	56.56	0.00			
6/4/2022 4:00	0.47	2.67	52.27	0.00			
6/4/2022 5:00	0.39	3.97	54.18	0.00			
6/4/2022 6:00	0.37	3.17	54.28	0.00			
6/4/2022 7:00	0.57	3.29	52.66	0.00			
6/4/2022 8:00	0.51	5.72	53.76	0.00	0.25	33.61	
6/4/2022 9:00	0.36	11.26	53.31	0.00			
6/4/2022 10:00	0.26	22.34	42.35	0.00			
6/4/2022 11:00	0.21	30.77	37.74	0.00			
6/4/2022 12:00	0.16	39.51	28.32	0.00			
6/4/2022 13:00	0.17	46.8	31.95	0.00			
6/4/2022 14:00	0.16	54.32	26.06	0.00			
6/4/2022 15:00	0.15	58.19	38.21	0.00			
6/4/2022 16:00	0.17	66.56	58.15	0.00	0.34	35.61	
6/4/2022 17:00	0.19	70.1	73.1	0.00			
6/4/2022 18:00	0.29	55.41	121.82	17.40			
6/4/2022 19:00	0.34	34.33	122.04	27.47			
6/4/2022 20:00	0.45	18.57	131.67	46.92			
6/4/2022 21:00	0.42	17.03	104.33	16.67			
6/4/2022 22:00	0.47	11.25	92.63	10.60			
6/4/2022 23:00	0.42	11.66	84.32	0.34			

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
7/4/2022 0:00	0.52	8.71	76.57	1.02	0.29	11.12	0.04
7/4/2022 1:00	0.44	11.59	58.89	0.00			
7/4/2022 2:00	0.28	14.56	48.96	0.00			
7/4/2022 3:00	0.24	12.77	45.01	0.00			
7/4/2022 4:00	0.22	11.01	43.99	0.00			
7/4/2022 5:00	0.19	11.96	39.57	0.00			
7/4/2022 6:00	0.21	9.93	43.3	0.00			
7/4/2022 7:00	0.24	8.42	45.35	0.00			
7/4/2022 8:00	0.38	6.84	55.1	0.00	0.22	15.59	
7/4/2022 9:00	0.26	17.52	49.87	0.00			
7/4/2022 10:00	0.21	11.26	59.44	0.00			
7/4/2022 11:00	0.18	14.48	47.14	0.00			
7/4/2022 12:00	0.18	16.02	48.77	0.00			
7/4/2022 13:00	0.18	17.34	49.89	0.00			
7/4/2022 14:00	0.17	21.18	50.71	0.00			
7/4/2022 15:00	0.18	20.09	53.96	0.00			
7/4/2022 16:00	0.19	22.48	56.69	0.00	0.27	18.17	
7/4/2022 17:00	0.20	23.74	59.56	0.00			
7/4/2022 18:00	0.21	22.63	61.36	0.00			
7/4/2022 19:00	0.23	22.26	64.36	0.00			
7/4/2022 20:00	0.29	15.57	70.46	0.00			
7/4/2022 21:00	0.31	14.45	64.7	0.00			
7/4/2022 22:00	0.34	13.05	64.24	0.00			
7/4/2022 23:00	0.41	11.15	67.15	0.00			
8/4/2022 0:00	0.52	11.83	70.44	0.00	0.35	8.31	1.12
8/4/2022 1:00	0.48	11.23	57.17	0.00			
8/4/2022 2:00	0.31	12.76	47.02	0.00			
8/4/2022 3:00	0.29	9.8	42.99	0.00			
8/4/2022 4:00	0.28	8.29	39.36	0.00			
8/4/2022 5:00	0.32	2.83	41.62	0.00			
8/4/2022 6:00	0.27	6.17	41.3	0.00			
8/4/2022 7:00	0.33	3.58	43.35	0.00			
8/4/2022 8:00	0.38	5.65	41.51	0.00	0.23	39.24	
8/4/2022 9:00	0.29	9.41	38.73	0.00			
8/4/2022 10:00	0.21	19.63	34.11	0.00			
8/4/2022 11:00	0.21	34.3	28.96	0.00			
8/4/2022 12:00	0.21	51.8	21.84	0.00			
8/4/2022 13:00	0.16	54.13	15.86	0.00			
8/4/2022 14:00	0.16	62.22	23.63	0.00			
8/4/2022 15:00	0.18	76.74	32.67	0.00			
8/4/2022 16:00	0.15	65.68	38.95	0.00	0.28	41.86	
8/4/2022 17:00	0.15	57.41	53.13	0.00			
8/4/2022 18:00	0.24	55.28	85.54	0.00			
8/4/2022 19:00	0.32	58.7	112.82	4.68			
8/4/2022 20:00	0.34	39.08	115.46	11.98			
8/4/2022 21:00	0.35	24.18	100.91	7.62			
8/4/2022 22:00	0.35	17.45	92.88	2.64			
8/4/2022 23:00	0.32	17.13	73.18	0.00			

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
9/4/2022 0:00	0.26	18.54	53.35	0.00	0.22	16.22	1.62
9/4/2022 1:00	0.26	16.62	51.6	0.00			
9/4/2022 2:00	0.25	15.79	49.62	0.00			
9/4/2022 3:00	0.24	15.22	48.32	0.00			
9/4/2022 4:00	0.22	14.99	44.31	0.00			
9/4/2022 5:00	0.21	13.94	43.44	0.00			
9/4/2022 6:00	0.16	19.18	35.09	0.00			
9/4/2022 7:00	0.15	15.47	40.9	0.00			
9/4/2022 8:00	0.24	9.33	51.71	0.00	0.22	12.33	
9/4/2022 9:00	0.23	7.47	49.55	0.00			
9/4/2022 10:00	0.23	4.79	52.94	0.00			
9/4/2022 11:00	0.23	6.29	50.63	0.00			
9/4/2022 12:00	0.19	13.2	44.12	0.00			
9/4/2022 13:00	0.21	15.05	48.6	0.00			
9/4/2022 14:00	0.22	18.49	50.9	0.00			
9/4/2022 15:00	0.23	24.02	52.13	0.00			
9/4/2022 16:00	0.24	35.3	65.6	0.00	0.27	39.00	
9/4/2022 17:00	0.24	75.09	87.75	0.00			
9/4/2022 18:00	0.24	62.45	82.13	0.00			
9/4/2022 19:00	0.25	56.13	103.87	4.05			
9/4/2022 20:00	0.31	27.65	148.56	34.78			
9/4/2022 21:00	0.31	22.24	69.88	0.00			
9/4/2022 22:00	0.29	17.05	58.29	0.00			
9/4/2022 23:00	0.30	16.12	61.54	0.00			
10/4/2022 0:00	0.31	13.57	62.14	0.00	0.51	6.40	1.14
10/4/2022 1:00	0.30	12.69	59.6	0.00			
10/4/2022 2:00	0.31	8.63	60.63	0.00			
10/4/2022 3:00	0.39	6.21	59.49	0.00			
10/4/2022 4:00	0.69	3.33	49.72	2.84			
10/4/2022 5:00	0.69	3.42	44.55	1.48			
10/4/2022 6:00	0.70	1.58	43.87	5.40			
10/4/2022 7:00	0.69	1.78	44.24	4.53			
10/4/2022 8:00	0.88	2.54	48.08	13.02	0.36	31.66	
10/4/2022 9:00	0.57	4.1	52.28	0.00			
10/4/2022 10:00	0.36	19.58	45.64	0.00			
10/4/2022 11:00	0.24	30.99	37.78	0.00			
10/4/2022 12:00	0.19	39.8	21.81	0.00			
10/4/2022 13:00	0.19	48.23	27.85	0.00			
10/4/2022 14:00	0.23	59.39	68.18	0.00			
10/4/2022 15:00	0.24	48.66	64.92	0.00			
10/4/2022 16:00	0.24	34.22	71.53	0.00	0.37	18.01	
10/4/2022 17:00	0.26	29.76	69.62	0.00			
10/4/2022 18:00	0.28	21.79	62.09	0.00			
10/4/2022 19:00	0.34	17.74	63.03	0.00			
10/4/2022 20:00	0.38	15.47	65.38	0.00			
10/4/2022 21:00	0.44	11.15	65.63	0.00			
10/4/2022 22:00	0.49	8.11	62.17	0.00			
10/4/2022 23:00	0.55	5.83	65.42	0.00			

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
11/4/2022 0:00	0.51	5.47	65.4	0.00	0.64	2.50	1.24
11/4/2022 1:00	0.55	3.79	60.07	0.00			
11/4/2022 2:00	0.60	2.22	53.48	0.00			
11/4/2022 3:00	0.60	2.13	48.05	0.00			
11/4/2022 4:00	0.62	2.27	47.67	0.55			
11/4/2022 5:00	0.74	1.5	45.24	3.23			
11/4/2022 6:00	0.76	1.12	45.22	5.53			
11/4/2022 7:00	0.70	1.48	49.96	1.46			
11/4/2022 8:00	0.62	1.71	47.35	0.00	0.37	13.91	
11/4/2022 9:00	0.57	3.49	53.67	0.00			
11/4/2022 10:00	0.49	7.56	52.94	0.00			
11/4/2022 11:00	0.25	21.46	36.89	0.00			
11/4/2022 12:00	0.16	34.66	53.35	0.00			
11/4/2022 13:00	0.23	17.26	68.14	0.00			
11/4/2022 14:00	0.29	10.91	85.2	0.00			
11/4/2022 15:00	0.33	14.23	78.44	0.00			
11/4/2022 16:00	0.23	24.61	50.47	0.00	0.48	19.69	
11/4/2022 17:00	0.32	24.33	70.39	0.00			
11/4/2022 18:00	0.47	33.36	93.19	0.00			
11/4/2022 19:00	0.48	26.02	114.45	5.02			
11/4/2022 20:00	0.48	19.58	95.38	4.19			
11/4/2022 21:00	0.57	12.97	83.13	1.55			
11/4/2022 22:00	0.61	9.79	74.77	1.83			
11/4/2022 23:00	0.66	6.86	65.66	6.47			

Raw data for AQ3

Hourly Average			Daily Average	
Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
13/4/2022 0:00	112.2	98.0	59.2	51.3
13/4/2022 1:00	128.3	112.0		
13/4/2022 2:00	133.5	116.7		
13/4/2022 3:00	138.8	121.7		
13/4/2022 4:00	157.8	138.5		
13/4/2022 5:00	155.0	135.8		
13/4/2022 6:00	148.8	130.5		
13/4/2022 7:00	131.5	115.0		
13/4/2022 8:00	35.5	30.5		
13/4/2022 9:00	13.3	11.2		
13/4/2022 10:00	14.8	12.3		
13/4/2022 11:00	12.7	10.3		
13/4/2022 12:00	12.5	10.5		
13/4/2022 13:00	12.0	10.0		
13/4/2022 14:00	19.2	15.7		
13/4/2022 15:00	17.7	14.7		
13/4/2022 16:00	17.5	14.3		
13/4/2022 17:00	18.3	15.3		
13/4/2022 18:00	24.2	20.3		
13/4/2022 19:00	20.5	17.2		
13/4/2022 20:00	18.8	16.0		
13/4/2022 21:00	21.7	18.3		
13/4/2022 22:00	25.3	20.7		
13/4/2022 23:00	31.5	25.5		
14/4/2022 0:00	34.3	28.8	17.7	14.9
14/4/2022 1:00	34.5	29.3		
14/4/2022 2:00	5.7	4.5		
14/4/2022 3:00	6.7	5.3		
14/4/2022 4:00	8.0	6.3		
14/4/2022 5:00	8.0	6.7		
14/4/2022 6:00	11.0	9.3		
14/4/2022 7:00	16.0	13.5		
14/4/2022 8:00	14.3	11.8		
14/4/2022 9:00	14.5	12.2		
14/4/2022 10:00	13.5	11.3		
14/4/2022 11:00	6.7	5.3		
14/4/2022 12:00	9.2	7.7		
14/4/2022 13:00	14.5	12.0		
14/4/2022 14:00	23.0	19.8		
14/4/2022 15:00	23.3	19.5		
14/4/2022 16:00	19.3	16.2		
14/4/2022 17:00	20.7	17.3		
14/4/2022 18:00	26.2	22.2		
14/4/2022 19:00	23.8	20.0		
14/4/2022 20:00	24.5	20.7		
14/4/2022 21:00	22.2	19.0		
14/4/2022 22:00	21.5	18.8		
14/4/2022 23:00	22.8	20.0		

Hourly Average			Daily Average	
Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
15/4/2022 0:00	24.2	21.0	22.0	18.9
15/4/2022 1:00	28.0	23.8		
15/4/2022 2:00	38.3	32.5		
15/4/2022 3:00	35.8	30.7		
15/4/2022 4:00	43.2	37.3		
15/4/2022 5:00	42.5	36.7		
15/4/2022 6:00	57.2	49.2		
15/4/2022 7:00	27.3	23.8		
15/4/2022 8:00	20.5	17.8		
15/4/2022 9:00	13.5	11.5		
15/4/2022 10:00	17.2	14.7		
15/4/2022 11:00	19.0	16.3		
15/4/2022 12:00	8.3	7.2		
15/4/2022 13:00	7.3	6.3		
15/4/2022 14:00	8.0	6.8		
15/4/2022 15:00	8.2	7.0		
15/4/2022 16:00	9.2	7.8		
15/4/2022 17:00	14.8	13.2		
15/4/2022 18:00	12.5	10.8		
15/4/2022 19:00	13.5	11.7		
15/4/2022 20:00	16.5	14.2		
15/4/2022 21:00	17.8	15.2		
15/4/2022 22:00	20.8	17.5		
15/4/2022 23:00	24.8	20.7		
16/4/2022 0:00	26.7	22.8	25.6	21.8
16/4/2022 1:00	38.5	33.2		
16/4/2022 2:00	49.3	42.8		
16/4/2022 3:00	50.0	42.8		
16/4/2022 4:00	55.2	47.3		
16/4/2022 5:00	35.0	30.0		
16/4/2022 6:00	12.3	10.2		
16/4/2022 7:00	20.8	17.5		
16/4/2022 8:00	19.5	16.5		
16/4/2022 9:00	22.7	19.3		
16/4/2022 10:00	25.0	21.2		
16/4/2022 11:00	21.0	17.8		
16/4/2022 12:00	22.0	18.8		
16/4/2022 13:00	19.5	16.7		
16/4/2022 14:00	21.2	18.3		
16/4/2022 15:00	17.7	15.5		
16/4/2022 16:00	17.0	14.7		
16/4/2022 17:00	16.3	13.8		
16/4/2022 18:00	15.7	13.0		
16/4/2022 19:00	14.8	12.3		
16/4/2022 20:00	20.8	17.2		
16/4/2022 21:00	23.5	19.8		
16/4/2022 22:00	28.2	23.0		
16/4/2022 23:00	21.2	17.8		

Hourly Average			Daily Average	
Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
17/4/2022 0:00	26.7	23.0	30.3	26.0
17/4/2022 1:00	27.8	23.2		
17/4/2022 2:00	31.2	26.3		
17/4/2022 3:00	32.5	27.2		
17/4/2022 4:00	35.2	29.7		
17/4/2022 5:00	36.8	31.5		
17/4/2022 6:00	39.2	33.7		
17/4/2022 7:00	41.5	35.3		
17/4/2022 8:00	41.7	35.8		
17/4/2022 9:00	15.8	13.7		
17/4/2022 10:00	20.0	17.5		
17/4/2022 11:00	27.0	23.3		
17/4/2022 12:00	33.7	28.7		
17/4/2022 13:00	36.8	31.7		
17/4/2022 14:00	26.8	23.2		
17/4/2022 15:00	32.5	27.8		
17/4/2022 16:00	31.7	27.5		
17/4/2022 17:00	25.5	22.0		
17/4/2022 18:00	25.7	22.0		
17/4/2022 19:00	32.0	28.0		
17/4/2022 20:00	14.8	13.0		
17/4/2022 21:00	19.5	17.3		
17/4/2022 22:00	27.7	24.0		
17/4/2022 23:00	44.3	38.7		
18/4/2022 0:00	32.7	28.7	26.4	22.7
18/4/2022 1:00	27.7	24.2		
18/4/2022 2:00	29.5	25.8		
18/4/2022 3:00	24.3	21.2		
18/4/2022 4:00	22.5	19.5		
18/4/2022 5:00	20.0	17.5		
18/4/2022 6:00	24.2	21.0		
18/4/2022 7:00	33.2	28.7		
18/4/2022 8:00	18.2	16.0		
18/4/2022 9:00	13.7	12.0		
18/4/2022 10:00	14.0	12.0		
18/4/2022 11:00	38.7	31.8		
18/4/2022 12:00	25.7	21.5		
18/4/2022 13:00	21.5	18.7		
18/4/2022 14:00	22.7	19.7		
18/4/2022 15:00	23.0	19.8		
18/4/2022 16:00	28.5	24.3		
18/4/2022 17:00	33.7	28.2		
18/4/2022 18:00	24.3	20.7		
18/4/2022 19:00	22.8	19.2		
18/4/2022 20:00	26.3	23.0		
18/4/2022 21:00	30.5	26.3		
18/4/2022 22:00	36.7	31.8		
18/4/2022 23:00	39.8	34.0		

Hourly Average			Daily Average	
Time	PM10 (ug/m3)	PM2.5 (ug/m3)	PM10 (ug/m3)	PM2.5 (ug/m3)
19/4/2022 0:00	46.8	40.5	29.2	25.0
19/4/2022 1:00	49.7	42.8		
19/4/2022 2:00	52.0	44.7		
19/4/2022 3:00	55.2	47.7		
19/4/2022 4:00	52.8	45.5		
19/4/2022 5:00	38.8	33.8		
19/4/2022 6:00	37.3	32.2		
19/4/2022 7:00	32.0	27.3		
19/4/2022 8:00	24.7	21.2		
19/4/2022 9:00	17.0	14.5		
19/4/2022 10:00	19.5	16.0		
19/4/2022 11:00	20.5	17.5		
19/4/2022 12:00	23.2	19.5		
19/4/2022 13:00	18.3	15.3		
19/4/2022 14:00	21.3	18.0		
19/4/2022 15:00	16.3	13.8		
19/4/2022 16:00	16.8	14.5		
19/4/2022 17:00	22.3	19.2		
19/4/2022 18:00	11.2	9.3		
19/4/2022 19:00	15.8	13.5		
19/4/2022 20:00	19.2	16.5		
19/4/2022 21:00	22.8	19.3		
19/4/2022 22:00	34.7	29.2		
19/4/2022 23:00	31.8	27.2		

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
13/4/2022 0:00	0.92	12.73	126.16	48.67	0.96	7.49	14.37
13/4/2022 1:00	0.96	12.58	123.75	52.57			
13/4/2022 2:00	0.95	9.22	105.63	43.57			
13/4/2022 3:00	0.87	6.21	84.8	28.40			
13/4/2022 4:00	0.87	5.14	72.71	20.03			
13/4/2022 5:00	0.96	5.43	80.66	28.53			
13/4/2022 6:00	0.95	4.29	68.66	21.84			
13/4/2022 7:00	1.19	4.33	66.07	35.64			
13/4/2022 8:00	1.12	4.89	64.57	25.84	0.35	22.40	
13/4/2022 9:00	0.48	7.56	46.78	0.00			
13/4/2022 10:00	0.27	10.42	38	0.00			
13/4/2022 11:00	0.18	15.23	48.45	0.00			
13/4/2022 12:00	0.19	23.56	50.34	0.00			
13/4/2022 13:00	0.15	31.78	39.78	0.00			
13/4/2022 14:00	0.16	38.81	55.86	0.00			
13/4/2022 15:00	0.21	46.96	67.45	0.00			
13/4/2022 16:00	0.22	36.08	78.52	0.74	0.31	23.16	
13/4/2022 17:00	0.23	32.87	74.91	0.00			
13/4/2022 18:00	0.23	29.68	71.81	0.00			
13/4/2022 19:00	0.31	27.89	96.67	0.54			
13/4/2022 20:00	0.29	21.59	111.84	11.45			
13/4/2022 21:00	0.32	15.07	96.68	5.48			
13/4/2022 22:00	0.38	12.22	91.88	5.19			
13/4/2022 23:00	0.50	9.9	95.69	16.49			
14/4/2022 0:00	0.60	8.21	86.7	15.64	0.34	8.25	4.82
14/4/2022 1:00	0.48	5.49	79.1	1.62			
14/4/2022 2:00	0.35	10.6	54.02	0.00			
14/4/2022 3:00	0.15	14.05	33.06	0.00			
14/4/2022 4:00	0.16	10.52	34.05	0.00			
14/4/2022 5:00	0.20	6.81	37.46	0.00			
14/4/2022 6:00	0.18	6.5	37.95	0.00			
14/4/2022 7:00	0.61	3.83	53.08	8.72			
14/4/2022 8:00	0.81	4.17	54.43	14.04	0.34	23.86	
14/4/2022 9:00	0.56	2.35	60.97	2.68			
14/4/2022 10:00	0.36	5.38	48.81	0.00			
14/4/2022 11:00	0.24	16.11	45.23	0.00			
14/4/2022 12:00	0.17	20.99	47.18	0.00			
14/4/2022 13:00	0.17	27.73	45.77	0.00			
14/4/2022 14:00	0.18	46.49	48.57	0.00			
14/4/2022 15:00	0.23	67.68	61.04	0.00			
14/4/2022 16:00	0.22	50.95	60.07	0.00	0.28	32.39	
14/4/2022 17:00	0.20	37.91	55.29	0.00			
14/4/2022 18:00	0.24	43.21	79.92	0.00			
14/4/2022 19:00	0.31	47.45	102.77	11.21			
14/4/2022 20:00	0.31	28.7	120.53	28.46			
14/4/2022 21:00	0.35	19.81	113.33	22.88			
14/4/2022 22:00	0.35	15.75	107.73	10.39			
14/4/2022 23:00	0.27	15.31	89.8	0.00			

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
15/4/2022 0:00	0.25	15.73	76.4	0.00	0.52	7.07	1.18
15/4/2022 1:00	0.38	13.74	78.47	0.11			
15/4/2022 2:00	0.47	10.93	76.53	0.00			
15/4/2022 3:00	0.71	6.01	76.44	5.05			
15/4/2022 4:00	0.66	4.91	70.6	2.16			
15/4/2022 5:00	0.63	3.46	63.31	0.85			
15/4/2022 6:00	0.44	1.6	62.14	0.00			
15/4/2022 7:00	0.62	0.14	60.05	0.00			
15/4/2022 8:00	0.28	10.77	45.77	0.00	0.22	15.17	
15/4/2022 9:00	0.24	8.94	54.95	0.00			
15/4/2022 10:00	0.21	8.62	46.64	0.00			
15/4/2022 11:00	0.23	5.64	48.79	0.00			
15/4/2022 12:00	0.23	10.71	48.54	0.00			
15/4/2022 13:00	0.20	17.84	45.27	0.00			
15/4/2022 14:00	0.18	26.84	28.71	0.00			
15/4/2022 15:00	0.17	32	16	0.00			
15/4/2022 16:00	0.17	31.52	28.63	0.00	0.37	27.67	
15/4/2022 17:00	0.17	38.98	27.38	0.00			
15/4/2022 18:00	0.22	41.72	46.81	0.00			
15/4/2022 19:00	0.28	37.22	64.58	0.00			
15/4/2022 20:00	0.34	27.43	72.53	0.00			
15/4/2022 21:00	0.43	18.57	75.74	0.00			
15/4/2022 22:00	0.58	14.98	84.27	4.33			
15/4/2022 23:00	0.77	10.95	84.06	15.85			
16/4/2022 0:00	0.82	9.25	80.27	15.69	0.57	5.78	7.13
16/4/2022 1:00	0.49	6.92	66.25	0.00			
16/4/2022 2:00	0.39	4.77	60.7	0.00			
16/4/2022 3:00	0.51	3.95	60.72	0.00			
16/4/2022 4:00	0.72	2.52	57.14	0.00			
16/4/2022 5:00	0.79	1.29	55.45	1.51			
16/4/2022 6:00	0.45	8.16	47.55	0.00			
16/4/2022 7:00	0.37	9.36	56.79	1.51			
16/4/2022 8:00	0.76	5.42	74.35	25.12	0.36	18.93	
16/4/2022 9:00	0.55	4.35	63.9	2.66			
16/4/2022 10:00	0.43	5.96	69.23	0.00			
16/4/2022 11:00	0.38	10.8	68.87	0.87			
16/4/2022 12:00	0.22	17.7	45.36	0.00			
16/4/2022 13:00	0.19	30.04	46.89	0.00			
16/4/2022 14:00	0.16	36.04	37.19	0.00			
16/4/2022 15:00	0.15	41.11	49.66	0.00			
16/4/2022 16:00	0.19	47.27	56.29	0.00	0.46	29.44	
16/4/2022 17:00	0.25	45.98	67.36	0.00			
16/4/2022 18:00	0.25	39.98	67.49	0.00			
16/4/2022 19:00	0.31	32.3	90.94	0.68			
16/4/2022 20:00	0.34	24.91	96.43	5.05			
16/4/2022 21:00	0.72	19.45	119.79	44.92			
16/4/2022 22:00	0.69	13.57	105.81	31.69			
16/4/2022 23:00	0.90	12.08	99.19	41.38			

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
17/4/2022 0:00	0.55	11.5	86.4	4.15	0.65	6.27	2.17
17/4/2022 1:00	0.57	11.25	83.96	5.95			
17/4/2022 2:00	0.71	8.7	83.32	15.14			
17/4/2022 3:00	0.63	6.91	74.91	3.48			
17/4/2022 4:00	0.59	4.36	69.55	0.36			
17/4/2022 5:00	0.69	2.88	62.8	1.55			
17/4/2022 6:00	0.68	2.33	59.82	2.48			
17/4/2022 7:00	0.81	2.22	60.05	6.53			
17/4/2022 8:00	0.80	1.18	57.06	5.31	0.33	33.87	
17/4/2022 9:00	0.50	3.4	57.79	0.00			
17/4/2022 10:00	0.24	9.18	39.19	0.00			
17/4/2022 11:00	0.21	22.46	30.11	0.00			
17/4/2022 12:00	0.21	38.83	35.19	0.00			
17/4/2022 13:00	0.21	55.33	52.85	0.00			
17/4/2022 14:00	0.22	74.15	68.99	0.00			
17/4/2022 15:00	0.23	66.42	93.66	0.00			
17/4/2022 16:00	0.28	50.5	118.61	0.00	0.36	28.47	
17/4/2022 17:00	0.31	38.38	119.21	0.05			
17/4/2022 18:00	0.38	26.19	119.76	4.00			
17/4/2022 19:00	0.43	21.27	110.88	2.26			
17/4/2022 20:00	0.37	22.77	92.1	0.00			
17/4/2022 21:00	0.32	29.68	70.01	0.00			
17/4/2022 22:00	0.32	24.71	73.96	0.00			
17/4/2022 23:00	0.44	14.29	88.67	0.79			
18/4/2022 0:00	0.39	14.56	77.17	0.00	0.27	18.02	7.22
18/4/2022 1:00	0.28	20.36	60.02	0.00			
18/4/2022 2:00	0.21	24.19	49.42	0.00			
18/4/2022 3:00	0.21	21.07	48.58	0.00			
18/4/2022 4:00	0.17	26.12	57.05	0.00			
18/4/2022 5:00	0.21	15.21	59.42	0.00			
18/4/2022 6:00	0.27	12.55	64.73	0.00			
18/4/2022 7:00	0.41	10.12	74.53	11.24			
18/4/2022 8:00	0.50	8.84	73.05	6.43	0.37	22.74	
18/4/2022 9:00	0.52	9.66	73.43	2.94			
18/4/2022 10:00	0.43	10.39	67.61	0.00			
18/4/2022 11:00	0.32	14.02	64.73	0.00			
18/4/2022 12:00	0.39	20.34	76.8	0.00			
18/4/2022 13:00	0.31	31.35	50.48	0.00			
18/4/2022 14:00	0.25	48.77	31.2	0.00			
18/4/2022 15:00	0.24	38.56	50.47	0.00			
18/4/2022 16:00	0.23	41.33	43.96	0.00	0.35	28.91	
18/4/2022 17:00	0.34	39.75	118.47	9.61			
18/4/2022 18:00	0.37	34.19	146.56	26.83			
18/4/2022 19:00	0.36	35.18	111.32	34.80			
18/4/2022 20:00	0.42	23.68	138.37	61.30			
18/4/2022 21:00	0.37	22.26	99.65	7.42			
18/4/2022 22:00	0.33	21.11	89.75	5.66			
18/4/2022 23:00	0.37	13.75	94.38	7.08			

Hourly Average					8-hour Average		24-hour Average
Time	CO (mg/m3)	O3 (ug/m3)	NO2 (ug/m3)	SO2 (ug/m3)	CO (mg/m3)	O3 (ug/m3)	SO2 (ug/m3)
19/4/2022 0:00	0.34	13.37	80.32	0.64	0.52	6.03	2.38
19/4/2022 1:00	0.36	8.78	68.15	0.00			
19/4/2022 2:00	0.45	6.26	59.83	0.00			
19/4/2022 3:00	0.52	3.71	55.8	0.00			
19/4/2022 4:00	0.57	3.87	52.39	0.00			
19/4/2022 5:00	0.54	2.73	51.42	0.00			
19/4/2022 6:00	0.57	5.1	52.61	0.00			
19/4/2022 7:00	0.79	4.45	53.26	4.03			
19/4/2022 8:00	0.67	6.33	50.65	0.03	0.32	28.82	
19/4/2022 9:00	0.46	9.75	53.83	0.00			
19/4/2022 10:00	0.29	14.35	41.9	0.00			
19/4/2022 11:00	0.21	23.26	36.92	0.00			
19/4/2022 12:00	0.23	34.95	41.92	0.00			
19/4/2022 13:00	0.26	43.59	50.92	0.00			
19/4/2022 14:00	0.23	44.23	59.46	0.00			
19/4/2022 15:00	0.24	54.11	66.53	0.00			
19/4/2022 16:00	0.23	41.27	69.18	0.00	0.43	16.38	
19/4/2022 17:00	0.25	32.59	85.01	0.00			
19/4/2022 18:00	0.33	19.77	109.01	10.32			
19/4/2022 19:00	0.34	12.97	87.62	2.96			
19/4/2022 20:00	0.52	9.09	100.86	20.46			
19/4/2022 21:00	0.50	6.16	89.5	6.98			
19/4/2022 22:00	0.62	6.13	85.14	10.19			
19/4/2022 23:00	0.66	3.03	67.28	1.39			

Photos: Ambient Air Monitoring Station at AQ2 (05/04/2022 to 11/04/2022)

Photos: Ambient Air Monitoring Station at AQ3 (13/04/2022 to 19/04/2022)

Appendix 7B: Photographic Log of Ambient Air Monitoring

Details	Photograph
Photograph ID: 1 **Photo Location:** At an open space outside the training facility and dormitory of Home Team Academy **Survey Date:** 28 March 2022 **Comments:** Ambient air quality baseline monitoring at AQ1 from 28 Mar to 4 Apr 2022.	No photography allowed
Photograph ID: 2 Photo Location: At an open space between Block 461 and Block 460 Choa Chu Kang Avenue 4 **Survey Date:** 5 Apr 2022 **Comments:** Ambient air quality baseline monitoring at AQ2 from 5 Apr to 12 Apr 2022.	
Photograph ID: 3 **Photo Location:** At an open space between Concorde Primary School and multi-story carpark block 446 **Survey Date:** 13 Apr 2022 **Comments:** Ambient air quality baseline monitoring at at AQ3 from 13 Apr to 19 Apr 2022	

Appendix 7C: Modified RIAM for Ambient Air Quality

Assessment Criteria and Impact Evaluation Method for Construction Phase (Unmitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Fugitive Dust Emissions	Outside Local	2	Negative	-1	High	3	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-12	11	-132	Moderate negative impact
Exhaust Emission from Fuel Burning Equipment/ Machinery/ Vehicle	Outside Local	2	Negative	-1	Medium	2	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-8	11	-88	Minor negative impact

Assessment Criteria and Impact Evaluation Method for Construction Phase (Mitigated)

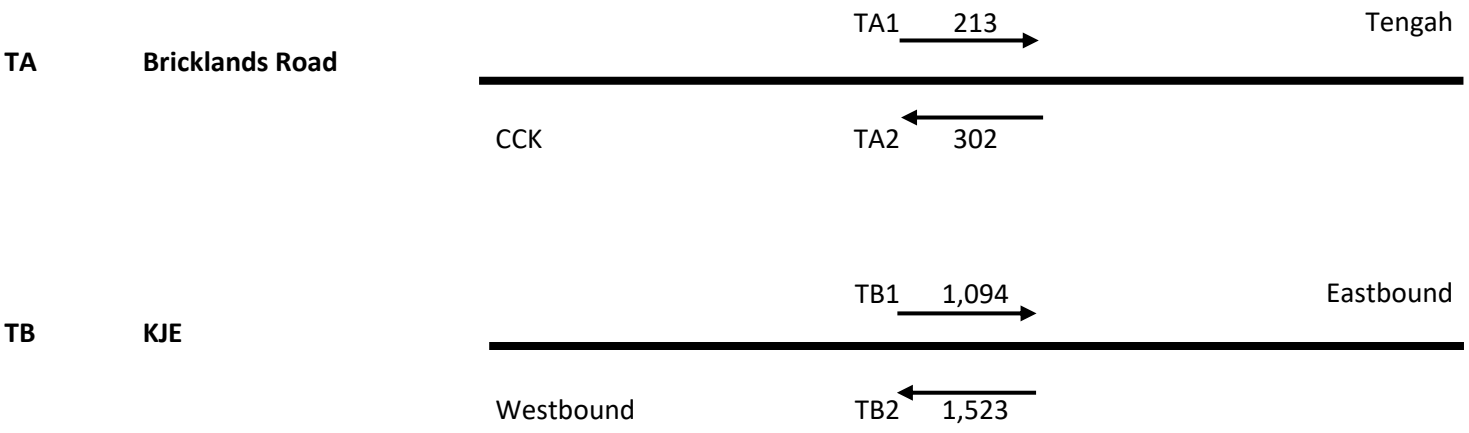
Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Fugitive Dust Emissions	Outside Local	2	Negative	-1	Medium	2	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-8	11	-88	Minor negative impact
Exhaust Emission from Fuel Burning Equipment/ Machinery/ Vehicle	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact

Assessment Criteria and Impact Evaluation Method for Operation Phase (Unmitigated)

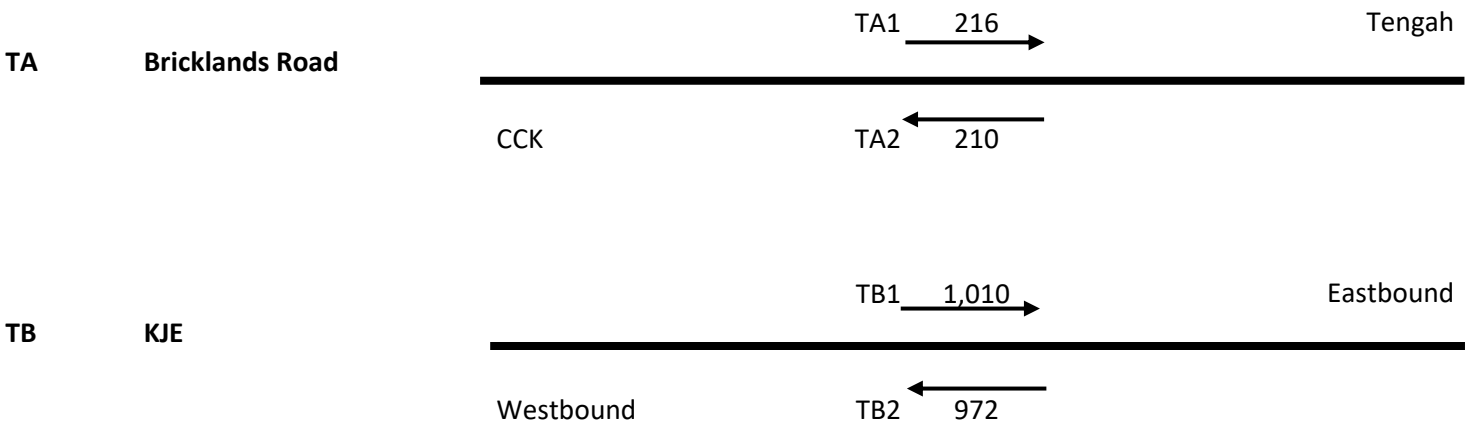
Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Fugitive Dust Emissions	Local	1	Negative	-1	Medium	2	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-2	9	-18	Slight negative impact
Exhaust Emission from Fuel Burning Equipment/ Machinery/ Vehicle	Local	1	Negative	-1	Low	1	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-1	9	-9	Slight negative impact

Appendix 8A: Traffic Count Results

AM Peaks

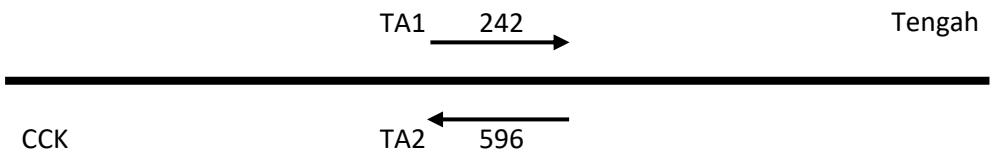

TA
Bricklands Road
TA1
213
Tengah
CCK
TA2
302
TB
KJE
TB1
1,094
Eastbound
Westbound
TB2
1,523

Noon

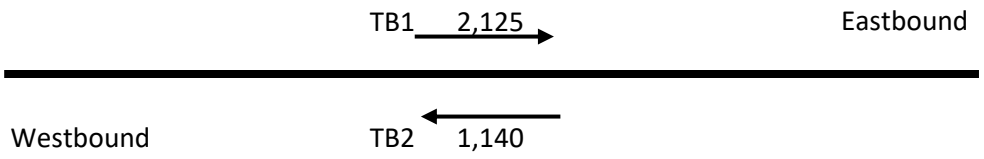

TA
Bricklands Road
TA1
216
Tengah
CCK
TA2
210
TB
KJE
TB1
1,010
Eastbound
Westbound
TB2
972

PM Peaks

TA **Bricklands Road**



TB **KJE**



TA

Bricklands Road

PCU Factor	
Motorcyles (MC)	0.7
Passenger cars and vans (C&V)	1
Light good vehicles (LGV)	1.5
Heavy good vehicles (HGV)	2.75
Bus - Small (B-S)	1.6
Bus - Large (B-L)	2.5
Bus - Articulates (B-A)	2.9

AM Peak

Time			TA1 - Tengah								TA2 - CCK							
			MC	CARS	LGV	HGV	Bus - Small	Bus - Large	Bus - A & DD	IN PCU	MC	CARS	LGV	HGV	Bus - Small	Bus - Large	Bus - A & DD	IN PCU
8:15	to	8:30	63	72	19	14	2	6	4	213	34	188	25	8	3	9	1	302

Noon Non Peak

Time			TA1 - Tengah								TA2 - CCK							
			MC	CARS	LGV	HGV	Bus - Small	Bus - Large	Bus - A & DD	IN PCU	MC	CARS	LGV	HGV	Bus - Small	Bus - Large	Bus - A & DD	IN PCU
12:00	to	12:15	31	133	23	4	0	5	1	216	14	154	15	5	1	2	1	210

PM Peak

Time			TA1 - Tengah								TA2 - CCK							
			MC	CARS	LGV	HGV	Bus - Small	Bus - Large	Bus - A & DD	IN PCU	MC	CARS	LGV	HGV	Bus - Small	Bus - Large	Bus - A & DD	IN PCU
18:00	to	18:15	40	135	24	11	3	3	0	242	91	408	53	8	3	5	2	596

TB

KJE

PCU Factor	
Motorcyles (MC)	0.7
Passenger cars and vans (C&V)	1
Light good vehicles (LGV)	1.5
Heavy good vehicles (HGV)	2.75
Bus - Small (B-S)	1.6
Bus - Large (B-L)	2.5
Bus - Articulates (B-A)	2.9

AM Peak

Time			TB1 - Eastbound								TB2 - Westbound							
			MC	C&V	LGV	HGV	B-S	B-L	B-A	IN PCU	MC	CARS	LGV	HGV	B-S	B-L	B-A	IN PCU
8:30	to	8:45	56	554	198	25	10	42	5	1094	191	667	203	142	4	7	1	1523

Noon Non Peak

Time			TB1 - Eastbound								TB2 - Westbound							
			MC	C&V	LGV	HGV	B-S	B-L	B-A	IN PCU	MC	CARS	LGV	HGV	B-S	B-L	B-A	IN PCU
12:00	to	12:15	25	419	161	115	0	4	2	1010	23	393	154	115	2	4	1	972

PM Peak

Time			TB1 - Eastbound								TB2 - Westbound							
			MC	C&V	LGV	HGV	B-S	B-L	B-A	IN PCU	MC	CARS	LGV	HGV	B-S	B-L	B-A	IN PCU
17:30	to	17:45	256	1277	212	75	7	51	2	2125	140	535	177	70	4	17	0	1140

Appendix 8B: Noise Monitoring Report

ENSSCOM
Improving Your Workplace Safety & Health

CONFIDENTIAL

BASELINE NOISE SURVEY REPORT

NOISE MONITORING ENVIRONMENTAL WORK

REPORT REFERENCE NO: - 22050608/nms/ch2m/DE170/ptN1

For

CH2M HILL SINGAPORE PTE LTD

150 Beach Road, Gateway West 34th Floor, Singapore 189720

Project Location:
Along KJE front of Home Team Academy

Attention:
Ms Catherine Baldedara

Project Title.:
DE170

Monitoring Location:
Home Team Academy Dormitory Ground Level

Date of Monitoring:
06 April 2022 - 13 April 2022

Date of Report:
06 May 2022

Report is issued under the following conditions:

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1.0 INTRODUCTION

ENSSCOM PTE LTD was commissioned by:

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

The purpose of this survey was to assess the current acoustical environment to establish the baseline background noise level generated before start of construction activities for
Project Title - DE170

The survey is conducted in accordance to the Construction Noise control Guideline on NEA's permissible noise levels for construction sites and industrial premises.

2.0 NOISE SURVEY CONDITION

Report Reference No: 22050608/nms/ch2m/DE170/ptN1

Date of Report: 6-May-2022

Survey On: 6-Apr-2022 (0700hrs) to 13-Apr-2022 (0700hrs)

Operating Condition of Site: All operations were under normal conditions during the noise survey. Construction activities have not begun during period of noise monitoring.

Noise survey was conducted using accepted standard procedures and appropriate sound measuring equipment, which is properly calibrated to ensure accuracy.

All noise measurements were made in terms of A-weighted equivalent continuous sound pressure level in LAeq,T over a period of time T. For example, LAeq,5min are the equivalent sound pressure level measured over a 5-minutes time.

Noise survey was conducted for a full continuous twenty-four (24) hours, Seven (7) days, for **One (1) monitoring points/location**. The noise levels emitted were monitored accordingly and recorded.

The survey is conducted by qualified noise monitoring personnel and reference to Appendix C for their certificate.

3.0 INSTRUMENTS

Monitoring instrument was positioned at between 1.8 meters to 3 meters in height from the floor (Ground Level), Mid Level (5 – 6 storey building height) Or High Level (Roof Level). Overall noise distribution was fairly homogenous throughout the duration of noise survey.

Sound Level Meter used complies and conform to the minimum requirements of a Type 1/Class 1 instrument specified in the International Electrotechnical Commission (IEC) publications of 60651 and 60804.

Before and after the noise measurements, the sound level meter is calibrated to verify the accuracy of the instrument.

3.1 Sound Level Meters

CIRRUS RESEARCH plc, Model: CR191SG
Class 1 Data Logging Sound Level Meter
Serial Number: **G068914**

3.2 Acoustic Calibrator

CIRRUS RESEARCH plc, Model: CR515
Acoustic Calibrator
Serial Number: **60614**

Acoustic Pressure level:	94.01	dB	(reference 20uPa)
Step +20dB:	113.93	dB	
Nominal Frequency:	992	Hz	

The calibration certificate of the momnitoring instrument can be found in Appendix D

4.0 NOISE SURVEY TERMS

4.1 A Weighting
A standard weighting of the audible frequencies designed to reflect the response of the human ear to noise.

4.2 Acoustic Calibrator
An instrument that provides a reference noise source that is used to calibrate and check the performance of a Sound Level Meter.

4.3 Broadband
Noise Measurements using parameters, which include all the audible noise

4.4 dB(A)
Decibels A Weighted

4.5 Decibel (dB)
The units of sound level and noise exposure measurement

4.6 Fast Time Weighting
A standard time weighting applied by the Sound Level Meter

4.7 IEC 60651:1979
The International Standard for Sound Level Meters

4.8 IEC 60804:1984
The International Standard for Integrating & Integrating-Averaging Sound Level Meters

4.9 IEC 61260:1995
The International Standard for 1:1 Octave & 1:3 Octave Band Filters

4.10 IEC 61672-1:2003
The International Standard for Sound Level Meter and Integrating Averaging Sound Level Meters that replaces both IEC 60651 and IEC 60804

4.11 Integrating Averaging Sound Level Meter
A Sound Level Meter which accumulates the total sound energy over a measurement period and calculates an average

4.12 LAeq,t
Equivalent continuous sound pressure level. A measure of the average sound pressure level during a period of time, t, in dB with 'A' weighting.

4.13 Sound Level
Sound Pressure Level with a Frequency weighting, such as dB(A)

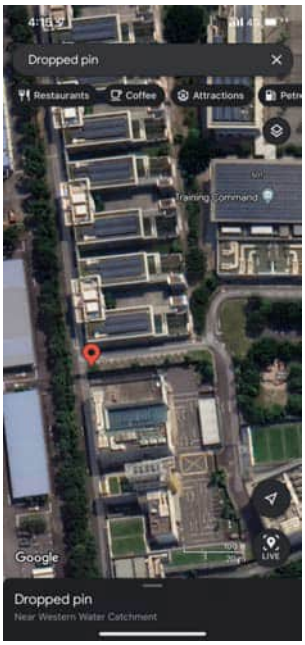
4.14 Sound Level Meter
An instrument for measuring various noise parameters

4.15 Sound Pressure Level, SPL.
The basic measure of noise loudness, expressed in decibels

5.0 SURVEYING LOCATIONS

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours, Seven (7) days noise monitoring at the boundary of proposed construction site. (Refer to Appendix A for instrument layout plan)

Possible noise contribution source and occurrence:

NOISE MONITORING LOCATION	NOISE SOURCE	OCCURRENCE
Point 1: Home Team Academy (Ground Level) (No Photos - Restricted Area) 	Vehicle Traffic	High - Along KJE

Note: The above-mentioned noise sources may be limited and there are possible other noise sources not detected during the time of our site survey. For example, possible noise sources can be from occasional aircraft noise, or other activities nearby to the monitoring points.

6.0 NOISE SURVEY RESULTS

The noise survey was carried out in accordance with the Environmental Pollution Control Act (Chapter 94A, Section 77(1)), Environmental Pollution Control (Control of Noise at Construction Sites) Regulations, 1999.

Monday to Saturday

Types of Affected Building	Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)		
	7am - 7pm	**7pm - 10pm**	**10pm - 7am**
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	60 (LEQ 12hr)	50 (LEQ 12hr)	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	**90 (Leq 5min)**	**70 (Leq 5min)**	**55 (Leq 5min)**
	75 (LEQ 12hr)	**65** (LEQ 1hr)	**55** (LEQ 1hr)
(c) Buildings (other than those in Paragraphs (a)and (b) above	90 (Leq 5min)	70 (Leq 5min)	70 (Leq 5min)
	75 (LEQ 12hr)	65 (LEQ 12hr)	

Sunday and Public Holidays

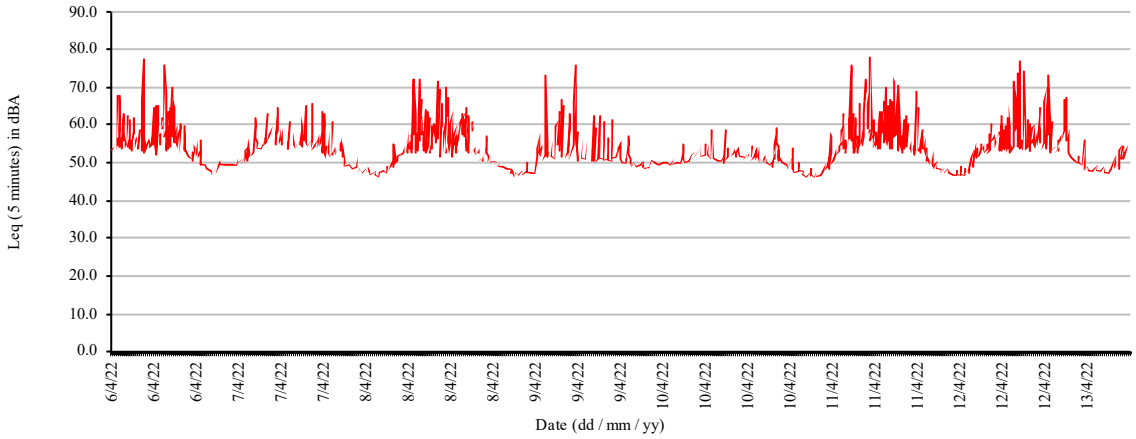
Types of Affected Building	Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)		
	7am - 7pm	**7pm - 10pm**	**10pm - 7am**
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	60 (LEQ 12hr)	50 (LEQ 12hr)	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	**75 (Leq 5min)**	**55 (Leq 5min)**	**55 (Leq 5min)**
	75 (LEQ 12hr)	-	-
(c) Buildings (other than those in Paragraphs (a)and (b) above	90 (Leq 5min)	70 (Leq 5min)	70 (Leq 5min)
	75 (LEQ 12hr)	65 (LEQ 12hr)	

Note:
No Work Rule on Sundays and Public Holidays
In addition to the settings of the permissible noise limits, NEA has also implemented a rule on prohibition of work on Sundays and Public Holidays (PH) for construction sites located within 150m away from residential premises and noise sensitive premises as follows:
Site Established from 1 September 2011. No work is allowed from 10.00pm on Sat/eve of PH to 7.00am on the following Mon/day after the PH. (For details, please refer to Appendix B)

Survey Results for monitoring point 1 from period : 6-Apr-2022 to 13-Apr-2022

Location : Home Team Academy Dormitory Ground Level

Leq (5 Minutes) Plotted Against Date of Monitoring



Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 5 min in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 5min db (A)
No. NM-1		From		To			
Home Team Academy Dormitory Ground Level	Wed	6/4/22	0700	6/4/22	1900	**77.3**	90
	Wed	6/4/22	1900	6/4/22	2200	**59.8**	70
	Wed/Thu	6/4/22	2200	7/4/22	0700	**62.0**	55
	Thu	7/4/22	0700	7/4/22	1900	**65.7**	90
	Thu	7/4/22	1900	7/4/22	2200	**61.0**	70
	Thu/Fri	7/4/22	2200	8/4/22	0700	**55.6**	55
	Fri	8/4/22	0700	8/4/22	1900	**72.0**	90
	Fri	8/4/22	1900	8/4/22	2200	**57.2**	70
	Fri/Sat	8/4/22	2200	9/4/22	0700	**72.9**	55
	Sat	9/4/22	0700	9/4/22	1900	**76.0**	90
	Sat	9/4/22	1900	9/4/22	2200	**56.9**	70
	Sat/Sun	9/4/22	2200	10/4/22	0700	**54.8**	55
	Sun	10/4/22	0700	10/4/22	1900	**58.9**	75
	Sun	10/4/22	1900	10/4/22	2200	**59.1**	55
	Sun/Mon	10/4/22	2200	11/4/22	0700	**58.0**	55
	Mon	11/4/22	0700	11/4/22	1900	**77.9**	90
	Mon	11/4/22	1900	11/4/22	2200	**68.7**	70
	Mon/Tue	11/4/22	2200	12/4/22	0700	**56.2**	55
	Tue	12/4/22	0700	12/4/22	1900	**76.8**	90
	Tue	12/4/22	1900	12/4/22	2200	**67.2**	70
	Tue/Wed	12/4/22	2200	13/4/22	0700	**55.9**	55

Table 6.1 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 5 min

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 1 hr in Leq db(A) for the specific period	Maximum Noise Level permitted for construction sites Leq 1 hr db (A)
No. NM-1		From		To			
Home Team Academy Dormitory Ground Level	Wed	6/4/22	1900	6/4/22	2200	**53.8**	65
	Wed	6/4/22	2200	7/4/22	0700	**55.8**	55
	Thu	7/4/22	1900	7/4/22	2200	**54.3**	65
	Thu	7/4/22	2200	8/4/22	0700	**51.3**	55
	Fri	8/4/22	1900	8/4/22	2200	**53.0**	65
	Fri	8/4/22	2200	9/4/22	0700	**62.5**	55
	Sat	9/4/22	1900	9/4/22	2200	**52.3**	65
	Sat	9/4/22	2200	10/4/22	0700	**51.5**	55
	Sun	10/4/22	1900	10/4/22	2200	**54.5**	-
	Sun	10/4/22	2200	11/4/22	0700	**52.7**	-
	Mon	11/4/22	1900	11/4/22	2200	**60.6**	65
	Mon	11/4/22	2200	12/4/22	0700	**53.1**	55
	Tue	12/4/22	1900	12/4/22	2200	**61.6**	65
	Tue	12/4/22	2200	13/4/22	0700	**53.0**	55

Table 6.2 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 1 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 12 hr in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 12 hr db (A)
No. NM-1		From		To			
Home Team Academy Dormitory Ground Level	Wed	6/4/22	0700	6/4/22	1900	**62.3**	75
	Wed	6/4/22	1900	7/4/22	0700	**51.7**	-
	Thu	7/4/22	0700	7/4/22	1900	**57.0**	75
	Thu	7/4/22	1900	8/4/22	0700	**50.5**	-
	Fri	8/4/22	0700	8/4/22	1900	**61.9**	75
	Fri	8/4/22	1900	9/4/22	0700	**54.0**	-
	Sat	9/4/22	0700	9/4/22	1900	**58.5**	75
	Sat	9/4/22	1900	10/4/22	0700	**50.4**	-
	Sun	10/4/22	0700	10/4/22	1900	**52.0**	75
	Sun	10/4/22	1900	11/4/22	0700	**50.3**	-
	Mon	11/4/22	0700	11/4/22	1900	**63.5**	75
	Mon	11/4/22	1900	11/4/22	0700	**53.7**	-
	Tue	11/4/22	0700	12/4/22	1900	**62.2**	75
	Tue	12/4/22	1900	13/4/22	0700	**53.8**	-

Table 6.3 Summary of Noise Monitoring Results at LEQ 12 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over specific period in Leq db(A)	Maximum Noise Level permitted for construction sites in db (A)
No. NM-1		From		To			
Home Team Academy Dormitory Ground Level	Wed	6/4/22	700	6/4/22	1900	**62.3**	90 (Leq5min) 75 (Leq12hrs)
	Wed	6/4/22	1900	6/4/22	2200	**53.2**	70 (Leq5min) 65 (Leq 1hr)
	Wed	6/4/22	2200	7/4/22	0000	**48.7**	55 (Leq5min) 55 (Leq 1hr)
	Thu	7/4/22	0000	7/4/22	700	**51.6**	55 (Leq5min) 55 (Leq 1hr)
	Thu	7/4/22	700	7/4/22	1900	**57.0**	90 (Leq5min) 75 (Leq12hrs)
	Thu	7/4/22	1900	7/4/22	2200	**53.3**	70 (Leq5min) 65 (Leq 1hr)
	Thu	7/4/22	2200	8/4/22	0000	**48.9**	55 (Leq5min) 55 (Leq 1hr)
	Fri	8/4/22	0000	8/4/22	700	**49.0**	55 (Leq5min) 55 (Leq 1hr)
	Fri	8/4/22	700	8/4/22	1900	**61.9**	90 (Leq5min) 75 (Leq12hrs)
	Fri	8/4/22	1900	8/4/22	2200	**52.2**	70 (Leq5min) 65 (Leq 1hr)
	Fri	8/4/22	2200	9/4/22	0000	**49.6**	55 (Leq5min) 55 (Leq 1hr)
	Sat	9/4/22	0000	9/4/22	700	**55.2**	55 (Leq5min) 55 (Leq 1hr)
	Sat	9/4/22	700	9/4/22	1900	**58.5**	90 (Leq5min) 75 (Leq12hrs)
	Sat	9/4/22	1900	9/4/22	2200	**51.0**	70 (Leq5min) 65 (Leq 1hr)
	Sat	9/4/22	2200	10/4/22	0000	**49.0**	55 (Leq5min) 55 (Leq 1hr)
	Sun	10/4/22	0000	10/4/22	700	**50.4**	55 (Leq5min) 55 (Leq 1hr)
	Sun	10/4/22	700	10/4/22	1900	**52.0**	75 (Leq5min) 75 (Leq 1hr)
	Sun	10/4/22	1900	10/4/22	2200	**52.3**	55 (Leq5min)
	Sun	10/4/22	2200	11/4/22	0000	**49.3**	55 (Leq5min)
	Mon	11/4/22	0000	11/4/22	700	**49.3**	55 (Leq5min)
	Mon	11/4/22	700	11/4/22	1900	**63.5**	90 (Leq5min) 75 (Leq12hrs)
	Mon	11/4/22	1900	11/4/22	2200	**58.1**	70 (Leq5min) 65 (Leq 1hr)
	Mon	11/4/22	2200	12/4/22	0000	**49.5**	55 (Leq5min) 55 (Leq 1hr)
	Tue	12/4/22	0000	12/4/22	700	**49.9**	55 (Leq5min) 55 (Leq 1hr)
	Tue	12/4/22	700	12/4/22	1900	**62.2**	90 (Leq5min) 75 (Leq12hrs)
	Tue	12/4/22	1900	12/4/22	2200	**58.2**	70 (Leq5min) 65 (Leq 1hr)
	Tue	12/4/22	2200	12/4/22	0000	**50.3**	55 (Leq5min) 55 (Leq 1hr)
	Wed	13/4/22	0000	13/4/22	0700	**49.9**	55 (Leq5min) 55 (Leq 1hr)

Table 6.4 Summary of Noise Monitoring Results at Continuous Equivalent of LEQ for specific period

7.0 SUMMARY

The purpose of this survey was to assess the current acoustical environment to establish the background noise level generated over One (1) monitoring point/location for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title

DE170

The location of the nearest Noise Receiver (NSR) : **Home Team Academy Dormitory Ground Level**

The findings show that,

The ambience noise at NSR point 1 Home Team Academy Dormitory (Ground Level), falls within the Permissible limits stated in the NEA Guideline on construction noise control for the time period between 7am to 10pm (Leq5min & Leq12hrs) (Monday to Saturday) most of the time.

The Leq 5min exceeds the NEA noise limit (55dBa) for the period 1900hrs to 2200hrs on weekend (Sunday)
The Leq 5min exceeds the NEA noise limit (55dBa) for the period 2200hrs to 0700hrs on weekdays and weekend.
The Leq 1hr exceeds the NEA noise limit (55dBa) for the period 2200hrs to 0700hrs on weekdays.

* Refer to Appendix E for full noise data report.

We recommend submitting an appeal to NEA to adjust the Noise Limit as in table 6.5 for NSR Point 1 Home Team Academy Dormitory (Ground Level)

Background Noise Correction Factor

The adjusted value for the maximum noise level shall be obtained by adding the correction factor corresponding to the difference between the maximum permitted level and the background noise level, set out in the Table below, to the higher of the 2 noise levels.

Difference between 2 noise levels in decibels (A)	Correction factor in decibels (A)
a) Below 2	3
b) 2 to less than 4	2
c) 4 to less than 10	1
d) 10 and above	NIL

Proposed New Permissible Noise Level for monitoring point: **Home Team Academy Dormitory Ground Le**

Period	Noise Limit	*Equivalent continous sound level over period in Leq dB(A) - Background Noise	Difference	Correction Factor	Proposed Adjusted New Permissible Level (dBA)
7am to 7pm (Monday to Saturday)	90 (Leq5min)	63.5	26.5	0	90 (Leq5min)
	75 (Leq 12hr)	63.5	11.5	0	75 (Leq 12hr)
7pm to 10pm (Monday to Saturday)	70 (Leq 5min)	58.2	11.8	0	70 (Leq 5min)
	65 (Leq 1 hr)	58.2	6.8	1	66 (Leq 1 hr)
10pm to 12am (Monday to Saturday)	55 (Leq 5min)	50.3	4.7	1	56 (Leq 5min)
	55 (Leq 1 hr)	50.3	4.7	1	56 (Leq 1 hr)
12am to 7am (Monday to Saturday)	55 (Leq 5min)	55.2	-0.2	3	58 (Leq 5min)
	55 (Leq 1 hr)	55.2	-0.2	3	58 (Leq 1 hr)
7am to 7pm (Sunday)	75 (Leq5min)	52.0	23.0	0	75 (Leq5min)
	75 (Leq 12hr)	52.0	23.0	0	75 (Leq 12hr)
7pm to 10pm (Sunday)	55 (Leq 5min)	52.3	2.7	2	57 (Leq 5min)
10pm to 12am (Sunday)	55 (Leq 5min)	49.3	5.7	1	56 (Leq 5min)
12am to 7am (Sunday)	55 (Leq 5min)	50.4	4.6	1	56 (Leq 5min)

* The highest equivalent continuous sound level in Leq dB(A) between Monday to Saturday is taken for calculating the adjusted new permissible level for each period.

Table 6.5 Proposed New Permissible Noise Level

8.0 CONFIRMATION

We, ENSSCOM PTE LTD, certify that the information given is correct. The noise survey was conducted for

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title
DE170

was carried out as described in this report and the results resented herein.

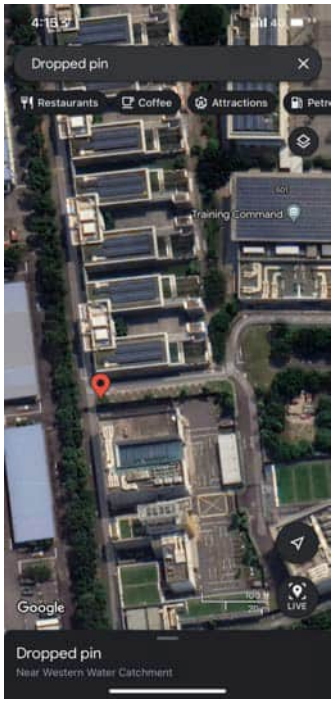
Date of Monitoring:

From 6/4/22 (0700hrs) to 13/4/22 (0700hrs)

Hoo Hian Choon (Mr)
Noise Monitoring Consultant
6-May-2022

APPENDIX A : INSTRUMENT LAYOUT PLAN

NOISE METER



(No photos - Restricted Area)

APPENDIX B: NEA CONSTRUCTION NOISE CONTROL GUIDELINE

Construction Noise Control

Maximum Permissible Noise Levels for Construction Work Commenced on or after 1st October 2007

Noise Regulation

Mondays to Saturdays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	65 dBA (Leq 1 hr)	55 dBA (Leq 1 hr)
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

Sundays and Public Holidays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	-	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

APPENDIX C: NOISE MONITORING OFFICER CERTIFICATES

S/No: 02/20/159

Acoustical Laboratory Pte Ltd
CENTRE FOR ENVIRONMENTAL CONSULTATION AND TRAINING

Certificate of Competence

This is to certify that

Hoo Hian Choon

has attended and passed an examination for a course on

Noise Monitoring

held between 22nd May 2002 and 24th May 2002

Acoustical Laboratory is approved by the Ministry of Labour as a Training Centre for the Noise Monitoring Course

Tan Kok Yang
Course Co-ordinator

Koh L. B.
Managing Director

NANYANG TECHNOLOGICAL UNIVERSITY

This is to certify that

Hoo Hian Choon

has successfully completed the 2½-day course

Industrial Noise Control

Seah Ben Hun
Director
Centre for Continuing Education

27 August 2010

APPENDIX D: INSTRUMENT CALIBRATION CERTIFICATES

Cirrus Research plc
dedicated to noise measurement

ENSSCOM
Improving Your Workplace Safety & Health

Certificate of Calibration

Equipment Details

Instrument Manufacturer	Cirrus Research plc
Instrument Type	CR: 191 SG
Description	Sound Level Meter
Serial Number	G068914

Calibration Procedure

The instrument detailed above have been calibrated to the publish test and calibration data as detailed in the instrument hand book, using the techniques recommended in the latest revisions of the International Standards IEC 61672-1:2013, IEC 61672-1:2002, IEC 60651:1979, IEC 60804: 2001, IEC 61260:1995, IEC 60942:2003, IEC 60942:1997, IEC 61252:1993, ANSI S1.4-1983, ANSI S1.11-1986 and ANSI S1.43-1997 where applicable.
Sound Level Meters: All Calibration procedures were carried out by substituting the microphone capsule with a suitable electrical signal, apart from the final acoustic calibration.

Calibration Traceability

The instrument detailed above was calibrated against the calibration laboratory standards held by Cirrus Research plc. These are traceable to International Standards {A.0.6}. The standards are:

Multi Acoustic Calibrator	B & K 4226	Serial Number	3041345	Calibration Ref.	551220084820779
Microphone Type	MK 224	Serial Number	214953B	Calibration Ref.	162361

Calibrated by

Calibration Date 7 March 2022

Calibration Certificate Number 228072

This Calibration Certificate is valid for 12 months from the date above.

Contact Your Local Authorised Distributor for Product Enquiries & Calibration Services

ENSSCOM PTE LTD
1015, Geylang East Ave 3 #04-105 Singapore 389730
Company Reg. No. 200720176H GST Reg. No. 200720176H
T +65 6743 9882 F +65 6743 9887
W www.ensscom.com E enquiry@ensscom.com

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **07 September 2021** CERTIFICATE NUMBER **162363**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Page 1 of 2

Approved signatory
N.Smith
Electronically signed:

Sound Calibrator : IEC 60942:2003

Instrument information

Manufacturer: Cirrus Research plc **Notes:**

Model: CR:515

Serial number: 60614

Class: 1

Test summary

Date of calibration: 07 September 2021

The sound calibrator detailed above has been calibrated to the published data as described in the operating manual and in the half-inch configuration. The procedures and techniques used are as described in IEC60942_2003 Annex B – Periodic Tests and three determinations of the sound pressure level, frequency and total distortion were made.

The sound pressure level was measured using a WS2F condenser microphone type MK:224 manufactured by Cirrus Research plc.

The results have been corrected to the reference pressure of 101.33 kPa using the manufacturer's data.

The manufacturer's product information indicates that this model of sound calibrator has been formally pattern approved to IEC60942_2003 Annex A to Class 1. This has been confirmed with the PhysikalischTechnische Bundesanstalt (PTB), Laboratoire National d'Essais (LNE) and APPLUS.

Notes:

This certificate provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. The results within this certificate relate only to the items calibrated. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%.

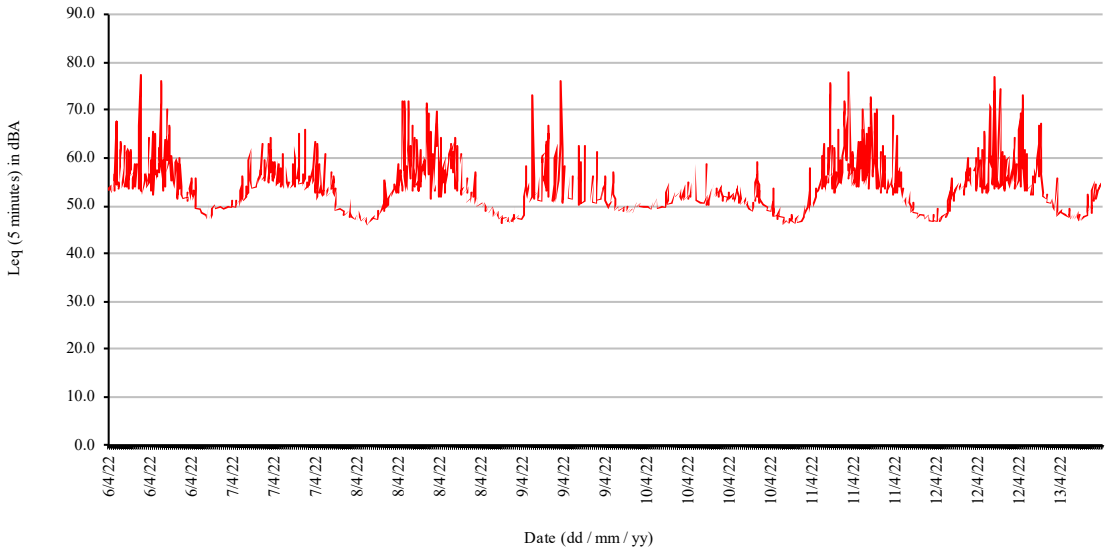
APPENDIX E

CONSTRUCTION SITE NOISE MONITORING DATA AND CHART

NAME OF COMPANY	CH2M HILL Singapore Pte Ltd
SITE LOCATION	Along KJE front of Home Team Academy
REPORT REFERENCE	06/04/2022 - 13/04/2022

MODE	Environment	FREQUENCY WEIGHTING	A

Leq (5 Minutes) Plotted Against Date of Monitoring



NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE front of Home Team Academy								
REPORT REFERENCE			06/04/2022 - 13/04/2022								
Start	6/4/22		7:05		**Leq12h**	62.3			Weighting		A
End	6/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
6/4/22	7:05	53.2			6/4/22	11:05	55.9		6/4/22	15:05	55.1
6/4/22	7:10	53.4			6/4/22	11:10	53.7		6/4/22	15:10	57.4
6/4/22	7:15	53.4			6/4/22	11:15	54.2		6/4/22	15:15	56.3
6/4/22	7:20	53.8			6/4/22	11:20	58.8		6/4/22	15:20	60.1
6/4/22	7:25	54.4			6/4/22	11:25	53.9		6/4/22	15:25	59.0
6/4/22	7:30	53.5			6/4/22	11:30	54.8		6/4/22	15:30	62.1
6/4/22	7:35	53.8			6/4/22	11:35	55.6		6/4/22	15:35	56.9
6/4/22	7:40	52.7			6/4/22	11:40	53.2		6/4/22	15:40	58.8
6/4/22	7:45	53.2			6/4/22	11:45	53.2		6/4/22	15:45	57.3
6/4/22	7:50	52.9			6/4/22	11:50	58.8		6/4/22	15:50	71.5
6/4/22	7:55	56.2			6/4/22	11:55	57.3		6/4/22	15:55	75.9
6/4/22	8:00	53.3			6/4/22	12:00	61.3		6/4/22	16:00	68.5
6/4/22	8:05	56.7			6/4/22	12:05	53.4		6/4/22	16:05	58.9
6/4/22	8:10	55.1			6/4/22	12:10	57.9		6/4/22	16:10	55.5
6/4/22	8:15	67.7			6/4/22	12:15	66.9		6/4/22	16:15	53.2
6/4/22	8:20	54.5			6/4/22	12:20	77.3		6/4/22	16:20	59.6
6/4/22	8:25	67.7			6/4/22	12:25	72.6		6/4/22	16:25	53.9
6/4/22	8:30	59.7			6/4/22	12:30	53.0		6/4/22	16:30	54.5
6/4/22	8:35	53.9			6/4/22	12:35	56.6		6/4/22	16:35	63.6
6/4/22	8:40	54.7			6/4/22	12:40	54.4		6/4/22	16:40	54.1
6/4/22	8:45	53.7			6/4/22	12:45	52.5		6/4/22	16:45	64.5
6/4/22	8:50	56.6			6/4/22	12:50	52.1		6/4/22	16:50	63.5
6/4/22	8:55	54.1			6/4/22	12:55	52.6		6/4/22	16:55	59.5
6/4/22	9:00	63.2			6/4/22	13:00	52.5		6/4/22	17:00	70.1
6/4/22	9:05	61.6			6/4/22	13:05	55.2		6/4/22	17:05	57.2
6/4/22	9:10	55.8			6/4/22	13:10	56.5		6/4/22	17:10	59.6
6/4/22	9:15	57.7			6/4/22	13:15	55.9		6/4/22	17:15	66.8
6/4/22	9:20	54.9			6/4/22	13:20	57.1		6/4/22	17:20	64.4
6/4/22	9:25	53.8			6/4/22	13:25	56.5		6/4/22	17:25	62.1
6/4/22	9:30	54.2			6/4/22	13:30	55.1		6/4/22	17:30	55.5
6/4/22	9:35	53.7			6/4/22	13:35	53.6		6/4/22	17:35	56.7
6/4/22	9:40	54.1			6/4/22	13:40	53.8		6/4/22	17:40	56.0
6/4/22	9:45	56.5			6/4/22	13:45	55.0		6/4/22	17:45	60.2
6/4/22	9:50	54.1			6/4/22	13:50	56.4		6/4/22	17:50	60.3
6/4/22	9:55	62.3			6/4/22	13:55	55.5		6/4/22	17:55	55.4
6/4/22	10:00	54.0			6/4/22	14:00	64.4		6/4/22	18:00	54.9
6/4/22	10:05	56.5			6/4/22	14:05	55.0		6/4/22	18:05	55.1
6/4/22	10:10	61.1			6/4/22	14:10	59.4		6/4/22	18:10	53.8
6/4/22	10:15	62.0			6/4/22	14:15	57.2		6/4/22	18:15	57.5
6/4/22	10:20	61.2			6/4/22	14:20	53.0		6/4/22	18:20	59.2
6/4/22	10:25	53.5			6/4/22	14:25	65.3		6/4/22	18:25	60.1
6/4/22	10:30	56.2			6/4/22	14:30	53.1		6/4/22	18:30	58.7
6/4/22	10:35	54.6			6/4/22	14:35	52.4		6/4/22	18:35	52.3
6/4/22	10:40	57.9			6/4/22	14:40	52.1		6/4/22	18:40	51.5
6/4/22	10:45	61.7			6/4/22	14:45	60.2		6/4/22	18:45	52.0
6/4/22	10:50	58.0			6/4/22	14:50	65.1		6/4/22	18:50	52.1
6/4/22	10:55	56.0			6/4/22	14:55	56.6		6/4/22	18:55	52.0
6/4/22	11:00	56.8			6/4/22	15:00	58.1		6/4/22	19:00	58.6

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE front of Home Team Academy										
REPORT REFERENCE			06/04/2022 - 13/04/2022										
Start	6/4/22		19:05		**Leq12h**	51.7				Weighting		A	
End	7/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
6/4/22	19:05	53.4			6/4/22	23:05	48.4			7/4/22	3:05	49.7	
6/4/22	19:10	59.8			6/4/22	23:10	48.2			7/4/22	3:10	49.6	
6/4/22	19:15	53.9			6/4/22	23:15	47.9			7/4/22	3:15	49.5	
6/4/22	19:20	53.5			6/4/22	23:20	48.0			7/4/22	3:20	49.7	
6/4/22	19:25	53.0			6/4/22	23:25	48.0			7/4/22	3:25	49.7	
6/4/22	19:30	52.3			6/4/22	23:30	48.6			7/4/22	3:30	49.5	
6/4/22	19:35	52.0			6/4/22	23:35	47.5			7/4/22	3:35	49.5	
6/4/22	19:40	51.8			6/4/22	23:40	47.4			7/4/22	3:40	49.5	
6/4/22	19:45	52.0			6/4/22	23:45	46.8			7/4/22	3:45	49.4	
6/4/22	19:50	51.5			6/4/22	23:50	50.5			7/4/22	3:50	49.6	
6/4/22	19:55	51.9			6/4/22	23:55	50.8			7/4/22	3:55	49.5	
6/4/22	20:00	51.1	53.8		6/4/22	0:00	47.2	48.4		7/4/22	4:00	51.0	49.7
6/4/22	20:05	51.3			7/4/22	0:05	47.6			7/4/22	4:05	49.8	
6/4/22	20:10	51.0			7/4/22	0:10	48.3			7/4/22	4:10	49.8	
6/4/22	20:15	51.9			7/4/22	0:15	48.4			7/4/22	4:15	49.6	
6/4/22	20:20	50.9			7/4/22	0:20	47.3			7/4/22	4:20	49.8	
6/4/22	20:25	52.9			7/4/22	0:25	48.1			7/4/22	4:25	50.3	
6/4/22	20:30	50.6			7/4/22	0:30	47.7			7/4/22	4:30	49.7	
6/4/22	20:35	55.1			7/4/22	0:35	47.6			7/4/22	4:35	50.9	
6/4/22	20:40	55.1			7/4/22	0:40	49.5			7/4/22	4:40	49.6	
6/4/22	20:45	53.7			7/4/22	0:45	50.1			7/4/22	4:45	49.9	
6/4/22	20:50	54.1			7/4/22	0:50	50.0			7/4/22	4:50	49.9	
6/4/22	20:55	50.9			7/4/22	0:55	50.5			7/4/22	4:55	50.1	
6/4/22	21:00	55.9	53.2		7/4/22	1:00	49.9	48.9		7/4/22	5:00	50.9	50.0
6/4/22	21:05	52.6			7/4/22	1:05	49.8			7/4/22	5:05	51.4	
6/4/22	21:10	52.2			7/4/22	1:10	49.6			7/4/22	5:10	50.0	
6/4/22	21:15	51.8			7/4/22	1:15	49.8			7/4/22	5:15	51.4	
6/4/22	21:20	53.2			7/4/22	1:20	49.5			7/4/22	5:20	53.1	
6/4/22	21:25	52.2			7/4/22	1:25	49.7			7/4/22	5:25	54.4	
6/4/22	21:30	51.2			7/4/22	1:30	49.9			7/4/22	5:30	50.5	
6/4/22	21:35	51.2			7/4/22	1:35	49.9			7/4/22	5:35	52.0	
6/4/22	21:40	55.6			7/4/22	1:40	49.6			7/4/22	5:40	**56.3**	
6/4/22	21:45	49.7			7/4/22	1:45	50.0			7/4/22	5:45	52.0	
6/4/22	21:50	55.9			7/4/22	1:50	49.9			7/4/22	5:50	51.6	
6/4/22	21:55	49.5			7/4/22	1:55	49.8			7/4/22	5:55	52.1	
6/4/22	22:00	49.2	52.5		7/4/22	2:00	49.7	49.8		7/4/22	6:00	51.1	52.5
6/4/22	22:05	48.9			7/4/22	2:05	49.6			7/4/22	6:05	51.4	
6/4/22	22:10	49.3			7/4/22	2:10	49.5			7/4/22	6:10	51.9	
6/4/22	22:15	49.6			7/4/22	2:15	49.9			7/4/22	6:15	54.2	
6/4/22	22:20	49.3			7/4/22	2:20	49.5			7/4/22	6:20	51.7	
6/4/22	22:25	49.4			7/4/22	2:25	49.5			7/4/22	6:25	52.0	
6/4/22	22:30	49.4			7/4/22	2:30	49.2			7/4/22	6:30	52.5	
6/4/22	22:35	49.6			7/4/22	2:35	49.3			7/4/22	6:35	52.7	
6/4/22	22:40	48.8			7/4/22	2:40	49.4			7/4/22	6:40	52.5	
6/4/22	22:45	48.4			7/4/22	2:45	49.6			7/4/22	6:45	52.6	
6/4/22	22:50	47.9			7/4/22	2:50	49.4			7/4/22	6:50	**59.7**	
6/4/22	22:55	48.2			7/4/22	2:55	49.8			7/4/22	6:55	**62.0**	
6/4/22	23:00	48.2	49.0		7/4/22	3:00	49.4	49.5		7/4/22	7:00	**56.6**	**55.8**

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE front of Home Team Academy								
REPORT REFERENCE			06/04/2022 - 13/04/2022								
Start	7/4/22		7:05		**Leq12h**	57.0			Weighting		A
End	7/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
7/4/22	7:05	55.3			7/4/22	11:05	59.3		7/4/22	15:05	55.5
7/4/22	7:10	54.7			7/4/22	11:10	56.4		7/4/22	15:10	64.9
7/4/22	7:15	53.7			7/4/22	11:15	55.1		7/4/22	15:15	55.5
7/4/22	7:20	53.8			7/4/22	11:20	59.5		7/4/22	15:20	54.7
7/4/22	7:25	53.8			7/4/22	11:25	54.7		7/4/22	15:25	54.4
7/4/22	7:30	54.1			7/4/22	11:30	54.1		7/4/22	15:30	53.9
7/4/22	7:35	54.1			7/4/22	11:35	54.4		7/4/22	15:35	54.9
7/4/22	7:40	53.9			7/4/22	11:40	54.3		7/4/22	15:40	54.1
7/4/22	7:45	53.6			7/4/22	11:45	55.1		7/4/22	15:45	54.1
7/4/22	7:50	53.7			7/4/22	11:50	58.6		7/4/22	15:50	54.7
7/4/22	7:55	53.9			7/4/22	11:55	54.6		7/4/22	15:55	55.9
7/4/22	8:00	54.3			7/4/22	12:00	55.1		7/4/22	16:00	56.6
7/4/22	8:05	54.5			7/4/22	12:05	58.0		7/4/22	16:05	53.9
7/4/22	8:10	55.7			7/4/22	12:10	53.9		7/4/22	16:10	55.8
7/4/22	8:15	56.1			7/4/22	12:15	55.0		7/4/22	16:15	65.7
7/4/22	8:20	54.6			7/4/22	12:20	54.0		7/4/22	16:20	53.3
7/4/22	8:25	55.6			7/4/22	12:25	54.5		7/4/22	16:25	52.9
7/4/22	8:30	56.6			7/4/22	12:30	53.5		7/4/22	16:30	53.0
7/4/22	8:35	55.2			7/4/22	12:35	60.8		7/4/22	16:35	54.2
7/4/22	8:40	56.4			7/4/22	12:40	54.3		7/4/22	16:40	54.9
7/4/22	8:45	57.3			7/4/22	12:45	53.9		7/4/22	16:45	53.8
7/4/22	8:50	56.7			7/4/22	12:50	53.7		7/4/22	16:50	53.7
7/4/22	8:55	62.8			7/4/22	12:55	58.2		7/4/22	16:55	54.5
7/4/22	9:00	55.3			7/4/22	13:00	57.7		7/4/22	17:00	56.0
7/4/22	9:05	55.7			7/4/22	13:05	54.7		7/4/22	17:05	53.7
7/4/22	9:10	54.8			7/4/22	13:10	54.7		7/4/22	17:10	53.9
7/4/22	9:15	56.2			7/4/22	13:15	54.9		7/4/22	17:15	56.1
7/4/22	9:20	57.4			7/4/22	13:20	55.2		7/4/22	17:20	57.8
7/4/22	9:25	57.7			7/4/22	13:25	55.2		7/4/22	17:25	57.8
7/4/22	9:30	59.7			7/4/22	13:30	53.6		7/4/22	17:30	54.5
7/4/22	9:35	55.1			7/4/22	13:35	54.8		7/4/22	17:35	54.1
7/4/22	9:40	55.0			7/4/22	13:40	54.2		7/4/22	17:40	55.4
7/4/22	9:45	55.1			7/4/22	13:45	55.3		7/4/22	17:45	58.0
7/4/22	9:50	55.2			7/4/22	13:50	55.4		7/4/22	17:50	63.5
7/4/22	9:55	60.4			7/4/22	13:55	53.6		7/4/22	17:55	52.9
7/4/22	10:00	57.4			7/4/22	14:00	53.7		7/4/22	18:00	53.8
7/4/22	10:05	63.1			7/4/22	14:05	54.3		7/4/22	18:05	53.6
7/4/22	10:10	54.9			7/4/22	14:10	58.6		7/4/22	18:10	59.9
7/4/22	10:15	55.9			7/4/22	14:15	54.9		7/4/22	18:15	63.0
7/4/22	10:20	61.6			7/4/22	14:20	62.4		7/4/22	18:20	52.6
7/4/22	10:25	56.8			7/4/22	14:25	59.9		7/4/22	18:25	52.0
7/4/22	10:30	58.5			7/4/22	14:30	54.1		7/4/22	18:30	51.1
7/4/22	10:35	64.4			7/4/22	14:35	56.2		7/4/22	18:35	54.6
7/4/22	10:40	55.1			7/4/22	14:40	55.3		7/4/22	18:40	52.7
7/4/22	10:45	55.2			7/4/22	14:45	58.1		7/4/22	18:45	53.0
7/4/22	10:50	59.1			7/4/22	14:50	58.7		7/4/22	18:50	58.8
7/4/22	10:55	56.0			7/4/22	14:55	55.8		7/4/22	18:55	52.8
7/4/22	11:00	54.7			7/4/22	15:00	56.7		7/4/22	19:00	52.2

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Along KJE front of Home Team Academy									
REPORT REFERENCE			06/04/2022 - 13/04/2022									
Start	7/4/22		19:05		**Leq12h**	50.5			Weighting		A	
End	8/4/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
7/4/22	19:05	52.8			7/4/22	23:05	48.2			8/4/22	3:05	46.1	
7/4/22	19:10	52.2			7/4/22	23:10	48.7			8/4/22	3:10	46.4	
7/4/22	19:15	51.8			7/4/22	23:15	48.6			8/4/22	3:15	47.2	
7/4/22	19:20	51.6			7/4/22	23:20	48.4			8/4/22	3:20	46.6	
7/4/22	19:25	53.2			7/4/22	23:25	48.8			8/4/22	3:25	46.8	
7/4/22	19:30	52.2			7/4/22	23:30	48.2			8/4/22	3:30	47.2	
7/4/22	19:35	61.0			7/4/22	23:35	48.3			8/4/22	3:35	47.4	
7/4/22	19:40	52.2			7/4/22	23:40	51.4			8/4/22	3:40	47.4	
7/4/22	19:45	52.0			7/4/22	23:45	47.6			8/4/22	3:45	47.1	
7/4/22	19:50	52.3			7/4/22	23:50	48.2			8/4/22	3:50	47.8	
7/4/22	19:55	54.2			7/4/22	23:55	48.5			8/4/22	3:55	47.4	
7/4/22	20:00	53.1	54.3		7/4/22	0:00	48.8	48.7		8/4/22	4:00	47.9	47.1
7/4/22	20:05	52.1			8/4/22	0:05	48.0			8/4/22	4:05	47.2	
7/4/22	20:10	52.0			8/4/22	0:10	47.7			8/4/22	4:10	47.3	
7/4/22	20:15	52.1			8/4/22	0:15	48.0			8/4/22	4:15	47.3	
7/4/22	20:20	51.9			8/4/22	0:20	48.3			8/4/22	4:20	47.2	
7/4/22	20:25	52.7			8/4/22	0:25	47.3			8/4/22	4:25	47.2	
7/4/22	20:30	51.5			8/4/22	0:30	47.5			8/4/22	4:30	47.2	
7/4/22	20:35	55.9			8/4/22	0:35	48.0			8/4/22	4:35	48.0	
7/4/22	20:40	53.5			8/4/22	0:40	48.0			8/4/22	4:40	48.9	
7/4/22	20:45	56.9			8/4/22	0:45	47.3			8/4/22	4:45	47.8	
7/4/22	20:50	53.3			8/4/22	0:50	48.3			8/4/22	4:50	47.5	
7/4/22	20:55	54.9			8/4/22	0:55	48.1			8/4/22	4:55	51.5	
7/4/22	21:00	56.1	54.0		8/4/22	1:00	47.9	47.9		8/4/22	5:00	48.0	48.1
7/4/22	21:05	53.7			8/4/22	1:05	47.7			8/4/22	5:05	48.3	
7/4/22	21:10	52.8			8/4/22	1:10	47.6			8/4/22	5:10	47.8	
7/4/22	21:15	51.9			8/4/22	1:15	47.0			8/4/22	5:15	48.5	
7/4/22	21:20	53.6			8/4/22	1:20	48.8			8/4/22	5:20	49.4	
7/4/22	21:25	50.2			8/4/22	1:25	49.1			8/4/22	5:25	49.6	
7/4/22	21:30	50.3			8/4/22	1:30	47.8			8/4/22	5:30	50.7	
7/4/22	21:35	49.1			8/4/22	1:35	47.8			8/4/22	5:35	**55.1**	
7/4/22	21:40	49.3			8/4/22	1:40	47.1			8/4/22	5:40	49.1	
7/4/22	21:45	49.2			8/4/22	1:45	47.0			8/4/22	5:45	**55.6**	
7/4/22	21:50	49.5			8/4/22	1:50	46.8			8/4/22	5:50	51.7	
7/4/22	21:55	49.2			8/4/22	1:55	47.1			8/4/22	5:55	50.4	
7/4/22	22:00	49.2	51.0		8/4/22	2:00	46.7	47.6		8/4/22	6:00	50.3	51.3
7/4/22	22:05	49.3			8/4/22	2:05	47.3			8/4/22	6:05	49.5	
7/4/22	22:10	49.8			8/4/22	2:10	47.1			8/4/22	6:10	50.3	
7/4/22	22:15	49.8			8/4/22	2:15	47.6			8/4/22	6:15	50.6	
7/4/22	22:20	49.4			8/4/22	2:20	46.8			8/4/22	6:20	50.5	
7/4/22	22:25	49.4			8/4/22	2:25	47.7			8/4/22	6:25	51.6	
7/4/22	22:30	49.0			8/4/22	2:30	46.9			8/4/22	6:30	51.0	
7/4/22	22:35	48.9			8/4/22	2:35	46.8			8/4/22	6:35	51.1	
7/4/22	22:40	49.1			8/4/22	2:40	46.8			8/4/22	6:40	51.9	
7/4/22	22:45	48.2			8/4/22	2:45	46.4			8/4/22	6:45	51.8	
7/4/22	22:50	49.0			8/4/22	2:50	46.3			8/4/22	6:50	52.8	
7/4/22	22:55	48.9			8/4/22	2:55	47.0			8/4/22	6:55	52.2	
7/4/22	23:00	48.3	49.1		8/4/22	3:00	46.1	46.9		8/4/22	7:00	51.8	51.3

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE front of Home Team Academy								
REPORT REFERENCE			06/04/2022 - 13/04/2022								
Start	8/4/22		7:05		**Leq12h**	61.9			Weighting		A
End	8/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
8/4/22	7:05	51.9			8/4/22	11:05	54.4		8/4/22	15:05	60.4
8/4/22	7:10	52.9			8/4/22	11:10	58.1		8/4/22	15:10	64.2
8/4/22	7:15	53.4			8/4/22	11:15	63.7		8/4/22	15:15	55.6
8/4/22	7:20	54.3			8/4/22	11:20	54.2		8/4/22	15:20	51.9
8/4/22	7:25	53.8			8/4/22	11:25	53.0		8/4/22	15:25	52.5
8/4/22	7:30	54.1			8/4/22	11:30	54.7		8/4/22	15:30	52.5
8/4/22	7:35	55.0			8/4/22	11:35	53.0		8/4/22	15:35	57.3
8/4/22	7:40	54.2			8/4/22	11:40	53.3		8/4/22	15:40	55.0
8/4/22	7:45	52.7			8/4/22	11:45	61.8		8/4/22	15:45	57.7
8/4/22	7:50	52.8			8/4/22	11:50	54.0		8/4/22	15:50	60.3
8/4/22	7:55	58.8			8/4/22	11:55	55.2		8/4/22	15:55	52.9
8/4/22	8:00	52.6			8/4/22	12:00	59.7		8/4/22	16:00	57.3
8/4/22	8:05	54.4			8/4/22	12:05	58.1		8/4/22	16:05	52.4
8/4/22	8:10	56.0			8/4/22	12:10	57.5		8/4/22	16:10	56.4
8/4/22	8:15	53.6			8/4/22	12:15	56.8		8/4/22	16:15	56.4
8/4/22	8:20	57.6			8/4/22	12:20	60.5		8/4/22	16:20	56.5
8/4/22	8:25	57.9			8/4/22	12:25	59.2		8/4/22	16:25	59.1
8/4/22	8:30	56.5			8/4/22	12:30	56.5		8/4/22	16:30	56.9
8/4/22	8:35	53.9			8/4/22	12:35	59.6		8/4/22	16:35	60.8
8/4/22	8:40	53.0			8/4/22	12:40	57.9		8/4/22	16:40	62.0
8/4/22	8:45	53.3			8/4/22	12:45	55.4		8/4/22	16:45	62.5
8/4/22	8:50	71.9			8/4/22	12:50	55.9		8/4/22	16:50	60.5
8/4/22	8:55	57.5			8/4/22	12:55	71.5		8/4/22	16:55	63.1
8/4/22	9:00	71.8			8/4/22	13:00	70.4		8/4/22	17:00	57.7
8/4/22	9:05	71.8			8/4/22	13:05	56.6		8/4/22	17:05	61.4
8/4/22	9:10	62.9			8/4/22	13:10	68.3		8/4/22	17:10	61.3
8/4/22	9:15	56.3			8/4/22	13:15	69.4		8/4/22	17:15	63.4
8/4/22	9:20	52.6			8/4/22	13:20	69.6		8/4/22	17:20	57.1
8/4/22	9:25	58.3			8/4/22	13:25	51.6		8/4/22	17:25	61.3
8/4/22	9:30	55.6			8/4/22	13:30	65.4		8/4/22	17:30	54.7
8/4/22	9:35	54.6			8/4/22	13:35	63.7		8/4/22	17:35	53.4
8/4/22	9:40	54.1			8/4/22	13:40	60.0		8/4/22	17:40	62.8
8/4/22	9:45	53.1			8/4/22	13:45	57.8		8/4/22	17:45	64.4
8/4/22	9:50	72.0			8/4/22	13:50	60.8		8/4/22	17:50	53.0
8/4/22	9:55	61.6			8/4/22	13:55	58.0		8/4/22	17:55	62.4
8/4/22	10:00	55.9			8/4/22	14:00	52.6		8/4/22	18:00	61.8
8/4/22	10:05	61.1			8/4/22	14:05	52.5		8/4/22	18:05	58.9
8/4/22	10:10	62.5			8/4/22	14:10	54.4		8/4/22	18:10	59.1
8/4/22	10:15	61.7			8/4/22	14:15	53.0		8/4/22	18:15	54.8
8/4/22	10:20	57.7			8/4/22	14:20	61.4		8/4/22	18:20	54.6
8/4/22	10:25	66.7			8/4/22	14:25	69.7		8/4/22	18:25	54.4
8/4/22	10:30	53.3			8/4/22	14:30	62.6		8/4/22	18:30	60.3
8/4/22	10:35	58.2			8/4/22	14:35	63.4		8/4/22	18:35	58.5
8/4/22	10:40	56.6			8/4/22	14:40	67.1		8/4/22	18:40	60.9
8/4/22	10:45	54.1			8/4/22	14:45	56.0		8/4/22	18:45	52.5
8/4/22	10:50	64.0			8/4/22	14:50	52.0		8/4/22	18:50	53.2
8/4/22	10:55	52.6			8/4/22	14:55	51.8		8/4/22	18:55	54.1
8/4/22	11:00	55.5			8/4/22	15:00	55.4		8/4/22	19:00	53.4

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Along KJE front of Home Team Academy									
REPORT REFERENCE			06/04/2022 - 13/04/2022									
Start	8/4/22		19:05		**Leq12h**	54.0			Weighting		A	
End	9/4/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
8/4/22	19:05	52.5			8/4/22	23:05	48.8			9/4/22	3:05	46.9	
8/4/22	19:10	52.3			8/4/22	23:10	49.7			9/4/22	3:10	47.6	
8/4/22	19:15	52.4			8/4/22	23:15	49.6			9/4/22	3:15	46.9	
8/4/22	19:20	51.8			8/4/22	23:20	49.4			9/4/22	3:20	47.3	
8/4/22	19:25	51.9			8/4/22	23:25	49.3			9/4/22	3:25	47.6	
8/4/22	19:30	51.8			8/4/22	23:30	49.2			9/4/22	3:30	46.5	
8/4/22	19:35	53.9			8/4/22	23:35	48.7			9/4/22	3:35	47.9	
8/4/22	19:40	52.6			8/4/22	23:40	48.3			9/4/22	3:40	47.3	
8/4/22	19:45	55.8			8/4/22	23:45	48.7			9/4/22	3:45	49.8	
8/4/22	19:50	50.7			8/4/22	23:50	49.0			9/4/22	3:50	47.1	
8/4/22	19:55	51.0			8/4/22	23:55	49.7			9/4/22	3:55	47.4	
8/4/22	20:00	50.8	52.5		8/4/22	0:00	48.6	49.1		9/4/22	4:00	47.0	47.5
8/4/22	20:05	50.5			9/4/22	0:05	48.5			9/4/22	4:05	46.8	
8/4/22	20:10	51.4			9/4/22	0:10	48.3			9/4/22	4:10	47.7	
8/4/22	20:15	50.6			9/4/22	0:15	47.7			9/4/22	4:15	47.4	
8/4/22	20:20	51.2			9/4/22	0:20	48.1			9/4/22	4:20	47.9	
8/4/22	20:25	52.9			9/4/22	0:25	47.9			9/4/22	4:25	47.4	
8/4/22	20:30	52.1			9/4/22	0:30	47.9			9/4/22	4:30	47.8	
8/4/22	20:35	51.7			9/4/22	0:35	48.0			9/4/22	4:35	47.5	
8/4/22	20:40	53.8			9/4/22	0:40	47.7			9/4/22	4:40	47.7	
8/4/22	20:45	54.0			9/4/22	0:45	48.9			9/4/22	4:45	47.7	
8/4/22	20:50	51.7			9/4/22	0:50	48.2			9/4/22	4:50	47.1	
8/4/22	20:55	57.2			9/4/22	0:55	47.9			9/4/22	4:55	47.4	
8/4/22	21:00	54.0	53.0		9/4/22	1:00	47.6	48.1		9/4/22	5:00	47.1	47.5
8/4/22	21:05	52.5			9/4/22	1:05	48.2			9/4/22	5:05	47.6	
8/4/22	21:10	51.4			9/4/22	1:10	47.7			9/4/22	5:10	47.6	
8/4/22	21:15	50.1			9/4/22	1:15	47.3			9/4/22	5:15	48.0	
8/4/22	21:20	50.2			9/4/22	1:20	47.0			9/4/22	5:20	51.9	
8/4/22	21:25	50.6			9/4/22	1:25	47.9			9/4/22	5:25	54.0	
8/4/22	21:30	52.0			9/4/22	1:30	47.2			9/4/22	5:30	53.3	
8/4/22	21:35	49.9			9/4/22	1:35	46.5			9/4/22	5:35	**58.2**	
8/4/22	21:40	50.2			9/4/22	1:40	47.1			9/4/22	5:40	**58.3**	
8/4/22	21:45	49.6			9/4/22	1:45	46.9			9/4/22	5:45	53.0	
8/4/22	21:50	49.4			9/4/22	1:50	47.5			9/4/22	5:50	52.6	
8/4/22	21:55	49.8			9/4/22	1:55	47.0			9/4/22	5:55	51.6	
8/4/22	22:00	50.5	50.6		9/4/22	2:00	46.9	47.3		9/4/22	6:00	52.0	53.7
8/4/22	22:05	50.2			9/4/22	2:05	47.6			9/4/22	6:05	53.7	
8/4/22	22:10	50.7			9/4/22	2:10	47.0			9/4/22	6:10	55.0	
8/4/22	22:15	50.7			9/4/22	2:15	47.2			9/4/22	6:15	50.6	
8/4/22	22:20	50.3			9/4/22	2:20	46.9			9/4/22	6:20	50.6	
8/4/22	22:25	49.7			9/4/22	2:25	47.5			9/4/22	6:25	51.0	
8/4/22	22:30	50.3			9/4/22	2:30	47.0			9/4/22	6:30	50.4	
8/4/22	22:35	50.6			9/4/22	2:35	46.9			9/4/22	6:35	51.2	
8/4/22	22:40	49.9			9/4/22	2:40	47.8			9/4/22	6:40	52.0	
8/4/22	22:45	49.0			9/4/22	2:45	47.1			9/4/22	6:45	52.7	
8/4/22	22:50	49.5			9/4/22	2:50	47.5			9/4/22	6:50	**72.9**	
8/4/22	22:55	49.9			9/4/22	2:55	47.1			9/4/22	6:55	**55.6**	
8/4/22	23:00	49.3	50.0		9/4/22	3:00	46.6	47.2		9/4/22	7:00	51.6	**62.5**

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE front of Home Team Academy								
REPORT REFERENCE			06/04/2022 - 13/04/2022								
Start	9/4/22		7:05		**Leq12h**	58.5			Weighting		A
End	9/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
9/4/22	7:05	52.9			9/4/22	11:05	50.6		9/4/22	15:05	50.7
9/4/22	7:10	51.7			9/4/22	11:10	50.7		9/4/22	15:10	50.2
9/4/22	7:15	51.5			9/4/22	11:15	55.1		9/4/22	15:15	50.3
9/4/22	7:20	51.7			9/4/22	11:20	63.1		9/4/22	15:20	50.8
9/4/22	7:25	52.9			9/4/22	11:25	63.1		9/4/22	15:25	50.8
9/4/22	7:30	51.4			9/4/22	11:30	66.4		9/4/22	15:30	51.0
9/4/22	7:35	52.0			9/4/22	11:35	76.0		9/4/22	15:35	50.5
9/4/22	7:40	56.0			9/4/22	11:40	61.6		9/4/22	15:40	50.9
9/4/22	7:45	51.7			9/4/22	11:45	59.2		9/4/22	15:45	62.6
9/4/22	7:50	51.1			9/4/22	11:50	56.3		9/4/22	15:50	51.1
9/4/22	7:55	51.2			9/4/22	11:55	51.6		9/4/22	15:55	51.2
9/4/22	8:00	51.2			9/4/22	12:00	50.7		9/4/22	16:00	50.9
9/4/22	8:05	51.4			9/4/22	12:05	58.3		9/4/22	16:05	51.1
9/4/22	8:10	51.1			9/4/22	12:10	58.7		9/4/22	16:10	51.0
9/4/22	8:15	51.1			9/4/22	12:15	50.9		9/4/22	16:15	51.2
9/4/22	8:20	59.9			9/4/22	12:20	50.9		9/4/22	16:20	51.1
9/4/22	8:25	59.2			9/4/22	12:25	51.0		9/4/22	16:25	61.0
9/4/22	8:30	60.4			9/4/22	12:30	50.7		9/4/22	16:30	50.7
9/4/22	8:35	61.2			9/4/22	12:35	51.2		9/4/22	16:35	50.5
9/4/22	8:40	55.1			9/4/22	12:40	51.4		9/4/22	16:40	50.8
9/4/22	8:45	56.2			9/4/22	12:45	56.3		9/4/22	16:45	50.5
9/4/22	8:50	55.3			9/4/22	12:50	51.3		9/4/22	16:50	50.5
9/4/22	8:55	53.5			9/4/22	12:55	51.1		9/4/22	16:55	50.9
9/4/22	9:00	63.5			9/4/22	13:00	51.1		9/4/22	17:00	56.3
9/4/22	9:05	53.3			9/4/22	13:05	51.1		9/4/22	17:05	50.7
9/4/22	9:10	52.8			9/4/22	13:10	51.0		9/4/22	17:10	51.2
9/4/22	9:15	62.3			9/4/22	13:15	50.9		9/4/22	17:15	51.0
9/4/22	9:20	64.1			9/4/22	13:20	51.2		9/4/22	17:20	50.5
9/4/22	9:25	66.7			9/4/22	13:25	51.4		9/4/22	17:25	51.1
9/4/22	9:30	51.8			9/4/22	13:30	56.2		9/4/22	17:30	50.5
9/4/22	9:35	65.1			9/4/22	13:35	50.8		9/4/22	17:35	50.5
9/4/22	9:40	51.2			9/4/22	13:40	50.7		9/4/22	17:40	61.4
9/4/22	9:45	51.0			9/4/22	13:45	50.6		9/4/22	17:45	51.1
9/4/22	9:50	51.1			9/4/22	13:50	53.1		9/4/22	17:50	51.0
9/4/22	9:55	50.9			9/4/22	13:55	50.6		9/4/22	17:55	50.5
9/4/22	10:00	54.5			9/4/22	14:00	50.6		9/4/22	18:00	50.9
9/4/22	10:05	54.9			9/4/22	14:05	51.0		9/4/22	18:05	50.8
9/4/22	10:10	50.9			9/4/22	14:10	50.8		9/4/22	18:10	50.8
9/4/22	10:15	51.7			9/4/22	14:15	50.6		9/4/22	18:15	51.5
9/4/22	10:20	50.8			9/4/22	14:20	55.3		9/4/22	18:20	51.4
9/4/22	10:25	51.3			9/4/22	14:25	50.4		9/4/22	18:25	51.5
9/4/22	10:30	53.0			9/4/22	14:30	50.3		9/4/22	18:30	53.1
9/4/22	10:35	59.8			9/4/22	14:35	62.4		9/4/22	18:35	53.2
9/4/22	10:40	63.0			9/4/22	14:40	55.9		9/4/22	18:40	51.8
9/4/22	10:45	60.0			9/4/22	14:45	50.5		9/4/22	18:45	51.4
9/4/22	10:50	50.5			9/4/22	14:50	50.3		9/4/22	18:50	53.8
9/4/22	10:55	50.7			9/4/22	14:55	59.2		9/4/22	18:55	54.5
9/4/22	11:00	50.9			9/4/22	15:00	50.2		9/4/22	19:00	56.0

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Along KJE front of Home Team Academy									
REPORT REFERENCE			06/04/2022 - 13/04/2022									
Start	9/4/22		19:05		**Leq12h**	50.4			Weighting		A	
End	10/4/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
9/4/22	19:05	54.5			9/4/22	23:05	48.8			10/4/22	3:05	50.7	
9/4/22	19:10	51.0			9/4/22	23:10	49.2			10/4/22	3:10	50.2	
9/4/22	19:15	50.3			9/4/22	23:15	48.4			10/4/22	3:15	49.8	
9/4/22	19:20	50.8			9/4/22	23:20	49.0			10/4/22	3:20	49.5	
9/4/22	19:25	50.0			9/4/22	23:25	48.6			10/4/22	3:25	49.7	
9/4/22	19:30	50.1			9/4/22	23:30	49.1			10/4/22	3:30	49.5	
9/4/22	19:35	49.5			9/4/22	23:35	49.2			10/4/22	3:35	49.2	
9/4/22	19:40	50.4			9/4/22	23:40	48.7			10/4/22	3:40	49.8	
9/4/22	19:45	50.8			9/4/22	23:45	48.3			10/4/22	3:45	51.3	
9/4/22	19:50	50.2			9/4/22	23:50	48.0			10/4/22	3:50	49.5	
9/4/22	19:55	50.3			9/4/22	23:55	48.4			10/4/22	3:55	49.6	
9/4/22	20:00	51.0	51.0		9/4/22	0:00	48.3	48.7		10/4/22	4:00	49.5	49.9
9/4/22	20:05	50.2			10/4/22	0:05	50.6			10/4/22	4:05	49.5	
9/4/22	20:10	50.5			10/4/22	0:10	50.4			10/4/22	4:10	49.7	
9/4/22	20:15	50.4			10/4/22	0:15	50.3			10/4/22	4:15	49.6	
9/4/22	20:20	55.0			10/4/22	0:20	50.2			10/4/22	4:20	49.8	
9/4/22	20:25	56.9			10/4/22	0:25	50.2			10/4/22	4:25	49.9	
9/4/22	20:30	52.4			10/4/22	0:30	50.0			10/4/22	4:30	49.7	
9/4/22	20:35	52.0			10/4/22	0:35	50.0			10/4/22	4:35	49.6	
9/4/22	20:40	51.4			10/4/22	0:40	50.0			10/4/22	4:40	49.7	
9/4/22	20:45	51.0			10/4/22	0:45	49.7			10/4/22	4:45	49.6	
9/4/22	20:50	50.3			10/4/22	0:50	50.8			10/4/22	4:50	50.0	
9/4/22	20:55	49.0			10/4/22	0:55	49.7			10/4/22	4:55	50.3	
9/4/22	21:00	50.0	52.3		10/4/22	1:00	49.8	50.2		10/4/22	5:00	50.2	49.8
9/4/22	21:05	49.5			10/4/22	1:05	49.8			10/4/22	5:05	50.0	
9/4/22	21:10	49.3			10/4/22	1:10	49.6			10/4/22	5:10	49.9	
9/4/22	21:15	49.7			10/4/22	1:15	49.5			10/4/22	5:15	49.7	
9/4/22	21:20	49.3			10/4/22	1:20	49.7			10/4/22	5:20	50.7	
9/4/22	21:25	49.9			10/4/22	1:25	49.9			10/4/22	5:25	52.7	
9/4/22	21:30	49.8			10/4/22	1:30	50.0			10/4/22	5:30	54.8	
9/4/22	21:35	49.1			10/4/22	1:35	49.7			10/4/22	5:35	51.0	
9/4/22	21:40	49.4			10/4/22	1:40	50.1			10/4/22	5:40	50.2	
9/4/22	21:45	49.3			10/4/22	1:45	49.7			10/4/22	5:45	50.4	
9/4/22	21:50	49.0			10/4/22	1:50	49.9			10/4/22	5:50	50.3	
9/4/22	21:55	49.3			10/4/22	1:55	50.3			10/4/22	5:55	50.6	
9/4/22	22:00	49.6	49.4		10/4/22	2:00	49.6	49.8		10/4/22	6:00	50.7	51.2
9/4/22	22:05	49.2			10/4/22	2:05	49.6			10/4/22	6:05	50.2	
9/4/22	22:10	48.8			10/4/22	2:10	50.3			10/4/22	6:10	50.6	
9/4/22	22:15	49.6			10/4/22	2:15	49.8			10/4/22	6:15	50.8	
9/4/22	22:20	49.4			10/4/22	2:20	50.4			10/4/22	6:20	50.6	
9/4/22	22:25	49.2			10/4/22	2:25	49.6			10/4/22	6:25	50.7	
9/4/22	22:30	50.3			10/4/22	2:30	50.3			10/4/22	6:30	50.5	
9/4/22	22:35	50.4			10/4/22	2:35	50.1			10/4/22	6:35	51.2	
9/4/22	22:40	49.1			10/4/22	2:40	50.1			10/4/22	6:40	52.6	
9/4/22	22:45	49.0			10/4/22	2:45	49.5			10/4/22	6:45	53.1	
9/4/22	22:50	49.9			10/4/22	2:50	50.0			10/4/22	6:50	52.7	
9/4/22	22:55	48.6			10/4/22	2:55	49.7			10/4/22	6:55	51.7	
9/4/22	23:00	48.6	49.4		10/4/22	3:00	49.8	49.9		10/4/22	7:00	51.5	51.5

ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE front of Home Team Academy								
REPORT REFERENCE			06/04/2022 - 13/04/2022								
Start	10/4/22		7:05		**Leq12h**	52.0			Weighting		A
End	10/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
10/4/22	7:05	51.5			10/4/22	11:05	50.6		10/4/22	15:05	52.0
10/4/22	7:10	52.3			10/4/22	11:10	51.0		10/4/22	15:10	52.1
10/4/22	7:15	52.9			10/4/22	11:15	51.1		10/4/22	15:15	51.3
10/4/22	7:20	51.7			10/4/22	11:20	51.0		10/4/22	15:20	51.9
10/4/22	7:25	51.8			10/4/22	11:25	50.9		10/4/22	15:25	51.8
10/4/22	7:30	51.5			10/4/22	11:30	50.4		10/4/22	15:30	51.7
10/4/22	7:35	51.8			10/4/22	11:35	50.4		10/4/22	15:35	50.7
10/4/22	7:40	53.5			10/4/22	11:40	50.5		10/4/22	15:40	51.2
10/4/22	7:45	51.8			10/4/22	11:45	50.7		10/4/22	15:45	51.1
10/4/22	7:50	51.5			10/4/22	11:50	50.1		10/4/22	15:50	52.1
10/4/22	7:55	51.4			10/4/22	11:55	50.4		10/4/22	15:55	52.8
10/4/22	8:00	51.1			10/4/22	12:00	50.6		10/4/22	16:00	51.2
10/4/22	8:05	51.8			10/4/22	12:05	50.4		10/4/22	16:05	50.6
10/4/22	8:10	51.5			10/4/22	12:10	52.3		10/4/22	16:10	51.2
10/4/22	8:15	54.3			10/4/22	12:15	50.2		10/4/22	16:15	52.0
10/4/22	8:20	51.8			10/4/22	12:20	58.5		10/4/22	16:20	52.0
10/4/22	8:25	51.4			10/4/22	12:25	50.4		10/4/22	16:25	52.5
10/4/22	8:30	51.2			10/4/22	12:30	50.3		10/4/22	16:30	52.3
10/4/22	8:35	51.1			10/4/22	12:35	50.5		10/4/22	16:35	52.9
10/4/22	8:40	51.5			10/4/22	12:40	51.1		10/4/22	16:40	51.5
10/4/22	8:45	50.9			10/4/22	12:45	51.5		10/4/22	16:45	54.4
10/4/22	8:50	51.5			10/4/22	12:50	53.6		10/4/22	16:50	50.8
10/4/22	8:55	51.5			10/4/22	12:55	51.0		10/4/22	16:55	50.8
10/4/22	9:00	52.2			10/4/22	13:00	50.8		10/4/22	17:00	51.5
10/4/22	9:05	51.5			10/4/22	13:05	51.6		10/4/22	17:05	51.8
10/4/22	9:10	55.0			10/4/22	13:10	51.1		10/4/22	17:10	51.6
10/4/22	9:15	51.6			10/4/22	13:15	51.2		10/4/22	17:15	51.4
10/4/22	9:20	55.0			10/4/22	13:20	54.3		10/4/22	17:20	54.6
10/4/22	9:25	52.1			10/4/22	13:25	51.9		10/4/22	17:25	53.1
10/4/22	9:30	52.1			10/4/22	13:30	51.5		10/4/22	17:30	51.9
10/4/22	9:35	52.6			10/4/22	13:35	51.6		10/4/22	17:35	50.5
10/4/22	9:40	51.5			10/4/22	13:40	52.7		10/4/22	17:40	50.6
10/4/22	9:45	51.5			10/4/22	13:45	52.1		10/4/22	17:45	51.1
10/4/22	9:50	51.6			10/4/22	13:50	52.7		10/4/22	17:50	54.1
10/4/22	9:55	51.4			10/4/22	13:55	53.7		10/4/22	17:55	51.5
10/4/22	10:00	51.3			10/4/22	14:00	51.9		10/4/22	18:00	51.1
10/4/22	10:05	51.1			10/4/22	14:05	52.6		10/4/22	18:05	51.2
10/4/22	10:10	51.3			10/4/22	14:10	51.8		10/4/22	18:10	50.2
10/4/22	10:15	58.9			10/4/22	14:15	52.7		10/4/22	18:15	50.9
10/4/22	10:20	51.1			10/4/22	14:20	52.9		10/4/22	18:20	50.2
10/4/22	10:25	51.0			10/4/22	14:25	54.5		10/4/22	18:25	50.3
10/4/22	10:30	51.4			10/4/22	14:30	53.1		10/4/22	18:30	50.2
10/4/22	10:35	50.8			10/4/22	14:35	52.9		10/4/22	18:35	50.2
10/4/22	10:40	51.6			10/4/22	14:40	53.8		10/4/22	18:40	52.1
10/4/22	10:45	50.7			10/4/22	14:45	52.7		10/4/22	18:45	51.0
10/4/22	10:50	51.1			10/4/22	14:50	51.8		10/4/22	18:50	50.3
10/4/22	10:55	50.8			10/4/22	14:55	51.2		10/4/22	18:55	50.1
10/4/22	11:00	50.7			10/4/22	15:00	51.8		10/4/22	19:00	51.0

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE front of Home Team Academy										
REPORT REFERENCE			06/04/2022 - 13/04/2022										
Start	10/4/22		19:05		**Leq12h**	50.3				Weighting		A	
End	11/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
10/4/22	19:05	50.8			10/4/22	23:05	48.7			11/4/22	3:05	46.4	
10/4/22	19:10	50.4			10/4/22	23:10	48.8			11/4/22	3:10	46.6	
10/4/22	19:15	50.1			10/4/22	23:15	51.0			11/4/22	3:15	46.7	
10/4/22	19:20	49.9			10/4/22	23:20	49.5			11/4/22	3:20	47.3	
10/4/22	19:25	49.5			10/4/22	23:25	48.3			11/4/22	3:25	46.7	
10/4/22	19:30	49.5			10/4/22	23:30	53.6			11/4/22	3:30	47.9	
10/4/22	19:35	50.0			10/4/22	23:35	48.7			11/4/22	3:35	46.4	
10/4/22	19:40	49.7			10/4/22	23:40	47.6			11/4/22	3:40	46.6	
10/4/22	19:45	49.8			10/4/22	23:45	47.4			11/4/22	3:45	47.0	
10/4/22	19:50	49.4			10/4/22	23:50	48.0			11/4/22	3:50	46.1	
10/4/22	19:55	49.1			10/4/22	23:55	47.4			11/4/22	3:55	46.8	
10/4/22	20:00	49.7	49.8		10/4/22	0:00	48.0	49.3		11/4/22	4:00	46.9	46.8
10/4/22	20:05	50.6			11/4/22	0:05	47.9			11/4/22	4:05	46.9	
10/4/22	20:10	49.2			11/4/22	0:10	47.5			11/4/22	4:10	47.0	
10/4/22	20:15	50.0			11/4/22	0:15	47.2			11/4/22	4:15	47.0	
10/4/22	20:20	52.5			11/4/22	0:20	47.9			11/4/22	4:20	47.1	
10/4/22	20:25	51.0			11/4/22	0:25	47.6			11/4/22	4:25	47.1	
10/4/22	20:30	54.8			11/4/22	0:30	50.0			11/4/22	4:30	46.9	
10/4/22	20:35	**57.6**			11/4/22	0:35	47.8			11/4/22	4:35	47.5	
10/4/22	20:40	51.9			11/4/22	0:40	47.7			11/4/22	4:40	47.7	
10/4/22	20:45	**59.1**			11/4/22	0:45	47.4			11/4/22	4:45	50.1	
10/4/22	20:50	**55.5**			11/4/22	0:50	47.3			11/4/22	4:50	47.9	
10/4/22	20:55	**55.1**			11/4/22	0:55	47.8			11/4/22	4:55	48.0	
10/4/22	21:00	54.3	54.5		11/4/22	1:00	47.7	47.9		11/4/22	5:00	47.9	47.7
10/4/22	21:05	50.8			11/4/22	1:05	47.5			11/4/22	5:05	48.9	
10/4/22	21:10	53.2			11/4/22	1:10	47.0			11/4/22	5:10	48.4	
10/4/22	21:15	51.4			11/4/22	1:15	46.7			11/4/22	5:15	49.5	
10/4/22	21:20	51.6			11/4/22	1:20	46.1			11/4/22	5:20	49.7	
10/4/22	21:25	52.1			11/4/22	1:25	46.8			11/4/22	5:25	53.2	
10/4/22	21:30	51.5			11/4/22	1:30	47.1			11/4/22	5:30	48.5	
10/4/22	21:35	51.0			11/4/22	1:35	46.6			11/4/22	5:35	50.8	
10/4/22	21:40	50.1			11/4/22	1:40	46.2			11/4/22	5:40	**58.0**	
10/4/22	21:45	50.4			11/4/22	1:45	46.3			11/4/22	5:45	**57.0**	
10/4/22	21:50	50.6			11/4/22	1:50	46.7			11/4/22	5:50	52.9	
10/4/22	21:55	50.0			11/4/22	1:55	47.0			11/4/22	5:55	49.7	
10/4/22	22:00	49.7	51.1		11/4/22	2:00	46.5	46.7		11/4/22	6:00	49.9	52.7
10/4/22	22:05	49.8			11/4/22	2:05	46.2			11/4/22	6:05	49.7	
10/4/22	22:10	49.9			11/4/22	2:10	45.9			11/4/22	6:10	50.8	
10/4/22	22:15	49.7			11/4/22	2:15	47.1			11/4/22	6:15	51.2	
10/4/22	22:20	49.6			11/4/22	2:20	46.5			11/4/22	6:20	49.9	
10/4/22	22:25	49.3			11/4/22	2:25	47.4			11/4/22	6:25	50.4	
10/4/22	22:30	49.7			11/4/22	2:30	48.2			11/4/22	6:30	50.8	
10/4/22	22:35	49.1			11/4/22	2:35	46.9			11/4/22	6:35	52.0	
10/4/22	22:40	49.1			11/4/22	2:40	46.6			11/4/22	6:40	53.7	
10/4/22	22:45	48.9			11/4/22	2:45	46.3			11/4/22	6:45	53.4	
10/4/22	22:50	49.2			11/4/22	2:50	46.8			11/4/22	6:50	52.3	
10/4/22	22:55	48.6			11/4/22	2:55	46.6			11/4/22	6:55	51.7	
10/4/22	23:00	48.8	49.3		11/4/22	3:00	46.7	46.8		11/4/22	7:00	52.2	51.7

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE front of Home Team Academy								
REPORT REFERENCE			06/04/2022 - 13/04/2022								
Start	11/4/22		7:05		**Leq12h**	63.5			Weighting		A
End	11/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
11/4/22	7:05	52.3			11/4/22	11:05	54.3		11/4/22	15:05	54.5
11/4/22	7:10	53.3			11/4/22	11:10	56.8		11/4/22	15:10	56.6
11/4/22	7:15	53.0			11/4/22	11:15	60.3		11/4/22	15:15	64.9
11/4/22	7:20	54.3			11/4/22	11:20	62.7		11/4/22	15:20	62.6
11/4/22	7:25	55.7			11/4/22	11:25	71.8		11/4/22	15:25	54.0
11/4/22	7:30	56.1			11/4/22	11:30	69.1		11/4/22	15:30	53.6
11/4/22	7:35	54.9			11/4/22	11:35	66.3		11/4/22	15:35	58.5
11/4/22	7:40	58.6			11/4/22	11:40	66.3		11/4/22	15:40	66.5
11/4/22	7:45	60.4			11/4/22	11:45	69.0		11/4/22	15:45	53.6
11/4/22	7:50	53.7			11/4/22	11:50	65.8		11/4/22	15:50	66.4
11/4/22	7:55	53.5			11/4/22	11:55	59.4		11/4/22	15:55	64.0
11/4/22	8:00	62.9			11/4/22	12:00	62.7		11/4/22	16:00	72.6
11/4/22	8:05	53.9			11/4/22	12:05	57.5		11/4/22	16:05	71.3
11/4/22	8:10	55.7			11/4/22	12:10	58.7		11/4/22	16:10	59.2
11/4/22	8:15	52.6			11/4/22	12:15	55.8		11/4/22	16:15	57.8
11/4/22	8:20	56.1			11/4/22	12:20	77.9		11/4/22	16:20	56.3
11/4/22	8:25	56.4			11/4/22	12:25	60.8		11/4/22	16:25	57.5
11/4/22	8:30	55.4			11/4/22	12:30	58.9		11/4/22	16:30	59.8
11/4/22	8:35	53.3			11/4/22	12:35	58.2		11/4/22	16:35	62.5
11/4/22	8:40	56.7			11/4/22	12:40	56.1		11/4/22	16:40	69.4
11/4/22	8:45	55.0			11/4/22	12:45	57.5		11/4/22	16:45	65.6
11/4/22	8:50	62.1			11/4/22	12:50	61.2		11/4/22	16:50	53.5
11/4/22	8:55	56.7			11/4/22	12:55	58.1		11/4/22	16:55	59.0
11/4/22	9:00	62.9			11/4/22	13:00	53.9		11/4/22	17:00	70.2
11/4/22	9:05	75.8			11/4/22	13:05	55.9		11/4/22	17:05	58.1
11/4/22	9:10	72.4			11/4/22	13:10	58.0		11/4/22	17:10	54.8
11/4/22	9:15	56.0			11/4/22	13:15	54.9		11/4/22	17:15	54.2
11/4/22	9:20	57.0			11/4/22	13:20	54.0		11/4/22	17:20	54.3
11/4/22	9:25	55.8			11/4/22	13:25	54.1		11/4/22	17:25	53.3
11/4/22	9:30	53.6			11/4/22	13:30	58.4		11/4/22	17:30	53.3
11/4/22	9:35	62.7			11/4/22	13:35	53.9		11/4/22	17:35	56.8
11/4/22	9:40	52.9			11/4/22	13:40	56.7		11/4/22	17:40	52.7
11/4/22	9:45	53.4			11/4/22	13:45	63.5		11/4/22	17:45	52.7
11/4/22	9:50	61.9			11/4/22	13:50	61.3		11/4/22	17:50	61.3
11/4/22	9:55	56.3			11/4/22	13:55	58.0		11/4/22	17:55	53.9
11/4/22	10:00	52.4			11/4/22	14:00	54.0		11/4/22	18:00	53.8
11/4/22	10:05	56.1			11/4/22	14:05	63.3		11/4/22	18:05	62.4
11/4/22	10:10	56.9			11/4/22	14:10	61.6		11/4/22	18:10	58.2
11/4/22	10:15	53.0			11/4/22	14:15	57.9		11/4/22	18:15	54.4
11/4/22	10:20	53.7			11/4/22	14:20	63.4		11/4/22	18:20	59.4
11/4/22	10:25	54.8			11/4/22	14:25	62.1		11/4/22	18:25	53.6
11/4/22	10:30	54.9			11/4/22	14:30	66.0		11/4/22	18:30	60.5
11/4/22	10:35	65.8			11/4/22	14:35	59.9		11/4/22	18:35	52.9
11/4/22	10:40	54.9			11/4/22	14:40	55.3		11/4/22	18:40	52.9
11/4/22	10:45	54.7			11/4/22	14:45	70.1		11/4/22	18:45	53.1
11/4/22	10:50	59.4			11/4/22	14:50	61.8		11/4/22	18:50	55.7
11/4/22	10:55	55.4			11/4/22	14:55	58.9		11/4/22	18:55	54.0
11/4/22	11:00	55.4			11/4/22	15:00	56.6		11/4/22	19:00	53.1

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Along KJE front of Home Team Academy									
REPORT REFERENCE			06/04/2022 - 13/04/2022									
Start	11/4/22		19:05		**Leq12h**	53.7			Weighting		A	
End	12/4/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
11/4/22	19:05	53.4			11/4/22	23:05	50.8			12/4/22	3:05	47.1	
11/4/22	19:10	52.7			11/4/22	23:10	48.4			12/4/22	3:10	46.8	
11/4/22	19:15	53.3			11/4/22	23:15	49.0			12/4/22	3:15	46.9	
11/4/22	19:20	52.7			11/4/22	23:20	48.3			12/4/22	3:20	49.2	
11/4/22	19:25	56.0			11/4/22	23:25	48.2			12/4/22	3:25	46.7	
11/4/22	19:30	54.6			11/4/22	23:30	48.4			12/4/22	3:30	47.5	
11/4/22	19:35	53.4			11/4/22	23:35	48.4			12/4/22	3:35	46.9	
11/4/22	19:40	52.3			11/4/22	23:40	48.0			12/4/22	3:40	47.5	
11/4/22	19:45	66.1			11/4/22	23:45	48.4			12/4/22	3:45	47.5	
11/4/22	19:50	68.7			11/4/22	23:50	48.2			12/4/22	3:50	46.9	
11/4/22	19:55	52.8			11/4/22	23:55	48.2			12/4/22	3:55	47.6	
11/4/22	20:00	53.4	60.6		11/4/22	0:00	47.4	48.6		12/4/22	4:00	48.3	47.5
11/4/22	20:05	54.6			12/4/22	0:05	48.3			12/4/22	4:05	47.1	
11/4/22	20:10	53.4			12/4/22	0:10	47.7			12/4/22	4:10	47.5	
11/4/22	20:15	64.6			12/4/22	0:15	48.2			12/4/22	4:15	48.1	
11/4/22	20:20	53.1			12/4/22	0:20	48.3			12/4/22	4:20	47.8	
11/4/22	20:25	57.3			12/4/22	0:25	48.1			12/4/22	4:25	47.6	
11/4/22	20:30	52.9			12/4/22	0:30	48.0			12/4/22	4:30	48.4	
11/4/22	20:35	54.8			12/4/22	0:35	47.7			12/4/22	4:35	47.5	
11/4/22	20:40	58.2			12/4/22	0:40	47.6			12/4/22	4:40	48.7	
11/4/22	20:45	56.9			12/4/22	0:45	48.0			12/4/22	4:45	48.1	
11/4/22	20:50	54.0			12/4/22	0:50	48.7			12/4/22	4:50	47.8	
11/4/22	20:55	58.4			12/4/22	0:55	48.1			12/4/22	4:55	48.6	
11/4/22	21:00	54.2	57.7		12/4/22	1:00	48.0	48.1		12/4/22	5:00	48.7	48.0
11/4/22	21:05	54.1			12/4/22	1:05	47.5			12/4/22	5:05	51.0	
11/4/22	21:10	57.2			12/4/22	1:10	47.5			12/4/22	5:10	54.0	
11/4/22	21:15	54.0			12/4/22	1:15	47.5			12/4/22	5:15	49.1	
11/4/22	21:20	54.6			12/4/22	1:20	47.3			12/4/22	5:20	50.3	
11/4/22	21:25	51.6			12/4/22	1:25	47.7			12/4/22	5:25	50.7	
11/4/22	21:30	53.8			12/4/22	1:30	47.5			12/4/22	5:30	50.6	
11/4/22	21:35	50.8			12/4/22	1:35	46.9			12/4/22	5:35	**55.6**	
11/4/22	21:40	51.7			12/4/22	1:40	48.0			12/4/22	5:40	**56.2**	
11/4/22	21:45	51.6			12/4/22	1:45	46.9			12/4/22	5:45	52.3	
11/4/22	21:50	51.0			12/4/22	1:50	47.3			12/4/22	5:50	51.0	
11/4/22	21:55	50.6			12/4/22	1:55	47.0			12/4/22	5:55	53.8	
11/4/22	22:00	50.0	53.1		12/4/22	2:00	46.9	47.3		12/4/22	6:00	52.5	52.8
11/4/22	22:05	50.0			12/4/22	2:05	47.4			12/4/22	6:05	51.2	
11/4/22	22:10	49.9			12/4/22	2:10	46.9			12/4/22	6:10	52.2	
11/4/22	22:15	49.7			12/4/22	2:15	46.5			12/4/22	6:15	52.2	
11/4/22	22:20	50.1			12/4/22	2:20	46.9			12/4/22	6:20	51.9	
11/4/22	22:25	53.2			12/4/22	2:25	46.9			12/4/22	6:25	51.9	
11/4/22	22:30	50.7			12/4/22	2:30	46.9			12/4/22	6:30	53.8	
11/4/22	22:35	50.4			12/4/22	2:35	46.8			12/4/22	6:35	54.0	
11/4/22	22:40	49.7			12/4/22	2:40	48.1			12/4/22	6:40	54.7	
11/4/22	22:45	50.0			12/4/22	2:45	47.0			12/4/22	6:45	53.1	
11/4/22	22:50	49.2			12/4/22	2:50	46.6			12/4/22	6:50	52.9	
11/4/22	22:55	48.4			12/4/22	2:55	47.2			12/4/22	6:55	52.9	
11/4/22	23:00	49.3	50.2		12/4/22	3:00	47.4	47.1		12/4/22	7:00	55.0	53.1

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE front of Home Team Academy								
REPORT REFERENCE			06/04/2022 - 13/04/2022								
Start	12/4/22		7:05		**Leq12h**	62.2			Weighting		A
End	12/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
12/4/22	7:05	53.9			12/4/22	11:05	65.6		12/4/22	15:05	59.4
12/4/22	7:10	53.1			12/4/22	11:10	59.6		12/4/22	15:10	60.5
12/4/22	7:15	53.3			12/4/22	11:15	52.8		12/4/22	15:15	57.3
12/4/22	7:20	53.5			12/4/22	11:20	52.7		12/4/22	15:20	55.7
12/4/22	7:25	52.8			12/4/22	11:25	54.9		12/4/22	15:25	54.9
12/4/22	7:30	53.6			12/4/22	11:30	54.0		12/4/22	15:30	54.5
12/4/22	7:35	54.3			12/4/22	11:35	52.7		12/4/22	15:35	53.8
12/4/22	7:40	54.9			12/4/22	11:40	53.5		12/4/22	15:40	55.8
12/4/22	7:45	52.4			12/4/22	11:45	52.5		12/4/22	15:45	57.9
12/4/22	7:50	53.1			12/4/22	11:50	53.3		12/4/22	15:50	54.3
12/4/22	7:55	57.8			12/4/22	11:55	54.1		12/4/22	15:55	53.9
12/4/22	8:00	57.1			12/4/22	12:00	71.4		12/4/22	16:00	57.1
12/4/22	8:05	54.1			12/4/22	12:05	70.6		12/4/22	16:05	62.2
12/4/22	8:10	53.4			12/4/22	12:10	67.2		12/4/22	16:10	58.6
12/4/22	8:15	60.0			12/4/22	12:15	60.4		12/4/22	16:15	55.4
12/4/22	8:20	55.5			12/4/22	12:20	59.0		12/4/22	16:20	64.3
12/4/22	8:25	55.0			12/4/22	12:25	58.0		12/4/22	16:25	53.6
12/4/22	8:30	56.7			12/4/22	12:30	60.3		12/4/22	16:30	58.7
12/4/22	8:35	55.7			12/4/22	12:35	54.5		12/4/22	16:35	53.5
12/4/22	8:40	56.4			12/4/22	12:40	55.5		12/4/22	16:40	53.0
12/4/22	8:45	57.8			12/4/22	12:45	73.9		12/4/22	16:45	53.2
12/4/22	8:50	55.4			12/4/22	12:50	53.8		12/4/22	16:50	55.3
12/4/22	8:55	55.1			12/4/22	12:55	60.1		12/4/22	16:55	58.6
12/4/22	9:00	53.9			12/4/22	13:00	76.8		12/4/22	17:00	59.4
12/4/22	9:05	54.2			12/4/22	13:05	55.1		12/4/22	17:05	66.1
12/4/22	9:10	54.4			12/4/22	13:10	55.2		12/4/22	17:10	70.4
12/4/22	9:15	54.4			12/4/22	13:15	54.0		12/4/22	17:15	55.0
12/4/22	9:20	58.1			12/4/22	13:20	55.9		12/4/22	17:20	55.5
12/4/22	9:25	57.5			12/4/22	13:25	54.6		12/4/22	17:25	54.0
12/4/22	9:30	57.0			12/4/22	13:30	53.5		12/4/22	17:30	69.3
12/4/22	9:35	58.3			12/4/22	13:35	53.3		12/4/22	17:35	57.8
12/4/22	9:40	54.7			12/4/22	13:40	63.5		12/4/22	17:40	61.5
12/4/22	9:45	53.4			12/4/22	13:45	74.4		12/4/22	17:45	73.1
12/4/22	9:50	60.1			12/4/22	13:50	54.5		12/4/22	17:50	59.5
12/4/22	9:55	53.3			12/4/22	13:55	53.7		12/4/22	17:55	53.5
12/4/22	10:00	58.1			12/4/22	14:00	54.1		12/4/22	18:00	61.7
12/4/22	10:05	62.2			12/4/22	14:05	53.1		12/4/22	18:05	53.0
12/4/22	10:10	53.9			12/4/22	14:10	53.2		12/4/22	18:10	53.3
12/4/22	10:15	54.3			12/4/22	14:15	53.9		12/4/22	18:15	60.7
12/4/22	10:20	58.6			12/4/22	14:20	54.5		12/4/22	18:20	53.1
12/4/22	10:25	54.2			12/4/22	14:25	61.3		12/4/22	18:25	53.4
12/4/22	10:30	53.5			12/4/22	14:30	53.5		12/4/22	18:30	54.4
12/4/22	10:35	59.5			12/4/22	14:35	60.5		12/4/22	18:35	54.3
12/4/22	10:40	54.5			12/4/22	14:40	53.2		12/4/22	18:40	54.3
12/4/22	10:45	55.0			12/4/22	14:45	55.0		12/4/22	18:45	54.1
12/4/22	10:50	52.7			12/4/22	14:50	54.3		12/4/22	18:50	53.6
12/4/22	10:55	61.7			12/4/22	14:55	56.6		12/4/22	18:55	54.3
12/4/22	11:00	53.6			12/4/22	15:00	55.2		12/4/22	19:00	54.0

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE front of Home Team Academy										
REPORT REFERENCE			06/04/2022 - 13/04/2022										
Start	12/4/22		19:05		**Leq12h**	53.8				Weighting		A	
End	13/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
12/4/22	19:05	52.5			12/4/22	23:05	49.7			13/4/22	3:05	47.6	
12/4/22	19:10	54.3			12/4/22	23:10	49.7			13/4/22	3:10	46.8	
12/4/22	19:15	53.2			12/4/22	23:15	49.7			13/4/22	3:15	48.1	
12/4/22	19:20	56.1			12/4/22	23:20	49.0			13/4/22	3:20	47.0	
12/4/22	19:25	52.4			12/4/22	23:25	49.3			13/4/22	3:25	47.0	
12/4/22	19:30	57.8			12/4/22	23:30	**55.9**			13/4/22	3:30	47.2	
12/4/22	19:35	56.5			12/4/22	23:35	48.9			13/4/22	3:35	47.6	
12/4/22	19:40	57.0			12/4/22	23:40	47.8			13/4/22	3:40	47.0	
12/4/22	19:45	54.9			12/4/22	23:45	48.7			13/4/22	3:45	46.9	
12/4/22	19:50	57.4			12/4/22	23:50	48.9			13/4/22	3:50	47.2	
12/4/22	19:55	56.9			12/4/22	23:55	48.7			13/4/22	3:55	47.3	
12/4/22	20:00	57.9	56.0		12/4/22	0:00	48.7	50.3		13/4/22	4:00	47.5	47.3
12/4/22	20:05	55.7			13/4/22	0:05	49.2			13/4/22	4:05	47.6	
12/4/22	20:10	58.7			13/4/22	0:10	48.4			13/4/22	4:10	48.3	
12/4/22	20:15	59.5			13/4/22	0:15	48.9			13/4/22	4:15	48.0	
12/4/22	20:20	63.1			13/4/22	0:20	48.4			13/4/22	4:20	48.3	
12/4/22	20:25	66.9			13/4/22	0:25	48.1			13/4/22	4:25	47.9	
12/4/22	20:30	56.0			13/4/22	0:30	48.3			13/4/22	4:30	48.2	
12/4/22	20:35	58.8			13/4/22	0:35	47.9			13/4/22	4:35	52.3	
12/4/22	20:40	67.2			13/4/22	0:40	48.2			13/4/22	4:40	49.6	
12/4/22	20:45	56.9			13/4/22	0:45	48.3			13/4/22	4:45	48.4	
12/4/22	20:50	59.4			13/4/22	0:50	47.8			13/4/22	4:50	48.4	
12/4/22	20:55	56.6			13/4/22	0:55	47.9			13/4/22	4:55	48.4	
12/4/22	21:00	52.9	61.6		13/4/22	1:00	48.0	48.3		13/4/22	5:00	48.5	48.9
12/4/22	21:05	52.0			13/4/22	1:05	47.8			13/4/22	5:05	48.7	
12/4/22	21:10	52.1			13/4/22	1:10	48.3			13/4/22	5:10	48.9	
12/4/22	21:15	52.3			13/4/22	1:15	48.0			13/4/22	5:15	50.2	
12/4/22	21:20	51.9			13/4/22	1:20	47.5			13/4/22	5:20	48.5	
12/4/22	21:25	51.5			13/4/22	1:25	47.6			13/4/22	5:25	49.8	
12/4/22	21:30	51.4			13/4/22	1:30	49.4			13/4/22	5:30	53.2	
12/4/22	21:35	51.9			13/4/22	1:35	47.9			13/4/22	5:35	52.6	
12/4/22	21:40	51.6			13/4/22	1:40	48.1			13/4/22	5:40	**55.1**	
12/4/22	21:45	52.4			13/4/22	1:45	48.0			13/4/22	5:45	51.0	
12/4/22	21:50	50.6			13/4/22	1:50	47.9			13/4/22	5:50	53.8	
12/4/22	21:55	50.8			13/4/22	1:55	47.3			13/4/22	5:55	52.9	
12/4/22	22:00	50.5	51.6		13/4/22	2:00	48.1	48.0		13/4/22	6:00	54.6	52.2
12/4/22	22:05	50.3			13/4/22	2:05	47.7			13/4/22	6:05	51.3	
12/4/22	22:10	50.5			13/4/22	2:10	47.2			13/4/22	6:10	52.7	
12/4/22	22:15	50.9			13/4/22	2:15	47.9			13/4/22	6:15	51.3	
12/4/22	22:20	50.6			13/4/22	2:20	48.0			13/4/22	6:20	51.8	
12/4/22	22:25	50.1			13/4/22	2:25	47.8			13/4/22	6:25	51.7	
12/4/22	22:30	50.3			13/4/22	2:30	47.5			13/4/22	6:30	53.0	
12/4/22	22:35	51.4			13/4/22	2:35	48.6			13/4/22	6:35	55.0	
12/4/22	22:40	50.0			13/4/22	2:40	47.7			13/4/22	6:40	54.0	
12/4/22	22:45	49.9			13/4/22	2:45	47.4			13/4/22	6:45	53.6	
12/4/22	22:50	49.9			13/4/22	2:50	49.0			13/4/22	6:50	53.1	
12/4/22	22:55	50.4			13/4/22	2:55	47.6			13/4/22	6:55	53.1	
12/4/22	23:00	49.8	50.4		13/4/22	3:00	47.2	47.8		13/4/22	7:00	53.2	53.0

ENSSCOM
Improving Your Workplace Safety & Health

CONFIDENTIAL

BASELINE NOISE SURVEY REPORT

NOISE MONITORING ENVIRONMENTAL WORK

REPORT REFERENCE NO: - 22050608/nms/ch2m/DE170/ptN2

For

CH2M HILL SINGAPORE PTE LTD

150 Beach Road, Gateway West 34th Floor, Singapore 189720

Project Location:
Along KJE

Attention:
Ms Catherine Baldedara

Project Title.:
DE170

Monitoring Location:
Front Of Blk 460 Ground Level

Date of Monitoring:
14 April 2022 - 21 April 2022

Date of Report:
06 May 2022

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1.0 INTRODUCTION

ENSSCOM PTE LTD was commissioned by:

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

The purpose of this survey was to assess the current acoustical environment to establish the baseline background noise level generated before start of construction activities for
Project Title - DE170

The survey is conducted in accordance to the Construction Noise control Guideline on NEA's permissible noise levels for construction sites and industrial premises.

2.0 NOISE SURVEY CONDITION

Report Reference No: 22050608/nms/ch2m/DE170/ptN2

Date of Report: 6-May-2022

Survey On: 14-Apr-2022 (0700hrs) to 21-Apr-2022 (0700hrs)

Operating Condition of Site: All operations were under normal conditions during the noise survey. Construction activities have not begun during period of noise monitoring.

Noise survey was conducted using accepted standard procedures and appropriate sound measuring equipment, which is properly calibrated to ensure accuracy.

All noise measurements were made in terms of A-weighted equivalent continuous sound pressure level in LAeq,T over a period of time T. For example, LAeq,5min are the equivalent sound pressure level measured over a 5-minutes time.

Noise survey was conducted for a full continuous twenty-four (24) hours, Seven (7) days, for **One (1) monitoring points/location**. The noise levels emitted were monitored accordingly and recorded.

The survey is conducted by qualified noise monitoring personnel and reference to Appendix C for their certificate.

3.0 INSTRUMENTS

Monitoring instrument was positioned at between 1.8 meters to 3 meters in height from the floor (Ground Level), Mid Level (5 – 6 storey building height) Or High Level (Roof Level). Overall noise distribution was fairly homogenous throughout the duration of noise survey.

Sound Level Meter used complies and conform to the minimum requirements of a Type 1/Class 1 instrument specified in the International Electrotechnical Commission (IEC) publications of 60651 and 60804.

Before and after the noise measurements, the sound level meter is calibrated to verify the accuracy of the instrument.

3.1 Sound Level Meters

CIRRUS RESEARCH plc, Model: CR191SG
Class 1 Data Logging Sound Level Meter
Serial Number: **G078328**

3.2 Acoustic Calibrator

CIRRUS RESEARCH plc, Model: CR515
Acoustic Calibrator
Serial Number: **60614**

Acoustic Pressure level:	94.01	dB	(reference 20uPa)
Step +20dB:	113.93	dB	
Nominal Frequency:	992	Hz	

The calibration certificate of the momnitoring instrument can be found in Appendix D

4.0 NOISE SURVEY TERMS

4.1 A Weighting
A standard weighting of the audible frequencies designed to reflect the response of the human ear to noise.

4.2 Acoustic Calibrator
An instrument that provides a reference noise source that is used to calibrate and check the performance of a Sound Level Meter.

4.3 Broadband
Noise Measurements using parameters, which include all the audible noise

4.4 dB(A)
Decibels A Weighted

4.5 Decibel (dB)
The units of sound level and noise exposure measurement

4.6 Fast Time Weighting
A standard time weighting applied by the Sound Level Meter

4.7 IEC 60651:1979
The International Standard for Sound Level Meters

4.8 IEC 60804:1984
The International Standard for Integrating & Integrating-Averaging Sound Level Meters

4.9 IEC 61260:1995
The International Standard for 1:1 Octave & 1:3 Octave Band Filters

4.10 IEC 61672-1:2003
The International Standard for Sound Level Meter and Integrating Averaging Sound Level Meters that replaces both IEC 60651 and IEC 60804

4.11 Integrating Averaging Sound Level Meter
A Sound Level Meter which accumulates the total sound energy over a measurement period and calculates an average

4.12 LAeq,t
Equivalent continuous sound pressure level. A measure of the average sound pressure level during a period of time, t, in dB with 'A' weighting.

4.13 Sound Level
Sound Pressure Level with a Frequency weighting, such as dB(A)

4.14 Sound Level Meter
An instrument for measuring various noise parameters

4.15 Sound Pressure Level, SPL.
The basic measure of noise loudness, expressed in decibels

5.0 SURVEYING LOCATIONS

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours, Seven (7) days noise monitoring at the boundary of proposed construction site. (Refer to Appendix A for instrument layout plan)

Possible noise contribution source and occurrence:

NOISE MONITORING LOCATION	NOISE SOURCE	OCCURRENCE
Point 2: Front Of Blk 460 Choa Chu Kang Avenue 4 (Ground Level)	Vehicle Traffic	High - Along KJE

Note: The above-mentioned noise sources may be limited and there are possible other noise sources not detected during the time of our site survey. For example, possible noise sources can be from occasional aircraft noise, or other activities nearby to the monitoring points.

6.0 NOISE SURVEY RESULTS

The noise survey was carried out in accordance with the Environmental Pollution Control Act (Chapter 94A, Section 77(1)), Environmental Pollution Control (Control of Noise at Construction Sites) Regulations, 1999.

Monday to Saturday

Types of Affected Building	Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)		
	7am - 7pm	**7pm - 10pm**	**10pm - 7am**
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	60 (LEQ 12hr)	50 (LEQ 12hr)	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	**90 (Leq 5min)**	**70 (Leq 5min)**	**55 (Leq 5min)**
	75 (LEQ 12hr)	**65** (LEQ 1hr)	**55** (LEQ 1hr)
(c) Buildings (other than those in Paragraphs (a)and (b) above	90 (Leq 5min)	70 (Leq 5min)	70 (Leq 5min)
	75 (LEQ 12hr)	65 (LEQ 12hr)	

Sunday and Public Holidays

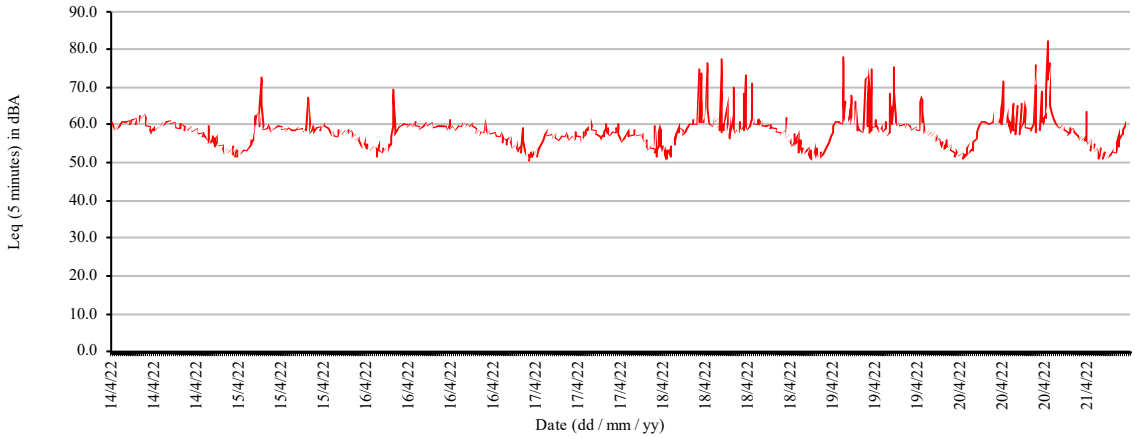
Types of Affected Building	Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)		
	7am - 7pm	**7pm - 10pm**	**10pm - 7am**
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	60 (LEQ 12hr)	50 (LEQ 12hr)	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	**75 (Leq 5min)**	**55 (Leq 5min)**	**55 (Leq 5min)**
	75 (LEQ 12hr)	**-**	**-**
(c) Buildings (other than those in Paragraphs (a)and (b) above	90 (Leq 5min)	70 (Leq 5min)	70 (Leq 5min)
	75 (LEQ 12hr)	65 (LEQ 12hr)	

Note:
No Work Rule on Sundays and Public Holidays
In addition to the settings of the permissible noise limits, NEA has also implemented a rule on prohibition of work on Sundays and Public Holidays (PH) for construction sites located within 150m away from residential premises and noise sensitive premises as follows:
Site Established from 1 September 2011. No work is allowed from 10.00pm on Sat/eve of PH to 7.00am on the following Mon/day after the PH. (For details, please refer to Appendix B)

Survey Results for monitoring point 1 from period : 14-Apr-2022 to 21-Apr-2022

Location : Front Of Blk 460 Ground Level

Leq (5 Minutes) Plotted Against Date of Monitoring



Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 5 min in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 5min db (A)
No. NM-2		From		To			
Front Of Blk 460 Ground Level	Thu	14/4/22	0700	14/4/22	1900	**62.9**	90
	Thu	14/4/22	1900	14/4/22	2200	**59.9**	70
	Thu/Fri	14/4/22	2200	15/4/22	0700	**62.4**	55
	Fri	15/4/22	0700	15/4/22	1900	**72.7**	90
	Fri	15/4/22	1900	15/4/22	2200	**58.9**	70
	Fri/Sat	15/4/22	2200	16/4/22	0700	**69.5**	55
	Sat	16/4/22	0700	16/4/22	1900	**61.5**	90
	Sat	16/4/22	1900	16/4/22	2200	**62.3**	70
	Sat/Sun	16/4/22	2200	17/4/22	0700	**59.0**	55
	Sun	17/4/22	0700	17/4/22	1900	**62.1**	75
	Sun	17/4/22	1900	17/4/22	2200	**59.4**	55
	Sun/Mon	17/4/22	2200	18/4/22	0700	**60.9**	55
	Mon	18/4/22	0700	18/4/22	1900	**77.5**	90
	Mon	18/4/22	1900	18/4/22	2200	**60.5**	70
	Mon/Tue	18/4/22	2200	19/4/22	0700	**61.8**	55
	Tue	19/4/22	0700	19/4/22	1900	**77.9**	90
	Tue	19/4/22	1900	19/4/22	2200	**68.0**	70
	Tue/Wed	19/4/22	2200	20/4/22	0700	**61.0**	55
	Wed	20/4/22	0700	20/4/22	1900	**82.2**	90
	Wed	20/4/22	1900	20/4/22	2200	**60.5**	70
	Wed/Thu	20/4/22	2200	21/4/22	0700	**63.5**	55

Table 6.1 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 5 min

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 1 hr in Leq db(A) for the specific period	Maximum Noise Level permitted for construction sites Leq 1 hr db (A)
No. NM-2		From		To			
Front Of Blk 460 Ground Level	Thu	14/4/22	1900	14/4/22	2200	**59.0**	65
	Thu	14/4/22	2200	15/4/22	0700	**58.3**	55
	Fri	15/4/22	1900	15/4/22	2200	**58.0**	65
	Fri	15/4/22	2200	16/4/22	0700	**62.4**	55
	Sat	16/4/22	1900	16/4/22	2200	**59.3**	65
	Sat	16/4/22	2200	17/4/22	0700	**57.7**	55
	Sun	17/4/22	1900	17/4/22	2200	**57.7**	-
	Sun	17/4/22	2200	18/4/22	0700	**59.6**	-
	Mon	18/4/22	1900	18/4/22	2200	**59.9**	65
	Mon	18/4/22	2200	19/4/22	0700	**59.9**	55
	Tue	19/4/22	1900	19/4/22	2200	**63.6**	65
	Tue	19/4/22	2200	20/4/22	0700	**60.1**	55
	Wed	20/4/22	1900	20/4/22	2200	**59.7**	65
	Wed	20/4/22	2200	21/4/22	0700	**60.1**	55

Table 6.2 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 1 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 12 hr in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 12 hr db (A)
No. NM-2		From		To			
Front Of Blk 460 Ground Level	Thu	14/4/22	0700	14/4/22	1900	**60.3**	75
	Thu	14/4/22	1900	15/4/22	0700	**56.4**	-
	Fri	15/4/22	0700	15/4/22	1900	**60.8**	75
	Fri	15/4/22	1900	16/4/22	0700	**57.4**	-
	Sat	16/4/22	0700	16/4/22	1900	**59.7**	75
	Sat	16/4/22	1900	17/4/22	0700	**56.4**	-
	Sun	17/4/22	0700	17/4/22	1900	**57.6**	75
	Sun	17/4/22	1900	18/4/22	0700	**56.9**	-
	Mon	18/4/22	0700	18/4/22	1900	**64.9**	75
	Mon	18/4/22	1900	19/4/22	0700	**56.8**	-
	Tue	19/4/22	0700	19/4/22	1900	**64.5**	75
	Tue	19/4/22	1900	19/4/22	0700	**57.7**	-
	Wed	19/4/22	0700	20/4/22	1900	**66.5**	75
	Wed	20/4/22	1900	21/4/22	0700	**57.0**	-

Table 6.3 Summary of Noise Monitoring Results at LEQ 12 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over specific period in Leq db(A)	Maximum Noise Level permitted for construction sites in db (A)
No. NM-2		From		To			
Front Of Blk 460 Ground Level	Thu	14/4/22	700	14/4/22	1900	**60.3**	90 (Leq5min) 75 (Leq12hrs)
	Thu	14/4/22	1900	14/4/22	2200	**58.6**	70 (Leq5min) 65 (Leq 1hr)
	Thu	14/4/22	2200	15/4/22	0000	**56.9**	55 (Leq5min) 55 (Leq 1hr)
	Fri	15/4/22	0000	15/4/22	700	**54.8**	55 (Leq5min) 55 (Leq 1hr)
	Fri	15/4/22	700	15/4/22	1900	**60.8**	90 (Leq5min) 75 (Leq12hrs)
	Fri	15/4/22	1900	15/4/22	2200	**57.8**	70 (Leq5min) 65 (Leq 1hr)
	Fri	15/4/22	2200	16/4/22	0000	**57.2**	55 (Leq5min) 55 (Leq 1hr)
	Sat	16/4/22	0000	16/4/22	700	**57.3**	55 (Leq5min) 55 (Leq 1hr)
	Sat	16/4/22	700	16/4/22	1900	**59.7**	90 (Leq5min) 75 (Leq12hrs)
	Sat	16/4/22	1900	16/4/22	2200	**58.6**	70 (Leq5min) 65 (Leq 1hr)
	Sat	16/4/22	2200	17/4/22	0000	**57.3**	55 (Leq5min) 55 (Leq 1hr)
	Sun	17/4/22	0000	17/4/22	700	**54.5**	55 (Leq5min) 55 (Leq 1hr)
	Sun	17/4/22	700	17/4/22	1900	**57.6**	75 (Leq5min) 75 (Leq 1hr)
	Sun	17/4/22	1900	17/4/22	2200	**57.2**	55 (Leq5min)
	Sun	17/4/22	2200	18/4/22	0000	**56.1**	55 (Leq5min)
	Mon	18/4/22	0000	18/4/22	700	**57.0**	55 (Leq5min)
	Mon	18/4/22	700	18/4/22	1900	**64.9**	90 (Leq5min) 75 (Leq12hrs)
	Mon	18/4/22	1900	18/4/22	2200	**59.0**	70 (Leq5min) 65 (Leq 1hr)
	Mon	18/4/22	2200	19/4/22	0000	**56.9**	55 (Leq5min) 55 (Leq 1hr)
	Tue	19/4/22	0000	19/4/22	700	**55.4**	55 (Leq5min) 55 (Leq 1hr)
	Tue	19/4/22	700	19/4/22	1900	**64.5**	90 (Leq5min) 75 (Leq12hrs)
	Tue	19/4/22	1900	19/4/22	2200	**60.9**	70 (Leq5min) 65 (Leq 1hr)
	Tue	19/4/22	2200	20/4/22	0000	**56.7**	55 (Leq5min) 55 (Leq 1hr)
	Wed	20/4/22	0000	20/4/22	700	**55.4**	55 (Leq5min) 55 (Leq 1hr)
	Wed	20/4/22	700	20/4/22	1900	**66.5**	90 (Leq5min) 75 (Leq12hrs)
	Wed	20/4/22	1900	20/4/22	2200	**58.9**	70 (Leq5min) 65 (Leq 1hr)
	Wed	20/4/22	2200	20/4/22	0000	**57.5**	55 (Leq5min) 55 (Leq 1hr)
	Thu	21/4/22	0000	21/4/22	0700	**55.6**	55 (Leq5min) 55 (Leq 1hr)

Table 6.4 Summary of Noise Monitoring Results at Continuous Equivalent of LEQ for specific period

7.0 SUMMARY

The purpose of this survey was to assess the current acoustical environment to establish the background noise level generated over One (1) monitoring point/location for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title

DE170

The location of the nearest Noise Receiver (NSR) : **Front Of Blk 460 Ground Level**

The findings show that,

The ambience noise at NSR point 2 Front of Blk 460 Choa Chu Kang Avenue 4 (Ground Level), falls within the Permissible limits stated in the NEA Guideline on construction noise control for the time period between 7am to 10pm (Leq5min & Leq12hrs) (Monday to Saturday) most of the time.

The Leq 5min exceeds the NEA noise limit (55dBa) for the period 1900hrs to 2200hrs on weekend (Sunday)
The Leq 5min exceeds the NEA noise limit (55dBa) for the period 2200hrs to 0700hrs on weekdays and weekend.
The Leq 1hr exceeds the NEA noise limit (55dBa) for the period 2200hrs to 0700hrs on weekdays.

* Refer to Appendix E for full noise data report.

We recommend submitting an appeal to NEA to adjust the Noise Limit as in table 6.5 for NSR point 2 Front of Blk 460 Choa Chu Kang Avenue 4 (Ground Level)

Background Noise Correction Factor

The adjusted value for the maximum noise level shall be obtained by adding the correction factor corresponding to the difference between the maximum permitted level and the background noise level, set out in the Table below, to the higher of the 2 noise levels.

Difference between 2 noise levels in decibels (A)	Correction factor in decibels (A)
a) Below 2	3
b) 2 to less than 4	2
c) 4 to less than 10	1
d) 10 and above	NIL

Proposed New Permissible Noise Level for monitoring point: **Front Of Blk 460 Ground Level**

Period	Noise Limit	*Equivalent continous sound level over period in Leq dB(A) - Background Noise	Difference	Correction Factor	Proposed Adjusted New Permissible Level (dBA)
7am to 7pm (Monday to Saturday)	90 (Leq5min)	66.5	23.5	0	90 (Leq5min)
	75 (Leq 12hr)	66.5	8.5	1	76 (Leq 12hr)
7pm to 10pm (Monday to Saturday)	70 (Leq 5min)	60.9	9.1	1	71 (Leq 5min)
	65 (Leq 1 hr)	60.9	4.1	1	66 (Leq 1 hr)
10pm to 12am (Monday to Saturday)	55 (Leq 5min)	57.5	-2.5	2	59.5 (Leq 5min)
	55 (Leq 1 hr)	57.5	-2.5	2	59.5 (Leq 1 hr)
12am to 7am (Monday to Saturday)	55 (Leq 5min)	57.3	-2.3	2	59.3 (Leq 5min)
	55 (Leq 1 hr)	57.3	-2.3	2	59.3 (Leq 1 hr)
7am to 7pm (Sunday)	75 (Leq5min)	57.6	17.4	0	75 (Leq5min)
	75 (Leq 12hr)	57.6	17.4	0	75 (Leq 12hr)
7pm to 10pm (Sunday)	55 (Leq 5min)	57.2	-2.2	2	59.2 (Leq 5min)
10pm to 12am (Sunday)	55 (Leq 5min)	56.1	-1.1	3	59.1 (Leq 5min)
12am to 7am (Sunday)	55 (Leq 5min)	54.5	0.5	3	58 (Leq 5min)

* The highest equivalent continuous sound level in Leq dB(A) between Monday to Saturday is taken for calculating the adjusted new permissible level for each period.

Table 6.5 Proposed New Permissible Noise Level

8.0 CONFIRMATION

We, ENSSCOM PTE LTD, certify that the information given is correct. The noise survey was conducted for

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title
DE170

was carried out as described in this report and the results resented herein.

Date of Monitoring:

From 14/4/22 (0700hrs) to 21/4/22 (0700hrs)

Hoo Hian Choon (Mr)
Noise Monitoring Consultant
6-May-2022

APPENDIX A : INSTRUMENT LAYOUT PLAN

NOISE METER

APPENDIX B: NEA CONSTRUCTION NOISE CONTROL GUIDELINE

Construction Noise Control

Maximum Permissible Noise Levels for Construction Work Commenced on or after 1st October 2007

Noise Regulation

Mondays to Saturdays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	65 dBA (Leq 1 hr)	55 dBA (Leq 1 hr)
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

Sundays and Public Holidays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	-	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

APPENDIX C: NOISE MONITORING OFFICER CERTIFICATES

S/No: 02/20/159

Acoustical Laboratory Pte Ltd
CENTRE FOR ENVIRONMENTAL CONSULTATION AND TRAINING

Certificate of Competence

This is to certify that

Hoo Hian Choon

has attended and passed an examination for a course on

Noise Monitoring

held between 22nd May 2002 and 24th May 2002

Acoustical Laboratory is approved by the Ministry of Labour as a Training Centre for the Noise Monitoring Course

Tan Kok Yang
Course Co-ordinator

Koh L. B.
Managing Director

NANYANG TECHNOLOGICAL UNIVERSITY

This is to certify that

Hoo Hian Choon

has successfully completed the 2½-day course

Industrial Noise Control

Seah Ben Hun
Director
Centre for Continuing Education

27 August 2010

APPENDIX D: INSTRUMENT CALIBRATION CERTIFICATES

Cirrus Research plc
dedicated to noise measurement

ENSSCOM
Improving Your Workplace Safety & Health

Certificate of Calibration

Equipment Details

Instrument Manufacturer	Cirrus Research plc
Instrument Type	CR: 191 SG
Description	Sound Level Meter
Serial Number	G078328

Calibration Procedure

The instrument detailed above have been calibrated to the publish test and calibration data as detailed in the instrument hand book, using the techniques recommended in the latest revisions of the International Standards IEC 61672-1:2013, IEC 61672-1:2002, IEC 60651:1979, IEC 60804: 2001, IEC 61260:1995, IEC 60942:2003, IEC 60942:1997, IEC 61252:1993, ANSI S1.4-1983, ANSI S1.11-1986 and ANSI S1.43-1997 where applicable.
Sound Level Meters: All Calibration procedures were carried out by substituting the microphone capsule with a suitable electrical signal, apart from the final acoustic calibration.

Calibration Traceability

The instrument detailed above was calibrated against the calibration laboratory standards held by Cirrus Research plc. These are traceable to International Standards {A.0.6}. The standards are:

Multi Acoustic Calibrator	B & K 4226	Serial Number	3041345	Calibration Ref.	551220084084700
Microphone Type	MK 224	Serial Number	214953B	Calibration Ref.	162361

Calibrated by	
Calibration Date	23 February 2022
Calibration Certificate Number	228056

This Calibration Certificate is valid for 12 months from the date above.

Contact Your Local Authorised Distributor for Product Enquiries & Calibration Services

ENSSCOM PTE LTD
1015, Geylang East Ave 3 #04-105 Singapore 389730
Company Reg. No. 200720176H GST Reg. No. 200720176H
T +65 6743 9882 F +65 6743 9887
W www.ensscom.com E enquiry@ensscom.com

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **07 September 2021** CERTIFICATE NUMBER **162363**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Page 1 of 2

Approved signatory
N.Smith
Electronically signed:

Sound Calibrator : IEC 60942:2003

Instrument information

Manufacturer: Cirrus Research plc **Notes:**
Model: CR:515
Serial number: 60614
Class: 1

Test summary

Date of calibration: 07 September 2021

The sound calibrator detailed above has been calibrated to the published data as described in the operating manual and in the half-inch configuration. The procedures and techniques used are as described in IEC60942_2003 Annex B – Periodic Tests and three determinations of the sound pressure level, frequency and total distortion were made.

The sound pressure level was measured using a WS2F condenser microphone type MK:224 manufactured by Cirrus Research plc.

The results have been corrected to the reference pressure of 101.33 kPa using the manufacturer's data.

The manufacturer's product information indicates that this model of sound calibrator has been formally pattern approved to IEC60942_2003 Annex A to Class 1. This has been confirmed with the PhysikalischTechnische Bundesanstalt (PTB), Laboratoire National d'Essais (LNE) and APPLUS.

Notes:

This certificate provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. The results within this certificate relate only to the items calibrated. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%.

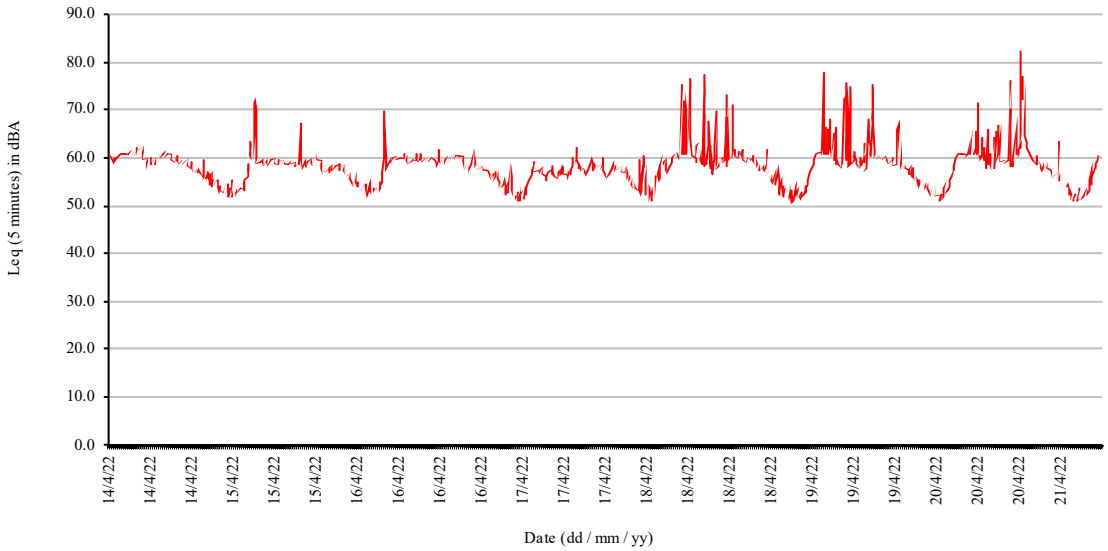
APPENDIX E

CONSTRUCTION SITE NOISE MONITORING DATA AND CHART

NAME OF COMPANY	CH2M HILL Singapore Pte Ltd
SITE LOCATION	Along KJE
REPORT REFERENCE	14/04/2022 - 21/04/2022

MODE	Environment	FREQUENCY WEIGHTING	A

Leq (5 Minutes) Plotted Against Date of Monitoring



NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			14/04/2022 - 21/04/2022								
Start	14/4/22		7:05		**Leq12h**	60.3			Weighting		A
End	14/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
14/4/22	7:05	60.8			14/4/22	11:05	60.4		14/4/22	15:05	60.5
14/4/22	7:10	60.8			14/4/22	11:10	61.0		14/4/22	15:10	59.0
14/4/22	7:15	61.2			14/4/22	11:15	61.4		14/4/22	15:15	59.8
14/4/22	7:20	60.6			14/4/22	11:20	60.7		14/4/22	15:20	59.7
14/4/22	7:25	60.7			14/4/22	11:25	60.6		14/4/22	15:25	58.6
14/4/22	7:30	60.6			14/4/22	11:30	60.5		14/4/22	15:30	58.9
14/4/22	7:35	59.5			14/4/22	11:35	61.1		14/4/22	15:35	60.7
14/4/22	7:40	59.2			14/4/22	11:40	60.3		14/4/22	15:40	60.7
14/4/22	7:45	59.4			14/4/22	11:45	60.5		14/4/22	15:45	60.7
14/4/22	7:50	59.3			14/4/22	11:50	62.2		14/4/22	15:50	59.9
14/4/22	7:55	58.7			14/4/22	11:55	61.2		14/4/22	15:55	60.3
14/4/22	8:00	58.8			14/4/22	12:00	62.2		14/4/22	16:00	60.2
14/4/22	8:05	60.0			14/4/22	12:05	61.2		14/4/22	16:05	60.5
14/4/22	8:10	58.6			14/4/22	12:10	61.3		14/4/22	16:10	60.8
14/4/22	8:15	59.3			14/4/22	12:15	61.3		14/4/22	16:15	61.3
14/4/22	8:20	59.3			14/4/22	12:20	60.6		14/4/22	16:20	60.2
14/4/22	8:25	59.8			14/4/22	12:25	60.6		14/4/22	16:25	61.0
14/4/22	8:30	60.2			14/4/22	12:30	62.9		14/4/22	16:30	60.3
14/4/22	8:35	59.8			14/4/22	12:35	62.4		14/4/22	16:35	60.7
14/4/22	8:40	60.1			14/4/22	12:40	61.8		14/4/22	16:40	61.5
14/4/22	8:45	60.0			14/4/22	12:45	62.5		14/4/22	16:45	60.1
14/4/22	8:50	60.0			14/4/22	12:50	61.4		14/4/22	16:50	59.8
14/4/22	8:55	60.9			14/4/22	12:55	59.5		14/4/22	16:55	60.5
14/4/22	9:00	61.2			14/4/22	13:00	59.5		14/4/22	17:00	60.3
14/4/22	9:05	60.9			14/4/22	13:05	60.0		14/4/22	17:05	60.8
14/4/22	9:10	61.0			14/4/22	13:10	59.3		14/4/22	17:10	60.4
14/4/22	9:15	60.7			14/4/22	13:15	59.4		14/4/22	17:15	60.8
14/4/22	9:20	60.9			14/4/22	13:20	59.7		14/4/22	17:20	60.8
14/4/22	9:25	60.2			14/4/22	13:25	60.0		14/4/22	17:25	61.0
14/4/22	9:30	60.8			14/4/22	13:30	59.1		14/4/22	17:30	61.0
14/4/22	9:35	60.6			14/4/22	13:35	58.7		14/4/22	17:35	61.0
14/4/22	9:40	60.6			14/4/22	13:40	57.5		14/4/22	17:40	60.7
14/4/22	9:45	60.6			14/4/22	13:45	58.5		14/4/22	17:45	59.4
14/4/22	9:50	60.4			14/4/22	13:50	58.6		14/4/22	17:50	59.8
14/4/22	9:55	61.4			14/4/22	13:55	57.9		14/4/22	17:55	59.5
14/4/22	10:00	61.2			14/4/22	14:00	58.1		14/4/22	18:00	59.3
14/4/22	10:05	60.2			14/4/22	14:05	59.7		14/4/22	18:05	59.3
14/4/22	10:10	61.2			14/4/22	14:10	58.5		14/4/22	18:10	59.1
14/4/22	10:15	60.6			14/4/22	14:15	59.8		14/4/22	18:15	59.1
14/4/22	10:20	60.6			14/4/22	14:20	58.6		14/4/22	18:20	59.3
14/4/22	10:25	60.9			14/4/22	14:25	58.9		14/4/22	18:25	60.3
14/4/22	10:30	60.5			14/4/22	14:30	58.6		14/4/22	18:30	59.1
14/4/22	10:35	61.1			14/4/22	14:35	59.1		14/4/22	18:35	60.3
14/4/22	10:40	61.3			14/4/22	14:40	58.7		14/4/22	18:40	59.7
14/4/22	10:45	61.7			14/4/22	14:45	59.8		14/4/22	18:45	59.8
14/4/22	10:50	62.0			14/4/22	14:50	58.5		14/4/22	18:50	59.5
14/4/22	10:55	61.5			14/4/22	14:55	59.0		14/4/22	18:55	60.1
14/4/22	11:00	61.7			14/4/22	15:00	60.2		14/4/22	19:00	59.5

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			14/04/2022 - 21/04/2022										
Start	14/4/22		19:05		**Leq12h**	56.4				Weighting		A	
End	15/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
14/4/22	19:05	59.2			14/4/22	23:05	**59.7**			15/4/22	3:05	52.2	
14/4/22	19:10	58.6			14/4/22	23:10	**56.1**			15/4/22	3:10	54.5	
14/4/22	19:15	59.5			14/4/22	23:15	**55.1**			15/4/22	3:15	52.0	
14/4/22	19:20	59.3			14/4/22	23:20	**56.6**			15/4/22	3:20	53.8	
14/4/22	19:25	59.6			14/4/22	23:25	**55.8**			15/4/22	3:25	53.2	
14/4/22	19:30	59.3			14/4/22	23:30	**55.3**			15/4/22	3:30	51.5	
14/4/22	19:35	59.3			14/4/22	23:35	**57.5**			15/4/22	3:35	53.7	
14/4/22	19:40	58.5			14/4/22	23:40	**55.5**			15/4/22	3:40	53.3	
14/4/22	19:45	58.8			14/4/22	23:45	**57.2**			15/4/22	3:45	52.2	
14/4/22	19:50	58.6			14/4/22	23:50	**56.2**			15/4/22	3:50	53.2	
14/4/22	19:55	58.8			14/4/22	23:55	**55.8**			15/4/22	3:55	51.9	
14/4/22	20:00	58.8	59.0		14/4/22	0:00	**55.1**	**56.5**		15/4/22	4:00	**55.1**	53.2
14/4/22	20:05	59.1			15/4/22	0:05	**56.7**			15/4/22	4:05	52.4	
14/4/22	20:10	59.3			15/4/22	0:10	54.6			15/4/22	4:10	52.2	
14/4/22	20:15	59.9			15/4/22	0:15	**55.8**			15/4/22	4:15	52.6	
14/4/22	20:20	58.3			15/4/22	0:20	**57.5**			15/4/22	4:20	54.9	
14/4/22	20:25	58.4			15/4/22	0:25	**55.5**			15/4/22	4:25	54.5	
14/4/22	20:30	58.8			15/4/22	0:30	**55.1**			15/4/22	4:30	52.1	
14/4/22	20:35	58.9			15/4/22	0:35	54.2			15/4/22	4:35	51.5	
14/4/22	20:40	58.4			15/4/22	0:40	54.8			15/4/22	4:40	52.8	
14/4/22	20:45	57.9			15/4/22	0:45	**55.6**			15/4/22	4:45	53.4	
14/4/22	20:50	58.4			15/4/22	0:50	**55.2**			15/4/22	4:50	53.7	
14/4/22	20:55	57.9			15/4/22	0:55	54.2			15/4/22	4:55	53.1	
14/4/22	21:00	59.0	58.7		15/4/22	1:00	54.6	**55.4**		15/4/22	5:00	53.1	53.1
14/4/22	21:05	58.4			15/4/22	1:05	53.8			15/4/22	5:05	52.8	
14/4/22	21:10	58.8			15/4/22	1:10	54.1			15/4/22	5:10	52.7	
14/4/22	21:15	58.8			15/4/22	1:15	54.1			15/4/22	5:15	53.4	
14/4/22	21:20	57.8			15/4/22	1:20	**55.1**			15/4/22	5:20	53.0	
14/4/22	21:25	57.1			15/4/22	1:25	54.3			15/4/22	5:25	53.4	
14/4/22	21:30	57.6			15/4/22	1:30	**55.3**			15/4/22	5:30	53.2	
14/4/22	21:35	57.8			15/4/22	1:35	53.9			15/4/22	5:35	53.6	
14/4/22	21:40	58.0			15/4/22	1:40	53.9			15/4/22	5:40	53.5	
14/4/22	21:45	57.6			15/4/22	1:45	53.4			15/4/22	5:45	53.8	
14/4/22	21:50	57.5			15/4/22	1:50	52.2			15/4/22	5:50	53.8	
14/4/22	21:55	57.0			15/4/22	1:55	53.9			15/4/22	5:55	54.7	
14/4/22	22:00	58.0	57.9		15/4/22	2:00	53.2	54.0		15/4/22	6:00	53.2	53.5
14/4/22	22:05	**57.0**			15/4/22	2:05	53.8			15/4/22	6:05	**55.1**	
14/4/22	22:10	**58.0**			15/4/22	2:10	53.0			15/4/22	6:10	**55.1**	
14/4/22	22:15	**57.5**			15/4/22	2:15	53.6			15/4/22	6:15	**55.9**	
14/4/22	22:20	**57.2**			15/4/22	2:20	52.9			15/4/22	6:20	54.9	
14/4/22	22:25	**57.4**			15/4/22	2:25	52.9			15/4/22	6:25	**55.9**	
14/4/22	22:30	**57.3**			15/4/22	2:30	53.0			15/4/22	6:30	**55.8**	
14/4/22	22:35	**56.7**			15/4/22	2:35	52.3			15/4/22	6:35	**56.1**	
14/4/22	22:40	**56.8**			15/4/22	2:40	54.0			15/4/22	6:40	**58.5**	
14/4/22	22:45	**57.3**			15/4/22	2:45	53.8			15/4/22	6:45	**57.5**	
14/4/22	22:50	**57.2**			15/4/22	2:50	53.8			15/4/22	6:50	**62.4**	
14/4/22	22:55	**57.0**			15/4/22	2:55	52.2			15/4/22	6:55	**60.5**	
14/4/22	23:00	**56.2**	**57.2**		15/4/22	3:00	53.3	53.3		15/4/22	7:00	**61.9**	**58.3**

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			14/04/2022 - 21/04/2022								
Start	15/4/22		7:05		**Leq12h**	60.8			Weighting		A
End	15/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
15/4/22	7:05	63.5			15/4/22	11:05	59.8		15/4/22	15:05	57.7
15/4/22	7:10	60.2			15/4/22	11:10	58.7		15/4/22	15:10	58.4
15/4/22	7:15	59.5			15/4/22	11:15	58.8		15/4/22	15:15	59.5
15/4/22	7:20	59.9			15/4/22	11:20	58.7		15/4/22	15:20	58.9
15/4/22	7:25	59.7			15/4/22	11:25	58.8		15/4/22	15:25	59.2
15/4/22	7:30	62.2			15/4/22	11:30	58.4		15/4/22	15:30	58.5
15/4/22	7:35	59.6			15/4/22	11:35	58.4		15/4/22	15:35	66.4
15/4/22	7:40	64.7			15/4/22	11:40	58.7		15/4/22	15:40	67.1
15/4/22	7:45	71.5			15/4/22	11:45	59.3		15/4/22	15:45	60.0
15/4/22	7:50	72.7			15/4/22	11:50	59.4		15/4/22	15:50	57.5
15/4/22	7:55	70.3			15/4/22	11:55	58.9		15/4/22	15:55	58.2
15/4/22	8:00	65.8			15/4/22	12:00	58.2		15/4/22	16:00	57.7
15/4/22	8:05	59.8			15/4/22	12:05	59.3		15/4/22	16:05	58.2
15/4/22	8:10	58.9			15/4/22	12:10	59.7		15/4/22	16:10	57.8
15/4/22	8:15	58.5			15/4/22	12:15	59.6		15/4/22	16:15	58.7
15/4/22	8:20	58.4			15/4/22	12:20	59.1		15/4/22	16:20	60.0
15/4/22	8:25	58.6			15/4/22	12:25	59.5		15/4/22	16:25	58.6
15/4/22	8:30	58.3			15/4/22	12:30	59.2		15/4/22	16:30	57.7
15/4/22	8:35	59.2			15/4/22	12:35	58.4		15/4/22	16:35	58.0
15/4/22	8:40	59.0			15/4/22	12:40	59.5		15/4/22	16:40	57.5
15/4/22	8:45	59.0			15/4/22	12:45	58.8		15/4/22	16:45	59.3
15/4/22	8:50	59.4			15/4/22	12:50	58.8		15/4/22	16:50	59.3
15/4/22	8:55	60.1			15/4/22	12:55	59.2		15/4/22	16:55	58.9
15/4/22	9:00	59.5			15/4/22	13:00	59.1		15/4/22	17:00	58.9
15/4/22	9:05	59.3			15/4/22	13:05	59.2		15/4/22	17:05	59.0
15/4/22	9:10	59.0			15/4/22	13:10	58.6		15/4/22	17:10	59.9
15/4/22	9:15	58.6			15/4/22	13:15	59.2		15/4/22	17:15	59.4
15/4/22	9:20	58.7			15/4/22	13:20	59.1		15/4/22	17:20	59.0
15/4/22	9:25	58.8			15/4/22	13:25	58.6		15/4/22	17:25	59.6
15/4/22	9:30	58.1			15/4/22	13:30	58.4		15/4/22	17:30	58.4
15/4/22	9:35	58.1			15/4/22	13:35	58.2		15/4/22	17:35	60.0
15/4/22	9:40	58.7			15/4/22	13:40	58.8		15/4/22	17:40	59.5
15/4/22	9:45	59.8			15/4/22	13:45	58.9		15/4/22	17:45	59.8
15/4/22	9:50	59.0			15/4/22	13:50	59.0		15/4/22	17:50	59.1
15/4/22	9:55	58.7			15/4/22	13:55	59.6		15/4/22	17:55	59.3
15/4/22	10:00	59.2			15/4/22	14:00	58.5		15/4/22	18:00	59.4
15/4/22	10:05	58.5			15/4/22	14:05	58.9		15/4/22	18:05	60.8
15/4/22	10:10	58.5			15/4/22	14:10	59.3		15/4/22	18:10	59.6
15/4/22	10:15	58.2			15/4/22	14:15	58.5		15/4/22	18:15	59.0
15/4/22	10:20	58.7			15/4/22	14:20	58.6		15/4/22	18:20	59.3
15/4/22	10:25	59.5			15/4/22	14:25	59.1		15/4/22	18:25	59.2
15/4/22	10:30	59.7			15/4/22	14:30	58.4		15/4/22	18:30	59.2
15/4/22	10:35	59.6			15/4/22	14:35	59.2		15/4/22	18:35	59.3
15/4/22	10:40	60.0			15/4/22	14:40	59.0		15/4/22	18:40	59.4
15/4/22	10:45	59.8			15/4/22	14:45	59.5		15/4/22	18:45	59.0
15/4/22	10:50	59.6			15/4/22	14:50	58.9		15/4/22	18:50	59.5
15/4/22	10:55	59.4			15/4/22	14:55	58.8		15/4/22	18:55	59.4
15/4/22	11:00	59.9			15/4/22	15:00	58.3		15/4/22	19:00	58.6

ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			14/04/2022 - 21/04/2022										
Start	15/4/22		19:05		**Leq12h**	57.4				Weighting		A	
End	16/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
15/4/22	19:05	58.2			15/4/22	23:05	**57.5**			16/4/22	3:05	**55.7**	
15/4/22	19:10	58.0			15/4/22	23:10	**57.3**			16/4/22	3:10	54.4	
15/4/22	19:15	58.1			15/4/22	23:15	**56.8**			16/4/22	3:15	53.2	
15/4/22	19:20	58.1			15/4/22	23:20	**57.5**			16/4/22	3:20	53.9	
15/4/22	19:25	57.3			15/4/22	23:25	**56.8**			16/4/22	3:25	53.2	
15/4/22	19:30	56.4			15/4/22	23:30	**56.2**			16/4/22	3:30	52.9	
15/4/22	19:35	57.2			15/4/22	23:35	**56.0**			16/4/22	3:35	53.7	
15/4/22	19:40	58.5			15/4/22	23:40	**56.2**			16/4/22	3:40	52.5	
15/4/22	19:45	57.2			15/4/22	23:45	**57.2**			16/4/22	3:45	53.5	
15/4/22	19:50	56.6			15/4/22	23:50	**55.7**			16/4/22	3:50	52.7	
15/4/22	19:55	56.7			15/4/22	23:55	**55.9**			16/4/22	3:55	53.6	
15/4/22	20:00	57.2	57.5		15/4/22	0:00	**55.2**	**56.6**		16/4/22	4:00	52.8	53.6
15/4/22	20:05	57.2			16/4/22	0:05	54.8			16/4/22	4:05	53.2	
15/4/22	20:10	57.1			16/4/22	0:10	**55.4**			16/4/22	4:10	53.8	
15/4/22	20:15	57.8			16/4/22	0:15	**55.1**			16/4/22	4:15	53.5	
15/4/22	20:20	57.5			16/4/22	0:20	**55.4**			16/4/22	4:20	53.7	
15/4/22	20:25	56.8			16/4/22	0:25	54.8			16/4/22	4:25	54.0	
15/4/22	20:30	57.8			16/4/22	0:30	**55.2**			16/4/22	4:30	53.0	
15/4/22	20:35	58.5			16/4/22	0:35	54.9			16/4/22	4:35	52.9	
15/4/22	20:40	57.3			16/4/22	0:40	54.0			16/4/22	4:40	53.6	
15/4/22	20:45	57.1			16/4/22	0:45	54.1			16/4/22	4:45	54.1	
15/4/22	20:50	58.9			16/4/22	0:50	**57.3**			16/4/22	4:50	52.6	
15/4/22	20:55	58.1			16/4/22	0:55	54.7			16/4/22	4:55	53.4	
15/4/22	21:00	58.2	57.7		16/4/22	1:00	54.6	**55.1**		16/4/22	5:00	54.9	53.6
15/4/22	21:05	57.5			16/4/22	1:05	54.0			16/4/22	5:05	53.6	
15/4/22	21:10	57.5			16/4/22	1:10	55.0			16/4/22	5:10	54.2	
15/4/22	21:15	57.9			16/4/22	1:15	54.0			16/4/22	5:15	54.7	
15/4/22	21:20	57.9			16/4/22	1:20	54.7			16/4/22	5:20	54.9	
15/4/22	21:25	57.9			16/4/22	1:25	54.7			16/4/22	5:25	**57.1**	
15/4/22	21:30	58.2			16/4/22	1:30	53.6			16/4/22	5:30	**57.0**	
15/4/22	21:35	57.8			16/4/22	1:35	53.8			16/4/22	5:35	**59.9**	
15/4/22	21:40	58.4			16/4/22	1:40	**55.8**			16/4/22	5:40	**69.5**	
15/4/22	21:45	57.7			16/4/22	1:45	53.2			16/4/22	5:45	**67.9**	
15/4/22	21:50	57.9			16/4/22	1:50	52.9			16/4/22	5:50	**60.5**	
15/4/22	21:55	58.3			16/4/22	1:55	52.7			16/4/22	5:55	**59.0**	
15/4/22	22:00	58.8	58.0		16/4/22	2:00	52.9	54.0		16/4/22	6:00	**58.2**	**62.4**
15/4/22	22:05	**57.5**			16/4/22	2:05	52.8			16/4/22	6:05	**57.1**	
15/4/22	22:10	**58.8**			16/4/22	2:10	54.5			16/4/22	6:10	**57.0**	
15/4/22	22:15	**57.5**			16/4/22	2:15	54.7			16/4/22	6:15	**58.6**	
15/4/22	22:20	**57.5**			16/4/22	2:20	54.0			16/4/22	6:20	**58.8**	
15/4/22	22:25	**57.9**			16/4/22	2:25	53.0			16/4/22	6:25	**58.6**	
15/4/22	22:30	**57.3**			16/4/22	2:30	54.4			16/4/22	6:30	**58.5**	
15/4/22	22:35	**57.8**			16/4/22	2:35	53.8			16/4/22	6:35	**60.1**	
15/4/22	22:40	**58.5**			16/4/22	2:40	53.9			16/4/22	6:40	**59.2**	
15/4/22	22:45	**57.5**			16/4/22	2:45	53.1			16/4/22	6:45	**59.0**	
15/4/22	22:50	**57.7**			16/4/22	2:50	51.6			16/4/22	6:50	**59.8**	
15/4/22	22:55	**57.2**			16/4/22	2:55	52.8			16/4/22	6:55	**59.9**	
15/4/22	23:00	**56.7**	**57.7**		16/4/22	3:00	53.3	53.6		16/4/22	7:00	**59.2**	**58.9**

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			14/04/2022 - 21/04/2022								
Start	16/4/22		7:05		**Leq12h**	59.7			Weighting		A
End	16/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
16/4/22	7:05	59.3			16/4/22	11:05	60.6		16/4/22	15:05	58.7
16/4/22	7:10	60.0			16/4/22	11:10	60.0		16/4/22	15:10	59.7
16/4/22	7:15	59.7			16/4/22	11:15	60.0		16/4/22	15:15	59.8
16/4/22	7:20	59.7			16/4/22	11:20	60.2		16/4/22	15:20	59.5
16/4/22	7:25	59.6			16/4/22	11:25	59.8		16/4/22	15:25	59.2
16/4/22	7:30	60.3			16/4/22	11:30	59.2		16/4/22	15:30	59.1
16/4/22	7:35	60.3			16/4/22	11:35	59.6		16/4/22	15:35	59.3
16/4/22	7:40	59.6			16/4/22	11:40	59.4		16/4/22	15:40	59.8
16/4/22	7:45	59.5			16/4/22	11:45	59.8		16/4/22	15:45	59.5
16/4/22	7:50	60.1			16/4/22	11:50	61.0		16/4/22	15:50	58.6
16/4/22	7:55	60.0			16/4/22	11:55	60.1		16/4/22	15:55	59.2
16/4/22	8:00	60.0			16/4/22	12:00	60.5		16/4/22	16:00	59.2
16/4/22	8:05	59.4			16/4/22	12:05	60.2		16/4/22	16:05	59.4
16/4/22	8:10	59.2			16/4/22	12:10	59.0		16/4/22	16:10	59.7
16/4/22	8:15	60.0			16/4/22	12:15	59.3		16/4/22	16:15	59.6
16/4/22	8:20	60.0			16/4/22	12:20	58.8		16/4/22	16:20	59.2
16/4/22	8:25	59.8			16/4/22	12:25	59.7		16/4/22	16:25	60.3
16/4/22	8:30	59.8			16/4/22	12:30	59.9		16/4/22	16:30	59.3
16/4/22	8:35	60.0			16/4/22	12:35	59.5		16/4/22	16:35	59.5
16/4/22	8:40	60.0			16/4/22	12:40	59.7		16/4/22	16:40	59.0
16/4/22	8:45	60.3			16/4/22	12:45	59.5		16/4/22	16:45	60.2
16/4/22	8:50	59.8			16/4/22	12:50	59.5		16/4/22	16:50	59.9
16/4/22	8:55	60.0			16/4/22	12:55	59.2		16/4/22	16:55	59.8
16/4/22	9:00	59.9			16/4/22	13:00	60.0		16/4/22	17:00	59.5
16/4/22	9:05	60.7			16/4/22	13:05	60.2		16/4/22	17:05	60.6
16/4/22	9:10	59.5			16/4/22	13:10	59.4		16/4/22	17:10	59.8
16/4/22	9:15	59.8			16/4/22	13:15	59.1		16/4/22	17:15	60.6
16/4/22	9:20	60.8			16/4/22	13:20	59.4		16/4/22	17:20	60.6
16/4/22	9:25	59.5			16/4/22	13:25	59.2		16/4/22	17:25	60.2
16/4/22	9:30	59.0			16/4/22	13:30	59.8		16/4/22	17:30	59.4
16/4/22	9:35	59.7			16/4/22	13:35	59.5		16/4/22	17:35	59.8
16/4/22	9:40	60.0			16/4/22	13:40	59.5		16/4/22	17:40	59.9
16/4/22	9:45	59.6			16/4/22	13:45	60.0		16/4/22	17:45	60.4
16/4/22	9:50	59.5			16/4/22	13:50	59.8		16/4/22	17:50	60.6
16/4/22	9:55	58.5			16/4/22	13:55	60.2		16/4/22	17:55	60.5
16/4/22	10:00	59.2			16/4/22	14:00	59.7		16/4/22	18:00	60.1
16/4/22	10:05	59.4			16/4/22	14:05	59.6		16/4/22	18:05	60.3
16/4/22	10:10	59.3			16/4/22	14:10	59.6		16/4/22	18:10	59.9
16/4/22	10:15	58.6			16/4/22	14:15	59.0		16/4/22	18:15	60.2
16/4/22	10:20	59.2			16/4/22	14:20	59.3		16/4/22	18:20	60.5
16/4/22	10:25	58.8			16/4/22	14:25	59.4		16/4/22	18:25	60.3
16/4/22	10:30	59.7			16/4/22	14:30	59.1		16/4/22	18:30	60.6
16/4/22	10:35	59.0			16/4/22	14:35	58.6		16/4/22	18:35	60.0
16/4/22	10:40	59.4			16/4/22	14:40	58.0		16/4/22	18:40	60.0
16/4/22	10:45	59.2			16/4/22	14:45	59.4		16/4/22	18:45	59.9
16/4/22	10:50	59.1			16/4/22	14:50	60.1		16/4/22	18:50	59.9
16/4/22	10:55	59.5			16/4/22	14:55	61.5		16/4/22	18:55	60.2
16/4/22	11:00	59.4			16/4/22	15:00	59.8		16/4/22	19:00	59.5

ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			14/04/2022 - 21/04/2022										
Start	16/4/22		19:05		**Leq12h**	56.4				Weighting		A	
End	17/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
16/4/22	19:05	59.7			16/4/22	23:05	**57.5**			17/4/22	3:05	**59.0**	
16/4/22	19:10	59.4			16/4/22	23:10	**57.2**			17/4/22	3:10	**56.2**	
16/4/22	19:15	59.7			16/4/22	23:15	**57.3**			17/4/22	3:15	53.2	
16/4/22	19:20	59.8			16/4/22	23:20	**57.3**			17/4/22	3:20	53.1	
16/4/22	19:25	57.5			16/4/22	23:25	**57.9**			17/4/22	3:25	53.3	
16/4/22	19:30	58.3			16/4/22	23:30	**57.2**			17/4/22	3:30	53.7	
16/4/22	19:35	58.1			16/4/22	23:35	**56.7**			17/4/22	3:35	51.8	
16/4/22	19:40	58.4			16/4/22	23:40	**55.4**			17/4/22	3:40	52.1	
16/4/22	19:45	58.4			16/4/22	23:45	**56.4**			17/4/22	3:45	53.0	
16/4/22	19:50	58.2			16/4/22	23:50	**56.2**			17/4/22	3:50	53.5	
16/4/22	19:55	57.0			16/4/22	23:55	**56.9**			17/4/22	3:55	50.9	
16/4/22	20:00	57.8	58.6		16/4/22	0:00	**56.5**	**56.9**		17/4/22	4:00	52.0	54.1
16/4/22	20:05	58.1			17/4/22	0:05	**56.5**			17/4/22	4:05	50.7	
16/4/22	20:10	58.4			17/4/22	0:10	**55.7**			17/4/22	4:10	52.2	
16/4/22	20:15	58.3			17/4/22	0:15	**56.7**			17/4/22	4:15	50.9	
16/4/22	20:20	57.8			17/4/22	0:20	54.8			17/4/22	4:20	52.7	
16/4/22	20:25	58.6			17/4/22	0:25	**56.0**			17/4/22	4:25	51.8	
16/4/22	20:30	58.3			17/4/22	0:30	**56.8**			17/4/22	4:30	54.2	
16/4/22	20:35	58.9			17/4/22	0:35	**55.7**			17/4/22	4:35	51.2	
16/4/22	20:40	58.7			17/4/22	0:40	**55.4**			17/4/22	4:40	50.9	
16/4/22	20:45	61.9			17/4/22	0:45	**55.3**			17/4/22	4:45	52.2	
16/4/22	20:50	62.3			17/4/22	0:50	**57.3**			17/4/22	4:50	53.2	
16/4/22	20:55	58.5			17/4/22	0:55	**55.6**			17/4/22	4:55	52.3	
16/4/22	21:00	58.1	59.3		17/4/22	1:00	**56.0**	**56.0**		17/4/22	5:00	52.2	52.2
16/4/22	21:05	58.2			17/4/22	1:05	54.9			17/4/22	5:05	52.6	
16/4/22	21:10	57.9			17/4/22	1:10	55.0			17/4/22	5:10	52.5	
16/4/22	21:15	57.5			17/4/22	1:15	**55.3**			17/4/22	5:15	54.1	
16/4/22	21:20	58.2			17/4/22	1:20	53.7			17/4/22	5:20	51.5	
16/4/22	21:25	58.8			17/4/22	1:25	54.5			17/4/22	5:25	54.0	
16/4/22	21:30	57.6			17/4/22	1:30	55.0			17/4/22	5:30	53.3	
16/4/22	21:35	57.2			17/4/22	1:35	53.8			17/4/22	5:35	52.4	
16/4/22	21:40	57.3			17/4/22	1:40	54.2			17/4/22	5:40	53.7	
16/4/22	21:45	57.5			17/4/22	1:45	54.2			17/4/22	5:45	53.3	
16/4/22	21:50	58.3			17/4/22	1:50	54.3			17/4/22	5:50	53.6	
16/4/22	21:55	57.6			17/4/22	1:55	53.9			17/4/22	5:55	53.4	
16/4/22	22:00	58.2	57.9		17/4/22	2:00	**56.0**	54.6		17/4/22	6:00	53.8	53.2
16/4/22	22:05	**57.7**			17/4/22	2:05	53.6			17/4/22	6:05	53.7	
16/4/22	22:10	**58.2**			17/4/22	2:10	52.5			17/4/22	6:10	54.7	
16/4/22	22:15	**58.6**			17/4/22	2:15	53.5			17/4/22	6:15	54.5	
16/4/22	22:20	**57.5**			17/4/22	2:20	54.0			17/4/22	6:20	**55.7**	
16/4/22	22:25	**57.7**			17/4/22	2:25	53.9			17/4/22	6:25	**56.2**	
16/4/22	22:30	**57.8**			17/4/22	2:30	**55.1**			17/4/22	6:30	**55.3**	
16/4/22	22:35	**58.0**			17/4/22	2:35	54.7			17/4/22	6:35	**56.5**	
16/4/22	22:40	**57.5**			17/4/22	2:40	52.7			17/4/22	6:40	**57.4**	
16/4/22	22:45	**56.8**			17/4/22	2:45	52.3			17/4/22	6:45	**57.9**	
16/4/22	22:50	**57.1**			17/4/22	2:50	52.6			17/4/22	6:50	**58.3**	
16/4/22	22:55	**57.2**			17/4/22	2:55	52.6			17/4/22	6:55	**57.6**	
16/4/22	23:00	**57.5**	**57.7**		17/4/22	3:00	53.3	53.5		17/4/22	7:00	**56.8**	**56.4**

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			14/04/2022 - 21/04/2022								
Start	17/4/22		7:05		**Leq12h**	57.6			Weighting		A
End	17/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
17/4/22	7:05	59.0			17/4/22	11:05	57.0		17/4/22	15:05	57.2
17/4/22	7:10	56.9			17/4/22	11:10	56.8		17/4/22	15:10	57.7
17/4/22	7:15	57.2			17/4/22	11:15	56.5		17/4/22	15:15	58.0
17/4/22	7:20	57.0			17/4/22	11:20	57.8		17/4/22	15:20	57.3
17/4/22	7:25	57.5			17/4/22	11:25	57.0		17/4/22	15:25	57.8
17/4/22	7:30	57.1			17/4/22	11:30	57.6		17/4/22	15:30	57.5
17/4/22	7:35	57.4			17/4/22	11:35	56.1		17/4/22	15:35	56.8
17/4/22	7:40	57.2			17/4/22	11:40	56.8		17/4/22	15:40	56.9
17/4/22	7:45	57.6			17/4/22	11:45	58.1		17/4/22	15:45	56.6
17/4/22	7:50	57.2			17/4/22	11:50	57.2		17/4/22	15:50	57.1
17/4/22	7:55	56.5			17/4/22	11:55	57.7		17/4/22	15:55	56.7
17/4/22	8:00	56.9			17/4/22	12:00	56.7		17/4/22	16:00	56.2
17/4/22	8:05	57.3			17/4/22	12:05	57.0		17/4/22	16:05	57.0
17/4/22	8:10	57.3			17/4/22	12:10	56.7		17/4/22	16:10	57.2
17/4/22	8:15	57.2			17/4/22	12:15	57.2		17/4/22	16:15	57.8
17/4/22	8:20	57.2			17/4/22	12:20	56.9		17/4/22	16:20	58.3
17/4/22	8:25	58.1			17/4/22	12:25	56.4		17/4/22	16:25	57.3
17/4/22	8:30	56.7			17/4/22	12:30	57.1		17/4/22	16:30	58.0
17/4/22	8:35	56.8			17/4/22	12:35	57.2		17/4/22	16:35	58.0
17/4/22	8:40	57.2			17/4/22	12:40	56.4		17/4/22	16:40	59.3
17/4/22	8:45	56.4			17/4/22	12:45	55.5		17/4/22	16:45	60.2
17/4/22	8:50	56.7			17/4/22	12:50	56.9		17/4/22	16:50	58.9
17/4/22	8:55	56.1			17/4/22	12:55	56.1		17/4/22	16:55	57.5
17/4/22	9:00	56.1			17/4/22	13:00	56.7		17/4/22	17:00	57.4
17/4/22	9:05	55.2			17/4/22	13:05	57.9		17/4/22	17:05	59.3
17/4/22	9:10	56.0			17/4/22	13:10	56.5		17/4/22	17:10	58.2
17/4/22	9:15	56.1			17/4/22	13:15	57.0		17/4/22	17:15	58.9
17/4/22	9:20	56.2			17/4/22	13:20	57.4		17/4/22	17:20	57.3
17/4/22	9:25	57.2			17/4/22	13:25	57.5		17/4/22	17:25	57.8
17/4/22	9:30	57.1			17/4/22	13:30	58.4		17/4/22	17:30	57.8
17/4/22	9:35	56.7			17/4/22	13:35	59.9		17/4/22	17:35	58.0
17/4/22	9:40	57.2			17/4/22	13:40	58.4		17/4/22	17:40	58.5
17/4/22	9:45	56.7			17/4/22	13:45	58.6		17/4/22	17:45	58.0
17/4/22	9:50	57.0			17/4/22	13:50	59.7		17/4/22	17:50	58.7
17/4/22	9:55	56.9			17/4/22	13:55	59.6		17/4/22	17:55	57.8
17/4/22	10:00	57.8			17/4/22	14:00	59.4		17/4/22	18:00	57.5
17/4/22	10:05	56.7			17/4/22	14:05	58.2		17/4/22	18:05	57.5
17/4/22	10:10	58.3			17/4/22	14:10	62.1		17/4/22	18:10	57.5
17/4/22	10:15	56.8			17/4/22	14:15	59.5		17/4/22	18:15	58.1
17/4/22	10:20	57.1			17/4/22	14:20	59.3		17/4/22	18:20	59.1
17/4/22	10:25	56.4			17/4/22	14:25	58.7		17/4/22	18:25	58.6
17/4/22	10:30	56.8			17/4/22	14:30	58.2		17/4/22	18:30	57.6
17/4/22	10:35	56.3			17/4/22	14:35	58.0		17/4/22	18:35	57.5
17/4/22	10:40	56.2			17/4/22	14:40	58.5		17/4/22	18:40	58.8
17/4/22	10:45	56.4			17/4/22	14:45	59.1		17/4/22	18:45	60.1
17/4/22	10:50	56.1			17/4/22	14:50	59.1		17/4/22	18:50	57.5
17/4/22	10:55	56.1			17/4/22	14:55	58.7		17/4/22	18:55	57.9
17/4/22	11:00	55.8			17/4/22	15:00	57.8		17/4/22	19:00	57.5

ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			14/04/2022 - 21/04/2022										
Start	17/4/22		19:05		**Leq12h**	56.9				Weighting		A	
End	18/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
17/4/22	19:05	**56.5**			17/4/22	23:05	**56.6**			18/4/22	3:05	54.0	
17/4/22	19:10	**56.5**			17/4/22	23:10	**55.8**			18/4/22	3:10	53.9	
17/4/22	19:15	**56.6**			17/4/22	23:15	54.9			18/4/22	3:15	52.5	
17/4/22	19:20	**56.3**			17/4/22	23:20	**55.8**			18/4/22	3:20	51.7	
17/4/22	19:25	**55.6**			17/4/22	23:25	**55.4**			18/4/22	3:25	54.6	
17/4/22	19:30	**56.1**			17/4/22	23:30	54.6			18/4/22	3:30	51.6	
17/4/22	19:35	**56.0**			17/4/22	23:35	55.0			18/4/22	3:35	**56.3**	
17/4/22	19:40	**55.5**			17/4/22	23:40	54.3			18/4/22	3:40	**56.5**	
17/4/22	19:45	**56.7**			17/4/22	23:45	54.8			18/4/22	3:45	54.7	
17/4/22	19:50	**56.5**			17/4/22	23:50	53.4			18/4/22	3:50	**55.1**	
17/4/22	19:55	**56.0**			17/4/22	23:55	53.4			18/4/22	3:55	**55.5**	
17/4/22	20:00	**56.4**	56.2		17/4/22	0:00	55.0	55.0		18/4/22	4:00	**58.1**	54.9
17/4/22	20:05	**56.0**			18/4/22	0:05	53.6			18/4/22	4:05	**56.5**	
17/4/22	20:10	**57.3**			18/4/22	0:10	54.1			18/4/22	4:10	54.8	
17/4/22	20:15	**59.4**			18/4/22	0:15	54.2			18/4/22	4:15	**55.7**	
17/4/22	20:20	**58.3**			18/4/22	0:20	53.5			18/4/22	4:20	**58.1**	
17/4/22	20:25	**57.3**			18/4/22	0:25	53.4			18/4/22	4:25	**58.7**	
17/4/22	20:30	**58.0**			18/4/22	0:30	53.7			18/4/22	4:30	**58.1**	
17/4/22	20:35	**58.5**			18/4/22	0:35	53.7			18/4/22	4:35	**58.7**	
17/4/22	20:40	**57.9**			18/4/22	0:40	53.0			18/4/22	4:40	**60.9**	
17/4/22	20:45	**57.8**			18/4/22	0:45	53.1			18/4/22	4:45	**60.6**	
17/4/22	20:50	**57.2**			18/4/22	0:50	**59.5**			18/4/22	4:50	**58.2**	
17/4/22	20:55	**56.7**			18/4/22	0:55	53.0			18/4/22	4:55	**59.0**	
17/4/22	21:00	**57.2**	57.7		18/4/22	1:00	52.9	54.5		18/4/22	5:00	**59.4**	58.6
17/4/22	21:05	**56.7**			18/4/22	1:05	51.8			18/4/22	5:05	**58.8**	
17/4/22	21:10	**56.8**			18/4/22	1:10	53.1			18/4/22	5:10	**59.8**	
17/4/22	21:15	**57.6**			18/4/22	1:15	54.3			18/4/22	5:15	**59.7**	
17/4/22	21:20	**58.4**			18/4/22	1:20	**56.6**			18/4/22	5:20	**58.7**	
17/4/22	21:25	**58.5**			18/4/22	1:25	**58.2**			18/4/22	5:25	**57.3**	
17/4/22	21:30	**57.2**			18/4/22	1:30	**60.5**			18/4/22	5:30	**56.7**	
17/4/22	21:35	**57.2**			18/4/22	1:35	**58.4**			18/4/22	5:35	**57.4**	
17/4/22	21:40	**58.1**			18/4/22	1:40	54.3			18/4/22	5:40	**57.4**	
17/4/22	21:45	**57.2**			18/4/22	1:45	**58.5**			18/4/22	5:45	**57.2**	
17/4/22	21:50	**56.9**			18/4/22	1:50	**55.5**			18/4/22	5:50	**57.6**	
17/4/22	21:55	**56.5**			18/4/22	1:55	52.5			18/4/22	5:55	**57.9**	
17/4/22	22:00	**57.5**	57.4		18/4/22	2:00	54.2	56.5		18/4/22	6:00	**57.9**	58.1
17/4/22	22:05	**57.5**			18/4/22	2:05	53.4			18/4/22	6:05	**58.0**	
17/4/22	22:10	**57.3**			18/4/22	2:10	52.9			18/4/22	6:10	**58.0**	
17/4/22	22:15	**57.5**			18/4/22	2:15	54.5			18/4/22	6:15	**59.0**	
17/4/22	22:20	**57.1**			18/4/22	2:20	54.6			18/4/22	6:20	**58.6**	
17/4/22	22:25	**57.6**			18/4/22	2:25	53.5			18/4/22	6:25	**59.6**	
17/4/22	22:30	**56.5**			18/4/22	2:30	52.3			18/4/22	6:30	**60.0**	
17/4/22	22:35	**58.2**			18/4/22	2:35	52.8			18/4/22	6:35	**60.2**	
17/4/22	22:40	**56.9**			18/4/22	2:40	50.5			18/4/22	6:40	**59.8**	
17/4/22	22:45	**57.0**			18/4/22	2:45	53.3			18/4/22	6:45	**60.4**	
17/4/22	22:50	**56.3**			18/4/22	2:50	51.1			18/4/22	6:50	**60.7**	
17/4/22	22:55	**55.4**			18/4/22	2:55	52.9			18/4/22	6:55	**60.4**	
17/4/22	23:00	**55.6**	57.0		18/4/22	3:00	53.3	53.1		18/4/22	7:00	**60.0**	59.6

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			14/04/2022 - 21/04/2022								
Start	18/4/22		7:05		**Leq12h**	64.9			Weighting		A
End	18/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
18/4/22	7:05	60.4			18/4/22	11:05	61.4		18/4/22	15:05	59.0
18/4/22	7:10	61.2			18/4/22	11:10	59.4		18/4/22	15:10	58.9
18/4/22	7:15	60.3			18/4/22	11:15	59.7		18/4/22	15:15	59.2
18/4/22	7:20	59.9			18/4/22	11:20	58.7		18/4/22	15:20	58.5
18/4/22	7:25	60.0			18/4/22	11:25	59.3		18/4/22	15:25	59.5
18/4/22	7:30	60.8			18/4/22	11:30	60.1		18/4/22	15:30	68.4
18/4/22	7:35	61.0			18/4/22	11:35	58.5		18/4/22	15:35	58.4
18/4/22	7:40	60.2			18/4/22	11:40	74.1		18/4/22	15:40	58.7
18/4/22	7:45	60.5			18/4/22	11:45	77.5		18/4/22	15:45	73.1
18/4/22	7:50	59.6			18/4/22	11:50	58.3		18/4/22	15:50	59.9
18/4/22	7:55	59.5			18/4/22	11:55	68.9		18/4/22	15:55	59.5
18/4/22	8:00	59.9			18/4/22	12:00	58.6		18/4/22	16:00	59.0
18/4/22	8:05	75.0			18/4/22	12:05	60.3		18/4/22	16:05	59.5
18/4/22	8:10	60.6			18/4/22	12:10	58.9		18/4/22	16:10	58.6
18/4/22	8:15	71.7			18/4/22	12:15	58.7		18/4/22	16:15	58.9
18/4/22	8:20	65.4			18/4/22	12:20	59.4		18/4/22	16:20	59.5
18/4/22	8:25	60.7			18/4/22	12:25	62.5		18/4/22	16:25	60.2
18/4/22	8:30	73.8			18/4/22	12:30	62.0		18/4/22	16:30	59.5
18/4/22	8:35	70.2			18/4/22	12:35	62.0		18/4/22	16:35	59.5
18/4/22	8:40	60.9			18/4/22	12:40	67.7		18/4/22	16:40	61.6
18/4/22	8:45	60.7			18/4/22	12:45	60.2		18/4/22	16:45	71.1
18/4/22	8:50	60.6			18/4/22	12:50	60.6		18/4/22	16:50	60.9
18/4/22	8:55	62.0			18/4/22	12:55	57.9		18/4/22	16:55	61.0
18/4/22	9:00	60.3			18/4/22	13:00	62.6		18/4/22	17:00	61.6
18/4/22	9:05	60.6			18/4/22	13:05	57.4		18/4/22	17:05	60.4
18/4/22	9:10	60.1			18/4/22	13:10	56.7		18/4/22	17:10	59.9
18/4/22	9:15	60.7			18/4/22	13:15	57.5		18/4/22	17:15	60.7
18/4/22	9:20	74.8			18/4/22	13:20	57.6		18/4/22	17:20	60.3
18/4/22	9:25	76.6			18/4/22	13:25	56.9		18/4/22	17:25	60.3
18/4/22	9:30	65.9			18/4/22	13:30	57.5		18/4/22	17:30	60.1
18/4/22	9:35	64.4			18/4/22	13:35	59.9		18/4/22	17:35	59.9
18/4/22	9:40	60.4			18/4/22	13:40	62.6		18/4/22	17:40	60.1
18/4/22	9:45	60.4			18/4/22	13:45	69.7		18/4/22	17:45	61.3
18/4/22	9:50	60.6			18/4/22	13:50	59.2		18/4/22	17:50	60.5
18/4/22	9:55	59.9			18/4/22	13:55	59.1		18/4/22	17:55	61.6
18/4/22	10:00	60.9			18/4/22	14:00	57.6		18/4/22	18:00	61.5
18/4/22	10:05	60.0			18/4/22	14:05	58.4		18/4/22	18:05	60.7
18/4/22	10:10	60.2			18/4/22	14:10	58.1		18/4/22	18:10	60.3
18/4/22	10:15	60.9			18/4/22	14:15	58.9		18/4/22	18:15	59.9
18/4/22	10:20	59.8			18/4/22	14:20	59.0		18/4/22	18:20	61.5
18/4/22	10:25	59.2			18/4/22	14:25	58.8		18/4/22	18:25	59.6
18/4/22	10:30	59.5			18/4/22	14:30	59.2		18/4/22	18:30	59.3
18/4/22	10:35	62.3			18/4/22	14:35	58.5		18/4/22	18:35	59.5
18/4/22	10:40	63.2			18/4/22	14:40	58.3		18/4/22	18:40	59.6
18/4/22	10:45	63.2			18/4/22	14:45	60.7		18/4/22	18:45	60.0
18/4/22	10:50	62.9			18/4/22	14:50	59.1		18/4/22	18:50	59.7
18/4/22	10:55	60.7			18/4/22	14:55	60.0		18/4/22	18:55	59.1
18/4/22	11:00	61.6			18/4/22	15:00	58.6		18/4/22	19:00	59.6

ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			14/04/2022 - 21/04/2022										
Start	18/4/22		19:05		**Leq12h**	56.8				Weighting		A	
End	19/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
18/4/22	19:05	59.9			18/4/22	23:05	**56.7**			19/4/22	3:05	50.8	
18/4/22	19:10	59.8			18/4/22	23:10	**55.4**			19/4/22	3:10	**55.4**	
18/4/22	19:15	59.7			18/4/22	23:15	**55.5**			19/4/22	3:15	53.0	
18/4/22	19:20	60.0			18/4/22	23:20	**55.9**			19/4/22	3:20	52.4	
18/4/22	19:25	60.3			18/4/22	23:25	54.8			19/4/22	3:25	51.3	
18/4/22	19:30	60.1			18/4/22	23:30	54.4			19/4/22	3:30	51.2	
18/4/22	19:35	59.6			18/4/22	23:35	54.0			19/4/22	3:35	53.9	
18/4/22	19:40	60.0			18/4/22	23:40	**55.2**			19/4/22	3:40	53.0	
18/4/22	19:45	59.6			18/4/22	23:45	**57.8**			19/4/22	3:45	51.5	
18/4/22	19:50	59.0			18/4/22	23:50	54.5			19/4/22	3:50	51.0	
18/4/22	19:55	60.5			18/4/22	23:55	54.4			19/4/22	3:55	52.8	
18/4/22	20:00	59.6	59.9		18/4/22	0:00	**55.6**	**55.5**		19/4/22	4:00	52.8	52.6
18/4/22	20:05	60.3			19/4/22	0:05	**56.0**			19/4/22	4:05	52.1	
18/4/22	20:10	59.4			19/4/22	0:10	54.9			19/4/22	4:10	51.0	
18/4/22	20:15	59.3			19/4/22	0:15	**56.3**			19/4/22	4:15	52.8	
18/4/22	20:20	59.2			19/4/22	0:20	**58.7**			19/4/22	4:20	51.3	
18/4/22	20:25	58.9			19/4/22	0:25	**55.2**			19/4/22	4:25	52.0	
18/4/22	20:30	59.9			19/4/22	0:30	52.5			19/4/22	4:30	52.2	
18/4/22	20:35	58.6			19/4/22	0:35	53.8			19/4/22	4:35	51.9	
18/4/22	20:40	59.3			19/4/22	0:40	53.6			19/4/22	4:40	52.1	
18/4/22	20:45	58.7			19/4/22	0:45	53.0			19/4/22	4:45	52.5	
18/4/22	20:50	58.0			19/4/22	0:50	**56.2**			19/4/22	4:50	53.2	
18/4/22	20:55	58.1			19/4/22	0:55	54.4			19/4/22	4:55	53.9	
18/4/22	21:00	58.6	59.1		19/4/22	1:00	54.0	**55.2**		19/4/22	5:00	52.8	52.4
18/4/22	21:05	57.6			19/4/22	1:05	52.4			19/4/22	5:05	53.8	
18/4/22	21:10	58.3			19/4/22	1:10	54.0			19/4/22	5:10	54.3	
18/4/22	21:15	58.2			19/4/22	1:15	52.0			19/4/22	5:15	54.2	
18/4/22	21:20	58.0			19/4/22	1:20	52.7			19/4/22	5:20	54.9	
18/4/22	21:25	58.1			19/4/22	1:25	54.0			19/4/22	5:25	**55.3**	
18/4/22	21:30	57.4			19/4/22	1:30	52.3			19/4/22	5:30	**55.9**	
18/4/22	21:35	57.3			19/4/22	1:35	52.6			19/4/22	5:35	**55.9**	
18/4/22	21:40	58.6			19/4/22	1:40	52.5			19/4/22	5:40	**55.7**	
18/4/22	21:45	58.4			19/4/22	1:45	53.5			19/4/22	5:45	**55.9**	
18/4/22	21:50	58.0			19/4/22	1:50	53.4			19/4/22	5:50	**57.2**	
18/4/22	21:55	57.6			19/4/22	1:55	52.9			19/4/22	5:55	**57.6**	
18/4/22	22:00	57.0	57.9		19/4/22	2:00	52.5	52.9		19/4/22	6:00	**57.3**	**55.8**
18/4/22	22:05	**57.7**			19/4/22	2:05	52.6			19/4/22	6:05	**57.8**	
18/4/22	22:10	**58.7**			19/4/22	2:10	54.3			19/4/22	6:10	**58.1**	
18/4/22	22:15	**58.4**			19/4/22	2:15	52.0			19/4/22	6:15	**58.8**	
18/4/22	22:20	**57.3**			19/4/22	2:20	51.2			19/4/22	6:20	**59.6**	
18/4/22	22:25	**57.5**			19/4/22	2:25	52.4			19/4/22	6:25	**59.2**	
18/4/22	22:30	**61.8**			19/4/22	2:30	51.0			19/4/22	6:30	**59.8**	
18/4/22	22:35	**56.7**			19/4/22	2:35	53.2			19/4/22	6:35	**60.7**	
18/4/22	22:40	**56.7**			19/4/22	2:40	51.5			19/4/22	6:40	**60.4**	
18/4/22	22:45	**57.6**			19/4/22	2:45	50.4			19/4/22	6:45	**60.6**	
18/4/22	22:50	**57.0**			19/4/22	2:50	50.8			19/4/22	6:50	**61.2**	
18/4/22	22:55	**55.6**			19/4/22	2:55	50.3			19/4/22	6:55	**60.8**	
18/4/22	23:00	**56.3**	**57.9**		19/4/22	3:00	51.2	51.9		19/4/22	7:00	**60.8**	**59.9**

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			14/04/2022 - 21/04/2022								
Start	19/4/22		7:05		**Leq12h**	64.5			Weighting		A
End	19/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
19/4/22	7:05	60.6			19/4/22	11:05	58.2		19/4/22	15:05	57.1
19/4/22	7:10	61.1			19/4/22	11:10	59.2		19/4/22	15:10	57.7
19/4/22	7:15	61.3			19/4/22	11:15	58.7		19/4/22	15:15	57.5
19/4/22	7:20	61.0			19/4/22	11:20	59.1		19/4/22	15:20	57.7
19/4/22	7:25	60.8			19/4/22	11:25	58.5		19/4/22	15:25	58.1
19/4/22	7:30	61.1			19/4/22	11:30	59.1		19/4/22	15:30	68.1
19/4/22	7:35	60.6			19/4/22	11:35	59.4		19/4/22	15:35	63.2
19/4/22	7:40	60.6			19/4/22	11:40	72.3		19/4/22	15:40	65.4
19/4/22	7:45	60.3			19/4/22	11:45	73.4		19/4/22	15:45	64.2
19/4/22	7:50	61.6			19/4/22	11:50	59.7		19/4/22	15:50	62.3
19/4/22	7:55	77.9			19/4/22	11:55	65.6		19/4/22	15:55	62.7
19/4/22	8:00	66.1			19/4/22	12:00	75.5		19/4/22	16:00	60.4
19/4/22	8:05	60.6			19/4/22	12:05	69.5		19/4/22	16:05	60.8
19/4/22	8:10	61.0			19/4/22	12:10	58.5		19/4/22	16:10	67.0
19/4/22	8:15	66.2			19/4/22	12:15	58.9		19/4/22	16:15	75.1
19/4/22	8:20	60.8			19/4/22	12:20	57.7		19/4/22	16:20	68.6
19/4/22	8:25	61.1			19/4/22	12:25	58.6		19/4/22	16:25	68.8
19/4/22	8:30	60.3			19/4/22	12:30	69.0		19/4/22	16:30	61.8
19/4/22	8:35	60.9			19/4/22	12:35	74.9		19/4/22	16:35	61.0
19/4/22	8:40	61.0			19/4/22	12:40	59.4		19/4/22	16:40	60.0
19/4/22	8:45	65.7			19/4/22	12:45	58.8		19/4/22	16:45	59.7
19/4/22	8:50	61.6			19/4/22	12:50	58.9		19/4/22	16:50	59.6
19/4/22	8:55	60.8			19/4/22	12:55	58.9		19/4/22	16:55	60.6
19/4/22	9:00	61.2			19/4/22	13:00	58.5		19/4/22	17:00	60.8
19/4/22	9:05	65.7			19/4/22	13:05	59.7		19/4/22	17:05	59.5
19/4/22	9:10	67.8			19/4/22	13:10	61.3		19/4/22	17:10	60.3
19/4/22	9:15	62.3			19/4/22	13:15	60.4		19/4/22	17:15	60.3
19/4/22	9:20	59.8			19/4/22	13:20	60.7		19/4/22	17:20	60.3
19/4/22	9:25	59.7			19/4/22	13:25	59.6		19/4/22	17:25	60.4
19/4/22	9:30	59.7			19/4/22	13:30	59.2		19/4/22	17:30	59.8
19/4/22	9:35	59.8			19/4/22	13:35	58.9		19/4/22	17:35	59.7
19/4/22	9:40	65.1			19/4/22	13:40	58.8		19/4/22	17:40	59.8
19/4/22	9:45	59.5			19/4/22	13:45	59.3		19/4/22	17:45	60.0
19/4/22	9:50	59.6			19/4/22	13:50	58.7		19/4/22	17:50	60.5
19/4/22	9:55	60.0			19/4/22	13:55	58.4		19/4/22	17:55	59.8
19/4/22	10:00	66.4			19/4/22	14:00	58.2		19/4/22	18:00	59.6
19/4/22	10:05	59.6			19/4/22	14:05	57.9		19/4/22	18:05	59.1
19/4/22	10:10	58.8			19/4/22	14:10	58.9		19/4/22	18:10	59.8
19/4/22	10:15	59.8			19/4/22	14:15	60.0		19/4/22	18:15	59.7
19/4/22	10:20	59.4			19/4/22	14:20	59.1		19/4/22	18:20	60.1
19/4/22	10:25	58.9			19/4/22	14:25	58.5		19/4/22	18:25	60.4
19/4/22	10:30	58.7			19/4/22	14:30	58.1		19/4/22	18:30	60.3
19/4/22	10:35	58.5			19/4/22	14:35	58.0		19/4/22	18:35	60.3
19/4/22	10:40	58.8			19/4/22	14:40	58.7		19/4/22	18:40	61.0
19/4/22	10:45	58.4			19/4/22	14:45	59.1		19/4/22	18:45	59.7
19/4/22	10:50	59.1			19/4/22	14:50	60.9		19/4/22	18:50	59.7
19/4/22	10:55	59.1			19/4/22	14:55	59.2		19/4/22	18:55	59.4
19/4/22	11:00	57.9			19/4/22	15:00	62.9		19/4/22	19:00	59.5

ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Along KJE									
REPORT REFERENCE			14/04/2022 - 21/04/2022									
Start	19/4/22		19:05		**Leq12h**	57.7			Weighting		A	
End	20/4/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
19/4/22	19:05	58.7			19/4/22	23:05	**57.7**			20/4/22	3:05	51.9	
19/4/22	19:10	59.3			19/4/22	23:10	**56.3**			20/4/22	3:10	51.7	
19/4/22	19:15	59.4			19/4/22	23:15	**56.0**			20/4/22	3:15	51.6	
19/4/22	19:20	59.4			19/4/22	23:20	**55.3**			20/4/22	3:20	52.4	
19/4/22	19:25	59.0			19/4/22	23:25	**55.6**			20/4/22	3:25	51.6	
19/4/22	19:30	59.4			19/4/22	23:30	**56.3**			20/4/22	3:30	52.5	
19/4/22	19:35	59.3			19/4/22	23:35	**56.0**			20/4/22	3:35	51.1	
19/4/22	19:40	58.7			19/4/22	23:40	**56.5**			20/4/22	3:40	51.1	
19/4/22	19:45	59.8			19/4/22	23:45	**55.7**			20/4/22	3:45	52.7	
19/4/22	19:50	58.4			19/4/22	23:50	**55.4**			20/4/22	3:50	51.2	
19/4/22	19:55	58.4			19/4/22	23:55	54.8			20/4/22	3:55	52.3	
19/4/22	20:00	58.6	59.1		19/4/22	0:00	55.0	**56.0**		20/4/22	4:00	52.1	51.9
19/4/22	20:05	58.6			20/4/22	0:05	53.7			20/4/22	4:05	50.9	
19/4/22	20:10	58.8			20/4/22	0:10	54.3			20/4/22	4:10	51.0	
19/4/22	20:15	58.6			20/4/22	0:15	**55.2**			20/4/22	4:15	51.5	
19/4/22	20:20	58.6			20/4/22	0:20	53.4			20/4/22	4:20	52.0	
19/4/22	20:25	58.8			20/4/22	0:25	53.9			20/4/22	4:25	53.6	
19/4/22	20:30	58.4			20/4/22	0:30	**55.5**			20/4/22	4:30	**55.2**	
19/4/22	20:35	65.9			20/4/22	0:35	54.1			20/4/22	4:35	52.4	
19/4/22	20:40	68.0			20/4/22	0:40	53.5			20/4/22	4:40	52.4	
19/4/22	20:45	66.5			20/4/22	0:45	54.0			20/4/22	4:45	52.7	
19/4/22	20:50	66.8			20/4/22	0:50	54.2			20/4/22	4:50	53.3	
19/4/22	20:55	60.8			20/4/22	0:55	**56.1**			20/4/22	4:55	53.7	
19/4/22	21:00	63.7	63.6		20/4/22	1:00	53.9	54.4		20/4/22	5:00	53.2	52.8
19/4/22	21:05	58.7			20/4/22	1:05	54.9			20/4/22	5:05	53.1	
19/4/22	21:10	57.5			20/4/22	1:10	54.4			20/4/22	5:10	54.1	
19/4/22	21:15	57.9			20/4/22	1:15	53.9			20/4/22	5:15	53.4	
19/4/22	21:20	57.9			20/4/22	1:20	53.2			20/4/22	5:20	54.6	
19/4/22	21:25	58.9			20/4/22	1:25	53.5			20/4/22	5:25	**55.5**	
19/4/22	21:30	58.2			20/4/22	1:30	53.3			20/4/22	5:30	**55.9**	
19/4/22	21:35	57.9			20/4/22	1:35	55.0			20/4/22	5:35	**55.8**	
19/4/22	21:40	57.5			20/4/22	1:40	53.4			20/4/22	5:40	**56.0**	
19/4/22	21:45	57.3			20/4/22	1:45	53.1			20/4/22	5:45	**55.8**	
19/4/22	21:50	58.7			20/4/22	1:50	52.7			20/4/22	5:50	**56.5**	
19/4/22	21:55	57.9			20/4/22	1:55	53.1			20/4/22	5:55	**58.1**	
19/4/22	22:00	57.3	58.0		20/4/22	2:00	52.6	53.7		20/4/22	6:00	**57.6**	**55.8**
19/4/22	22:05	**58.3**			20/4/22	2:05	53.0			20/4/22	6:05	**58.4**	
19/4/22	22:10	**58.4**			20/4/22	2:10	52.2			20/4/22	6:10	**58.5**	
19/4/22	22:15	**57.4**			20/4/22	2:15	52.7			20/4/22	6:15	**58.6**	
19/4/22	22:20	**57.6**			20/4/22	2:20	51.7			20/4/22	6:20	**59.8**	
19/4/22	22:25	**57.1**			20/4/22	2:25	54.0			20/4/22	6:25	**59.6**	
19/4/22	22:30	**56.6**			20/4/22	2:30	52.5			20/4/22	6:30	**60.0**	
19/4/22	22:35	**57.5**			20/4/22	2:35	52.3			20/4/22	6:35	**60.4**	
19/4/22	22:40	**57.3**			20/4/22	2:40	52.7			20/4/22	6:40	**60.8**	
19/4/22	22:45	**58.5**			20/4/22	2:45	51.9			20/4/22	6:45	**60.7**	
19/4/22	22:50	**56.5**			20/4/22	2:50	52.1			20/4/22	6:50	**60.8**	
19/4/22	22:55	**56.6**			20/4/22	2:55	52.1			20/4/22	6:55	**61.0**	
19/4/22	23:00	**55.9**	**57.4**		20/4/22	3:00	54.3	52.7		20/4/22	7:00	**60.9**	**60.1**

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			14/04/2022 - 21/04/2022								
Start	20/4/22		7:05		**Leq12h**	66.5			Weighting		A
End	20/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
20/4/22	7:05	60.9			20/4/22	11:05	62.0		20/4/22	15:05	59.1
20/4/22	7:10	60.8			20/4/22	11:10	60.8		20/4/22	15:10	59.5
20/4/22	7:15	60.7			20/4/22	11:15	59.6		20/4/22	15:15	60.1
20/4/22	7:20	61.4			20/4/22	11:20	61.0		20/4/22	15:20	59.8
20/4/22	7:25	61.0			20/4/22	11:25	59.9		20/4/22	15:25	71.5
20/4/22	7:30	61.3			20/4/22	11:30	60.2		20/4/22	15:30	70.0
20/4/22	7:35	60.8			20/4/22	11:35	57.8		20/4/22	15:35	75.9
20/4/22	7:40	60.4			20/4/22	11:40	58.5		20/4/22	15:40	58.3
20/4/22	7:45	60.5			20/4/22	11:45	65.6		20/4/22	15:45	70.3
20/4/22	7:50	60.3			20/4/22	11:50	61.7		20/4/22	15:50	58.4
20/4/22	7:55	60.7			20/4/22	11:55	58.9		20/4/22	15:55	59.0
20/4/22	8:00	60.4			20/4/22	12:00	65.8		20/4/22	16:00	58.3
20/4/22	8:05	59.9			20/4/22	12:05	59.2		20/4/22	16:05	59.3
20/4/22	8:10	59.5			20/4/22	12:10	60.8		20/4/22	16:10	59.5
20/4/22	8:15	60.5			20/4/22	12:15	58.5		20/4/22	16:15	58.7
20/4/22	8:20	61.0			20/4/22	12:20	58.4		20/4/22	16:20	58.6
20/4/22	8:25	60.8			20/4/22	12:25	57.6		20/4/22	16:25	59.1
20/4/22	8:30	61.0			20/4/22	12:30	57.9		20/4/22	16:30	68.7
20/4/22	8:35	60.7			20/4/22	12:35	57.8		20/4/22	16:35	63.7
20/4/22	8:40	60.5			20/4/22	12:40	65.2		20/4/22	16:40	60.8
20/4/22	8:45	64.0			20/4/22	12:45	60.8		20/4/22	16:45	61.7
20/4/22	8:50	64.3			20/4/22	12:50	64.1		20/4/22	16:50	59.8
20/4/22	8:55	60.7			20/4/22	12:55	57.8		20/4/22	16:55	60.8
20/4/22	9:00	60.7			20/4/22	13:00	57.7		20/4/22	17:00	61.7
20/4/22	9:05	60.5			20/4/22	13:05	57.8		20/4/22	17:05	61.1
20/4/22	9:10	61.0			20/4/22	13:10	64.7		20/4/22	17:10	63.7
20/4/22	9:15	66.3			20/4/22	13:15	65.5		20/4/22	17:15	62.1
20/4/22	9:20	61.0			20/4/22	13:20	58.8		20/4/22	17:20	64.9
20/4/22	9:25	61.4			20/4/22	13:25	58.4		20/4/22	17:25	69.0
20/4/22	9:30	60.8			20/4/22	13:30	60.6		20/4/22	17:30	82.2
20/4/22	9:35	62.2			20/4/22	13:35	66.7		20/4/22	17:35	72.2
20/4/22	9:40	61.0			20/4/22	13:40	66.1		20/4/22	17:40	76.9
20/4/22	9:45	65.5			20/4/22	13:45	67.0		20/4/22	17:45	77.1
20/4/22	9:50	62.0			20/4/22	13:50	63.9		20/4/22	17:50	73.4
20/4/22	9:55	61.1			20/4/22	13:55	59.0		20/4/22	17:55	76.2
20/4/22	10:00	60.4			20/4/22	14:00	59.2		20/4/22	18:00	67.1
20/4/22	10:05	61.6			20/4/22	14:05	58.9		20/4/22	18:05	65.3
20/4/22	10:10	71.3			20/4/22	14:10	58.6		20/4/22	18:10	64.8
20/4/22	10:15	63.9			20/4/22	14:15	58.7		20/4/22	18:15	63.2
20/4/22	10:20	59.6			20/4/22	14:20	59.1		20/4/22	18:20	62.9
20/4/22	10:25	60.4			20/4/22	14:25	59.5		20/4/22	18:25	62.2
20/4/22	10:30	59.9			20/4/22	14:30	59.4		20/4/22	18:30	62.3
20/4/22	10:35	59.1			20/4/22	14:35	58.8		20/4/22	18:35	61.2
20/4/22	10:40	60.3			20/4/22	14:40	59.0		20/4/22	18:40	61.3
20/4/22	10:45	60.2			20/4/22	14:45	58.8		20/4/22	18:45	61.3
20/4/22	10:50	64.4			20/4/22	14:50	58.2		20/4/22	18:50	61.1
20/4/22	10:55	62.0			20/4/22	14:55	59.3		20/4/22	18:55	60.4
20/4/22	11:00	61.0			20/4/22	15:00	59.0		20/4/22	19:00	59.8

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			14/04/2022 - 21/04/2022										
Start	20/4/22		19:05		**Leq12h**	57.0				Weighting		A	
End	21/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
20/4/22	19:05	59.9			20/4/22	23:05	**56.5**			21/4/22	3:05	52.7	
20/4/22	19:10	60.0			20/4/22	23:10	**56.4**			21/4/22	3:10	51.8	
20/4/22	19:15	60.0			20/4/22	23:15	**56.4**			21/4/22	3:15	52.4	
20/4/22	19:20	60.0			20/4/22	23:20	**56.0**			21/4/22	3:20	53.4	
20/4/22	19:25	59.7			20/4/22	23:25	**56.5**			21/4/22	3:25	51.1	
20/4/22	19:30	59.0			20/4/22	23:30	**56.8**			21/4/22	3:30	51.0	
20/4/22	19:35	59.7			20/4/22	23:35	**55.7**			21/4/22	3:35	52.1	
20/4/22	19:40	59.1			20/4/22	23:40	**55.6**			21/4/22	3:40	51.6	
20/4/22	19:45	59.5			20/4/22	23:45	**57.2**			21/4/22	3:45	50.9	
20/4/22	19:50	59.5			20/4/22	23:50	**55.3**			21/4/22	3:50	51.9	
20/4/22	19:55	58.8			20/4/22	23:55	**63.5**			21/4/22	3:55	51.8	
20/4/22	20:00	60.5	59.7		20/4/22	0:00	**55.9**	**57.6**		21/4/22	4:00	52.2	52.0
20/4/22	20:05	58.8			21/4/22	0:05	**56.4**			21/4/22	4:05	51.9	
20/4/22	20:10	59.5			21/4/22	0:10	54.7			21/4/22	4:10	52.3	
20/4/22	20:15	58.4			21/4/22	0:15	**55.4**			21/4/22	4:15	51.6	
20/4/22	20:20	59.2			21/4/22	0:20	**55.1**			21/4/22	4:20	52.4	
20/4/22	20:25	58.7			21/4/22	0:25	54.9			21/4/22	4:25	53.8	
20/4/22	20:30	58.9			21/4/22	0:30	54.5			21/4/22	4:30	52.6	
20/4/22	20:35	58.8			21/4/22	0:35	**56.5**			21/4/22	4:35	52.8	
20/4/22	20:40	58.7			21/4/22	0:40	53.5			21/4/22	4:40	52.8	
20/4/22	20:45	59.2			21/4/22	0:45	54.2			21/4/22	4:45	52.0	
20/4/22	20:50	58.0			21/4/22	0:50	**55.1**			21/4/22	4:50	53.0	
20/4/22	20:55	57.7			21/4/22	0:55	53.6			21/4/22	4:55	52.7	
20/4/22	21:00	57.2	58.6		21/4/22	1:00	54.0	54.9		21/4/22	5:00	53.9	52.7
20/4/22	21:05	57.7			21/4/22	1:05	55.0			21/4/22	5:05	53.9	
20/4/22	21:10	58.0			21/4/22	1:10	54.0			21/4/22	5:10	**55.3**	
20/4/22	21:15	59.1			21/4/22	1:15	54.8			21/4/22	5:15	**59.1**	
20/4/22	21:20	59.4			21/4/22	1:20	54.8			21/4/22	5:20	**56.0**	
20/4/22	21:25	58.0			21/4/22	1:25	53.0			21/4/22	5:25	54.6	
20/4/22	21:30	58.0			21/4/22	1:30	52.2			21/4/22	5:30	**56.2**	
20/4/22	21:35	57.9			21/4/22	1:35	52.6			21/4/22	5:35	**56.4**	
20/4/22	21:40	58.2			21/4/22	1:40	53.8			21/4/22	5:40	**56.9**	
20/4/22	21:45	59.0			21/4/22	1:45	53.5			21/4/22	5:45	**56.9**	
20/4/22	21:50	57.9			21/4/22	1:50	52.3			21/4/22	5:50	**57.5**	
20/4/22	21:55	57.9			21/4/22	1:55	52.8			21/4/22	5:55	**58.5**	
20/4/22	22:00	57.8	58.3		21/4/22	2:00	51.2	53.5		21/4/22	6:00	**57.8**	**56.8**
20/4/22	22:05	**58.1**			21/4/22	2:05	52.2			21/4/22	6:05	**58.2**	
20/4/22	22:10	**57.5**			21/4/22	2:10	51.9			21/4/22	6:10	**58.8**	
20/4/22	22:15	**58.3**			21/4/22	2:15	51.2			21/4/22	6:15	**59.1**	
20/4/22	22:20	**57.4**			21/4/22	2:20	51.2			21/4/22	6:20	**59.7**	
20/4/22	22:25	**57.8**			21/4/22	2:25	53.6			21/4/22	6:25	**60.3**	
20/4/22	22:30	**57.3**			21/4/22	2:30	51.4			21/4/22	6:30	**60.9**	
20/4/22	22:35	**57.7**			21/4/22	2:35	51.2			21/4/22	6:35	**60.3**	
20/4/22	22:40	**57.5**			21/4/22	2:40	52.5			21/4/22	6:40	**60.3**	
20/4/22	22:45	**56.8**			21/4/22	2:45	50.9			21/4/22	6:45	**60.5**	
20/4/22	22:50	**55.8**			21/4/22	2:50	52.7			21/4/22	6:50	**60.8**	
20/4/22	22:55	**56.3**			21/4/22	2:55	50.9			21/4/22	6:55	**60.5**	
20/4/22	23:00	**57.1**	**57.4**		21/4/22	3:00	51.5	51.8		21/4/22	7:00	**60.7**	**60.1**

ENSSCOM
Improving Your Workplace Safety & Health

CONFIDENTIAL

BASELINE NOISE SURVEY REPORT

NOISE MONITORING ENVIRONMENTAL WORK

REPORT REFERENCE NO: - 22050608/nms/ch2m/DE170/ptN3

For

CH2M HILL SINGAPORE PTE LTD

150 Beach Road, Gateway West 34th Floor, Singapore 189720

Project Location:
Along KJE

Attention:
Ms Catherine Baldedara

Project Title.:
DE170

Monitoring Location:
Front Of Blk 446 Ground Level

Date of Monitoring:
22 April 2022 - 29 April 2022

Date of Report:
06 May 2022

Report is issued under the following conditions:

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APPENDIX

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1.0 INTRODUCTION

ENSSCOM PTE LTD was commissioned by:

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

The purpose of this survey was to assess the current acoustical environment to establish the baseline background noise level generated before start of construction activities for
Project Title - DE170

The survey is conducted in accordance to the Construction Noise control Guideline on NEA's permissible noise levels for construction sites and industrial premises.

2.0 NOISE SURVEY CONDITION

Report Reference No: 22050608/nms/ch2m/DE170/ptN3

Date of Report: 6-May-2022

Survey On: 22-Apr-2022 (0700hrs) to 29-Apr-2022 (0700hrs)

Operating Condition of Site: All operations were under normal conditions during the noise survey. Construction activities have not begun during period of noise monitoring.

Noise survey was conducted using accepted standard procedures and appropriate sound measuring equipment, which is properly calibrated to ensure accuracy.

All noise measurements were made in terms of A-weighted equivalent continuous sound pressure level in LAeq,T over a period of time T. For example, LAeq,5min are the equivalent sound pressure level measured over a 5-minutes time.

Noise survey was conducted for a full continuous twenty-four (24) hours, Seven (7) days, for **One (1) monitoring points/location**. The noise levels emitted were monitored accordingly and recorded.

The survey is conducted by qualified noise monitoring personnel and reference to Appendix C for their certificate.

3.0 INSTRUMENTS

Monitoring instrument was positioned at between 1.8 meters to 3 meters in height from the floor (Ground Level), Mid Level (5 – 6 storey building height) Or High Level (Roof Level). Overall noise distribution was fairly homogenous throughout the duration of noise survey.

Sound Level Meter used complies and conform to the minimum requirements of a Type 1/Class 1 instrument specified in the International Electrotechnical Commission (IEC) publications of 60651 and 60804.

Before and after the noise measurements, the sound level meter is calibrated to verify the accuracy of the instrument.

3.1 Sound Level Meters

CIRRUS RESEARCH plc, Model: CR191SG
Class 1 Data Logging Sound Level Meter
Serial Number: **G078328**

3.2 Acoustic Calibrator

CIRRUS RESEARCH plc, Model: CR515
Acoustic Calibrator
Serial Number: **60614**

Acoustic Pressure level:	94.01	dB	(reference 20uPa)
Step +20dB:	113.93	dB	
Nominal Frequency:	992	Hz	

The calibration certificate of the momnitoring instrument can be found in Appendix D

4.0 NOISE SURVEY TERMS

4.1 A Weighting
A standard weighting of the audible frequencies designed to reflect the response of the human ear to noise.

4.2 Acoustic Calibrator
An instrument that provides a reference noise source that is used to calibrate and check the performance of a Sound Level Meter.

4.3 Broadband
Noise Measurements using parameters, which include all the audible noise

4.4 dB(A)
Decibels A Weighted

4.5 Decibel (dB)
The units of sound level and noise exposure measurement

4.6 Fast Time Weighting
A standard time weighting applied by the Sound Level Meter

4.7 IEC 60651:1979
The International Standard for Sound Level Meters

4.8 IEC 60804:1984
The International Standard for Integrating & Integrating-Averaging Sound Level Meters

4.9 IEC 61260:1995
The International Standard for 1:1 Octave & 1:3 Octave Band Filters

4.10 IEC 61672-1:2003
The International Standard for Sound Level Meter and Integrating Averaging Sound Level Meters that replaces both IEC 60651 and IEC 60804

4.11 Integrating Averaging Sound Level Meter
A Sound Level Meter which accumulates the total sound energy over a measurement period and calculates an average

4.12 LAeq,t
Equivalent continuous sound pressure level. A measure of the average sound pressure level during a period of time, t, in dB with 'A' weighting.

4.13 Sound Level
Sound Pressure Level with a Frequency weighting, such as dB(A)

4.14 Sound Level Meter
An instrument for measuring various noise parameters

4.15 Sound Pressure Level, SPL.
The basic measure of noise loudness, expressed in decibels

5.0 SURVEYING LOCATIONS

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours, Seven (7) days noise monitoring at the boundary of proposed construction site. (Refer to Appendix A for instrument layout plan)

Possible noise contribution source and occurrence:

NOISE MONITORING LOCATION	NOISE SOURCE	OCCURRENCE
Point 3: Front Of Blk 446 Choa Chu Kang Avenue 4 (Ground Level)	Vehicle Traffic	High - Along KJE

Note: The above-mentioned noise sources may be limited and there are possible other noise sources not detected during the time of our site survey. For example, possible noise sources can be from occasional aircraft noise, or other activities nearby to the monitoring points.

6.0 NOISE SURVEY RESULTS

The noise survey was carried out in accordance with the Environmental Pollution Control Act (Chapter 94A, Section 77(1)), Environmental Pollution Control (Control of Noise at Construction Sites) Regulations, 1999.

Monday to Saturday

Types of Affected Building	Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)		
	7am - 7pm	**7pm - 10pm**	**10pm - 7am**
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	60 (LEQ 12hr)	50 (LEQ 12hr)	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	**90 (Leq 5min)**	**70 (Leq 5min)**	**55 (Leq 5min)**
	75 (LEQ 12hr)	**65** (LEQ 1hr)	**55** (LEQ 1hr)
(c) Buildings (other than those in Paragraphs (a)and (b) above	90 (Leq 5min)	70 (Leq 5min)	70 (Leq 5min)
	75 (LEQ 12hr)	65 (LEQ 12hr)	

Sunday and Public Holidays

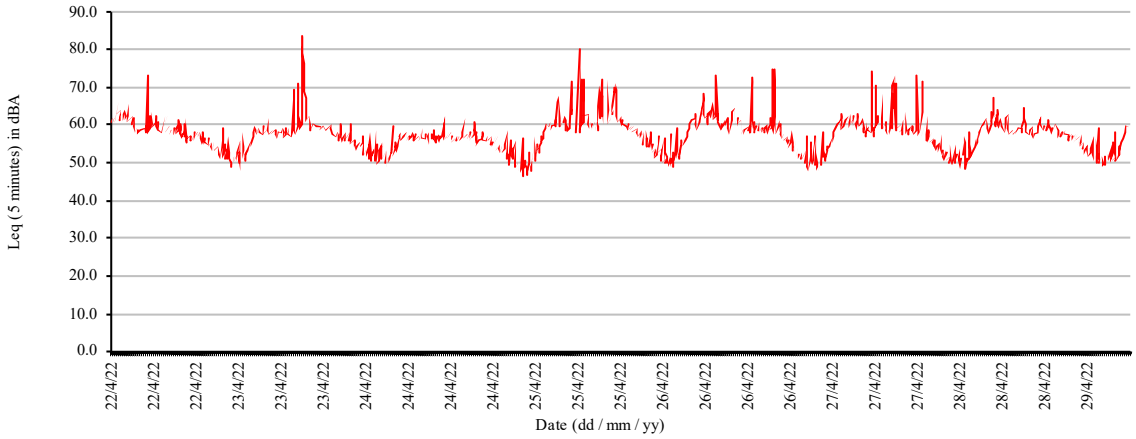
Types of Affected Building	Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)		
	7am - 7pm	**7pm - 10pm**	**10pm - 7am**
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	60 (LEQ 12hr)	50 (LEQ 12hr)	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	**75 (Leq 5min)**	**55 (Leq 5min)**	**55 (Leq 5min)**
	75 (LEQ 12hr)	-	-
(c) Buildings (other than those in Paragraphs (a)and (b) above	90 (Leq 5min)	70 (Leq 5min)	70 (Leq 5min)
	75 (LEQ 12hr)	65 (LEQ 12hr)	

Note:
No Work Rule on Sundays and Public Holidays
In addition to the settings of the permissible noise limits, NEA has also implemented a rule on prohibition of work on Sundays and Public Holidays (PH) for construction sites located within 150m away from residential premises and noise sensitive premises as follows:
Site Established from 1 September 2011. No work is allowed from 10.00pm on Sat/eve of PH to 7.00am on the following Mon/day after the PH. (For details, please refer to Appendix B)

Survey Results for monitoring point 1 from period : 22-Apr-2022 to 29-Apr-2022

Location : Front Of Blk 446 Ground Level

Leq (5 Minutes) Plotted Against Date of Monitoring



Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 5 min in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 5min db (A)
No. NM-3		From		To			
Front Of Blk 446 Ground Level	Fri	22/4/22	0700	22/4/22	1900	**73.2**	90
	Fri	22/4/22	1900	22/4/22	2200	**61.7**	70
	Fri/Sat	22/4/22	2200	23/4/22	0700	**59.6**	55
	Sat	23/4/22	0700	23/4/22	1900	**83.6**	90
	Sat	23/4/22	1900	23/4/22	2200	**60.3**	70
	Sat/Sun	23/4/22	2200	24/4/22	0700	**60.3**	55
	Sun	24/4/22	0700	24/4/22	1900	**62.3**	75
	Sun	24/4/22	1900	24/4/22	2200	**60.7**	55
	Sun/Mon	24/4/22	2200	25/4/22	0700	**60.2**	55
	Mon	25/4/22	0700	25/4/22	1900	**80.2**	90
	Mon	25/4/22	1900	25/4/22	2200	**61.5**	70
	Mon/Tue	25/4/22	2200	26/4/22	0700	**61.5**	55
	Tue	26/4/22	0700	26/4/22	1900	**73.3**	90
	Tue	26/4/22	1900	26/4/22	2200	**74.9**	70
	Tue/Wed	26/4/22	2200	27/4/22	0700	**60.7**	55
	Wed	27/4/22	0700	27/4/22	1900	**74.0**	90
	Wed	27/4/22	1900	27/4/22	2200	**73.0**	70
	Wed/Thu	27/4/22	2200	28/4/22	0700	**60.0**	55
	Thu	28/4/22	0700	28/4/22	1900	**67.2**	90
	Thu	28/4/22	1900	28/4/22	2200	**60.8**	70
	Thu/Fri	28/4/22	2200	29/4/22	0700	**60.5**	55

Table 6.1 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 5 min

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 1 hr in Leq db(A) for the specific period	Maximum Noise Level permitted for construction sites Leq 1 hr db (A)
No. NM-3		From		To			
Front Of Blk 446 Ground Level	Fri	22/4/22	1900	22/4/22	2200	**57.6**	65
	Fri	22/4/22	2200	23/4/22	0700	**57.4**	55
	Sat	23/4/22	1900	23/4/22	2200	**58.3**	65
	Sat	23/4/22	2200	24/4/22	0700	**56.9**	55
	Sun	24/4/22	1900	24/4/22	2200	**56.5**	-
	Sun	24/4/22	2200	25/4/22	0700	**58.5**	-
	Mon	25/4/22	1900	25/4/22	2200	**60.2**	65
	Mon	25/4/22	2200	26/4/22	0700	**59.9**	55
	Tue	26/4/22	1900	26/4/22	2200	**67.6**	65
	Tue	26/4/22	2200	27/4/22	0700	**58.8**	55
	Wed	27/4/22	1900	27/4/22	2200	**63.6**	65
	Wed	27/4/22	2200	28/4/22	0700	**58.9**	55
	Thu	28/4/22	1900	28/4/22	2200	**58.1**	65
	Thu	28/4/22	2200	29/4/22	0700	**58.8**	55

Table 6.2 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 1 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 12 hr in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 12 hr db (A)
No. NM-3		From		To			
Front Of Blk 446 Ground Level	Fri	22/4/22	0700	22/4/22	1900	**60.9**	75
	Fri	22/4/22	1900	23/4/22	0700	**55.1**	-
	Sat	23/4/22	0700	23/4/22	1900	**65.6**	75
	Sat	23/4/22	1900	24/4/22	0700	**55.4**	-
	Sun	24/4/22	0700	24/4/22	1900	**57.1**	75
	Sun	24/4/22	1900	25/4/22	0700	**54.7**	-
	Mon	25/4/22	0700	25/4/22	1900	**64.9**	75
	Mon	25/4/22	1900	26/4/22	0700	**56.9**	-
	Tue	26/4/22	0700	26/4/22	1900	**62.2**	75
	Tue	26/4/22	1900	27/4/22	0700	**59.2**	-
	Wed	27/4/22	0700	27/4/22	1900	**62.3**	75
	Wed	27/4/22	1900	27/4/22	0700	**57.8**	-
	Thu	27/4/22	0700	28/4/22	1900	**60.0**	75
	Thu	28/4/22	1900	29/4/22	0700	**55.5**	-

Table 6.3 Summary of Noise Monitoring Results at LEQ 12 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over specific period in Leq db(A)	Maximum Noise Level permitted for construction sites in db (A)
No. NM-3		From		To			
Front Of Blk 446 Ground Level	Fri	22/4/22	700	22/4/22	1900	**60.9**	90 (Leq5min) 75 (Leq12hrs)
	Fri	22/4/22	1900	22/4/22	2200	**57.1**	70 (Leq5min) 65 (Leq 1hr)
	Fri	22/4/22	2200	23/4/22	0000	**55.4**	55 (Leq5min) 55 (Leq 1hr)
	Sat	23/4/22	0000	23/4/22	700	**53.9**	55 (Leq5min) 55 (Leq 1hr)
	Sat	23/4/22	700	23/4/22	1900	**65.6**	90 (Leq5min) 75 (Leq12hrs)
	Sat	23/4/22	1900	23/4/22	2200	**57.5**	70 (Leq5min) 65 (Leq 1hr)
	Sat	23/4/22	2200	24/4/22	0000	**56.0**	55 (Leq5min) 55 (Leq 1hr)
	Sun	24/4/22	0000	24/4/22	700	**53.9**	55 (Leq5min) 55 (Leq 1hr)
	Sun	24/4/22	700	24/4/22	1900	**57.1**	75 (Leq5min) 75 (Leq 1hr)
	Sun	24/4/22	1900	24/4/22	2200	**56.4**	55 (Leq5min)
	Sun	24/4/22	2200	25/4/22	0000	**54.4**	55 (Leq5min)
	Mon	25/4/22	0000	25/4/22	700	**53.9**	55 (Leq5min)
	Mon	25/4/22	700	25/4/22	1900	**64.9**	90 (Leq5min) 75 (Leq12hrs)
	Mon	25/4/22	1900	25/4/22	2200	**59.3**	70 (Leq5min) 65 (Leq 1hr)
	Mon	25/4/22	2200	26/4/22	0000	**56.5**	55 (Leq5min) 55 (Leq 1hr)
	Tue	26/4/22	0000	26/4/22	700	**55.3**	55 (Leq5min) 55 (Leq 1hr)
	Tue	26/4/22	700	26/4/22	1900	**62.2**	90 (Leq5min) 75 (Leq12hrs)
	Tue	26/4/22	1900	26/4/22	2200	**63.9**	70 (Leq5min) 65 (Leq 1hr)
	Tue	26/4/22	2200	27/4/22	0000	**55.7**	55 (Leq5min) 55 (Leq 1hr)
	Wed	27/4/22	0000	27/4/22	700	**54.2**	55 (Leq5min) 55 (Leq 1hr)
	Wed	27/4/22	700	27/4/22	1900	**62.3**	90 (Leq5min) 75 (Leq12hrs)
	Wed	27/4/22	1900	27/4/22	2200	**62.0**	70 (Leq5min) 65 (Leq 1hr)
	Wed	27/4/22	2200	28/4/22	0000	**55.0**	55 (Leq5min) 55 (Leq 1hr)
	Thu	28/4/22	0000	28/4/22	700	**54.2**	55 (Leq5min) 55 (Leq 1hr)
	Thu	28/4/22	700	28/4/22	1900	**60.0**	90 (Leq5min) 75 (Leq12hrs)
	Thu	28/4/22	1900	28/4/22	2200	**57.4**	70 (Leq5min) 65 (Leq 1hr)
	Thu	28/4/22	2200	28/4/22	0000	**55.3**	55 (Leq5min) 55 (Leq 1hr)
	Fri	29/4/22	0000	29/4/22	0700	**54.3**	55 (Leq5min) 55 (Leq 1hr)

Table 6.4 Summary of Noise Monitoring Results at Continuous Equivalent of LEQ for specific period

7.0 SUMMARY

The purpose of this survey was to assess the current acoustical environment to establish the background noise level generated over One (1) monitoring point/location for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title

DE170

The location of the nearest Noise Receiver (NSR) : **Front Of Blk 446 Ground Level**

The findings show that,

The ambience noise at NSR point 3 Front of Blk 466 Choa Chu Kang Avenue 4 (Ground Level), falls within the Permissible limits stated in the NEA Guideline on construction noise control for the time period between 7am to 10pm (Leq5min & Leq12hrs) (Monday to Saturday) most of the time.

The Leq 5min exceeds the NEA noise limit (55dBa) for the period 1900hrs to 2200hrs on weekdays and weekend occassionaly.
The Leq 5min exceeds the NEA noise limit (55dBa) for the period 2200hrs to 0700hrs on weekdays and weekend.
The Leq 1hr exceeds the NEA noise limit (65dBa) for the period 1900hrs to 2200hrs on weekdays.
The Leq 1hr exceeds the NEA noise limit (55dBa) for the period 2200hrs to 0700hrs on weekdays.

* Refer to Appendix E for full noise data report.

We recommend submitting an appeal to NEA to adjust the Noise Limit as in table 6.5 for NSR point 3 Front of Blk 466 Choa Chu Kang Avenue 4 (Ground Level)

Background Noise Correction Factor

The adjusted value for the maximum noise level shall be obtained by adding the correction factor corresponding to the difference between the maximum permitted level and the background noise level, set out in the Table below, to the higher of the 2 noise levels.

Difference between 2 noise levels in decibels (A)	Correction factor in decibels (A)
a) Below 2	3
b) 2 to less than 4	2
c) 4 to less than 10	1
d) 10 and above	NIL

Proposed New Permissible Noise Level for monitoring point: **Front Of Blk 446 Ground Level**

Period	Noise Limit	*Equivalent continous sound level over period in Leq dB(A) - Background Noise	Difference	Correction Factor	Proposed Adjusted New Permissible Level (dBA)
7am to 7pm (Monday to Saturday)	90 (Leq5min)	65.6	24.4	0	90 (Leq5min)
	75 (Leq 12hr)	65.6	9.4	1	76 (Leq 12hr)
7pm to 10pm (Monday to Saturday)	70 (Leq 5min)	63.9	6.1	1	71 (Leq 5min)
	65 (Leq 1 hr)	63.9	1.1	3	68 (Leq 1 hr)
10pm to 12am (Monday to Saturday)	55 (Leq 5min)	56.5	-1.5	3	59.5 (Leq 5min)
	55 (Leq 1 hr)	56.5	-1.5	3	59.5 (Leq 1 hr)
12am to 7am (Monday to Saturday)	55 (Leq 5min)	55.3	-0.3	3	58.3 (Leq 5min)
	55 (Leq 1 hr)	55.3	-0.3	3	58.3 (Leq 1 hr)
7am to 7pm (Sunday)	75 (Leq5min)	57.1	17.9	0	75 (Leq5min)
	75 (Leq 12hr)	57.1	17.9	0	75 (Leq 12hr)
7pm to 10pm (Sunday)	55 (Leq 5min)	56.4	-1.4	3	59.4 (Leq 5min)
10pm to 12am (Sunday)	55 (Leq 5min)	54.4	0.6	3	58 (Leq 5min)
12am to 7am (Sunday)	55 (Leq 5min)	53.9	1.1	3	58 (Leq 5min)

* The highest equivalent continuous sound level in Leq dB(A) between Monday to Saturday is taken for calculating the adjusted new permissible level for each period.

Table 6.5 Proposed New Permissible Noise Level

8.0 CONFIRMATION

We, ENSSCOM PTE LTD, certify that the information given is correct. The noise survey was conducted for

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title
DE170

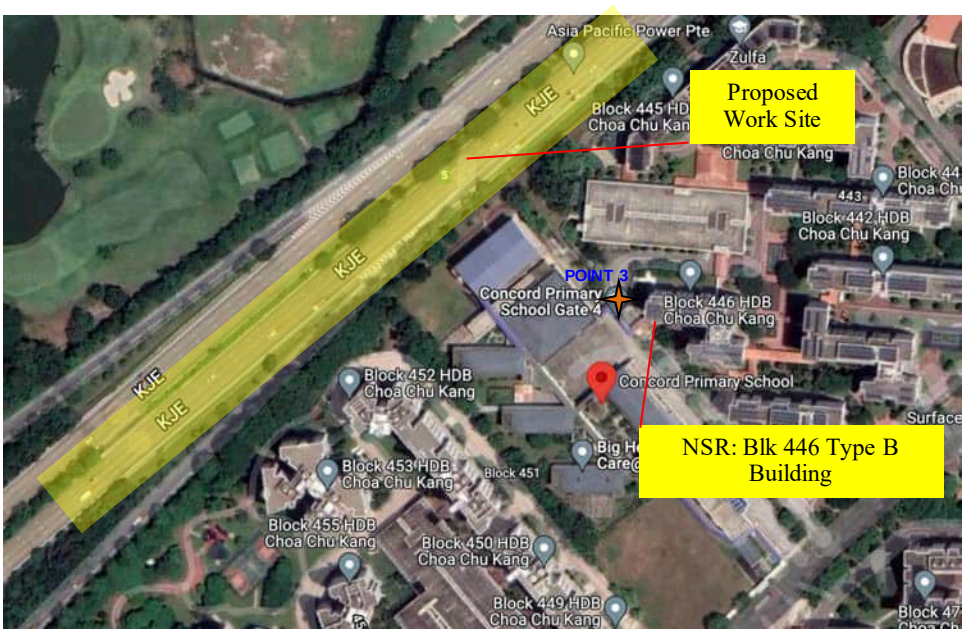
was carried out as described in this report and the results resented herein.

Date of Monitoring:

From 22/4/22 (0700hrs) to 29/4/22 (0700hrs)

Hoo Hian Choon (Mr)
Noise Monitoring Consultant
6-May-2022

APPENDIX A : INSTRUMENT LAYOUT PLAN



NOISE METER

APPENDIX B: NEA CONSTRUCTION NOISE CONTROL GUIDELINE

Construction Noise Control

Maximum Permissible Noise Levels for Construction Work Commenced on or after 1st October 2007

Noise Regulation

Mondays to Saturdays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	65 dBA (Leq 1 hr)	55 dBA (Leq 1 hr)
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

Sundays and Public Holidays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	-	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

APPENDIX C: NOISE MONITORING OFFICER CERTIFICATES

S/No: 02/20/159

Acoustical Laboratory Pte Ltd
CENTRE FOR ENVIRONMENTAL CONSULTATION AND TRAINING

Certificate of Competence

This is to certify that

Hoo Hian Choon

has attended and passed an examination for a course on

Noise Monitoring

held between 22nd May 2002 and 24th May 2002

Acoustical Laboratory is approved by the Ministry of Labour as a Training Centre for the Noise Monitoring Course

Tan Kok Yang
Course Co-ordinator

Koh L. B.
Managing Director

NANYANG TECHNOLOGICAL UNIVERSITY

This is to certify that

Hoo Hian Choon

has successfully completed the 2½-day course

Industrial Noise Control

Seah Ben Hun
Director
Centre for Continuing Education

27 August 2010

APPENDIX D: INSTRUMENT CALIBRATION CERTIFICATES

Cirrus Research plc
dedicated to noise measurement

ENSSCOM
Improving Your Workplace Safety & Health

Certificate of Calibration

Equipment Details

Instrument Manufacturer	Cirrus Research plc
Instrument Type	CR: 191 SG
Description	Sound Level Meter
Serial Number	G078328

Calibration Procedure

The instrument detailed above have been calibrated to the publish test and calibration data as detailed in the instrument hand book, using the techniques recommended in the latest revisions of the International Standards IEC 61672-1:2013, IEC 61672-1:2002, IEC 60651:1979, IEC 60804: 2001, IEC 61260:1995, IEC 60942:2003, IEC 60942:1997, IEC 61252:1993, ANSI S1.4-1983, ANSI S1.11-1986 and ANSI S1.43-1997 where applicable.
Sound Level Meters: All Calibration procedures were carried out by substituting the microphone capsule with a suitable electrical signal, apart from the final acoustic calibration.

Calibration Traceability

The instrument detailed above was calibrated against the calibration laboratory standards held by Cirrus Research plc. These are traceable to International Standards {A.0.6}. The standards are:

Multi Acoustic Calibrator	B & K 4226	Serial Number	3041345	Calibration Ref.	551220084084700
Microphone Type	MK 224	Serial Number	214953B	Calibration Ref.	162361

Calibrated by	
Calibration Date	23 February 2022
Calibration Certificate Number	228056

This Calibration Certificate is valid for 12 months from the date above.

Contact Your Local Authorised Distributor for Product Enquiries & Calibration Services

ENSSCOM PTE LTD
1015, Geylang East Ave 3 #04-105 Singapore 389730
Company Reg. No. 200720176H GST Reg. No. 200720176H
T +65 6743 9882 F +65 6743 9887
W www.ensscom.com E enquiry@ensscom.com

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **07 September 2021** CERTIFICATE NUMBER **162363**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Page 1 of 2

Approved signatory
N.Smith
Electronically signed:

Sound Calibrator : IEC 60942:2003

Instrument information

Manufacturer: Cirrus Research plc **Notes:**

Model: CR:515

Serial number: 60614

Class: 1

Test summary

Date of calibration: 07 September 2021

The sound calibrator detailed above has been calibrated to the published data as described in the operating manual and in the half-inch configuration. The procedures and techniques used are as described in IEC60942_2003 Annex B – Periodic Tests and three determinations of the sound pressure level, frequency and total distortion were made.

The sound pressure level was measured using a WS2F condenser microphone type MK:224 manufactured by Cirrus Research plc.

The results have been corrected to the reference pressure of 101.33 kPa using the manufacturer's data.

The manufacturer's product information indicates that this model of sound calibrator has been formally pattern approved to IEC60942_2003 Annex A to Class 1. This has been confirmed with the PhysikalischTechnische Bundesanstalt (PTB), Laboratoire National d'Essais (LNE) and APPLUS.

Notes:

This certificate provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. The results within this certificate relate only to the items calibrated. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%.

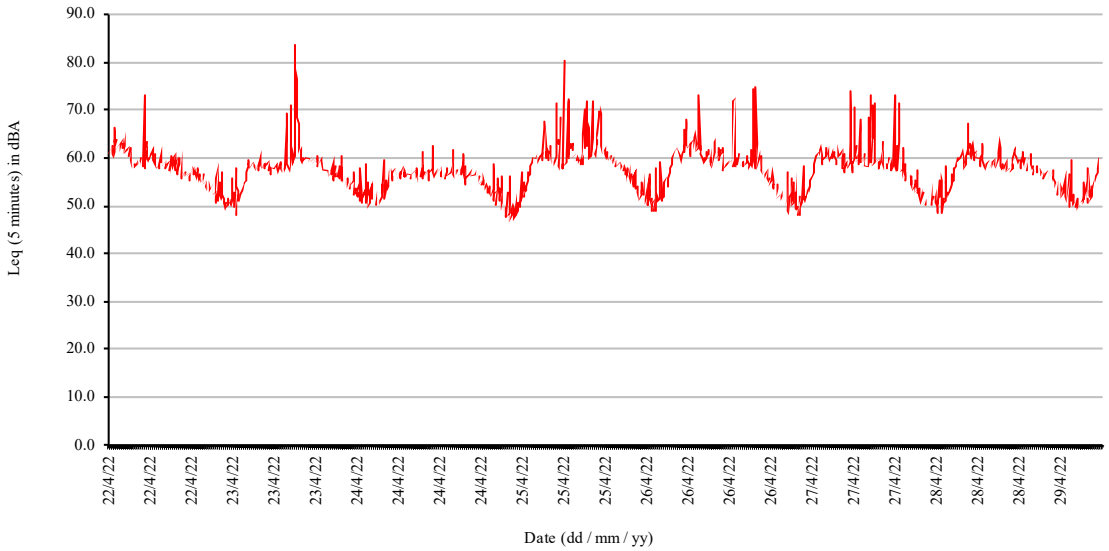
APPENDIX E

CONSTRUCTION SITE NOISE MONITORING DATA AND CHART

NAME OF COMPANY	CH2M HILL Singapore Pte Ltd
SITE LOCATION	Along KJE
REPORT REFERENCE	22/04/2022 - 29/04/2022

MODE	Environment	FREQUENCY WEIGHTING	A

Leq (5 Minutes) Plotted Against Date of Monitoring



ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Along KJE									
REPORT REFERENCE			22/04/2022 - 29/04/2022									
Start	22/4/22		7:05		**Leq12h**	60.9			Weighting		A	
End	22/4/22		19:00									
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**
22/4/22	7:05	60.8			22/4/22	11:05	58.8			22/4/22	15:05	58.9
22/4/22	7:10	61.0			22/4/22	11:10	58.9			22/4/22	15:10	58.1
22/4/22	7:15	62.0			22/4/22	11:15	59.1			22/4/22	15:15	58.0
22/4/22	7:20	60.9			22/4/22	11:20	58.5			22/4/22	15:20	58.3
22/4/22	7:25	61.0			22/4/22	11:25	57.8			22/4/22	15:25	58.0
22/4/22	7:30	61.2			22/4/22	11:30	58.5			22/4/22	15:30	58.8
22/4/22	7:35	62.1			22/4/22	11:35	57.8			22/4/22	15:35	57.8
22/4/22	7:40	61.4			22/4/22	11:40	58.2			22/4/22	15:40	58.8
22/4/22	7:45	62.5			22/4/22	11:45	58.9			22/4/22	15:45	58.3
22/4/22	7:50	60.8			22/4/22	11:50	58.5			22/4/22	15:50	62.6
22/4/22	7:55	60.0			22/4/22	11:55	59.4			22/4/22	15:55	59.3
22/4/22	8:00	61.3			22/4/22	12:00	58.8			22/4/22	16:00	59.5
22/4/22	8:05	66.4			22/4/22	12:05	58.3			22/4/22	16:05	62.5
22/4/22	8:10	63.2			22/4/22	12:10	59.1			22/4/22	16:10	62.7
22/4/22	8:15	62.4			22/4/22	12:15	59.4			22/4/22	16:15	58.2
22/4/22	8:20	62.7			22/4/22	12:20	59.4			22/4/22	16:20	57.9
22/4/22	8:25	63.9			22/4/22	12:25	58.8			22/4/22	16:25	58.8
22/4/22	8:30	61.5			22/4/22	12:30	58.8			22/4/22	16:30	58.0
22/4/22	8:35	62.8			22/4/22	12:35	59.8			22/4/22	16:35	59.6
22/4/22	8:40	63.2			22/4/22	12:40	58.3			22/4/22	16:40	57.8
22/4/22	8:45	62.9			22/4/22	12:45	58.6			22/4/22	16:45	58.5
22/4/22	8:50	63.4			22/4/22	12:50	59.8			22/4/22	16:50	58.8
22/4/22	8:55	62.4			22/4/22	12:55	58.2			22/4/22	16:55	58.0
22/4/22	9:00	61.4			22/4/22	13:00	57.8			22/4/22	17:00	58.2
22/4/22	9:05	61.0			22/4/22	13:05	73.2			22/4/22	17:05	58.9
22/4/22	9:10	62.9			22/4/22	13:10	58.7			22/4/22	17:10	58.1
22/4/22	9:15	64.2			22/4/22	13:15	57.8			22/4/22	17:15	59.4
22/4/22	9:20	62.2			22/4/22	13:20	59.2			22/4/22	17:20	57.6
22/4/22	9:25	63.1			22/4/22	13:25	62.4			22/4/22	17:25	59.2
22/4/22	9:30	61.6			22/4/22	13:30	61.2			22/4/22	17:30	56.6
22/4/22	9:35	61.2			22/4/22	13:35	63.5			22/4/22	17:35	56.7
22/4/22	9:40	65.5			22/4/22	13:40	60.1			22/4/22	17:40	60.2
22/4/22	9:45	62.5			22/4/22	13:45	59.1			22/4/22	17:45	59.4
22/4/22	9:50	63.0			22/4/22	13:50	59.1			22/4/22	17:50	57.6
22/4/22	9:55	60.7			22/4/22	13:55	59.9			22/4/22	17:55	57.0
22/4/22	10:00	61.0			22/4/22	14:00	59.0			22/4/22	18:00	58.5
22/4/22	10:05	60.8			22/4/22	14:05	59.2			22/4/22	18:05	60.0
22/4/22	10:10	60.2			22/4/22	14:10	58.7			22/4/22	18:10	61.1
22/4/22	10:15	61.5			22/4/22	14:15	59.7			22/4/22	18:15	59.5
22/4/22	10:20	62.5			22/4/22	14:20	60.8			22/4/22	18:20	57.5
22/4/22	10:25	60.5			22/4/22	14:25	62.5			22/4/22	18:25	58.5
22/4/22	10:30	60.9			22/4/22	14:30	61.5			22/4/22	18:30	60.4
22/4/22	10:35	61.2			22/4/22	14:35	59.7			22/4/22	18:35	57.5
22/4/22	10:40	61.3			22/4/22	14:40	59.7			22/4/22	18:40	56.4
22/4/22	10:45	60.2			22/4/22	14:45	58.9			22/4/22	18:45	57.5
22/4/22	10:50	61.9			22/4/22	14:50	60.9			22/4/22	18:50	56.4
22/4/22	10:55	59.7			22/4/22	14:55	58.7			22/4/22	18:55	57.1
22/4/22	11:00	58.0			22/4/22	15:00	58.3			22/4/22	19:00	58.9

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Along KJE									
REPORT REFERENCE			22/04/2022 - 29/04/2022									
Start	22/4/22		19:05		**Leq12h**	55.1			Weighting		A	
End	23/4/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
22/4/22	19:05	60.0			22/4/22	23:05	55.0			23/4/22	3:05	50.2	
22/4/22	19:10	57.2			22/4/22	23:10	**56.7**			23/4/22	3:10	51.6	
22/4/22	19:15	61.7			22/4/22	23:15	54.4			23/4/22	3:15	51.1	
22/4/22	19:20	56.4			22/4/22	23:20	54.7			23/4/22	3:20	50.5	
22/4/22	19:25	55.6			22/4/22	23:25	**55.2**			23/4/22	3:25	51.0	
22/4/22	19:30	56.8			22/4/22	23:30	54.7			23/4/22	3:30	50.5	
22/4/22	19:35	56.2			22/4/22	23:35	54.1			23/4/22	3:35	51.0	
22/4/22	19:40	56.0			22/4/22	23:40	53.3			23/4/22	3:40	51.4	
22/4/22	19:45	56.9			22/4/22	23:45	53.4			23/4/22	3:45	50.8	
22/4/22	19:50	56.4			22/4/22	23:50	53.5			23/4/22	3:50	49.9	
22/4/22	19:55	56.7			22/4/22	23:55	**55.4**			23/4/22	3:55	51.0	
22/4/22	20:00	56.1	57.6		22/4/22	0:00	**55.1**	54.7		23/4/22	4:00	52.6	51.0
22/4/22	20:05	56.8			23/4/22	0:05	53.4			23/4/22	4:05	**55.7**	
22/4/22	20:10	56.1			23/4/22	0:10	52.8			23/4/22	4:10	50.0	
22/4/22	20:15	56.9			23/4/22	0:15	53.3			23/4/22	4:15	52.9	
22/4/22	20:20	57.0			23/4/22	0:20	52.9			23/4/22	4:20	51.4	
22/4/22	20:25	56.0			23/4/22	0:25	53.1			23/4/22	4:25	51.9	
22/4/22	20:30	56.3			23/4/22	0:30	53.2			23/4/22	4:30	52.4	
22/4/22	20:35	57.0			23/4/22	0:35	54.6			23/4/22	4:35	47.9	
22/4/22	20:40	56.1			23/4/22	0:40	54.7			23/4/22	4:40	**58.0**	
22/4/22	20:45	55.5			23/4/22	0:45	52.3			23/4/22	4:45	54.2	
22/4/22	20:50	58.0			23/4/22	0:50	52.4			23/4/22	4:50	53.1	
22/4/22	20:55	56.3			23/4/22	0:55	52.8			23/4/22	4:55	51.2	
22/4/22	21:00	55.9	56.5		23/4/22	1:00	52.0	53.2		23/4/22	5:00	50.9	53.3
22/4/22	21:05	58.2			23/4/22	1:05	53.0			23/4/22	5:05	53.3	
22/4/22	21:10	58.5			23/4/22	1:10	51.3			23/4/22	5:10	50.6	
22/4/22	21:15	57.4			23/4/22	1:15	50.5			23/4/22	5:15	52.4	
22/4/22	21:20	57.3			23/4/22	1:20	**55.8**			23/4/22	5:20	52.5	
22/4/22	21:25	56.5			23/4/22	1:25	**59.2**			23/4/22	5:25	51.7	
22/4/22	21:30	56.5			23/4/22	1:30	52.3			23/4/22	5:30	52.8	
22/4/22	21:35	58.2			23/4/22	1:35	51.2			23/4/22	5:35	52.3	
22/4/22	21:40	56.5			23/4/22	1:40	53.2			23/4/22	5:40	53.2	
22/4/22	21:45	56.4			23/4/22	1:45	51.3			23/4/22	5:45	53.2	
22/4/22	21:50	56.5			23/4/22	1:50	54.8			23/4/22	5:50	53.2	
22/4/22	21:55	57.0			23/4/22	1:55	53.8			23/4/22	5:55	53.1	
22/4/22	22:00	55.1	57.1		23/4/22	2:00	52.5	54.0		23/4/22	6:00	**55.4**	52.9
22/4/22	22:05	**55.7**			23/4/22	2:05	51.2			23/4/22	6:05	54.5	
22/4/22	22:10	**58.0**			23/4/22	2:10	52.1			23/4/22	6:10	54.4	
22/4/22	22:15	**57.2**			23/4/22	2:15	**56.8**			23/4/22	6:15	**55.4**	
22/4/22	22:20	54.8			23/4/22	2:20	52.5			23/4/22	6:20	**55.7**	
22/4/22	22:25	**56.5**			23/4/22	2:25	51.3			23/4/22	6:25	**56.9**	
22/4/22	22:30	**55.6**			23/4/22	2:30	51.2			23/4/22	6:30	**56.7**	
22/4/22	22:35	**56.2**			23/4/22	2:35	50.6			23/4/22	6:35	**58.2**	
22/4/22	22:40	55.0			23/4/22	2:40	50.3			23/4/22	6:40	**59.6**	
22/4/22	22:45	54.9			23/4/22	2:45	50.8			23/4/22	6:45	**58.8**	
22/4/22	22:50	55.0			23/4/22	2:50	49.0			23/4/22	6:50	**58.7**	
22/4/22	22:55	**55.6**			23/4/22	2:55	50.5			23/4/22	6:55	**58.3**	
22/4/22	23:00	54.8	**55.9**		23/4/22	3:00	49.3	51.8		23/4/22	7:00	**57.9**	**57.4**

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			22/04/2022 - 29/04/2022								
Start	23/4/22		7:05		**Leq12h**	65.6			Weighting		A
End	23/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
23/4/22	7:05	57.8			23/4/22	11:05	58.2		23/4/22	15:05	68.1
23/4/22	7:10	57.9			23/4/22	11:10	58.1		23/4/22	15:10	67.2
23/4/22	7:15	59.1			23/4/22	11:15	57.5		23/4/22	15:15	61.9
23/4/22	7:20	59.6			23/4/22	11:20	59.1		23/4/22	15:20	61.0
23/4/22	7:25	58.5			23/4/22	11:25	58.3		23/4/22	15:25	61.0
23/4/22	7:30	58.8			23/4/22	11:30	58.3		23/4/22	15:30	61.0
23/4/22	7:35	59.0			23/4/22	11:35	58.7		23/4/22	15:35	62.5
23/4/22	7:40	58.2			23/4/22	11:40	56.7		23/4/22	15:40	61.8
23/4/22	7:45	58.7			23/4/22	11:45	57.8		23/4/22	15:45	59.7
23/4/22	7:50	58.3			23/4/22	11:50	57.4		23/4/22	15:50	58.9
23/4/22	7:55	57.8			23/4/22	11:55	59.0		23/4/22	15:55	60.0
23/4/22	8:00	58.0			23/4/22	12:00	57.6		23/4/22	16:00	60.5
23/4/22	8:05	57.8			23/4/22	12:05	59.0		23/4/22	16:05	59.3
23/4/22	8:10	57.6			23/4/22	12:10	57.7		23/4/22	16:10	59.1
23/4/22	8:15	59.7			23/4/22	12:15	57.4		23/4/22	16:15	60.0
23/4/22	8:20	57.6			23/4/22	12:20	57.1		23/4/22	16:20	59.8
23/4/22	8:25	58.4			23/4/22	12:25	56.9		23/4/22	16:25	59.6
23/4/22	8:30	58.2			23/4/22	12:30	56.8		23/4/22	16:30	59.5
23/4/22	8:35	58.2			23/4/22	12:35	57.3		23/4/22	16:35	59.5
23/4/22	8:40	57.7			23/4/22	12:40	57.9		23/4/22	16:40	59.6
23/4/22	8:45	61.7			23/4/22	12:45	57.0		23/4/22	16:45	59.5
23/4/22	8:50	58.5			23/4/22	12:50	57.6		23/4/22	16:50	60.0
23/4/22	8:55	58.6			23/4/22	12:55	57.9		23/4/22	16:55	59.5
23/4/22	9:00	58.0			23/4/22	13:00	58.3		23/4/22	17:00	59.3
23/4/22	9:05	58.1			23/4/22	13:05	58.2		23/4/22	17:05	59.2
23/4/22	9:10	58.0			23/4/22	13:10	66.8		23/4/22	17:10	59.4
23/4/22	9:15	59.0			23/4/22	13:15	69.3		23/4/22	17:15	60.2
23/4/22	9:20	57.8			23/4/22	13:20	58.7		23/4/22	17:20	59.2
23/4/22	9:25	58.2			23/4/22	13:25	57.7		23/4/22	17:25	59.5
23/4/22	9:30	58.5			23/4/22	13:30	57.5		23/4/22	17:30	59.9
23/4/22	9:35	57.7			23/4/22	13:35	57.7		23/4/22	17:35	58.9
23/4/22	9:40	58.2			23/4/22	13:40	58.2		23/4/22	17:40	58.3
23/4/22	9:45	58.9			23/4/22	13:45	56.9		23/4/22	17:45	59.2
23/4/22	9:50	58.2			23/4/22	13:50	59.9		23/4/22	17:50	59.3
23/4/22	9:55	58.6			23/4/22	13:55	71.1		23/4/22	17:55	59.9
23/4/22	10:00	59.4			23/4/22	14:00	62.6		23/4/22	18:00	59.2
23/4/22	10:05	57.6			23/4/22	14:05	60.6		23/4/22	18:05	59.3
23/4/22	10:10	57.4			23/4/22	14:10	59.9		23/4/22	18:10	60.2
23/4/22	10:15	58.5			23/4/22	14:15	59.2		23/4/22	18:15	59.1
23/4/22	10:20	57.5			23/4/22	14:20	58.4		23/4/22	18:20	60.2
23/4/22	10:25	57.4			23/4/22	14:25	60.3		23/4/22	18:25	58.4
23/4/22	10:30	56.6			23/4/22	14:30	63.5		23/4/22	18:30	59.4
23/4/22	10:35	57.9			23/4/22	14:35	83.6		23/4/22	18:35	59.3
23/4/22	10:40	57.9			23/4/22	14:40	78.8		23/4/22	18:40	58.9
23/4/22	10:45	58.0			23/4/22	14:45	76.3		23/4/22	18:45	58.9
23/4/22	10:50	58.4			23/4/22	14:50	70.7		23/4/22	18:50	59.0
23/4/22	10:55	58.4			23/4/22	14:55	70.2		23/4/22	18:55	58.8
23/4/22	11:00	58.0			23/4/22	15:00	68.6		23/4/22	19:00	59.2

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	23/4/22		19:05		**Leq12h**	55.4				Weighting		A	
End	24/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
23/4/22	19:05	60.2			23/4/22	23:05	54.2			24/4/22	3:05	50.8	
23/4/22	19:10	59.4			23/4/22	23:10	**55.7**			24/4/22	3:10	50.1	
23/4/22	19:15	59.6			23/4/22	23:15	**56.0**			24/4/22	3:15	50.9	
23/4/22	19:20	59.2			23/4/22	23:20	54.7			24/4/22	3:20	53.3	
23/4/22	19:25	57.4			23/4/22	23:25	**55.6**			24/4/22	3:25	52.7	
23/4/22	19:30	57.2			23/4/22	23:30	54.8			24/4/22	3:30	**55.3**	
23/4/22	19:35	57.7			23/4/22	23:35	53.5			24/4/22	3:35	51.3	
23/4/22	19:40	57.0			23/4/22	23:40	54.2			24/4/22	3:40	54.4	
23/4/22	19:45	57.6			23/4/22	23:45	54.9			24/4/22	3:45	51.6	
23/4/22	19:50	56.9			23/4/22	23:50	53.7			24/4/22	3:50	**55.2**	
23/4/22	19:55	57.4			23/4/22	23:55	**55.1**			24/4/22	3:55	50.9	
23/4/22	20:00	57.8	58.3		23/4/22	0:00	**55.6**	54.9		24/4/22	4:00	51.5	52.7
23/4/22	20:05	56.8			24/4/22	0:05	54.8			24/4/22	4:05	50.5	
23/4/22	20:10	56.8			24/4/22	0:10	54.4			24/4/22	4:10	53.2	
23/4/22	20:15	57.9			24/4/22	0:15	54.8			24/4/22	4:15	50.2	
23/4/22	20:20	57.7			24/4/22	0:20	54.3			24/4/22	4:20	51.4	
23/4/22	20:25	57.0			24/4/22	0:25	**55.4**			24/4/22	4:25	51.1	
23/4/22	20:30	56.1			24/4/22	0:30	**56.8**			24/4/22	4:30	51.1	
23/4/22	20:35	56.5			24/4/22	0:35	52.3			24/4/22	4:35	49.2	
23/4/22	20:40	57.4			24/4/22	0:40	53.6			24/4/22	4:40	51.5	
23/4/22	20:45	56.7			24/4/22	0:45	52.2			24/4/22	4:45	51.4	
23/4/22	20:50	57.5			24/4/22	0:50	53.5			24/4/22	4:50	51.2	
23/4/22	20:55	60.3			24/4/22	0:55	52.8			24/4/22	4:55	51.4	
23/4/22	21:00	57.4	57.5		24/4/22	1:00	53.2	54.2		24/4/22	5:00	50.2	51.1
23/4/22	21:05	55.5			24/4/22	1:05	51.9			24/4/22	5:05	51.0	
23/4/22	21:10	56.3			24/4/22	1:10	52.6			24/4/22	5:10	51.9	
23/4/22	21:15	57.2			24/4/22	1:15	52.1			24/4/22	5:15	53.8	
23/4/22	21:20	56.2			24/4/22	1:20	53.4			24/4/22	5:20	54.3	
23/4/22	21:25	58.2			24/4/22	1:25	**55.7**			24/4/22	5:25	52.8	
23/4/22	21:30	56.0			24/4/22	1:30	51.0			24/4/22	5:30	**59.5**	
23/4/22	21:35	55.7			24/4/22	1:35	54.1			24/4/22	5:35	51.5	
23/4/22	21:40	58.0			24/4/22	1:40	**58.0**			24/4/22	5:40	51.4	
23/4/22	21:45	56.3			24/4/22	1:45	52.0			24/4/22	5:45	52.4	
23/4/22	21:50	56.9			24/4/22	1:50	50.8			24/4/22	5:50	51.6	
23/4/22	21:55	56.9			24/4/22	1:55	51.6			24/4/22	5:55	53.6	
23/4/22	22:00	55.9	56.7		24/4/22	2:00	51.3	53.5		24/4/22	6:00	**55.4**	54.0
23/4/22	22:05	**58.3**			24/4/22	2:05	51.7			24/4/22	6:05	54.6	
23/4/22	22:10	**55.8**			24/4/22	2:10	53.7			24/4/22	6:10	53.0	
23/4/22	22:15	**56.4**			24/4/22	2:15	52.5			24/4/22	6:15	53.4	
23/4/22	22:20	**58.2**			24/4/22	2:20	51.5			24/4/22	6:20	53.0	
23/4/22	22:25	**55.4**			24/4/22	2:25	54.6			24/4/22	6:25	54.1	
23/4/22	22:30	**60.3**			24/4/22	2:30	50.5			24/4/22	6:30	**57.9**	
23/4/22	22:35	**56.0**			24/4/22	2:35	51.5			24/4/22	6:35	**58.4**	
23/4/22	22:40	55.0			24/4/22	2:40	**58.5**			24/4/22	6:40	**57.7**	
23/4/22	22:45	**55.5**			24/4/22	2:45	52.5			24/4/22	6:45	**56.8**	
23/4/22	22:50	**55.2**			24/4/22	2:50	54.7			24/4/22	6:50	**57.8**	
23/4/22	22:55	**56.2**			24/4/22	2:55	53.5			24/4/22	6:55	**56.2**	
23/4/22	23:00	**56.3**	**56.9**		24/4/22	3:00	49.5	53.6		24/4/22	7:00	**56.6**	**56.2**

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			22/04/2022 - 29/04/2022								
Start	24/4/22		7:05		**Leq12h**	57.1			Weighting		A
End	24/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
24/4/22	7:05	55.5			24/4/22	11:05	56.6		24/4/22	15:05	58.3
24/4/22	7:10	56.9			24/4/22	11:10	57.9		24/4/22	15:10	56.0
24/4/22	7:15	57.3			24/4/22	11:15	56.9		24/4/22	15:15	56.8
24/4/22	7:20	56.6			24/4/22	11:20	57.4		24/4/22	15:20	55.2
24/4/22	7:25	57.2			24/4/22	11:25	56.4		24/4/22	15:25	55.0
24/4/22	7:30	58.0			24/4/22	11:30	57.5		24/4/22	15:30	56.5
24/4/22	7:35	58.1			24/4/22	11:35	54.9		24/4/22	15:35	56.2
24/4/22	7:40	57.5			24/4/22	11:40	58.2		24/4/22	15:40	55.6
24/4/22	7:45	57.7			24/4/22	11:45	58.8		24/4/22	15:45	56.0
24/4/22	7:50	57.5			24/4/22	11:50	56.3		24/4/22	15:50	57.2
24/4/22	7:55	55.7			24/4/22	11:55	57.8		24/4/22	15:55	55.8
24/4/22	8:00	56.8			24/4/22	12:00	56.4		24/4/22	16:00	57.1
24/4/22	8:05	57.5			24/4/22	12:05	61.4		24/4/22	16:05	56.5
24/4/22	8:10	57.2			24/4/22	12:10	55.9		24/4/22	16:10	56.1
24/4/22	8:15	55.8			24/4/22	12:15	56.8		24/4/22	16:15	57.1
24/4/22	8:20	56.8			24/4/22	12:20	58.7		24/4/22	16:20	57.8
24/4/22	8:25	55.9			24/4/22	12:25	56.3		24/4/22	16:25	56.3
24/4/22	8:30	56.7			24/4/22	12:30	55.6		24/4/22	16:30	56.2
24/4/22	8:35	57.2			24/4/22	12:35	57.0		24/4/22	16:35	55.6
24/4/22	8:40	56.3			24/4/22	12:40	55.6		24/4/22	16:40	56.0
24/4/22	8:45	58.3			24/4/22	12:45	56.3		24/4/22	16:45	55.8
24/4/22	8:50	57.9			24/4/22	12:50	56.2		24/4/22	16:50	57.1
24/4/22	8:55	57.3			24/4/22	12:55	57.5		24/4/22	16:55	57.4
24/4/22	9:00	56.2			24/4/22	13:00	56.8		24/4/22	17:00	57.1
24/4/22	9:05	57.2			24/4/22	13:05	56.7		24/4/22	17:05	58.3
24/4/22	9:10	56.0			24/4/22	13:10	55.4		24/4/22	17:10	58.1
24/4/22	9:15	57.5			24/4/22	13:15	57.3		24/4/22	17:15	57.4
24/4/22	9:20	55.9			24/4/22	13:20	56.6		24/4/22	17:20	61.6
24/4/22	9:25	56.4			24/4/22	13:25	56.1		24/4/22	17:25	56.6
24/4/22	9:30	56.4			24/4/22	13:30	56.0		24/4/22	17:30	57.0
24/4/22	9:35	56.4			24/4/22	13:35	56.5		24/4/22	17:35	55.7
24/4/22	9:40	56.3			24/4/22	13:40	57.0		24/4/22	17:40	55.9
24/4/22	9:45	56.8			24/4/22	13:45	57.8		24/4/22	17:45	57.5
24/4/22	9:50	57.0			24/4/22	13:50	62.3		24/4/22	17:50	57.6
24/4/22	9:55	56.1			24/4/22	13:55	59.5		24/4/22	17:55	56.5
24/4/22	10:00	56.4			24/4/22	14:00	57.2		24/4/22	18:00	56.3
24/4/22	10:05	56.0			24/4/22	14:05	55.7		24/4/22	18:05	57.5
24/4/22	10:10	55.8			24/4/22	14:10	56.7		24/4/22	18:10	56.4
24/4/22	10:15	59.2			24/4/22	14:15	56.9		24/4/22	18:15	56.7
24/4/22	10:20	56.4			24/4/22	14:20	57.0		24/4/22	18:20	58.2
24/4/22	10:25	56.4			24/4/22	14:25	56.2		24/4/22	18:25	56.0
24/4/22	10:30	56.9			24/4/22	14:30	56.7		24/4/22	18:30	56.2
24/4/22	10:35	56.2			24/4/22	14:35	58.0		24/4/22	18:35	56.4
24/4/22	10:40	56.2			24/4/22	14:40	56.7		24/4/22	18:40	57.6
24/4/22	10:45	57.2			24/4/22	14:45	56.3		24/4/22	18:45	56.5
24/4/22	10:50	56.5			24/4/22	14:50	56.7		24/4/22	18:50	57.6
24/4/22	10:55	57.5			24/4/22	14:55	56.3		24/4/22	18:55	58.6
24/4/22	11:00	55.9			24/4/22	15:00	56.8		24/4/22	19:00	60.7

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	24/4/22		19:05		**Leq12h**	54.7				Weighting		A	
End	25/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
24/4/22	19:05	**58.5**			24/4/22	23:05	53.8			25/4/22	3:05	46.5	
24/4/22	19:10	**57.2**			24/4/22	23:10	52.7			25/4/22	3:10	48.3	
24/4/22	19:15	**55.5**			24/4/22	23:15	53.5			25/4/22	3:15	49.4	
24/4/22	19:20	**58.2**			24/4/22	23:20	52.5			25/4/22	3:20	49.6	
24/4/22	19:25	54.3			24/4/22	23:25	54.2			25/4/22	3:25	50.8	
24/4/22	19:30	**55.8**			24/4/22	23:30	54.0			25/4/22	3:30	49.5	
24/4/22	19:35	**55.4**			24/4/22	23:35	52.9			25/4/22	3:35	48.2	
24/4/22	19:40	**55.2**			24/4/22	23:40	53.2			25/4/22	3:40	48.5	
24/4/22	19:45	**56.6**			24/4/22	23:45	53.1			25/4/22	3:45	46.7	
24/4/22	19:50	**55.8**			24/4/22	23:50	52.1			25/4/22	3:50	47.9	
24/4/22	19:55	**55.3**			24/4/22	23:55	52.5			25/4/22	3:55	49.9	
24/4/22	20:00	**55.5**	56.3		24/4/22	0:00	53.7	53.2		25/4/22	4:00	50.1	49.0
24/4/22	20:05	**56.5**			25/4/22	0:05	55.0			25/4/22	4:05	52.8	
24/4/22	20:10	**56.5**			25/4/22	0:10	**58.9**			25/4/22	4:10	49.0	
24/4/22	20:15	**58.0**			25/4/22	0:15	51.0			25/4/22	4:15	50.8	
24/4/22	20:20	**57.3**			25/4/22	0:20	52.4			25/4/22	4:20	48.8	
24/4/22	20:25	**56.2**			25/4/22	0:25	53.1			25/4/22	4:25	48.1	
24/4/22	20:30	**56.1**			25/4/22	0:30	52.8			25/4/22	4:30	51.3	
24/4/22	20:35	**55.6**			25/4/22	0:35	50.1			25/4/22	4:35	50.8	
24/4/22	20:40	**56.3**			25/4/22	0:40	52.4			25/4/22	4:40	50.0	
24/4/22	20:45	**56.0**			25/4/22	0:45	49.7			25/4/22	4:45	50.8	
24/4/22	20:50	**56.0**			25/4/22	0:50	49.5			25/4/22	4:50	**56.8**	
24/4/22	20:55	**56.4**			25/4/22	0:55	**55.7**			25/4/22	4:55	51.7	
24/4/22	21:00	**56.6**	56.5		25/4/22	1:00	54.3	53.8		25/4/22	5:00	52.3	51.8
24/4/22	21:05	**57.3**			25/4/22	1:05	52.2			25/4/22	5:05	50.8	
24/4/22	21:10	**56.9**			25/4/22	1:10	51.1			25/4/22	5:10	53.0	
24/4/22	21:15	**56.9**			25/4/22	1:15	53.8			25/4/22	5:15	51.8	
24/4/22	21:20	**57.3**			25/4/22	1:20	51.1			25/4/22	5:20	55.0	
24/4/22	21:25	**56.0**			25/4/22	1:25	53.4			25/4/22	5:25	53.4	
24/4/22	21:30	**56.1**			25/4/22	1:30	**56.2**			25/4/22	5:30	52.7	
24/4/22	21:35	**57.0**			25/4/22	1:35	50.5			25/4/22	5:35	54.2	
24/4/22	21:40	55.0			25/4/22	1:40	49.0			25/4/22	5:40	53.0	
24/4/22	21:45	**56.3**			25/4/22	1:45	50.8			25/4/22	5:45	54.2	
24/4/22	21:50	**56.2**			25/4/22	1:50	50.1			25/4/22	5:50	54.1	
24/4/22	21:55	54.5			25/4/22	1:55	48.8			25/4/22	5:55	**55.2**	
24/4/22	22:00	**55.3**	56.3		25/4/22	2:00	48.9	51.9		25/4/22	6:00	**57.0**	54.0
24/4/22	22:05	54.6			25/4/22	2:05	50.1			25/4/22	6:05	**55.6**	
24/4/22	22:10	55.0			25/4/22	2:10	50.7			25/4/22	6:10	**56.1**	
24/4/22	22:15	**56.9**			25/4/22	2:15	49.4			25/4/22	6:15	**56.4**	
24/4/22	22:20	**55.1**			25/4/22	2:20	47.8			25/4/22	6:20	**57.3**	
24/4/22	22:25	54.5			25/4/22	2:25	52.8			25/4/22	6:25	**58.3**	
24/4/22	22:30	54.1			25/4/22	2:30	47.6			25/4/22	6:30	**57.8**	
24/4/22	22:35	**57.3**			25/4/22	2:35	47.7			25/4/22	6:35	**59.0**	
24/4/22	22:40	**57.0**			25/4/22	2:40	47.6			25/4/22	6:40	**58.7**	
24/4/22	22:45	53.3			25/4/22	2:45	48.4			25/4/22	6:45	**59.9**	
24/4/22	22:50	54.0			25/4/22	2:50	48.5			25/4/22	6:50	**60.2**	
24/4/22	22:55	54.8			25/4/22	2:55	**56.3**			25/4/22	6:55	**59.8**	
24/4/22	23:00	**55.2**	55.3		25/4/22	3:00	52.7	50.9		25/4/22	7:00	**59.8**	58.5

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			22/04/2022 - 29/04/2022								
Start	25/4/22		7:05		**Leq12h**	64.9			Weighting		A
End	25/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
25/4/22	7:05	60.1			25/4/22	11:05	63.9		25/4/22	15:05	58.0
25/4/22	7:10	60.2			25/4/22	11:10	58.3		25/4/22	15:10	60.7
25/4/22	7:15	59.8			25/4/22	11:15	58.6		25/4/22	15:15	59.7
25/4/22	7:20	60.3			25/4/22	11:20	57.5		25/4/22	15:20	58.9
25/4/22	7:25	60.8			25/4/22	11:25	57.4		25/4/22	15:25	65.0
25/4/22	7:30	60.7			25/4/22	11:30	58.0		25/4/22	15:30	70.3
25/4/22	7:35	60.9			25/4/22	11:35	68.3		25/4/22	15:35	67.6
25/4/22	7:40	58.6			25/4/22	11:40	58.0		25/4/22	15:40	63.1
25/4/22	7:45	59.5			25/4/22	11:45	58.6		25/4/22	15:45	62.1
25/4/22	7:50	59.9			25/4/22	11:50	58.6		25/4/22	15:50	62.6
25/4/22	7:55	59.0			25/4/22	11:55	58.0		25/4/22	15:55	71.9
25/4/22	8:00	59.8			25/4/22	12:00	57.9		25/4/22	16:00	62.6
25/4/22	8:05	59.3			25/4/22	12:05	58.2		25/4/22	16:05	67.6
25/4/22	8:10	60.2			25/4/22	12:10	58.3		25/4/22	16:10	66.2
25/4/22	8:15	60.3			25/4/22	12:15	80.2		25/4/22	16:15	60.3
25/4/22	8:20	61.3			25/4/22	12:20	58.1		25/4/22	16:20	60.3
25/4/22	8:25	59.5			25/4/22	12:25	59.0		25/4/22	16:25	59.5
25/4/22	8:30	61.0			25/4/22	12:30	59.1		25/4/22	16:30	60.4
25/4/22	8:35	61.0			25/4/22	12:35	60.7		25/4/22	16:35	60.2
25/4/22	8:40	60.7			25/4/22	12:40	60.7		25/4/22	16:40	60.1
25/4/22	8:45	66.3			25/4/22	12:45	72.0		25/4/22	16:45	60.5
25/4/22	8:50	67.6			25/4/22	12:50	59.8		25/4/22	16:50	71.8
25/4/22	8:55	62.0			25/4/22	12:55	60.8		25/4/22	16:55	71.6
25/4/22	9:00	59.9			25/4/22	13:00	72.2		25/4/22	17:00	64.2
25/4/22	9:05	61.4			25/4/22	13:05	62.2		25/4/22	17:05	60.4
25/4/22	9:10	61.8			25/4/22	13:10	62.8		25/4/22	17:10	60.4
25/4/22	9:15	62.0			25/4/22	13:15	62.7		25/4/22	17:15	60.7
25/4/22	9:20	61.1			25/4/22	13:20	61.8		25/4/22	17:20	62.0
25/4/22	9:25	61.7			25/4/22	13:25	63.2		25/4/22	17:25	60.6
25/4/22	9:30	59.7			25/4/22	13:30	61.6		25/4/22	17:30	60.0
25/4/22	9:35	62.4			25/4/22	13:35	62.8		25/4/22	17:35	63.8
25/4/22	9:40	60.8			25/4/22	13:40	60.1		25/4/22	17:40	63.0
25/4/22	9:45	60.8			25/4/22	13:45	60.5		25/4/22	17:45	65.0
25/4/22	9:50	62.6			25/4/22	13:50	60.6		25/4/22	17:50	65.3
25/4/22	9:55	61.4			25/4/22	13:55	59.1		25/4/22	17:55	68.9
25/4/22	10:00	58.5			25/4/22	14:00	58.9		25/4/22	18:00	69.7
25/4/22	10:05	60.1			25/4/22	14:05	59.1		25/4/22	18:05	68.8
25/4/22	10:10	60.4			25/4/22	14:10	60.7		25/4/22	18:10	71.1
25/4/22	10:15	60.0			25/4/22	14:15	59.4		25/4/22	18:15	69.2
25/4/22	10:20	60.1			25/4/22	14:20	60.2		25/4/22	18:20	67.3
25/4/22	10:25	59.4			25/4/22	14:25	59.7		25/4/22	18:25	64.6
25/4/22	10:30	58.2			25/4/22	14:30	58.8		25/4/22	18:30	62.5
25/4/22	10:35	59.1			25/4/22	14:35	58.4		25/4/22	18:35	62.5
25/4/22	10:40	60.2			25/4/22	14:40	58.7		25/4/22	18:40	61.0
25/4/22	10:45	59.8			25/4/22	14:45	59.1		25/4/22	18:45	60.7
25/4/22	10:50	60.7			25/4/22	14:50	60.9		25/4/22	18:50	60.6
25/4/22	10:55	71.5			25/4/22	14:55	58.9		25/4/22	18:55	62.4
25/4/22	11:00	62.8			25/4/22	15:00	59.4		25/4/22	19:00	61.5

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	25/4/22		19:05		**Leq12h**	56.9				Weighting		A	
End	26/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
25/4/22	19:05	60.6			25/4/22	23:05	**55.7**			26/4/22	3:05	50.3	
25/4/22	19:10	60.8			25/4/22	23:10	**58.5**			26/4/22	3:10	51.4	
25/4/22	19:15	59.6			25/4/22	23:15	**56.2**			26/4/22	3:15	51.1	
25/4/22	19:20	61.2			25/4/22	23:20	54.5			26/4/22	3:20	48.8	
25/4/22	19:25	60.3			25/4/22	23:25	**56.5**			26/4/22	3:25	51.3	
25/4/22	19:30	60.1			25/4/22	23:30	55.0			26/4/22	3:30	50.0	
25/4/22	19:35	60.0			25/4/22	23:35	54.7			26/4/22	3:35	**57.8**	
25/4/22	19:40	60.6			25/4/22	23:40	**57.0**			26/4/22	3:40	49.1	
25/4/22	19:45	59.5			25/4/22	23:45	54.5			26/4/22	3:45	52.8	
25/4/22	19:50	60.3			25/4/22	23:50	**56.2**			26/4/22	3:50	51.5	
25/4/22	19:55	59.5			25/4/22	23:55	54.0			26/4/22	3:55	51.3	
25/4/22	20:00	59.8	60.2		25/4/22	0:00	**56.3**	**55.9**		26/4/22	4:00	50.8	52.1
25/4/22	20:05	60.3			26/4/22	0:05	**58.0**			26/4/22	4:05	50.6	
25/4/22	20:10	59.0			26/4/22	0:10	**56.9**			26/4/22	4:10	51.3	
25/4/22	20:15	58.6			26/4/22	0:15	53.5			26/4/22	4:15	52.1	
25/4/22	20:20	60.2			26/4/22	0:20	54.8			26/4/22	4:20	51.9	
25/4/22	20:25	59.6			26/4/22	0:25	54.6			26/4/22	4:25	**59.1**	
25/4/22	20:30	58.8			26/4/22	0:30	52.8			26/4/22	4:30	53.4	
25/4/22	20:35	59.4			26/4/22	0:35	53.9			26/4/22	4:35	50.9	
25/4/22	20:40	59.6			26/4/22	0:40	52.8			26/4/22	4:40	53.2	
25/4/22	20:45	59.0			26/4/22	0:45	52.7			26/4/22	4:45	51.1	
25/4/22	20:50	58.4			26/4/22	0:50	51.1			26/4/22	4:50	52.1	
25/4/22	20:55	59.6			26/4/22	0:55	51.6			26/4/22	4:55	52.2	
25/4/22	21:00	58.1	59.3		26/4/22	1:00	50.8	54.2		26/4/22	5:00	54.9	53.5
25/4/22	21:05	57.9			26/4/22	1:05	52.3			26/4/22	5:05	54.7	
25/4/22	21:10	58.0			26/4/22	1:10	55.0			26/4/22	5:10	**56.2**	
25/4/22	21:15	58.0			26/4/22	1:15	53.2			26/4/22	5:15	54.5	
25/4/22	21:20	58.3			26/4/22	1:20	52.5			26/4/22	5:20	54.0	
25/4/22	21:25	58.0			26/4/22	1:25	**57.1**			26/4/22	5:25	54.4	
25/4/22	21:30	58.7			26/4/22	1:30	52.5			26/4/22	5:30	**56.4**	
25/4/22	21:35	59.3			26/4/22	1:35	53.8			26/4/22	5:35	54.2	
25/4/22	21:40	58.5			26/4/22	1:40	53.9			26/4/22	5:40	**55.8**	
25/4/22	21:45	58.1			26/4/22	1:45	50.4			26/4/22	5:45	**55.2**	
25/4/22	21:50	58.2			26/4/22	1:50	51.6			26/4/22	5:50	**56.2**	
25/4/22	21:55	57.6			26/4/22	1:55	51.2			26/4/22	5:55	**55.7**	
25/4/22	22:00	58.8	58.3		26/4/22	2:00	52.0	53.3		26/4/22	6:00	**57.0**	**55.5**
25/4/22	22:05	**57.6**			26/4/22	2:05	**56.3**			26/4/22	6:05	**57.3**	
25/4/22	22:10	**57.2**			26/4/22	2:10	50.2			26/4/22	6:10	**57.8**	
25/4/22	22:15	**58.7**			26/4/22	2:15	51.0			26/4/22	6:15	**58.0**	
25/4/22	22:20	**57.4**			26/4/22	2:20	50.2			26/4/22	6:20	**58.8**	
25/4/22	22:25	**56.9**			26/4/22	2:25	**56.6**			26/4/22	6:25	**59.0**	
25/4/22	22:30	**56.7**			26/4/22	2:30	52.5			26/4/22	6:30	**59.9**	
25/4/22	22:35	**58.0**			26/4/22	2:35	53.3			26/4/22	6:35	**60.1**	
25/4/22	22:40	55.0			26/4/22	2:40	51.4			26/4/22	6:40	**61.5**	
25/4/22	22:45	**57.7**			26/4/22	2:45	51.8			26/4/22	6:45	**61.3**	
25/4/22	22:50	**56.9**			26/4/22	2:50	50.2			26/4/22	6:50	**60.7**	
25/4/22	22:55	**55.7**			26/4/22	2:55	51.6			26/4/22	6:55	**60.7**	
25/4/22	23:00	**55.4**	**57.1**		26/4/22	3:00	48.8	52.7		26/4/22	7:00	**61.0**	**59.9**

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			22/04/2022 - 29/04/2022								
Start	26/4/22		7:05		**Leq12h**	62.2			Weighting		A
End	26/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
26/4/22	7:05	62.0			26/4/22	11:05	61.5		26/4/22	15:05	58.8
26/4/22	7:10	61.5			26/4/22	11:10	62.7		26/4/22	15:10	58.5
26/4/22	7:15	61.6			26/4/22	11:15	60.6		26/4/22	15:15	58.5
26/4/22	7:20	62.0			26/4/22	11:20	61.1		26/4/22	15:20	57.9
26/4/22	7:25	62.0			26/4/22	11:25	60.2		26/4/22	15:25	57.8
26/4/22	7:30	62.7			26/4/22	11:30	59.9		26/4/22	15:30	58.5
26/4/22	7:35	60.2			26/4/22	11:35	60.0		26/4/22	15:35	58.5
26/4/22	7:40	60.3			26/4/22	11:40	60.0		26/4/22	15:40	59.2
26/4/22	7:45	60.6			26/4/22	11:45	58.9		26/4/22	15:45	58.8
26/4/22	7:50	60.3			26/4/22	11:50	60.0		26/4/22	15:50	58.9
26/4/22	7:55	58.8			26/4/22	11:55	58.5		26/4/22	15:55	58.5
26/4/22	8:00	60.7			26/4/22	12:00	59.0		26/4/22	16:00	59.5
26/4/22	8:05	60.3			26/4/22	12:05	60.0		26/4/22	16:05	58.5
26/4/22	8:10	61.5			26/4/22	12:10	60.2		26/4/22	16:10	58.6
26/4/22	8:15	61.0			26/4/22	12:15	61.1		26/4/22	16:15	59.7
26/4/22	8:20	66.1			26/4/22	12:20	59.9		26/4/22	16:20	59.7
26/4/22	8:25	61.2			26/4/22	12:25	59.4		26/4/22	16:25	57.6
26/4/22	8:30	61.3			26/4/22	12:30	61.0		26/4/22	16:30	59.5
26/4/22	8:35	61.8			26/4/22	12:35	61.8		26/4/22	16:35	58.2
26/4/22	8:40	66.5			26/4/22	12:40	59.1		26/4/22	16:40	58.5
26/4/22	8:45	68.1			26/4/22	12:45	62.1		26/4/22	16:45	71.7
26/4/22	8:50	62.8			26/4/22	12:50	59.2		26/4/22	16:50	72.6
26/4/22	8:55	63.5			26/4/22	12:55	59.8		26/4/22	16:55	61.8
26/4/22	9:00	62.0			26/4/22	13:00	58.8		26/4/22	17:00	58.4
26/4/22	9:05	62.4			26/4/22	13:05	58.4		26/4/22	17:05	61.0
26/4/22	9:10	61.7			26/4/22	13:10	57.8		26/4/22	17:10	57.9
26/4/22	9:15	62.3			26/4/22	13:15	58.1		26/4/22	17:15	59.8
26/4/22	9:20	63.2			26/4/22	13:20	58.2		26/4/22	17:20	58.8
26/4/22	9:25	61.7			26/4/22	13:25	61.3		26/4/22	17:25	59.8
26/4/22	9:30	60.4			26/4/22	13:30	61.3		26/4/22	17:30	58.9
26/4/22	9:35	62.8			26/4/22	13:35	63.4		26/4/22	17:35	59.3
26/4/22	9:40	63.3			26/4/22	13:40	64.1		26/4/22	17:40	61.0
26/4/22	9:45	63.9			26/4/22	13:45	63.8		26/4/22	17:45	60.4
26/4/22	9:50	63.4			26/4/22	13:50	64.4		26/4/22	17:50	58.8
26/4/22	9:55	63.2			26/4/22	13:55	64.2		26/4/22	17:55	61.9
26/4/22	10:00	61.6			26/4/22	14:00	60.1		26/4/22	18:00	61.6
26/4/22	10:05	61.2			26/4/22	14:05	61.0		26/4/22	18:05	58.3
26/4/22	10:10	64.2			26/4/22	14:10	59.7		26/4/22	18:10	58.7
26/4/22	10:15	65.9			26/4/22	14:15	62.0		26/4/22	18:15	59.4
26/4/22	10:20	62.9			26/4/22	14:20	61.1		26/4/22	18:20	58.3
26/4/22	10:25	62.4			26/4/22	14:25	59.6		26/4/22	18:25	59.3
26/4/22	10:30	63.1			26/4/22	14:30	61.6		26/4/22	18:30	58.4
26/4/22	10:35	61.4			26/4/22	14:35	60.5		26/4/22	18:35	58.2
26/4/22	10:40	61.9			26/4/22	14:40	59.8		26/4/22	18:40	59.1
26/4/22	10:45	62.3			26/4/22	14:45	60.3		26/4/22	18:45	58.5
26/4/22	10:50	63.9			26/4/22	14:50	61.4		26/4/22	18:50	58.1
26/4/22	10:55	73.3			26/4/22	14:55	62.0		26/4/22	18:55	59.3
26/4/22	11:00	63.3			26/4/22	15:00	57.5		26/4/22	19:00	60.5

ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	26/4/22		19:05		**Leq12h**	59.2				Weighting		A	
End	27/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
26/4/22	19:05	59.7			26/4/22	23:05	**55.2**			27/4/22	3:05	53.6	
26/4/22	19:10	59.7			26/4/22	23:10	**55.5**			27/4/22	3:10	**57.1**	
26/4/22	19:15	59.1			26/4/22	23:15	**58.4**			27/4/22	3:15	49.5	
26/4/22	19:20	58.9			26/4/22	23:20	**55.4**			27/4/22	3:20	52.9	
26/4/22	19:25	58.7			26/4/22	23:25	53.5			27/4/22	3:25	50.1	
26/4/22	19:30	57.6			26/4/22	23:30	53.8			27/4/22	3:30	48.8	
26/4/22	19:35	59.0			26/4/22	23:35	54.6			27/4/22	3:35	49.6	
26/4/22	19:40	60.1			26/4/22	23:40	52.5			27/4/22	3:40	48.0	
26/4/22	19:45	61.7			26/4/22	23:45	**55.8**			27/4/22	3:45	50.9	
26/4/22	19:50	58.5			26/4/22	23:50	**55.3**			27/4/22	3:50	50.4	
26/4/22	19:55	58.0			26/4/22	23:55	**55.8**			27/4/22	3:55	51.9	
26/4/22	20:00	59.5	59.3		26/4/22	0:00	**55.8**	**55.4**		27/4/22	4:00	48.1	51.8
26/4/22	20:05	63.8			27/4/22	0:05	51.8			27/4/22	4:05	50.7	
26/4/22	20:10	**74.5**			27/4/22	0:10	53.7			27/4/22	4:10	49.7	
26/4/22	20:15	59.0			27/4/22	0:15	54.5			27/4/22	4:15	50.2	
26/4/22	20:20	57.8			27/4/22	0:20	51.3			27/4/22	4:20	50.5	
26/4/22	20:25	62.3			27/4/22	0:25	52.1			27/4/22	4:25	50.8	
26/4/22	20:30	**74.9**			27/4/22	0:30	52.0			27/4/22	4:30	**58.2**	
26/4/22	20:35	62.9			27/4/22	0:35	51.2			27/4/22	4:35	51.6	
26/4/22	20:40	57.6			27/4/22	0:40	52.5			27/4/22	4:40	53.2	
26/4/22	20:45	57.0			27/4/22	0:45	52.9			27/4/22	4:45	51.5	
26/4/22	20:50	57.3			27/4/22	0:50	51.0			27/4/22	4:50	50.6	
26/4/22	20:55	57.2			27/4/22	0:55	52.0			27/4/22	4:55	51.9	
26/4/22	21:00	58.0	**67.6**		27/4/22	1:00	53.0	52.5		27/4/22	5:00	52.5	52.5
26/4/22	21:05	57.0			27/4/22	1:05	51.2			27/4/22	5:05	51.1	
26/4/22	21:10	59.8			27/4/22	1:10	50.9			27/4/22	5:10	53.2	
26/4/22	21:15	61.5			27/4/22	1:15	50.8			27/4/22	5:15	54.1	
26/4/22	21:20	58.0			27/4/22	1:20	53.3			27/4/22	5:20	53.5	
26/4/22	21:25	60.3			27/4/22	1:25	50.0			27/4/22	5:25	53.9	
26/4/22	21:30	57.5			27/4/22	1:30	50.9			27/4/22	5:30	53.5	
26/4/22	21:35	57.4			27/4/22	1:35	51.2			27/4/22	5:35	52.9	
26/4/22	21:40	57.3			27/4/22	1:40	51.3			27/4/22	5:40	54.1	
26/4/22	21:45	57.4			27/4/22	1:45	50.2			27/4/22	5:45	53.8	
26/4/22	21:50	56.6			27/4/22	1:50	**56.9**			27/4/22	5:50	**55.1**	
26/4/22	21:55	57.4			27/4/22	1:55	48.9			27/4/22	5:55	54.8	
26/4/22	22:00	55.7	58.3		27/4/22	2:00	49.5	51.9		27/4/22	6:00	**56.5**	54.1
26/4/22	22:05	**55.6**			27/4/22	2:05	48.6			27/4/22	6:05	**55.5**	
26/4/22	22:10	**55.3**			27/4/22	2:10	48.5			27/4/22	6:10	**55.9**	
26/4/22	22:15	**56.5**			27/4/22	2:15	48.0			27/4/22	6:15	**57.0**	
26/4/22	22:20	**57.2**			27/4/22	2:20	51.8			27/4/22	6:20	**58.0**	
26/4/22	22:25	**57.7**			27/4/22	2:25	53.1			27/4/22	6:25	**58.3**	
26/4/22	22:30	**57.3**			27/4/22	2:30	51.8			27/4/22	6:30	**58.8**	
26/4/22	22:35	**55.8**			27/4/22	2:35	**55.6**			27/4/22	6:35	**58.9**	
26/4/22	22:40	55.0			27/4/22	2:40	50.9			27/4/22	6:40	**59.0**	
26/4/22	22:45	**55.6**			27/4/22	2:45	49.6			27/4/22	6:45	**60.5**	
26/4/22	22:50	**56.0**			27/4/22	2:50	50.5			27/4/22	6:50	**60.0**	
26/4/22	22:55	54.0			27/4/22	2:55	50.6			27/4/22	6:55	**60.1**	
26/4/22	23:00	53.4	**56.0**		27/4/22	3:00	54.8	51.8		27/4/22	7:00	**60.7**	**58.8**

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			22/04/2022 - 29/04/2022								
Start	27/4/22		7:05		**Leq12h**	62.3			Weighting		A
End	27/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
27/4/22	7:05	61.3			27/4/22	11:05	59.8		27/4/22	15:05	57.8
27/4/22	7:10	60.8			27/4/22	11:10	58.0		27/4/22	15:10	57.8
27/4/22	7:15	60.4			27/4/22	11:15	59.0		27/4/22	15:15	57.9
27/4/22	7:20	60.7			27/4/22	11:20	57.8		27/4/22	15:20	58.6
27/4/22	7:25	61.6			27/4/22	11:25	57.9		27/4/22	15:25	58.8
27/4/22	7:30	62.8			27/4/22	11:30	60.9		27/4/22	15:30	58.2
27/4/22	7:35	60.4			27/4/22	11:35	56.9		27/4/22	15:35	57.8
27/4/22	7:40	58.8			27/4/22	11:40	57.9		27/4/22	15:40	59.0
27/4/22	7:45	59.4			27/4/22	11:45	57.8		27/4/22	15:45	68.4
27/4/22	7:50	59.9			27/4/22	11:50	59.6		27/4/22	15:50	61.8
27/4/22	7:55	59.1			27/4/22	11:55	58.6		27/4/22	15:55	59.0
27/4/22	8:00	59.7			27/4/22	12:00	58.8		27/4/22	16:00	70.3
27/4/22	8:05	59.8			27/4/22	12:05	58.2		27/4/22	16:05	73.2
27/4/22	8:10	59.7			27/4/22	12:10	58.9		27/4/22	16:10	64.3
27/4/22	8:15	60.4			27/4/22	12:15	57.9		27/4/22	16:15	70.8
27/4/22	8:20	61.4			27/4/22	12:20	58.2		27/4/22	16:20	66.5
27/4/22	8:25	62.2			27/4/22	12:25	58.3		27/4/22	16:25	58.4
27/4/22	8:30	60.8			27/4/22	12:30	59.2		27/4/22	16:30	58.6
27/4/22	8:35	60.1			27/4/22	12:35	74.0		27/4/22	16:35	59.2
27/4/22	8:40	60.5			27/4/22	12:40	59.9		27/4/22	16:40	71.2
27/4/22	8:45	60.2			27/4/22	12:45	58.3		27/4/22	16:45	59.1
27/4/22	8:50	62.7			27/4/22	12:50	57.2		27/4/22	16:50	58.5
27/4/22	8:55	60.7			27/4/22	12:55	59.0		27/4/22	16:55	58.5
27/4/22	9:00	59.3			27/4/22	13:00	57.8		27/4/22	17:00	59.8
27/4/22	9:05	59.4			27/4/22	13:05	57.9		27/4/22	17:05	59.2
27/4/22	9:10	59.9			27/4/22	13:10	60.0		27/4/22	17:10	60.0
27/4/22	9:15	59.8			27/4/22	13:15	70.7		27/4/22	17:15	58.0
27/4/22	9:20	61.3			27/4/22	13:20	59.1		27/4/22	17:20	57.8
27/4/22	9:25	60.1			27/4/22	13:25	61.0		27/4/22	17:25	59.2
27/4/22	9:30	61.0			27/4/22	13:30	60.0		27/4/22	17:30	57.6
27/4/22	9:35	62.2			27/4/22	13:35	62.5		27/4/22	17:35	59.2
27/4/22	9:40	59.8			27/4/22	13:40	59.2		27/4/22	17:40	61.2
27/4/22	9:45	61.1			27/4/22	13:45	59.6		27/4/22	17:45	60.8
27/4/22	9:50	60.2			27/4/22	13:50	59.3		27/4/22	17:50	61.1
27/4/22	9:55	60.2			27/4/22	13:55	59.8		27/4/22	17:55	60.5
27/4/22	10:00	59.5			27/4/22	14:00	58.9		27/4/22	18:00	63.4
27/4/22	10:05	58.6			27/4/22	14:05	68.1		27/4/22	18:05	58.5
27/4/22	10:10	59.3			27/4/22	14:10	61.7		27/4/22	18:10	58.4
27/4/22	10:15	63.1			27/4/22	14:15	59.3		27/4/22	18:15	57.5
27/4/22	10:20	60.8			27/4/22	14:20	60.0		27/4/22	18:20	57.6
27/4/22	10:25	61.1			27/4/22	14:25	59.2		27/4/22	18:25	59.0
27/4/22	10:30	60.2			27/4/22	14:30	59.1		27/4/22	18:30	58.9
27/4/22	10:35	59.9			27/4/22	14:35	60.2		27/4/22	18:35	57.7
27/4/22	10:40	60.3			27/4/22	14:40	60.0		27/4/22	18:40	58.7
27/4/22	10:45	60.7			27/4/22	14:45	59.8		27/4/22	18:45	57.9
27/4/22	10:50	60.7			27/4/22	14:50	59.0		27/4/22	18:50	59.7
27/4/22	10:55	61.1			27/4/22	14:55	60.7		27/4/22	18:55	59.5
27/4/22	11:00	61.9			27/4/22	15:00	58.4		27/4/22	19:00	58.8

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	27/4/22		19:05		**Leq12h**	57.8				Weighting		A	
End	28/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
27/4/22	19:05	59.8			27/4/22	23:05	53.2			28/4/22	3:05	50.6	
27/4/22	19:10	58.5			27/4/22	23:10	53.4			28/4/22	3:10	49.9	
27/4/22	19:15	59.8			27/4/22	23:15	53.7			28/4/22	3:15	48.4	
27/4/22	19:20	58.5			27/4/22	23:20	54.5			28/4/22	3:20	51.1	
27/4/22	19:25	57.5			27/4/22	23:25	**55.5**			28/4/22	3:25	50.2	
27/4/22	19:30	58.1			27/4/22	23:30	54.4			28/4/22	3:30	**55.5**	
27/4/22	19:35	57.4			27/4/22	23:35	54.0			28/4/22	3:35	52.0	
27/4/22	19:40	58.0			27/4/22	23:40	52.7			28/4/22	3:40	51.7	
27/4/22	19:45	57.8			27/4/22	23:45	53.4			28/4/22	3:45	**57.2**	
27/4/22	19:50	58.4			27/4/22	23:50	52.9			28/4/22	3:50	**55.5**	
27/4/22	19:55	58.0			27/4/22	23:55	**57.6**			28/4/22	3:55	48.5	
27/4/22	20:00	**73.0**	63.6		27/4/22	0:00	54.0	54.3		28/4/22	4:00	49.7	52.7
27/4/22	20:05	58.1			28/4/22	0:05	52.0			28/4/22	4:05	49.6	
27/4/22	20:10	58.3			28/4/22	0:10	53.4			28/4/22	4:10	48.7	
27/4/22	20:15	57.1			28/4/22	0:15	53.5			28/4/22	4:15	51.3	
27/4/22	20:20	56.6			28/4/22	0:20	51.9			28/4/22	4:20	50.3	
27/4/22	20:25	57.0			28/4/22	0:25	50.4			28/4/22	4:25	49.7	
27/4/22	20:30	62.4			28/4/22	0:30	51.4			28/4/22	4:30	51.0	
27/4/22	20:35	57.4			28/4/22	0:35	53.4			28/4/22	4:35	51.7	
27/4/22	20:40	56.8			28/4/22	0:40	53.5			28/4/22	4:40	**58.2**	
27/4/22	20:45	57.7			28/4/22	0:45	51.6			28/4/22	4:45	54.8	
27/4/22	20:50	63.3			28/4/22	0:50	52.8			28/4/22	4:50	54.9	
27/4/22	20:55	**71.5**			28/4/22	0:55	50.4			28/4/22	4:55	52.1	
27/4/22	21:00	56.9	62.8		28/4/22	1:00	50.0	52.2		28/4/22	5:00	52.8	53.0
27/4/22	21:05	56.4			28/4/22	1:05	51.5			28/4/22	5:05	51.3	
27/4/22	21:10	56.5			28/4/22	1:10	52.0			28/4/22	5:10	51.9	
27/4/22	21:15	57.2			28/4/22	1:15	50.1			28/4/22	5:15	53.2	
27/4/22	21:20	57.7			28/4/22	1:20	55.0			28/4/22	5:20	53.0	
27/4/22	21:25	62.2			28/4/22	1:25	50.4			28/4/22	5:25	53.3	
27/4/22	21:30	57.5			28/4/22	1:30	50.4			28/4/22	5:30	52.8	
27/4/22	21:35	55.8			28/4/22	1:35	50.8			28/4/22	5:35	53.4	
27/4/22	21:40	57.2			28/4/22	1:40	50.7			28/4/22	5:40	54.4	
27/4/22	21:45	55.4			28/4/22	1:45	49.8			28/4/22	5:45	**56.5**	
27/4/22	21:50	58.9			28/4/22	1:50	49.6			28/4/22	5:50	54.4	
27/4/22	21:55	56.9			28/4/22	1:55	50.5			28/4/22	5:55	54.8	
27/4/22	22:00	55.2	57.7		28/4/22	2:00	50.6	51.2		28/4/22	6:00	**55.4**	53.9
27/4/22	22:05	**55.1**			28/4/22	2:05	54.7			28/4/22	6:05	**57.8**	
27/4/22	22:10	**55.5**			28/4/22	2:10	50.2			28/4/22	6:10	**57.1**	
27/4/22	22:15	**58.2**			28/4/22	2:15	50.1			28/4/22	6:15	**56.6**	
27/4/22	22:20	**55.3**			28/4/22	2:20	50.2			28/4/22	6:20	**57.0**	
27/4/22	22:25	**55.2**			28/4/22	2:25	52.0			28/4/22	6:25	**58.3**	
27/4/22	22:30	**56.4**			28/4/22	2:30	51.5			28/4/22	6:30	**60.0**	
27/4/22	22:35	**56.2**			28/4/22	2:35	51.0			28/4/22	6:35	**59.6**	
27/4/22	22:40	**55.2**			28/4/22	2:40	52.1			28/4/22	6:40	**59.2**	
27/4/22	22:45	54.3			28/4/22	2:45	50.1			28/4/22	6:45	**59.9**	
27/4/22	22:50	**56.2**			28/4/22	2:50	50.1			28/4/22	6:50	**59.2**	
27/4/22	22:55	54.6			28/4/22	2:55	53.8			28/4/22	6:55	**59.8**	
27/4/22	23:00	54.0	**55.7**		28/4/22	3:00	51.5	51.7		28/4/22	7:00	**60.0**	**58.9**

ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			22/04/2022 - 29/04/2022								
Start	28/4/22		7:05		**Leq12h**	60.0			Weighting		A
End	28/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
28/4/22	7:05	60.3			28/4/22	11:05	59.0		28/4/22	15:05	57.1
28/4/22	7:10	60.5			28/4/22	11:10	59.0		28/4/22	15:10	57.2
28/4/22	7:15	60.4			28/4/22	11:15	59.7		28/4/22	15:15	56.7
28/4/22	7:20	60.6			28/4/22	11:20	58.4		28/4/22	15:20	57.7
28/4/22	7:25	61.9			28/4/22	11:25	57.4		28/4/22	15:25	57.5
28/4/22	7:30	62.2			28/4/22	11:30	57.4		28/4/22	15:30	57.9
28/4/22	7:35	59.0			28/4/22	11:35	58.5		28/4/22	15:35	57.8
28/4/22	7:40	59.4			28/4/22	11:40	58.7		28/4/22	15:40	57.2
28/4/22	7:45	59.5			28/4/22	11:45	59.0		28/4/22	15:45	57.1
28/4/22	7:50	57.6			28/4/22	11:50	59.1		28/4/22	15:50	58.0
28/4/22	7:55	56.9			28/4/22	11:55	59.0		28/4/22	15:55	58.6
28/4/22	8:00	58.7			28/4/22	12:00	59.4		28/4/22	16:00	57.8
28/4/22	8:05	59.2			28/4/22	12:05	57.8		28/4/22	16:05	59.8
28/4/22	8:10	60.5			28/4/22	12:10	57.7		28/4/22	16:10	62.6
28/4/22	8:15	60.8			28/4/22	12:15	58.3		28/4/22	16:15	61.5
28/4/22	8:20	63.5			28/4/22	12:20	58.5		28/4/22	16:20	60.9
28/4/22	8:25	60.8			28/4/22	12:25	57.8		28/4/22	16:25	60.5
28/4/22	8:30	63.0			28/4/22	12:30	57.7		28/4/22	16:30	60.3
28/4/22	8:35	67.2			28/4/22	12:35	57.9		28/4/22	16:35	59.9
28/4/22	8:40	62.1			28/4/22	12:40	59.0		28/4/22	16:40	60.3
28/4/22	8:45	62.2			28/4/22	12:45	58.6		28/4/22	16:45	59.8
28/4/22	8:50	62.8			28/4/22	12:50	59.8		28/4/22	16:50	58.8
28/4/22	8:55	60.6			28/4/22	12:55	58.9		28/4/22	16:55	59.1
28/4/22	9:00	59.5			28/4/22	13:00	59.3		28/4/22	17:00	59.6
28/4/22	9:05	60.6			28/4/22	13:05	58.6		28/4/22	17:05	58.8
28/4/22	9:10	62.7			28/4/22	13:10	59.1		28/4/22	17:10	60.4
28/4/22	9:15	63.9			28/4/22	13:15	57.9		28/4/22	17:15	58.9
28/4/22	9:20	63.7			28/4/22	13:20	58.2		28/4/22	17:20	58.0
28/4/22	9:25	60.5			28/4/22	13:25	59.8		28/4/22	17:25	59.7
28/4/22	9:30	59.4			28/4/22	13:30	61.3		28/4/22	17:30	58.5
28/4/22	9:35	60.9			28/4/22	13:35	64.8		28/4/22	17:35	59.5
28/4/22	9:40	61.3			28/4/22	13:40	64.4		28/4/22	17:40	61.1
28/4/22	9:45	61.8			28/4/22	13:45	62.1		28/4/22	17:45	60.5
28/4/22	9:50	61.2			28/4/22	13:50	60.3		28/4/22	17:50	59.5
28/4/22	9:55	59.9			28/4/22	13:55	59.5		28/4/22	17:55	59.4
28/4/22	10:00	59.9			28/4/22	14:00	58.1		28/4/22	18:00	58.4
28/4/22	10:05	60.1			28/4/22	14:05	57.7		28/4/22	18:05	59.9
28/4/22	10:10	59.7			28/4/22	14:10	57.4		28/4/22	18:10	57.7
28/4/22	10:15	60.4			28/4/22	14:15	58.6		28/4/22	18:15	59.0
28/4/22	10:20	59.8			28/4/22	14:20	58.0		28/4/22	18:20	58.6
28/4/22	10:25	59.3			28/4/22	14:25	58.6		28/4/22	18:25	57.5
28/4/22	10:30	58.3			28/4/22	14:30	57.5		28/4/22	18:30	60.3
28/4/22	10:35	60.0			28/4/22	14:35	58.2		28/4/22	18:35	60.2
28/4/22	10:40	60.7			28/4/22	14:40	58.8		28/4/22	18:40	59.7
28/4/22	10:45	61.7			28/4/22	14:45	58.0		28/4/22	18:45	59.8
28/4/22	10:50	62.8			28/4/22	14:50	59.9		28/4/22	18:50	60.9
28/4/22	10:55	59.4			28/4/22	14:55	57.8		28/4/22	18:55	59.9
28/4/22	11:00	59.6			28/4/22	15:00	56.8		28/4/22	19:00	60.8

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	28/4/22		19:05		**Leq12h**	55.5				Weighting		A	
End	29/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
28/4/22	19:05	60.1			28/4/22	23:05	54.3			29/4/22	3:05	49.3	
28/4/22	19:10	58.8			28/4/22	23:10	54.4			29/4/22	3:10	50.4	
28/4/22	19:15	57.6			28/4/22	23:15	**55.2**			29/4/22	3:15	49.5	
28/4/22	19:20	58.1			28/4/22	23:20	53.7			29/4/22	3:20	49.3	
28/4/22	19:25	56.7			28/4/22	23:25	**55.2**			29/4/22	3:25	49.6	
28/4/22	19:30	58.0			28/4/22	23:30	**55.3**			29/4/22	3:30	52.4	
28/4/22	19:35	57.7			28/4/22	23:35	52.4			29/4/22	3:35	50.7	
28/4/22	19:40	57.2			28/4/22	23:40	53.5			29/4/22	3:40	50.7	
28/4/22	19:45	58.2			28/4/22	23:45	53.9			29/4/22	3:45	51.1	
28/4/22	19:50	58.3			28/4/22	23:50	53.3			29/4/22	3:50	51.4	
28/4/22	19:55	57.0			28/4/22	23:55	52.5			29/4/22	3:55	55.0	
28/4/22	20:00	58.1	58.1		28/4/22	0:00	54.9	54.2		29/4/22	4:00	51.4	51.2
28/4/22	20:05	56.9			29/4/22	0:05	53.7			29/4/22	4:05	50.1	
28/4/22	20:10	57.0			29/4/22	0:10	53.5			29/4/22	4:10	50.2	
28/4/22	20:15	58.4			29/4/22	0:15	53.2			29/4/22	4:15	50.5	
28/4/22	20:20	57.7			29/4/22	0:20	51.6			29/4/22	4:20	53.0	
28/4/22	20:25	57.0			29/4/22	0:25	51.8			29/4/22	4:25	**55.3**	
28/4/22	20:30	57.1			29/4/22	0:30	52.8			29/4/22	4:30	50.7	
28/4/22	20:35	57.8			29/4/22	0:35	52.7			29/4/22	4:35	51.4	
28/4/22	20:40	58.1			29/4/22	0:40	53.6			29/4/22	4:40	50.7	
28/4/22	20:45	57.2			29/4/22	0:45	53.8			29/4/22	4:45	**58.0**	
28/4/22	20:50	57.5			29/4/22	0:50	**57.3**			29/4/22	4:50	52.9	
28/4/22	20:55	56.1			29/4/22	0:55	53.8			29/4/22	4:55	52.0	
28/4/22	21:00	57.0	57.4		29/4/22	1:00	52.0	53.6		29/4/22	5:00	53.3	53.1
28/4/22	21:05	55.9			29/4/22	1:05	51.5			29/4/22	5:05	52.9	
28/4/22	21:10	55.8			29/4/22	1:10	51.5			29/4/22	5:10	50.8	
28/4/22	21:15	57.5			29/4/22	1:15	50.8			29/4/22	5:15	52.1	
28/4/22	21:20	57.1			29/4/22	1:20	50.5			29/4/22	5:20	54.1	
28/4/22	21:25	57.8			29/4/22	1:25	**56.6**			29/4/22	5:25	52.4	
28/4/22	21:30	55.8			29/4/22	1:30	51.9			29/4/22	5:30	53.1	
28/4/22	21:35	56.5			29/4/22	1:35	49.8			29/4/22	5:35	53.2	
28/4/22	21:40	57.0			29/4/22	1:40	51.7			29/4/22	5:40	53.2	
28/4/22	21:45	56.2			29/4/22	1:45	50.9			29/4/22	5:45	**55.6**	
28/4/22	21:50	57.5			29/4/22	1:50	**59.4**			29/4/22	5:50	**55.7**	
28/4/22	21:55	56.8			29/4/22	1:55	51.2			29/4/22	5:55	54.7	
28/4/22	22:00	55.4	56.7		29/4/22	2:00	52.0	53.4		29/4/22	6:00	**55.1**	53.8
28/4/22	22:05	**55.5**			29/4/22	2:05	49.9			29/4/22	6:05	**56.1**	
28/4/22	22:10	**55.7**			29/4/22	2:10	52.5			29/4/22	6:10	**56.7**	
28/4/22	22:15	**57.6**			29/4/22	2:15	52.1			29/4/22	6:15	**57.2**	
28/4/22	22:20	**56.0**			29/4/22	2:20	50.7			29/4/22	6:20	**56.9**	
28/4/22	22:25	**56.1**			29/4/22	2:25	50.0			29/4/22	6:25	**58.0**	
28/4/22	22:30	**56.0**			29/4/22	2:30	51.5			29/4/22	6:30	**59.8**	
28/4/22	22:35	**57.3**			29/4/22	2:35	50.0			29/4/22	6:35	**60.5**	
28/4/22	22:40	**56.9**			29/4/22	2:40	49.9			29/4/22	6:40	**59.7**	
28/4/22	22:45	54.7			29/4/22	2:45	50.7			29/4/22	6:45	**59.5**	
28/4/22	22:50	**57.6**			29/4/22	2:50	48.8			29/4/22	6:50	**59.6**	
28/4/22	22:55	**55.6**			29/4/22	2:55	50.3			29/4/22	6:55	**59.5**	
28/4/22	23:00	54.8	**56.3**		29/4/22	3:00	51.4	50.8		29/4/22	7:00	**59.0**	**58.8**

ENSSCOM
Improving Your Workplace Safety & Health

CONFIDENTIAL

BASELINE NOISE SURVEY REPORT

NOISE MONITORING ENVIRONMENTAL WORK

REPORT REFERENCE NO: - 22050608/nms/ch2m/DE170/ptN3

For

CH2M HILL SINGAPORE PTE LTD

150 Beach Road, Gateway West 34th Floor, Singapore 189720

Project Location:
Along KJE

Attention:
Ms Catherine Baldedara

Project Title.:
DE170

Monitoring Location:
Front of Concord Primary School

Date of Monitoring:
22 April 2022 - 29 April 2022

Date of Report:
06 May 2022

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1.0 INTRODUCTION

ENSSCOM PTE LTD was commissioned by:

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

The purpose of this survey was to assess the current acoustical environment to establish the baseline background noise level generated before start of construction activities for
Project Title - DE170

The survey is conducted in accordance to the Construction Noise control Guideline on NEA's permissible noise levels for construction sites and industrial premises.

2.0 NOISE SURVEY CONDITION

Report Reference No: 22050608/nms/ch2m/DE170/ptN3

Date of Report: 6-May-2022

Survey On: 22-Apr-2022 (0700hrs) to 29-Apr-2022 (0700hrs)

Operating Condition of Site: All operations were under normal conditions during the noise survey. Construction activities have not begun during period of noise monitoring.

Noise survey was conducted using accepted standard procedures and appropriate sound measuring equipment, which is properly calibrated to ensure accuracy.

All noise measurements were made in terms of A-weighted equivalent continuous sound pressure level in LAeq,T over a period of time T. For example, LAeq,5min are the equivalent sound pressure level measured over a 5-minutes time.

Noise survey was conducted for a full continuous twenty-four (24) hours, Seven (7) days, for **One (1) monitoring points/location**. The noise levels emitted were monitored accordingly and recorded.

The survey is conducted by qualified noise monitoring personnel and reference to Appendix C for their certificate.

3.0 INSTRUMENTS

Monitoring instrument was positioned at between 1.8 meters to 3 meters in height from the floor (Ground Level), Mid Level (5 – 6 storey building height) Or High Level (Roof Level). Overall noise distribution was fairly homogenous throughout the duration of noise survey.

Sound Level Meter used complies and conform to the minimum requirements of a Type 1/Class 1 instrument specified in the International Electrotechnical Commission (IEC) publications of 60651 and 60804.

Before and after the noise measurements, the sound level meter is calibrated to verify the accuracy of the instrument.

3.1 Sound Level Meters

CIRRUS RESEARCH plc, Model: CR191SG
Class 1 Data Logging Sound Level Meter
Serial Number: **G078328**

3.2 Acoustic Calibrator

CIRRUS RESEARCH plc, Model: CR515
Acoustic Calibrator
Serial Number: **60614**

Acoustic Pressure level:	94.01	dB	(reference 20uPa)
Step +20dB:	113.93	dB	
Nominal Frequency:	992	Hz	

The calibration certificate of the momnitoring instrument can be found in Appendix D

4.0 NOISE SURVEY TERMS

4.1 A Weighting
A standard weighting of the audible frequencies designed to reflect the response of the human ear to noise.

4.2 Acoustic Calibrator
An instrument that provides a reference noise source that is used to calibrate and check the performance of a Sound Level Meter.

4.3 Broadband
Noise Measurements using parameters, which include all the audible noise

4.4 dB(A)
Decibels A Weighted

4.5 Decibel (dB)
The units of sound level and noise exposure measurement

4.6 Fast Time Weighting
A standard time weighting applied by the Sound Level Meter

4.7 IEC 60651:1979
The International Standard for Sound Level Meters

4.8 IEC 60804:1984
The International Standard for Integrating & Integrating-Averaging Sound Level Meters

4.9 IEC 61260:1995
The International Standard for 1:1 Octave & 1:3 Octave Band Filters

4.10 IEC 61672-1:2003
The International Standard for Sound Level Meter and Integrating Averaging Sound Level Meters that replaces both IEC 60651 and IEC 60804

4.11 Integrating Averaging Sound Level Meter
A Sound Level Meter which accumulates the total sound energy over a measurement period and calculates an average

4.12 LAeq,t
Equivalent continuous sound pressure level. A measure of the average sound pressure level during a period of time, t, in dB with 'A' weighting.

4.13 Sound Level
Sound Pressure Level with a Frequency weighting, such as dB(A)

4.14 Sound Level Meter
An instrument for measuring various noise parameters

4.15 Sound Pressure Level, SPL.
The basic measure of noise loudness, expressed in decibels

5.0 SURVEYING LOCATIONS

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours, Seven (7) days noise monitoring at the boundary of proposed construction site. (Refer to Appendix A for instrument layout plan)

Possible noise contribution source and occurrence:

NOISE MONITORING LOCATION	NOISE SOURCE	OCCURRENCE
Point 3: Front of Concord Primary School	Vehicle Traffic	High - Along KJE

Note: The above-mentioned noise sources may be limited and there are possible other noise sources not detected during the time of our site survey. For example, possible noise sources can be from occasional aircraft noise, or other activities nearby to the monitoring points.

6.0 NOISE SURVEY RESULTS

The noise survey was carried out in accordance with the Environmental Pollution Control Act (Chapter 94A, Section 77(1)), Environmental Pollution Control (Control of Noise at Construction Sites) Regulations, 1999.

Monday to Saturday

Types of Affected Building	Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)		
	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	**75 (Leq 5min)**	**55 (Leq 5min)**	**55 (Leq 5min)**
	60 (LEQ 12hr)	**50 (LEQ 12hr)**	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	90 (Leq 5min)	70 (Leq 5min)	55 (Leq 5min)
	75 (LEQ 12hr)	65 (LEQ 1hr)	55 (LEQ 1hr)
(c) Buildings (other than those in Paragraphs (a)and (b) above	90 (Leq 5min)	70 (Leq 5min)	70 (Leq 5min)
	75 (LEQ 12hr)	65 (LEQ 12hr)	

Sunday and Public Holidays

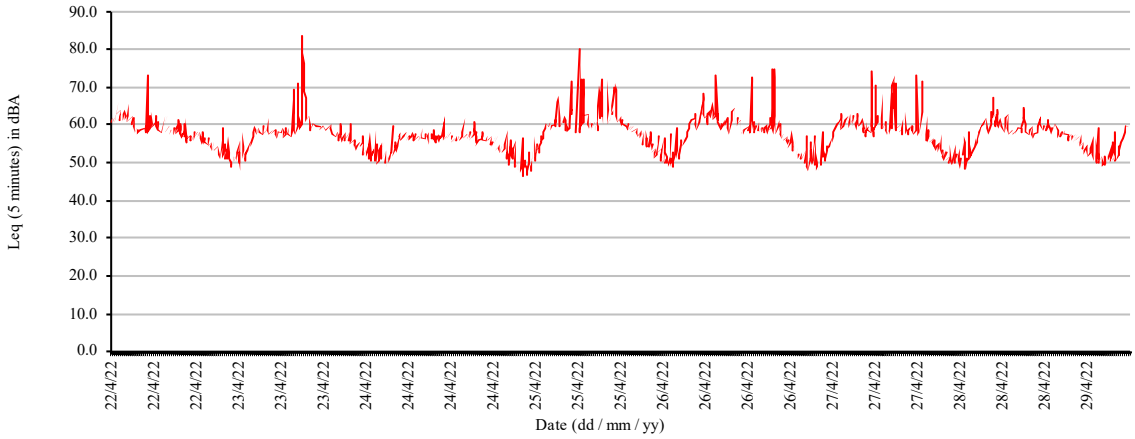
Types of Affected Building	Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)		
	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	**75 (Leq 5min)**	**55 (Leq 5min)**	**55 (Leq 5min)**
	60 (LEQ 12hr)	**50 (LEQ 12hr)**	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	75 (LEQ 12hr)	-	-
(c) Buildings (other than those in Paragraphs (a)and (b) above	90 (Leq 5min)	70 (Leq 5min)	70 (Leq 5min)
	75 (LEQ 12hr)	65 (LEQ 12hr)	

Note:
No Work Rule on Sundays and Public Holidays
In addition to the settings of the permissible noise limits, NEA has also implemented a rule on prohibition of work on Sundays and Public Holidays (PH) for construction sites located within 150m away from residential premises and noise sensitive premises as follows:
Site Established from 1 September 2011. No work is allowed from 10.00pm on Sat/eve of PH to 7.00am on the following Mon/day after the PH. (For details, please refer to Appendix B)

Survey Results for monitoring point 1 from period : 22-Apr-2022 to 29-Apr-2022

Location : Front of Concord Primary School

Leq (5 Minutes) Plotted Against Date of Monitoring



Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 5 min in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 5min db (A)
No. NM-3		From		To			
Front of Concord Primary School	Fri	22/4/22	0700	22/4/22	1900	**73.2**	75
	Fri	22/4/22	1900	22/4/22	2200	**61.7**	55
	Fri/Sat	22/4/22	2200	23/4/22	0700	**59.6**	55
	Sat	23/4/22	0700	23/4/22	1900	**83.6**	75
	Sat	23/4/22	1900	23/4/22	2200	**60.3**	55
	Sat/Sun	23/4/22	2200	24/4/22	0700	**60.3**	55
	Sun	24/4/22	0700	24/4/22	1900	**62.3**	75
	Sun	24/4/22	1900	24/4/22	2200	**60.7**	55
	Sun/Mon	24/4/22	2200	25/4/22	0700	**60.2**	55
	Mon	25/4/22	0700	25/4/22	1900	**80.2**	75
	Mon	25/4/22	1900	25/4/22	2200	**61.5**	55
	Mon/Tue	25/4/22	2200	26/4/22	0700	**61.5**	55
	Tue	26/4/22	0700	26/4/22	1900	**73.3**	75
	Tue	26/4/22	1900	26/4/22	2200	**74.9**	55
	Tue/Wed	26/4/22	2200	27/4/22	0700	**60.7**	55
	Wed	27/4/22	0700	27/4/22	1900	**74.0**	75
	Wed	27/4/22	1900	27/4/22	2200	**73.0**	55
	Wed/Thu	27/4/22	2200	28/4/22	0700	**60.0**	55
	Thu	28/4/22	0700	28/4/22	1900	**67.2**	75
	Thu	28/4/22	1900	28/4/22	2200	**60.8**	55
	Thu/Fri	28/4/22	2200	29/4/22	0700	**60.5**	55

Table 6.1 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 5 min

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 1 hr in Leq db(A) for the specific period	Maximum Noise Level permitted for construction sites Leq 1 hr db (A)
No. NM-3		From		To			
Front of Concord Primary School	Fri	22/4/22	1900	22/4/22	2200	**57.6**	-
	Fri	22/4/22	2200	23/4/22	0700	**57.4**	-
	Sat	23/4/22	1900	23/4/22	2200	**58.3**	-
	Sat	23/4/22	2200	24/4/22	0700	**56.9**	-
	Sun	24/4/22	1900	24/4/22	2200	**56.5**	-
	Sun	24/4/22	2200	25/4/22	0700	**58.5**	-
	Mon	25/4/22	1900	25/4/22	2200	**60.2**	-
	Mon	25/4/22	2200	26/4/22	0700	**59.9**	-
	Tue	26/4/22	1900	26/4/22	2200	**67.6**	-
	Tue	26/4/22	2200	27/4/22	0700	**58.8**	-
	Wed	27/4/22	1900	27/4/22	2200	**63.6**	-
	Wed	27/4/22	2200	28/4/22	0700	**58.9**	-
	Thu	28/4/22	1900	28/4/22	2200	**58.1**	-
	Thu	28/4/22	2200	29/4/22	0700	**58.8**	-

Table 6.2 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 1 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 12 hr in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 12 hr db (A)
No. NM-3		From		To			
Front of Concord Primary School	Fri	22/4/22	0700	22/4/22	1900	**60.9**	60
	Fri	22/4/22	1900	23/4/22	0700	**55.1**	50
	Sat	23/4/22	0700	23/4/22	1900	**65.6**	60
	Sat	23/4/22	1900	24/4/22	0700	**55.4**	50
	Sun	24/4/22	0700	24/4/22	1900	**57.1**	60
	Sun	24/4/22	1900	25/4/22	0700	**54.7**	50
	Mon	25/4/22	0700	25/4/22	1900	**64.9**	60
	Mon	25/4/22	1900	26/4/22	0700	**56.9**	50
	Tue	26/4/22	0700	26/4/22	1900	**62.2**	60
	Tue	26/4/22	1900	27/4/22	0700	**59.2**	50
	Wed	27/4/22	0700	27/4/22	1900	**62.3**	60
	Wed	27/4/22	1900	27/4/22	0700	**57.8**	50
	Thu	27/4/22	0700	28/4/22	1900	**60.0**	60
	Thu	28/4/22	1900	29/4/22	0700	**55.5**	50

Table 6.3 Summary of Noise Monitoring Results at LEQ 12 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over specific period in Leq db(A)	Maximum Noise Level permitted for construction sites in db (A)
No. NM-3		From		To			
Front of Concord Primary School	Fri	22/4/22	700	22/4/22	1900	**60.9**	75 (Leq5min) 60 (Leq12hrs)
	Fri	22/4/22	1900	22/4/22	2200	**57.1**	55 (Leq5min)
	Fri	22/4/22	2200	23/4/22	0000	**55.4**	55 (Leq5min)
	Sat	23/4/22	0000	23/4/22	700	**53.9**	55 (Leq5min)
	Sat	23/4/22	700	23/4/22	1900	**65.6**	75 (Leq5min) 60 (Leq12hrs)
	Sat	23/4/22	1900	23/4/22	2200	**57.5**	55 (Leq5min)
	Sat	23/4/22	2200	24/4/22	0000	**56.0**	55 (Leq5min)
	Sun	24/4/22	0000	24/4/22	700	**53.9**	55 (Leq5min)
	Sun	24/4/22	700	24/4/22	1900	**57.1**	75 (Leq5min) 60 (Leq12hrs)
	Sun	24/4/22	1900	24/4/22	2200	**56.4**	55 (Leq5min)
	Sun	24/4/22	2200	25/4/22	0000	**54.4**	55 (Leq5min)
	Mon	25/4/22	0000	25/4/22	700	**53.9**	55 (Leq5min)
	Mon	25/4/22	700	25/4/22	1900	**64.9**	75 (Leq5min) 60 (Leq12hrs)
	Mon	25/4/22	1900	25/4/22	2200	**59.3**	55 (Leq5min)
	Mon	25/4/22	2200	26/4/22	0000	**56.5**	55 (Leq5min)
	Tue	26/4/22	0000	26/4/22	700	**55.3**	55 (Leq5min)
	Tue	26/4/22	700	26/4/22	1900	**62.2**	75 (Leq5min) 60 (Leq12hrs)
	Tue	26/4/22	1900	26/4/22	2200	**63.9**	55 (Leq5min)
	Tue	26/4/22	2200	27/4/22	0000	**55.7**	55 (Leq5min)
	Wed	27/4/22	0000	27/4/22	700	**54.2**	55 (Leq5min)
	Wed	27/4/22	700	27/4/22	1900	**62.3**	75 (Leq5min) 60 (Leq12hrs)
	Wed	27/4/22	1900	27/4/22	2200	**62.0**	55 (Leq5min)
	Wed	27/4/22	2200	28/4/22	0000	**55.0**	55 (Leq5min)
	Thu	28/4/22	0000	28/4/22	700	**54.2**	55 (Leq5min)
	Thu	28/4/22	700	28/4/22	1900	**60.0**	75 (Leq5min) 60 (Leq12hrs)
	Thu	28/4/22	1900	28/4/22	2200	**57.4**	55 (Leq5min)
	Thu	28/4/22	2200	28/4/22	0000	**55.3**	55 (Leq5min)
	Fri	29/4/22	0000	29/4/22	0700	**54.3**	55 (Leq5min)

Table 6.4 Summary of Noise Monitoring Results at Continuous Equivalent of LEQ for specific period

7.0 SUMMARY

The purpose of this survey was to assess the current acoustical environment to establish the background noise level generated over One (1) monitoring point/location for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title

DE170

The location of the nearest Noise Receiver (NSR) : **Front of Concord Primary School**

The findings show that,

The ambience noise at NSR point3 Front of Concord Primary School, falls within the Permissible limits stated in the NEA Guideline on construction noise control for the time period between 7am to 7pm (Leq5min) (Monday to Saturday and Sunday) some of the time.

The Leq 5min exceeds the NEA noise limit (75dBa) for the period 0700hrs to 1900hrs on weekdays and Weekend occasionally.
The Leq 5min exceeds the NEA noise limit (55dBa) for the period 1900hrs to 0700hrs on weekdays and Weekend ocassionally.
The Leq 12hr exceeds the NEA noise limit (60dBa) for the period 0700hrs to 1900hrs on weekdays and Weekend.
The Leq 12hr exceeds the NEA noise limit (50dBa) for the period 1900hrs to 0700hrs on weekdays and Weekend.

* Refer to Appendix E for full noise data report.

We recommend submitting an appeal to NEA to adjust the Noise Limit as in table 6.5 for NSR Point 3 Front of Concord Primary School

Background Noise Correction Factor

The adjusted value for the maximum noise level shall be obtained by adding the correction factor corresponding to the difference between the maximum permitted level and the background noise level, set out in the Table below, to the higher of the 2 noise levels.

Difference between 2 noise levels in decibels (A)	Correction factor in decibels (A)
a) Below 2	3
b) 2 to less than 4	2
c) 4 to less than 10	1
d) 10 and above	NIL

Proposed New Permissible Noise Level for monitoring point: **Front of Concord Primary School**

Period	Noise Limit	*Equivalent continous sound level over period in Leq dB(A) - Background Noise	Difference	Correction Factor	Proposed Adjusted New Permissible Level (dBA)
7am to 7pm (Monday to Saturday)	75 (Leq5min)	65.6	9.4	1	76 (Leq5min)
	60 (Leq 12hr)	65.6	-5.6	1	66.6 (Leq 12hr)
7pm to 10pm (Monday to Saturday)	55 (Leq 5min)	63.9	-8.9	1	64.9 (Leq 5min)
10pm to 12am (Monday to Saturday)	55 (Leq 5min)	56.5	-1.5	3	59.5 (Leq 5min)
12am to 7am (Monday to Saturday)	55 (Leq 5min)	55.3	-0.3	3	58.3 (Leq 5min)
7pm to 7am (Monday to Saturday)	50 (Leq 12hrs)	59.2	-9.2	1	60.2 (Leq 12hr)
7am to 7pm (Sunday)	75 (Leq5min)	57.1	17.9	0	75 (Leq5min)
	60 (Leq 12hr)	57.1	2.9	2	62 (Leq 12hr)
7pm to 10pm (Sunday)	55 (Leq 5min)	56.4	-1.4	3	59.4 (Leq 5min)
10pm to 12am (Sunday)	55 (Leq 5min)	54.4	0.6	3	58 (Leq 5min)
12am to 7am (Sunday)	55 (Leq 5min)	53.9	1.1	3	58 (Leq 5min)
7pm to 7am (Sunday)	50 (Leq 12hrs)	54.7	-4.7	1	55.7 (Leq 12hr)

* The highest equivalent continuous sound level in Leq dB(A) between Monday to Saturday is taken for calculating the adjusted new permissible level for each period.

Table 6.5 Proposed New Permissible Noise Level

8.0 CONFIRMATION

We, ENSSCOM PTE LTD, certify that the information given is correct. The noise survey was conducted for

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title
DE170

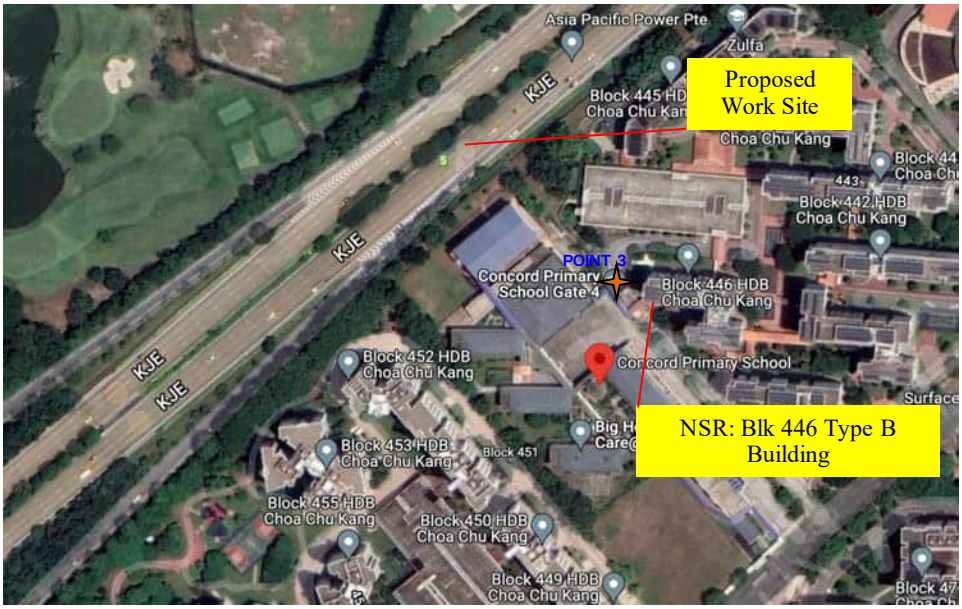
was carried out as described in this report and the results resented herein.

Date of Monitoring:

From 22/4/22 (0700hrs) to 29/4/22 (0700hrs)

Hoo Hian Choon (Mr)
Noise Monitoring Consultant
6-May-2022

APPENDIX A : INSTRUMENT LAYOUT PLAN



NOISE METER

APPENDIX B: NEA CONSTRUCTION NOISE CONTROL GUIDELINE

Construction Noise Control

Maximum Permissible Noise Levels for Construction Work Commenced on or after 1st October 2007

Noise Regulation

Mondays to Saturdays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	65 dBA (Leq 1 hr)	55 dBA (Leq 1 hr)
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

Sundays and Public Holidays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	-	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

APPENDIX C: NOISE MONITORING OFFICER CERTIFICATES

S/No: 02/20/159

Acoustical Laboratory Pte Ltd
CENTRE FOR ENVIRONMENTAL CONSULTATION AND TRAINING

Certificate of Competence

This is to certify that

Hoo Hian Choon

has attended and passed an examination for a course on

Noise Monitoring

held between 22nd May 2002 and 24th May 2002

Acoustical Laboratory is approved by the Ministry of Labour as a Training Centre for the Noise Monitoring Course

Tan Kok Yang
Course Co-ordinator

Koh L. B.
Managing Director

NANYANG TECHNOLOGICAL UNIVERSITY

This is to certify that

Hoo Hian Choon

has successfully completed the 2½-day course

Industrial Noise Control

Seah Ben Hun
Director
Centre for Continuing Education

27 August 2010

APPENDIX D: INSTRUMENT CALIBRATION CERTIFICATES

Cirrus Research plc
dedicated to noise measurement

ENSSCOM
Improving Your Workplace Safety & Health

Certificate of Calibration

Equipment Details

Instrument Manufacturer	Cirrus Research plc
Instrument Type	CR: 191 SG
Description	Sound Level Meter
Serial Number	G078328

Calibration Procedure

The instrument detailed above have been calibrated to the publish test and calibration data as detailed in the instrument hand book, using the techniques recommended in the latest revisions of the International Standards IEC 61672-1:2013, IEC 61672-1:2002, IEC 60651:1979, IEC 60804: 2001, IEC 61260:1995, IEC 60942:2003, IEC 60942:1997, IEC 61252:1993, ANSI S1.4-1983, ANSI S1.11-1986 and ANSI S1.43-1997 where applicable.
Sound Level Meters: All Calibration procedures were carried out by substituting the microphone capsule with a suitable electrical signal, apart from the final acoustic calibration.

Calibration Traceability

The instrument detailed above was calibrated against the calibration laboratory standards held by Cirrus Research plc. These are traceable to International Standards {A.0.6}. The standards are:

Multi Acoustic Calibrator	B & K 4226	Serial Number	3041345	Calibration Ref.	551220084084700
Microphone Type	MK 224	Serial Number	214953B	Calibration Ref.	162361

Calibrated by

Calibration Date 23 February 2022

Calibration Certificate Number 228056

This Calibration Certificate is valid for 12 months from the date above.

Contact Your Local Authorised Distributor for Product Enquiries & Calibration Services

ENSSCOM PTE LTD
1015, Geylang East Ave 3 #04-105 Singapore 389730
Company Reg. No. 200720176H GST Reg. No. 200720176H
T +65 6743 9882 F +65 6743 9887
W www.ensscom.com E enquiry@ensscom.com

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **07 September 2021** CERTIFICATE NUMBER **162363**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Page 1 of 2

Approved signatory
N.Smith
Electronically signed:

Sound Calibrator : IEC 60942:2003

Instrument information

Manufacturer: Cirrus Research plc **Notes:**

Model: CR:515

Serial number: 60614

Class: 1

Test summary

Date of calibration: 07 September 2021

The sound calibrator detailed above has been calibrated to the published data as described in the operating manual and in the half-inch configuration. The procedures and techniques used are as described in IEC60942_2003 Annex B – Periodic Tests and three determinations of the sound pressure level, frequency and total distortion were made.

The sound pressure level was measured using a WS2F condenser microphone type MK:224 manufactured by Cirrus Research plc.

The results have been corrected to the reference pressure of 101.33 kPa using the manufacturer's data.

The manufacturer's product information indicates that this model of sound calibrator has been formally pattern approved to IEC60942_2003 Annex A to Class 1. This has been confirmed with the PhysikalischTechnische Bundesanstalt (PTB), Laboratoire National d'Essais (LNE) and APPLUS.

Notes:

This certificate provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. The results within this certificate relate only to the items calibrated. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%.

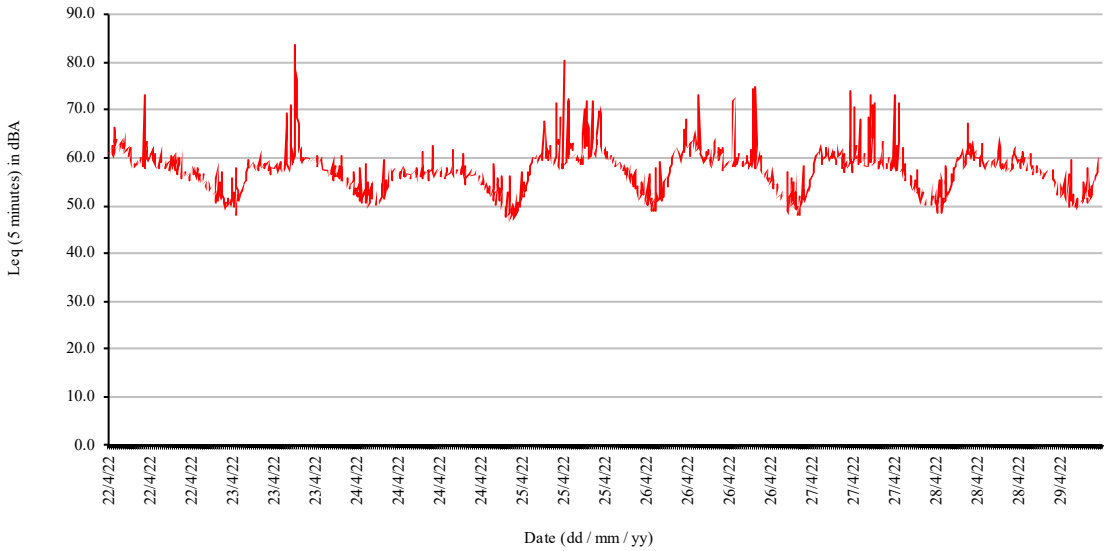
APPENDIX E

CONSTRUCTION SITE NOISE MONITORING DATA AND CHART

NAME OF COMPANY	CH2M HILL Singapore Pte Ltd
SITE LOCATION	Along KJE
REPORT REFERENCE	22/04/2022 - 29/04/2022

MODE	Environment	FREQUENCY WEIGHTING	A

Leq (5 Minutes) Plotted Against Date of Monitoring



NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Along KJE									
REPORT REFERENCE			22/04/2022 - 29/04/2022									
Start	22/4/22		7:05		**Leq12h**	**60.9**			Weighting		A	
End	22/4/22		19:00									
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**
22/4/22	7:05	60.8			22/4/22	11:05	58.8			22/4/22	15:05	58.9
22/4/22	7:10	61.0			22/4/22	11:10	58.9			22/4/22	15:10	58.1
22/4/22	7:15	62.0			22/4/22	11:15	59.1			22/4/22	15:15	58.0
22/4/22	7:20	60.9			22/4/22	11:20	58.5			22/4/22	15:20	58.3
22/4/22	7:25	61.0			22/4/22	11:25	57.8			22/4/22	15:25	58.0
22/4/22	7:30	61.2			22/4/22	11:30	58.5			22/4/22	15:30	58.8
22/4/22	7:35	62.1			22/4/22	11:35	57.8			22/4/22	15:35	57.8
22/4/22	7:40	61.4			22/4/22	11:40	58.2			22/4/22	15:40	58.8
22/4/22	7:45	62.5			22/4/22	11:45	58.9			22/4/22	15:45	58.3
22/4/22	7:50	60.8			22/4/22	11:50	58.5			22/4/22	15:50	62.6
22/4/22	7:55	60.0			22/4/22	11:55	59.4			22/4/22	15:55	59.3
22/4/22	8:00	61.3			22/4/22	12:00	58.8			22/4/22	16:00	59.5
22/4/22	8:05	66.4			22/4/22	12:05	58.3			22/4/22	16:05	62.5
22/4/22	8:10	63.2			22/4/22	12:10	59.1			22/4/22	16:10	62.7
22/4/22	8:15	62.4			22/4/22	12:15	59.4			22/4/22	16:15	58.2
22/4/22	8:20	62.7			22/4/22	12:20	59.4			22/4/22	16:20	57.9
22/4/22	8:25	63.9			22/4/22	12:25	58.8			22/4/22	16:25	58.8
22/4/22	8:30	61.5			22/4/22	12:30	58.8			22/4/22	16:30	58.0
22/4/22	8:35	62.8			22/4/22	12:35	59.8			22/4/22	16:35	59.6
22/4/22	8:40	63.2			22/4/22	12:40	58.3			22/4/22	16:40	57.8
22/4/22	8:45	62.9			22/4/22	12:45	58.6			22/4/22	16:45	58.5
22/4/22	8:50	63.4			22/4/22	12:50	59.8			22/4/22	16:50	58.8
22/4/22	8:55	62.4			22/4/22	12:55	58.2			22/4/22	16:55	58.0
22/4/22	9:00	61.4			22/4/22	13:00	57.8			22/4/22	17:00	58.2
22/4/22	9:05	61.0			22/4/22	13:05	73.2			22/4/22	17:05	58.9
22/4/22	9:10	62.9			22/4/22	13:10	58.7			22/4/22	17:10	58.1
22/4/22	9:15	64.2			22/4/22	13:15	57.8			22/4/22	17:15	59.4
22/4/22	9:20	62.2			22/4/22	13:20	59.2			22/4/22	17:20	57.6
22/4/22	9:25	63.1			22/4/22	13:25	62.4			22/4/22	17:25	59.2
22/4/22	9:30	61.6			22/4/22	13:30	61.2			22/4/22	17:30	56.6
22/4/22	9:35	61.2			22/4/22	13:35	63.5			22/4/22	17:35	56.7
22/4/22	9:40	65.5			22/4/22	13:40	60.1			22/4/22	17:40	60.2
22/4/22	9:45	62.5			22/4/22	13:45	59.1			22/4/22	17:45	59.4
22/4/22	9:50	63.0			22/4/22	13:50	59.1			22/4/22	17:50	57.6
22/4/22	9:55	60.7			22/4/22	13:55	59.9			22/4/22	17:55	57.0
22/4/22	10:00	61.0			22/4/22	14:00	59.0			22/4/22	18:00	58.5
22/4/22	10:05	60.8			22/4/22	14:05	59.2			22/4/22	18:05	60.0
22/4/22	10:10	60.2			22/4/22	14:10	58.7			22/4/22	18:10	61.1
22/4/22	10:15	61.5			22/4/22	14:15	59.7			22/4/22	18:15	59.5
22/4/22	10:20	62.5			22/4/22	14:20	60.8			22/4/22	18:20	57.5
22/4/22	10:25	60.5			22/4/22	14:25	62.5			22/4/22	18:25	58.5
22/4/22	10:30	60.9			22/4/22	14:30	61.5			22/4/22	18:30	60.4
22/4/22	10:35	61.2			22/4/22	14:35	59.7			22/4/22	18:35	57.5
22/4/22	10:40	61.3			22/4/22	14:40	59.7			22/4/22	18:40	56.4
22/4/22	10:45	60.2			22/4/22	14:45	58.9			22/4/22	18:45	57.5
22/4/22	10:50	61.9			22/4/22	14:50	60.9			22/4/22	18:50	56.4
22/4/22	10:55	59.7			22/4/22	14:55	58.7			22/4/22	18:55	57.1
22/4/22	11:00	58.0			22/4/22	15:00	58.3			22/4/22	19:00	58.9

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	22/4/22		19:05		**Leq12h**	55.1				Weighting		A	
End	23/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
22/4/22	19:05	**60.0**			22/4/22	23:05	55.0			23/4/22	3:05	50.2	
22/4/22	19:10	**57.2**			22/4/22	23:10	**56.7**			23/4/22	3:10	51.6	
22/4/22	19:15	**61.7**			22/4/22	23:15	54.4			23/4/22	3:15	51.1	
22/4/22	19:20	**56.4**			22/4/22	23:20	54.7			23/4/22	3:20	50.5	
22/4/22	19:25	**55.6**			22/4/22	23:25	**55.2**			23/4/22	3:25	51.0	
22/4/22	19:30	**56.8**			22/4/22	23:30	54.7			23/4/22	3:30	50.5	
22/4/22	19:35	**56.2**			22/4/22	23:35	54.1			23/4/22	3:35	51.0	
22/4/22	19:40	**56.0**			22/4/22	23:40	53.3			23/4/22	3:40	51.4	
22/4/22	19:45	**56.9**			22/4/22	23:45	53.4			23/4/22	3:45	50.8	
22/4/22	19:50	**56.4**			22/4/22	23:50	53.5			23/4/22	3:50	49.9	
22/4/22	19:55	**56.7**			22/4/22	23:55	**55.4**			23/4/22	3:55	51.0	
22/4/22	20:00	**56.1**	57.6		22/4/22	0:00	**55.1**	54.7		23/4/22	4:00	52.6	51.0
22/4/22	20:05	**56.8**			23/4/22	0:05	53.4			23/4/22	4:05	**55.7**	
22/4/22	20:10	**56.1**			23/4/22	0:10	52.8			23/4/22	4:10	50.0	
22/4/22	20:15	**56.9**			23/4/22	0:15	53.3			23/4/22	4:15	52.9	
22/4/22	20:20	**57.0**			23/4/22	0:20	52.9			23/4/22	4:20	51.4	
22/4/22	20:25	**56.0**			23/4/22	0:25	53.1			23/4/22	4:25	51.9	
22/4/22	20:30	**56.3**			23/4/22	0:30	53.2			23/4/22	4:30	52.4	
22/4/22	20:35	**57.0**			23/4/22	0:35	54.6			23/4/22	4:35	47.9	
22/4/22	20:40	**56.1**			23/4/22	0:40	54.7			23/4/22	4:40	**58.0**	
22/4/22	20:45	**55.5**			23/4/22	0:45	52.3			23/4/22	4:45	54.2	
22/4/22	20:50	**58.0**			23/4/22	0:50	52.4			23/4/22	4:50	53.1	
22/4/22	20:55	**56.3**			23/4/22	0:55	52.8			23/4/22	4:55	51.2	
22/4/22	21:00	**55.9**	56.5		23/4/22	1:00	52.0	53.2		23/4/22	5:00	50.9	53.3
22/4/22	21:05	**58.2**			23/4/22	1:05	53.0			23/4/22	5:05	53.3	
22/4/22	21:10	**58.5**			23/4/22	1:10	51.3			23/4/22	5:10	50.6	
22/4/22	21:15	**57.4**			23/4/22	1:15	50.5			23/4/22	5:15	52.4	
22/4/22	21:20	**57.3**			23/4/22	1:20	**55.8**			23/4/22	5:20	52.5	
22/4/22	21:25	**56.5**			23/4/22	1:25	**59.2**			23/4/22	5:25	51.7	
22/4/22	21:30	**56.5**			23/4/22	1:30	52.3			23/4/22	5:30	52.8	
22/4/22	21:35	**58.2**			23/4/22	1:35	51.2			23/4/22	5:35	52.3	
22/4/22	21:40	**56.5**			23/4/22	1:40	53.2			23/4/22	5:40	53.2	
22/4/22	21:45	**56.4**			23/4/22	1:45	51.3			23/4/22	5:45	53.2	
22/4/22	21:50	**56.5**			23/4/22	1:50	54.8			23/4/22	5:50	53.2	
22/4/22	21:55	**57.0**			23/4/22	1:55	53.8			23/4/22	5:55	53.1	
22/4/22	22:00	**55.1**	57.1		23/4/22	2:00	52.5	54.0		23/4/22	6:00	**55.4**	52.9
22/4/22	22:05	**55.7**			23/4/22	2:05	51.2			23/4/22	6:05	54.5	
22/4/22	22:10	**58.0**			23/4/22	2:10	52.1			23/4/22	6:10	54.4	
22/4/22	22:15	**57.2**			23/4/22	2:15	**56.8**			23/4/22	6:15	**55.4**	
22/4/22	22:20	54.8			23/4/22	2:20	52.5			23/4/22	6:20	**55.7**	
22/4/22	22:25	**56.5**			23/4/22	2:25	51.3			23/4/22	6:25	**56.9**	
22/4/22	22:30	**55.6**			23/4/22	2:30	51.2			23/4/22	6:30	**56.7**	
22/4/22	22:35	**56.2**			23/4/22	2:35	50.6			23/4/22	6:35	**58.2**	
22/4/22	22:40	55.0			23/4/22	2:40	50.3			23/4/22	6:40	**59.6**	
22/4/22	22:45	54.9			23/4/22	2:45	50.8			23/4/22	6:45	**58.8**	
22/4/22	22:50	55.0			23/4/22	2:50	49.0			23/4/22	6:50	**58.7**	
22/4/22	22:55	**55.6**			23/4/22	2:55	50.5			23/4/22	6:55	**58.3**	
22/4/22	23:00	54.8	55.9		23/4/22	3:00	49.3	51.8		23/4/22	7:00	**57.9**	57.4

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			22/04/2022 - 29/04/2022								
Start	23/4/22		7:05		**Leq12h**	**65.6**			Weighting		A
End	23/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
23/4/22	7:05	57.8			23/4/22	11:05	58.2		23/4/22	15:05	68.1
23/4/22	7:10	57.9			23/4/22	11:10	58.1		23/4/22	15:10	67.2
23/4/22	7:15	59.1			23/4/22	11:15	57.5		23/4/22	15:15	61.9
23/4/22	7:20	59.6			23/4/22	11:20	59.1		23/4/22	15:20	61.0
23/4/22	7:25	58.5			23/4/22	11:25	58.3		23/4/22	15:25	61.0
23/4/22	7:30	58.8			23/4/22	11:30	58.3		23/4/22	15:30	61.0
23/4/22	7:35	59.0			23/4/22	11:35	58.7		23/4/22	15:35	62.5
23/4/22	7:40	58.2			23/4/22	11:40	56.7		23/4/22	15:40	61.8
23/4/22	7:45	58.7			23/4/22	11:45	57.8		23/4/22	15:45	59.7
23/4/22	7:50	58.3			23/4/22	11:50	57.4		23/4/22	15:50	58.9
23/4/22	7:55	57.8			23/4/22	11:55	59.0		23/4/22	15:55	60.0
23/4/22	8:00	58.0			23/4/22	12:00	57.6		23/4/22	16:00	60.5
23/4/22	8:05	57.8			23/4/22	12:05	59.0		23/4/22	16:05	59.3
23/4/22	8:10	57.6			23/4/22	12:10	57.7		23/4/22	16:10	59.1
23/4/22	8:15	59.7			23/4/22	12:15	57.4		23/4/22	16:15	60.0
23/4/22	8:20	57.6			23/4/22	12:20	57.1		23/4/22	16:20	59.8
23/4/22	8:25	58.4			23/4/22	12:25	56.9		23/4/22	16:25	59.6
23/4/22	8:30	58.2			23/4/22	12:30	56.8		23/4/22	16:30	59.5
23/4/22	8:35	58.2			23/4/22	12:35	57.3		23/4/22	16:35	59.5
23/4/22	8:40	57.7			23/4/22	12:40	57.9		23/4/22	16:40	59.6
23/4/22	8:45	61.7			23/4/22	12:45	57.0		23/4/22	16:45	59.5
23/4/22	8:50	58.5			23/4/22	12:50	57.6		23/4/22	16:50	60.0
23/4/22	8:55	58.6			23/4/22	12:55	57.9		23/4/22	16:55	59.5
23/4/22	9:00	58.0			23/4/22	13:00	58.3		23/4/22	17:00	59.3
23/4/22	9:05	58.1			23/4/22	13:05	58.2		23/4/22	17:05	59.2
23/4/22	9:10	58.0			23/4/22	13:10	66.8		23/4/22	17:10	59.4
23/4/22	9:15	59.0			23/4/22	13:15	69.3		23/4/22	17:15	60.2
23/4/22	9:20	57.8			23/4/22	13:20	58.7		23/4/22	17:20	59.2
23/4/22	9:25	58.2			23/4/22	13:25	57.7		23/4/22	17:25	59.5
23/4/22	9:30	58.5			23/4/22	13:30	57.5		23/4/22	17:30	59.9
23/4/22	9:35	57.7			23/4/22	13:35	57.7		23/4/22	17:35	58.9
23/4/22	9:40	58.2			23/4/22	13:40	58.2		23/4/22	17:40	58.3
23/4/22	9:45	58.9			23/4/22	13:45	56.9		23/4/22	17:45	59.2
23/4/22	9:50	58.2			23/4/22	13:50	59.9		23/4/22	17:50	59.3
23/4/22	9:55	58.6			23/4/22	13:55	71.1		23/4/22	17:55	59.9
23/4/22	10:00	59.4			23/4/22	14:00	62.6		23/4/22	18:00	59.2
23/4/22	10:05	57.6			23/4/22	14:05	60.6		23/4/22	18:05	59.3
23/4/22	10:10	57.4			23/4/22	14:10	59.9		23/4/22	18:10	60.2
23/4/22	10:15	58.5			23/4/22	14:15	59.2		23/4/22	18:15	59.1
23/4/22	10:20	57.5			23/4/22	14:20	58.4		23/4/22	18:20	60.2
23/4/22	10:25	57.4			23/4/22	14:25	60.3		23/4/22	18:25	58.4
23/4/22	10:30	56.6			23/4/22	14:30	63.5		23/4/22	18:30	59.4
23/4/22	10:35	57.9			23/4/22	14:35	**83.6**		23/4/22	18:35	59.3
23/4/22	10:40	57.9			23/4/22	14:40	**78.8**		23/4/22	18:40	58.9
23/4/22	10:45	58.0			23/4/22	14:45	**76.3**		23/4/22	18:45	58.9
23/4/22	10:50	58.4			23/4/22	14:50	70.7		23/4/22	18:50	59.0
23/4/22	10:55	58.4			23/4/22	14:55	70.2		23/4/22	18:55	58.8
23/4/22	11:00	58.0			23/4/22	15:00	68.6		23/4/22	19:00	59.2

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	23/4/22		19:05		**Leq12h**	55.4				Weighting		A	
End	24/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
23/4/22	19:05	**60.2**			23/4/22	23:05	54.2			24/4/22	3:05	50.8	
23/4/22	19:10	**59.4**			23/4/22	23:10	**55.7**			24/4/22	3:10	50.1	
23/4/22	19:15	**59.6**			23/4/22	23:15	**56.0**			24/4/22	3:15	50.9	
23/4/22	19:20	**59.2**			23/4/22	23:20	54.7			24/4/22	3:20	53.3	
23/4/22	19:25	**57.4**			23/4/22	23:25	**55.6**			24/4/22	3:25	52.7	
23/4/22	19:30	**57.2**			23/4/22	23:30	54.8			24/4/22	3:30	**55.3**	
23/4/22	19:35	**57.7**			23/4/22	23:35	53.5			24/4/22	3:35	51.3	
23/4/22	19:40	**57.0**			23/4/22	23:40	54.2			24/4/22	3:40	54.4	
23/4/22	19:45	**57.6**			23/4/22	23:45	54.9			24/4/22	3:45	51.6	
23/4/22	19:50	**56.9**			23/4/22	23:50	53.7			24/4/22	3:50	**55.2**	
23/4/22	19:55	**57.4**			23/4/22	23:55	**55.1**			24/4/22	3:55	50.9	
23/4/22	20:00	**57.8**	58.3		23/4/22	0:00	**55.6**	54.9		24/4/22	4:00	51.5	52.7
23/4/22	20:05	**56.8**			24/4/22	0:05	54.8			24/4/22	4:05	50.5	
23/4/22	20:10	**56.8**			24/4/22	0:10	54.4			24/4/22	4:10	53.2	
23/4/22	20:15	**57.9**			24/4/22	0:15	54.8			24/4/22	4:15	50.2	
23/4/22	20:20	**57.7**			24/4/22	0:20	54.3			24/4/22	4:20	51.4	
23/4/22	20:25	**57.0**			24/4/22	0:25	**55.4**			24/4/22	4:25	51.1	
23/4/22	20:30	**56.1**			24/4/22	0:30	**56.8**			24/4/22	4:30	51.1	
23/4/22	20:35	**56.5**			24/4/22	0:35	52.3			24/4/22	4:35	49.2	
23/4/22	20:40	**57.4**			24/4/22	0:40	53.6			24/4/22	4:40	51.5	
23/4/22	20:45	**56.7**			24/4/22	0:45	52.2			24/4/22	4:45	51.4	
23/4/22	20:50	**57.5**			24/4/22	0:50	53.5			24/4/22	4:50	51.2	
23/4/22	20:55	**60.3**			24/4/22	0:55	52.8			24/4/22	4:55	51.4	
23/4/22	21:00	**57.4**	57.5		24/4/22	1:00	53.2	54.2		24/4/22	5:00	50.2	51.1
23/4/22	21:05	**55.5**			24/4/22	1:05	51.9			24/4/22	5:05	51.0	
23/4/22	21:10	**56.3**			24/4/22	1:10	52.6			24/4/22	5:10	51.9	
23/4/22	21:15	**57.2**			24/4/22	1:15	52.1			24/4/22	5:15	53.8	
23/4/22	21:20	**56.2**			24/4/22	1:20	53.4			24/4/22	5:20	54.3	
23/4/22	21:25	**58.2**			24/4/22	1:25	**55.7**			24/4/22	5:25	52.8	
23/4/22	21:30	**56.0**			24/4/22	1:30	51.0			24/4/22	5:30	**59.5**	
23/4/22	21:35	**55.7**			24/4/22	1:35	54.1			24/4/22	5:35	51.5	
23/4/22	21:40	**58.0**			24/4/22	1:40	**58.0**			24/4/22	5:40	51.4	
23/4/22	21:45	**56.3**			24/4/22	1:45	52.0			24/4/22	5:45	52.4	
23/4/22	21:50	**56.9**			24/4/22	1:50	50.8			24/4/22	5:50	51.6	
23/4/22	21:55	**56.9**			24/4/22	1:55	51.6			24/4/22	5:55	53.6	
23/4/22	22:00	**55.9**	56.7		24/4/22	2:00	51.3	53.5		24/4/22	6:00	**55.4**	54.0
23/4/22	22:05	**58.3**			24/4/22	2:05	51.7			24/4/22	6:05	54.6	
23/4/22	22:10	**55.8**			24/4/22	2:10	53.7			24/4/22	6:10	53.0	
23/4/22	22:15	**56.4**			24/4/22	2:15	52.5			24/4/22	6:15	53.4	
23/4/22	22:20	**58.2**			24/4/22	2:20	51.5			24/4/22	6:20	53.0	
23/4/22	22:25	**55.4**			24/4/22	2:25	54.6			24/4/22	6:25	54.1	
23/4/22	22:30	**60.3**			24/4/22	2:30	50.5			24/4/22	6:30	**57.9**	
23/4/22	22:35	**56.0**			24/4/22	2:35	51.5			24/4/22	6:35	**58.4**	
23/4/22	22:40	55.0			24/4/22	2:40	**58.5**			24/4/22	6:40	**57.7**	
23/4/22	22:45	**55.5**			24/4/22	2:45	52.5			24/4/22	6:45	**56.8**	
23/4/22	22:50	**55.2**			24/4/22	2:50	54.7			24/4/22	6:50	**57.8**	
23/4/22	22:55	**56.2**			24/4/22	2:55	53.5			24/4/22	6:55	**56.2**	
23/4/22	23:00	**56.3**	56.9		24/4/22	3:00	49.5	53.6		24/4/22	7:00	**56.6**	56.2

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			22/04/2022 - 29/04/2022								
Start	24/4/22		7:05		**Leq12h**	57.1			Weighting		A
End	24/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
24/4/22	7:05	55.5			24/4/22	11:05	56.6		24/4/22	15:05	58.3
24/4/22	7:10	56.9			24/4/22	11:10	57.9		24/4/22	15:10	56.0
24/4/22	7:15	57.3			24/4/22	11:15	56.9		24/4/22	15:15	56.8
24/4/22	7:20	56.6			24/4/22	11:20	57.4		24/4/22	15:20	55.2
24/4/22	7:25	57.2			24/4/22	11:25	56.4		24/4/22	15:25	55.0
24/4/22	7:30	58.0			24/4/22	11:30	57.5		24/4/22	15:30	56.5
24/4/22	7:35	58.1			24/4/22	11:35	54.9		24/4/22	15:35	56.2
24/4/22	7:40	57.5			24/4/22	11:40	58.2		24/4/22	15:40	55.6
24/4/22	7:45	57.7			24/4/22	11:45	58.8		24/4/22	15:45	56.0
24/4/22	7:50	57.5			24/4/22	11:50	56.3		24/4/22	15:50	57.2
24/4/22	7:55	55.7			24/4/22	11:55	57.8		24/4/22	15:55	55.8
24/4/22	8:00	56.8			24/4/22	12:00	56.4		24/4/22	16:00	57.1
24/4/22	8:05	57.5			24/4/22	12:05	61.4		24/4/22	16:05	56.5
24/4/22	8:10	57.2			24/4/22	12:10	55.9		24/4/22	16:10	56.1
24/4/22	8:15	55.8			24/4/22	12:15	56.8		24/4/22	16:15	57.1
24/4/22	8:20	56.8			24/4/22	12:20	58.7		24/4/22	16:20	57.8
24/4/22	8:25	55.9			24/4/22	12:25	56.3		24/4/22	16:25	56.3
24/4/22	8:30	56.7			24/4/22	12:30	55.6		24/4/22	16:30	56.2
24/4/22	8:35	57.2			24/4/22	12:35	57.0		24/4/22	16:35	55.6
24/4/22	8:40	56.3			24/4/22	12:40	55.6		24/4/22	16:40	56.0
24/4/22	8:45	58.3			24/4/22	12:45	56.3		24/4/22	16:45	55.8
24/4/22	8:50	57.9			24/4/22	12:50	56.2		24/4/22	16:50	57.1
24/4/22	8:55	57.3			24/4/22	12:55	57.5		24/4/22	16:55	57.4
24/4/22	9:00	56.2			24/4/22	13:00	56.8		24/4/22	17:00	57.1
24/4/22	9:05	57.2			24/4/22	13:05	56.7		24/4/22	17:05	58.3
24/4/22	9:10	56.0			24/4/22	13:10	55.4		24/4/22	17:10	58.1
24/4/22	9:15	57.5			24/4/22	13:15	57.3		24/4/22	17:15	57.4
24/4/22	9:20	55.9			24/4/22	13:20	56.6		24/4/22	17:20	61.6
24/4/22	9:25	56.4			24/4/22	13:25	56.1		24/4/22	17:25	56.6
24/4/22	9:30	56.4			24/4/22	13:30	56.0		24/4/22	17:30	57.0
24/4/22	9:35	56.4			24/4/22	13:35	56.5		24/4/22	17:35	55.7
24/4/22	9:40	56.3			24/4/22	13:40	57.0		24/4/22	17:40	55.9
24/4/22	9:45	56.8			24/4/22	13:45	57.8		24/4/22	17:45	57.5
24/4/22	9:50	57.0			24/4/22	13:50	62.3		24/4/22	17:50	57.6
24/4/22	9:55	56.1			24/4/22	13:55	59.5		24/4/22	17:55	56.5
24/4/22	10:00	56.4			24/4/22	14:00	57.2		24/4/22	18:00	56.3
24/4/22	10:05	56.0			24/4/22	14:05	55.7		24/4/22	18:05	57.5
24/4/22	10:10	55.8			24/4/22	14:10	56.7		24/4/22	18:10	56.4
24/4/22	10:15	59.2			24/4/22	14:15	56.9		24/4/22	18:15	56.7
24/4/22	10:20	56.4			24/4/22	14:20	57.0		24/4/22	18:20	58.2
24/4/22	10:25	56.4			24/4/22	14:25	56.2		24/4/22	18:25	56.0
24/4/22	10:30	56.9			24/4/22	14:30	56.7		24/4/22	18:30	56.2
24/4/22	10:35	56.2			24/4/22	14:35	58.0		24/4/22	18:35	56.4
24/4/22	10:40	56.2			24/4/22	14:40	56.7		24/4/22	18:40	57.6
24/4/22	10:45	57.2			24/4/22	14:45	56.3		24/4/22	18:45	56.5
24/4/22	10:50	56.5			24/4/22	14:50	56.7		24/4/22	18:50	57.6
24/4/22	10:55	57.5			24/4/22	14:55	56.3		24/4/22	18:55	58.6
24/4/22	11:00	55.9			24/4/22	15:00	56.8		24/4/22	19:00	60.7

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	24/4/22		19:05		**Leq12h**	54.7				Weighting		A	
End	25/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
24/4/22	19:05	**58.5**			24/4/22	23:05	53.8			25/4/22	3:05	46.5	
24/4/22	19:10	**57.2**			24/4/22	23:10	52.7			25/4/22	3:10	48.3	
24/4/22	19:15	**55.5**			24/4/22	23:15	53.5			25/4/22	3:15	49.4	
24/4/22	19:20	**58.2**			24/4/22	23:20	52.5			25/4/22	3:20	49.6	
24/4/22	19:25	54.3			24/4/22	23:25	54.2			25/4/22	3:25	50.8	
24/4/22	19:30	**55.8**			24/4/22	23:30	54.0			25/4/22	3:30	49.5	
24/4/22	19:35	**55.4**			24/4/22	23:35	52.9			25/4/22	3:35	48.2	
24/4/22	19:40	**55.2**			24/4/22	23:40	53.2			25/4/22	3:40	48.5	
24/4/22	19:45	**56.6**			24/4/22	23:45	53.1			25/4/22	3:45	46.7	
24/4/22	19:50	**55.8**			24/4/22	23:50	52.1			25/4/22	3:50	47.9	
24/4/22	19:55	**55.3**			24/4/22	23:55	52.5			25/4/22	3:55	49.9	
24/4/22	20:00	**55.5**	56.3		24/4/22	0:00	53.7	53.2		25/4/22	4:00	50.1	49.0
24/4/22	20:05	**56.5**			25/4/22	0:05	55.0			25/4/22	4:05	52.8	
24/4/22	20:10	**56.5**			25/4/22	0:10	**58.9**			25/4/22	4:10	49.0	
24/4/22	20:15	**58.0**			25/4/22	0:15	51.0			25/4/22	4:15	50.8	
24/4/22	20:20	**57.3**			25/4/22	0:20	52.4			25/4/22	4:20	48.8	
24/4/22	20:25	**56.2**			25/4/22	0:25	53.1			25/4/22	4:25	48.1	
24/4/22	20:30	**56.1**			25/4/22	0:30	52.8			25/4/22	4:30	51.3	
24/4/22	20:35	**55.6**			25/4/22	0:35	50.1			25/4/22	4:35	50.8	
24/4/22	20:40	**56.3**			25/4/22	0:40	52.4			25/4/22	4:40	50.0	
24/4/22	20:45	**56.0**			25/4/22	0:45	49.7			25/4/22	4:45	50.8	
24/4/22	20:50	**56.0**			25/4/22	0:50	49.5			25/4/22	4:50	**56.8**	
24/4/22	20:55	**56.4**			25/4/22	0:55	**55.7**			25/4/22	4:55	51.7	
24/4/22	21:00	**56.6**	56.5		25/4/22	1:00	54.3	53.8		25/4/22	5:00	52.3	51.8
24/4/22	21:05	**57.3**			25/4/22	1:05	52.2			25/4/22	5:05	50.8	
24/4/22	21:10	**56.9**			25/4/22	1:10	51.1			25/4/22	5:10	53.0	
24/4/22	21:15	**56.9**			25/4/22	1:15	53.8			25/4/22	5:15	51.8	
24/4/22	21:20	**57.3**			25/4/22	1:20	51.1			25/4/22	5:20	55.0	
24/4/22	21:25	**56.0**			25/4/22	1:25	53.4			25/4/22	5:25	53.4	
24/4/22	21:30	**56.1**			25/4/22	1:30	**56.2**			25/4/22	5:30	52.7	
24/4/22	21:35	**57.0**			25/4/22	1:35	50.5			25/4/22	5:35	54.2	
24/4/22	21:40	55.0			25/4/22	1:40	49.0			25/4/22	5:40	53.0	
24/4/22	21:45	**56.3**			25/4/22	1:45	50.8			25/4/22	5:45	54.2	
24/4/22	21:50	**56.2**			25/4/22	1:50	50.1			25/4/22	5:50	54.1	
24/4/22	21:55	54.5			25/4/22	1:55	48.8			25/4/22	5:55	**55.2**	
24/4/22	22:00	**55.3**	56.3		25/4/22	2:00	48.9	51.9		25/4/22	6:00	**57.0**	54.0
24/4/22	22:05	54.6			25/4/22	2:05	50.1			25/4/22	6:05	**55.6**	
24/4/22	22:10	55.0			25/4/22	2:10	50.7			25/4/22	6:10	**56.1**	
24/4/22	22:15	**56.9**			25/4/22	2:15	49.4			25/4/22	6:15	**56.4**	
24/4/22	22:20	**55.1**			25/4/22	2:20	47.8			25/4/22	6:20	**57.3**	
24/4/22	22:25	54.5			25/4/22	2:25	52.8			25/4/22	6:25	**58.3**	
24/4/22	22:30	54.1			25/4/22	2:30	47.6			25/4/22	6:30	**57.8**	
24/4/22	22:35	**57.3**			25/4/22	2:35	47.7			25/4/22	6:35	**59.0**	
24/4/22	22:40	**57.0**			25/4/22	2:40	47.6			25/4/22	6:40	**58.7**	
24/4/22	22:45	53.3			25/4/22	2:45	48.4			25/4/22	6:45	**59.9**	
24/4/22	22:50	54.0			25/4/22	2:50	48.5			25/4/22	6:50	**60.2**	
24/4/22	22:55	54.8			25/4/22	2:55	**56.3**			25/4/22	6:55	**59.8**	
24/4/22	23:00	**55.2**	55.3		25/4/22	3:00	52.7	50.9		25/4/22	7:00	**59.8**	58.5

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			22/04/2022 - 29/04/2022								
Start	25/4/22		7:05		**Leq12h**	**64.9**			Weighting		A
End	25/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
25/4/22	7:05	60.1			25/4/22	11:05	63.9		25/4/22	15:05	58.0
25/4/22	7:10	60.2			25/4/22	11:10	58.3		25/4/22	15:10	60.7
25/4/22	7:15	59.8			25/4/22	11:15	58.6		25/4/22	15:15	59.7
25/4/22	7:20	60.3			25/4/22	11:20	57.5		25/4/22	15:20	58.9
25/4/22	7:25	60.8			25/4/22	11:25	57.4		25/4/22	15:25	65.0
25/4/22	7:30	60.7			25/4/22	11:30	58.0		25/4/22	15:30	70.3
25/4/22	7:35	60.9			25/4/22	11:35	68.3		25/4/22	15:35	67.6
25/4/22	7:40	58.6			25/4/22	11:40	58.0		25/4/22	15:40	63.1
25/4/22	7:45	59.5			25/4/22	11:45	58.6		25/4/22	15:45	62.1
25/4/22	7:50	59.9			25/4/22	11:50	58.6		25/4/22	15:50	62.6
25/4/22	7:55	59.0			25/4/22	11:55	58.0		25/4/22	15:55	71.9
25/4/22	8:00	59.8			25/4/22	12:00	57.9		25/4/22	16:00	62.6
25/4/22	8:05	59.3			25/4/22	12:05	58.2		25/4/22	16:05	67.6
25/4/22	8:10	60.2			25/4/22	12:10	58.3		25/4/22	16:10	66.2
25/4/22	8:15	60.3			25/4/22	12:15	**80.2**		25/4/22	16:15	60.3
25/4/22	8:20	61.3			25/4/22	12:20	58.1		25/4/22	16:20	60.3
25/4/22	8:25	59.5			25/4/22	12:25	59.0		25/4/22	16:25	59.5
25/4/22	8:30	61.0			25/4/22	12:30	59.1		25/4/22	16:30	60.4
25/4/22	8:35	61.0			25/4/22	12:35	60.7		25/4/22	16:35	60.2
25/4/22	8:40	60.7			25/4/22	12:40	60.7		25/4/22	16:40	60.1
25/4/22	8:45	66.3			25/4/22	12:45	72.0		25/4/22	16:45	60.5
25/4/22	8:50	67.6			25/4/22	12:50	59.8		25/4/22	16:50	71.8
25/4/22	8:55	62.0			25/4/22	12:55	60.8		25/4/22	16:55	71.6
25/4/22	9:00	59.9			25/4/22	13:00	72.2		25/4/22	17:00	64.2
25/4/22	9:05	61.4			25/4/22	13:05	62.2		25/4/22	17:05	60.4
25/4/22	9:10	61.8			25/4/22	13:10	62.8		25/4/22	17:10	60.4
25/4/22	9:15	62.0			25/4/22	13:15	62.7		25/4/22	17:15	60.7
25/4/22	9:20	61.1			25/4/22	13:20	61.8		25/4/22	17:20	62.0
25/4/22	9:25	61.7			25/4/22	13:25	63.2		25/4/22	17:25	60.6
25/4/22	9:30	59.7			25/4/22	13:30	61.6		25/4/22	17:30	60.0
25/4/22	9:35	62.4			25/4/22	13:35	62.8		25/4/22	17:35	63.8
25/4/22	9:40	60.8			25/4/22	13:40	60.1		25/4/22	17:40	63.0
25/4/22	9:45	60.8			25/4/22	13:45	60.5		25/4/22	17:45	65.0
25/4/22	9:50	62.6			25/4/22	13:50	60.6		25/4/22	17:50	65.3
25/4/22	9:55	61.4			25/4/22	13:55	59.1		25/4/22	17:55	68.9
25/4/22	10:00	58.5			25/4/22	14:00	58.9		25/4/22	18:00	69.7
25/4/22	10:05	60.1			25/4/22	14:05	59.1		25/4/22	18:05	68.8
25/4/22	10:10	60.4			25/4/22	14:10	60.7		25/4/22	18:10	71.1
25/4/22	10:15	60.0			25/4/22	14:15	59.4		25/4/22	18:15	69.2
25/4/22	10:20	60.1			25/4/22	14:20	60.2		25/4/22	18:20	67.3
25/4/22	10:25	59.4			25/4/22	14:25	59.7		25/4/22	18:25	64.6
25/4/22	10:30	58.2			25/4/22	14:30	58.8		25/4/22	18:30	62.5
25/4/22	10:35	59.1			25/4/22	14:35	58.4		25/4/22	18:35	62.5
25/4/22	10:40	60.2			25/4/22	14:40	58.7		25/4/22	18:40	61.0
25/4/22	10:45	59.8			25/4/22	14:45	59.1		25/4/22	18:45	60.7
25/4/22	10:50	60.7			25/4/22	14:50	60.9		25/4/22	18:50	60.6
25/4/22	10:55	71.5			25/4/22	14:55	58.9		25/4/22	18:55	62.4
25/4/22	11:00	62.8			25/4/22	15:00	59.4		25/4/22	19:00	61.5

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	25/4/22		19:05		**Leq12h**	56.9				Weighting		A	
End	26/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
25/4/22	19:05	**60.6**			25/4/22	23:05	**55.7**			26/4/22	3:05	50.3	
25/4/22	19:10	**60.8**			25/4/22	23:10	**58.5**			26/4/22	3:10	51.4	
25/4/22	19:15	**59.6**			25/4/22	23:15	**56.2**			26/4/22	3:15	51.1	
25/4/22	19:20	**61.2**			25/4/22	23:20	54.5			26/4/22	3:20	48.8	
25/4/22	19:25	**60.3**			25/4/22	23:25	**56.5**			26/4/22	3:25	51.3	
25/4/22	19:30	**60.1**			25/4/22	23:30	55.0			26/4/22	3:30	50.0	
25/4/22	19:35	**60.0**			25/4/22	23:35	54.7			26/4/22	3:35	**57.8**	
25/4/22	19:40	**60.6**			25/4/22	23:40	**57.0**			26/4/22	3:40	49.1	
25/4/22	19:45	**59.5**			25/4/22	23:45	54.5			26/4/22	3:45	52.8	
25/4/22	19:50	**60.3**			25/4/22	23:50	**56.2**			26/4/22	3:50	51.5	
25/4/22	19:55	**59.5**			25/4/22	23:55	54.0			26/4/22	3:55	51.3	
25/4/22	20:00	**59.8**	60.2		25/4/22	0:00	**56.3**	55.9		26/4/22	4:00	50.8	52.1
25/4/22	20:05	**60.3**			26/4/22	0:05	**58.0**			26/4/22	4:05	50.6	
25/4/22	20:10	**59.0**			26/4/22	0:10	**56.9**			26/4/22	4:10	51.3	
25/4/22	20:15	**58.6**			26/4/22	0:15	53.5			26/4/22	4:15	52.1	
25/4/22	20:20	**60.2**			26/4/22	0:20	54.8			26/4/22	4:20	51.9	
25/4/22	20:25	**59.6**			26/4/22	0:25	54.6			26/4/22	4:25	**59.1**	
25/4/22	20:30	**58.8**			26/4/22	0:30	52.8			26/4/22	4:30	53.4	
25/4/22	20:35	**59.4**			26/4/22	0:35	53.9			26/4/22	4:35	50.9	
25/4/22	20:40	**59.6**			26/4/22	0:40	52.8			26/4/22	4:40	53.2	
25/4/22	20:45	**59.0**			26/4/22	0:45	52.7			26/4/22	4:45	51.1	
25/4/22	20:50	**58.4**			26/4/22	0:50	51.1			26/4/22	4:50	52.1	
25/4/22	20:55	**59.6**			26/4/22	0:55	51.6			26/4/22	4:55	52.2	
25/4/22	21:00	**58.1**	59.3		26/4/22	1:00	50.8	54.2		26/4/22	5:00	54.9	53.5
25/4/22	21:05	**57.9**			26/4/22	1:05	52.3			26/4/22	5:05	54.7	
25/4/22	21:10	**58.0**			26/4/22	1:10	55.0			26/4/22	5:10	**56.2**	
25/4/22	21:15	**58.0**			26/4/22	1:15	53.2			26/4/22	5:15	54.5	
25/4/22	21:20	**58.3**			26/4/22	1:20	52.5			26/4/22	5:20	54.0	
25/4/22	21:25	**58.0**			26/4/22	1:25	**57.1**			26/4/22	5:25	54.4	
25/4/22	21:30	**58.7**			26/4/22	1:30	52.5			26/4/22	5:30	**56.4**	
25/4/22	21:35	**59.3**			26/4/22	1:35	53.8			26/4/22	5:35	54.2	
25/4/22	21:40	**58.5**			26/4/22	1:40	53.9			26/4/22	5:40	**55.8**	
25/4/22	21:45	**58.1**			26/4/22	1:45	50.4			26/4/22	5:45	**55.2**	
25/4/22	21:50	**58.2**			26/4/22	1:50	51.6			26/4/22	5:50	**56.2**	
25/4/22	21:55	**57.6**			26/4/22	1:55	51.2			26/4/22	5:55	**55.7**	
25/4/22	22:00	**58.8**	58.3		26/4/22	2:00	52.0	53.3		26/4/22	6:00	**57.0**	55.5
25/4/22	22:05	**57.6**			26/4/22	2:05	**56.3**			26/4/22	6:05	**57.3**	
25/4/22	22:10	**57.2**			26/4/22	2:10	50.2			26/4/22	6:10	**57.8**	
25/4/22	22:15	**58.7**			26/4/22	2:15	51.0			26/4/22	6:15	**58.0**	
25/4/22	22:20	**57.4**			26/4/22	2:20	50.2			26/4/22	6:20	**58.8**	
25/4/22	22:25	**56.9**			26/4/22	2:25	**56.6**			26/4/22	6:25	**59.0**	
25/4/22	22:30	**56.7**			26/4/22	2:30	52.5			26/4/22	6:30	**59.9**	
25/4/22	22:35	**58.0**			26/4/22	2:35	53.3			26/4/22	6:35	**60.1**	
25/4/22	22:40	55.0			26/4/22	2:40	51.4			26/4/22	6:40	**61.5**	
25/4/22	22:45	**57.7**			26/4/22	2:45	51.8			26/4/22	6:45	**61.3**	
25/4/22	22:50	**56.9**			26/4/22	2:50	50.2			26/4/22	6:50	**60.7**	
25/4/22	22:55	**55.7**			26/4/22	2:55	51.6			26/4/22	6:55	**60.7**	
25/4/22	23:00	**55.4**	57.1		26/4/22	3:00	48.8	52.7		26/4/22	7:00	**61.0**	59.9

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			22/04/2022 - 29/04/2022								
Start	26/4/22		7:05		**Leq12h**	**62.2**			Weighting		A
End	26/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
26/4/22	7:05	62.0			26/4/22	11:05	61.5		26/4/22	15:05	58.8
26/4/22	7:10	61.5			26/4/22	11:10	62.7		26/4/22	15:10	58.5
26/4/22	7:15	61.6			26/4/22	11:15	60.6		26/4/22	15:15	58.5
26/4/22	7:20	62.0			26/4/22	11:20	61.1		26/4/22	15:20	57.9
26/4/22	7:25	62.0			26/4/22	11:25	60.2		26/4/22	15:25	57.8
26/4/22	7:30	62.7			26/4/22	11:30	59.9		26/4/22	15:30	58.5
26/4/22	7:35	60.2			26/4/22	11:35	60.0		26/4/22	15:35	58.5
26/4/22	7:40	60.3			26/4/22	11:40	60.0		26/4/22	15:40	59.2
26/4/22	7:45	60.6			26/4/22	11:45	58.9		26/4/22	15:45	58.8
26/4/22	7:50	60.3			26/4/22	11:50	60.0		26/4/22	15:50	58.9
26/4/22	7:55	58.8			26/4/22	11:55	58.5		26/4/22	15:55	58.5
26/4/22	8:00	60.7			26/4/22	12:00	59.0		26/4/22	16:00	59.5
26/4/22	8:05	60.3			26/4/22	12:05	60.0		26/4/22	16:05	58.5
26/4/22	8:10	61.5			26/4/22	12:10	60.2		26/4/22	16:10	58.6
26/4/22	8:15	61.0			26/4/22	12:15	61.1		26/4/22	16:15	59.7
26/4/22	8:20	66.1			26/4/22	12:20	59.9		26/4/22	16:20	59.7
26/4/22	8:25	61.2			26/4/22	12:25	59.4		26/4/22	16:25	57.6
26/4/22	8:30	61.3			26/4/22	12:30	61.0		26/4/22	16:30	59.5
26/4/22	8:35	61.8			26/4/22	12:35	61.8		26/4/22	16:35	58.2
26/4/22	8:40	66.5			26/4/22	12:40	59.1		26/4/22	16:40	58.5
26/4/22	8:45	68.1			26/4/22	12:45	62.1		26/4/22	16:45	71.7
26/4/22	8:50	62.8			26/4/22	12:50	59.2		26/4/22	16:50	72.6
26/4/22	8:55	63.5			26/4/22	12:55	59.8		26/4/22	16:55	61.8
26/4/22	9:00	62.0			26/4/22	13:00	58.8		26/4/22	17:00	58.4
26/4/22	9:05	62.4			26/4/22	13:05	58.4		26/4/22	17:05	61.0
26/4/22	9:10	61.7			26/4/22	13:10	57.8		26/4/22	17:10	57.9
26/4/22	9:15	62.3			26/4/22	13:15	58.1		26/4/22	17:15	59.8
26/4/22	9:20	63.2			26/4/22	13:20	58.2		26/4/22	17:20	58.8
26/4/22	9:25	61.7			26/4/22	13:25	61.3		26/4/22	17:25	59.8
26/4/22	9:30	60.4			26/4/22	13:30	61.3		26/4/22	17:30	58.9
26/4/22	9:35	62.8			26/4/22	13:35	63.4		26/4/22	17:35	59.3
26/4/22	9:40	63.3			26/4/22	13:40	64.1		26/4/22	17:40	61.0
26/4/22	9:45	63.9			26/4/22	13:45	63.8		26/4/22	17:45	60.4
26/4/22	9:50	63.4			26/4/22	13:50	64.4		26/4/22	17:50	58.8
26/4/22	9:55	63.2			26/4/22	13:55	64.2		26/4/22	17:55	61.9
26/4/22	10:00	61.6			26/4/22	14:00	60.1		26/4/22	18:00	61.6
26/4/22	10:05	61.2			26/4/22	14:05	61.0		26/4/22	18:05	58.3
26/4/22	10:10	64.2			26/4/22	14:10	59.7		26/4/22	18:10	58.7
26/4/22	10:15	65.9			26/4/22	14:15	62.0		26/4/22	18:15	59.4
26/4/22	10:20	62.9			26/4/22	14:20	61.1		26/4/22	18:20	58.3
26/4/22	10:25	62.4			26/4/22	14:25	59.6		26/4/22	18:25	59.3
26/4/22	10:30	63.1			26/4/22	14:30	61.6		26/4/22	18:30	58.4
26/4/22	10:35	61.4			26/4/22	14:35	60.5		26/4/22	18:35	58.2
26/4/22	10:40	61.9			26/4/22	14:40	59.8		26/4/22	18:40	59.1
26/4/22	10:45	62.3			26/4/22	14:45	60.3		26/4/22	18:45	58.5
26/4/22	10:50	63.9			26/4/22	14:50	61.4		26/4/22	18:50	58.1
26/4/22	10:55	73.3			26/4/22	14:55	62.0		26/4/22	18:55	59.3
26/4/22	11:00	63.3			26/4/22	15:00	57.5		26/4/22	19:00	60.5

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	26/4/22		19:05		**Leq12h**	59.2				Weighting		A	
End	27/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
26/4/22	19:05	**59.7**			26/4/22	23:05	**55.2**			27/4/22	3:05	53.6	
26/4/22	19:10	**59.7**			26/4/22	23:10	**55.5**			27/4/22	3:10	**57.1**	
26/4/22	19:15	**59.1**			26/4/22	23:15	**58.4**			27/4/22	3:15	49.5	
26/4/22	19:20	**58.9**			26/4/22	23:20	**55.4**			27/4/22	3:20	52.9	
26/4/22	19:25	**58.7**			26/4/22	23:25	53.5			27/4/22	3:25	50.1	
26/4/22	19:30	**57.6**			26/4/22	23:30	53.8			27/4/22	3:30	48.8	
26/4/22	19:35	**59.0**			26/4/22	23:35	54.6			27/4/22	3:35	49.6	
26/4/22	19:40	**60.1**			26/4/22	23:40	52.5			27/4/22	3:40	48.0	
26/4/22	19:45	**61.7**			26/4/22	23:45	**55.8**			27/4/22	3:45	50.9	
26/4/22	19:50	**58.5**			26/4/22	23:50	**55.3**			27/4/22	3:50	50.4	
26/4/22	19:55	**58.0**			26/4/22	23:55	**55.8**			27/4/22	3:55	51.9	
26/4/22	20:00	**59.5**	59.3		26/4/22	0:00	**55.8**	55.4		27/4/22	4:00	48.1	51.8
26/4/22	20:05	**63.8**			27/4/22	0:05	51.8			27/4/22	4:05	50.7	
26/4/22	20:10	**74.5**			27/4/22	0:10	53.7			27/4/22	4:10	49.7	
26/4/22	20:15	**59.0**			27/4/22	0:15	54.5			27/4/22	4:15	50.2	
26/4/22	20:20	**57.8**			27/4/22	0:20	51.3			27/4/22	4:20	50.5	
26/4/22	20:25	**62.3**			27/4/22	0:25	52.1			27/4/22	4:25	50.8	
26/4/22	20:30	**74.9**			27/4/22	0:30	52.0			27/4/22	4:30	**58.2**	
26/4/22	20:35	**62.9**			27/4/22	0:35	51.2			27/4/22	4:35	51.6	
26/4/22	20:40	**57.6**			27/4/22	0:40	52.5			27/4/22	4:40	53.2	
26/4/22	20:45	**57.0**			27/4/22	0:45	52.9			27/4/22	4:45	51.5	
26/4/22	20:50	**57.3**			27/4/22	0:50	51.0			27/4/22	4:50	50.6	
26/4/22	20:55	**57.2**			27/4/22	0:55	52.0			27/4/22	4:55	51.9	
26/4/22	21:00	**58.0**	67.6		27/4/22	1:00	53.0	52.5		27/4/22	5:00	52.5	52.5
26/4/22	21:05	**57.0**			27/4/22	1:05	51.2			27/4/22	5:05	51.1	
26/4/22	21:10	**59.8**			27/4/22	1:10	50.9			27/4/22	5:10	53.2	
26/4/22	21:15	**61.5**			27/4/22	1:15	50.8			27/4/22	5:15	54.1	
26/4/22	21:20	**58.0**			27/4/22	1:20	53.3			27/4/22	5:20	53.5	
26/4/22	21:25	**60.3**			27/4/22	1:25	50.0			27/4/22	5:25	53.9	
26/4/22	21:30	**57.5**			27/4/22	1:30	50.9			27/4/22	5:30	53.5	
26/4/22	21:35	**57.4**			27/4/22	1:35	51.2			27/4/22	5:35	52.9	
26/4/22	21:40	**57.3**			27/4/22	1:40	51.3			27/4/22	5:40	54.1	
26/4/22	21:45	**57.4**			27/4/22	1:45	50.2			27/4/22	5:45	53.8	
26/4/22	21:50	**56.6**			27/4/22	1:50	**56.9**			27/4/22	5:50	**55.1**	
26/4/22	21:55	**57.4**			27/4/22	1:55	48.9			27/4/22	5:55	54.8	
26/4/22	22:00	**55.7**	58.3		27/4/22	2:00	49.5	51.9		27/4/22	6:00	**56.5**	54.1
26/4/22	22:05	**55.6**			27/4/22	2:05	48.6			27/4/22	6:05	**55.5**	
26/4/22	22:10	**55.3**			27/4/22	2:10	48.5			27/4/22	6:10	**55.9**	
26/4/22	22:15	**56.5**			27/4/22	2:15	48.0			27/4/22	6:15	**57.0**	
26/4/22	22:20	**57.2**			27/4/22	2:20	51.8			27/4/22	6:20	**58.0**	
26/4/22	22:25	**57.7**			27/4/22	2:25	53.1			27/4/22	6:25	**58.3**	
26/4/22	22:30	**57.3**			27/4/22	2:30	51.8			27/4/22	6:30	**58.8**	
26/4/22	22:35	**55.8**			27/4/22	2:35	**55.6**			27/4/22	6:35	**58.9**	
26/4/22	22:40	55.0			27/4/22	2:40	50.9			27/4/22	6:40	**59.0**	
26/4/22	22:45	**55.6**			27/4/22	2:45	49.6			27/4/22	6:45	**60.5**	
26/4/22	22:50	**56.0**			27/4/22	2:50	50.5			27/4/22	6:50	**60.0**	
26/4/22	22:55	54.0			27/4/22	2:55	50.6			27/4/22	6:55	**60.1**	
26/4/22	23:00	53.4	56.0		27/4/22	3:00	54.8	51.8		27/4/22	7:00	**60.7**	58.8

ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Along KJE									
REPORT REFERENCE			22/04/2022 - 29/04/2022									
Start	27/4/22		7:05		**Leq12h**	**62.3**			Weighting		A	
End	27/4/22		19:00									
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**
27/4/22	7:05	61.3			27/4/22	11:05	59.8			27/4/22	15:05	57.8
27/4/22	7:10	60.8			27/4/22	11:10	58.0			27/4/22	15:10	57.8
27/4/22	7:15	60.4			27/4/22	11:15	59.0			27/4/22	15:15	57.9
27/4/22	7:20	60.7			27/4/22	11:20	57.8			27/4/22	15:20	58.6
27/4/22	7:25	61.6			27/4/22	11:25	57.9			27/4/22	15:25	58.8
27/4/22	7:30	62.8			27/4/22	11:30	60.9			27/4/22	15:30	58.2
27/4/22	7:35	60.4			27/4/22	11:35	56.9			27/4/22	15:35	57.8
27/4/22	7:40	58.8			27/4/22	11:40	57.9			27/4/22	15:40	59.0
27/4/22	7:45	59.4			27/4/22	11:45	57.8			27/4/22	15:45	68.4
27/4/22	7:50	59.9			27/4/22	11:50	59.6			27/4/22	15:50	61.8
27/4/22	7:55	59.1			27/4/22	11:55	58.6			27/4/22	15:55	59.0
27/4/22	8:00	59.7			27/4/22	12:00	58.8			27/4/22	16:00	70.3
27/4/22	8:05	59.8			27/4/22	12:05	58.2			27/4/22	16:05	73.2
27/4/22	8:10	59.7			27/4/22	12:10	58.9			27/4/22	16:10	64.3
27/4/22	8:15	60.4			27/4/22	12:15	57.9			27/4/22	16:15	70.8
27/4/22	8:20	61.4			27/4/22	12:20	58.2			27/4/22	16:20	66.5
27/4/22	8:25	62.2			27/4/22	12:25	58.3			27/4/22	16:25	58.4
27/4/22	8:30	60.8			27/4/22	12:30	59.2			27/4/22	16:30	58.6
27/4/22	8:35	60.1			27/4/22	12:35	74.0			27/4/22	16:35	59.2
27/4/22	8:40	60.5			27/4/22	12:40	59.9			27/4/22	16:40	71.2
27/4/22	8:45	60.2			27/4/22	12:45	58.3			27/4/22	16:45	59.1
27/4/22	8:50	62.7			27/4/22	12:50	57.2			27/4/22	16:50	58.5
27/4/22	8:55	60.7			27/4/22	12:55	59.0			27/4/22	16:55	58.5
27/4/22	9:00	59.3			27/4/22	13:00	57.8			27/4/22	17:00	59.8
27/4/22	9:05	59.4			27/4/22	13:05	57.9			27/4/22	17:05	59.2
27/4/22	9:10	59.9			27/4/22	13:10	60.0			27/4/22	17:10	60.0
27/4/22	9:15	59.8			27/4/22	13:15	70.7			27/4/22	17:15	58.0
27/4/22	9:20	61.3			27/4/22	13:20	59.1			27/4/22	17:20	57.8
27/4/22	9:25	60.1			27/4/22	13:25	61.0			27/4/22	17:25	59.2
27/4/22	9:30	61.0			27/4/22	13:30	60.0			27/4/22	17:30	57.6
27/4/22	9:35	62.2			27/4/22	13:35	62.5			27/4/22	17:35	59.2
27/4/22	9:40	59.8			27/4/22	13:40	59.2			27/4/22	17:40	61.2
27/4/22	9:45	61.1			27/4/22	13:45	59.6			27/4/22	17:45	60.8
27/4/22	9:50	60.2			27/4/22	13:50	59.3			27/4/22	17:50	61.1
27/4/22	9:55	60.2			27/4/22	13:55	59.8			27/4/22	17:55	60.5
27/4/22	10:00	59.5			27/4/22	14:00	58.9			27/4/22	18:00	63.4
27/4/22	10:05	58.6			27/4/22	14:05	68.1			27/4/22	18:05	58.5
27/4/22	10:10	59.3			27/4/22	14:10	61.7			27/4/22	18:10	58.4
27/4/22	10:15	63.1			27/4/22	14:15	59.3			27/4/22	18:15	57.5
27/4/22	10:20	60.8			27/4/22	14:20	60.0			27/4/22	18:20	57.6
27/4/22	10:25	61.1			27/4/22	14:25	59.2			27/4/22	18:25	59.0
27/4/22	10:30	60.2			27/4/22	14:30	59.1			27/4/22	18:30	58.9
27/4/22	10:35	59.9			27/4/22	14:35	60.2			27/4/22	18:35	57.7
27/4/22	10:40	60.3			27/4/22	14:40	60.0			27/4/22	18:40	58.7
27/4/22	10:45	60.7			27/4/22	14:45	59.8			27/4/22	18:45	57.9
27/4/22	10:50	60.7			27/4/22	14:50	59.0			27/4/22	18:50	59.7
27/4/22	10:55	61.1			27/4/22	14:55	60.7			27/4/22	18:55	59.5
27/4/22	11:00	61.9			27/4/22	15:00	58.4			27/4/22	19:00	58.8

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	27/4/22		19:05		**Leq12h**	57.8				Weighting		A	
End	28/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
27/4/22	19:05	**59.8**			27/4/22	23:05	53.2			28/4/22	3:05	50.6	
27/4/22	19:10	**58.5**			27/4/22	23:10	53.4			28/4/22	3:10	49.9	
27/4/22	19:15	**59.8**			27/4/22	23:15	53.7			28/4/22	3:15	48.4	
27/4/22	19:20	**58.5**			27/4/22	23:20	54.5			28/4/22	3:20	51.1	
27/4/22	19:25	**57.5**			27/4/22	23:25	**55.5**			28/4/22	3:25	50.2	
27/4/22	19:30	**58.1**			27/4/22	23:30	54.4			28/4/22	3:30	**55.5**	
27/4/22	19:35	**57.4**			27/4/22	23:35	54.0			28/4/22	3:35	52.0	
27/4/22	19:40	**58.0**			27/4/22	23:40	52.7			28/4/22	3:40	51.7	
27/4/22	19:45	**57.8**			27/4/22	23:45	53.4			28/4/22	3:45	**57.2**	
27/4/22	19:50	**58.4**			27/4/22	23:50	52.9			28/4/22	3:50	**55.5**	
27/4/22	19:55	**58.0**			27/4/22	23:55	**57.6**			28/4/22	3:55	48.5	
27/4/22	20:00	**73.0**	63.6		27/4/22	0:00	54.0	54.3		28/4/22	4:00	49.7	52.7
27/4/22	20:05	**58.1**			28/4/22	0:05	52.0			28/4/22	4:05	49.6	
27/4/22	20:10	**58.3**			28/4/22	0:10	53.4			28/4/22	4:10	48.7	
27/4/22	20:15	**57.1**			28/4/22	0:15	53.5			28/4/22	4:15	51.3	
27/4/22	20:20	**56.6**			28/4/22	0:20	51.9			28/4/22	4:20	50.3	
27/4/22	20:25	**57.0**			28/4/22	0:25	50.4			28/4/22	4:25	49.7	
27/4/22	20:30	**62.4**			28/4/22	0:30	51.4			28/4/22	4:30	51.0	
27/4/22	20:35	**57.4**			28/4/22	0:35	53.4			28/4/22	4:35	51.7	
27/4/22	20:40	**56.8**			28/4/22	0:40	53.5			28/4/22	4:40	**58.2**	
27/4/22	20:45	**57.7**			28/4/22	0:45	51.6			28/4/22	4:45	54.8	
27/4/22	20:50	**63.3**			28/4/22	0:50	52.8			28/4/22	4:50	54.9	
27/4/22	20:55	**71.5**			28/4/22	0:55	50.4			28/4/22	4:55	52.1	
27/4/22	21:00	**56.9**	62.8		28/4/22	1:00	50.0	52.2		28/4/22	5:00	52.8	53.0
27/4/22	21:05	**56.4**			28/4/22	1:05	51.5			28/4/22	5:05	51.3	
27/4/22	21:10	**56.5**			28/4/22	1:10	52.0			28/4/22	5:10	51.9	
27/4/22	21:15	**57.2**			28/4/22	1:15	50.1			28/4/22	5:15	53.2	
27/4/22	21:20	**57.7**			28/4/22	1:20	55.0			28/4/22	5:20	53.0	
27/4/22	21:25	**62.2**			28/4/22	1:25	50.4			28/4/22	5:25	53.3	
27/4/22	21:30	**57.5**			28/4/22	1:30	50.4			28/4/22	5:30	52.8	
27/4/22	21:35	**55.8**			28/4/22	1:35	50.8			28/4/22	5:35	53.4	
27/4/22	21:40	**57.2**			28/4/22	1:40	50.7			28/4/22	5:40	54.4	
27/4/22	21:45	**55.4**			28/4/22	1:45	49.8			28/4/22	5:45	**56.5**	
27/4/22	21:50	**58.9**			28/4/22	1:50	49.6			28/4/22	5:50	54.4	
27/4/22	21:55	**56.9**			28/4/22	1:55	50.5			28/4/22	5:55	54.8	
27/4/22	22:00	**55.2**	57.7		28/4/22	2:00	50.6	51.2		28/4/22	6:00	**55.4**	53.9
27/4/22	22:05	**55.1**			28/4/22	2:05	54.7			28/4/22	6:05	**57.8**	
27/4/22	22:10	**55.5**			28/4/22	2:10	50.2			28/4/22	6:10	**57.1**	
27/4/22	22:15	**58.2**			28/4/22	2:15	50.1			28/4/22	6:15	**56.6**	
27/4/22	22:20	**55.3**			28/4/22	2:20	50.2			28/4/22	6:20	**57.0**	
27/4/22	22:25	**55.2**			28/4/22	2:25	52.0			28/4/22	6:25	**58.3**	
27/4/22	22:30	**56.4**			28/4/22	2:30	51.5			28/4/22	6:30	**60.0**	
27/4/22	22:35	**56.2**			28/4/22	2:35	51.0			28/4/22	6:35	**59.6**	
27/4/22	22:40	**55.2**			28/4/22	2:40	52.1			28/4/22	6:40	**59.2**	
27/4/22	22:45	54.3			28/4/22	2:45	50.1			28/4/22	6:45	**59.9**	
27/4/22	22:50	**56.2**			28/4/22	2:50	50.1			28/4/22	6:50	**59.2**	
27/4/22	22:55	54.6			28/4/22	2:55	53.8			28/4/22	6:55	**59.8**	
27/4/22	23:00	54.0	55.7		28/4/22	3:00	51.5	51.7		28/4/22	7:00	**60.0**	58.9

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Along KJE								
REPORT REFERENCE			22/04/2022 - 29/04/2022								
Start	28/4/22		7:05		**Leq12h**	**60.0**			Weighting		A
End	28/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
28/4/22	7:05	60.3			28/4/22	11:05	59.0		28/4/22	15:05	57.1
28/4/22	7:10	60.5			28/4/22	11:10	59.0		28/4/22	15:10	57.2
28/4/22	7:15	60.4			28/4/22	11:15	59.7		28/4/22	15:15	56.7
28/4/22	7:20	60.6			28/4/22	11:20	58.4		28/4/22	15:20	57.7
28/4/22	7:25	61.9			28/4/22	11:25	57.4		28/4/22	15:25	57.5
28/4/22	7:30	62.2			28/4/22	11:30	57.4		28/4/22	15:30	57.9
28/4/22	7:35	59.0			28/4/22	11:35	58.5		28/4/22	15:35	57.8
28/4/22	7:40	59.4			28/4/22	11:40	58.7		28/4/22	15:40	57.2
28/4/22	7:45	59.5			28/4/22	11:45	59.0		28/4/22	15:45	57.1
28/4/22	7:50	57.6			28/4/22	11:50	59.1		28/4/22	15:50	58.0
28/4/22	7:55	56.9			28/4/22	11:55	59.0		28/4/22	15:55	58.6
28/4/22	8:00	58.7			28/4/22	12:00	59.4		28/4/22	16:00	57.8
28/4/22	8:05	59.2			28/4/22	12:05	57.8		28/4/22	16:05	59.8
28/4/22	8:10	60.5			28/4/22	12:10	57.7		28/4/22	16:10	62.6
28/4/22	8:15	60.8			28/4/22	12:15	58.3		28/4/22	16:15	61.5
28/4/22	8:20	63.5			28/4/22	12:20	58.5		28/4/22	16:20	60.9
28/4/22	8:25	60.8			28/4/22	12:25	57.8		28/4/22	16:25	60.5
28/4/22	8:30	63.0			28/4/22	12:30	57.7		28/4/22	16:30	60.3
28/4/22	8:35	67.2			28/4/22	12:35	57.9		28/4/22	16:35	59.9
28/4/22	8:40	62.1			28/4/22	12:40	59.0		28/4/22	16:40	60.3
28/4/22	8:45	62.2			28/4/22	12:45	58.6		28/4/22	16:45	59.8
28/4/22	8:50	62.8			28/4/22	12:50	59.8		28/4/22	16:50	58.8
28/4/22	8:55	60.6			28/4/22	12:55	58.9		28/4/22	16:55	59.1
28/4/22	9:00	59.5			28/4/22	13:00	59.3		28/4/22	17:00	59.6
28/4/22	9:05	60.6			28/4/22	13:05	58.6		28/4/22	17:05	58.8
28/4/22	9:10	62.7			28/4/22	13:10	59.1		28/4/22	17:10	60.4
28/4/22	9:15	63.9			28/4/22	13:15	57.9		28/4/22	17:15	58.9
28/4/22	9:20	63.7			28/4/22	13:20	58.2		28/4/22	17:20	58.0
28/4/22	9:25	60.5			28/4/22	13:25	59.8		28/4/22	17:25	59.7
28/4/22	9:30	59.4			28/4/22	13:30	61.3		28/4/22	17:30	58.5
28/4/22	9:35	60.9			28/4/22	13:35	64.8		28/4/22	17:35	59.5
28/4/22	9:40	61.3			28/4/22	13:40	64.4		28/4/22	17:40	61.1
28/4/22	9:45	61.8			28/4/22	13:45	62.1		28/4/22	17:45	60.5
28/4/22	9:50	61.2			28/4/22	13:50	60.3		28/4/22	17:50	59.5
28/4/22	9:55	59.9			28/4/22	13:55	59.5		28/4/22	17:55	59.4
28/4/22	10:00	59.9			28/4/22	14:00	58.1		28/4/22	18:00	58.4
28/4/22	10:05	60.1			28/4/22	14:05	57.7		28/4/22	18:05	59.9
28/4/22	10:10	59.7			28/4/22	14:10	57.4		28/4/22	18:10	57.7
28/4/22	10:15	60.4			28/4/22	14:15	58.6		28/4/22	18:15	59.0
28/4/22	10:20	59.8			28/4/22	14:20	58.0		28/4/22	18:20	58.6
28/4/22	10:25	59.3			28/4/22	14:25	58.6		28/4/22	18:25	57.5
28/4/22	10:30	58.3			28/4/22	14:30	57.5		28/4/22	18:30	60.3
28/4/22	10:35	60.0			28/4/22	14:35	58.2		28/4/22	18:35	60.2
28/4/22	10:40	60.7			28/4/22	14:40	58.8		28/4/22	18:40	59.7
28/4/22	10:45	61.7			28/4/22	14:45	58.0		28/4/22	18:45	59.8
28/4/22	10:50	62.8			28/4/22	14:50	59.9		28/4/22	18:50	60.9
28/4/22	10:55	59.4			28/4/22	14:55	57.8		28/4/22	18:55	59.9
28/4/22	11:00	59.6			28/4/22	15:00	56.8		28/4/22	19:00	60.8

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Along KJE										
REPORT REFERENCE			22/04/2022 - 29/04/2022										
Start	28/4/22		19:05		**Leq12h**	55.5				Weighting		A	
End	29/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
28/4/22	19:05	**60.1**			28/4/22	23:05	54.3			29/4/22	3:05	49.3	
28/4/22	19:10	**58.8**			28/4/22	23:10	54.4			29/4/22	3:10	50.4	
28/4/22	19:15	**57.6**			28/4/22	23:15	**55.2**			29/4/22	3:15	49.5	
28/4/22	19:20	**58.1**			28/4/22	23:20	53.7			29/4/22	3:20	49.3	
28/4/22	19:25	**56.7**			28/4/22	23:25	**55.2**			29/4/22	3:25	49.6	
28/4/22	19:30	**58.0**			28/4/22	23:30	**55.3**			29/4/22	3:30	52.4	
28/4/22	19:35	**57.7**			28/4/22	23:35	52.4			29/4/22	3:35	50.7	
28/4/22	19:40	**57.2**			28/4/22	23:40	53.5			29/4/22	3:40	50.7	
28/4/22	19:45	**58.2**			28/4/22	23:45	53.9			29/4/22	3:45	51.1	
28/4/22	19:50	**58.3**			28/4/22	23:50	53.3			29/4/22	3:50	51.4	
28/4/22	19:55	**57.0**			28/4/22	23:55	52.5			29/4/22	3:55	55.0	
28/4/22	20:00	**58.1**	58.1		28/4/22	0:00	54.9	54.2		29/4/22	4:00	51.4	51.2
28/4/22	20:05	**56.9**			29/4/22	0:05	53.7			29/4/22	4:05	50.1	
28/4/22	20:10	**57.0**			29/4/22	0:10	53.5			29/4/22	4:10	50.2	
28/4/22	20:15	**58.4**			29/4/22	0:15	53.2			29/4/22	4:15	50.5	
28/4/22	20:20	**57.7**			29/4/22	0:20	51.6			29/4/22	4:20	53.0	
28/4/22	20:25	**57.0**			29/4/22	0:25	51.8			29/4/22	4:25	**55.3**	
28/4/22	20:30	**57.1**			29/4/22	0:30	52.8			29/4/22	4:30	50.7	
28/4/22	20:35	**57.8**			29/4/22	0:35	52.7			29/4/22	4:35	51.4	
28/4/22	20:40	**58.1**			29/4/22	0:40	53.6			29/4/22	4:40	50.7	
28/4/22	20:45	**57.2**			29/4/22	0:45	53.8			29/4/22	4:45	**58.0**	
28/4/22	20:50	**57.5**			29/4/22	0:50	**57.3**			29/4/22	4:50	52.9	
28/4/22	20:55	**56.1**			29/4/22	0:55	53.8			29/4/22	4:55	52.0	
28/4/22	21:00	**57.0**	57.4		29/4/22	1:00	52.0	53.6		29/4/22	5:00	53.3	53.1
28/4/22	21:05	**55.9**			29/4/22	1:05	51.5			29/4/22	5:05	52.9	
28/4/22	21:10	**55.8**			29/4/22	1:10	51.5			29/4/22	5:10	50.8	
28/4/22	21:15	**57.5**			29/4/22	1:15	50.8			29/4/22	5:15	52.1	
28/4/22	21:20	**57.1**			29/4/22	1:20	50.5			29/4/22	5:20	54.1	
28/4/22	21:25	**57.8**			29/4/22	1:25	**56.6**			29/4/22	5:25	52.4	
28/4/22	21:30	**55.8**			29/4/22	1:30	51.9			29/4/22	5:30	53.1	
28/4/22	21:35	**56.5**			29/4/22	1:35	49.8			29/4/22	5:35	53.2	
28/4/22	21:40	**57.0**			29/4/22	1:40	51.7			29/4/22	5:40	53.2	
28/4/22	21:45	**56.2**			29/4/22	1:45	50.9			29/4/22	5:45	**55.6**	
28/4/22	21:50	**57.5**			29/4/22	1:50	**59.4**			29/4/22	5:50	**55.7**	
28/4/22	21:55	**56.8**			29/4/22	1:55	51.2			29/4/22	5:55	54.7	
28/4/22	22:00	**55.4**	56.7		29/4/22	2:00	52.0	53.4		29/4/22	6:00	**55.1**	53.8
28/4/22	22:05	**55.5**			29/4/22	2:05	49.9			29/4/22	6:05	**56.1**	
28/4/22	22:10	**55.7**			29/4/22	2:10	52.5			29/4/22	6:10	**56.7**	
28/4/22	22:15	**57.6**			29/4/22	2:15	52.1			29/4/22	6:15	**57.2**	
28/4/22	22:20	**56.0**			29/4/22	2:20	50.7			29/4/22	6:20	**56.9**	
28/4/22	22:25	**56.1**			29/4/22	2:25	50.0			29/4/22	6:25	**58.0**	
28/4/22	22:30	**56.0**			29/4/22	2:30	51.5			29/4/22	6:30	**59.8**	
28/4/22	22:35	**57.3**			29/4/22	2:35	50.0			29/4/22	6:35	**60.5**	
28/4/22	22:40	**56.9**			29/4/22	2:40	49.9			29/4/22	6:40	**59.7**	
28/4/22	22:45	54.7			29/4/22	2:45	50.7			29/4/22	6:45	**59.5**	
28/4/22	22:50	**57.6**			29/4/22	2:50	48.8			29/4/22	6:50	**59.6**	
28/4/22	22:55	**55.6**			29/4/22	2:55	50.3			29/4/22	6:55	**59.5**	
28/4/22	23:00	54.8	56.3		29/4/22	3:00	51.4	50.8		29/4/22	7:00	**59.0**	58.8

CONFIDENTIAL

BASELINE NOISE SURVEY REPORT

NOISE MONITORING ENVIRONMENTAL WORK

REPORT REFERENCE NO: - 22040408/nms/ch2m/N4/ptN4

For

CH2M HILL SINGAPORE PTE LTD

150 Beach Road, Gateway West 34th Floor, Singapore 189720

Project Location:
Jalan Lam Sam Road

Attention:
Ms Catherine Baldedara

Project Title.:
DE170

Monitoring Location:
Forest Area

Date of Monitoring:
18 March 2022 - 25 March 2022

Date of Report:
04 April 2022

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1.0 INTRODUCTION

ENSSCOM PTE LTD was commissioned by:

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

The purpose of this survey was to assess the current acoustical environment to establish the baseline background noise level generated before start of construction activities for
Project Title - DE170

The survey is conducted in accordance to the Construction Noise control Guideline on NEA's permissible noise levels for construction sites and industrial premises.

2.0 NOISE SURVEY CONDITION

Report Reference No: 22040408/nms/ch2m/N4/ptN4

Date of Report: 4-Apr-2022

Survey On: 18-Mar-2022 (0700hrs) to 25-Mar-2022 (0700hrs)

Operating Condition of Site: All operations were under normal conditions during the noise survey. Construction activities have not begun during period of noise monitoring.

Noise survey was conducted using accepted standard procedures and appropriate sound measuring equipment, which is properly calibrated to ensure accuracy.

All noise measurements were made in terms of A-weighted equivalent continuous sound pressure level in LAeq,T over a period of time T. For example, LAeq,5min are the equivalent sound pressure level measured over a 5-minutes time.

Noise survey was conducted for a full continuous twenty-four (24) hours, Seven (7) days, for **One (1) monitoring points/location**. The noise levels emitted were monitored accordingly and recorded.

The survey is conducted by qualified noise monitoring personnel and reference to Appendix C for their certificate.

3.0 INSTRUMENTS

Monitoring instrument was positioned at between 1.8 meters to 3 meters in height from the floor (Ground Level), Mid Level (5 – 6 storey building height) Or High Level (Roof Level). Overall noise distribution was fairly homogenous throughout the duration of noise survey.

Sound Level Meter used complies and conform to the minimum requirements of a Type 1/Class 1 instrument specified in the International Electrotechnical Commission (IEC) publications of 60651 and 60804.

Before and after the noise measurements, the sound level meter is calibrated to verify the accuracy of the instrument.

3.1 Sound Level Meters

CIRRUS RESEARCH plc, Model: CR171C
Class 1 Data Logging Sound Level Meter
Serial Number: **G066516**

3.2 Acoustic Calibrator

CIRRUS RESEARCH plc, Model: CR515
Acoustic Calibrator
Serial Number: **60614**

Acoustic Pressure level:	94.01	dB	(reference 20uPa)
Step +20dB:	113.93	dB	
Nominal Frequency:	992	Hz	

The calibration certificate of the momnitoring instrument can be found in Appendix D

4.0 NOISE SURVEY TERMS

4.1 A Weighting
A standard weighting of the audible frequencies designed to reflect the response of the human ear to noise.

4.2 Acoustic Calibrator
An instrument that provides a reference noise source that is used to calibrate and check the performance of a Sound Level Meter.

4.3 Broadband
Noise Measurements using parameters, which include all the audible noise

4.4 dB(A)
Decibels A Weighted

4.5 Decibel (dB)
The units of sound level and noise exposure measurement

4.6 Fast Time Weighting
A standard time weighting applied by the Sound Level Meter

4.7 IEC 60651:1979
The International Standard for Sound Level Meters

4.8 IEC 60804:1984
The International Standard for Integrating & Integrating-Averaging Sound Level Meters

4.9 IEC 61260:1995
The International Standard for 1:1 Octave & 1:3 Octave Band Filters

4.10 IEC 61672-1:2003
The International Standard for Sound Level Meter and Integrating Averaging Sound Level Meters that replaces both IEC 60651 and IEC 60804

4.11 Integrating Averaging Sound Level Meter
A Sound Level Meter which accumulates the total sound energy over a measurement period and calculates an average

4.12 LAeq,t
Equivalent continuous sound pressure level. A measure of the average sound pressure level during a period of time, t, in dB with 'A' weighting.

4.13 Sound Level
Sound Pressure Level with a Frequency weighting, such as dB(A)

4.14 Sound Level Meter
An instrument for measuring various noise parameters

4.15 Sound Pressure Level, SPL.
The basic measure of noise loudness, expressed in decibels

5.0 SURVEYING LOCATIONS

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours, Seven (7) days noise monitoring at the boundary of proposed construction site. (Refer to Appendix A for instrument layout plan)

Possible noise contribution source and occurrence:

NOISE MONITORING LOCATION	NOISE SOURCE	OCCURRENCE
Point 4: Jalan Lam Sam Road (Forested Area) 	Taffic Noise from KJE	High - Vehicle traffic noise

Note: The above-mentioned noise sources may be limited and there are possible other noise sources not detected during the time of our site survey. For example, possible noise sources can be from occasional aircraft noise, or other activities nearby to the monitoring points.

6.0 NOISE SURVEY RESULTS

The noise survey was carried out in accordance with the Environmental Pollution Control Act (Chapter 94A, Section 77(1)), Environmental Pollution Control (Control of Noise at Construction Sites) Regulations, 1999.

Monday to Saturday

Types of Affected Building	**Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)**		
	7am - 7pm	**7pm - 10pm**	**10pm - 7am**
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	60 (LEQ 12hr)	50 (LEQ 12hr)	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	90 (Leq 5min)	70 (Leq 5min)	55 (Leq 5min)
	75 (LEQ 12hr)	65 (LEQ 1hr)	55 (LEQ 1hr)
(c) Buildings (other than those in Paragraphs (a)and (b) above	**90 (Leq 5min)**	**70 (Leq 5min)**	**70 (Leq 5min)**
	75 (LEQ 12hr)	**65 (LEQ 12hr)**	

Sunday and Public Holidays

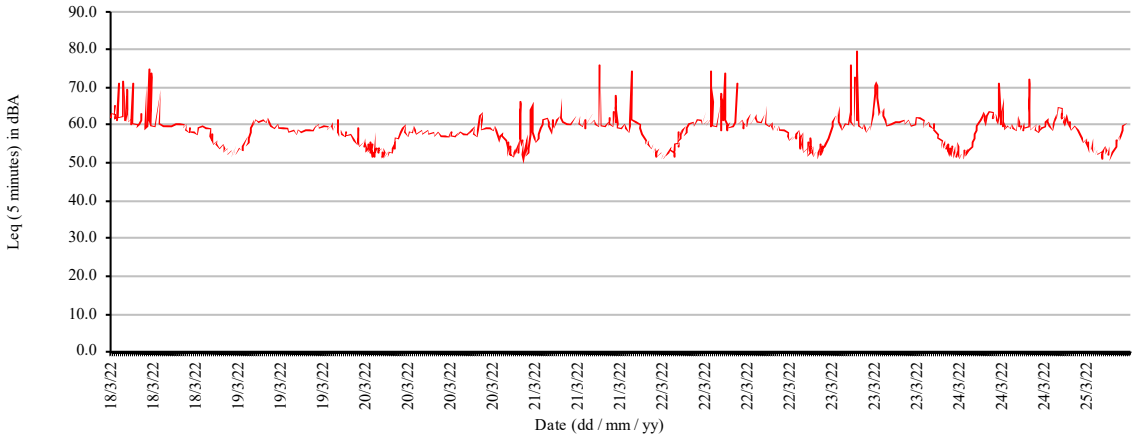
Types of Affected Building	**Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)**		
	7am - 7pm	**7pm - 10pm**	**10pm - 7am**
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	60 (LEQ 12hr)	50 (LEQ 12hr)	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	75 (LEQ 12hr)	-	-
(c) Buildings (other than those in Paragraphs (a)and (b) above	**90 (Leq 5min)**	**70 (Leq 5min)**	**70 (Leq 5min)**
	75 (LEQ 12hr)	**65 (LEQ 12hr)**	

Note:
No Work Rule on Sundays and Public Holidays
In addition to the settings of the permissible noise limits, NEA has also implemented a rule on prohibition of work on Sundays and Public Holidays (PH) for construction sites located within 150m away from residential premises and noise sensitive premises as follows:
Site Established from 1 September 2011. No work is allowed from 10.00pm on Sat/eve of PH to 7.00am on the following Mon/day after the PH. (For details, please refer to Appendix B)

Survey Results for monitoring point 1 from period : 18-Mar-2022 to 25-Mar-2022

Location : Forest Area

Leq (5 Minutes) Plotted Against Date of Monitoring



Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 5 min in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 5min db (A)
No. NM-4		From		To			
Forest Area	Fri	18/3/22	0700	18/3/22	1900	**74.9**	90
	Fri	18/3/22	1900	18/3/22	2200	**60.2**	70
	Fri/Sat	18/3/22	2200	19/3/22	0700	**61.8**	70
	Sat	19/3/22	0700	19/3/22	1900	**61.8**	90
	Sat	19/3/22	1900	19/3/22	2200	**61.5**	70
	Sat/Sun	19/3/22	2200	20/3/22	0700	**59.4**	70
	Sun	20/3/22	0700	20/3/22	1900	**60.5**	90
	Sun	20/3/22	1900	20/3/22	2200	**63.3**	70
	Sun/Mon	20/3/22	2200	21/3/22	0700	**66.2**	70
	Mon	21/3/22	0700	21/3/22	1900	**75.6**	90
	Mon	21/3/22	1900	21/3/22	2200	**74.4**	70
	Mon/Tue	21/3/22	2200	22/3/22	0700	**61.3**	70
	Tue	22/3/22	0700	22/3/22	1900	**74.3**	90
	Tue	22/3/22	1900	22/3/22	2200	**65.2**	70
	Tue/Wed	22/3/22	2200	23/3/22	0700	**62.2**	70
	Wed	23/3/22	0700	23/3/22	1900	**79.5**	90
	Wed	23/3/22	1900	23/3/22	2200	**62.4**	70
	Wed/Thu	23/3/22	2200	24/3/22	0700	**62.9**	70
	Thu	24/3/22	0700	24/3/22	1900	**71.9**	90
	Thu	24/3/22	1900	24/3/22	2200	**65.3**	70
	Thu/Fri	24/3/22	2200	25/3/22	0700	**61.3**	70

Table 6.1 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 5 min

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 1 hr in Leq db(A) for the specific period	Maximum Noise Level permitted for construction sites Leq 1 hr db (A)
No. NM-4		From		To			
Forest Area	Fri	18/3/22	1900	18/3/22	2200	**59.1**	-
	Fri	18/3/22	2200	19/3/22	0700	**60.3**	-
	Sat	19/3/22	1900	19/3/22	2200	**59.4**	-
	Sat	19/3/22	2200	20/3/22	0700	**57.2**	-
	Sun	20/3/22	1900	20/3/22	2200	**60.0**	-
	Sun	20/3/22	2200	21/3/22	0700	**61.0**	-
	Mon	21/3/22	1900	21/3/22	2200	**64.9**	-
	Mon	21/3/22	2200	22/3/22	0700	**60.1**	-
	Tue	22/3/22	1900	22/3/22	2200	**61.1**	-
	Tue	22/3/22	2200	23/3/22	0700	**60.9**	-
	Wed	23/3/22	1900	23/3/22	2200	**61.9**	-
	Wed	23/3/22	2200	24/3/22	0700	**61.3**	-
	Thu	24/3/22	1900	24/3/22	2200	**63.9**	-
	Thu	24/3/22	2200	25/3/22	0700	**60.5**	-

Table 6.2 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 1 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 12 hr in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 12 hr db (A)
No. NM-4		From		To			
Forest Area	Fri	18/3/22	0700	18/3/22	1900	**63.2**	75
	Fri	18/3/22	1900	19/3/22	0700	**57.2**	65
	Sat	19/3/22	0700	19/3/22	1900	**59.5**	75
	Sat	19/3/22	1900	20/3/22	0700	**56.3**	65
	Sun	20/3/22	0700	20/3/22	1900	**57.9**	75
	Sun	20/3/22	1900	21/3/22	0700	**58.3**	65
	Mon	21/3/22	0700	21/3/22	1900	**61.6**	75
	Mon	21/3/22	1900	22/3/22	0700	**58.9**	65
	Tue	22/3/22	0700	22/3/22	1900	**62.6**	75
	Tue	22/3/22	1900	23/3/22	0700	**57.7**	65
	Wed	23/3/22	0700	23/3/22	1900	**64.7**	75
	Wed	23/3/22	1900	23/3/22	0700	**58.3**	65
	Thu	23/3/22	0700	24/3/22	1900	**61.3**	75
	Thu	24/3/22	1900	25/3/22	0700	**58.6**	65

Table 6.3 Summary of Noise Monitoring Results at LEQ 12 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over specific period in Leq db(A)	Maximum Noise Level permitted for construction sites in db (A)
No. NM-4		From		To			
Forest Area	Fri	18/3/22	700	18/3/22	1900	**63.2**	90(Leq5min) 75 (Leq12hrs)
	Fri	18/3/22	1900	18/3/22	2200	**58.9**	70 (Leq5min)
	Fri	18/3/22	2200	19/3/22	0000	**58.7**	70 (Leq5min)
	Sat	19/3/22	0000	19/3/22	700	**55.7**	70 (Leq5min)
	Sat	19/3/22	700	19/3/22	1900	**59.5**	90(Leq5min) 75 (Leq12hrs)
	Sat	19/3/22	1900	19/3/22	2200	**58.7**	70 (Leq5min)
	Sat	19/3/22	2200	20/3/22	0000	**56.9**	70 (Leq5min)
	Sun	20/3/22	0000	20/3/22	700	**54.3**	70 (Leq5min)
	Sun	20/3/22	700	20/3/22	1900	**57.9**	90(Leq5min) 75 (Leq12hrs)
	Sun	20/3/22	1900	20/3/22	2200	**59.1**	70 (Leq5min)
	Sun	20/3/22	2200	21/3/22	0000	**58.1**	70 (Leq5min)
	Mon	21/3/22	0000	21/3/22	700	**58.0**	70 (Leq5min)
	Mon	21/3/22	700	21/3/22	1900	**61.6**	90(Leq5min) 75 (Leq12hrs)
	Mon	21/3/22	1900	21/3/22	2200	**62.4**	70 (Leq5min)
	Mon	21/3/22	2200	22/3/22	0000	**57.7**	70 (Leq5min)
	Tue	22/3/22	0000	22/3/22	700	**56.0**	70 (Leq5min)
	Tue	22/3/22	700	22/3/22	1900	**62.6**	90(Leq5min) 75 (Leq12hrs)
	Tue	22/3/22	1900	22/3/22	2200	**59.9**	70 (Leq5min)
	Tue	22/3/22	2200	23/3/22	0000	**57.2**	70 (Leq5min)
	Wed	23/3/22	0000	23/3/22	700	**56.5**	70 (Leq5min)
	Wed	23/3/22	700	23/3/22	1900	**64.7**	90(Leq5min) 75 (Leq12hrs)
	Wed	23/3/22	1900	23/3/22	2200	**60.9**	70 (Leq5min)
	Wed	23/3/22	2200	24/3/22	0000	**58.7**	70 (Leq5min)
	Thu	24/3/22	0000	24/3/22	700	**56.2**	70 (Leq5min)
	Thu	24/3/22	700	24/3/22	1900	**61.3**	90(Leq5min) 75 (Leq12hrs)
	Thu	24/3/22	1900	24/3/22	2200	**62.0**	70 (Leq5min)
	Thu	24/3/22	2200	24/3/22	0000	**58.1**	70 (Leq5min)
	Fri	25/3/22	0000	25/3/22	0700	**55.8**	70 (Leq5min)

Table 6.4 Summary of Noise Monitoring Results at Continuous Equivalent of LEQ for specific period

7.0 SUMMARY

The purpose of this survey was to assess the current acoustical environment to establish the background noise level generated over One (1) monitoring point/location for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title

DE170

The location of the nearest Noise Receiver (NSR) : **Forest Area**

The findings show that,

The ambience noise at NSR point 4 In Forested Area along Jalan Lam Sam Road facing the project site, falls within the Permissible limits stated in the NEA Guideline on construction noise control for the time period between 7am to 7pm (Leq5min) (Monday to Saturday and Sunday) most of the time.

The Leq 5min occasionally exceeds the NEA noise limit (70dBa) for the periods 1900hrs to 2200hrs on weekdays.

* Refer to Appendix E for full noise data report.

We recommend submitting an appeal to NEA to adjust the Noise Limit as in table 6.5 for NSR Point 4 in Forested Area along Jalan Lam Sam Road

Background Noise Correction Factor

The adjusted value for the maximum noise level shall be obtained by adding the correction factor corresponding to the difference between the maximum permitted level and the background noise level, set out in the Table below, to the higher of the 2 noise levels.

Difference between 2 noise levels in decibels (A)	Correction factor in decibels (A)
a) Below 2	3
b) 2 to less than 4	2
c) 4 to less than 10	1
d) 10 and above	NIL

Proposed New Permissible Noise Level for monitoring point: **Forest Area**

Period	Noise Limit	*Equivalent continous sound level over period in Leq dB(A) - Background Noise	Difference	Correction Factor	Proposed Adjusted New Permissible Level (dBA)
7am to 7pm (Monday to Saturday)	90 (Leq5min)	63.2	26.8	0	90 (Leq5min)
	75 (Leq 12hr)	63.2	11.8	0	75 (Leq 12hr)
7pm to 10pm (Monday to Saturday)	70 (Leq 5min)	62.4	7.6	1	71 (Leq 5min)
10pm to 12am (Monday to Saturday)	70 (Leq 5min)	58.7	11.3	0	70 (Leq 5min)
12am to 7am (Monday to Saturday)	70 (Leq 5min)	58.0	12.0	0	70 (Leq 5min)
7pm to 7am (Monday to Saturday)	65 (Leq 12hrs)	58.9	6.1	1	66 (Leq 12hr)
7am to 7pm (Sunday)	90 (Leq5min)	57.9	32.1	0	90 (Leq5min)
	75 (Leq 12hr)	57.9	17.1	0	75 (Leq 12hr)
7pm to 10pm (Sunday)	70 (Leq 5min)	59.1	10.9	0	70 (Leq 5min)
10pm to 12am (Sunday)	70 (Leq 5min)	58.1	11.9	0	70 (Leq 5min)
12am to 7am (Sunday)	70 (Leq 5min)	54.3	15.7	0	70 (Leq 5min)
7pm to 7am (Sunday)	65 (Leq 12hrs)	58.3	6.7	1	66 (Leq 12hr)

* The highest equivalent continuous sound level in Leq dB(A) between Monday to Saturday is taken for calculating the adjusted new permissible level for each period.

Table 6.5 Proposed New Permissible Noise Level

8.0 CONFIRMATION

We, ENSSCOM PTE LTD, certify that the information given is correct. The noise survey was conducted for

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title
DE170

was carried out as described in this report and the results resented herein.

Date of Monitoring:

From 18/3/22 (0700hrs) to 25/3/22 (0700hrs)

Hoo Hian Choon (Mr)
Noise Monitoring Consultant
4-Apr-2022

APPENDIX A : INSTRUMENT LAYOUT PLAN

NOISE METER

APPENDIX B: NEA CONSTRUCTION NOISE CONTROL GUIDELINE

Construction Noise Control

Maximum Permissible Noise Levels for Construction Work Commenced on or after 1st October 2007

Noise Regulation

Mondays to Saturdays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	65 dBA (Leq 1 hr)	55 dBA (Leq 1 hr)
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

Sundays and Public Holidays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	-	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

APPENDIX C: NOISE MONITORING OFFICER CERTIFICATES

S/No: 02/20/159

Acoustical Laboratory Pte Ltd

CENTRE FOR ENVIRONMENTAL CONSULTATION AND TRAINING

Certificate of Competence

This is to certify that

Hoo Hian Choon

has attended and passed an examination for a course on

Noise Monitoring

held between 22nd May 2002 and 24th May 2002

Acoustical Laboratory is approved by the Ministry of Labour as a Training Centre for the Noise Monitoring Course

Tan Kok Yang
Course Co-ordinator

Koh L. B.
Managing Director

NANYANG
TECHNOLOGICAL
UNIVERSITY

This is to certify that

Hoo Hian Choon

has successfully completed the 2½-day course

Industrial Noise Control

Seah Ben Hun
Director
Centre for Continuing Education

27 August 2010

APPENDIX D: INSTRUMENT CALIBRATION CERTIFICATES

Cirrus Research plc
dedicated to noise measurement

ENSSCOM
Improving Your Workplace Safety & Health

Certificate of Calibration

Equipment Details

Instrument Manufacturer	Cirrus Research plc
Instrument Type	CR: 171C
Description	Sound Level Meter
Serial Number	G066516

Calibration Procedure

The instrument detailed above have been calibrated to the publish test and calibration data as detailed in the instrument hand book, using the techniques recommended in the latest revisions of the International Standards IEC 61672-1:2013, IEC 61672-1:2002, IEC 60651:1979, IEC 60804: 2001, IEC 61260:1995, IEC 60942:2003, IEC 60942:1997, IEC 61252:1993, ANSI S1.4-1983, ANSI S1.11-1986 and ANSI S1.43-1997 where applicable.
Sound Level Meters: All Calibration procedures were carried out by substituting the microphone capsule with a suitable electrical signal, apart from the final acoustic calibration.

Calibration Traceability

The instrument detailed above was calibrated against the calibration laboratory standards held by Cirrus Research plc. These are traceable to International Standards {A.0.6}. The standards are:

Multi Acoustic Calibrator	B & K 4226	Serial Number	3041345	Calibration Ref.	551220084820779
Microphone Type	MK 224	Serial Number	214953B	Calibration Ref.	162361

Calibrated by	
Calibration Date	4 March 2022
Calibration Certificate Number	228062

This Calibration Certificate is valid for 12 months from the date above.

Contact Your Local Authorised Distributor for Product Enquiries & Calibration Services

ENSSCOM PTE LTD
1015, Geylang East Ave 3
#04-105 Singapore 389730
Company Reg. No. 200720176H
GST Reg. No. 200720176H
T +65 6743 9882
F +65 6743 9887
W www.ensscom.com
E enquiry@ensscom.com

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **07 September 2021** CERTIFICATE NUMBER **162363**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Approved signatory
N.Smith
Electronically signed:

Sound Calibrator : IEC 60942:2003

Instrument information

Manufacturer: Cirrus Research plc **Notes:**

Model: CR:515

Serial number: 60614

Class: 1

Test summary

Date of calibration: 07 September 2021

The sound calibrator detailed above has been calibrated to the published data as described in the operating manual and in the half-inch configuration. The procedures and techniques used are as described in IEC60942_2003 Annex B – Periodic Tests and three determinations of the sound pressure level, frequency and total distortion were made.

The sound pressure level was measured using a WS2F condenser microphone type MK:224 manufactured by Cirrus Research plc.

The results have been corrected to the reference pressure of 101.33 kPa using the manufacturer's data.

The manufacturer's product information indicates that this model of sound calibrator has been formally pattern approved to IEC60942_2003 Annex A to Class 1. This has been confirmed with the PhysikalischTechnische Bundesanstalt (PTB), Laboratoire National d'Essais (LNE) and APPLUS.

Notes:

This certificate provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. The results within this certificate relate only to the items calibrated. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%.

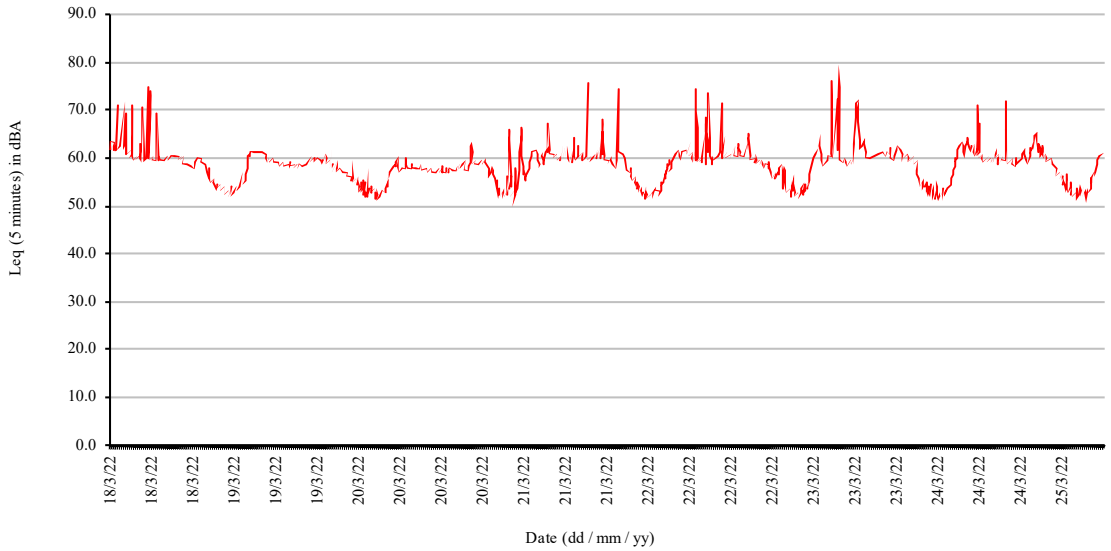
APPENDIX E

CONSTRUCTION SITE NOISE MONITORING DATA AND CHART

NAME OF COMPANY	CH2M HILL Singapore Pte Ltd
SITE LOCATION	Jalan Lam Sam Road
REPORT REFERENCE	18/03/2022 - 25/03/2022

MODE	Environment		FREQUENCY WEIGHTING	A

Leq (5 Minutes) Plotted Against Date of Monitoring



NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			18/03/2022 - 25/03/2022									
Start	18/3/22		7:05		**Leq12h**	63.2			Weighting		A	
End	18/3/22		19:00									
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**
18/3/22	7:05	61.7			18/3/22	11:05	59.9			18/3/22	15:05	60.5
18/3/22	7:10	63.2			18/3/22	11:10	59.8			18/3/22	15:10	59.6
18/3/22	7:15	63.2			18/3/22	11:15	59.6			18/3/22	15:15	59.8
18/3/22	7:20	63.2			18/3/22	11:20	60.3			18/3/22	15:20	60.2
18/3/22	7:25	63.0			18/3/22	11:25	59.8			18/3/22	15:25	59.8
18/3/22	7:30	63.2			18/3/22	11:30	59.7			18/3/22	15:30	59.6
18/3/22	7:35	63.2			18/3/22	11:35	59.3			18/3/22	15:35	60.1
18/3/22	7:40	62.7			18/3/22	11:40	59.8			18/3/22	15:40	59.7
18/3/22	7:45	61.6			18/3/22	11:45	60.5			18/3/22	15:45	59.8
18/3/22	7:50	64.9			18/3/22	11:50	60.2			18/3/22	15:50	59.5
18/3/22	7:55	61.3			18/3/22	11:55	60.2			18/3/22	15:55	59.5
18/3/22	8:00	61.6			18/3/22	12:00	59.6			18/3/22	16:00	59.5
18/3/22	8:05	62.6			18/3/22	12:05	61.4			18/3/22	16:05	59.6
18/3/22	8:10	61.8			18/3/22	12:10	63.1			18/3/22	16:10	59.4
18/3/22	8:15	61.3			18/3/22	12:15	59.9			18/3/22	16:15	59.5
18/3/22	8:20	70.8			18/3/22	12:20	59.5			18/3/22	16:20	59.8
18/3/22	8:25	61.7			18/3/22	12:25	59.1			18/3/22	16:25	59.6
18/3/22	8:30	61.9			18/3/22	12:30	59.0			18/3/22	16:30	60.1
18/3/22	8:35	62.5			18/3/22	12:35	59.4			18/3/22	16:35	60.5
18/3/22	8:40	62.2			18/3/22	12:40	70.7			18/3/22	16:40	60.4
18/3/22	8:45	62.4			18/3/22	12:45	59.9			18/3/22	16:45	60.0
18/3/22	8:50	62.6			18/3/22	12:50	59.3			18/3/22	16:50	59.8
18/3/22	8:55	62.2			18/3/22	12:55	58.8			18/3/22	16:55	59.6
18/3/22	9:00	62.2			18/3/22	13:00	58.9			18/3/22	17:00	59.7
18/3/22	9:05	62.2			18/3/22	13:05	59.1			18/3/22	17:05	60.0
18/3/22	9:10	62.3			18/3/22	13:10	59.5			18/3/22	17:10	59.7
18/3/22	9:15	71.7			18/3/22	13:15	59.9			18/3/22	17:15	60.5
18/3/22	9:20	62.5			18/3/22	13:20	59.6			18/3/22	17:20	60.3
18/3/22	9:25	61.7			18/3/22	13:25	74.9			18/3/22	17:25	60.5
18/3/22	9:30	61.3			18/3/22	13:30	63.1			18/3/22	17:30	60.2
18/3/22	9:35	64.4			18/3/22	13:35	61.2			18/3/22	17:35	60.2
18/3/22	9:40	60.9			18/3/22	13:40	59.8			18/3/22	17:40	60.5
18/3/22	9:45	64.1			18/3/22	13:45	73.9			18/3/22	17:45	60.4
18/3/22	9:50	69.4			18/3/22	13:50	69.2			18/3/22	17:50	60.4
18/3/22	9:55	66.9			18/3/22	13:55	59.6			18/3/22	17:55	60.8
18/3/22	10:00	60.8			18/3/22	14:00	59.7			18/3/22	18:00	60.8
18/3/22	10:05	60.6			18/3/22	14:05	60.2			18/3/22	18:05	60.3
18/3/22	10:10	60.8			18/3/22	14:10	59.4			18/3/22	18:10	60.3
18/3/22	10:15	60.4			18/3/22	14:15	59.0			18/3/22	18:15	60.9
18/3/22	10:20	61.2			18/3/22	14:20	59.8			18/3/22	18:20	60.1
18/3/22	10:25	61.6			18/3/22	14:25	59.5			18/3/22	18:25	60.6
18/3/22	10:30	61.2			18/3/22	14:30	59.7			18/3/22	18:30	60.3
18/3/22	10:35	60.1			18/3/22	14:35	59.7			18/3/22	18:35	60.0
18/3/22	10:40	60.8			18/3/22	14:40	60.0			18/3/22	18:40	60.0
18/3/22	10:45	70.9			18/3/22	14:45	59.6			18/3/22	18:45	59.7
18/3/22	10:50	60.3			18/3/22	14:50	59.9			18/3/22	18:50	59.8
18/3/22	10:55	60.9			18/3/22	14:55	59.4			18/3/22	18:55	59.6
18/3/22	11:00	60.2			18/3/22	15:00	69.3			18/3/22	19:00	60.2

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			18/03/2022 - 25/03/2022									
Start	18/3/22		19:05		**Leq12h**	57.2			Weighting		A	
End	19/3/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
18/3/22	19:05	59.5			18/3/22	23:05	59.1			19/3/22	3:05	51.8	
18/3/22	19:10	59.2			18/3/22	23:10	58.7			19/3/22	3:10	53.1	
18/3/22	19:15	59.7			18/3/22	23:15	58.7			19/3/22	3:15	52.9	
18/3/22	19:20	60.2			18/3/22	23:20	59.2			19/3/22	3:20	53.6	
18/3/22	19:25	58.9			18/3/22	23:25	59.0			19/3/22	3:25	53.3	
18/3/22	19:30	59.1			18/3/22	23:30	57.0			19/3/22	3:30	53.1	
18/3/22	19:35	59.2			18/3/22	23:35	56.7			19/3/22	3:35	52.4	
18/3/22	19:40	58.7			18/3/22	23:40	56.6			19/3/22	3:40	54.2	
18/3/22	19:45	58.5			18/3/22	23:45	55.9			19/3/22	3:45	52.0	
18/3/22	19:50	58.9			18/3/22	23:50	57.7			19/3/22	3:50	51.6	
18/3/22	19:55	58.6			18/3/22	23:55	55.9			19/3/22	3:55	52.4	
18/3/22	20:00	58.3	59.1		18/3/22	0:00	55.5	57.7		19/3/22	4:00	52.5	52.8
18/3/22	20:05	59.0			19/3/22	0:05	55.3			19/3/22	4:05	52.8	
18/3/22	20:10	58.5			19/3/22	0:10	55.3			19/3/22	4:10	52.2	
18/3/22	20:15	58.2			19/3/22	0:15	54.8			19/3/22	4:15	52.3	
18/3/22	20:20	58.8			19/3/22	0:20	55.7			19/3/22	4:20	53.9	
18/3/22	20:25	58.5			19/3/22	0:25	54.7			19/3/22	4:25	53.5	
18/3/22	20:30	58.2			19/3/22	0:30	55.3			19/3/22	4:30	54.0	
18/3/22	20:35	58.1			19/3/22	0:35	54.5			19/3/22	4:35	53.8	
18/3/22	20:40	58.3			19/3/22	0:40	54.9			19/3/22	4:40	54.4	
18/3/22	20:45	58.2			19/3/22	0:45	55.4			19/3/22	4:45	53.3	
18/3/22	20:50	58.2			19/3/22	0:50	54.6			19/3/22	4:50	53.1	
18/3/22	20:55	58.3			19/3/22	0:55	54.7			19/3/22	4:55	53.7	
18/3/22	21:00	58.1	58.4		19/3/22	1:00	53.9	55.0		19/3/22	5:00	54.1	53.5
18/3/22	21:05	58.0			19/3/22	1:05	53.2			19/3/22	5:05	54.4	
18/3/22	21:10	58.0			19/3/22	1:10	54.3			19/3/22	5:10	54.3	
18/3/22	21:15	57.7			19/3/22	1:15	54.2			19/3/22	5:15	53.6	
18/3/22	21:20	57.5			19/3/22	1:20	53.4			19/3/22	5:20	53.6	
18/3/22	21:25	59.2			19/3/22	1:25	54.5			19/3/22	5:25	56.8	
18/3/22	21:30	59.4			19/3/22	1:30	54.9			19/3/22	5:30	54.4	
18/3/22	21:35	59.6			19/3/22	1:35	55.0			19/3/22	5:35	54.7	
18/3/22	21:40	59.7			19/3/22	1:40	53.9			19/3/22	5:40	55.0	
18/3/22	21:45	59.7			19/3/22	1:45	53.0			19/3/22	5:45	54.8	
18/3/22	21:50	59.5			19/3/22	1:50	52.9			19/3/22	5:50	54.8	
18/3/22	21:55	59.9			19/3/22	1:55	52.8			19/3/22	5:55	55.5	
18/3/22	22:00	59.7	59.1		19/3/22	2:00	53.4	53.9		19/3/22	6:00	56.7	55.0
18/3/22	22:05	59.6			19/3/22	2:05	53.4			19/3/22	6:05	56.7	
18/3/22	22:10	60.2			19/3/22	2:10	53.5			19/3/22	6:10	57.9	
18/3/22	22:15	60.0			19/3/22	2:15	53.6			19/3/22	6:15	59.1	
18/3/22	22:20	59.8			19/3/22	2:20	54.1			19/3/22	6:20	59.6	
18/3/22	22:25	59.9			19/3/22	2:25	52.4			19/3/22	6:25	60.2	
18/3/22	22:30	59.8			19/3/22	2:30	52.8			19/3/22	6:30	60.7	
18/3/22	22:35	59.3			19/3/22	2:35	52.3			19/3/22	6:35	61.3	
18/3/22	22:40	59.3			19/3/22	2:40	52.1			19/3/22	6:40	61.2	
18/3/22	22:45	58.6			19/3/22	2:45	53.2			19/3/22	6:45	60.4	
18/3/22	22:50	59.3			19/3/22	2:50	53.5			19/3/22	6:50	61.2	
18/3/22	22:55	59.2			19/3/22	2:55	53.1			19/3/22	6:55	61.4	
18/3/22	23:00	58.8	59.5		19/3/22	3:00	52.7	53.1		19/3/22	7:00	61.8	60.3

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			18/03/2022 - 25/03/2022								
Start	19/3/22		7:05		**Leq12h**	59.5			Weighting		A
End	19/3/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
19/3/22	7:05	61.1			19/3/22	11:05	59.3		19/3/22	15:05	58.7
19/3/22	7:10	60.6			19/3/22	11:10	59.4		19/3/22	15:10	58.4
19/3/22	7:15	61.3			19/3/22	11:15	59.1		19/3/22	15:15	58.4
19/3/22	7:20	61.3			19/3/22	11:20	59.0		19/3/22	15:20	58.5
19/3/22	7:25	61.0			19/3/22	11:25	59.3		19/3/22	15:25	58.3
19/3/22	7:30	61.3			19/3/22	11:30	58.5		19/3/22	15:30	58.3
19/3/22	7:35	61.2			19/3/22	11:35	59.2		19/3/22	15:35	58.8
19/3/22	7:40	61.1			19/3/22	11:40	59.3		19/3/22	15:40	58.5
19/3/22	7:45	61.0			19/3/22	11:45	59.2		19/3/22	15:45	58.4
19/3/22	7:50	61.2			19/3/22	11:50	59.3		19/3/22	15:50	58.3
19/3/22	7:55	61.2			19/3/22	11:55	58.4		19/3/22	15:55	58.3
19/3/22	8:00	61.3			19/3/22	12:00	58.8		19/3/22	16:00	58.1
19/3/22	8:05	61.3			19/3/22	12:05	59.1		19/3/22	16:05	58.2
19/3/22	8:10	60.6			19/3/22	12:10	58.6		19/3/22	16:10	58.7
19/3/22	8:15	60.8			19/3/22	12:15	59.0		19/3/22	16:15	58.6
19/3/22	8:20	60.9			19/3/22	12:20	58.5		19/3/22	16:20	59.0
19/3/22	8:25	61.5			19/3/22	12:25	58.8		19/3/22	16:25	58.8
19/3/22	8:30	60.8			19/3/22	12:30	58.5		19/3/22	16:30	59.1
19/3/22	8:35	61.1			19/3/22	12:35	58.3		19/3/22	16:35	59.1
19/3/22	8:40	60.6			19/3/22	12:40	58.3		19/3/22	16:40	59.2
19/3/22	8:45	61.0			19/3/22	12:45	58.8		19/3/22	16:45	59.3
19/3/22	8:50	60.9			19/3/22	12:50	58.2		19/3/22	16:50	60.2
19/3/22	8:55	61.2			19/3/22	12:55	58.3		19/3/22	16:55	59.0
19/3/22	9:00	61.8			19/3/22	13:00	58.2		19/3/22	17:00	59.1
19/3/22	9:05	61.4			19/3/22	13:05	58.5		19/3/22	17:05	59.5
19/3/22	9:10	60.9			19/3/22	13:10	58.5		19/3/22	17:10	59.3
19/3/22	9:15	60.8			19/3/22	13:15	58.5		19/3/22	17:15	59.5
19/3/22	9:20	60.6			19/3/22	13:20	58.8		19/3/22	17:20	60.1
19/3/22	9:25	59.8			19/3/22	13:25	57.9		19/3/22	17:25	59.5
19/3/22	9:30	60.0			19/3/22	13:30	58.4		19/3/22	17:30	59.2
19/3/22	9:35	60.4			19/3/22	13:35	59.3		19/3/22	17:35	59.9
19/3/22	9:40	60.0			19/3/22	13:40	58.1		19/3/22	17:40	59.2
19/3/22	9:45	59.8			19/3/22	13:45	57.8		19/3/22	17:45	59.5
19/3/22	9:50	59.2			19/3/22	13:50	58.0		19/3/22	17:50	59.9
19/3/22	9:55	59.9			19/3/22	13:55	58.4		19/3/22	17:55	59.5
19/3/22	10:00	59.9			19/3/22	14:00	58.3		19/3/22	18:00	59.6
19/3/22	10:05	59.0			19/3/22	14:05	58.9		19/3/22	18:05	59.5
19/3/22	10:10	59.0			19/3/22	14:10	59.1		19/3/22	18:10	60.1
19/3/22	10:15	59.5			19/3/22	14:15	58.1		19/3/22	18:15	59.5
19/3/22	10:20	59.8			19/3/22	14:20	57.9		19/3/22	18:20	59.5
19/3/22	10:25	59.4			19/3/22	14:25	58.3		19/3/22	18:25	60.2
19/3/22	10:30	59.9			19/3/22	14:30	58.8		19/3/22	18:30	59.8
19/3/22	10:35	59.5			19/3/22	14:35	58.9		19/3/22	18:35	59.5
19/3/22	10:40	60.1			19/3/22	14:40	58.5		19/3/22	18:40	59.6
19/3/22	10:45	59.8			19/3/22	14:45	58.8		19/3/22	18:45	59.8
19/3/22	10:50	60.0			19/3/22	14:50	58.1		19/3/22	18:50	59.5
19/3/22	10:55	59.0			19/3/22	14:55	57.8		19/3/22	18:55	59.0
19/3/22	11:00	59.4			19/3/22	15:00	58.9		19/3/22	19:00	58.5

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			18/03/2022 - 25/03/2022									
Start	19/3/22		19:05		**Leq12h**	56.3			Weighting		A	
End	20/3/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
19/3/22	19:05	59.5			19/3/22	23:05	56.2			20/3/22	3:05	54.1	
19/3/22	19:10	58.7			19/3/22	23:10	56.5			20/3/22	3:10	52.8	
19/3/22	19:15	58.8			19/3/22	23:15	56.4			20/3/22	3:15	52.2	
19/3/22	19:20	59.0			19/3/22	23:20	56.5			20/3/22	3:20	53.9	
19/3/22	19:25	58.6			19/3/22	23:25	56.3			20/3/22	3:25	52.8	
19/3/22	19:30	60.6			19/3/22	23:30	56.5			20/3/22	3:30	52.3	
19/3/22	19:35	60.3			19/3/22	23:35	55.6			20/3/22	3:35	52.7	
19/3/22	19:40	59.8			19/3/22	23:40	56.2			20/3/22	3:40	53.2	
19/3/22	19:45	59.7			19/3/22	23:45	55.1			20/3/22	3:45	53.6	
19/3/22	19:50	58.5			19/3/22	23:50	55.6			20/3/22	3:50	51.3	
19/3/22	19:55	59.1			19/3/22	23:55	59.4			20/3/22	3:55	52.8	
19/3/22	20:00	59.5	59.4		19/3/22	0:00	55.6	56.5		20/3/22	4:00	51.4	52.8
19/3/22	20:05	59.8			20/3/22	0:05	54.9			20/3/22	4:05	53.6	
19/3/22	20:10	59.0			20/3/22	0:10	54.5			20/3/22	4:10	53.5	
19/3/22	20:15	59.1			20/3/22	0:15	55.1			20/3/22	4:15	52.5	
19/3/22	20:20	59.4			20/3/22	0:20	54.6			20/3/22	4:20	52.9	
19/3/22	20:25	57.9			20/3/22	0:25	54.8			20/3/22	4:25	50.9	
19/3/22	20:30	61.5			20/3/22	0:30	55.4			20/3/22	4:30	51.3	
19/3/22	20:35	58.0			20/3/22	0:35	55.9			20/3/22	4:35	51.9	
19/3/22	20:40	57.6			20/3/22	0:40	54.3			20/3/22	4:40	51.8	
19/3/22	20:45	58.5			20/3/22	0:45	56.3			20/3/22	4:45	52.5	
19/3/22	20:50	57.2			20/3/22	0:50	54.5			20/3/22	4:50	51.4	
19/3/22	20:55	58.7			20/3/22	0:55	54.8			20/3/22	4:55	53.0	
19/3/22	21:00	58.2	58.9		20/3/22	1:00	55.3	55.1		20/3/22	5:00	52.9	52.4
19/3/22	21:05	58.0			20/3/22	1:05	54.7			20/3/22	5:05	52.6	
19/3/22	21:10	58.1			20/3/22	1:10	53.9			20/3/22	5:10	52.9	
19/3/22	21:15	59.4			20/3/22	1:15	53.6			20/3/22	5:15	52.9	
19/3/22	21:20	57.7			20/3/22	1:20	52.8			20/3/22	5:20	53.1	
19/3/22	21:25	57.7			20/3/22	1:25	53.6			20/3/22	5:25	53.5	
19/3/22	21:30	57.6			20/3/22	1:30	54.9			20/3/22	5:30	52.7	
19/3/22	21:35	57.2			20/3/22	1:35	52.8			20/3/22	5:35	53.2	
19/3/22	21:40	57.3			20/3/22	1:40	52.8			20/3/22	5:40	53.5	
19/3/22	21:45	57.1			20/3/22	1:45	53.8			20/3/22	5:45	54.0	
19/3/22	21:50	56.9			20/3/22	1:50	55.2			20/3/22	5:50	55.9	
19/3/22	21:55	57.9			20/3/22	1:55	52.5			20/3/22	5:55	54.0	
19/3/22	22:00	57.3	57.7		20/3/22	2:00	53.8	53.8		20/3/22	6:00	54.3	53.6
19/3/22	22:05	57.7			20/3/22	2:05	52.9			20/3/22	6:05	56.5	
19/3/22	22:10	57.6			20/3/22	2:10	51.9			20/3/22	6:10	55.7	
19/3/22	22:15	57.3			20/3/22	2:15	54.7			20/3/22	6:15	56.2	
19/3/22	22:20	57.2			20/3/22	2:20	53.7			20/3/22	6:20	56.0	
19/3/22	22:25	57.4			20/3/22	2:25	58.0			20/3/22	6:25	57.2	
19/3/22	22:30	57.0			20/3/22	2:30	51.8			20/3/22	6:30	56.7	
19/3/22	22:35	57.5			20/3/22	2:35	52.8			20/3/22	6:35	56.5	
19/3/22	22:40	57.0			20/3/22	2:40	53.6			20/3/22	6:40	56.6	
19/3/22	22:45	57.0			20/3/22	2:45	52.5			20/3/22	6:45	57.1	
19/3/22	22:50	56.8			20/3/22	2:50	53.6			20/3/22	6:50	56.7	
19/3/22	22:55	57.1			20/3/22	2:55	52.0			20/3/22	6:55	58.2	
19/3/22	23:00	57.0	57.2		20/3/22	3:00	52.5	53.7		20/3/22	7:00	57.8	56.8

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			18/03/2022 - 25/03/2022								
Start	20/3/22		7:05		**Leq12h**	57.9			Weighting		A
End	20/3/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
20/3/22	7:05	57.7			20/3/22	11:05	58.0		20/3/22	15:05	58.2
20/3/22	7:10	58.0			20/3/22	11:10	58.4		20/3/22	15:10	56.8
20/3/22	7:15	57.7			20/3/22	11:15	58.1		20/3/22	15:15	58.3
20/3/22	7:20	59.1			20/3/22	11:20	58.0		20/3/22	15:20	57.2
20/3/22	7:25	58.4			20/3/22	11:25	58.2		20/3/22	15:25	57.0
20/3/22	7:30	59.1			20/3/22	11:30	57.9		20/3/22	15:30	57.5
20/3/22	7:35	60.5			20/3/22	11:35	58.6		20/3/22	15:35	57.1
20/3/22	7:40	58.3			20/3/22	11:40	58.1		20/3/22	15:40	57.4
20/3/22	7:45	57.7			20/3/22	11:45	57.5		20/3/22	15:45	57.0
20/3/22	7:50	57.8			20/3/22	11:50	58.0		20/3/22	15:50	57.2
20/3/22	7:55	58.2			20/3/22	11:55	57.8		20/3/22	15:55	57.7
20/3/22	8:00	57.8			20/3/22	12:00	57.7		20/3/22	16:00	57.3
20/3/22	8:05	58.0			20/3/22	12:05	57.5		20/3/22	16:05	57.0
20/3/22	8:10	57.2			20/3/22	12:10	58.0		20/3/22	16:10	57.9
20/3/22	8:15	57.8			20/3/22	12:15	57.7		20/3/22	16:15	57.3
20/3/22	8:20	57.4			20/3/22	12:20	57.6		20/3/22	16:20	57.2
20/3/22	8:25	58.0			20/3/22	12:25	57.9		20/3/22	16:25	57.7
20/3/22	8:30	58.3			20/3/22	12:30	57.7		20/3/22	16:30	58.1
20/3/22	8:35	57.5			20/3/22	12:35	57.4		20/3/22	16:35	57.7
20/3/22	8:40	57.7			20/3/22	12:40	57.9		20/3/22	16:40	57.5
20/3/22	8:45	57.7			20/3/22	12:45	57.3		20/3/22	16:45	58.0
20/3/22	8:50	57.9			20/3/22	12:50	57.0		20/3/22	16:50	57.5
20/3/22	8:55	58.0			20/3/22	12:55	57.6		20/3/22	16:55	58.0
20/3/22	9:00	59.9			20/3/22	13:00	57.4		20/3/22	17:00	57.7
20/3/22	9:05	59.4			20/3/22	13:05	57.9		20/3/22	17:05	58.0
20/3/22	9:10	58.5			20/3/22	13:10	57.7		20/3/22	17:10	57.8
20/3/22	9:15	58.7			20/3/22	13:15	57.6		20/3/22	17:15	57.4
20/3/22	9:20	58.0			20/3/22	13:20	57.8		20/3/22	17:20	57.4
20/3/22	9:25	58.1			20/3/22	13:25	57.4		20/3/22	17:25	57.0
20/3/22	9:30	58.4			20/3/22	13:30	57.2		20/3/22	17:30	57.6
20/3/22	9:35	58.0			20/3/22	13:35	57.2		20/3/22	17:35	57.7
20/3/22	9:40	57.8			20/3/22	13:40	57.6		20/3/22	17:40	58.1
20/3/22	9:45	58.0			20/3/22	13:45	57.4		20/3/22	17:45	57.8
20/3/22	9:50	57.8			20/3/22	13:50	57.0		20/3/22	17:50	57.5
20/3/22	9:55	57.8			20/3/22	13:55	57.0		20/3/22	17:55	58.0
20/3/22	10:00	58.0			20/3/22	14:00	57.1		20/3/22	18:00	57.6
20/3/22	10:05	58.2			20/3/22	14:05	56.8		20/3/22	18:05	58.0
20/3/22	10:10	58.5			20/3/22	14:10	57.3		20/3/22	18:10	58.7
20/3/22	10:15	58.0			20/3/22	14:15	56.9		20/3/22	18:15	58.4
20/3/22	10:20	58.4			20/3/22	14:20	57.1		20/3/22	18:20	57.8
20/3/22	10:25	58.3			20/3/22	14:25	57.0		20/3/22	18:25	58.0
20/3/22	10:30	58.4			20/3/22	14:30	57.4		20/3/22	18:30	58.3
20/3/22	10:35	57.8			20/3/22	14:35	57.8		20/3/22	18:35	58.8
20/3/22	10:40	57.8			20/3/22	14:40	57.4		20/3/22	18:40	58.7
20/3/22	10:45	58.3			20/3/22	14:45	57.7		20/3/22	18:45	58.1
20/3/22	10:50	58.1			20/3/22	14:50	57.2		20/3/22	18:50	58.9
20/3/22	10:55	58.1			20/3/22	14:55	57.2		20/3/22	18:55	59.7
20/3/22	11:00	58.2			20/3/22	15:00	57.3		20/3/22	19:00	57.6

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			18/03/2022 - 25/03/2022									
Start	20/3/22		19:05		**Leq12h**	58.3			Weighting		A	
End	21/3/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
20/3/22	19:05	57.9			20/3/22	23:05	56.9			21/3/22	3:05	52.1	
20/3/22	19:10	57.2			20/3/22	23:10	56.8			21/3/22	3:10	52.3	
20/3/22	19:15	57.8			20/3/22	23:15	55.6			21/3/22	3:15	53.0	
20/3/22	19:20	57.1			20/3/22	23:20	57.2			21/3/22	3:20	49.8	
20/3/22	19:25	57.2			20/3/22	23:25	57.5			21/3/22	3:25	50.2	
20/3/22	19:30	57.3			20/3/22	23:30	58.2			21/3/22	3:30	52.5	
20/3/22	19:35	57.5			20/3/22	23:35	57.8			21/3/22	3:35	57.7	
20/3/22	19:40	57.5			20/3/22	23:40	57.5			21/3/22	3:40	54.0	
20/3/22	19:45	58.4			20/3/22	23:45	56.8			21/3/22	3:45	51.9	
20/3/22	19:50	58.4			20/3/22	23:50	56.4			21/3/22	3:50	51.9	
20/3/22	19:55	58.3			20/3/22	23:55	56.4			21/3/22	3:55	52.5	
20/3/22	20:00	59.2	57.9		20/3/22	0:00	56.7	57.0		21/3/22	4:00	53.4	53.1
20/3/22	20:05	62.3			21/3/22	0:05	56.7			21/3/22	4:05	53.9	
20/3/22	20:10	63.3			21/3/22	0:10	56.2			21/3/22	4:10	53.4	
20/3/22	20:15	61.3			21/3/22	0:15	56.3			21/3/22	4:15	57.6	
20/3/22	20:20	58.9			21/3/22	0:20	55.6			21/3/22	4:20	59.8	
20/3/22	20:25	59.0			21/3/22	0:25	55.2			21/3/22	4:25	61.4	
20/3/22	20:30	58.4			21/3/22	0:30	53.8			21/3/22	4:30	63.8	
20/3/22	20:35	59.4			21/3/22	0:35	55.4			21/3/22	4:35	66.2	
20/3/22	20:40	58.8			21/3/22	0:40	53.6			21/3/22	4:40	64.1	
20/3/22	20:45	58.6			21/3/22	0:45	51.4			21/3/22	4:45	60.5	
20/3/22	20:50	59.1			21/3/22	0:50	53.6			21/3/22	4:50	58.3	
20/3/22	20:55	59.0			21/3/22	0:55	52.4			21/3/22	4:55	56.6	
20/3/22	21:00	58.5	60.0		21/3/22	1:00	54.3	54.8		21/3/22	5:00	57.0	61.0
20/3/22	21:05	58.8			21/3/22	1:05	52.0			21/3/22	5:05	57.3	
20/3/22	21:10	59.0			21/3/22	1:10	52.5			21/3/22	5:10	56.0	
20/3/22	21:15	58.6			21/3/22	1:15	52.8			21/3/22	5:15	55.3	
20/3/22	21:20	58.5			21/3/22	1:20	52.6			21/3/22	5:20	55.8	
20/3/22	21:25	58.5			21/3/22	1:25	53.0			21/3/22	5:25	56.1	
20/3/22	21:30	59.0			21/3/22	1:30	51.6			21/3/22	5:30	55.7	
20/3/22	21:35	58.8			21/3/22	1:35	52.8			21/3/22	5:35	56.6	
20/3/22	21:40	58.9			21/3/22	1:40	53.8			21/3/22	5:40	57.1	
20/3/22	21:45	58.9			21/3/22	1:45	53.7			21/3/22	5:45	57.5	
20/3/22	21:50	59.7			21/3/22	1:50	52.0			21/3/22	5:50	57.0	
20/3/22	21:55	59.6			21/3/22	1:55	51.5			21/3/22	5:55	57.8	
20/3/22	22:00	59.2	59.0		21/3/22	2:00	51.6	52.6		21/3/22	6:00	59.1	56.9
20/3/22	22:05	59.6			21/3/22	2:05	53.4			21/3/22	6:05	58.8	
20/3/22	22:10	58.9			21/3/22	2:10	52.5			21/3/22	6:10	59.2	
20/3/22	22:15	59.3			21/3/22	2:15	56.0			21/3/22	6:15	60.4	
20/3/22	22:20	58.8			21/3/22	2:20	52.5			21/3/22	6:20	60.5	
20/3/22	22:25	59.8			21/3/22	2:25	55.4			21/3/22	6:25	60.6	
20/3/22	22:30	59.2			21/3/22	2:30	53.4			21/3/22	6:30	61.4	
20/3/22	22:35	59.0			21/3/22	2:35	66.0			21/3/22	6:35	61.2	
20/3/22	22:40	58.7			21/3/22	2:40	63.9			21/3/22	6:40	61.3	
20/3/22	22:45	58.7			21/3/22	2:45	56.3			21/3/22	6:45	61.3	
20/3/22	22:50	58.5			21/3/22	2:50	54.2			21/3/22	6:50	61.6	
20/3/22	22:55	58.5			21/3/22	2:55	54.3			21/3/22	6:55	61.6	
20/3/22	23:00	57.9	58.9		21/3/22	3:00	56.0	58.9		21/3/22	7:00	61.9	60.9

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			18/03/2022 - 25/03/2022								
Start	21/3/22		7:05		**Leq12h**	61.6			Weighting		A
End	21/3/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
21/3/22	7:05	61.7			21/3/22	11:05	60.4		21/3/22	15:05	60.4
21/3/22	7:10	61.9			21/3/22	11:10	59.6		21/3/22	15:10	60.2
21/3/22	7:15	61.6			21/3/22	11:15	60.3		21/3/22	15:15	59.6
21/3/22	7:20	60.6			21/3/22	11:20	60.6		21/3/22	15:20	59.5
21/3/22	7:25	60.3			21/3/22	11:25	59.6		21/3/22	15:25	59.9
21/3/22	7:30	59.7			21/3/22	11:30	59.8		21/3/22	15:30	60.0
21/3/22	7:35	58.6			21/3/22	11:35	62.3		21/3/22	15:35	59.8
21/3/22	7:40	58.0			21/3/22	11:40	59.9		21/3/22	15:40	60.3
21/3/22	7:45	58.0			21/3/22	11:45	59.8		21/3/22	15:45	60.0
21/3/22	7:50	58.0			21/3/22	11:50	59.6		21/3/22	15:50	75.6
21/3/22	7:55	58.2			21/3/22	11:55	59.8		21/3/22	15:55	59.7
21/3/22	8:00	57.5			21/3/22	12:00	62.0		21/3/22	16:00	59.8
21/3/22	8:05	61.1			21/3/22	12:05	60.3		21/3/22	16:05	60.0
21/3/22	8:10	60.3			21/3/22	12:10	59.9		21/3/22	16:10	60.3
21/3/22	8:15	59.4			21/3/22	12:15	59.9		21/3/22	16:15	59.3
21/3/22	8:20	58.9			21/3/22	12:20	62.3		21/3/22	16:20	59.5
21/3/22	8:25	58.4			21/3/22	12:25	60.1		21/3/22	16:25	59.7
21/3/22	8:30	59.5			21/3/22	12:30	60.1		21/3/22	16:30	60.0
21/3/22	8:35	61.2			21/3/22	12:35	60.1		21/3/22	16:35	59.9
21/3/22	8:40	61.3			21/3/22	12:40	60.4		21/3/22	16:40	60.2
21/3/22	8:45	61.2			21/3/22	12:45	60.0		21/3/22	16:45	59.7
21/3/22	8:50	61.3			21/3/22	12:50	59.7		21/3/22	16:50	60.0
21/3/22	8:55	60.9			21/3/22	12:55	59.8		21/3/22	16:55	60.8
21/3/22	9:00	62.3			21/3/22	13:00	59.2		21/3/22	17:00	60.0
21/3/22	9:05	62.0			21/3/22	13:05	59.3		21/3/22	17:05	60.2
21/3/22	9:10	61.4			21/3/22	13:10	61.5		21/3/22	17:10	61.3
21/3/22	9:15	67.2			21/3/22	13:15	59.0		21/3/22	17:15	59.8
21/3/22	9:20	61.8			21/3/22	13:20	61.5		21/3/22	17:20	60.3
21/3/22	9:25	61.3			21/3/22	13:25	59.2		21/3/22	17:25	61.7
21/3/22	9:30	61.1			21/3/22	13:30	64.0		21/3/22	17:30	60.2
21/3/22	9:35	61.0			21/3/22	13:35	60.2		21/3/22	17:35	60.2
21/3/22	9:40	61.1			21/3/22	13:40	60.8		21/3/22	17:40	60.1
21/3/22	9:45	60.6			21/3/22	13:45	60.6		21/3/22	17:45	60.2
21/3/22	9:50	60.7			21/3/22	13:50	60.3		21/3/22	17:50	59.9
21/3/22	9:55	60.8			21/3/22	13:55	59.8		21/3/22	17:55	59.8
21/3/22	10:00	60.8			21/3/22	14:00	59.6		21/3/22	18:00	63.3
21/3/22	10:05	60.7			21/3/22	14:05	60.3		21/3/22	18:05	60.1
21/3/22	10:10	60.2			21/3/22	14:10	60.8		21/3/22	18:10	60.4
21/3/22	10:15	60.1			21/3/22	14:15	62.7		21/3/22	18:15	65.5
21/3/22	10:20	60.2			21/3/22	14:20	60.0		21/3/22	18:20	61.0
21/3/22	10:25	60.6			21/3/22	14:25	60.2		21/3/22	18:25	67.9
21/3/22	10:30	60.4			21/3/22	14:30	60.3		21/3/22	18:30	64.4
21/3/22	10:35	60.5			21/3/22	14:35	59.8		21/3/22	18:35	60.2
21/3/22	10:40	60.2			21/3/22	14:40	60.5		21/3/22	18:40	60.0
21/3/22	10:45	60.3			21/3/22	14:45	61.3		21/3/22	18:45	59.9
21/3/22	10:50	59.7			21/3/22	14:50	60.8		21/3/22	18:50	59.4
21/3/22	10:55	60.0			21/3/22	14:55	60.3		21/3/22	18:55	59.8
21/3/22	11:00	59.7			21/3/22	15:00	59.6		21/3/22	19:00	59.5

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			18/03/2022 - 25/03/2022									
Start	21/3/22		19:05		**Leq12h**	58.9			Weighting		A	
End	22/3/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
21/3/22	19:05	59.2			21/3/22	23:05	58.0			22/3/22	3:05	52.8	
21/3/22	19:10	59.6			21/3/22	23:10	57.5			22/3/22	3:10	53.3	
21/3/22	19:15	59.4			21/3/22	23:15	56.2			22/3/22	3:15	53.0	
21/3/22	19:20	59.7			21/3/22	23:20	55.4			22/3/22	3:20	54.2	
21/3/22	19:25	58.9			21/3/22	23:25	55.1			22/3/22	3:25	53.3	
21/3/22	19:30	58.8			21/3/22	23:30	55.3			22/3/22	3:30	53.8	
21/3/22	19:35	58.8			21/3/22	23:35	55.5			22/3/22	3:35	53.2	
21/3/22	19:40	59.2			21/3/22	23:40	56.0			22/3/22	3:40	52.7	
21/3/22	19:45	60.2			21/3/22	23:45	54.9			22/3/22	3:45	53.5	
21/3/22	19:50	59.6			21/3/22	23:50	55.2			22/3/22	3:50	53.1	
21/3/22	19:55	60.1			21/3/22	23:55	54.7			22/3/22	3:55	52.7	
21/3/22	20:00	59.3	59.4		21/3/22	0:00	54.7	55.8		22/3/22	4:00	52.7	53.2
21/3/22	20:05	59.2			22/3/22	0:05	54.2			22/3/22	4:05	51.8	
21/3/22	20:10	58.8			22/3/22	0:10	54.7			22/3/22	4:10	53.2	
21/3/22	20:15	58.6			22/3/22	0:15	53.8			22/3/22	4:15	54.9	
21/3/22	20:20	58.8			22/3/22	0:20	55.0			22/3/22	4:20	54.1	
21/3/22	20:25	58.7			22/3/22	0:25	54.5			22/3/22	4:25	54.4	
21/3/22	20:30	58.9			22/3/22	0:30	54.2			22/3/22	4:30	54.8	
21/3/22	20:35	57.9			22/3/22	0:35	54.5			22/3/22	4:35	55.1	
21/3/22	20:40	59.6			22/3/22	0:40	52.7			22/3/22	4:40	55.5	
21/3/22	20:45	61.0			22/3/22	0:45	53.1			22/3/22	4:45	54.6	
21/3/22	20:50	61.0			22/3/22	0:50	53.9			22/3/22	4:50	58.0	
21/3/22	20:55	60.8			22/3/22	0:55	53.2			22/3/22	4:55	55.6	
21/3/22	21:00	**74.4**	64.9		22/3/22	1:00	52.6	53.9		22/3/22	5:00	56.2	55.1
21/3/22	21:05	61.1			22/3/22	1:05	51.8			22/3/22	5:05	56.5	
21/3/22	21:10	61.3			22/3/22	1:10	52.9			22/3/22	5:10	57.8	
21/3/22	21:15	61.5			22/3/22	1:15	53.0			22/3/22	5:15	58.8	
21/3/22	21:20	61.3			22/3/22	1:20	52.0			22/3/22	5:20	57.8	
21/3/22	21:25	61.0			22/3/22	1:25	53.9			22/3/22	5:25	57.7	
21/3/22	21:30	61.1			22/3/22	1:30	51.5			22/3/22	5:30	58.5	
21/3/22	21:35	61.0			22/3/22	1:35	52.5			22/3/22	5:35	58.9	
21/3/22	21:40	60.9			22/3/22	1:40	53.3			22/3/22	5:40	58.3	
21/3/22	21:45	60.7			22/3/22	1:45	52.4			22/3/22	5:45	59.6	
21/3/22	21:50	61.0			22/3/22	1:50	52.4			22/3/22	5:50	57.2	
21/3/22	21:55	60.8			22/3/22	1:55	51.3			22/3/22	5:55	57.1	
21/3/22	22:00	60.9	61.1		22/3/22	2:00	52.0	52.5		22/3/22	6:00	57.9	58.1
21/3/22	22:05	61.3			22/3/22	2:05	51.9			22/3/22	6:05	58.1	
21/3/22	22:10	61.1			22/3/22	2:10	52.2			22/3/22	6:10	59.0	
21/3/22	22:15	60.1			22/3/22	2:15	51.3			22/3/22	6:15	59.9	
21/3/22	22:20	59.9			22/3/22	2:20	51.5			22/3/22	6:20	59.6	
21/3/22	22:25	59.5			22/3/22	2:25	51.8			22/3/22	6:25	60.2	
21/3/22	22:30	59.4			22/3/22	2:30	50.9			22/3/22	6:30	59.9	
21/3/22	22:35	57.5			22/3/22	2:35	52.6			22/3/22	6:35	60.4	
21/3/22	22:40	57.8			22/3/22	2:40	52.5			22/3/22	6:40	60.5	
21/3/22	22:45	57.4			22/3/22	2:45	53.2			22/3/22	6:45	60.3	
21/3/22	22:50	56.8			22/3/22	2:50	52.5			22/3/22	6:50	60.8	
21/3/22	22:55	56.9			22/3/22	2:55	51.5			22/3/22	6:55	60.7	
21/3/22	23:00	57.0	59.0		22/3/22	3:00	51.3	52.0		22/3/22	7:00	61.0	60.1

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			18/03/2022 - 25/03/2022								
Start	22/3/22		7:05		**Leq12h**	62.6			Weighting		A
End	22/3/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
22/3/22	7:05	61.2			22/3/22	11:05	59.2		22/3/22	15:05	59.7
22/3/22	7:10	61.5			22/3/22	11:10	59.9		22/3/22	15:10	60.1
22/3/22	7:15	61.2			22/3/22	11:15	59.5		22/3/22	15:15	61.2
22/3/22	7:20	61.3			22/3/22	11:20	59.8		22/3/22	15:20	61.5
22/3/22	7:25	60.4			22/3/22	11:25	59.6		22/3/22	15:25	60.0
22/3/22	7:30	60.6			22/3/22	11:30	59.8		22/3/22	15:30	59.4
22/3/22	7:35	59.9			22/3/22	11:35	65.0		22/3/22	15:35	60.0
22/3/22	7:40	59.4			22/3/22	11:40	58.7		22/3/22	15:40	60.0
22/3/22	7:45	60.1			22/3/22	11:45	68.5		22/3/22	15:45	59.8
22/3/22	7:50	61.2			22/3/22	11:50	68.3		22/3/22	15:50	60.8
22/3/22	7:55	61.4			22/3/22	11:55	67.3		22/3/22	15:55	59.7
22/3/22	8:00	61.2			22/3/22	12:00	65.4		22/3/22	16:00	59.6
22/3/22	8:05	61.7			22/3/22	12:05	63.8		22/3/22	16:05	59.5
22/3/22	8:10	61.8			22/3/22	12:10	62.2		22/3/22	16:10	59.8
22/3/22	8:15	61.5			22/3/22	12:15	61.3		22/3/22	16:15	61.5
22/3/22	8:20	61.3			22/3/22	12:20	73.6		22/3/22	16:20	60.6
22/3/22	8:25	61.1			22/3/22	12:25	64.2		22/3/22	16:25	60.7
22/3/22	8:30	61.3			22/3/22	12:30	62.5		22/3/22	16:30	61.4
22/3/22	8:35	61.5			22/3/22	12:35	61.5		22/3/22	16:35	62.7
22/3/22	8:40	60.8			22/3/22	12:40	60.2		22/3/22	16:40	60.5
22/3/22	8:45	60.4			22/3/22	12:45	59.5		22/3/22	16:45	60.3
22/3/22	8:50	60.7			22/3/22	12:50	58.9		22/3/22	16:50	60.5
22/3/22	8:55	61.0			22/3/22	12:55	59.5		22/3/22	16:55	59.8
22/3/22	9:00	63.4			22/3/22	13:00	60.2		22/3/22	17:00	60.3
22/3/22	9:05	60.3			22/3/22	13:05	60.7		22/3/22	17:05	60.1
22/3/22	9:10	60.1			22/3/22	13:10	59.4		22/3/22	17:10	60.5
22/3/22	9:15	60.5			22/3/22	13:15	59.9		22/3/22	17:15	60.6
22/3/22	9:20	61.4			22/3/22	13:20	59.3		22/3/22	17:20	63.1
22/3/22	9:25	59.9			22/3/22	13:25	59.9		22/3/22	17:25	61.9
22/3/22	9:30	60.0			22/3/22	13:30	59.9		22/3/22	17:30	61.2
22/3/22	9:35	60.5			22/3/22	13:35	59.9		22/3/22	17:35	61.1
22/3/22	9:40	59.5			22/3/22	13:40	59.7		22/3/22	17:40	60.8
22/3/22	9:45	59.2			22/3/22	13:45	60.2		22/3/22	17:45	60.6
22/3/22	9:50	59.6			22/3/22	13:50	60.1		22/3/22	17:50	60.4
22/3/22	9:55	61.3			22/3/22	13:55	60.3		22/3/22	17:55	60.7
22/3/22	10:00	59.4			22/3/22	14:00	60.1		22/3/22	18:00	60.7
22/3/22	10:05	74.3			22/3/22	14:05	60.8		22/3/22	18:05	60.8
22/3/22	10:10	59.7			22/3/22	14:10	60.9		22/3/22	18:10	60.2
22/3/22	10:15	69.9			22/3/22	14:15	60.3		22/3/22	18:15	60.4
22/3/22	10:20	66.4			22/3/22	14:20	61.2		22/3/22	18:20	60.6
22/3/22	10:25	59.9			22/3/22	14:25	71.2		22/3/22	18:25	60.7
22/3/22	10:30	59.0			22/3/22	14:30	60.1		22/3/22	18:30	60.5
22/3/22	10:35	59.3			22/3/22	14:35	60.4		22/3/22	18:35	60.5
22/3/22	10:40	59.9			22/3/22	14:40	60.9		22/3/22	18:40	61.0
22/3/22	10:45	59.7			22/3/22	14:45	60.2		22/3/22	18:45	61.0
22/3/22	10:50	59.5			22/3/22	14:50	64.7		22/3/22	18:50	63.1
22/3/22	10:55	59.0			22/3/22	14:55	60.1		22/3/22	18:55	61.6
22/3/22	11:00	59.9			22/3/22	15:00	60.3		22/3/22	19:00	61.5

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			18/03/2022 - 25/03/2022									
Start	22/3/22		19:05		**Leq12h**	57.7			Weighting		A	
End	23/3/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
22/3/22	19:05	65.2			22/3/22	23:05	56.5			23/3/22	3:05	51.9	
22/3/22	19:10	64.3			22/3/22	23:10	57.0			23/3/22	3:10	52.9	
22/3/22	19:15	60.2			22/3/22	23:15	55.9			23/3/22	3:15	52.7	
22/3/22	19:20	60.1			22/3/22	23:20	56.8			23/3/22	3:20	53.2	
22/3/22	19:25	59.7			22/3/22	23:25	55.8			23/3/22	3:25	52.3	
22/3/22	19:30	60.0			22/3/22	23:30	56.5			23/3/22	3:30	52.6	
22/3/22	19:35	59.9			22/3/22	23:35	56.3			23/3/22	3:35	52.2	
22/3/22	19:40	59.5			22/3/22	23:40	56.8			23/3/22	3:40	52.8	
22/3/22	19:45	59.3			22/3/22	23:45	55.8			23/3/22	3:45	51.3	
22/3/22	19:50	59.7			22/3/22	23:50	55.3			23/3/22	3:50	52.8	
22/3/22	19:55	60.0			22/3/22	23:55	55.9			23/3/22	3:55	53.3	
22/3/22	20:00	59.6	61.1		22/3/22	0:00	56.4	56.3		23/3/22	4:00	53.7	52.7
22/3/22	20:05	59.0			23/3/22	0:05	57.9			23/3/22	4:05	53.0	
22/3/22	20:10	60.8			23/3/22	0:10	56.5			23/3/22	4:10	54.9	
22/3/22	20:15	59.5			23/3/22	0:15	57.7			23/3/22	4:15	52.3	
22/3/22	20:20	59.2			23/3/22	0:20	57.6			23/3/22	4:20	53.1	
22/3/22	20:25	58.8			23/3/22	0:25	57.6			23/3/22	4:25	52.4	
22/3/22	20:30	58.9			23/3/22	0:30	58.2			23/3/22	4:30	53.2	
22/3/22	20:35	59.5			23/3/22	0:35	58.5			23/3/22	4:35	54.5	
22/3/22	20:40	59.1			23/3/22	0:40	58.3			23/3/22	4:40	53.3	
22/3/22	20:45	59.8			23/3/22	0:45	56.3			23/3/22	4:45	53.2	
22/3/22	20:50	59.8			23/3/22	0:50	53.7			23/3/22	4:50	53.5	
22/3/22	20:55	59.3			23/3/22	0:55	56.4			23/3/22	4:55	54.3	
22/3/22	21:00	58.9	59.4		23/3/22	1:00	58.1	57.4		23/3/22	5:00	53.7	53.5
22/3/22	21:05	59.6			23/3/22	1:05	57.5			23/3/22	5:05	54.8	
22/3/22	21:10	59.7			23/3/22	1:10	54.7			23/3/22	5:10	53.9	
22/3/22	21:15	59.0			23/3/22	1:15	54.5			23/3/22	5:15	55.3	
22/3/22	21:20	59.0			23/3/22	1:20	54.3			23/3/22	5:20	55.0	
22/3/22	21:25	58.6			23/3/22	1:25	54.4			23/3/22	5:25	56.5	
22/3/22	21:30	59.0			23/3/22	1:30	54.9			23/3/22	5:30	56.0	
22/3/22	21:35	59.2			23/3/22	1:35	52.8			23/3/22	5:35	56.0	
22/3/22	21:40	58.5			23/3/22	1:40	52.9			23/3/22	5:40	56.5	
22/3/22	21:45	58.0			23/3/22	1:45	53.0			23/3/22	5:45	58.3	
22/3/22	21:50	58.4			23/3/22	1:50	52.8			23/3/22	5:50	57.8	
22/3/22	21:55	58.5			23/3/22	1:55	53.8			23/3/22	5:55	57.9	
22/3/22	22:00	58.4	58.9		23/3/22	2:00	51.8	54.2		23/3/22	6:00	58.8	56.6
22/3/22	22:05	58.5			23/3/22	2:05	51.8			23/3/22	6:05	58.6	
22/3/22	22:10	58.6			23/3/22	2:10	55.2			23/3/22	6:10	59.9	
22/3/22	22:15	58.4			23/3/22	2:15	51.7			23/3/22	6:15	60.0	
22/3/22	22:20	58.5			23/3/22	2:20	52.6			23/3/22	6:20	61.0	
22/3/22	22:25	57.9			23/3/22	2:25	56.5			23/3/22	6:25	61.1	
22/3/22	22:30	59.2			23/3/22	2:30	53.5			23/3/22	6:30	61.0	
22/3/22	22:35	58.1			23/3/22	2:35	54.4			23/3/22	6:35	61.1	
22/3/22	22:40	57.9			23/3/22	2:40	53.2			23/3/22	6:40	62.2	
22/3/22	22:45	58.0			23/3/22	2:45	54.5			23/3/22	6:45	61.3	
22/3/22	22:50	56.8			23/3/22	2:50	54.2			23/3/22	6:50	61.3	
22/3/22	22:55	56.8			23/3/22	2:55	52.6			23/3/22	6:55	61.0	
22/3/22	23:00	56.5	58.0		23/3/22	3:00	52.9	53.8		23/3/22	7:00	61.1	60.9

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			18/03/2022 - 25/03/2022								
Start	23/3/22		7:05		**Leq12h**	64.7			Weighting		A
End	23/3/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
23/3/22	7:05	65.2			23/3/22	11:05	59.1		23/3/22	15:05	59.9
23/3/22	7:10	62.6			23/3/22	11:10	59.1		23/3/22	15:10	60.2
23/3/22	7:15	60.8			23/3/22	11:15	59.8		23/3/22	15:15	60.3
23/3/22	7:20	60.9			23/3/22	11:20	60.5		23/3/22	15:20	59.5
23/3/22	7:25	59.7			23/3/22	11:25	59.3		23/3/22	15:25	59.5
23/3/22	7:30	59.6			23/3/22	11:30	58.6		23/3/22	15:30	59.8
23/3/22	7:35	60.0			23/3/22	11:35	58.8		23/3/22	15:35	59.9
23/3/22	7:40	59.4			23/3/22	11:40	58.7		23/3/22	15:40	60.2
23/3/22	7:45	58.4			23/3/22	11:45	58.2		23/3/22	15:45	60.5
23/3/22	7:50	58.7			23/3/22	11:50	58.5		23/3/22	15:50	60.5
23/3/22	7:55	58.8			23/3/22	11:55	58.0		23/3/22	15:55	60.3
23/3/22	8:00	57.9			23/3/22	12:00	58.7		23/3/22	16:00	60.0
23/3/22	8:05	58.1			23/3/22	12:05	58.6		23/3/22	16:05	60.3
23/3/22	8:10	58.5			23/3/22	12:10	59.6		23/3/22	16:10	60.2
23/3/22	8:15	59.4			23/3/22	12:15	59.1		23/3/22	16:15	60.6
23/3/22	8:20	60.4			23/3/22	12:20	59.1		23/3/22	16:20	60.1
23/3/22	8:25	60.8			23/3/22	12:25	58.6		23/3/22	16:25	60.6
23/3/22	8:30	60.9			23/3/22	12:30	59.2		23/3/22	16:30	60.9
23/3/22	8:35	60.5			23/3/22	12:35	58.6		23/3/22	16:35	60.6
23/3/22	8:40	60.6			23/3/22	12:40	59.4		23/3/22	16:40	60.9
23/3/22	8:45	60.4			23/3/22	12:45	58.8		23/3/22	16:45	61.0
23/3/22	8:50	60.2			23/3/22	12:50	58.7		23/3/22	16:50	60.6
23/3/22	8:55	60.3			23/3/22	12:55	62.8		23/3/22	16:55	60.8
23/3/22	9:00	60.5			23/3/22	13:00	68.3		23/3/22	17:00	60.8
23/3/22	9:05	63.3			23/3/22	13:05	64.0		23/3/22	17:05	60.7
23/3/22	9:10	75.9			23/3/22	13:10	68.4		23/3/22	17:10	61.2
23/3/22	9:15	60.6			23/3/22	13:15	70.4		23/3/22	17:15	60.9
23/3/22	9:20	60.5			23/3/22	13:20	71.6		23/3/22	17:20	60.9
23/3/22	9:25	60.1			23/3/22	13:25	71.1		23/3/22	17:25	61.1
23/3/22	9:30	60.1			23/3/22	13:30	72.1		23/3/22	17:30	61.0
23/3/22	9:35	60.2			23/3/22	13:35	70.4		23/3/22	17:35	61.3
23/3/22	9:40	60.1			23/3/22	13:40	67.4		23/3/22	17:40	61.2
23/3/22	9:45	59.7			23/3/22	13:45	63.6		23/3/22	17:45	61.3
23/3/22	9:50	59.6			23/3/22	13:50	62.6		23/3/22	17:50	61.2
23/3/22	9:55	59.7			23/3/22	13:55	61.6		23/3/22	17:55	61.3
23/3/22	10:00	72.4			23/3/22	14:00	61.7		23/3/22	18:00	61.2
23/3/22	10:05	61.5			23/3/22	14:05	62.6		23/3/22	18:05	61.6
23/3/22	10:10	67.8			23/3/22	14:10	62.9		23/3/22	18:10	60.7
23/3/22	10:15	79.5			23/3/22	14:15	63.0		23/3/22	18:15	60.3
23/3/22	10:20	74.9			23/3/22	14:20	62.8		23/3/22	18:20	60.7
23/3/22	10:25	59.5			23/3/22	14:25	64.3		23/3/22	18:25	61.3
23/3/22	10:30	59.7			23/3/22	14:30	63.6		23/3/22	18:30	61.3
23/3/22	10:35	59.3			23/3/22	14:35	62.8		23/3/22	18:35	61.1
23/3/22	10:40	59.9			23/3/22	14:40	62.6		23/3/22	18:40	60.9
23/3/22	10:45	59.3			23/3/22	14:45	62.5		23/3/22	18:45	61.4
23/3/22	10:50	60.0			23/3/22	14:50	61.1		23/3/22	18:50	60.9
23/3/22	10:55	59.3			23/3/22	14:55	60.6		23/3/22	18:55	60.6
23/3/22	11:00	59.3			23/3/22	15:00	60.6		23/3/22	19:00	61.9

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			18/03/2022 - 25/03/2022									
Start	23/3/22		19:05		**Leq12h**	58.3			Weighting		A	
End	24/3/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
23/3/22	19:05	59.8			23/3/22	23:05	59.1			24/3/22	3:05	52.2	
23/3/22	19:10	59.6			23/3/22	23:10	59.1			24/3/22	3:10	52.3	
23/3/22	19:15	59.7			23/3/22	23:15	58.8			24/3/22	3:15	51.1	
23/3/22	19:20	59.9			23/3/22	23:20	59.4			24/3/22	3:20	52.0	
23/3/22	19:25	59.4			23/3/22	23:25	57.6			24/3/22	3:25	52.9	
23/3/22	19:30	59.6			23/3/22	23:30	57.3			24/3/22	3:30	52.5	
23/3/22	19:35	59.7			23/3/22	23:35	57.4			24/3/22	3:35	51.9	
23/3/22	19:40	60.1			23/3/22	23:40	56.6			24/3/22	3:40	51.8	
23/3/22	19:45	60.2			23/3/22	23:45	56.8			24/3/22	3:45	52.7	
23/3/22	19:50	60.8			23/3/22	23:50	55.9			24/3/22	3:50	51.2	
23/3/22	19:55	61.7			23/3/22	23:55	56.1			24/3/22	3:55	53.4	
23/3/22	20:00	61.8	60.3		23/3/22	0:00	56.3	57.7		24/3/22	4:00	51.8	52.2
23/3/22	20:05	62.4			24/3/22	0:05	55.7			24/3/22	4:05	52.4	
23/3/22	20:10	62.2			24/3/22	0:10	55.8			24/3/22	4:10	53.8	
23/3/22	20:15	62.0			24/3/22	0:15	55.4			24/3/22	4:15	52.8	
23/3/22	20:20	62.3			24/3/22	0:20	54.0			24/3/22	4:20	52.5	
23/3/22	20:25	62.1			24/3/22	0:25	55.9			24/3/22	4:25	51.7	
23/3/22	20:30	62.4			24/3/22	0:30	54.7			24/3/22	4:30	53.5	
23/3/22	20:35	62.2			24/3/22	0:35	53.9			24/3/22	4:35	53.4	
23/3/22	20:40	61.6			24/3/22	0:40	53.1			24/3/22	4:40	54.0	
23/3/22	20:45	61.3			24/3/22	0:45	54.8			24/3/22	4:45	53.5	
23/3/22	20:50	61.2			24/3/22	0:50	54.0			24/3/22	4:50	53.7	
23/3/22	20:55	61.2			24/3/22	0:55	53.8			24/3/22	4:55	53.6	
23/3/22	21:00	61.2	61.9		24/3/22	1:00	55.1	54.8		24/3/22	5:00	53.7	53.3
23/3/22	21:05	61.5			24/3/22	1:05	52.7			24/3/22	5:05	54.0	
23/3/22	21:10	61.0			24/3/22	1:10	54.7			24/3/22	5:10	54.5	
23/3/22	21:15	59.0			24/3/22	1:15	53.2			24/3/22	5:15	54.7	
23/3/22	21:20	59.6			24/3/22	1:20	53.5			24/3/22	5:20	55.6	
23/3/22	21:25	59.5			24/3/22	1:25	51.9			24/3/22	5:25	56.2	
23/3/22	21:30	60.6			24/3/22	1:30	54.0			24/3/22	5:30	56.0	
23/3/22	21:35	60.1			24/3/22	1:35	52.8			24/3/22	5:35	56.5	
23/3/22	21:40	59.8			24/3/22	1:40	52.9			24/3/22	5:40	56.4	
23/3/22	21:45	60.1			24/3/22	1:45	52.8			24/3/22	5:45	57.5	
23/3/22	21:50	60.7			24/3/22	1:50	51.8			24/3/22	5:50	57.5	
23/3/22	21:55	60.5			24/3/22	1:55	54.5			24/3/22	5:55	58.2	
23/3/22	22:00	60.2	60.3		24/3/22	2:00	52.7	53.2		24/3/22	6:00	58.5	56.5
23/3/22	22:05	59.8			24/3/22	2:05	54.5			24/3/22	6:05	59.9	
23/3/22	22:10	59.7			24/3/22	2:10	53.0			24/3/22	6:10	59.0	
23/3/22	22:15	59.2			24/3/22	2:15	52.7			24/3/22	6:15	59.9	
23/3/22	22:20	60.0			24/3/22	2:20	52.5			24/3/22	6:20	60.2	
23/3/22	22:25	59.8			24/3/22	2:25	51.1			24/3/22	6:25	60.5	
23/3/22	22:30	60.0			24/3/22	2:30	53.2			24/3/22	6:30	61.5	
23/3/22	22:35	59.1			24/3/22	2:35	51.6			24/3/22	6:35	61.1	
23/3/22	22:40	59.4			24/3/22	2:40	55.2			24/3/22	6:40	61.4	
23/3/22	22:45	59.0			24/3/22	2:45	55.0			24/3/22	6:45	61.7	
23/3/22	22:50	58.7			24/3/22	2:50	54.2			24/3/22	6:50	62.5	
23/3/22	22:55	60.2			24/3/22	2:55	52.3			24/3/22	6:55	62.7	
23/3/22	23:00	58.5	59.5		24/3/22	3:00	51.7	53.3		24/3/22	7:00	62.9	61.3

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			18/03/2022 - 25/03/2022								
Start	24/3/22		7:05		**Leq12h**	61.3			Weighting		A
End	24/3/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**
24/3/22	7:05	63.5			24/3/22	11:05	60.0			24/3/22	15:05	58.6
24/3/22	7:10	63.2			24/3/22	11:10	59.8			24/3/22	15:10	59.0
24/3/22	7:15	62.4			24/3/22	11:15	59.7			24/3/22	15:15	58.3
24/3/22	7:20	62.2			24/3/22	11:20	59.0			24/3/22	15:20	58.3
24/3/22	7:25	61.4			24/3/22	11:25	60.5			24/3/22	15:25	58.9
24/3/22	7:30	61.7			24/3/22	11:30	59.0			24/3/22	15:30	60.1
24/3/22	7:35	59.8			24/3/22	11:35	59.7			24/3/22	15:35	58.5
24/3/22	7:40	60.0			24/3/22	11:40	59.3			24/3/22	15:40	58.7
24/3/22	7:45	62.3			24/3/22	11:45	60.0			24/3/22	15:45	59.0
24/3/22	7:50	62.6			24/3/22	11:50	59.6			24/3/22	15:50	58.4
24/3/22	7:55	63.1			24/3/22	11:55	59.7			24/3/22	15:55	58.1
24/3/22	8:00	63.5			24/3/22	12:00	59.4			24/3/22	16:00	58.5
24/3/22	8:05	64.0			24/3/22	12:05	59.2			24/3/22	16:05	59.2
24/3/22	8:10	63.3			24/3/22	12:10	59.3			24/3/22	16:10	58.2
24/3/22	8:15	63.0			24/3/22	12:15	59.8			24/3/22	16:15	59.9
24/3/22	8:20	62.8			24/3/22	12:20	59.5			24/3/22	16:20	59.0
24/3/22	8:25	63.1			24/3/22	12:25	59.3			24/3/22	16:25	58.2
24/3/22	8:30	63.7			24/3/22	12:30	58.9			24/3/22	16:30	58.9
24/3/22	8:35	61.9			24/3/22	12:35	58.7			24/3/22	16:35	59.2
24/3/22	8:40	61.4			24/3/22	12:40	58.9			24/3/22	16:40	59.2
24/3/22	8:45	62.7			24/3/22	12:45	62.2			24/3/22	16:45	59.3
24/3/22	8:50	61.8			24/3/22	12:50	61.0			24/3/22	16:50	59.1
24/3/22	8:55	61.9			24/3/22	12:55	59.8			24/3/22	16:55	59.0
24/3/22	9:00	61.3			24/3/22	13:00	60.3			24/3/22	17:00	59.4
24/3/22	9:05	62.9			24/3/22	13:05	60.8			24/3/22	17:05	59.7
24/3/22	9:10	61.2			24/3/22	13:10	58.7			24/3/22	17:10	59.8
24/3/22	9:15	61.2			24/3/22	13:15	59.8			24/3/22	17:15	59.7
24/3/22	9:20	60.8			24/3/22	13:20	58.8			24/3/22	17:20	59.7
24/3/22	9:25	60.9			24/3/22	13:25	58.8			24/3/22	17:25	60.9
24/3/22	9:30	61.2			24/3/22	13:30	58.8			24/3/22	17:30	60.2
24/3/22	9:35	60.3			24/3/22	13:35	60.7			24/3/22	17:35	60.8
24/3/22	9:40	62.2			24/3/22	13:40	58.8			24/3/22	17:40	61.9
24/3/22	9:45	71.1			24/3/22	13:45	60.3			24/3/22	17:45	60.8
24/3/22	9:50	61.5			24/3/22	13:50	60.6			24/3/22	17:50	61.1
24/3/22	9:55	60.5			24/3/22	13:55	59.6			24/3/22	17:55	61.3
24/3/22	10:00	61.2			24/3/22	14:00	59.2			24/3/22	18:00	59.6
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24/3/22	10:15	59.9			24/3/22	14:15	59.5			24/3/22	18:15	59.7
24/3/22	10:20	59.9			24/3/22	14:20	59.2			24/3/22	18:20	59.2
24/3/22	10:25	60.9			24/3/22	14:25	59.6			24/3/22	18:25	59.0
24/3/22	10:30	60.0			24/3/22	14:30	59.5			24/3/22	18:30	58.7
24/3/22	10:35	59.5			24/3/22	14:35	59.8			24/3/22	18:35	60.3
24/3/22	10:40	59.2			24/3/22	14:40	71.9			24/3/22	18:40	62.1
24/3/22	10:45	58.8			24/3/22	14:45	65.7			24/3/22	18:45	61.7
24/3/22	10:50	59.1			24/3/22	14:50	58.9			24/3/22	18:50	61.0
24/3/22	10:55	59.5			24/3/22	14:55	58.9			24/3/22	18:55	61.9
24/3/22	11:00	59.6			24/3/22	15:00	58.5			24/3/22	19:00	62.2

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			18/03/2022 - 25/03/2022									
Start	24/3/22		19:05		**Leq12h**	58.6			Weighting		A	
End	25/3/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
24/3/22	19:05	62.7			24/3/22	23:05	57.8			25/3/22	3:05	54.5	
24/3/22	19:10	63.2			24/3/22	23:10	57.5			25/3/22	3:10	54.1	
24/3/22	19:15	61.8			24/3/22	23:15	57.3			25/3/22	3:15	53.2	
24/3/22	19:20	62.0			24/3/22	23:20	56.3			25/3/22	3:20	53.3	
24/3/22	19:25	64.8			24/3/22	23:25	57.2			25/3/22	3:25	52.1	
24/3/22	19:30	65.0			24/3/22	23:30	56.9			25/3/22	3:30	52.5	
24/3/22	19:35	65.3			24/3/22	23:35	56.9			25/3/22	3:35	54.1	
24/3/22	19:40	65.3			24/3/22	23:40	56.7			25/3/22	3:40	52.1	
24/3/22	19:45	65.0			24/3/22	23:45	55.6			25/3/22	3:45	51.9	
24/3/22	19:50	64.8			24/3/22	23:50	56.0			25/3/22	3:50	53.5	
24/3/22	19:55	61.6			24/3/22	23:55	55.9			25/3/22	3:55	53.6	
24/3/22	20:00	63.0	63.9		24/3/22	0:00	56.5	56.8		25/3/22	4:00	52.9	53.2
24/3/22	20:05	61.2			25/3/22	0:05	55.2			25/3/22	4:05	53.1	
24/3/22	20:10	62.2			25/3/22	0:10	56.2			25/3/22	4:10	50.8	
24/3/22	20:15	63.0			25/3/22	0:15	54.5			25/3/22	4:15	52.6	
24/3/22	20:20	62.1			25/3/22	0:20	55.4			25/3/22	4:20	53.5	
24/3/22	20:25	60.8			25/3/22	0:25	54.3			25/3/22	4:25	53.1	
24/3/22	20:30	60.2			25/3/22	0:30	54.7			25/3/22	4:30	52.8	
24/3/22	20:35	59.8			25/3/22	0:35	53.9			25/3/22	4:35	53.1	
24/3/22	20:40	61.3			25/3/22	0:40	54.8			25/3/22	4:40	52.6	
24/3/22	20:45	62.7			25/3/22	0:45	52.9			25/3/22	4:45	53.2	
24/3/22	20:50	61.0			25/3/22	0:50	56.5			25/3/22	4:50	53.5	
24/3/22	20:55	60.2			25/3/22	0:55	53.6			25/3/22	4:55	54.2	
24/3/22	21:00	60.0	61.3		25/3/22	1:00	53.4	54.7		25/3/22	5:00	55.9	53.4
24/3/22	21:05	60.4			25/3/22	1:05	53.4			25/3/22	5:05	54.8	
24/3/22	21:10	59.8			25/3/22	1:10	53.3			25/3/22	5:10	55.6	
24/3/22	21:15	60.6			25/3/22	1:15	53.4			25/3/22	5:15	55.2	
24/3/22	21:20	59.8			25/3/22	1:20	52.7			25/3/22	5:20	55.1	
24/3/22	21:25	59.3			25/3/22	1:25	54.2			25/3/22	5:25	55.2	
24/3/22	21:30	59.3			25/3/22	1:30	54.9			25/3/22	5:30	56.8	
24/3/22	21:35	59.6			25/3/22	1:35	52.4			25/3/22	5:35	56.3	
24/3/22	21:40	59.4			25/3/22	1:40	53.0			25/3/22	5:40	56.0	
24/3/22	21:45	58.9			25/3/22	1:45	53.3			25/3/22	5:45	56.9	
24/3/22	21:50	58.8			25/3/22	1:50	53.4			25/3/22	5:50	56.8	
24/3/22	21:55	58.9			25/3/22	1:55	52.9			25/3/22	5:55	57.2	
24/3/22	22:00	59.8	59.6		25/3/22	2:00	52.0	53.3		25/3/22	6:00	58.7	56.4
24/3/22	22:05	59.8			25/3/22	2:05	52.4			25/3/22	6:05	59.5	
24/3/22	22:10	59.7			25/3/22	2:10	52.8			25/3/22	6:10	59.2	
24/3/22	22:15	59.4			25/3/22	2:15	52.8			25/3/22	6:15	59.4	
24/3/22	22:20	60.0			25/3/22	2:20	52.9			25/3/22	6:20	59.7	
24/3/22	22:25	59.6			25/3/22	2:25	52.4			25/3/22	6:25	60.0	
24/3/22	22:30	58.9			25/3/22	2:30	51.6			25/3/22	6:30	60.5	
24/3/22	22:35	59.3			25/3/22	2:35	53.5			25/3/22	6:35	61.0	
24/3/22	22:40	58.8			25/3/22	2:40	52.3			25/3/22	6:40	61.0	
24/3/22	22:45	59.0			25/3/22	2:45	50.9			25/3/22	6:45	61.0	
24/3/22	22:50	58.6			25/3/22	2:50	52.5			25/3/22	6:50	61.0	
24/3/22	22:55	58.4			25/3/22	2:55	52.7			25/3/22	6:55	61.2	
24/3/22	23:00	57.8	59.2		25/3/22	3:00	52.4	52.5		25/3/22	7:00	61.3	60.5

CONFIDENTIAL

BASELINE NOISE SURVEY REPORT

NOISE MONITORING ENVIRONMENTAL WORK

REPORT REFERENCE NO: - 22041308/nms/ch2m/N5/PtN5

For

CH2M HILL SINGAPORE PTE LTD

150 Beach Road, Gateway West 34th Floor, Singapore 189720

Project Location:
Jalan Lam Sam Road

Attention:
Ms Catherine Baldedara

Project Title.:
DE170

Monitoring Location:
Forest Area

Date of Monitoring:
28 March 2022 - 04 April 2022

Date of Report:
13 April 2022

Report is issued under the following conditions:

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APPENDIX

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1.0 INTRODUCTION

ENSSCOM PTE LTD was commissioned by:

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

The purpose of this survey was to assess the current acoustical environment to establish the baseline background noise level generated before start of construction activities for
Project Title - DE170

The survey is conducted in accordance to the Construction Noise control Guideline on NEA's permissible noise levels for construction sites and industrial premises.

2.0 NOISE SURVEY CONDITION

Report Reference No: 22041308/nms/ch2m/N5/PtN5

Date of Report: 13-Apr-2022

Survey On: 28-Mar-2022 (0700hrs) to 4-Apr-2022 (0700hrs)

Operating Condition of Site: All operations were under normal conditions during the noise survey. Construction activities have not begun during period of noise monitoring.

Noise survey was conducted using accepted standard procedures and appropriate sound measuring equipment, which is properly calibrated to ensure accuracy.

All noise measurements were made in terms of A-weighted equivalent continuous sound pressure level in LAeq,T over a period of time T. For example, LAeq,5min are the equivalent sound pressure level measured over a 5-minutes time.

Noise survey was conducted for a full continuous twenty-four (24) hours, Seven (7) days, for **One (1) monitoring points/location**. The noise levels emitted were monitored accordingly and recorded.

The survey is conducted by qualified noise monitoring personnel and reference to Appendix C for their certificate.

3.0 INSTRUMENTS

Monitoring instrument was positioned at between 1.8 meters to 3 meters in height from the floor (Ground Level), Mid Level (5 – 6 storey building height) Or High Level (Roof Level). Overall noise distribution was fairly homogenous throughout the duration of noise survey.

Sound Level Meter used complies and conform to the minimum requirements of a Type 1/Class 1 instrument specified in the International Electrotechnical Commission (IEC) publications of 60651 and 60804.

Before and after the noise measurements, the sound level meter is calibrated to verify the accuracy of the instrument.

3.1 Sound Level Meters

CIRRUS RESEARCH plc, Model: CR171C
Class 1 Data Logging Sound Level Meter
Serial Number: **G061796**

3.2 Acoustic Calibrator

CIRRUS RESEARCH plc, Model: CR515
Acoustic Calibrator
Serial Number: **60614**

Acoustic Pressure level:	94.01	dB	(reference 20uPa)
Step +20dB:	113.93	dB	
Nominal Frequency:	992	Hz	

The calibration certificate of the momnitoring instrument can be found in Appendix D

4.0 NOISE SURVEY TERMS

4.1 A Weighting
A standard weighting of the audible frequencies designed to reflect the response of the human ear to noise.

4.2 Acoustic Calibrator
An instrument that provides a reference noise source that is used to calibrate and check the performance of a Sound Level Meter.

4.3 Broadband
Noise Measurements using parameters, which include all the audible noise

4.4 dB(A)
Decibels A Weighted

4.5 Decibel (dB)
The units of sound level and noise exposure measurement

4.6 Fast Time Weighting
A standard time weighting applied by the Sound Level Meter

4.7 IEC 60651:1979
The International Standard for Sound Level Meters

4.8 IEC 60804:1984
The International Standard for Integrating & Integrating-Averaging Sound Level Meters

4.9 IEC 61260:1995
The International Standard for 1:1 Octave & 1:3 Octave Band Filters

4.10 IEC 61672-1:2003
The International Standard for Sound Level Meter and Integrating Averaging Sound Level Meters that replaces both IEC 60651 and IEC 60804

4.11 Integrating Averaging Sound Level Meter
A Sound Level Meter which accumulates the total sound energy over a measurement period and calculates an average

4.12 LAeq,t
Equivalent continuous sound pressure level. A measure of the average sound pressure level during a period of time, t, in dB with 'A' weighting.

4.13 Sound Level
Sound Pressure Level with a Frequency weighting, such as dB(A)

4.14 Sound Level Meter
An instrument for measuring various noise parameters

4.15 Sound Pressure Level, SPL.
The basic measure of noise loudness, expressed in decibels

5.0 SURVEYING LOCATIONS

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours, Seven (7) days noise monitoring at the boundary of proposed construction site. (Refer to Appendix A for instrument layout plan)

Possible noise contribution source and occurrence:

NOISE MONITORING LOCATION	NOISE SOURCE	OCCURRENCE
Point 5: Jalan Lam Sam Road (Forested Area)	Taffic Noise from KJE Aircraft Noise	High - Vehicle traffic noise Medium - Aircraft Noise

Note: The above-mentioned noise sources may be limited and there are possible other noise sources not detected during the time of our site survey. For example, possible noise sources can be from occasional aircraft noise, or other activities nearby to the monitoring points.

6.0 NOISE SURVEY RESULTS

The noise survey was carried out in accordance with the Environmental Pollution Control Act (Chapter 94A, Section 77(1)), Environmental Pollution Control (Control of Noise at Construction Sites) Regulations, 1999.

Monday to Saturday

Types of Affected Building	Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)		
	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	60 (LEQ 12hr)	50 (LEQ 12hr)	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	90 (Leq 5min)	70 (Leq 5min)	55 (Leq 5min)
	75 (LEQ 12hr)	65 (LEQ 1hr)	55 (LEQ 1hr)
(c) Buildings (other than those in Paragraphs (a)and (b) above	**90 (Leq 5min)**	**70 (Leq 5min)**	**70 (Leq 5min)**
	75 (LEQ 12hr)	**65 (LEQ 12hr)**	

Sunday and Public Holidays

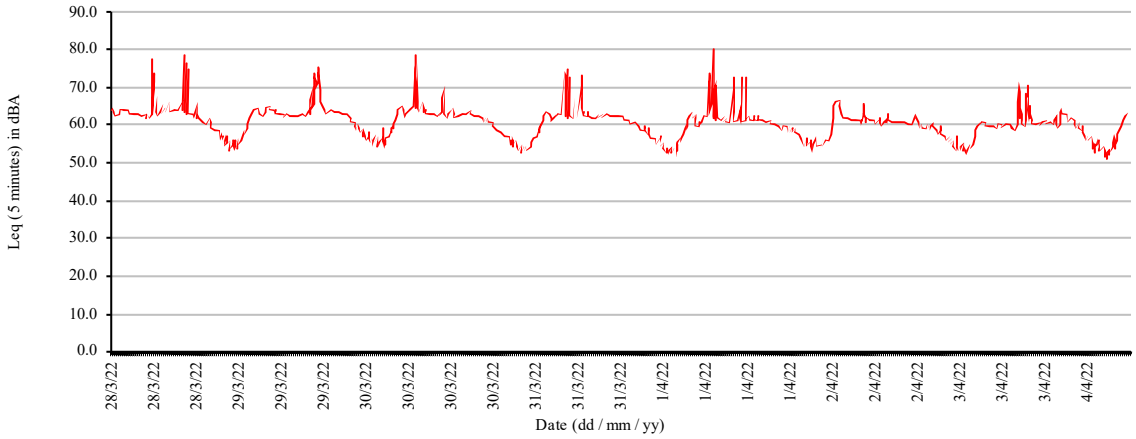
Types of Affected Building	Maximum Noise Level Permitted for construction sites (reckoned as an equivalent continuous noise level over a period of 5 minutes) in decibel (A)		
	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospitals, Schools, Institutions of Higher Learning, Homes for aged, Sick, etc	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	60 (LEQ 12hr)	50 (LEQ 12hr)	
(b) Residental Buildings Located less than 150m from the construction site where noise is being emitted	75 (Leq 5min)	55 (Leq 5min)	55 (Leq 5min)
	75 (LEQ 12hr)	-	-
(c) Buildings (other than those in Paragraphs (a)and (b) above	**90 (Leq 5min)**	**70 (Leq 5min)**	**70 (Leq 5min)**
	75 (LEQ 12hr)	**65 (LEQ 12hr)**	

Note:
No Work Rule on Sundays and Public Holidays
In addition to the settings of the permissible noise limits, NEA has also implemented a rule on prohibition of work on Sundays and Public Holidays (PH) for construction sites located within 150m away from residential premises and noise sensitive premises as follows:
Site Established from 1 September 2011. No work is allowed from 10.00pm on Sat/eve of PH to 7.00am on the following Mon/day after the PH. (For details, please refer to Appendix B)

Survey Results for monitoring point 1 from period : 28-Mar-2022 to 4-Apr-2022

Location : Forest Area

Leq (5 Minutes) Plotted Against Date of Monitoring



Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 5 min in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 5min db (A)
No. NM-5		From		To			
Forest Area	Mon	28/3/22	0700	28/3/22	1900	**77.3**	90
	Mon	28/3/22	1900	28/3/22	2200	**78.4**	70
	Mon/Tue	28/3/22	2200	29/3/22	0700	**64.8**	70
	Tue	29/3/22	0700	29/3/22	1900	**75.1**	90
	Tue	29/3/22	1900	29/3/22	2200	**64.7**	70
	Tue/Wed	29/3/22	2200	30/3/22	0700	**64.9**	70
	Wed	30/3/22	0700	30/3/22	1900	**78.3**	90
	Wed	30/3/22	1900	30/3/22	2200	**62.7**	70
	Wed/Thu	30/3/22	2200	31/3/22	0700	**63.4**	70
	Thu	31/3/22	0700	31/3/22	1900	**74.8**	90
	Thu	31/3/22	1900	31/3/22	2200	**62.4**	70
	Thu/Fri	31/3/22	2200	1/4/22	0700	**63.6**	70
	Fri	1/4/22	0700	1/4/22	1900	**80.1**	90
	Fri	1/4/22	1900	1/4/22	2200	**61.4**	70
	Fri/Sat	1/4/22	2200	2/4/22	0700	**66.7**	70
	Sat	2/4/22	0700	2/4/22	1900	**66.6**	90
	Sat	2/4/22	1900	2/4/22	2200	**62.9**	70
	Sat/Sun	2/4/22	2200	3/4/22	0700	**61.0**	70
	Sun	3/4/22	0700	3/4/22	1900	**71.5**	90
	Sun	3/4/22	1900	3/4/22	2200	**64.8**	70
	Sun/Mon	3/4/22	2200	4/4/22	0700	**63.5**	70

Table 6.1 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 5 min

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 1 hr in Leq db(A) for the specific period	Maximum Noise Level permitted for construction sites Leq 1 hr db (A)
No. NM-5		From		To			
Forest Area	Mon	28/3/22	1900	28/3/22	2200	**71.3**	-
	Mon	28/3/22	2200	29/3/22	0700	**63.7**	-
	Tue	29/3/22	1900	29/3/22	2200	**63.8**	-
	Tue	29/3/22	2200	30/3/22	0700	**63.9**	-
	Wed	30/3/22	1900	30/3/22	2200	**62.3**	-
	Wed	30/3/22	2200	31/3/22	0700	**62.4**	-
	Thu	31/3/22	1900	31/3/22	2200	**61.9**	-
	Thu	31/3/22	2200	1/4/22	0700	**62.4**	-
	Fri	1/4/22	1900	1/4/22	2200	**60.7**	-
	Fri	1/4/22	2200	2/4/22	0700	**65.4**	-
	Sat	2/4/22	1900	2/4/22	2200	**61.7**	-
	Sat	2/4/22	2200	3/4/22	0700	**60.4**	-
	Sun	3/4/22	1900	3/4/22	2200	**63.1**	-
	Sun	3/4/22	2200	4/4/22	0700	**62.5**	-

Table 6.2 Summary of Noise Monitoring Results at Maximum Equivalent of LEQ 1 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over 12 hr in Leq db(A)	Maximum Noise Level permitted for construction sites Leq 12 hr db (A)
No. NM-5		From		To			
Forest Area	Mon	28/3/22	0700	28/3/22	1900	**64.5**	75
	Mon	28/3/22	1900	29/3/22	0700	**63.1**	65
	Tue	29/3/22	0700	29/3/22	1900	**65.4**	75
	Tue	29/3/22	1900	30/3/22	0700	**60.9**	65
	Wed	30/3/22	0700	30/3/22	1900	**64.8**	75
	Wed	30/3/22	1900	31/3/22	0700	**59.2**	65
	Thu	31/3/22	0700	31/3/22	1900	**64.1**	75
	Thu	31/3/22	1900	1/4/22	0700	**58.9**	65
	Fri	1/4/22	0700	1/4/22	1900	**64.8**	75
	Fri	1/4/22	1900	2/4/22	0700	**59.3**	65
	Sat	2/4/22	0700	2/4/22	1900	**61.6**	75
	Sat	2/4/22	1900	2/4/22	0700	**58.4**	65
	Sun	2/4/22	0700	3/4/22	1900	**61.9**	75
	Sun	3/4/22	1900	4/4/22	0700	**59.4**	65

Table 6.3 Summary of Noise Monitoring Results at LEQ 12 hr

Noise (Dosimeter)		Duration (DD/MM/YY Hr: Min)				Maximum Equivalent continuous sound level over specific period in Leq db(A)	Maximum Noise Level permitted for construction sites in db (A)
No. NM-5		From		To			
Forest Area	Mon	28/3/22	700	28/3/22	1900	**64.5**	90(Leq5min) 75 (Leq12hrs)
	Mon	28/3/22	1900	28/3/22	2200	**67.5**	70 (Leq5min)
	Mon	28/3/22	2200	29/3/22	0000	**60.5**	70 (Leq5min)
	Tue	29/3/22	0000	29/3/22	700	**59.0**	70 (Leq5min)
	Tue	29/3/22	700	29/3/22	1900	**65.4**	90(Leq5min) 75 (Leq12hrs)
	Tue	29/3/22	1900	29/3/22	2200	**63.3**	70 (Leq5min)
	Tue	29/3/22	2200	30/3/22	0000	**60.8**	70 (Leq5min)
	Wed	30/3/22	0000	30/3/22	700	**59.2**	70 (Leq5min)
	Wed	30/3/22	700	30/3/22	1900	**64.8**	90(Leq5min) 75 (Leq12hrs)
	Wed	30/3/22	1900	30/3/22	2200	**61.6**	70 (Leq5min)
	Wed	30/3/22	2200	31/3/22	0000	**58.7**	70 (Leq5min)
	Thu	31/3/22	0000	31/3/22	700	**57.7**	70 (Leq5min)
	Thu	31/3/22	700	31/3/22	1900	**64.1**	90(Leq5min) 75 (Leq12hrs)
	Thu	31/3/22	1900	31/3/22	2200	**61.1**	70 (Leq5min)
	Thu	31/3/22	2200	1/4/22	0000	**58.9**	70 (Leq5min)
	Fri	1/4/22	0000	1/4/22	700	**57.5**	70 (Leq5min)
	Fri	1/4/22	700	1/4/22	1900	**64.8**	90(Leq5min) 75 (Leq12hrs)
	Fri	1/4/22	1900	1/4/22	2200	**60.1**	70 (Leq5min)
	Fri	1/4/22	2200	2/4/22	0000	**58.7**	70 (Leq5min)
	Sat	2/4/22	0000	2/4/22	700	**59.1**	70 (Leq5min)
	Sat	2/4/22	700	2/4/22	1900	**61.6**	90(Leq5min) 75 (Leq12hrs)
	Sat	2/4/22	1900	2/4/22	2200	**60.6**	70 (Leq5min)
	Sat	2/4/22	2200	3/4/22	0000	**59.0**	70 (Leq5min)
	Sun	3/4/22	0000	3/4/22	700	**56.7**	70 (Leq5min)
	Sun	3/4/22	700	3/4/22	1900	**61.9**	90(Leq5min) 75 (Leq12hrs)
	Sun	3/4/22	1900	3/4/22	2200	**62.3**	70 (Leq5min)
	Sun	3/4/22	2200	3/4/22	0000	**58.6**	70 (Leq5min)
	Mon	4/4/22	0000	4/4/22	0700	**57.6**	70 (Leq5min)

Table 6.4 Summary of Noise Monitoring Results at Continuous Equivalent of LEQ for specific period

7.0 SUMMARY

The purpose of this survey was to assess the current acoustical environment to establish the background noise level generated over One (1) monitoring point/location for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title

DE170

The location of the nearest Noise Receiver (NSR) : **Forest Area**

The findings show that,

The ambience noise at NSR point 5 In Forested Area along Jalan Lam Sam Road facing the project site, falls within the Permissible limits stated in the NEA Guideline on construction noise control for the time period between 7am to 7pm (Leq5min) (Monday to Saturday and Sunday) most of the time.

The Leq 5min occasionally exceeds the NEA noise limit (70dBa) for the periods 1900hrs to 2200hrs on weekdays.

* Refer to Appendix E for full noise data report.

We recommend submitting an appeal to NEA to adjust the Noise Limit as in table 6.5 for NSR Point 5 in Forested Area along Jalan Lam Sam Road

Background Noise Correction Factor

The adjusted value for the maximum noise level shall be obtained by adding the correction factor corresponding to the difference between the maximum permitted level and the background noise level, set out in the Table below, to the higher of the 2 noise levels.

Difference between 2 noise levels in decibels (A)	Correction factor in decibels (A)
a) Below 2	3
b) 2 to less than 4	2
c) 4 to less than 10	1
d) 10 and above	NIL

Proposed New Permissible Noise Level for monitoring point: **Forest Area**

Period	Noise Limit	*Equivalent continous sound level over period in Leq dB(A) - Background Noise	Difference	Correction Factor	Proposed Adjusted New Permissible Level (dBA)
7am to 7pm (Monday to Saturday)	90 (Leq5min)	65.4	24.6	0	90 (Leq5min)
	75 (Leq 12hr)	65.4	9.6	1	76 (Leq 12hr)
7pm to 10pm (Monday to Saturday)	70 (Leq 5min)	67.5	2.5	2	72 (Leq 5min)
10pm to 12am (Monday to Saturday)	70 (Leq 5min)	60.8	9.2	1	71 (Leq 5min)
12am to 7am (Monday to Saturday)	70 (Leq 5min)	59.2	10.8	0	70 (Leq 5min)
7pm to 7am (Monday to Saturday)	65 (Leq 12hrs)	63.1	1.9	3	68 (Leq 12hr)
7am to 7pm (Sunday)	90 (Leq5min)	61.9	28.1	0	90 (Leq5min)
	75 (Leq 12hr)	61.9	13.1	0	75 (Leq 12hr)
7pm to 10pm (Sunday)	70 (Leq 5min)	62.3	7.7	1	71 (Leq 5min)
10pm to 12am (Sunday)	70 (Leq 5min)	58.6	11.4	0	70 (Leq 5min)
12am to 7am (Sunday)	70 (Leq 5min)	56.7	13.3	0	70 (Leq 5min)
7pm to 7am (Sunday)	65 (Leq 12hrs)	59.4	5.6	1	66 (Leq 12hr)

* The highest equivalent continuous sound level in Leq dB(A) between Monday to Saturday is taken for calculating the adjusted new permissible level for each period.

Table 6.5 Proposed New Permissible Noise Level

8.0 CONFIRMATION

We, ENSSCOM PTE LTD, certify that the information given is correct. The noise survey was conducted for

CH2M HILL Singapore Pte Ltd
150 Beach Road, Gateway West 34th Floor, Singapore 189720

To carry out One (1) monitoring points/locations for continuous twenty-four (24) hours and seven (7) days noise monitoring at the boundary of the project site for Project Title
DE170

was carried out as described in this report and the results resented herein.

Date of Monitoring:

From 28/3/22 (0700hrs) to 4/4/22 (0700hrs)

Hoo Hian Choon (Mr)
Noise Monitoring Consultant
13-Apr-2022

APPENDIX A : INSTRUMENT LAYOUT PLAN

NOISE METER

APPENDIX B: NEA CONSTRUCTION NOISE CONTROL GUIDELINE

Construction Noise Control

Maximum Permissible Noise Levels for Construction Work Commenced on or after 1st October 2007

Noise Regulation

Mondays to Saturdays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	65 dBA (Leq 1 hr)	55 dBA (Leq 1 hr)
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

Sundays and Public Holidays

Types of affected buildings	7am - 7pm	7pm - 10pm	10pm - 7am
(a) Hospital, schools, institutions of higher learning, homes for aged sick, etc	60 dBA (Leq* 12 hrs)	50 dBA (Leq 12 hrs)	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(b) Residential buildings located less than 150m from the construction site	75 dBA (Leq 12 hrs)	-	
	75 dBA (Leq 5 mins)	55 dBA (Leq 5 mins)	
(c) Buildings other than those in (a) and (b) above	75 dBA (Leq 12 hrs)	65 dBA (Leq 12 hrs)	
	90 dBA (Leq 5 mins)	70 dBA (Leq 5 mins)	

APPENDIX C: NOISE MONITORING OFFICER CERTIFICATES

S/No: 02/20/159

Acoustical Laboratory Pte Ltd
CENTRE FOR ENVIRONMENTAL CONSULTATION AND TRAINING

Certificate of Competence

This is to certify that

Hoo Hian Choon

has attended and passed an examination for a course on

Noise Monitoring

held between 22nd May 2002 and 24th May 2002

Acoustical Laboratory is approved by the Ministry of Labour as a Training Centre for the Noise Monitoring Course

Tan Kok Yang
Course Co-ordinator

Koh L. B.
Managing Director

NANYANG TECHNOLOGICAL UNIVERSITY

This is to certify that

Hoo Hian Choon

has successfully completed the 2½-day course

Industrial Noise Control

Seah Ben Hun
Director
Centre for Continuing Education

27 August 2010

APPENDIX D: INSTRUMENT CALIBRATION CERTIFICATES

Cirrus Research plc
dedicated to noise measurement

ENSSCOM
Improving Your Workplace Safety & Health

Certificate of Calibration

Equipment Details

Instrument Manufacturer	Cirrus Research plc
Instrument Type	CR: 171 C
Description	Sound Level Meter
Serial Number	G061796

Calibration Procedure

The instrument detailed above have been calibrated to the publish test and calibration data as detailed in the instrument hand book, using the techniques recommended in the latest revisions of the International Standards IEC 61672-1:2013, IEC 61672-1:2002, IEC 60651:1979, IEC 60804: 2001, IEC 61260:1995, IEC 60942:2003, IEC 60942:1997, IEC 61252:1993, ANSI S1.4-1983, ANSI S1.11-1986 and ANSI S1.43-1997 where applicable.
Sound Level Meters: All Calibration procedures were carried out by substituting the microphone capsule with a suitable electrical signal, apart from the final acoustic calibration.

Calibration Traceability

The instrument detailed above was calibrated against the calibration laboratory standards held by Cirrus Research plc. These are traceable to International Standards {A.0.6}. The standards are:

Multi Acoustic Calibrator	B & K 4226	Serial Number	3041345	Calibration Ref.	551220084820779
Microphone Type	MK 224	Serial Number	214953B	Calibration Ref.	162361

Calibrated by

Calibration Date 18 March 2022

Calibration Certificate Number 228083

This Calibration Certificate is valid for 12 months from the date above.

Contact Your Local Authorised Distributor for Product Enquiries & Calibration Services

ENSSCOM PTE LTD
1015, Geylang East Ave 3
#04-105 Singapore 389730
Company Reg. No. 200720176H
GST Reg. No. 200720176H
T +65 6743 9882
F +65 6743 9887
W www.ensscom.com
E enquiry@ensscom.com

CERTIFICATE OF CALIBRATION

ISSUED BY **Cirrus Research plc**

DATE OF ISSUE **07 September 2021** CERTIFICATE NUMBER **162363**

Cirrus Research plc
Acoustic House
Bridlington Road
Hunmanby
North Yorkshire
YO14 0PH
United Kingdom

Page 1 of 2

Approved signatory
N.Smith
Electronically signed:

Sound Calibrator : IEC 60942:2003

Instrument information

Manufacturer: Cirrus Research plc **Notes:**

Model: CR:515

Serial number: 60614

Class: 1

Test summary

Date of calibration: 07 September 2021

The sound calibrator detailed above has been calibrated to the published data as described in the operating manual and in the half-inch configuration. The procedures and techniques used are as described in IEC60942_2003 Annex B – Periodic Tests and three determinations of the sound pressure level, frequency and total distortion were made.

The sound pressure level was measured using a WS2F condenser microphone type MK:224 manufactured by Cirrus Research plc.

The results have been corrected to the reference pressure of 101.33 kPa using the manufacturer's data.

The manufacturer's product information indicates that this model of sound calibrator has been formally pattern approved to IEC60942_2003 Annex A to Class 1. This has been confirmed with the PhysikalischTechnische Bundesanstalt (PTB), Laboratoire National d'Essais (LNE) and APPLUS.

Notes:

This certificate provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory. The results within this certificate relate only to the items calibrated. The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a coverage probability of approximately 95%.

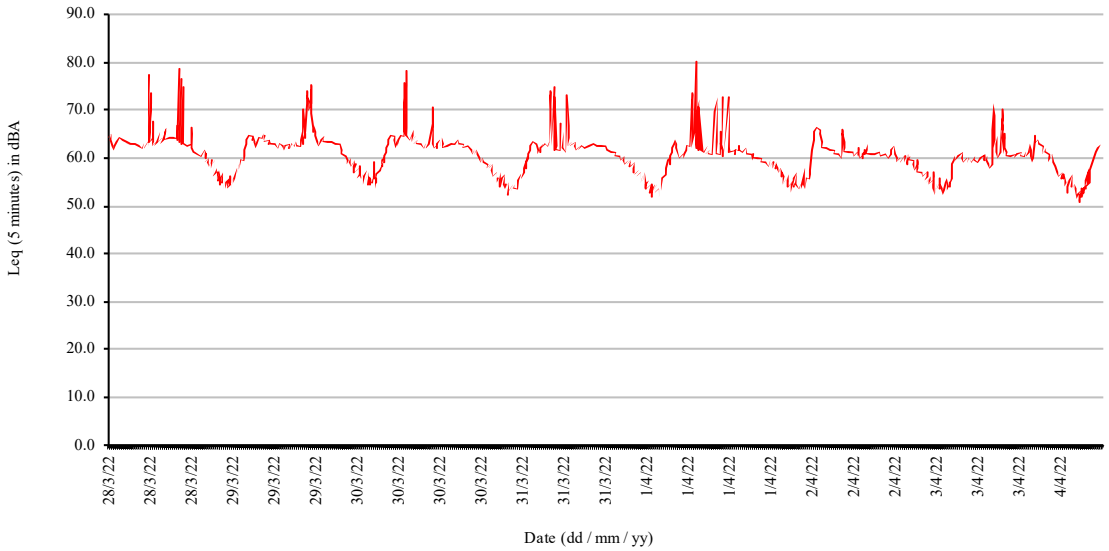
APPENDIX E

CONSTRUCTION SITE NOISE MONITORING DATA AND CHART

NAME OF COMPANY	CH2M HILL Singapore Pte Ltd
SITE LOCATION	Jalan Lam Sam Road
REPORT REFERENCE	28/03/2022 - 04/04/2022

MODE	Environment	FREQUENCY WEIGHTING	A

Leq (5 Minutes) Plotted Against Date of Monitoring



NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			28/03/2022 - 04/04/2022									
Start	28/3/22		7:05		**Leq12h**	64.5			Weighting		A	
End	28/3/22		19:00									
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**
28/3/22	7:05	64.2			28/3/22	11:05	63.3			28/3/22	15:05	62.7
28/3/22	7:10	64.4			28/3/22	11:10	62.7			28/3/22	15:10	63.0
28/3/22	7:15	64.4			28/3/22	11:15	63.0			28/3/22	15:15	63.4
28/3/22	7:20	64.9			28/3/22	11:20	63.0			28/3/22	15:20	63.0
28/3/22	7:25	64.9			28/3/22	11:25	62.7			28/3/22	15:25	65.4
28/3/22	7:30	63.7			28/3/22	11:30	62.3			28/3/22	15:30	63.2
28/3/22	7:35	63.2			28/3/22	11:35	63.0			28/3/22	15:35	63.0
28/3/22	7:40	62.7			28/3/22	11:40	63.0			28/3/22	15:40	63.3
28/3/22	7:45	62.4			28/3/22	11:45	62.5			28/3/22	15:45	63.4
28/3/22	7:50	62.4			28/3/22	11:50	62.6			28/3/22	15:50	62.9
28/3/22	7:55	61.8			28/3/22	11:55	62.7			28/3/22	15:55	64.3
28/3/22	8:00	62.1			28/3/22	12:00	62.5			28/3/22	16:00	63.6
28/3/22	8:05	61.9			28/3/22	12:05	62.8			28/3/22	16:05	63.0
28/3/22	8:10	62.4			28/3/22	12:10	62.3			28/3/22	16:10	63.4
28/3/22	8:15	62.3			28/3/22	12:15	63.0			28/3/22	16:15	63.9
28/3/22	8:20	62.8			28/3/22	12:20	62.1			28/3/22	16:20	64.1
28/3/22	8:25	63.2			28/3/22	12:25	61.9			28/3/22	16:25	64.2
28/3/22	8:30	63.5			28/3/22	12:30	62.5			28/3/22	16:30	66.3
28/3/22	8:35	64.0			28/3/22	12:35	62.3			28/3/22	16:35	65.5
28/3/22	8:40	64.3			28/3/22	12:40	62.7			28/3/22	16:40	63.6
28/3/22	8:45	64.5			28/3/22	12:45	61.9			28/3/22	16:45	63.7
28/3/22	8:50	64.3			28/3/22	12:50	62.4			28/3/22	16:50	63.8
28/3/22	8:55	64.2			28/3/22	12:55	63.1			28/3/22	16:55	64.2
28/3/22	9:00	63.9			28/3/22	13:00	62.6			28/3/22	17:00	63.7
28/3/22	9:05	63.9			28/3/22	13:05	63.0			28/3/22	17:05	64.0
28/3/22	9:10	64.1			28/3/22	13:10	62.5			28/3/22	17:10	64.2
28/3/22	9:15	63.8			28/3/22	13:15	62.7			28/3/22	17:15	64.1
28/3/22	9:20	64.3			28/3/22	13:20	62.0			28/3/22	17:20	64.1
28/3/22	9:25	63.7			28/3/22	13:25	62.2			28/3/22	17:25	64.3
28/3/22	9:30	63.9			28/3/22	13:30	62.2			28/3/22	17:30	64.1
28/3/22	9:35	64.0			28/3/22	13:35	62.5			28/3/22	17:35	64.3
28/3/22	9:40	64.1			28/3/22	13:40	63.2			28/3/22	17:40	64.5
28/3/22	9:45	63.4			28/3/22	13:45	62.6			28/3/22	17:45	64.5
28/3/22	9:50	63.3			28/3/22	13:50	77.3			28/3/22	17:50	64.1
28/3/22	9:55	63.3			28/3/22	13:55	63.2			28/3/22	17:55	64.0
28/3/22	10:00	63.5			28/3/22	14:00	63.2			28/3/22	18:00	64.0
28/3/22	10:05	63.4			28/3/22	14:05	73.7			28/3/22	18:05	63.6
28/3/22	10:10	63.2			28/3/22	14:10	71.6			28/3/22	18:10	64.2
28/3/22	10:15	63.2			28/3/22	14:15	63.4			28/3/22	18:15	64.2
28/3/22	10:20	63.3			28/3/22	14:20	63.1			28/3/22	18:20	64.4
28/3/22	10:25	63.1			28/3/22	14:25	64.0			28/3/22	18:25	64.2
28/3/22	10:30	62.9			28/3/22	14:30	67.7			28/3/22	18:30	64.2
28/3/22	10:35	63.2			28/3/22	14:35	63.4			28/3/22	18:35	64.3
28/3/22	10:40	62.9			28/3/22	14:40	62.7			28/3/22	18:40	66.7
28/3/22	10:45	63.0			28/3/22	14:45	63.4			28/3/22	18:45	63.8
28/3/22	10:50	63.1			28/3/22	14:50	62.6			28/3/22	18:50	63.7
28/3/22	10:55	63.2			28/3/22	14:55	62.6			28/3/22	18:55	63.5
28/3/22	11:00	62.8			28/3/22	15:00	62.6			28/3/22	19:00	64.0

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Jalan Lam Sam Road										
REPORT REFERENCE			28/03/2022 - 04/04/2022										
Start	28/3/22		19:05		**Leq12h**	63.1				Weighting		A	
End	29/3/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
28/3/22	19:05	**78.4**			28/3/22	23:05	61.7			29/3/22	3:05	55.5	
28/3/22	19:10	63.5			28/3/22	23:10	61.2			29/3/22	3:10	55.7	
28/3/22	19:15	63.5			28/3/22	23:15	61.8			29/3/22	3:15	54.8	
28/3/22	19:20	63.7			28/3/22	23:20	60.9			29/3/22	3:20	53.4	
28/3/22	19:25	**76.3**			28/3/22	23:25	60.1			29/3/22	3:25	54.6	
28/3/22	19:30	63.1			28/3/22	23:30	60.9			29/3/22	3:30	56.2	
28/3/22	19:35	62.5			28/3/22	23:35	59.1			29/3/22	3:35	54.8	
28/3/22	19:40	63.3			28/3/22	23:40	59.8			29/3/22	3:40	54.5	
28/3/22	19:45	**74.9**			28/3/22	23:45	59.2			29/3/22	3:45	56.5	
28/3/22	19:50	62.9			28/3/22	23:50	59.4			29/3/22	3:50	57.0	
28/3/22	19:55	62.6			28/3/22	23:55	58.9			29/3/22	3:55	53.6	
28/3/22	20:00	62.7	71.3		28/3/22	0:00	58.4	60.3		29/3/22	4:00	55.8	55.3
28/3/22	20:05	62.8			29/3/22	0:05	57.9			29/3/22	4:05	55.3	
28/3/22	20:10	63.0			29/3/22	0:10	58.5			29/3/22	4:10	55.0	
28/3/22	20:15	62.6			29/3/22	0:15	59.2			29/3/22	4:15	54.7	
28/3/22	20:20	62.9			29/3/22	0:20	58.9			29/3/22	4:20	55.1	
28/3/22	20:25	62.2			29/3/22	0:25	58.7			29/3/22	4:25	55.8	
28/3/22	20:30	62.7			29/3/22	0:30	58.0			29/3/22	4:30	56.0	
28/3/22	20:35	62.5			29/3/22	0:35	59.4			29/3/22	4:35	56.0	
28/3/22	20:40	62.3			29/3/22	0:40	58.4			29/3/22	4:40	56.1	
28/3/22	20:45	61.9			29/3/22	0:45	58.7			29/3/22	4:45	57.7	
28/3/22	20:50	63.0			29/3/22	0:50	58.8			29/3/22	4:50	58.0	
28/3/22	20:55	62.8			29/3/22	0:55	59.4			29/3/22	4:55	57.2	
28/3/22	21:00	66.2	63.1		29/3/22	1:00	56.0	58.6		29/3/22	5:00	58.5	56.5
28/3/22	21:05	62.1			29/3/22	1:05	56.4			29/3/22	5:05	58.1	
28/3/22	21:10	62.2			29/3/22	1:10	56.8			29/3/22	5:10	58.2	
28/3/22	21:15	62.7			29/3/22	1:15	57.9			29/3/22	5:15	59.0	
28/3/22	21:20	61.7			29/3/22	1:20	57.9			29/3/22	5:20	57.8	
28/3/22	21:25	62.0			29/3/22	1:25	55.8			29/3/22	5:25	59.4	
28/3/22	21:30	61.8			29/3/22	1:30	56.9			29/3/22	5:30	59.7	
28/3/22	21:35	61.4			29/3/22	1:35	55.1			29/3/22	5:35	60.1	
28/3/22	21:40	61.8			29/3/22	1:40	57.4			29/3/22	5:40	59.9	
28/3/22	21:45	61.4			29/3/22	1:45	57.0			29/3/22	5:45	60.0	
28/3/22	21:50	61.4			29/3/22	1:50	55.9			29/3/22	5:50	59.7	
28/3/22	21:55	61.5			29/3/22	1:55	54.5			29/3/22	5:55	60.3	
28/3/22	22:00	60.9	61.8		29/3/22	2:00	55.2	56.5		29/3/22	6:00	61.7	59.6
28/3/22	22:05	61.4			29/3/22	2:05	54.9			29/3/22	6:05	61.8	
28/3/22	22:10	61.3			29/3/22	2:10	56.8			29/3/22	6:10	62.2	
28/3/22	22:15	61.0			29/3/22	2:15	54.9			29/3/22	6:15	63.1	
28/3/22	22:20	61.3			29/3/22	2:20	56.1			29/3/22	6:20	62.9	
28/3/22	22:25	60.6			29/3/22	2:25	53.5			29/3/22	6:25	62.8	
28/3/22	22:30	60.3			29/3/22	2:30	55.2			29/3/22	6:30	63.9	
28/3/22	22:35	61.0			29/3/22	2:35	55.2			29/3/22	6:35	63.8	
28/3/22	22:40	60.4			29/3/22	2:40	54.9			29/3/22	6:40	63.9	
28/3/22	22:45	60.5			29/3/22	2:45	55.5			29/3/22	6:45	64.8	
28/3/22	22:50	59.8			29/3/22	2:50	55.6			29/3/22	6:50	64.4	
28/3/22	22:55	60.7			29/3/22	2:55	53.8			29/3/22	6:55	64.7	
28/3/22	23:00	60.2	60.7		29/3/22	3:00	54.7	55.2		29/3/22	7:00	64.8	63.7

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			28/03/2022 - 04/04/2022								
Start	29/3/22		7:05		**Leq12h**	65.4			Weighting		A
End	29/3/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
29/3/22	7:05	64.7			29/3/22	11:05	63.4		29/3/22	15:05	62.6
29/3/22	7:10	64.3			29/3/22	11:10	63.1		29/3/22	15:10	62.3
29/3/22	7:15	64.6			29/3/22	11:15	62.6		29/3/22	15:15	62.8
29/3/22	7:20	63.8			29/3/22	11:20	62.7		29/3/22	15:20	62.6
29/3/22	7:25	64.5			29/3/22	11:25	63.0		29/3/22	15:25	62.0
29/3/22	7:30	64.7			29/3/22	11:30	62.6		29/3/22	15:30	62.6
29/3/22	7:35	64.0			29/3/22	11:35	63.2		29/3/22	15:35	62.9
29/3/22	7:40	63.2			29/3/22	11:40	62.0		29/3/22	15:40	63.7
29/3/22	7:45	63.1			29/3/22	11:45	63.1		29/3/22	15:45	65.3
29/3/22	7:50	63.3			29/3/22	11:50	62.9		29/3/22	15:50	64.1
29/3/22	7:55	62.2			29/3/22	11:55	62.5		29/3/22	15:55	63.0
29/3/22	8:00	62.3			29/3/22	12:00	62.8		29/3/22	16:00	66.8
29/3/22	8:05	62.6			29/3/22	12:05	62.8		29/3/22	16:05	70.2
29/3/22	8:10	62.9			29/3/22	12:10	62.6		29/3/22	16:10	65.1
29/3/22	8:15	63.0			29/3/22	12:15	63.0		29/3/22	16:15	64.7
29/3/22	8:20	62.4			29/3/22	12:20	62.7		29/3/22	16:20	64.0
29/3/22	8:25	63.3			29/3/22	12:25	62.2		29/3/22	16:25	65.4
29/3/22	8:30	64.3			29/3/22	12:30	62.8		29/3/22	16:30	71.6
29/3/22	8:35	64.4			29/3/22	12:35	62.5		29/3/22	16:35	73.8
29/3/22	8:40	64.5			29/3/22	12:40	62.2		29/3/22	16:40	72.5
29/3/22	8:45	64.6			29/3/22	12:45	62.5		29/3/22	16:45	72.1
29/3/22	8:50	64.4			29/3/22	12:50	62.6		29/3/22	16:50	71.7
29/3/22	8:55	64.3			29/3/22	12:55	61.8		29/3/22	16:55	71.5
29/3/22	9:00	64.4			29/3/22	13:00	62.3		29/3/22	17:00	69.6
29/3/22	9:05	64.9			29/3/22	13:05	62.3		29/3/22	17:05	69.1
29/3/22	9:10	64.7			29/3/22	13:10	62.5		29/3/22	17:10	71.5
29/3/22	9:15	63.9			29/3/22	13:15	62.3		29/3/22	17:15	75.1
29/3/22	9:20	64.7			29/3/22	13:20	62.0		29/3/22	17:20	73.8
29/3/22	9:25	64.3			29/3/22	13:25	62.9		29/3/22	17:25	69.2
29/3/22	9:30	64.2			29/3/22	13:30	62.9		29/3/22	17:30	66.3
29/3/22	9:35	63.5			29/3/22	13:35	61.9		29/3/22	17:35	65.4
29/3/22	9:40	63.5			29/3/22	13:40	62.9		29/3/22	17:40	66.1
29/3/22	9:45	63.8			29/3/22	13:45	62.5		29/3/22	17:45	66.8
29/3/22	9:50	63.6			29/3/22	13:50	62.9		29/3/22	17:50	65.3
29/3/22	9:55	63.6			29/3/22	13:55	62.2		29/3/22	17:55	64.8
29/3/22	10:00	63.7			29/3/22	14:00	62.8		29/3/22	18:00	64.4
29/3/22	10:05	63.3			29/3/22	14:05	62.5		29/3/22	18:05	64.2
29/3/22	10:10	63.1			29/3/22	14:10	62.8		29/3/22	18:10	64.3
29/3/22	10:15	63.8			29/3/22	14:15	62.8		29/3/22	18:15	64.3
29/3/22	10:20	63.0			29/3/22	14:20	62.8		29/3/22	18:20	63.4
29/3/22	10:25	63.3			29/3/22	14:25	62.7		29/3/22	18:25	63.1
29/3/22	10:30	62.5			29/3/22	14:30	63.3		29/3/22	18:30	63.5
29/3/22	10:35	62.6			29/3/22	14:35	63.0		29/3/22	18:35	62.7
29/3/22	10:40	63.4			29/3/22	14:40	63.2		29/3/22	18:40	63.1
29/3/22	10:45	63.0			29/3/22	14:45	63.3		29/3/22	18:45	62.9
29/3/22	10:50	63.0			29/3/22	14:50	63.6		29/3/22	18:50	62.7
29/3/22	10:55	62.6			29/3/22	14:55	62.6		29/3/22	18:55	62.3
29/3/22	11:00	62.8			29/3/22	15:00	62.6		29/3/22	19:00	63.6

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			28/03/2022 - 04/04/2022									
Start	29/3/22		19:05		**Leq12h**	60.9			Weighting		A	
End	30/3/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**	**Date**	**Time**	**Leq5m**	**Leq1h**
29/3/22	19:05	63.9			29/3/22	23:05	60.9		30/3/22	3:05	55.4	
29/3/22	19:10	64.1			29/3/22	23:10	60.2		30/3/22	3:10	54.4	
29/3/22	19:15	64.3			29/3/22	23:15	60.2		30/3/22	3:15	55.6	
29/3/22	19:20	63.8			29/3/22	23:20	59.7		30/3/22	3:20	54.7	
29/3/22	19:25	64.7			29/3/22	23:25	60.0		30/3/22	3:25	55.1	
29/3/22	19:30	63.5			29/3/22	23:30	59.2		30/3/22	3:30	54.8	
29/3/22	19:35	63.7			29/3/22	23:35	58.8		30/3/22	3:35	55.7	
29/3/22	19:40	63.8			29/3/22	23:40	60.1		30/3/22	3:40	55.0	
29/3/22	19:45	63.3			29/3/22	23:45	60.0		30/3/22	3:45	56.3	
29/3/22	19:50	63.2			29/3/22	23:50	60.2		30/3/22	3:50	54.8	
29/3/22	19:55	63.3			29/3/22	23:55	59.2		30/3/22	3:55	59.0	
29/3/22	20:00	63.3	63.8		29/3/22	0:00	58.7	59.8	30/3/22	4:00	55.7	55.7
29/3/22	20:05	63.6			30/3/22	0:05	58.9		30/3/22	4:05	56.5	
29/3/22	20:10	63.5			30/3/22	0:10	58.6		30/3/22	4:10	53.7	
29/3/22	20:15	63.5			30/3/22	0:15	58.2		30/3/22	4:15	55.8	
29/3/22	20:20	63.7			30/3/22	0:20	58.5		30/3/22	4:20	55.0	
29/3/22	20:25	63.4			30/3/22	0:25	59.4		30/3/22	4:25	56.4	
29/3/22	20:30	63.1			30/3/22	0:30	58.3		30/3/22	4:30	56.1	
29/3/22	20:35	63.2			30/3/22	0:35	56.8		30/3/22	4:35	56.7	
29/3/22	20:40	63.0			30/3/22	0:40	58.7		30/3/22	4:40	56.7	
29/3/22	20:45	63.3			30/3/22	0:45	58.0		30/3/22	4:45	57.1	
29/3/22	20:50	62.8			30/3/22	0:50	58.5		30/3/22	4:50	57.3	
29/3/22	20:55	63.2			30/3/22	0:55	57.2		30/3/22	4:55	57.2	
29/3/22	21:00	63.1	63.3		30/3/22	1:00	56.5	58.2	30/3/22	5:00	57.7	56.5
29/3/22	21:05	62.9			30/3/22	1:05	56.9		30/3/22	5:05	57.8	
29/3/22	21:10	62.8			30/3/22	1:10	57.7		30/3/22	5:10	59.0	
29/3/22	21:15	63.0			30/3/22	1:15	57.4		30/3/22	5:15	58.4	
29/3/22	21:20	63.4			30/3/22	1:20	55.9		30/3/22	5:20	57.9	
29/3/22	21:25	63.1			30/3/22	1:25	56.4		30/3/22	5:25	59.4	
29/3/22	21:30	62.9			30/3/22	1:30	57.1		30/3/22	5:30	60.3	
29/3/22	21:35	62.8			30/3/22	1:35	58.3		30/3/22	5:35	59.1	
29/3/22	21:40	63.3			30/3/22	1:40	56.4		30/3/22	5:40	60.2	
29/3/22	21:45	62.9			30/3/22	1:45	55.6		30/3/22	5:45	61.0	
29/3/22	21:50	62.4			30/3/22	1:50	55.6		30/3/22	5:50	60.9	
29/3/22	21:55	62.5			30/3/22	1:55	56.5		30/3/22	5:55	61.1	
29/3/22	22:00	62.9	62.9		30/3/22	2:00	56.3	56.8	30/3/22	6:00	60.7	59.8
29/3/22	22:05	62.8			30/3/22	2:05	54.4		30/3/22	6:05	62.0	
29/3/22	22:10	62.6			30/3/22	2:10	56.0		30/3/22	6:10	62.9	
29/3/22	22:15	62.5			30/3/22	2:15	55.9		30/3/22	6:15	63.0	
29/3/22	22:20	62.8			30/3/22	2:20	56.1		30/3/22	6:20	63.7	
29/3/22	22:25	61.8			30/3/22	2:25	56.4		30/3/22	6:25	64.0	
29/3/22	22:30	61.3			30/3/22	2:30	57.6		30/3/22	6:30	63.8	
29/3/22	22:35	61.0			30/3/22	2:35	55.4		30/3/22	6:35	64.0	
29/3/22	22:40	60.4			30/3/22	2:40	55.2		30/3/22	6:40	64.5	
29/3/22	22:45	61.0			30/3/22	2:45	57.1		30/3/22	6:45	64.4	
29/3/22	22:50	60.9			30/3/22	2:50	54.3		30/3/22	6:50	64.9	
29/3/22	22:55	60.4			30/3/22	2:55	56.2		30/3/22	6:55	64.6	
29/3/22	23:00	60.2	61.6		30/3/22	3:00	55.8	56.0	30/3/22	7:00	64.7	63.9

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			28/03/2022 - 04/04/2022								
Start	30/3/22		7:05		**Leq12h**	64.8			Weighting		A
End	30/3/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
30/3/22	7:05	64.8			30/3/22	11:05	63.1		30/3/22	15:05	62.7
30/3/22	7:10	64.5			30/3/22	11:10	63.4		30/3/22	15:10	62.4
30/3/22	7:15	64.8			30/3/22	11:15	63.4		30/3/22	15:15	62.5
30/3/22	7:20	64.0			30/3/22	11:20	63.3		30/3/22	15:20	62.4
30/3/22	7:25	64.3			30/3/22	11:25	63.3		30/3/22	15:25	64.3
30/3/22	7:30	63.8			30/3/22	11:30	63.0		30/3/22	15:30	63.0
30/3/22	7:35	62.0			30/3/22	11:35	62.4		30/3/22	15:35	62.1
30/3/22	7:40	62.4			30/3/22	11:40	62.9		30/3/22	15:40	62.6
30/3/22	7:45	62.9			30/3/22	11:45	63.1		30/3/22	15:45	62.5
30/3/22	7:50	63.8			30/3/22	11:50	62.3		30/3/22	15:50	62.5
30/3/22	7:55	62.7			30/3/22	11:55	62.6		30/3/22	15:55	61.9
30/3/22	8:00	62.8			30/3/22	12:00	62.5		30/3/22	16:00	62.5
30/3/22	8:05	63.7			30/3/22	12:05	62.9		30/3/22	16:05	62.4
30/3/22	8:10	63.8			30/3/22	12:10	63.2		30/3/22	16:10	62.6
30/3/22	8:15	64.4			30/3/22	12:15	63.0		30/3/22	16:15	62.3
30/3/22	8:20	64.7			30/3/22	12:20	62.3		30/3/22	16:20	62.7
30/3/22	8:25	64.5			30/3/22	12:25	62.2		30/3/22	16:25	62.9
30/3/22	8:30	64.8			30/3/22	12:30	62.8		30/3/22	16:30	63.0
30/3/22	8:35	64.5			30/3/22	12:35	62.8		30/3/22	16:35	63.1
30/3/22	8:40	64.6			30/3/22	12:40	62.5		30/3/22	16:40	62.9
30/3/22	8:45	64.7			30/3/22	12:45	62.9		30/3/22	16:45	62.9
30/3/22	8:50	64.9			30/3/22	12:50	62.2		30/3/22	16:50	62.8
30/3/22	8:55	64.5			30/3/22	12:55	61.9		30/3/22	16:55	63.0
30/3/22	9:00	64.5			30/3/22	13:00	62.4		30/3/22	17:00	62.7
30/3/22	9:05	75.6			30/3/22	13:05	62.7		30/3/22	17:05	62.8
30/3/22	9:10	71.5			30/3/22	13:10	62.9		30/3/22	17:10	62.8
30/3/22	9:15	65.4			30/3/22	13:15	63.2		30/3/22	17:15	63.3
30/3/22	9:20	64.5			30/3/22	13:20	63.3		30/3/22	17:20	63.2
30/3/22	9:25	78.3			30/3/22	13:25	62.5		30/3/22	17:25	63.4
30/3/22	9:30	66.2			30/3/22	13:30	62.5		30/3/22	17:30	62.9
30/3/22	9:35	64.8			30/3/22	13:35	63.3		30/3/22	17:35	62.9
30/3/22	9:40	64.6			30/3/22	13:40	63.1		30/3/22	17:40	63.5
30/3/22	9:45	64.4			30/3/22	13:45	67.2		30/3/22	17:45	63.3
30/3/22	9:50	64.1			30/3/22	13:50	70.5		30/3/22	17:50	63.6
30/3/22	9:55	64.1			30/3/22	13:55	62.8		30/3/22	17:55	63.7
30/3/22	10:00	63.6			30/3/22	14:00	62.8		30/3/22	18:00	63.5
30/3/22	10:05	63.4			30/3/22	14:05	63.3		30/3/22	18:05	63.3
30/3/22	10:10	63.4			30/3/22	14:10	62.7		30/3/22	18:10	63.9
30/3/22	10:15	63.2			30/3/22	14:15	62.9		30/3/22	18:15	63.5
30/3/22	10:20	63.2			30/3/22	14:20	62.2		30/3/22	18:20	63.2
30/3/22	10:25	65.9			30/3/22	14:25	62.8		30/3/22	18:25	63.5
30/3/22	10:30	64.8			30/3/22	14:30	62.1		30/3/22	18:30	63.1
30/3/22	10:35	63.3			30/3/22	14:35	62.3		30/3/22	18:35	62.9
30/3/22	10:40	63.0			30/3/22	14:40	62.8		30/3/22	18:40	62.7
30/3/22	10:45	64.7			30/3/22	14:45	62.7		30/3/22	18:45	62.5
30/3/22	10:50	63.0			30/3/22	14:50	62.8		30/3/22	18:50	62.6
30/3/22	10:55	63.1			30/3/22	14:55	62.5		30/3/22	18:55	62.8
30/3/22	11:00	63.8			30/3/22	15:00	63.9		30/3/22	19:00	62.4

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			28/03/2022 - 04/04/2022									
Start	30/3/22		19:05		**Leq12h**	59.2			Weighting		A	
End	31/3/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
30/3/22	19:05	62.4			30/3/22	23:05	58.4			31/3/22	3:05	53.2	
30/3/22	19:10	62.2			30/3/22	23:10	58.0			31/3/22	3:10	54.3	
30/3/22	19:15	62.3			30/3/22	23:15	58.3			31/3/22	3:15	54.4	
30/3/22	19:20	62.3			30/3/22	23:20	58.7			31/3/22	3:20	53.9	
30/3/22	19:25	61.7			30/3/22	23:25	58.4			31/3/22	3:25	53.2	
30/3/22	19:30	62.3			30/3/22	23:30	58.7			31/3/22	3:30	54.4	
30/3/22	19:35	62.7			30/3/22	23:35	57.8			31/3/22	3:35	54.5	
30/3/22	19:40	62.1			30/3/22	23:40	58.9			31/3/22	3:40	53.4	
30/3/22	19:45	62.7			30/3/22	23:45	57.6			31/3/22	3:45	53.1	
30/3/22	19:50	61.9			30/3/22	23:50	56.8			31/3/22	3:50	53.1	
30/3/22	19:55	62.5			30/3/22	23:55	57.7			31/3/22	3:55	54.0	
30/3/22	20:00	62.0	62.3		30/3/22	0:00	57.1	58.1		31/3/22	4:00	53.6	53.8
30/3/22	20:05	62.1			31/3/22	0:05	57.4			31/3/22	4:05	53.6	
30/3/22	20:10	62.1			31/3/22	0:10	56.3			31/3/22	4:10	53.8	
30/3/22	20:15	61.7			31/3/22	0:15	56.3			31/3/22	4:15	54.2	
30/3/22	20:20	62.0			31/3/22	0:20	56.4			31/3/22	4:20	55.3	
30/3/22	20:25	61.8			31/3/22	0:25	56.5			31/3/22	4:25	55.7	
30/3/22	20:30	61.6			31/3/22	0:30	57.2			31/3/22	4:30	55.5	
30/3/22	20:35	61.1			31/3/22	0:35	56.5			31/3/22	4:35	55.7	
30/3/22	20:40	61.0			31/3/22	0:40	57.2			31/3/22	4:40	56.7	
30/3/22	20:45	61.6			31/3/22	0:45	56.5			31/3/22	4:45	57.1	
30/3/22	20:50	61.1			31/3/22	0:50	54.9			31/3/22	4:50	55.8	
30/3/22	20:55	60.9			31/3/22	0:55	55.8			31/3/22	4:55	56.0	
30/3/22	21:00	60.9	61.5		31/3/22	1:00	54.8	56.4		31/3/22	5:00	56.3	55.6
30/3/22	21:05	61.8			31/3/22	1:05	57.2			31/3/22	5:05	56.1	
30/3/22	21:10	61.4			31/3/22	1:10	55.4			31/3/22	5:10	57.0	
30/3/22	21:15	62.1			31/3/22	1:15	54.2			31/3/22	5:15	57.2	
30/3/22	21:20	61.3			31/3/22	1:20	55.9			31/3/22	5:20	56.7	
30/3/22	21:25	60.6			31/3/22	1:25	54.2			31/3/22	5:25	57.8	
30/3/22	21:30	60.9			31/3/22	1:30	54.4			31/3/22	5:30	57.5	
30/3/22	21:35	60.5			31/3/22	1:35	55.7			31/3/22	5:35	60.3	
30/3/22	21:40	60.3			31/3/22	1:40	55.7			31/3/22	5:40	58.0	
30/3/22	21:45	60.3			31/3/22	1:45	55.4			31/3/22	5:45	59.3	
30/3/22	21:50	60.7			31/3/22	1:50	56.5			31/3/22	5:50	59.7	
30/3/22	21:55	59.8			31/3/22	1:55	54.5			31/3/22	5:55	59.9	
30/3/22	22:00	60.1	60.9		31/3/22	2:00	54.5	55.4		31/3/22	6:00	59.7	58.5
30/3/22	22:05	59.9			31/3/22	2:05	54.8			31/3/22	6:05	60.1	
30/3/22	22:10	59.3			31/3/22	2:10	53.8			31/3/22	6:10	60.9	
30/3/22	22:15	60.1			31/3/22	2:15	54.4			31/3/22	6:15	61.5	
30/3/22	22:20	59.3			31/3/22	2:20	53.5			31/3/22	6:20	61.7	
30/3/22	22:25	59.6			31/3/22	2:25	53.9			31/3/22	6:25	62.2	
30/3/22	22:30	58.5			31/3/22	2:30	54.8			31/3/22	6:30	62.3	
30/3/22	22:35	58.7			31/3/22	2:35	52.5			31/3/22	6:35	62.9	
30/3/22	22:40	59.1			31/3/22	2:40	54.4			31/3/22	6:40	63.0	
30/3/22	22:45	58.5			31/3/22	2:45	54.5			31/3/22	6:45	63.1	
30/3/22	22:50	59.3			31/3/22	2:50	54.2			31/3/22	6:50	63.4	
30/3/22	22:55	59.0			31/3/22	2:55	55.0			31/3/22	6:55	63.4	
30/3/22	23:00	58.9	59.2		31/3/22	3:00	54.6	54.2		31/3/22	7:00	63.0	62.4

ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			28/03/2022 - 04/04/2022								
Start	31/3/22		7:05		**Leq12h**	64.1			Weighting		A
End	31/3/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
31/3/22	7:05	63.5			31/3/22	11:05	61.9		31/3/22	15:05	62.5
31/3/22	7:10	63.5			31/3/22	11:10	61.9		31/3/22	15:10	62.0
31/3/22	7:15	63.0			31/3/22	11:15	61.8		31/3/22	15:15	62.5
31/3/22	7:20	63.2			31/3/22	11:20	61.7		31/3/22	15:20	62.5
31/3/22	7:25	62.9			31/3/22	11:25	62.0		31/3/22	15:25	62.7
31/3/22	7:30	63.2			31/3/22	11:30	67.2		31/3/22	15:30	62.0
31/3/22	7:35	61.7			31/3/22	11:35	62.1		31/3/22	15:35	62.0
31/3/22	7:40	61.3			31/3/22	11:40	61.6		31/3/22	15:40	62.4
31/3/22	7:45	60.9			31/3/22	11:45	61.8		31/3/22	15:45	61.9
31/3/22	7:50	60.9			31/3/22	11:50	65.4		31/3/22	15:50	62.4
31/3/22	7:55	62.0			31/3/22	11:55	62.1		31/3/22	15:55	62.7
31/3/22	8:00	61.5			31/3/22	12:00	61.8		31/3/22	16:00	62.4
31/3/22	8:05	61.1			31/3/22	12:05	61.7		31/3/22	16:05	62.0
31/3/22	8:10	62.0			31/3/22	12:10	61.8		31/3/22	16:10	62.6
31/3/22	8:15	61.5			31/3/22	12:15	61.5		31/3/22	16:15	62.0
31/3/22	8:20	63.1			31/3/22	12:20	61.9		31/3/22	16:20	62.3
31/3/22	8:25	62.2			31/3/22	12:25	61.2		31/3/22	16:25	62.4
31/3/22	8:30	62.0			31/3/22	12:30	61.3		31/3/22	16:30	62.0
31/3/22	8:35	62.3			31/3/22	12:35	70.7		31/3/22	16:35	62.7
31/3/22	8:40	62.8			31/3/22	12:40	72.9		31/3/22	16:40	62.3
31/3/22	8:45	63.1			31/3/22	12:45	66.9		31/3/22	16:45	63.1
31/3/22	8:50	63.2			31/3/22	12:50	64.3		31/3/22	16:50	62.9
31/3/22	8:55	62.9			31/3/22	12:55	62.6		31/3/22	16:55	62.6
31/3/22	9:00	62.9			31/3/22	13:00	63.0		31/3/22	17:00	62.6
31/3/22	9:05	63.2			31/3/22	13:05	63.3		31/3/22	17:05	62.6
31/3/22	9:10	63.0			31/3/22	13:10	62.4		31/3/22	17:10	62.4
31/3/22	9:15	63.2			31/3/22	13:15	62.3		31/3/22	17:15	62.4
31/3/22	9:20	62.5			31/3/22	13:20	62.0		31/3/22	17:20	62.6
31/3/22	9:25	62.8			31/3/22	13:25	62.1		31/3/22	17:25	62.7
31/3/22	9:30	62.7			31/3/22	13:30	62.5		31/3/22	17:30	62.7
31/3/22	9:35	63.2			31/3/22	13:35	62.2		31/3/22	17:35	62.6
31/3/22	9:40	62.8			31/3/22	13:40	62.4		31/3/22	17:40	62.7
31/3/22	9:45	62.7			31/3/22	13:45	63.4		31/3/22	17:45	62.8
31/3/22	9:50	74.0			31/3/22	13:50	62.6		31/3/22	17:50	62.7
31/3/22	9:55	73.1			31/3/22	13:55	62.7		31/3/22	17:55	62.5
31/3/22	10:00	62.6			31/3/22	14:00	62.3		31/3/22	18:00	62.7
31/3/22	10:05	62.4			31/3/22	14:05	62.2		31/3/22	18:05	62.9
31/3/22	10:10	62.6			31/3/22	14:10	61.7		31/3/22	18:10	62.6
31/3/22	10:15	62.2			31/3/22	14:15	62.0		31/3/22	18:15	62.5
31/3/22	10:20	62.1			31/3/22	14:20	61.8		31/3/22	18:20	62.6
31/3/22	10:25	74.8			31/3/22	14:25	62.2		31/3/22	18:25	62.6
31/3/22	10:30	61.7			31/3/22	14:30	62.3		31/3/22	18:30	62.4
31/3/22	10:35	72.7			31/3/22	14:35	62.1		31/3/22	18:35	62.4
31/3/22	10:40	62.3			31/3/22	14:40	61.7		31/3/22	18:40	62.2
31/3/22	10:45	61.7			31/3/22	14:45	62.0		31/3/22	18:45	62.8
31/3/22	10:50	61.6			31/3/22	14:50	61.5		31/3/22	18:50	62.6
31/3/22	10:55	61.9			31/3/22	14:55	62.0		31/3/22	18:55	62.5
31/3/22	11:00	62.1			31/3/22	15:00	62.1		31/3/22	19:00	62.1

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			28/03/2022 - 04/04/2022									
Start	31/3/22		19:05		**Leq12h**	58.9			Weighting		A	
End	1/4/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
31/3/22	19:05	62.4			31/3/22	23:05	59.5			1/4/22	3:05	53.1	
31/3/22	19:10	62.4			31/3/22	23:10	58.4			1/4/22	3:10	53.7	
31/3/22	19:15	62.2			31/3/22	23:15	59.3			1/4/22	3:15	53.4	
31/3/22	19:20	61.9			31/3/22	23:20	59.0			1/4/22	3:20	54.3	
31/3/22	19:25	61.6			31/3/22	23:25	58.5			1/4/22	3:25	53.0	
31/3/22	19:30	61.8			31/3/22	23:30	58.3			1/4/22	3:30	53.5	
31/3/22	19:35	62.1			31/3/22	23:35	57.7			1/4/22	3:35	54.3	
31/3/22	19:40	62.2			31/3/22	23:40	59.1			1/4/22	3:40	55.0	
31/3/22	19:45	62.2			31/3/22	23:45	57.7			1/4/22	3:45	52.6	
31/3/22	19:50	61.3			31/3/22	23:50	57.0			1/4/22	3:50	52.8	
31/3/22	19:55	61.4			31/3/22	23:55	58.1			1/4/22	3:55	53.7	
31/3/22	20:00	61.2	61.9		31/3/22	0:00	58.0	58.4		1/4/22	4:00	54.0	53.7
31/3/22	20:05	61.5			1/4/22	0:05	57.9			1/4/22	4:05	53.4	
31/3/22	20:10	61.5			1/4/22	0:10	56.4			1/4/22	4:10	53.8	
31/3/22	20:15	61.3			1/4/22	0:15	56.6			1/4/22	4:15	54.2	
31/3/22	20:20	61.4			1/4/22	0:20	56.8			1/4/22	4:20	51.9	
31/3/22	20:25	61.1			1/4/22	0:25	57.3			1/4/22	4:25	54.8	
31/3/22	20:30	60.7			1/4/22	0:30	56.2			1/4/22	4:30	53.1	
31/3/22	20:35	61.1			1/4/22	0:35	56.6			1/4/22	4:35	55.6	
31/3/22	20:40	60.6			1/4/22	0:40	56.5			1/4/22	4:40	55.2	
31/3/22	20:45	60.5			1/4/22	0:45	55.8			1/4/22	4:45	55.3	
31/3/22	20:50	60.3			1/4/22	0:50	56.4			1/4/22	4:50	55.2	
31/3/22	20:55	60.0			1/4/22	0:55	56.6			1/4/22	4:55	56.3	
31/3/22	21:00	60.8	60.9		1/4/22	1:00	56.8	56.7		1/4/22	5:00	55.3	54.7
31/3/22	21:05	60.2			1/4/22	1:05	55.0			1/4/22	5:05	55.1	
31/3/22	21:10	60.8			1/4/22	1:10	55.4			1/4/22	5:10	56.4	
31/3/22	21:15	61.0			1/4/22	1:15	55.5			1/4/22	5:15	56.2	
31/3/22	21:20	60.3			1/4/22	1:20	56.3			1/4/22	5:20	56.3	
31/3/22	21:25	60.4			1/4/22	1:25	56.0			1/4/22	5:25	57.8	
31/3/22	21:30	60.3			1/4/22	1:30	56.6			1/4/22	5:30	57.4	
31/3/22	21:35	60.5			1/4/22	1:35	55.2			1/4/22	5:35	57.5	
31/3/22	21:40	60.2			1/4/22	1:40	57.2			1/4/22	5:40	57.5	
31/3/22	21:45	60.6			1/4/22	1:45	54.4			1/4/22	5:45	57.9	
31/3/22	21:50	60.0			1/4/22	1:50	54.2			1/4/22	5:50	59.4	
31/3/22	21:55	59.5			1/4/22	1:55	53.6			1/4/22	5:55	60.2	
31/3/22	22:00	60.2	60.3		1/4/22	2:00	54.5	55.4		1/4/22	6:00	58.9	57.8
31/3/22	22:05	59.9			1/4/22	2:05	55.2			1/4/22	6:05	59.6	
31/3/22	22:10	60.0			1/4/22	2:10	53.8			1/4/22	6:10	60.4	
31/3/22	22:15	59.5			1/4/22	2:15	53.9			1/4/22	6:15	61.1	
31/3/22	22:20	59.9			1/4/22	2:20	53.7			1/4/22	6:20	61.4	
31/3/22	22:25	59.4			1/4/22	2:25	54.2			1/4/22	6:25	61.9	
31/3/22	22:30	58.8			1/4/22	2:30	54.3			1/4/22	6:30	62.3	
31/3/22	22:35	59.3			1/4/22	2:35	52.9			1/4/22	6:35	63.1	
31/3/22	22:40	58.9			1/4/22	2:40	53.9			1/4/22	6:40	63.5	
31/3/22	22:45	59.4			1/4/22	2:45	52.8			1/4/22	6:45	63.5	
31/3/22	22:50	59.1			1/4/22	2:50	53.6			1/4/22	6:50	63.6	
31/3/22	22:55	58.5			1/4/22	2:55	54.3			1/4/22	6:55	63.6	
31/3/22	23:00	58.8	59.3		1/4/22	3:00	52.0	53.8		1/4/22	7:00	63.0	62.4

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			28/03/2022 - 04/04/2022								
Start	1/4/22		7:05	**Leq12h**	64.8			Weighting		A	
End	1/4/22		19:00								
Date	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**	
1/4/22	7:05	62.0		1/4/22	11:05	61.8		1/4/22	15:05	72.5	
1/4/22	7:10	62.4		1/4/22	11:10	62.1		1/4/22	15:10	60.6	
1/4/22	7:15	62.2		1/4/22	11:15	62.0		1/4/22	15:15	60.8	
1/4/22	7:20	62.7		1/4/22	11:20	62.0		1/4/22	15:20	60.9	
1/4/22	7:25	62.3		1/4/22	11:25	61.4		1/4/22	15:25	61.2	
1/4/22	7:30	61.6		1/4/22	11:30	61.2		1/4/22	15:30	60.8	
1/4/22	7:35	59.8		1/4/22	11:35	61.4		1/4/22	15:35	60.4	
1/4/22	7:40	59.8		1/4/22	11:40	61.4		1/4/22	15:40	61.3	
1/4/22	7:45	59.5		1/4/22	11:45	61.1		1/4/22	15:45	60.8	
1/4/22	7:50	60.1		1/4/22	11:50	60.7		1/4/22	15:50	72.7	
1/4/22	7:55	60.2		1/4/22	11:55	60.9		1/4/22	15:55	61.4	
1/4/22	8:00	59.5		1/4/22	12:00	60.9		1/4/22	16:00	61.4	
1/4/22	8:05	59.4		1/4/22	12:05	62.6		1/4/22	16:05	62.0	
1/4/22	8:10	60.6		1/4/22	12:10	60.9		1/4/22	16:10	61.7	
1/4/22	8:15	59.9		1/4/22	12:15	61.2		1/4/22	16:15	62.4	
1/4/22	8:20	60.3		1/4/22	12:20	61.0		1/4/22	16:20	61.3	
1/4/22	8:25	60.8		1/4/22	12:25	61.1		1/4/22	16:25	61.0	
1/4/22	8:30	61.0		1/4/22	12:30	61.8		1/4/22	16:30	61.0	
1/4/22	8:35	61.5		1/4/22	12:35	60.9		1/4/22	16:35	61.6	
1/4/22	8:40	62.2		1/4/22	12:40	60.9		1/4/22	16:40	61.3	
1/4/22	8:45	62.3		1/4/22	12:45	61.2		1/4/22	16:45	61.4	
1/4/22	8:50	62.8		1/4/22	12:50	60.7		1/4/22	16:50	61.6	
1/4/22	8:55	63.0		1/4/22	12:55	60.8		1/4/22	16:55	61.0	
1/4/22	9:00	62.9		1/4/22	13:00	60.6		1/4/22	17:00	61.1	
1/4/22	9:05	62.7		1/4/22	13:05	60.9		1/4/22	17:05	61.8	
1/4/22	9:10	62.5		1/4/22	13:10	60.4		1/4/22	17:10	62.2	
1/4/22	9:15	62.3		1/4/22	13:15	60.4		1/4/22	17:15	61.2	
1/4/22	9:20	62.4		1/4/22	13:20	61.0		1/4/22	17:20	61.5	
1/4/22	9:25	62.4		1/4/22	13:25	60.4		1/4/22	17:25	61.6	
1/4/22	9:30	62.5		1/4/22	13:30	60.9		1/4/22	17:30	61.6	
1/4/22	9:35	62.0		1/4/22	13:35	60.8		1/4/22	17:35	61.7	
1/4/22	9:40	73.7		1/4/22	13:40	69.5		1/4/22	17:40	61.5	
1/4/22	9:45	71.7		1/4/22	13:45	72.6		1/4/22	17:45	62.5	
1/4/22	9:50	65.3		1/4/22	13:50	63.4		1/4/22	17:50	61.5	
1/4/22	9:55	62.2		1/4/22	13:55	61.0		1/4/22	17:55	61.8	
1/4/22	10:00	61.8		1/4/22	14:00	61.1		1/4/22	18:00	61.4	
1/4/22	10:05	61.9		1/4/22	14:05	61.0		1/4/22	18:05	61.3	
1/4/22	10:10	61.8		1/4/22	14:10	61.0		1/4/22	18:10	61.8	
1/4/22	10:15	65.5		1/4/22	14:15	60.9		1/4/22	18:15	61.4	
1/4/22	10:20	80.1		1/4/22	14:20	61.1		1/4/22	18:20	61.3	
1/4/22	10:25	62.0		1/4/22	14:25	60.7		1/4/22	18:25	61.6	
1/4/22	10:30	64.9		1/4/22	14:30	60.7		1/4/22	18:30	61.4	
1/4/22	10:35	68.9		1/4/22	14:35	61.0		1/4/22	18:35	61.6	
1/4/22	10:40	72.3		1/4/22	14:40	65.5		1/4/22	18:40	61.4	
1/4/22	10:45	61.5		1/4/22	14:45	62.8		1/4/22	18:45	62.0	
1/4/22	10:50	62.8		1/4/22	14:50	62.6		1/4/22	18:50	61.5	
1/4/22	10:55	70.4		1/4/22	14:55	61.8		1/4/22	18:55	61.0	
1/4/22	11:00	61.8		1/4/22	15:00	60.4		1/4/22	19:00	60.8	

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd										
SITE LOCATION			Jalan Lam Sam Road										
REPORT REFERENCE			28/03/2022 - 04/04/2022										
Start	1/4/22		19:05		**Leq12h**	59.3				Weighting		A	
End	2/4/22		7:00										
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
1/4/22	19:05	61.0			1/4/22	23:05	58.5			2/4/22	3:05	55.8	
1/4/22	19:10	60.9			1/4/22	23:10	58.1			2/4/22	3:10	57.2	
1/4/22	19:15	61.4			1/4/22	23:15	59.3			2/4/22	3:15	56.5	
1/4/22	19:20	60.8			1/4/22	23:20	58.0			2/4/22	3:20	57.5	
1/4/22	19:25	60.2			1/4/22	23:25	59.0			2/4/22	3:25	54.5	
1/4/22	19:30	60.7			1/4/22	23:30	58.0			2/4/22	3:30	54.2	
1/4/22	19:35	61.0			1/4/22	23:35	57.8			2/4/22	3:35	54.4	
1/4/22	19:40	61.2			1/4/22	23:40	57.8			2/4/22	3:40	53.9	
1/4/22	19:45	60.9			1/4/22	23:45	58.0			2/4/22	3:45	54.7	
1/4/22	19:50	60.4			1/4/22	23:50	59.3			2/4/22	3:50	53.6	
1/4/22	19:55	60.2			1/4/22	23:55	57.9			2/4/22	3:55	54.3	
1/4/22	20:00	59.7	60.7		1/4/22	0:00	58.8	58.4		2/4/22	4:00	54.6	55.3
1/4/22	20:05	60.6			2/4/22	0:05	57.7			2/4/22	4:05	54.7	
1/4/22	20:10	60.0			2/4/22	0:10	58.4			2/4/22	4:10	54.6	
1/4/22	20:15	59.8			2/4/22	0:15	57.7			2/4/22	4:15	54.0	
1/4/22	20:20	60.5			2/4/22	0:20	57.6			2/4/22	4:20	53.8	
1/4/22	20:25	60.5			2/4/22	0:25	56.8			2/4/22	4:25	54.6	
1/4/22	20:30	60.0			2/4/22	0:30	56.9			2/4/22	4:30	57.8	
1/4/22	20:35	59.8			2/4/22	0:35	57.9			2/4/22	4:35	54.3	
1/4/22	20:40	60.2			2/4/22	0:40	57.3			2/4/22	4:40	54.8	
1/4/22	20:45	59.6			2/4/22	0:45	56.9			2/4/22	4:45	54.6	
1/4/22	20:50	60.1			2/4/22	0:50	56.5			2/4/22	4:50	53.6	
1/4/22	20:55	59.7			2/4/22	0:55	56.2			2/4/22	4:55	55.9	
1/4/22	21:00	59.6	60.0		2/4/22	1:00	56.9	57.3		2/4/22	5:00	55.7	55.0
1/4/22	21:05	59.8			2/4/22	1:05	56.6			2/4/22	5:05	55.5	
1/4/22	21:10	60.2			2/4/22	1:10	56.5			2/4/22	5:10	55.2	
1/4/22	21:15	59.8			2/4/22	1:15	56.1			2/4/22	5:15	56.1	
1/4/22	21:20	59.8			2/4/22	1:20	54.5			2/4/22	5:20	55.3	
1/4/22	21:25	59.4			2/4/22	1:25	55.9			2/4/22	5:25	56.2	
1/4/22	21:30	59.5			2/4/22	1:30	55.4			2/4/22	5:30	55.9	
1/4/22	21:35	59.2			2/4/22	1:35	55.5			2/4/22	5:35	56.7	
1/4/22	21:40	58.9			2/4/22	1:40	54.3			2/4/22	5:40	56.4	
1/4/22	21:45	59.2			2/4/22	1:45	56.5			2/4/22	5:45	56.5	
1/4/22	21:50	59.6			2/4/22	1:50	55.3			2/4/22	5:50	57.4	
1/4/22	21:55	59.0			2/4/22	1:55	54.2			2/4/22	5:55	57.6	
1/4/22	22:00	59.1	59.5		2/4/22	2:00	55.2	55.6		2/4/22	6:00	57.7	56.5
1/4/22	22:05	59.0			2/4/22	2:05	55.6			2/4/22	6:05	57.3	
1/4/22	22:10	59.4			2/4/22	2:10	54.9			2/4/22	6:10	61.7	
1/4/22	22:15	59.5			2/4/22	2:15	55.2			2/4/22	6:15	63.6	
1/4/22	22:20	59.5			2/4/22	2:20	54.1			2/4/22	6:20	65.3	
1/4/22	22:25	59.4			2/4/22	2:25	55.1			2/4/22	6:25	65.7	
1/4/22	22:30	59.4			2/4/22	2:30	55.9			2/4/22	6:30	65.9	
1/4/22	22:35	59.5			2/4/22	2:35	54.5			2/4/22	6:35	66.2	
1/4/22	22:40	58.1			2/4/22	2:40	54.3			2/4/22	6:40	66.2	
1/4/22	22:45	58.6			2/4/22	2:45	52.9			2/4/22	6:45	66.4	
1/4/22	22:50	57.9			2/4/22	2:50	54.7			2/4/22	6:50	66.5	
1/4/22	22:55	59.7			2/4/22	2:55	54.4			2/4/22	6:55	66.7	
1/4/22	23:00	58.1	59.1		2/4/22	3:00	54.2	54.7		2/4/22	7:00	66.4	65.4

ENSSCOM
Improving Your Workplace Safety & Health

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			28/03/2022 - 04/04/2022								
Start	2/4/22		7:05		**Leq12h**	61.6			Weighting		A
End	2/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
2/4/22	7:05	66.6			2/4/22	11:05	63.0		2/4/22	15:05	60.4
2/4/22	7:10	66.5			2/4/22	11:10	65.8		2/4/22	15:10	60.4
2/4/22	7:15	66.1			2/4/22	11:15	64.9		2/4/22	15:15	63.0
2/4/22	7:20	65.1			2/4/22	11:20	63.2		2/4/22	15:20	61.5
2/4/22	7:25	64.7			2/4/22	11:25	62.1		2/4/22	15:25	60.8
2/4/22	7:30	64.7			2/4/22	11:30	61.1		2/4/22	15:30	61.3
2/4/22	7:35	63.2			2/4/22	11:35	60.9		2/4/22	15:35	60.7
2/4/22	7:40	62.9			2/4/22	11:40	61.8		2/4/22	15:40	61.0
2/4/22	7:45	63.1			2/4/22	11:45	61.3		2/4/22	15:45	60.8
2/4/22	7:50	61.9			2/4/22	11:50	61.2		2/4/22	15:50	60.8
2/4/22	7:55	61.6			2/4/22	11:55	61.4		2/4/22	15:55	60.7
2/4/22	8:00	61.7			2/4/22	12:00	61.5		2/4/22	16:00	61.0
2/4/22	8:05	62.1			2/4/22	12:05	61.2		2/4/22	16:05	60.9
2/4/22	8:10	61.7			2/4/22	12:10	61.6		2/4/22	16:10	60.6
2/4/22	8:15	61.9			2/4/22	12:15	61.8		2/4/22	16:15	60.6
2/4/22	8:20	61.7			2/4/22	12:20	61.7		2/4/22	16:20	60.4
2/4/22	8:25	62.1			2/4/22	12:25	61.7		2/4/22	16:25	60.7
2/4/22	8:30	61.8			2/4/22	12:30	61.5		2/4/22	16:30	60.8
2/4/22	8:35	62.1			2/4/22	12:35	60.9		2/4/22	16:35	60.5
2/4/22	8:40	62.3			2/4/22	12:40	61.5		2/4/22	16:40	60.6
2/4/22	8:45	61.8			2/4/22	12:45	61.4		2/4/22	16:45	60.3
2/4/22	8:50	62.0			2/4/22	12:50	61.6		2/4/22	16:50	60.5
2/4/22	8:55	62.0			2/4/22	12:55	60.9		2/4/22	16:55	60.9
2/4/22	9:00	61.8			2/4/22	13:00	61.1		2/4/22	17:00	60.2
2/4/22	9:05	61.5			2/4/22	13:05	61.3		2/4/22	17:05	60.7
2/4/22	9:10	61.5			2/4/22	13:10	61.2		2/4/22	17:10	61.3
2/4/22	9:15	61.7			2/4/22	13:15	60.4		2/4/22	17:15	60.9
2/4/22	9:20	61.6			2/4/22	13:20	60.8		2/4/22	17:20	60.7
2/4/22	9:25	61.6			2/4/22	13:25	60.9		2/4/22	17:25	61.0
2/4/22	9:30	61.4			2/4/22	13:30	60.9		2/4/22	17:30	60.7
2/4/22	9:35	61.3			2/4/22	13:35	60.9		2/4/22	17:35	61.1
2/4/22	9:40	61.5			2/4/22	13:40	61.1		2/4/22	17:40	60.4
2/4/22	9:45	61.1			2/4/22	13:45	60.5		2/4/22	17:45	61.0
2/4/22	9:50	60.7			2/4/22	13:50	61.9		2/4/22	17:50	60.7
2/4/22	9:55	61.0			2/4/22	13:55	61.0		2/4/22	17:55	60.6
2/4/22	10:00	61.2			2/4/22	14:00	60.7		2/4/22	18:00	60.3
2/4/22	10:05	61.2			2/4/22	14:05	60.8		2/4/22	18:05	60.5
2/4/22	10:10	61.4			2/4/22	14:10	61.0		2/4/22	18:10	60.8
2/4/22	10:15	60.8			2/4/22	14:15	60.5		2/4/22	18:15	60.7
2/4/22	10:20	61.0			2/4/22	14:20	59.9		2/4/22	18:20	60.8
2/4/22	10:25	61.1			2/4/22	14:25	60.9		2/4/22	18:25	60.4
2/4/22	10:30	60.8			2/4/22	14:30	60.1		2/4/22	18:30	60.3
2/4/22	10:35	61.2			2/4/22	14:35	60.7		2/4/22	18:35	60.8
2/4/22	10:40	60.8			2/4/22	14:40	61.1		2/4/22	18:40	60.3
2/4/22	10:45	60.2			2/4/22	14:45	60.6		2/4/22	18:45	60.8
2/4/22	10:50	60.9			2/4/22	14:50	61.7		2/4/22	18:50	61.0
2/4/22	10:55	61.3			2/4/22	14:55	60.7		2/4/22	18:55	60.0
2/4/22	11:00	59.8			2/4/22	15:00	61.6		2/4/22	19:00	60.2

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			28/03/2022 - 04/04/2022									
Start	2/4/22		19:05		**Leq12h**	58.4			Weighting		A	
End	3/4/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
2/4/22	19:05	60.0			2/4/22	23:05	58.8			3/4/22	3:05	54.4	
2/4/22	19:10	60.5			2/4/22	23:10	59.0			3/4/22	3:10	53.4	
2/4/22	19:15	60.6			2/4/22	23:15	59.3			3/4/22	3:15	53.6	
2/4/22	19:20	60.4			2/4/22	23:20	58.9			3/4/22	3:20	53.3	
2/4/22	19:25	60.8			2/4/22	23:25	58.7			3/4/22	3:25	54.3	
2/4/22	19:30	61.7			2/4/22	23:30	57.6			3/4/22	3:30	53.7	
2/4/22	19:35	62.4			2/4/22	23:35	57.5			3/4/22	3:35	55.6	
2/4/22	19:40	62.8			2/4/22	23:40	57.6			3/4/22	3:40	53.4	
2/4/22	19:45	62.9			2/4/22	23:45	58.6			3/4/22	3:45	54.4	
2/4/22	19:50	62.7			2/4/22	23:50	59.7			3/4/22	3:50	54.5	
2/4/22	19:55	62.5			2/4/22	23:55	57.8			3/4/22	3:55	55.0	
2/4/22	20:00	61.9	61.7		2/4/22	0:00	57.2	58.5		3/4/22	4:00	53.8	54.2
2/4/22	20:05	60.9			3/4/22	0:05	57.2			3/4/22	4:05	53.2	
2/4/22	20:10	60.4			3/4/22	0:10	57.6			3/4/22	4:10	53.5	
2/4/22	20:15	60.3			3/4/22	0:15	57.0			3/4/22	4:15	52.4	
2/4/22	20:20	60.0			3/4/22	0:20	57.3			3/4/22	4:20	53.2	
2/4/22	20:25	59.4			3/4/22	0:25	56.8			3/4/22	4:25	53.4	
2/4/22	20:30	59.2			3/4/22	0:30	56.7			3/4/22	4:30	53.5	
2/4/22	20:35	59.5			3/4/22	0:35	56.7			3/4/22	4:35	52.8	
2/4/22	20:40	60.0			3/4/22	0:40	56.9			3/4/22	4:40	54.7	
2/4/22	20:45	60.2			3/4/22	0:45	56.7			3/4/22	4:45	55.6	
2/4/22	20:50	59.8			3/4/22	0:50	57.0			3/4/22	4:50	54.2	
2/4/22	20:55	60.0			3/4/22	0:55	57.1			3/4/22	4:55	54.0	
2/4/22	21:00	59.1	59.9		3/4/22	1:00	56.1	56.9		3/4/22	5:00	53.4	53.7
2/4/22	21:05	59.5			3/4/22	1:05	56.5			3/4/22	5:05	53.2	
2/4/22	21:10	58.8			3/4/22	1:10	57.0			3/4/22	5:10	53.7	
2/4/22	21:15	59.3			3/4/22	1:15	55.3			3/4/22	5:15	55.0	
2/4/22	21:20	59.4			3/4/22	1:20	55.5			3/4/22	5:20	54.2	
2/4/22	21:25	59.4			3/4/22	1:25	56.3			3/4/22	5:25	55.0	
2/4/22	21:30	60.5			3/4/22	1:30	56.7			3/4/22	5:30	54.2	
2/4/22	21:35	60.5			3/4/22	1:35	57.2			3/4/22	5:35	55.6	
2/4/22	21:40	59.9			3/4/22	1:40	55.0			3/4/22	5:40	57.1	
2/4/22	21:45	59.2			3/4/22	1:45	55.3			3/4/22	5:45	58.6	
2/4/22	21:50	60.5			3/4/22	1:50	56.1			3/4/22	5:50	59.2	
2/4/22	21:55	59.7			3/4/22	1:55	55.3			3/4/22	5:55	59.7	
2/4/22	22:00	60.7	59.8		3/4/22	2:00	54.5	56.0		3/4/22	6:00	59.4	56.9
2/4/22	22:05	58.7			3/4/22	2:05	54.8			3/4/22	6:05	59.8	
2/4/22	22:10	59.5			3/4/22	2:10	54.9			3/4/22	6:10	60.4	
2/4/22	22:15	59.8			3/4/22	2:15	55.1			3/4/22	6:15	60.6	
2/4/22	22:20	59.1			3/4/22	2:20	54.9			3/4/22	6:20	60.3	
2/4/22	22:25	60.3			3/4/22	2:25	54.8			3/4/22	6:25	59.6	
2/4/22	22:30	60.6			3/4/22	2:30	53.2			3/4/22	6:30	59.9	
2/4/22	22:35	59.5			3/4/22	2:35	56.8			3/4/22	6:35	60.4	
2/4/22	22:40	59.5			3/4/22	2:40	54.4			3/4/22	6:40	60.3	
2/4/22	22:45	59.7			3/4/22	2:45	53.6			3/4/22	6:45	60.9	
2/4/22	22:50	59.2			3/4/22	2:50	53.1			3/4/22	6:50	61.0	
2/4/22	22:55	59.0			3/4/22	2:55	53.7			3/4/22	6:55	60.6	
2/4/22	23:00	59.5	59.6		3/4/22	3:00	52.5	54.5		3/4/22	7:00	60.3	60.4

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd								
SITE LOCATION			Jalan Lam Sam Road								
REPORT REFERENCE			28/03/2022 - 04/04/2022								
Start	3/4/22		7:05		**Leq12h**	61.9			Weighting		A
End	3/4/22		19:00								
Date	**Time**	**Leq5m**			**Date**	**Time**	**Leq5m**		**Date**	**Time**	**Leq5m**
3/4/22	7:05	60.4			3/4/22	11:05	59.7		3/4/22	15:05	60.8
3/4/22	7:10	60.9			3/4/22	11:10	60.2		3/4/22	15:10	60.5
3/4/22	7:15	61.3			3/4/22	11:15	59.6		3/4/22	15:15	60.3
3/4/22	7:20	60.1			3/4/22	11:20	59.5		3/4/22	15:20	60.1
3/4/22	7:25	59.9			3/4/22	11:25	60.3		3/4/22	15:25	60.5
3/4/22	7:30	60.4			3/4/22	11:30	59.5		3/4/22	15:30	60.4
3/4/22	7:35	59.5			3/4/22	11:35	59.3		3/4/22	15:35	60.4
3/4/22	7:40	59.7			3/4/22	11:40	59.9		3/4/22	15:40	60.7
3/4/22	7:45	59.3			3/4/22	11:45	59.6		3/4/22	15:45	60.2
3/4/22	7:50	59.5			3/4/22	11:50	59.2		3/4/22	15:50	60.5
3/4/22	7:55	59.1			3/4/22	11:55	59.7		3/4/22	15:55	59.9
3/4/22	8:00	59.2			3/4/22	12:00	58.6		3/4/22	16:00	60.4
3/4/22	8:05	59.6			3/4/22	12:05	58.9		3/4/22	16:05	60.5
3/4/22	8:10	59.9			3/4/22	12:10	58.7		3/4/22	16:10	61.0
3/4/22	8:15	59.4			3/4/22	12:15	59.3		3/4/22	16:15	59.9
3/4/22	8:20	59.4			3/4/22	12:20	57.9		3/4/22	16:20	59.9
3/4/22	8:25	59.2			3/4/22	12:25	58.7		3/4/22	16:25	60.1
3/4/22	8:30	59.8			3/4/22	12:30	60.3		3/4/22	16:30	60.6
3/4/22	8:35	60.0			3/4/22	12:35	66.1		3/4/22	16:35	60.7
3/4/22	8:40	60.0			3/4/22	12:40	71.3		3/4/22	16:40	60.3
3/4/22	8:45	60.0			3/4/22	12:45	71.5		3/4/22	16:45	60.7
3/4/22	8:50	59.4			3/4/22	12:50	68.7		3/4/22	16:50	60.6
3/4/22	8:55	59.8			3/4/22	12:55	63.9		3/4/22	16:55	60.5
3/4/22	9:00	59.0			3/4/22	13:00	62.0		3/4/22	17:00	60.5
3/4/22	9:05	59.7			3/4/22	13:05	64.5		3/4/22	17:05	60.9
3/4/22	9:10	59.0			3/4/22	13:10	63.0		3/4/22	17:10	61.3
3/4/22	9:15	59.7			3/4/22	13:15	61.2		3/4/22	17:15	60.8
3/4/22	9:20	60.2			3/4/22	13:20	60.7		3/4/22	17:20	60.5
3/4/22	9:25	59.6			3/4/22	13:25	60.1		3/4/22	17:25	61.0
3/4/22	9:30	59.5			3/4/22	13:30	60.2		3/4/22	17:30	60.9
3/4/22	9:35	59.6			3/4/22	13:35	59.9		3/4/22	17:35	60.6
3/4/22	9:40	60.0			3/4/22	13:40	59.7		3/4/22	17:40	61.0
3/4/22	9:45	59.8			3/4/22	13:45	60.1		3/4/22	17:45	60.6
3/4/22	9:50	60.0			3/4/22	13:50	59.5		3/4/22	17:50	60.7
3/4/22	9:55	59.3			3/4/22	13:55	61.4		3/4/22	17:55	60.5
3/4/22	10:00	59.1			3/4/22	14:00	68.4		3/4/22	18:00	60.2
3/4/22	10:05	59.2			3/4/22	14:05	66.7		3/4/22	18:05	60.8
3/4/22	10:10	59.5			3/4/22	14:10	66.1		3/4/22	18:10	61.1
3/4/22	10:15	58.9			3/4/22	14:15	67.9		3/4/22	18:15	60.5
3/4/22	10:20	59.5			3/4/22	14:20	70.2		3/4/22	18:20	60.5
3/4/22	10:25	59.9			3/4/22	14:25	64.1		3/4/22	18:25	60.8
3/4/22	10:30	60.2			3/4/22	14:30	60.6		3/4/22	18:30	60.2
3/4/22	10:35	60.1			3/4/22	14:35	64.9		3/4/22	18:35	60.4
3/4/22	10:40	59.7			3/4/22	14:40	61.9		3/4/22	18:40	61.3
3/4/22	10:45	60.5			3/4/22	14:45	62.7		3/4/22	18:45	61.4
3/4/22	10:50	59.5			3/4/22	14:50	61.3		3/4/22	18:50	62.9
3/4/22	10:55	59.7			3/4/22	14:55	61.1		3/4/22	18:55	61.8
3/4/22	11:00	60.7			3/4/22	15:00	60.3		3/4/22	19:00	60.4

NAME OF COMPANY			CH2M HILL Singapore Pte Ltd									
SITE LOCATION			Jalan Lam Sam Road									
REPORT REFERENCE			28/03/2022 - 04/04/2022									
Start	3/4/22		19:05		**Leq12h**	59.4			Weighting		A	
End	4/4/22		7:00									
Date	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**		**Date**	**Time**	**Leq5m**	**Leq1h**
3/4/22	19:05	60.0			3/4/22	23:05	58.7			4/4/22	3:05	52.5	
3/4/22	19:10	60.1			3/4/22	23:10	58.7			4/4/22	3:10	53.2	
3/4/22	19:15	60.2			3/4/22	23:15	59.5			4/4/22	3:15	50.8	
3/4/22	19:20	59.3			3/4/22	23:20	58.2			4/4/22	3:20	52.4	
3/4/22	19:25	59.6			3/4/22	23:25	57.7			4/4/22	3:25	51.0	
3/4/22	19:30	60.0			3/4/22	23:30	58.1			4/4/22	3:30	52.6	
3/4/22	19:35	63.7			3/4/22	23:35	56.9			4/4/22	3:35	53.7	
3/4/22	19:40	64.8			3/4/22	23:40	56.6			4/4/22	3:40	52.1	
3/4/22	19:45	64.2			3/4/22	23:45	57.0			4/4/22	3:45	53.2	
3/4/22	19:50	63.0			3/4/22	23:50	56.3			4/4/22	3:50	52.0	
3/4/22	19:55	63.3			3/4/22	23:55	56.5			4/4/22	3:55	53.8	
3/4/22	20:00	63.0	62.2		3/4/22	0:00	56.2	57.7		4/4/22	4:00	52.6	52.6
3/4/22	20:05	63.4			4/4/22	0:05	57.0			4/4/22	4:05	53.4	
3/4/22	20:10	63.7			4/4/22	0:10	55.7			4/4/22	4:10	53.4	
3/4/22	20:15	63.4			4/4/22	0:15	56.6			4/4/22	4:15	54.5	
3/4/22	20:20	63.6			4/4/22	0:20	56.4			4/4/22	4:20	53.7	
3/4/22	20:25	63.0			4/4/22	0:25	55.9			4/4/22	4:25	55.4	
3/4/22	20:30	62.8			4/4/22	0:30	56.6			4/4/22	4:30	57.8	
3/4/22	20:35	63.1			4/4/22	0:35	55.9			4/4/22	4:35	56.2	
3/4/22	20:40	63.4			4/4/22	0:40	56.7			4/4/22	4:40	54.7	
3/4/22	20:45	62.5			4/4/22	0:45	56.8			4/4/22	4:45	54.0	
3/4/22	20:50	62.7			4/4/22	0:50	54.7			4/4/22	4:50	54.9	
3/4/22	20:55	62.5			4/4/22	0:55	54.2			4/4/22	4:55	55.9	
3/4/22	21:00	62.4	63.1		4/4/22	1:00	54.0	56.0		4/4/22	5:00	56.6	55.3
3/4/22	21:05	60.9			4/4/22	1:05	55.3			4/4/22	5:05	57.4	
3/4/22	21:10	60.6			4/4/22	1:10	53.9			4/4/22	5:10	57.8	
3/4/22	21:15	61.4			4/4/22	1:15	52.9			4/4/22	5:15	58.7	
3/4/22	21:20	61.9			4/4/22	1:20	54.7			4/4/22	5:20	58.5	
3/4/22	21:25	62.3			4/4/22	1:25	54.0			4/4/22	5:25	58.1	
3/4/22	21:30	61.5			4/4/22	1:30	55.1			4/4/22	5:30	58.4	
3/4/22	21:35	61.3			4/4/22	1:35	54.9			4/4/22	5:35	58.8	
3/4/22	21:40	61.6			4/4/22	1:40	54.7			4/4/22	5:40	59.1	
3/4/22	21:45	61.2			4/4/22	1:45	56.4			4/4/22	5:45	59.0	
3/4/22	21:50	61.5			4/4/22	1:50	54.1			4/4/22	5:50	59.9	
3/4/22	21:55	61.7			4/4/22	1:55	54.1			4/4/22	5:55	59.7	
3/4/22	22:00	61.0	61.4		4/4/22	2:00	56.2	54.8		4/4/22	6:00	60.4	58.9
3/4/22	22:05	60.1			4/4/22	2:05	53.5			4/4/22	6:05	60.4	
3/4/22	22:10	60.0			4/4/22	2:10	54.2			4/4/22	6:10	61.1	
3/4/22	22:15	59.3			4/4/22	2:15	54.2			4/4/22	6:15	61.8	
3/4/22	22:20	59.5			4/4/22	2:20	54.5			4/4/22	6:20	62.2	
3/4/22	22:25	58.8			4/4/22	2:25	54.5			4/4/22	6:25	62.4	
3/4/22	22:30	58.8			4/4/22	2:30	53.4			4/4/22	6:30	62.5	
3/4/22	22:35	60.7			4/4/22	2:35	53.9			4/4/22	6:35	62.7	
3/4/22	22:40	59.2			4/4/22	2:40	54.2			4/4/22	6:40	62.8	
3/4/22	22:45	59.4			4/4/22	2:45	54.2			4/4/22	6:45	63.5	
3/4/22	22:50	59.1			4/4/22	2:50	53.6			4/4/22	6:50	63.4	
3/4/22	22:55	58.6			4/4/22	2:55	53.4			4/4/22	6:55	63.3	
3/4/22	23:00	59.2	59.4		4/4/22	3:00	51.6	53.8		4/4/22	7:00	63.0	62.5

Appendix 8C: Photographic Log of Noise Monitoring

Details	Photograph
Photograph ID: 1 **Photo Location:** At an open space outside the training facility and dormitory of Home Team Academy **Survey Date:** 5 Apr 2022 **Comments:** Airborne noise baseline monitoring at N1 from 5 Apr to 12 Apr 2022.	No photography allowed
Photograph ID: 2 **Photo Location:** At an open space between Block 461 and Block 460 Choa Chu Kang Avenue 4 **Survey Date:** 13 Apr 2022 **Comments:** Airborne noise baseline monitoring at N2 from 13 Apr to 20 Apr 2022.	
Photograph ID: 3 **Photo Location:** At an open space between Concorde Primary School and multi-story carpark block 446 **Survey Date:** 21 Apr 2022 **Comments:** Airborne noise baseline monitoring at at N3 from 21 Apr to 28 Apr 2022	

Details	Photograph
Photograph ID: 4 **Photo Location:** At an open space in Tengah Forest 1.367086, 103.72439 **Survey Date:** 17 Mar 2022 **Comments:** Airborne noise baseline monitoring at at N4 from 17 Mar to 24 Mar 2022	
Photograph ID: 5 **Photo Location:** At an open space in Tengah Forest 1.36736, 103.71408 **Survey Date:** 25 Mar 2022 **Comments:** Airborne noise baseline monitoring at at N5 from 25 Mar to 1 Apr 2022	

Appendix 8D: Schedule of Construction Activities

	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q
2	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Estimated Timeline					Construction Duration	Quantity	Operating Duration			TotaL SWL (dBA)
3					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	
4	Advance works	Shepherding	Shepherding	Whistle	Nov 2023 - Jan 2024					3 months	25	36	0	0	-
5				loud hailer							1	28.8	0	0	-
6		Tree protection zone and perimeter hoarding	Erection of tree protection zone and perimeter	Excavator							10	576	0	0	100
7				Nail gun							10	504	0	0	101
8		Tree felling and land clearance	Tree felling, Vegetation & debris transportation	Chainsaw							5	504	0	0	105
9				Lorry crane							4	576	0	0	104
10				Excavator							4	576	0	0	100
11		Site preparation	Access road	Excavator							1	576	0	0	100
12				Dozer							1	432	0	0	105
13				Roller							1	432	0	0	108
14			Temporary facilities	Excavator							1	576	0	0	100
15				Crawler crane							1	576	0	0	102
16				Welding							2	576	0	0	96
17				Generator							1	576	0	0	99
18			Installation of noise barrier	Crane mounted auger							1	576	0	0	107
19				Nail gun							2	576	0	0	101
20			Installation of ECM facilities	Excavator							3	576	0	0	100
21				Concrete Pump							2	576	0	0	102
22		General	General works	Welding							2	576	0	0	96
23				Electric drill							2	576	0	0	94
24				Dump truck							20	576	0	0	102
25				Generator							2	720	0	0	99
26		Soil and geotechnical Investigation	Drilling	Drilling machine (A-frame)	Nov 2023 - Jan 2024						5	576	0	0	105
27				Air Compressor							5	576	0	0	114
28				Pump							5	576	0	0	96
29				Generator							5	576	0	0	99
30		Demolition	Hacking	Excavator			Apr 2024 - Aug 2024	Feb 2024 - Mar 2026 (EB) and Mar 2025 - Nov			2	576	0	0	100
31				Dump truck							5	576	0	0	102
32				Generator							1	720	0	0	99
33		Drainage and utilities diversion	Drainage and utilities diversion	Excavator	Nov 2023 - Jan 2025						2	576	0	0	100
34				Crawler crane							1	576	0	0	102
35				Generator							1	720	0	0	99
36		Work area set up	Z1-Stage 1	Excavator	Feb 2024 - Mar 2024						2	576	0	0	100
37				Vibratory roller							1	576	0	0	100
38				Dump truck							4	576	0	0	102
39				Welding							1	576	0	0	96
40				Electric drill							2	576	0	0	94
41				Generator							1	720	0	0	99
42		Work area set up	Z1-Stage 2	Excavator	Sep 2024 - Oct 2024						2	576	0	0	100
43				Vibratory roller							1	576	0	0	100
44				Dump truck							4	576	0	0	102
45				Welding							1	576	0	0	96
46				Electric drill							2	576	0	0	94
47				Generator							1	720	0	0	99
48		Work area set up	Z1-Stage 3	Excavator	Feb 2025 - Apr 2025						2	576	0	0	100
49				Vibratory roller							1	576	0	0	100
50				Dump truck							4	576	0	0	102
51				Welding							1	576	0	0	96
52				Electric drill							2	576	0	0	94
53				Generator							1	720	0	0	99
54		Work area set up	Z1-Stage 4	Excavator	Aug 2025 - Sep 2025						2	576	0	0	100
55				Vibratory roller							1	576	0	0	100
56				Dump truck							4	576	0	0	102
57				Welding							1	576	0	0	96
58				Electric drill							2	576	0	0	94
59				Generator							1	720	0	0	99
60		Work area set up	Z1-Stage 5	Excavator	Feb 2026 - Mar 2026						2	576	0	0	100
61				Vibratory roller							1	576	0	0	100
62				Dump truck							4	576	0	0	102
63				Welding							1	576	0	0	96
64				Electric drill							2	576	0	0	94
65				Generator							1	720	0	0	99
66				Excavator							2	576	0	0	100
67				Vibratory roller							1	576	0	0	100

	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q
2	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Estimated Timeline					Construction Duration	Quantity	Operating Duration			Total SWL (dBA)
3					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	
68	Earthwork and Foundation	Work area set up	Z1-Stage 6	Dump truck	May 2026					2 years 6 months	4	576	0	0	102
69				Welding							1	576	0	0	96
70				Electric drill							2	576	0	0	94
71				Generator							1	720	0	0	99
72		Work area set up	Z2-Stage 1	Excavator		May 2026					2	576	0	0	100
73				Vibratory roller							1	576	0	0	100
74				Dump truck							4	576	0	0	102
75				Welding							1	576	0	0	96
76				Electric drill							2	576	0	0	94
77				Generator							1	720	0	0	99
78		Work area set up	Z2-Stage 2	Excavator		Aug 2026 - Sep 2026					2	576	0	0	100
79				Vibratory roller							1	576	0	0	100
80				Dump truck							4	576	0	0	102
81				Welding							1	576	0	0	96
82				Electric drill							2	576	0	0	94
83				Generator							1	720	0	0	99
84		Work area set up	Z2-Stage 3	Excavator		Dec 2026					2	576	0	0	100
85				Vibratory roller							1	576	0	0	100
86				Dump truck							4	576	0	0	102
87				Welding							1	576	0	0	96
88				Electric drill							2	576	0	0	94
89				Generator							1	720	0	0	99
90		Work area set up	Z2-Stage 4	Excavator		Feb 2027					2	576	0	0	100
91				Vibratory roller							1	576	0	0	100
92				Dump truck							4	576	0	0	102
93				Welding							1	576	0	0	96
94				Electric drill							2	576	0	0	94
95				Generator							1	720	0	0	99
96		Work area set up	Z3-Stage 1	Excavator			Feb 2024 - Apr 2024				2	576	0	0	100
97				Vibratory roller							1	576	0	0	100
98				Dump truck							4	576	0	0	102
99				Welding							1	576	0	0	96
100				Electric drill							2	576	0	0	94
101				Generator							1	720	0	0	99
102		Work area set up	Z3-Stage 2	Excavator			Sep 2024 to Oct 2024				2	576	0	0	100
103				Vibratory roller							1	576	0	0	100
104				Dump truck							4	576	0	0	102
105				Welding							1	576	0	0	96
106				Electric drill							2	576	0	0	94
107				Generator							1	720	0	0	99
108		Work area set up	Z3-Stage 3	Excavator			Jan 2025 - Feb 2025				2	576	0	0	100
109				Vibratory roller							1	576	0	0	100
110				Dump truck							4	576	0	0	102
111				Welding							1	576	0	0	96
112				Electric drill							2	576	0	0	94
113				Generator							1	720	0	0	99
114		Work area set up	Z3-Stage 4	Excavator			Apr 2024 - May 2026				2	576	0	0	100
115				Vibratory roller							1	576	0	0	100
116				Dump truck							4	576	0	0	102
117				Welding							1	576	0	0	96
118				Electric drill							2	576	0	0	94
119				Generator							1	720	0	0	99
120		Work area set up	Z4	Excavator				Feb 2023 - Mar 2023			2	576	0	0	100
121				Vibratory roller							1	576	0	0	100
122				Dump truck							4	576	0	0	102
123				Welding							1	576	0	0	96
124				Electric drill							2	576	0	0	94
125				Generator							1	720	0	0	99
126		Work area set up	Z5	Excavator					Jan 2024 -Feb 2024		2	576	0	0	100
127				Vibratory roller							1	576	0	0	100
128				Dump truck							4	576	0	0	102
129				Welding							1	576	0	0	96
130				Electric drill							2	576	0	0	94
131				Generator							1	720	0	0	99

	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q
2	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Estimated Timeline					Construction Duration	Quantity	Operating Duration			Total SWL (dBA)
3					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	
132		Bored Piling	Z3-Stage 1	Boring Rig			Apr 2024 - Jul 2024				3	432	108	0	113
133				Crawler Crane							3	504	126	0	102
134				Vibro-hammer							3	288	72	0	103
135				Hydraulic excavator breaker							1	432	108	0	110
136				Steel Casing							9			0	-
137				Excavator							3	576	144	0	100
138				Lorry Crane							1	576	144	0	104
139				Dump Truck							8	576	144	0	102
140				Water pump							3	576	144	0	99
141				Generator							3	720	180	0	99
142				Welding Machines							2	576	144	0	96
143				Oxy-cutter							3	576	144	0	94
144		Bored Piling	Z3-Stage 2	Boring Rig			Apr 2024 - Oct 2024				3	432	108	0	113
145				Crawler Crane							3	504	126	0	102
146				Vibro-hammer							3	288	72	0	103
147				Hydraulic excavator breaker							1	432	108	0	110
148				Steel Casing							9			0	-
149				Excavator							3	576	144	0	100
150				Lorry Crane							1	576	144	0	104
151				Dump Truck							8	576	144	0	102
152				Water pump							3	576	144	0	99
153				Generator							3	720	180	0	99
154				Welding Machines							2	576	144	0	96
155				Oxy-cutter							3	576	144	0	94
156		Bored Piling	Z3-Stage 3	Boring Rig			Feb 2025 - Mar 2025				3	432	108	0	113
157				Crawler Crane							3	504	126	0	102
158				Vibro-hammer							3	288	72	0	103
159				Hydraulic excavator breaker							1	432	108	0	110
160				Steel Casing							9			0	-
161				Excavator							3	576	144	0	100
162				Lorry Crane							1	576	144	0	104
163				Dump Truck							8	576	144	0	102
164				Water pump							3	576	144	0	99
165				Generator							3	720	180	0	99
166				Welding Machines							2	576	144	0	96
167				Oxy-cutter							3	576	144	0	94
168		Bored Piling	Z4	Boring Rig				May 2023 - Jan 2024			3	432	0	0	113
169				Crawler Crane							3	504	0	0	102
170				Vibro-hammer							3	288	0	0	103
171				Hydraulic excavator breaker							1	432	0	0	110
172				Steel Casing							9			0	-
173				Excavator							3	576	0	0	100
174				Lorry Crane							1	576	0	0	104
175				Dump Truck							8	576	0	0	102
176				Water pump							3	576	0	0	99
177				Generator							3	720	0	0	99
178				Welding Machines							2	576	0	0	96
179				Oxy-cutter							3	576	0	0	94
180		Bored Piling	Z5-Stage 1 (Flyover)	Boring Rig					Jan 2024 - Sep 2024		3	432	108	0	113
181				Crawler Crane							3	504	126	0	102
182				Vibro-hammer							3	288	72	0	103
183				Hydraulic excavator breaker							1	432	108	0	110
184				Steel Casing							9			0	-
185				Excavator							3	576	144	0	100
186				Lorry Crane							1	576	144	0	104
187				Dump Truck							8	576	144	0	102
188				Water pump							3	576	144	0	99
189				Generator							3	720	180	0	99
190				Welding Machines							2	576	144	0	96
191				Oxy-cutter							3	576	144	0	94
192				Boring Rig							3	432	108	0	113
193				Crawler Crane							3	504	126	0	102
194				Vibro-hammer							3	288	72	0	103
195				Hydraulic excavator breaker							1	432	108	0	110

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2					Estimated Timeline							Operating Duration			
3	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Construction Duration	Quantity	Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	TotaL SWL (dBA)
196		Bored Piling	Z5-Stage 2 (New Vehicular Bridge)	Steel Casing					Feb 2024 - Jun 2024		9			0	-
197				Excavator							3	576	144	0	100
198				Lorry Crane							1	576	144	0	104
199				Dump Truck							8	576	144	0	102
200				Water pump							3	576	144	0	99
201				Generator							3	720	180	0	99
202				Welding Machines							2	576	144	0	96
203				Oxy-cutter							3	576	144	0	94
204		General	General works	Welding	Nov 2023 - May 2026	Nov 2023 - Feb 2027	Nov 2023 - May 2026	Nov 2023 - Jan 2025	Nov 2023 - Jan 2025		2	576	0	0	96
205				Electric drill							2	576	0	0	94
206				1 ton Roller							1	576	0	0	108
207				Excavator							4	576	0	0	100
208				Generator							1	720	0	0	99
209		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 1	Excavator	May 2024 - Sep 2024						12	576	0	0	100
210				Dump Truck							24	576	0	0	102
211				Lorry Crane							2	576	0	0	104
212				Vibratory Tandem Roller							4	576	0	0	108
213				Concrete Cutting Saw							4	576	0	0	118
214				Vibrators							12	576	0	0	99
215				Air Compressor							2	576	0	0	114
216				Generator							4	720	0	0	99
217				Water pump							4	576	0	0	99
218		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 2	Excavator	Dec 2024 - Feb 2025						12	576	0	0	100
219				Dump Truck							24	576	0	0	102
220				Lorry Crane							2	576	0	0	104
221				Vibratory Tandem Roller							4	576	0	0	108
222				Concrete Cutting Saw							4	576	0	0	118
223				Vibrators							12	576	0	0	99
224				Air Compressor							2	576	0	0	114
225				Generator							4	720	0	0	99
226				Water pump							4	576	0	0	99
227		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 3	Excavator	May 2025 - Aug 2025						12	576	0	0	100
228				Dump Truck							24	576	0	0	102
229				Lorry Crane							2	576	0	0	104
230				Vibratory Tandem Roller							4	576	0	0	108
231				Concrete Cutting Saw							4	576	0	0	118
232				Vibrators							12	576	0	0	99
233				Air Compressor							2	576	0	0	114
234				Generator							4	720	0	0	99
235				Water pump							4	576	0	0	99
236		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 4	Excavator	Sep 2025 - Feb 2026						12	576	0	0	100
237				Dump Truck							24	576	0	0	102
238				Lorry Crane							2	576	0	0	104
239				Vibratory Tandem Roller							4	576	0	0	108
240				Concrete Cutting Saw							4	576	0	0	118
241				Vibrators							12	576	0	0	99
242				Air Compressor							2	576	0	0	114
243				Generator							4	720	0	0	99
244				Water pump							4	576	0	0	99
245		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 5	Excavator	Mar 2026 - May 2026						12	576	0	0	100
246				Dump Truck							24	576	0	0	102
247				Lorry Crane							2	576	0	0	104
248				Vibratory Tandem Roller							4	576	0	0	108
249				Concrete Cutting Saw							4	576	0	0	118
250				Vibrators							12	576	0	0	99
251				Air Compressor							2	576	0	0	114
252				Generator							4	720	0	0	99
253				Water pump							4	576	0	0	99
254		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 6	Excavator	May 2026 - Jun 2026						12	576	0	0	100
255				Dump Truck							24	576	0	0	102
256				Lorry Crane							2	576	0	0	104
257				Vibratory Tandem Roller							4	576	0	0	108
258				Concrete Cutting Saw							4	576	0	0	118
259				Vibrators							12	576	0	0	99

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2	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Estimated Timeline					Construction Duration	Quantity	Operating Duration			Total SWL (dBA)
3					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	
260				Air Compressor							2	576	0	0	114
261				Generator							4	720	0	0	99
262				Water pump							4	576	0	0	99
263		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z2-Stage 1	Excavator		Jul 2026 - Aug 2026					12	576	0	0	100
264				Dump Truck							24	576	0	0	102
265				Lorry Crane							2	576	0	0	104
266				Vibratory Tandem Roller							4	576	0	0	108
267				Concrete Cutting Saw							4	576	0	0	118
268				Vibrators							12	576	0	0	99
269				Air Compressor							2	576	0	0	114
270				Generator							4	720	0	0	99
271				Water pump							4	576	0	0	99
272		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z2-Stage 2	Excavator		Oct 2026 - Dec 2026					12	576	0	0	100
273				Dump Truck							24	576	0	0	102
274				Lorry Crane							2	576	0	0	104
275				Vibratory Tandem Roller							4	576	0	0	108
276				Concrete Cutting Saw							4	576	0	0	118
277				Vibrators							12	576	0	0	99
278				Air Compressor							2	576	0	0	114
279				Generator							4	720	0	0	99
280				Water pump							4	576	0	0	99
281		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z2-Stage 3	Excavator		Dec 2026-Feb 2027					12	576	0	0	100
282				Dump Truck							24	576	0	0	102
283				Lorry Crane							2	576	0	0	104
284				Vibratory Tandem Roller							4	576	0	0	108
285				Concrete Cutting Saw							4	576	0	0	118
286				Vibrators							12	576	0	0	99
287				Air Compressor							2	576	0	0	114
288				Generator							4	720	0	0	99
289				Water pump							4	576	0	0	99
290		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z2-Stage 4	Excavator		Feb 2027 - Mar 2027					12	576	0	0	100
291				Dump Truck							24	576	0	0	102
292				Lorry Crane							2	576	0	0	104
293				Vibratory Tandem Roller							4	576	0	0	108
294				Concrete Cutting Saw							4	576	0	0	118
295				Vibrators							12	576	0	0	99
296				Air Compressor							2	576	0	0	114
297				Generator							4	720	0	0	99
298				Water pump							4	576	0	0	99
299		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z3-Stage 1	Excavator			Jun 2024 - Aug 2024				12	576	0	0	100
300				Dump Truck							24	576	0	0	102
301				Lorry Crane							2	576	0	0	104
302				Vibratory Tandem Roller							4	576	0	0	108
303				Concrete Cutting Saw							4	576	0	0	118
304				Vibrators							12	576	0	0	99
305				Air Compressor							2	576	0	0	114
306				Generator							4	720	0	0	99
307				Water pump							4	576	0	0	99
308		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z3-Stage 2	Excavator			Nov 2024 - Dec 2024				12	576	0	0	100
309				Dump Truck							24	576	0	0	102
310				Lorry Crane							2	576	0	0	104
311				Vibratory Tandem Roller							4	576	0	0	108
312				Concrete Cutting Saw							4	576	0	0	118
313				Vibrators							12	576	0	0	99
314				Air Compressor							2	576	0	0	114
315				Generator							4	720	0	0	99
316				Water pump							4	576	0	0	99
317		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z3-Stage 3	Excavator			Jul 2025 - Apr 2026				12	576	0	0	100
318				Dump Truck							24	576	0	0	102
319				Lorry Crane							2	576	0	0	104
320				Vibratory Tandem Roller							4	576	0	0	108
321				Concrete Cutting Saw							4	576	0	0	118
322				Vibrators							12	576	0	0	99
323				Air Compressor							2	576	0	0	114

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2	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Estimated Timeline					Construction Duration	Quantity	Operating Duration			Total SWL (dBA)
3					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	
324				Generator							4	720	0	0	99
325				Water pump							4	576	0	0	99
326		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z3-Stage 4	Excavator			Apr 2026 - Jun 2026				12	576	0	0	100
327				Dump Truck							24	576	0	0	102
328				Lorry Crane							2	576	0	0	104
329				Vibratory Tandem Roller							4	576	0	0	108
330				Concrete Cutting Saw							4	576	0	0	118
331				Vibrators							12	576	0	0	99
332				Air Compressor							2	576	0	0	114
333				Generator							4	720	0	0	99
334				Water pump							4	576	0	0	99
335		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z5-Stage 1	Excavator			Jun 2024 - Aug 2024		Jul 2024 - Nov 2024		12	576	0	0	100
336				Dump Truck							24	576	0	0	102
337				Lorry Crane							2	576	0	0	104
338				Vibratory Tandem Roller							4	576	0	0	108
339				Concrete Cutting Saw							4	576	0	0	118
340				Vibrators							12	576	0	0	99
341				Air Compressor							2	576	0	0	114
342				Generator							4	720	0	0	99
343				Water pump							4	576	0	0	99
344		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z5-Stage 2	Excavator			Nov 2024 - Dec 2024		Jan 2025 - Apr 2025		12	576	0	0	100
345				Dump Truck							24	576	0	0	102
346				Lorry Crane							2	576	0	0	104
347				Vibratory Tandem Roller							4	576	0	0	108
348				Concrete Cutting Saw							4	576	0	0	118
349				Vibrators							12	576	0	0	99
350				Air Compressor							2	576	0	0	114
351				Generator							4	720	0	0	99
352				Water pump							4	576	0	0	99
353		Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z5-Stage 3	Excavator			Jul 2025 - Apr 2026		Sep 2025 - Jan 2026		12	576	0	0	100
354				Dump Truck							24	576	0	0	102
355				Lorry Crane							2	576	0	0	104
356				Vibratory Tandem Roller							4	576	0	0	108
357				Concrete Cutting Saw							4	576	0	0	118
358				Vibrators							12	576	0	0	99
359				Air Compressor							2	576	0	0	114
360				Generator							4	720	0	0	99
361				Water pump							4	576	0	0	99
362		Drainage Works (RCU Drain/Box Culvert)	Z1-Stage 1	Excavator	Mar 2024 - Jun 2024						10	576	0	0	100
363				Dump Truck							15	576	0	0	102
364				Lorry Crane							2	576	0	0	104
365				1 ton Roller							4	576	0	0	108
366				Silent Piler							2	504	0	0	78
367				Pre-boring Rig							2	504	0	0	112
368				Vibrators							24	504	0	0	99
369				Air Compressor							4	504	0	0	114
370				Generator							7	720	0	0	99
371				Water pump							10	576	0	0	99
372				Bar Bender Machine							2	432	0	0	90
373				Bar Cutter Machine							2	504	0	0	90
374		Drainage Works (RCU Drain/Box Culvert)	Z1-Stage 2	Excavator	Oct 2024 - Dec 2024						10	576	0	0	100
375				Dump Truck							15	576	0	0	102
376				Lorry Crane							2	576	0	0	104
377				1 ton Roller							4	576	0	0	108
378				Silent Piler							2	504	0	0	78
379				Pre-boring Rig							2	504	0	0	112
380				Vibrators							24	504	0	0	99
381				Air Compressor							4	504	0	0	114
382				Generator							7	720	0	0	99
383				Water pump							10	576	0	0	99
384				Bar Bender Machine							2	432	0	0	90
385				Bar Cutter Machine							2	504	0	0	90
386				Excavator							10	576	0	0	100
387				Dump Truck							15	576	0	0	102

	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q
2	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Estimated Timeline					Construction Duration	Quantity	Operating Duration			Total SWL (dBA)
3					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	
388		Drainage Works (RCU Drain/Box Culvert)	Z1-Stage 3	Lorry Crane	Apr 2025 - Jun 2025						2	576	0	0	104
389				1 ton Roller							4	576	0	0	108
390				Silent Piler							2	504	0	0	78
391				Pre-boring Rig							2	504	0	0	112
392				Vibrators							24	504	0	0	99
393				Air Compressor							4	504	0	0	114
394				Generator							7	720	0	0	99
395				Water pump							10	576	0	0	99
396				Bar Bender Machine							2	432	0	0	90
397				Bar Cutter Machine							2	504	0	0	90
398		Drainage Works (RCU Drain/Box Culvert)	Z1-Stage 4	Excavator	Sep 2025 - Nov 2025						10	576	0	0	100
399				Dump Truck							15	576	0	0	102
400				Lorry Crane							2	576	0	0	104
401				1 ton Roller							4	576	0	0	108
402				Silent Piler							2	504	0	0	78
403				Pre-boring Rig							2	504	0	0	112
404				Vibrators							24	504	0	0	99
405				Air Compressor							4	504	0	0	114
406				Generator							7	720	0	0	99
407				Water pump							10	576	0	0	99
408				Bar Bender Machine							2	432	0	0	90
409				Bar Cutter Machine							2	504	0	0	90
410		Drainage Works (RCU Drain/Box Culvert)	Z1-Stage 5	Excavator	Mar 2026 - Apr 2026						10	576	0	0	100
411				Dump Truck							15	576	0	0	102
412				Lorry Crane							2	576	0	0	104
413				1 ton Roller							4	576	0	0	108
414				Silent Piler							2	504	0	0	78
415				Pre-boring Rig							2	504	0	0	112
416				Vibrators							24	504	0	0	99
417				Air Compressor							4	504	0	0	114
418				Generator							7	720	0	0	99
419				Water pump							10	576	0	0	99
420				Bar Bender Machine							2	432	0	0	90
421				Bar Cutter Machine							2	504	0	0	90
422		Drainage Works (RCU Drain/Box Culvert)	Z2-Stage 1	Excavator		June 2026 - Jul 2026					10	576	0	0	100
423				Dump Truck							15	576	0	0	102
424				Lorry Crane							2	576	0	0	104
425				1 ton Roller							4	576	0	0	108
426				Silent Piler							2	504	0	0	78
427				Pre-boring Rig							2	504	0	0	112
428				Vibrators							24	504	0	0	99
429				Air Compressor							4	504	0	0	114
430				Generator							7	720	0	0	99
431				Water pump							10	576	0	0	99
432				Bar Bender Machine							2	432	0	0	90
433				Bar Cutter Machine							2	504	0	0	90
434		Drainage Works (RCU Drain/Box Culvert)	Z2-Stage 2	Excavator		Sep 2026 - Oct 2026					10	576	0	0	100
435				Dump Truck							15	576	0	0	102
436				Lorry Crane							2	576	0	0	104
437				1 ton Roller							4	576	0	0	108
438				Silent Piler							2	504	0	0	78
439				Pre-boring Rig							2	504	0	0	112
440				Vibrators							24	504	0	0	99
441				Air Compressor							4	504	0	0	114
442				Generator							7	720	0	0	99
443				Water pump							10	576	0	0	99
444				Bar Bender Machine							2	432	0	0	90
445				Bar Cutter Machine							2	504	0	0	90
446		Drainage Works (RCU Drain/Box	Z2-Stage 1	Excavator			Apr 2024 - Aug				10	576	0	0	100
447				Dump Truck							15	576	0	0	102
448				Lorry Crane							2	576	0	0	104
449				1 ton Roller							4	576	0	0	108
450				Silent Piler							2	504	0	0	78
451				Pre-boring Rig							2	504	0	0	112

	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q
2	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Estimated Timeline					Construction Duration	Quantity	Operating Duration			TotaL SWL (dBA)
3					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	
452	Infrastructure	(RCU Drain/Box Culvert)	Z3-Stage 1	Vibrators			2024			2 years 10 months	24	504	0	0	99
453				Air Compressor							4	504	0	0	114
454				Generator							7	720	0	0	99
455				Water pump							10	576	0	0	99
456				Bar Bender Machine							2	432	0	0	90
457				Bar Cutter Machine							2	504	0	0	90
458		Drainage Works (RCU Drain/Box Culvert)	Z3-Stage 2	Excavator			Oct 2024 - Nov 2024				10	576	0	0	100
459				Dump Truck							15	576	0	0	102
460				Lorry Crane							2	576	0	0	104
461				1 ton Roller							4	576	0	0	108
462				Silent Piler							2	504	0	0	78
463				Pre-boring Rig							2	504	0	0	112
464				Vibrators							24	504	0	0	99
465				Air Compressor							4	504	0	0	114
466				Generator							7	720	0	0	99
467				Water pump							10	576	0	0	99
468				Bar Bender Machine							2	432	0	0	90
469				Bar Cutter Machine							2	504	0	0	90
470		Drainage Works (RCU Drain/Box Culvert)	Z3-Stage 3	Excavator			Jul 2025 - Jan 2026				10	576	0	0	100
471				Dump Truck							15	576	0	0	102
472				Lorry Crane							2	576	0	0	104
473				1 ton Roller							4	576	0	0	108
474				Silent Piler							2	504	0	0	78
475				Pre-boring Rig							2	504	0	0	112
476				Vibrators							24	504	0	0	99
477				Air Compressor							4	504	0	0	114
478				Generator							7	720	0	0	99
479				Water pump							10	576	0	0	99
480				Bar Bender Machine							2	432	0	0	90
481				Bar Cutter Machine							2	504	0	0	90
482		Drainage Works (RCU Drain/Box Culvert)	Z5-Stage 2	Excavator					Nov 2024 - Jan 2026		10	576	0	0	100
483				Dump Truck							15	576	0	0	102
484				Lorry Crane							2	576	0	0	104
485				1 ton Roller							4	576	0	0	108
486				Silent Piler							2	504	0	0	78
487				Pre-boring Rig							2	504	0	0	112
488				Vibrators							24	504	0	0	99
489				Air Compressor							4	504	0	0	114
490				Generator							7	720	0	0	99
491				Water pump							10	576	0	0	99
492				Bar Bender Machine							2	432	0	0	90
493				Bar Cutter Machine							2	504	0	0	90
494		Drainage Works (RCU Drain/Box Culvert)	Z5-Stage 3	Excavator					Apr 2025 - Sep 2025		10	576	0	0	100
495				Dump Truck							15	576	0	0	102
496				Lorry Crane							2	576	0	0	104
497				1 ton Roller							4	576	0	0	108
498				Silent Piler							2	504	0	0	78
499				Pre-boring Rig							2	504	0	0	112
500				Vibrators							24	504	0	0	99
501				Air Compressor							4	504	0	0	114
502				Generator							7	720	0	0	99
503				Water pump							10	576	0	0	99
504				Bar Bender Machine							2	432	0	0	90
505				Bar Cutter Machine							2	504	0	0	90
506		Drainage Works (RCU Drain/Box Culvert)	Z5-At grade Stage 1	Excavator					Mar 2025 - May 2025		10	576	0	0	100
507				Dump Truck							15	576	0	0	102
508				Lorry Crane							2	576	0	0	104
509				1 ton Roller							4	576	0	0	108
510				Silent Piler							2	504	0	0	78
511				Pre-boring Rig							2	504	0	0	112
512				Vibrators							24	504	0	0	99
513				Air Compressor							4	504	0	0	114
514				Generator							7	720	0	0	99
515				Water pump							10	576	0	0	99

	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q
2	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Estimated Timeline					Construction Duration	Quantity	Operating Duration			TotaL SWL (dBA)
3					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	
516				Bar Bender Machine							2	432	0	0	90
517				Bar Cutter Machine							2	504	0	0	90
518		Drainage Works (RCU Drain/Box Culvert)	Z5-At grade Stage 2	Excavator					Oct 2025 - Dec 2025		10	576	0	0	100
519				Dump Truck							15	576	0	0	102
520				Lorry Crane							2	576	0	0	104
521				1 ton Roller							4	576	0	0	108
522				Silent Piler							2	504	0	0	78
523				Pre-boring Rig							2	504	0	0	112
524				Vibrators							24	504	0	0	99
525				Air Compressor							4	504	0	0	114
526				Generator							7	720	0	0	99
527				Water pump							10	576	0	0	99
528				Bar Bender Machine							2	432	0	0	90
529				Bar Cutter Machine							2	504	0	0	90
530		Drainage Works (RCU Drain/Box Culvert)	Z5-At grade Stage 3	Excavator					Mar 2026 - Apr 2026		10	576	0	0	100
531				Dump Truck							15	576	0	0	102
532				Lorry Crane							2	576	0	0	104
533				1 ton Roller							4	576	0	0	108
534				Silent Piler							2	504	0	0	78
535				Pre-boring Rig							2	504	0	0	112
536				Vibrators							24	504	0	0	99
537				Air Compressor							4	504	0	0	114
538				Generator							7	720	0	0	99
539				Water pump							10	576	0	0	99
540				Bar Bender Machine							2	432	0	0	90
541				Bar Cutter Machine							2	504	0	0	90
542		Drainage Works (RCU Drain/Box Culvert)	Z5-At grade Stage 4	Excavator					June 2026 - Jul 2026		10	576	0	0	100
543				Dump Truck							15	576	0	0	102
544				Lorry Crane							2	576	0	0	104
545				1 ton Roller							4	576	0	0	108
546				Silent Piler							2	504	0	0	78
547				Pre-boring Rig							2	504	0	0	112
548				Vibrators							24	504	0	0	99
549				Air Compressor							4	504	0	0	114
550				Generator							7	720	0	0	99
551				Water pump							10	576	0	0	99
552				Bar Bender Machine							2	432	0	0	90
553				Bar Cutter Machine							2	504	0	0	90
554		Drainage Works (RCU Drain/Box Culvert)	Z5-At grade Stage 5	Excavator					Sep 2026 - Oct 2026		10	576	0	0	100
555				Dump Truck							15	576	0	0	102
556				Lorry Crane							2	576	0	0	104
557				1 ton Roller							4	576	0	0	108
558				Silent Piler							2	504	0	0	78
559				Pre-boring Rig							2	504	0	0	112
560				Vibrators							24	504	0	0	99
561				Air Compressor							4	504	0	0	114
562				Generator							7	720	0	0	99
563				Water pump							10	576	0	0	99
564				Bar Bender Machine							2	432	0	0	90
565				Bar Cutter Machine							2	432	0	0	90
566		RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z1-Stage 2	Excavator	Oct 2024 - Nov 2024						8	576	0	0	100
567				Dump Truck							10	576	0	0	102
568				Mobile Crane							4	576	0	0	118
569				Lorry Crane							3	576	0	0	104
570				Concrete Pump							4	576	0	0	102
571				1 ton Roller							4	576	0	0	108
572				Silent Piler							2	504	0	0	78
573				Pre-boring Rig							2	504	0	0	112
574				Vibrators							24	504	0	0	99
575				Air Compressor							4	576	0	0	114
576				Generator							7	720	0	0	99
577				Water pump							4	576	0	0	99
578				Bar Bender Machine							4	432	0	0	90
579				Bar Cutter Machine							4	432	0	0	90

	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q
2	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Estimated Timeline					Construction Duration	Quantity	Operating Duration			Total SWL (dBA)
3					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	
580		RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z1-Stage 3	Excavator	Apr 2025 - May 2025						8	576	0	0	100
581				Dump Truck							10	576	0	0	102
582				Mobile Crane							4	576	0	0	118
583				Lorry Crane							3	576	0	0	104
584				Concrete Pump							4	576	0	0	102
585				1 ton Roller							4	576	0	0	108
586				Silent Piler							2	504	0	0	78
587				Pre-boring Rig							2	504	0	0	112
588				Vibrators							24	504	0	0	99
589				Air Compressor							4	576	0	0	114
590				Generator							7	720	0	0	99
591				Water pump							4	576	0	0	99
592				Bar Bender Machine							4	432	0	0	90
593				Bar Cutter Machine							4	432	0	0	90
594		RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z3-Stage 1	Excavator			Apr 2024 - Sep 2024				8	576	144	0	100
595				Dump Truck							10	576	144	0	102
596				Mobile Crane							4	576	144	0	118
597				Lorry Crane							3	576	144	0	104
598				Concrete Pump							4	576	144	0	102
599				1 ton Roller							4	576	144	0	108
600				Silent Piler							2	504	126	0	78
601				Pre-boring Rig							2	504	126	0	112
602				Vibrators							24	504	126	0	99
603				Air Compressor							4	576	144	0	114
604				Generator							7	720	180	0	99
605				Water pump							4	576	144	0	99
606				Bar Bender Machine							4	432	108	0	90
607				Bar Cutter Machine							4	432	108	0	90
608		RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z3-Stage 2	Excavator			Oct 2024 - Jan 2025				8	576	144	0	100
609				Dump Truck							10	576	144	0	102
610				Mobile Crane							4	576	144	0	118
611				Lorry Crane							3	576	144	0	104
612				Concrete Pump							4	576	144	0	102
613				1 ton Roller							4	576	144	0	108
614				Silent Piler							2	504	126	0	78
615				Pre-boring Rig							2	504	126	0	112
616				Vibrators							24	504	126	0	99
617				Air Compressor							4	576	144	0	114
618				Generator							7	720	180	0	99
619				Water pump							4	576	144	0	99
620				Bar Bender Machine							4	432	108	0	90
621				Bar Cutter Machine							4	432	108	0	90
622		RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z3-Stage 3	Excavator			Feb 2025 - Oct 2025				8	576	0	0	100
623				Dump Truck							10	576	0	0	102
624				Mobile Crane							4	576	0	0	118
625				Lorry Crane							3	576	0	0	104
626				Concrete Pump							4	576	0	0	102
627				1 ton Roller							4	576	0	0	108
628				Silent Piler							2	504	0	0	78
629				Pre-boring Rig							2	504	0	0	112
630				Vibrators							24	504	0	0	99
631				Air Compressor							4	576	0	0	114
632				Generator							7	720	0	0	99
633				Water pump							4	576	0	0	99
634				Bar Bender Machine							4	432	0	0	90
635				Bar Cutter Machine							4	432	0	0	90
636		RC Works (Flyover/ Vehicular Bridge / Retaining Wall/	Z4	Excavator				May 2023 - Sep 2025			8	576	0	0	100
637				Dump Truck							10	576	0	0	102
638				Mobile Crane							4	576	0	0	118
639				Lorry Crane							3	576	0	0	104
640				Concrete Pump							4	576	0	0	102
641				1 ton Roller							4	576	0	0	108
642				Silent Piler							2	504	0	0	78
643				Pre-boring Rig							2	504	0	0	112

	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q
2	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Estimated Timeline					Construction Duration	Quantity	Operating Duration			Total SWL (dBA)
3					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	
644		Pilecap/ RC Column)		Vibrators							24	504	0	0	99
645				Air Compressor							4	576	0	0	114
646				Generator							7	720	0	0	99
647				Water pump							4	576	0	0	99
648				Bar Bender Machine							4	432	0	0	90
649				Bar Cutter Machine							4	432	0	0	90
650		RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z5-Stage 1 (Flyover)	Excavator					Jan 2024 - Nov 2025		8	576	144	0	100
651				Dump Truck							10	576	144	0	102
652				Mobile Crane							4	576	144	0	118
653				Lorry Crane							3	576	144	0	104
654				Concrete Pump							4	576	144	0	102
655				1 ton Roller							4	576	144	0	108
656				Silent Piler							2	504	126	0	78
657				Pre-boring Rig							2	504	126	0	112
658				Vibrators							24	504	126	0	99
659				Air Compressor							4	576	144	0	114
660				Generator							7	720	180	0	99
661				Water pump							4	576	144	0	99
662				Bar Bender Machine							4	432	108	0	90
663				Bar Cutter Machine							4	432	108	0	90
664		RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z5-Stage 2 (New Vehicular Bridge)	Excavator					Feb 2024 - June 2024		8	576	144	0	100
665				Dump Truck							10	576	144	0	102
666				Mobile Crane							4	576	144	0	118
667				Lorry Crane							3	576	144	0	104
668				Concrete Pump							4	576	144	0	102
669				1 ton Roller							4	576	144	0	108
670				Silent Piler							2	504	126	0	78
671				Pre-boring Rig							2	504	126	0	112
672				Vibrators							24	504	126	0	99
673				Air Compressor							4	576	144	0	114
674				Generator							7	720	180	0	99
675				Water pump							4	576	144	0	99
676				Bar Bender Machine							4	432	108	0	90
677				Bar Cutter Machine							4	432	108	0	90
678		Segmental Box Girder Installation	Z3-Stage 1	Mobile/Crawler Crane			Apr 2024 - Sep 2024				2	576	144	0	102
679				Lifting Frames							4	576	144	0	-
680				Lorry Crane							2	576	144	0	104
681				Excavator							2	576	144	0	100
682				Air Compressor							1	576	144	0	114
683				Trailer/Low bed Truck							4	576	144	0	103
684				Generator							2	720	180	0	99
685				Drill Machines							2	576	144	0	96
686				Electrical Breakers							2	576	144	0	105
687				Welding Set							2	576	144	0	96
688		Segmental Box Girder Installation	Z3-Stage 2	Mobile/Crawler Crane			Oct 2024 - Jan 2025				2	576	144	0	102
689				Lifting Frames							4	576	144	0	-
690				Lorry Crane							2	576	144	0	104
691				Excavator							2	576	144	0	100
692				Air Compressor							1	576	144	0	114
693				Trailer/Low bed Truck							4	576	144	0	103
694				Generator							2	720	180	0	99
695				Drill Machines							2	576	144	0	96
696				Electrical Breakers							2	576	144	0	105
697				Welding Set							2	576	144	0	96
698		Segmental Box Girder Installation	Z3-Stage 3	Mobile/Crawler Crane			Feb 2025 - Oct 2025				2	576	144	0	102
699				Lifting Frames							4	576	144	0	-
700				Lorry Crane							2	576	144	0	104
701				Excavator							2	576	144	0	100
702				Air Compressor							1	576	144	0	114
703				Trailer/Low bed Truck							4	576	144	0	103
704				Generator							2	720	180	0	99
705				Drill Machines							2	576	144	0	96
706				Electrical Breakers							2	576	144	0	105
707				Welding Set							2	576	144	0	96

	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q
2	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Estimated Timeline					Construction Duration	Quantity	Operating Duration			Total SWL (dBA)
3					Zone 1	Zone 2	Zone 3	Zone 4	Zone 5			Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	
708		Segmental Box Girder Installation	Z4	Mobile/Crawler Crane				Jan 2024 - Sep 2025			2	576	0	0	102
709				Lifting Frames							4	576	0	0	-
710				Lorry Crane							2	576	0	0	104
711				Excavator							2	576	0	0	100
712				Air Compressor							1	576	0	0	114
713				Trailer/Low bed Truck							4	576	0	0	103
714				Generator							2	720	0	0	99
715				Drill Machines							2	576	0	0	96
716				Electrical Breakers							2	576	0	0	105
717				Welding Set							2	576	0	0	96
718		Segmental Box Girder Installation	Z5-Stage 1 (Flyover)	Mobile/Crawler Crane					May 2024 - Nov 2025		2	576	144	0	102
719				Lifting Frames							4	576	144	0	-
720				Lorry Crane							2	576	144	0	104
721				Excavator							2	576	144	0	100
722				Air Compressor							1	576	144	0	114
723				Trailer/Low bed Truck							4	576	144	0	103
724				Generator							2	720	180	0	99
725				Drill Machines							2	576	144	0	96
726				Electrical Breakers							2	576	144	0	105
727				Welding Set							2	576	144	0	96
728		Segmental Box Girder Installation	Z5-Stage 2 (New Vehicular Bridge)	Mobile/Crawler Crane					Feb 2024 - Dec 2025		2	576	144	0	102
729				Lifting Frames							4	576	144	0	-
730				Lorry Crane							2	576	144	0	104
731				Excavator							2	576	144	0	100
732				Air Compressor							1	576	144	0	114
733				Trailer/Low bed Truck							4	576	144	0	103
734				Generator							2	720	180	0	99
735				Drill Machines							2	576	144	0	96
736				Electrical Breakers							2	576	144	0	105
737				Welding Set							2	576	144	0	96
738		Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z4-Stage 1	Mobile/Crawler Crane				Feb 2024 - Jan 2026			6	576	0	0	102
739				Lorry Crane							3	576	0	0	104
740				Excavator							4	576	0	0	100
741				Air Compressor							2	576	0	0	114
742				Trailer/Low bed Truck							6	288	0	0	103
743				Generator							2	720	0	0	99
744				Drill Machines							4	576	0	0	96
745				Electrical Breakers							4	576	0	0	105
746				Welding Set							2	576	0	0	96
747				Forklift							2	576	0	0	98
748				Boom Lift							4	576	0	0	107
749		Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z4-Stage 2	Mobile/Crawler Crane				Apr 2024 - Apr 2026			6	576	0	0	102
750				Lorry Crane							3	576	0	0	104
751				Excavator							4	576	0	0	100
752				Air Compressor							2	576	0	0	114
753				Trailer/Low bed Truck							6	288	0	0	103
754				Generator							2	720	0	0	99
755				Drill Machines							4	576	0	0	96
756				Electrical Breakers							4	576	0	0	105
757				Welding Set							2	576	0	0	96
758				Forklift							2	576	0	0	98
759				Boom Lift							4	576	0	0	107
760		Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z5-Stage 1 (Flyover)	Mobile/Crawler Crane					Jul 2024 - Dec 2026		6	576	144	0	102
761				Lorry Crane							3	576	144	0	104
762				Excavator							4	576	144	0	100
763				Air Compressor							2	576	144	0	114
764				Trailer/Low bed Truck							6	288	72	0	103
765				Generator							2	720	180	0	99
766				Drill Machines							4	576	144	0	96
767				Electrical Breakers							4	576	144	0	105
768				Welding Set							2	576	144	0	96
769				Forklift							2	576	144	0	98
770				Boom Lift							4	576	144	0	107
771				Mobile/Crawler Crane							6	576	144	0	102

	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q
2					Estimated Timeline							Operating Duration			
3	Construction Phase	Main Construction Activity	Construction Activities/ Stage	Equipment	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Construction Duration	Quantity	Day (7am-7pm)	Evening (7pm-10pm)	Night (10pm-7am)	TotaL SWL (dBA)
772		Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z5-Stage 2 (New Vehicular Bridge)	Lorry Crane					Apr 2025 - Nov 2026		3	576	144	0	104
773				Excavator							4	576	144	0	100
774				Air Compressor							2	576	144	0	114
775				Trailer/Low bed Truck							6	288	72	0	103
776				Generator							2	720	180	0	99
777				Drill Machines							4	576	144	0	96
778				Electrical Breakers							4	576	144	0	105
779				Welding Set							2	576	144	0	96
780				Forklift							2	576	144	0	98
781				Boom Lift							4	576	144	0	107
782		Demolition and Reinstatement of HVP	HVP	Excavator					Nov 2026 - Mar 2027		4	576	0	0	100
783				Generator							2	720	0	0	99
784				Welding							2	576	0	0	96
785				Electric drill							4	576	0	0	94
786				Dump truck							10	576	0	0	102
787		General	General works	Welding	May 2024 - June 2026	Jul 2026 - Jul 2027	Apr 2024 - Jul 2026	May 2023 - Apr 2026	Jan 2024 - Mar 2027		2	576	0	0	96
788				Electric drill							2	576	0	0	94
789				Transit mixer							1	432	0	0	107
790				Dump truck							4	576	0	0	102
791				Generator							1	720	0	0	99

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794 Note

795 1 No construction activities during evening and night time. Highlighted in red are construction activities with possible night works during Evening period.
796 2 Sound power level (SWL) is obtained from SS 602 : 2014 Code of Practice for Noise Control on Construction and Demolition Sites - Table E.2, unless otherwise stated. Lower SWL is selected as contractor is expected to use equipment with quieter noi
797 3 Octave band sound pressure level (SPL) is obtained from BS 5228 Part 1. Typical equipment with similar or highter SPL than SS 602: 2014 Table E.2 is selected.
798 4 Sound power level is estimated as Lw = Lp + 20 log r + 8 where r is reference distance (10 m). Octave band SWL of batching plant, bored piling, and loud hailer is obtained from Noise Impact Assessment report which is available online. Noise level fo
799 Whistle

63	125	250	500	1k	2k	4k	8k
40.0	40.7	39.9	41.7	46.0	82.9	95.3	73.0

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Appendix 8E: Construction Scenarios

Scenario 1 (SN1)

Estimated Timeline

Construction Phase	Zone	Main Construction Activity	Construction Activities/ Stage	Nov 2023	Dec 2023	Jan 2024	Feb 2024	Mar 2024
Advance works	Zone 1/2/3/4/5	Shepherding	Shepherding					
Advance works	Zone 1/2/3/4/5	Tree protection zone and perimeter hoarding	Erection of tree protection zone and perimeter hoarding					
Advance works	Zone 1/2/3/4/5	Tree felling and land clearance	Tree felling, Vegetation & debris transportation					
Advance works	Zone 1/2/3/4/5	Site preparation	Access road					
Advance works	Zone 1/2/3/4/5	Site preparation	Temporary facilities					
Advance works	Zone 1/2/3/4/5	Site preparation	Installation of noise barrier					
Advance works	Zone 1/2/3/4/5	Site preparation	Installation of ECM facilities					
Advance works	Zone 1/2/3/4/5	General	General works					
Earthwork and Foundation	Zone 1	Soil and geotechnical Investigation	Drilling					
Earthwork and Foundation	Zone 1	Drainage and utilities diversion	Drainage and utilities diversion					
Earthwork and Foundation	Zone 1	Work area set up	Z1-Stage 1					
Earthwork and Foundation	Zone 1	General	General works					
Earthwork and Foundation	Zone 3	Work area set up	Z3-Stage 1					
Earthwork and Foundation	Zone 3	General	General works					
Earthwork and Foundation	Zone 4	Demolition	Hacking					
Earthwork and Foundation	Zone 4	Bored Piling	Z4					
Earthwork and Foundation	Zone 4	General	General works					
Earthwork and Foundation	Zone 5	Work area set up	Z5					
Earthwork and Foundation	Zone 5	Bored Piling	Z5-Stage 1 (Flyover)					
Earthwork and Foundation	Zone 5	Bored Piling	Z5-Stage 2 (New Vehicular Bridge)					
Earthwork and Foundation	Zone 5	General	General works					
Infrastructure	Zone 1	Drainage Works (RCU Drain/Box Culvert)	Z1-Stage 1					
Infrastructure	Zone 4	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z4					
Infrastructure	Zone 4	Segmental Box Girder Installation	Z4					
Infrastructure	Zone 4	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z4-Stage 1					
Infrastructure	Zone 4	General	General works					
Infrastructure	Zone 5	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z5-Stage 1 (Flyover)					
Infrastructure	Zone 5	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z5-Stage 2 (New Vehicular Bridge)					
Infrastructure	Zone 5	Segmental Box Girder Installation	Z5-Stage 2 (New Vehicular Bridge)					
Infrastructure	Zone 5	General	General works					

Note: Highlighted in green are estimated duration of construction activity and highlighted in red are activities that may require night works

Scenario 2 (SN2)

Estimated Timeline

Construction Phase	Zone	Main Construction Activity	Construction Activities/ Stage	Apr 2024	May 2024	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025	Oct 2025	Nov 2025
Earthwork and Foundation	Zone 1	Drainage and utilities diversion	Drainage and utilities diversion																				
Earthwork and Foundation	Zone 1	Work area set up	Z1-Stage 2																				
Earthwork and Foundation	Zone 1	Work area set up	Z1-Stage 3																				
Earthwork and Foundation	Zone 1	Work area set up	Z1-Stage 4																				
Earthwork and Foundation	Zone 1	General	General works																				
Earthwork and Foundation	Zone 3	Demolition	Hacking																				
Earthwork and Foundation	Zone 3	Work area set up	Z3-Stage 1																				
Earthwork and Foundation	Zone 3	Work area set up	Z3-Stage 2																				
Earthwork and Foundation	Zone 3	Work area set up	Z3-Stage 3																				
Earthwork and Foundation	Zone 3	Work area set up	Z3-Stage 4																				
Earthwork and Foundation	Zone 3	Bored Piling	Z3-Stage 1																				
Earthwork and Foundation	Zone 3	Bored Piling	Z3-Stage 2																				
Earthwork and Foundation	Zone 3	Bored Piling	Z3-Stage 3																				
Earthwork and Foundation	Zone 3	General	General works																				
Earthwork and Foundation	Zone 4	Demolition	Hacking																				
Earthwork and Foundation	Zone 4	General	General works																				
Earthwork and Foundation	Zone 5	Bored Piling	Z5-Stage 1 (Flyover)																				
Earthwork and Foundation	Zone 5	Bored Piling	Z5-Stage 2 (New Vehicular Bridge)																				
Earthwork and Foundation	Zone 5	General	General works																				
Infrastructure	Zone 1	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 1																				
Infrastructure	Zone 1	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 2																				
Infrastructure	Zone 1	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 3																				
Infrastructure	Zone 1	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 4																				
Infrastructure	Zone 1	Drainage Works (RCU Drain/Box Culvert)	Z1-Stage 1																				
Infrastructure	Zone 1	Drainage Works (RCU Drain/Box Culvert)	Z1-Stage 2																				
Infrastructure	Zone 1	Drainage Works (RCU Drain/Box Culvert)	Z1-Stage 3																				
Infrastructure	Zone 1	Drainage Works (RCU Drain/Box Culvert)	Z1-Stage 4																				
Infrastructure	Zone 1	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z1-Stage 2																				
Infrastructure	Zone 1	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z1-Stage 3																				
Infrastructure	Zone 1	General	General works																				
Infrastructure	Zone 3	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z3-Stage 1																				
Infrastructure	Zone 3	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z3-Stage 2																				
Infrastructure	Zone 3	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z3-Stage 3																				
Infrastructure	Zone 3	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z5-Stage 1																				
Infrastructure	Zone 3	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z5-Stage 2																				
Infrastructure	Zone 3	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z5-Stage 3																				
Infrastructure	Zone 3	Drainage Works (RCU Drain/Box Culvert)	Z3-Stage 1																				
Infrastructure	Zone 3	Drainage Works (RCU Drain/Box Culvert)	Z3-Stage 2																				
Infrastructure	Zone 3	Drainage Works (RCU Drain/Box Culvert)	Z3-Stage 3																				
Infrastructure	Zone 3	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z3-Stage 1																				
Infrastructure	Zone 3	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z3-Stage 2																				
Infrastructure	Zone 3	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z3-Stage 3																				
Infrastructure	Zone 3	Segmental Box Girder Installation	Z3-Stage 1																				
Infrastructure	Zone 3	Segmental Box Girder Installation	Z3-Stage 2																				
Infrastructure	Zone 3	Segmental Box Girder Installation	Z3-Stage 3																				
Infrastructure	Zone 3	General	General works																				
Infrastructure	Zone 4	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z4																				
Infrastructure	Zone 4	Segmental Box Girder Installation	Z4																				
Infrastructure	Zone 4	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z4-Stage 1																				
Infrastructure	Zone 4	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z4-Stage 2																				
Infrastructure	Zone 4	General	General works																				
Infrastructure	Zone 5	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z5-Stage 1																				
Infrastructure	Zone 5	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z5-Stage 2																				
Infrastructure	Zone 5	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z5-Stage 3																				
Infrastructure	Zone 5	Drainage Works (RCU Drain/Box Culvert)	Z5-Stage 2																				
Infrastructure	Zone 5	Drainage Works (RCU Drain/Box Culvert)	Z5-Stage 3																				
Infrastructure	Zone 5	Drainage Works (RCU Drain/Box Culvert)	Z5-At grade Stage 1																				
Infrastructure	Zone 5	Drainage Works (RCU Drain/Box Culvert)	Z5-At grade Stage 2																				
Infrastructure	Zone 5	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z5-Stage 1 (Flyover)																				
Infrastructure	Zone 5	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z5-Stage 2 (New Vehicular Bridge)																				
Infrastructure	Zone 5	Segmental Box Girder Installation	Z5-Stage 1 (Flyover)																				
Infrastructure	Zone 5	Segmental Box Girder Installation	Z5-Stage 2 (New Vehicular Bridge)																				
Infrastructure	Zone 5	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z5-Stage 1 (Flyover)																				
Infrastructure	Zone 5	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z5-Stage 2 (New Vehicular Bridge)																				

Note: Highlighted in green are estimated duration of construction activity and highlighted in red are activities that may require night works

Scenario 3 (SN3)

Estimated Timeline

Constructi	Zone	Main Construction Activity	Construction Activities/ Stage	Dec 2025	Jan 2026	Feb 2026	Mar 2026	Apr 2026	May 2026
Earthwork	Zone 1	Work area set up	Z1-Stage 5						
Earthwork	Zone 1	Work area set up	Z1-Stage 6						
Earthwork	Zone 1	General	General works						
Earthwork	Zone 3	Work area set up	Z3-Stage 4						
Earthwork	Zone 3	General	General works						
Earthwork	Zone 4	Demolition	Hacking						
Infrastruct	Zone 1	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 4						
Infrastruct	Zone 1	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 5						
Infrastruct	Zone 1	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 6						
Infrastruct	Zone 1	Drainage Works (RCU Drain/Box Culvert)	Z1-Stage 5						
Infrastruct	Zone 1	General	General works						
Infrastruct	Zone 3	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z3-Stage 3						
Infrastruct	Zone 3	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z3-Stage 4						
Infrastruct	Zone 3	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z5-Stage 3						
Infrastruct	Zone 3	Drainage Works (RCU Drain/Box Culvert)	Z3-Stage 3						
Infrastruct	Zone 3	General	General works						
Infrastruct	Zone 4	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z4-Stage 1						
Infrastruct	Zone 4	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z4-Stage 2						
Infrastruct	Zone 4	General	General works						
Infrastruct	Zone 5	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z5-Stage 3						
Infrastruct	Zone 5	Drainage Works (RCU Drain/Box Culvert)	Z5-Stage 2						
Infrastruct	Zone 5	Drainage Works (RCU Drain/Box Culvert)	Z5-At grade Stage 2						
Infrastruct	Zone 5	Drainage Works (RCU Drain/Box Culvert)	Z5-At grade Stage 3						
Infrastruct	Zone 5	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z5-Stage 2 (New Vehicular Bridge)						
Infrastruct	Zone 5	Segmental Box Girder Installation	Z5-Stage 2 (New Vehicular Bridge)						
Infrastruct	Zone 5	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z5-Stage 1 (Flyover)						
Infrastruct	Zone 5	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z5-Stage 2 (New Vehicular Bridge)						

Note: Highlighted in green are estimated duration of construction activity and highlighted in red are activities that may require night works

Scenario 4 (SN4)

Estimated Timeline

Constructi	Zone	Main Construction Activity	Construction Activities/ Stage	Jun 2026	Jul 2026	Aug 2026	Sep 2026	Oct 2026	Nov 2026	Dec 2026	Jan 2027	Feb 2027	Mar 2027	Apr 2027	May 2027	Jun 2027	Jul 2027	Aug 2027
Earthwork	Zone 4	Demolition	Hacking															
Infrastruct	Zone 1	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z1-Stage 6															
Infrastruct	Zone 1	General	General works															
Infrastruct	Zone 3	Road Works (Kerb/ Scupper pipe/ Subgrade/ Subbase)	Z3-Stage 4															
Infrastruct	Zone 3	General	General works															
Infrastruct	Zone 5	Drainage Works (RCU Drain/Box Culvert)	Z5-At grade Stage 4															
Infrastruct	Zone 5	Drainage Works (RCU Drain/Box Culvert)	Z5-At grade Stage 5															
Infrastruct	Zone 5	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC Column)	Z5-Stage 2 (New Vehicular Bridge)															
Infrastruct	Zone 5	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z5-Stage 1 (Flyover)															
Infrastruct	Zone 5	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Flower Trough Installation	Z5-Stage 2 (New Vehicular Bridge)															
Infrastructure	Zone 5	Demolition and Reinstatement of HVP	HVP															

Note: Highlighted in green are estimated duration of construction activity and highlighted in red are activities that may require night works

Scenario 5 (SN5)

Estimated Timeline

Construction Phase	Zone	Main Construction Activity	Construction Activities/ Stage	Nov 2023	Dec 2023	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024	Jun 2024	Jul 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025	Aug 2025	Sep 2025	Oct 2025	Nov 2025	Dec 2025	Jan 2026	Feb 2026	Mar 2026	Apr 2026	May 2026	Jun 2026	Jul 2026	Aug 2026	Sep 2026	Oct 2026	Nov 2026	Dec 2026	Jan 2027	Feb 2027	Mar 2027	Apr 2027	May 2027	Jun 2027	Jul 2027	Aug 2027	Sep 2027
Earthwork and Foundation	Zone 3	Bored Piling	Z3-Stage 1																																															
Earthwork and Foundation	Zone 3	Bored Piling	Z3-Stage 2																																															
Earthwork and Foundation	Zone 3	Bored Piling	Z3-Stage 3																																															
Earthwork and Foundation	Zone 5	Bored Piling	Z5-Stage 1 (Flyover)																																															
Earthwork and Foundation	Zone 5	Bored Piling	Z5-Stage 2 (New Vehicular Bridge)																																															
Infrastructure	Zone 3	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC column)	Z3-Stage 1																																															
Infrastructure	Zone 3	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC column)	Z3-Stage 2																																															
Infrastructure	Zone 3	Segmental Box Girder Installation	Z3-Stage 1																																															
Infrastructure	Zone 3	Segmental Box Girder Installation	Z3-Stage 2																																															
Infrastructure	Zone 3	Segmental Box Girder Installation	Z3-Stage 3																																															
Infrastructure	Zone 5	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC column)	Z5-Stage 1 (Flyover)																																															
Infrastructure	Zone 5	RC Works (Flyover/ Vehicular Bridge / Retaining Wall/ Pilecap/ RC column)	Z5-Stage 2 (New Vehicular Bridge)																																															
Infrastructure	Zone 5	Segmental Box Girder Installation	Z5-Stage 1 (Flyover)																																															
Infrastructure	Zone 5	Segmental Box Girder Installation	Z5-Stage 2 (New Vehicular Bridge)																																															
Infrastructure	Zone 5	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Clover Trough Installation	Z5-Stage 1 (Flyover)																																															
Infrastructure	Zone 5	Precast Crosshead, Precast PSPC Beam/Girder and Precast Parapet/ Clover Trough Installation	Z5-Stage 2 (New Vehicular Bridge)																																															

Appendix 8F: Noise Modelling Results

Scenario SN1 (12 hours)- Unmitigated

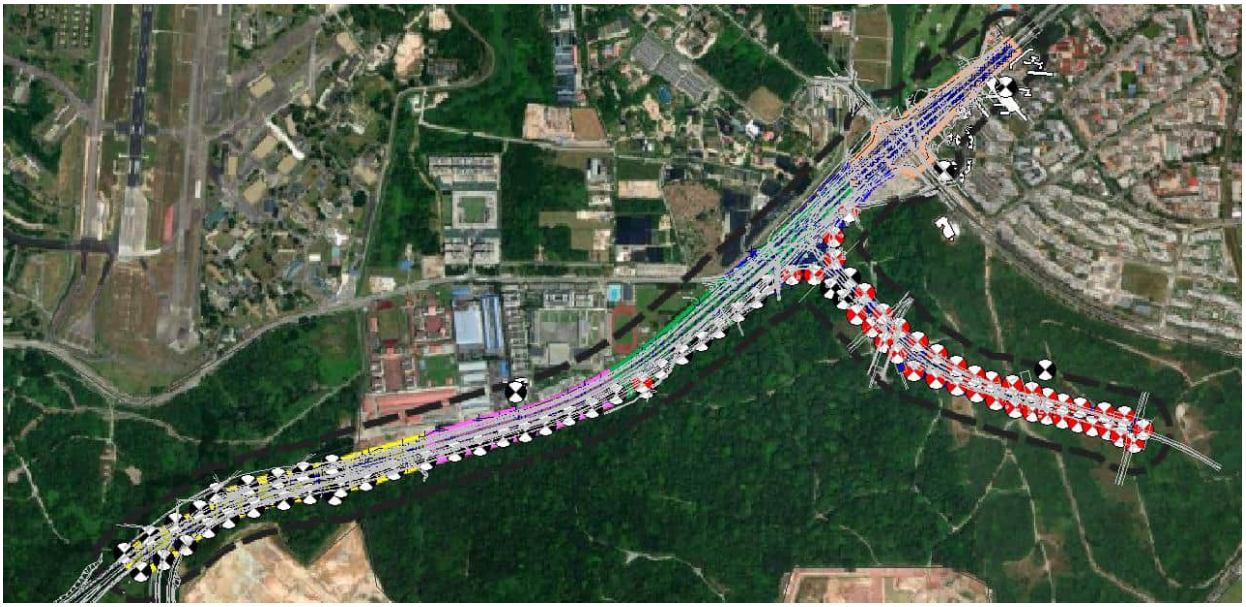
community Receptors			
	Affected Premises	Max Modelled Results)[1] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	64.7	75.0
N2 Cluster	Residential Block 461	68.1	76.0
	Residential Block 454	70.1	76.0
	Residential Block 453	71.3	76.0
	Residential Blocks 451 and 452	71.3	76.0
N3 Cluster	Concord Primary School	81.3	66.0
	Residential Block 445	69.7	76.0

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	73.3	74.7	59.5
Max Modelled Results (0.5m) (dBA)	77.6	77.6	83.2
Max Modelled Results (15m) (dBA)	78.4	76.9	82

[1] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN1 (5 mins)- Unmitigated



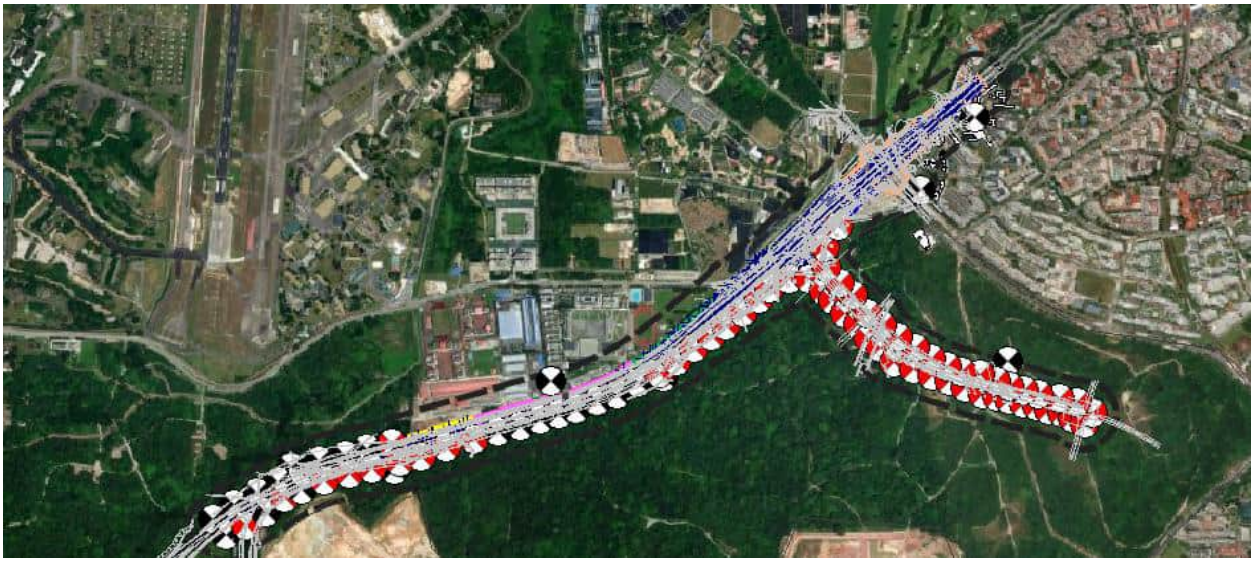
community Receptors			
	Affected Premises	Max Modelled Results[2] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	65.7	90.0
N2 Cluster	Residential Block 461	69.3	91.0
	Residential Block 454	71.2	84.6
	Residential Block 453	72.3	84.6
	Residential Blocks 451 and 452	72.3	84.6
N3 Cluster	Concord Primary School	82.3	84.6
	Residential Block 445	70.7	91.0

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	86.9	88.9	75.3
Max Modelled Results (0.5m) (dBA)	69.8	59.5	64.3
Max Modelled Results (15m) (dBA)	78.4	74.3	81.2

[2] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN2 (12 hours)- Unmitigated



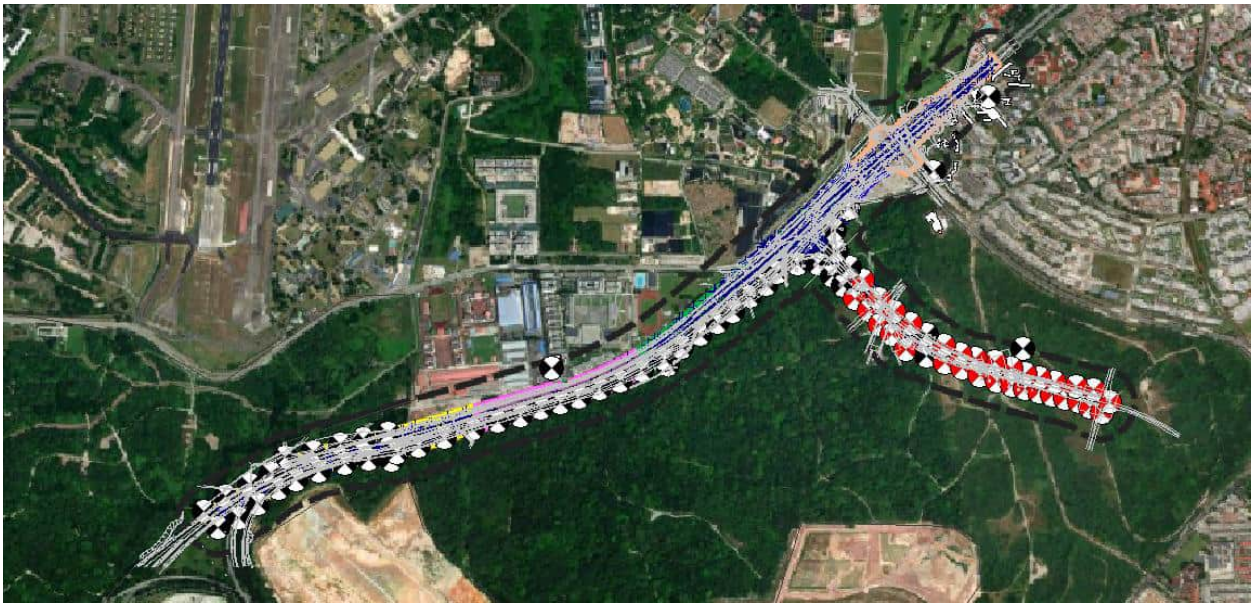
community Receptors			
	Affected Premises	Max Modelled Results[3] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	61.6	75.0
N2 Cluster	Residential Block 461	69.2	76.0
	Residential Block 454	70.9	76.0
	Residential Block 453	72.1	76.0
	Residential Blocks 451 and 452	72.1	76.0
N3 Cluster	Concord Primary School	81.4	66.0
	Residential Block 445	70.2	76.0

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	73.3	74.7	59.5
Max Modelled Results (0.5m) (dBA)	82.8	84.5	84.3
Max Modelled Results (15m) (dBA)	83	81.8	82.7

[3] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN2 (5 mins)- Unmitigated



community Receptors			
	Affected Premises	Max Modelled Results[4] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	62.9	90.0
N2 Cluster	Residential Block 461	70.3	91.0
	Residential Block 454	72.0	84.6
	Residential Block 453	73.5	84.6
	Residential Blocks 451 and 452	73.2	84.6
N3 Cluster	Concord Primary School	82.4	84.6
	Residential Block 445	71.1	91.0

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	86.9	88.9	75.3
Max Modelled Results (0.5m) (dBA)	84.7	83.2	85.8
Max Modelled Results (15m) (dBA)	84.5	81.9	83.7

[4] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN3 (12 hours)- Unmitigated

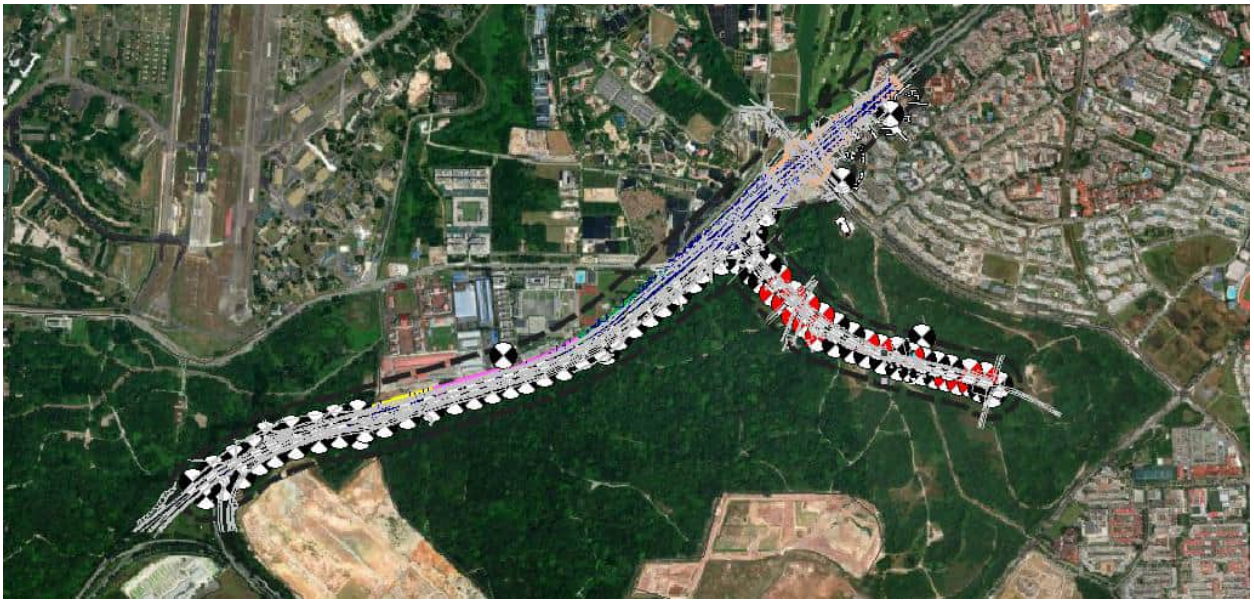
community Receptors			
	Affected Premises	Max Modelled Results[5] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	61.4	75.0
N2 Cluster	Residential Block 461	65.7	76.0
	Residential Block 454	66.9	76.0
	Residential Block 453	68.3	76.0
	Residential Blocks 451 and 452	68.1	76.0
N3 Cluster	Concord Primary School	70.1	66.0
	Residential Block 445	65.1	76.0

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	73.3	74.7	59.5
Max Modelled Results (0.5m) (dBA)	83	87.3	85.3
Max Modelled Results (15m) (dBA)	83.1	84.9	83

[5] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN3 (5 mins)- Unmitigated



community Receptors			
	Affected Premises	Max Modelled Results[6] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	62.5	90.0
N2 Cluster	Residential Block 461	66.8	91.0
	Residential Block 454	68.1	84.6
	Residential Block 453	70.3	84.6
	Residential Blocks 451 and 452	69.3	84.6
N3 Cluster	Concord Primary School	71.1	84.6
	Residential Block 445	66.0	91.0

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	86.9	88.9	75.3
Max Modelled Results (0.5m) (dBA)	84.1	85.3	86.3
Max Modelled Results (15m) (dBA)	84.3	84.1	84

[6] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN4 (12 hours)- Unmitigated

community Receptors			
	Affected Premises	Max Modelled Results[7] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	69.4	75.0
N2 Cluster	Residential Block 461	61.5	76.0
	Residential Block 454	60.8	76.0
	Residential Block 453	59.8	76.0
	Residential Blocks 451 and 452	54.3	76.0
N3 Cluster	Concord Primary School	59.8	66.0
	Residential Block 445	53.4	76.0

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	73.3	74.7	59.5
Max Modelled Results (0.5m) (dBA)	87.5	86.1	82.3
Max Modelled Results (15m) (dBA)	83	82.8	81.4

[7] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN4 (5 mins)- Unmitigated

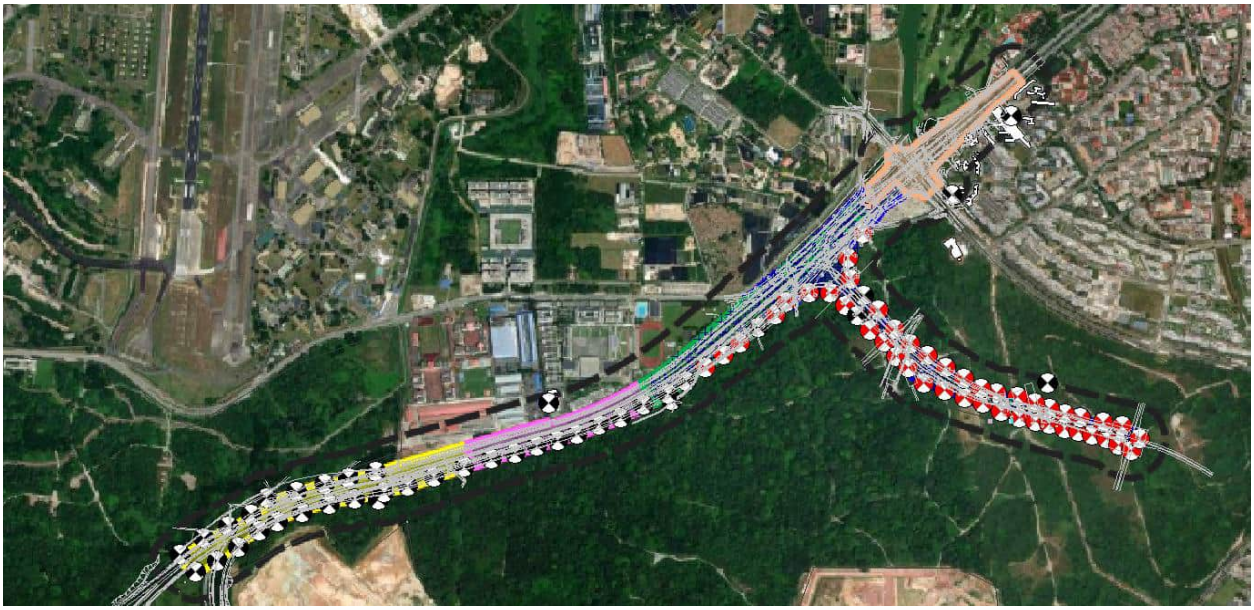
community Receptors			
	Affected Premises	Max Modelled Results[8]	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	70.5	90.0
N2 Cluster	Residential Block 461	62.6	91.0
	Residential Block 454	61.8	84.6
	Residential Block 453	60.8	84.6
	Residential Blocks 451 and 452	55.3	84.6
N3 Cluster	Concord Primary School	60.8	84.6
	Residential Block 445	54.5	91.0

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	86.9	88.9	75.3
Max Modelled Results (0.5m) (dBA)	89	87	83.3
Max Modelled Results (15m) (dBA)	84.2	83.7	82.4

[8] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario Scenario SN5A (1 hour)- Unmitigated



community Receptors			
	Affected Premises	Max Modelled Results[9] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	58.3	67.0
N2 Cluster	Residential Block 461	62.4	68.0
	Residential Block 454	61.0	68.0
	Residential Block 453	59.4	68.0
	Residential Blocks 451 and 452	56.0	68.0
N3 Cluster	Concord Primary School	49.6	60.2
	Residential Block 445	52.8	69.6

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	73.5	80.5	56.7
Max Modelled Results (0.5m) (dBA)	80.6	48.1	82.9
Max Modelled Results (15m) (dBA)	81.4	54.7	81.4

[9] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN5A (5 mins)- Unmitigated

community Receptors			
	Affected Premises	Max Modelled Results[10] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	58.2	73.0
N2 Cluster	Residential Block 461	62.0	72.0
	Residential Block 454	60.5	72.0
	Residential Block 453	58.9	72.0
	Residential Blocks 451 and 452	55.2	72.0
N3 Cluster	Concord Primary School	52.6	74.9
	Residential Block 445	55.0	75.9

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	81.8	87.8	61.5
Max Modelled Results (0.5m)	82	50.2	84.7
Max Modelled Results (15m)	82.5	55.7	81.7

[10] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN5B (1 hour)- Unmitigated

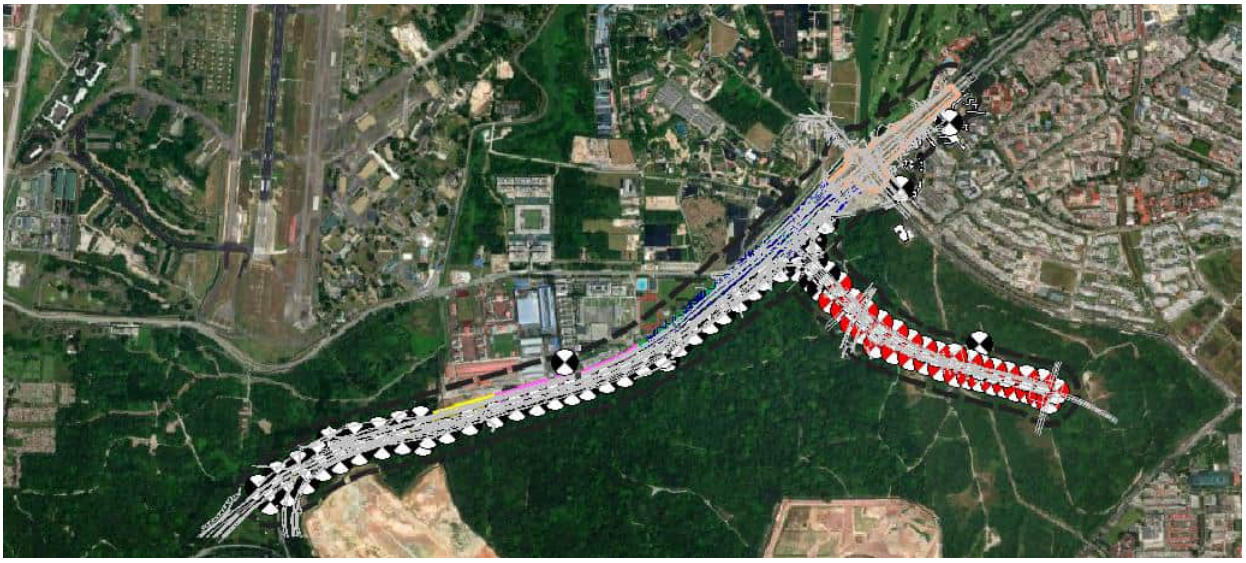
community Receptors			
	Affected Premises	Max Modelled Results[11] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	58.2	67.0
N2 Cluster	Residential Block 461	62.0	68.0
	Residential Block 454	60.5	68.0
	Residential Block 453	58.9	68.0
	Residential Blocks 451 and 452	55.2	68.0
N3 Cluster	Concord Primary School	49.0	60.2
	Residential Block 445	52.6	69.6

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	73.5	80.5	56.7
Max Modelled Results (0.5m) (dBA)	76.3	46.7	90.7
Max Modelled Results (15m) (dBA)	78.6	54.4	80.8

[11] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN5B (5 mins)- Unmitigated



community Receptors			
	Affected Premises	Max Modelled Results[12] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	58.2	73.0
N2 Cluster	Residential Block 461	62.0	72.0
	Residential Block 454	60.5	72.0
	Residential Block 453	58.9	72.0
	Residential Blocks 451 and 452	55.2	72.0
N3 Cluster	Concord Primary School	52.6	74.9
	Residential Block 445	55.0	75.9

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	81.8	87.8	61.5
Max Modelled Results (0.5m) (dBA)	81.7	50	91.7
Max Modelled Results (15m) (dBA)	81.8	55.7	83.2

[12] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN5C (1 hour)- Unmitigated

community Receptors			
	Affected Premises	Max Modelled Results[13] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	45.4	67.0
N2 Cluster	Residential Block 461	55.1	68.0
	Residential Block 454	51.1	68.0
	Residential Block 453	49.8	68.0
	Residential Blocks 451 and 452	52.3	68.0
N3 Cluster	Concord Primary School	46.8	60.2
	Residential Block 445	50.4	69.6

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	73.5	80.5	56.7
Max Modelled Results (0.5m) (dBA)	65.1	29.5	90.9
Max Modelled Results (15m) (dBA)	66.7	42.1	84.7

[13] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN5C (5 mins)- Unmitigated

community Receptors			
	Affected Premises	Max Modelled Results[14] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	44.8	73.0
N2 Cluster	Residential Block 461	54.3	72.0
	Residential Block 454	50.8	72.0
	Residential Block 453	49.1	72.0
	Residential Blocks 451 and 452	51.2	72.0
N3 Cluster	Concord Primary School	51.0	74.9
	Residential Block 445	49.0	75.9

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	81.8	87.8	61.5
Max Modelled Results (0.5m) (dBA)	65.6	35.9	91.9
Max Modelled Results (15m) (dBA)	67.5	41.7	85.7

[14] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN5D (1 hour)- Unmitigated

community Receptors			
	Affected Premises	Max Modelled Results[15] (dBA)	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	42.1	67.0
N2 Cluster	Residential Block 461	51.8	68.0
	Residential Block 454	47.0	68.0
	Residential Block 453	49.8	68.0
	Residential Blocks 451 and 452	50.4	68.0
N3 Cluster	Concord Primary School	44.9	60.2
	Residential Block 445	48.3	69.6

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	73.5	80.5	56.7
Max Modelled Results (0.5m) (dBA)	47.1	20.4	87.3
Max Modelled Results (15m) (dBA)	53.2	32.9	82.1

[15] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Scenario SN5D (5 mins)- Unmitigated

community Receptors			
	Affected Premises	Max Modelled Results[16]	Maximum Adjusted permissible Noise Level (dBA)
N1 Cluster	HTA	43.1	73.0
N2 Cluster	Residential Block 461	48.0	72.0
	Residential Block 454	50.9	72.0
	Residential Block 453	51.5	72.0
	Residential Blocks 451 and 452	51.9	72.0
N3 Cluster	Concord Primary School	52.9	74.9
	Residential Block 445	49.4	75.9

Fauna Receptors			
	N4 cluster	N5 cluster	N6 cluster
Max Background Noise (dBA)	81.8	87.8	61.5
Max Modelled Results (0.5m) (dBA)	48.1	27.3	88.3
Max Modelled Results (15m) (dBA)	54.1	34	83.1

[16] Different parts of the building receive different levels of noise, the results presented for community receptors are the building evaluation results which is the maximum noise received at each building is taken as the maximum modelled results

Note: Only fauna receptors at 15m height are shown in diagram

Appendix 8G: Modified RIAM for Airborne Noise

Assessment Criteria and Impact Evaluation Method for Affected Residential Community (Day- Unmitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Unmitigated Noise Levels for Day (Laeq 12 hours)																				
Scenario 1 (Nov 2023 to March 2024)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	High	3	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-12	11	-132	Moderate negative impact
Scenario 2 (April 2024 to Nov 2025)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	High	3	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-12	11	-132	Moderate negative impact
Scenario 3 (Dec 2025 to May 2026)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Scenario 4 (June 2026 to Aug 2027)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	High	3	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Unmitigated Noise Levels for Day (Laeq 5 mins)																				
Scenario 1 (Nov 2023 to March 2024)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Scenario 2 (April 2024 to Nov 2025)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Scenario 3 (Dec 2025 to May 2026)																				
Noise emissions from construction work activities for all scenarios for residential communiY HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Scenario 4 (June 2026 to Aug 2027)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo

Group A Criterion								Group A Criterion							
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative	
		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent									
International	4	Positive	1	High	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3
National	3	Neutral	0	Medium	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2
Outside Local	2	Negative	-1	Low	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1
Local	1	-	-	No Change	0	Local	1	Temporary	1	-	-	-	-	-	-
No Importance	0	-	-	-	-	No Change	0	-	-	-	-	-	-	-	-

Group A Criterion								Group A Criterion								Score		
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative				
		A2.1 Impact Nature		A2.2 Magnitude of Changes		A2.3 Impact Extent										at	bt	ES
International	4	Positive	1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	48	13	624
National	3	Positive	1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	18	9	162
Outside Local	2	Positive	1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	4	5	20
Local	1	Positive	1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
No Importance	0	Neutral	0	-	0	No Importance	0	-	0	-	0	-	0	-	0	0	0	0
Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
Outside Local	2	Negative	-1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	-4	5	-20
National	3	Negative	-1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	-18	9	-162
International	4	Negative	-1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	-48	13	-624

	Max score 624 Start	End	Range	Ratio	
Extreme positive effect	481	624	143	1	Impact which causes great improvement or benefit to the existing environment
Major positive effect	313	480	167	1.3	Impact which causes major improvement or benefit to the existing environment
Moderate positive impact	121	312	191	2.0	Impact which causes noticeable improvement or benefit to the existing environment
Minor positive impact	53	120	67	5.2	Impact which causes minor improvement or benefit to the existing environment
Slight positive impact	1	52	51	12	Impact which causes slight improvement or benefit to the existing environment
No change/ status quo	0	0	0		No discernible deterioration or improvement to the existing environment
Slight negative impact	-1	-52			Impact which causes slight deterioration or dis-benefit to the existing environment
Minor negative impact	-53	-120			Impact which causes minor deterioration or dis-benefit to the existing environment
Moderate negative impact	-121	-312			Impact which causes a noticeable deterioration or dis-benefit to the existing environment
Major negative impact	-313	-480			Impact which causes major deterioration or dis-benefit to the existing environment
Critically negative impact	-481	-624			Impact which causes critical deterioration or dis-benefit to the existing environment

Assessment Criteria and Impact Evaluation Method for Affected Residential Community (Night- Unmitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Unmitigated Noise Levels for Day (Laeq 12 hours)																				
Scenario 5A (Nov 2023 to Oct 2024)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Scenario 5B (Nov 2024 to Nov 2025)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Scenario 5C (Dec 2025 to Dec 2026)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	11	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	11	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	11	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	11	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	11	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	11	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	11	-36	Slight negative impact
Scenario 5D (Jan 2027 to Aug 2027)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	High	3	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Unmitigated Noise Levels for Day (Laeq 5 mins)																				
Scenario 5A (Nov 2023 to Oct 2024)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Scenario 5B (Nov 2024 to Nov 2025)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	No Change	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No Change/ Status Quo
Scenario 5C (Dec 2025 to Dec 2026)																				
Noise emissions from construction work activities for all scenarios for residential communitY HTA	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No Change/ Status Quo
Scenario 5D (Jan 2027 to Aug 2027)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-4	9	-36	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	No Change	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No Change/ Status Quo

Group A Criterion								Group A Criterion							
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative	
		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent									
International	4	Positive	1	High	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3
National	3	Neutral	0	Medium	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulative	2
Outside Local	2	Negative	-1	Low	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1
Local	1	-	-	No Change	0	Local	1	Temporary	1	-	-	-	-	-	-
No Importance	0	-	-	-	-	No Change	0	-	-	-	-	-	-	-	-

Group A Criterion								Group A Criterion								Score		
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative				
		A2.1 Impact Nature		A2.2 Magnitude of Changes		A2.3 Impact Extent										at	bt	ES
International	4	Positive	1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	48	13	624
National	3	Positive	1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulative	2	18	9	162
Outside Local	2	Positive	1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	4	5	20
Local	1	Positive	1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
No Importance	0	Neutral	0	-	0	No Importance	0	-	0	-	0	-	0	-	0	0	0	0
Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
Outside Local	2	Negative	-1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	-4	5	-20
National	3	Negative	-1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulative	2	-18	9	-162
International	4	Negative	-1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	-48	13	-624

	Max score 624 Start	End	Range	Ratio	
Extreme positive effect	481	624	143	1	Impact which causes great improvement or benefit to the existing environment
Major positive effect	313	480	167	1.3	Impact which causes major improvement or benefit to the existing environment
Moderate positive impact	121	312	191	2.0	Impact which causes noticeable improvement or benefit to the existing environment
Minor positive impact	53	120	67	5.2	Impact which causes minor improvement or benefit to the existing environment
Slight positive impact	1	52	51	12	Impact which causes slight improvement or benefit to the existing environment
No change/ status quo	0	0	0		No discernible deterioration or improvement to the existing environment
Slight negative impact	-1	-52			Impact which causes slight deterioration or dis-benefit to the existing environment
Minor negative impact	-53	-120			Impact which causes minor deterioration or dis-benefit to the existing environment
Moderate negative impact	-121	-312			Impact which causes a noticeable deterioration or dis-benefit to the existing environment
Major negative impact	-313	-480			Impact which causes major deterioration or dis-benefit to the existing environment
Critically negative impact	-481	-624			Impact which causes critical deterioration or dis-benefit to the existing environment

Assessment Criteria and Impact Evaluation Method for Affected Residential Community (Day- Mitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Unmitigated Noise Levels for Day (Laeq 12 hours)																				
Scenario 2 (April 2024 to March 2025)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Unmitigated Noise Levels for Day (Laeq 5 mins)																				
Scenario 2 (April 2024 to March 2025)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo

Group A Criterion								Group A Criterion							
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative	
		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent									
International	4	Positive	1	High	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3
National	3	Neutral	0	Medium	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2
Outside Local	2	Negative	-1	Low	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1
Local	1	-	-	No Change	0	Local	1	Temporary	1	-	-	-	-	-	-
No Importance	0	-	-	-	-	No Change	0	-	-	-	-	-	-	-	-

Group A Criterion								Group A Criterion								Score		
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative				
		A2.1 Impact Nature		A2.2 Magnitude of Changes		A2.3 Impact Extent										at	bt	ES
International	4	Positive	1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	48	13	624
National	3	Positive	1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	18	9	162
Outside Local	2	Positive	1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	4	5	20
Local	1	Positive	1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
No Importance	0	Neutral	0	-	0	No Importance	0	-	0	-	0	-	0	-	0	0	0	0
Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
Outside Local	2	Negative	-1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	-4	5	-20
National	3	Negative	-1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	-18	9	-162
International	4	Negative	-1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	-48	13	-624

	Max score 624				
	Start	End	Range	Ratio	
Extreme positive effect	481	624	143	1	Impact which causes great improvement or benefit to the existing environment
Major positive effect	313	480	167	1.3	Impact which causes major improvement or benefit to the existing environment
Moderate positive impact	121	312	191	2.0	Impact which causes noticeable improvement or benefit to the existing environment
Minor positive impact	53	120	67	5.2	Impact which causes minor improvement or benefit to the existing environment
Slight positive impact	1	52	51	12	Impact which causes slight improvement or benefit to the existing environment
No change/ status quo	0	0	0		No discernible deterioration or improvement to the existing environment
Slight negative impact	-1	-52			Impact which causes slight deterioration or dis-benefit to the existing environment
Minor negative impact	-53	-120			Impact which causes minor deterioration or dis-benefit to the existing environment
Moderate negative impact	-121	-312			Impact which causes a noticeable deterioration or dis-benefit to the existing environment
Major negative impact	-313	-480			Impact which causes major deterioration or dis-benefit to the existing environment
Critically negative impact	-481	-624			Impact which causes critical deterioration or dis-benefit to the existing environment

Assessment Criteria and Impact Evaluation Method for Affected Residential Community (Night- Mitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Unmitigated Noise Levels for Day (Laeq 12 hours)																				
Scenario 5A (Nov 2023 to Oct 2024)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Unmitigated Noise Levels for Day (Laeq 5 mins)																				
Scenario 5A (Nov 2023 to Oct 2024)																				
Noise emissions from construction work activities for all scenarios for residential community HTA	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 461	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 454	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 453	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential communiy Block 451	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block452	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for residential community Block 445	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo
Noise emissions from construction work activities for all scenarios for school community (Concord Primary School)	Outside Local	2	Negative	-1	No Change	0	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	11	0	No Change/ Status Quo

Group A Criterion								Group A Criterion							
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative	
		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent									
International	4	Positive	1	High	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3
National	3	Neutral	0	Medium	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2
Outside Local	2	Negative	-1	Low	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1
Local	1	-	-	No Change	0	Local	1	Temporary	1	-	-	-	-	-	-
No Importance	0	-	-	-	-	No Change	0	-	-	-	-	-	-	-	-

Group A Criterion								Group A Criterion								Score		
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative				
		A2.1 Impact Nature		A2.2 Magnitude of Changes		A2.3 Impact Extent										at	bt	ES
International	4	Positive	1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	48	13	624
National	3	Positive	1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	18	9	162
Outside Local	2	Positive	1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	4	5	20
Local	1	Positive	1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
No Importance	0	Neutral	0	-	0	No Importance	0	-	0	-	0	-	0	-	0	0	0	0
Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
Outside Local	2	Negative	-1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	-4	5	-20
National	3	Negative	-1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	-18	9	-162
International	4	Negative	-1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	-48	13	-624

	Max score 624 Start	End	Range	Ratio	
Extreme positive effect	481	624	143	1	Impact which causes great improvement or benefit to the existing environment
Major positive effect	313	480	167	1.3	Impact which causes major improvement or benefit to the existing environment
Moderate positive impact	121	312	191	2.0	Impact which causes noticeable improvement or benefit to the existing environment
Minor positive impact	53	120	67	5.2	Impact which causes minor improvement or benefit to the existing environment
Slight positive impact	1	52	51	12	Impact which causes slight improvement or benefit to the existing environment
No change/ status quo	0	0	0		No discernible deterioration or improvement to the existing environment
Slight negative impact	-1	-52			Impact which causes slight deterioration or dis-benefit to the existing environment
Minor negative impact	-53	-120			Impact which causes minor deterioration or dis-benefit to the existing environment
Moderate negative impact	-121	-312			Impact which causes a noticeable deterioration or dis-benefit to the existing environment
Major negative impact	-313	-480			Impact which causes major deterioration or dis-benefit to the existing environment
Critically negative impact	-481	-624			Impact which causes critical deterioration or dis-benefit to the existing environment

Assessment Criteria and Impact Evaluation Method for Affected Fauna (Day- Unmitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Unmitigated Noise Levels for Day (Laeq 12 hours)																				
Scenario 1 (Nov 2023 to March 2024)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Medium	2	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Scenario 2 (April 2024 to March 2025)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Scenario 3 (Dec 2025 to May 2026)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Scenario 4 (June 2026 to Aug 2027)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Unmitigated Noise Levels for Day (LAeq 5 minutes)																				
Scenario 1 (Nov 2023 to March 2024)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Scenario 2 (April 2024 to March 2025)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Scenario 3 (Dec 2025 to May 2026)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Scenario 4 (June 2026 to Aug 2027)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact

Group A Criterion								Group A Criterion							
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative	
		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent									
International	4	Positive	1	High	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3
National	3	Neutral	0	Medium	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulative	2
Outside Local	2	Negative	-1	Low	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1
Local	1	-	-	No Change	0	Local	1	Temporary	1	-	-	-	-	-	-
No Importance	0	-	-	-	-	No Change	0	-	-	-	-	-	-	-	-

Group A Criterion								Group A Criterion								Score		
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative				
		A2.1 Impact Nature		A2.2 Magnitude of		A2.3 Impact Extent										at	bt	ES
International	4	Positive	1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	48	13	624
National	3	Positive	1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulative	2	18	9	162
Outside Local	2	Positive	1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	4	5	20
Local	1	Positive	1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
No Importance	0	Neutral	0	-	0	No Importance	0	-	0	-	0	-	0	-	0	0	0	0
Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
Outside Local	2	Negative	-1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	-4	5	-20
National	3	Negative	-1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulative	2	-18	9	-162
International	4	Negative	-1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	-48	13	-624

	Max score				
	624				
	Start	End	Range	Ratio	
Extreme positive effect	481	624	143	1	Impact which causes great improvement or benefit to the existing environment
Major positive effect	313	480	167	1.3	Impact which causes major improvement or benefit to the existing environment
Moderate positive impact	121	312	191	2.0	Impact which causes noticeable improvement or benefit to the existing environment
Minor positive impact	53	120	67	5.2	Impact which causes minor improvement or benefit to the existing environment
Slight positive impact	1	52	51	12	Impact which causes slight improvement or benefit to the existing environment
No change/ status quo	0	0	0		No discernible deterioration or improvement to the existing environment
Slight negative impact	-1	-52			Impact which causes slight deterioration or dis-benefit to the existing environment
Minor negative impact	-53	-120			Impact which causes minor deterioration or dis-benefit to the existing environment
Moderate negative impact	-121	-312			Impact which causes a noticeable deterioration or dis-benefit to the existing environment
Major negative impact	-313	-480			Impact which causes major deterioration or dis-benefit to the existing environment
Critically negative impact	-481	-624			Impact which causes critical deterioration or dis-benefit to the existing environment

Assessment Criteria and Impact Evaluation Method for Affected Fauna (Night- Unmitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Unmitigated Noise Levels for Day (Laeq 1 hour)																				
Scenario 5A (Nov 2023 to Oct 2024)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Medium	2	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Medium	2	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-12	10	-120	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Medium	2	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-2	9	-18	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Medium	2	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Medium	2	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-12	10	-120	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Medium	2	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-2	9	-18	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Scenario 5B (Nov 2024 to Nov 2025)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-9	10	-90	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-6	10	-60	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-1	9	-9	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Medium	2	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Medium	2	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-12	10	-120	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Medium	2	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-2	9	-18	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Scenario 5C (Dec 2025 to Dec 2026)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-9	10	-90	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-6	10	-60	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-1	9	-9	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-9	10	-90	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-6	10	-60	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-1	9	-9	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Scenario 5D (Jan 2027 to Aug 2027)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Unmitigated Noise Levels for Day (LAeq 5 minutes)																				
Scenario 5A (Nov 2023 to Oct 2024)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-9	10	-90	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-6	10	-60	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-1	9	-9	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-9	10	-90	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-6	10	-60	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-1	9	-9	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Scenario 5B (Nov 2024 to Nov 2025)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-9	10	-90	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-6	10	-60	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-1	9	-9	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-9	10	-90	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-6	10	-60	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-1	9	-9	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Scenario 5C (Dec 2025 to Dec 2026)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-9	10	-90	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-6	10	-60	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-1	9	-9	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-9	10	-90	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-6	10	-60	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-1	9	-9	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Scenario 5D (Jan 2027 to Aug 2027)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact

Group A Criterion								Group A Criterion							
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative	
		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent									
International	4	Positive	1	High	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3
National	3	Neutral	0	Medium	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2
Outside Local	2	Negative	-1	Low	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1
Local	1	-	-	No Change	0	Local	1	Temporary	1	-	-	-	-	-	-
No Importance	0	-	-	-	-	No Change	0	-	-	-	-	-	-	-	-

Group A Criterion								Group A Criterion								Score		
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative				
		A2.1 Impact Nature		A2.2 Magnitude of		A2.3 Impact Extent										at	bt	ES
International	4	Positive	1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	48	13	624
National	3	Positive	1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	18	9	162
Outside Local	2	Positive	1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	4	5	20
Local	1	Positive	1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
No Importance	0	Neutral	0	-	0	No Importance	0	-	0	-	0	-	0	-	0	0	0	0
Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
Outside Local	2	Negative	-1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	-4	5	-20
National	3	Negative	-1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	-18	9	-162
International	4	Negative	-1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	-48	13	-624

Max score
624

	Start	End	Range	Ratio	
Extreme positive effect	481	624	143	1	Impact which causes great improvement or benefit to the existing environment
Major positive effect	313	480	167	1.3	Impact which causes major improvement or benefit to the existing environment
Moderate positive impact	121	312	191	2.0	Impact which causes noticeable improvement or benefit to the existing environment
Minor positive impact	53	120	67	5.2	Impact which causes minor improvement or benefit to the existing environment
Slight positive impact	1	52	51	12	Impact which causes slight improvement or benefit to the existing environment
No change/ status quo	0	0	0		No discernible deterioration or improvement to the existing environment
Slight negative impact	-1	-52			Impact which causes slight deterioration or dis-benefit to the existing environment
Minor negative impact	-53	-120			Impact which causes minor deterioration or dis-benefit to the existing environment
Moderate negative impact	-121	-312			Impact which causes a noticeable deterioration or dis-benefit to the existing environment
Major negative impact	-313	-480			Impact which causes major deterioration or dis-benefit to the existing environment
Critically negative impact	-481	-624			Impact which causes critical deterioration or dis-benefit to the existing environment

Assessment Criteria and Impact Evaluation Method for Affected Fauna (Day- Mitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Mitigated Noise Levels for Day (Laeq 12 hours)																				
Scenario 3 (Dec 2025 to May 2026) - Only 1.4m Noise Barrier at N6 (dBA)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	Medium	2	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-12	12	-144	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-27	12	-324	Major negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-18	12	-216	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Mitigated Noise Levels for Day (Laeq 5 minutes)																				
Scenario 3 (Dec 2025 to May 2026) - Only 1.4m Noise Barrier at N6 (dBA)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-9	12	-108	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	Low	1	National	3	Medium Term	3	Direct	3	Irreversible	3	Cumulative	3	-6	12	-72	Minor negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact

Group A Criterion								Group A Criterion							
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative	
		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent									
International	4	Positive	1	High	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3
National	3	Neutral	0	Medium	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2
Outside Local	2	Negative	-1	Low	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1
Local	1	-	-	No Change	0	Local	1	Temporary	1	-	-	-	-	-	-
No Importance	0	-	-	-	-	No Change	0	-	-	-	-	-	-	-	-

Group A Criterion								Group A Criterion								Score		
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative				
		A2.1 Impact Nature		A2.2 Magnitude of		A2.3 Impact Extent										at	bt	ES
International	4	Positive	1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	48	13	624
National	3	Positive	1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	18	9	162
Outside Local	2	Positive	1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	4	5	20
Local	1	Positive	1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
No Importance	0	Neutral	0	-	0	No Importance	0	-	0	-	0	-	0	-	0	0	0	0
Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
Outside Local	2	Negative	-1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	-4	5	-20
National	3	Negative	-1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	-18	9	-162
International	4	Negative	-1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	-48	13	-624

	Max score 624 Start	End	Range	Ratio	
Extreme positive effect	481	624	143	1	Impact which causes great improvement or benefit to the existing environment
Major positive effect	313	480	167	1.3	Impact which causes major improvement or benefit to the existing environment
Moderate positive impact	121	312	191	2.0	Impact which causes noticeable improvement or benefit to the existing environment
Minor positive impact	53	120	67	5.2	Impact which causes minor improvement or benefit to the existing environment
Slight positive impact	1	52	51	12	Impact which causes slight improvement or benefit to the existing environment
No change/ status quo	0	0	0		No discernible deterioration or improvement to the existing environment
Slight negative impact	-1	-52			Impact which causes slight deterioration or dis-benefit to the existing environment
Minor negative impact	-53	-120			Impact which causes minor deterioration or dis-benefit to the existing environment
Moderate negative impact	-121	-312			Impact which causes a noticeable deterioration or dis-benefit to the existing environment
Major negative impact	-313	-480			Impact which causes major deterioration or dis-benefit to the existing environment
Critically negative impact	-481	-624			Impact which causes critical deterioration or dis-benefit to the existing environment

Assessment Criteria and Impact Evaluation Method for Affected Fauna (Night- Mitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Mitigated Noise Levels for Day (Laeq 1 hour)																				
Scenario 5C (Dec 2025 to Dec 2026)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-9	10	-90	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	Low	1	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-6	10	-60	Minor negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	Low	1	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-1	9	-9	Slight negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	Medium	2	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	Medium	2	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-12	10	-120	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	Medium	2	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-2	9	-18	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact
Mitigated Noise Levels for Day (Laeq 5 minutes)																				
Scenario 5C (Dec 2025 to Dec 2026)																				
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	National	3	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	Outside Local	2	Negative	-1	No Change	0	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	0	10	0	No change/ status quo
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	0	9	0	No change/ status quo
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	Medium	2	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	Medium	2	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-12	10	-120	Minor negative impact
Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	Medium	2	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-2	9	-18	Slight negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	National	3	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-27	10	-270	Moderate negative impact
Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	Outside Local	2	Negative	-1	High	3	National	3	Temporary	1	Direct	3	Irreversible	3	Cumulative	3	-18	10	-180	Moderate negative impact
Noise emission from construction site toarboreal fauna of Priority/ Sensitivity Level - Low at N6	Local	1	Negative	-1	High	3	Local	1	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-3	9	-27	Slight negative impact

Group A Criterion								Group A Criterion							
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative	
		A2.1: Impact Nature		A2.2: Magnitude of Changes		A2.3: Impact Extent									
International	4	Positive	1	High	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3
National	3	Neutral	0	Medium	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2
Outside Local	2	Negative	-1	Low	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1
Local	1	-	-	No Change	0	Local	1	Temporary	1	-	-	-	-	-	-
No Importance	0	-	-	-	-	No Change	0	-	-	-	-	-	-	-	-

Group A Criterion								Group A Criterion								Score		
A1: Value		A2: Magnitude						B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative				
		A2.1 Impact Nature		A2.2 Magnitude of		A2.3 Impact Extent										at	bt	ES
International	4	Positive	1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	48	13	624
National	3	Positive	1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	18	9	162
Outside Local	2	Positive	1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	4	5	20
Local	1	Positive	1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
No Importance	0	Neutral	0	-	0	No Importance	0	-	0	-	0	-	0	-	0	0	0	0
Local	1	Negative	-1	No Change	0	Local	1	Temporary	1	-	0	-	0	-	0	0	1	0
Outside Local	2	Negative	-1	Minor	1	Outside Local	2	Short Term	2	No Change	1	No Change	1	No Change	1	-4	5	-20
National	3	Negative	-1	Moderate	2	National	3	Medium Term	3	Indirect	2	Reversible	2	Non-Cumulativ	2	-18	9	-162
International	4	Negative	-1	Major	3	Transboundary	4	Long Term	4	Direct	3	Irreversible	3	Cumulative	3	-48	13	-624

	Max score 624 Start	End	Range	Ratio	
Extreme positive effect	481	624	143	1	Impact which causes great improvement or benefit to the existing environment
Major positive effect	313	480	167	1.3	Impact which causes major improvement or benefit to the existing environment
Moderate positive impact	121	312	191	2.0	Impact which causes noticeable improvement or benefit to the existing environment
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Slight positive impact	1	52	51	12	Impact which causes slight improvement or benefit to the existing environment
No change/ status quo	0	0	0		No discernible deterioration or improvement to the existing environment
Slight negative impact	-1	-52			Impact which causes slight deterioration or dis-benefit to the existing environment
Minor negative impact	-53	-120			Impact which causes minor deterioration or dis-benefit to the existing environment
Moderate negative impact	-121	-312			Impact which causes a noticeable deterioration or dis-benefit to the existing environment
Major negative impact	-313	-480			Impact which causes major deterioration or dis-benefit to the existing environment
Critically negative impact	-481	-624			Impact which causes critical deterioration or dis-benefit to the existing environment

Appendix 8H: Noise Modelling Trials

The following modelling trials were conducted for the worst case scenarios: Scenario 3 as it results the highest exceedances at N6 fauna receptors.

- Trial 1: 2.4 meters noise barrier along the construction site boundary sections N4 and N5 facing the fauna receptors, and 4 meters high along N6 area (**Figure A**)
- Trial 2: Reduced Sound Power Level at source as specified on **Table 8-26**.
- Trial 3: Trial 2 measures + 1.4 meters high noise barriers at N6 area (**Figure B**)
- Trial 4: Trial 2 measures + 2.4 meters high noise barriers at N6 area (**Figure B**)

Noise modelling trials are carried out for specific period (L_{Aeq} 12 hours) and over 5 mins (L_{Aeq} 5 mins) for fauna receptors at N4, N5 and N6 area. The predicted noise level are summarized and compared on **Table A**.

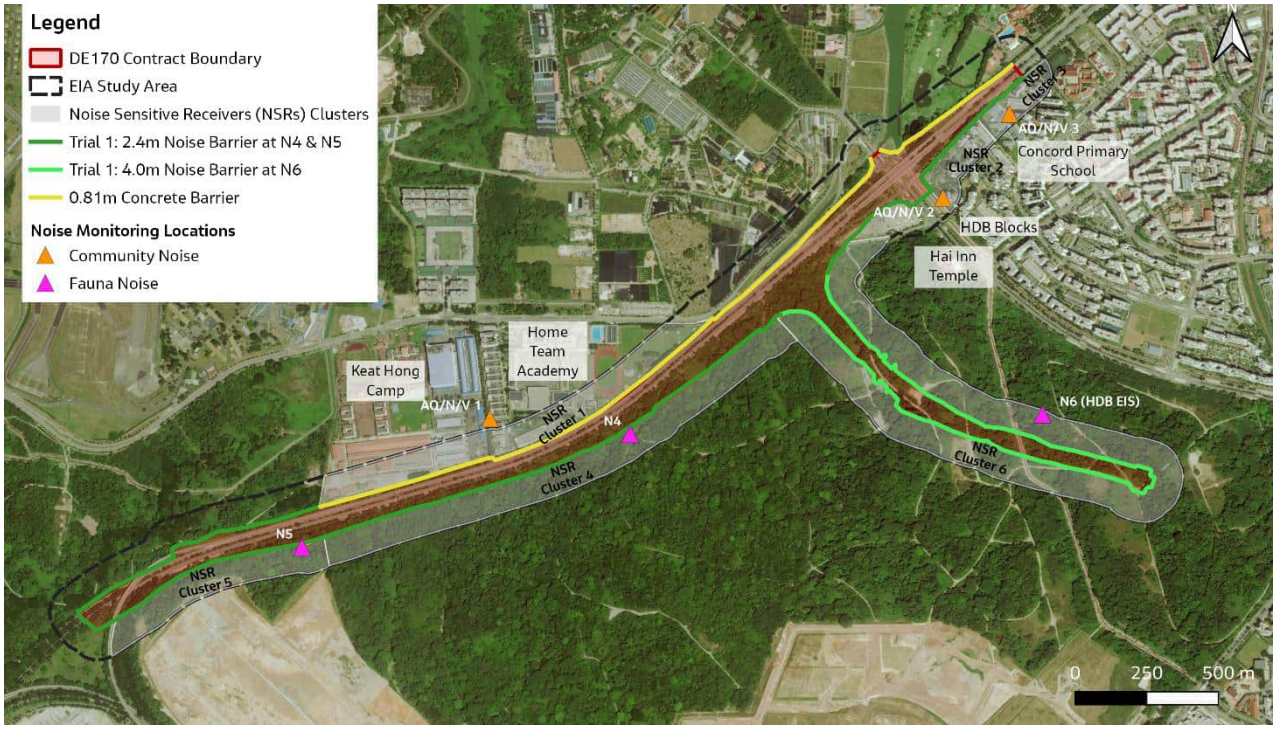


Figure A: Recommended Location of Noise Barriers (Trial 1)

Note: no noise barrier included at construction site boundary along width of existing roads

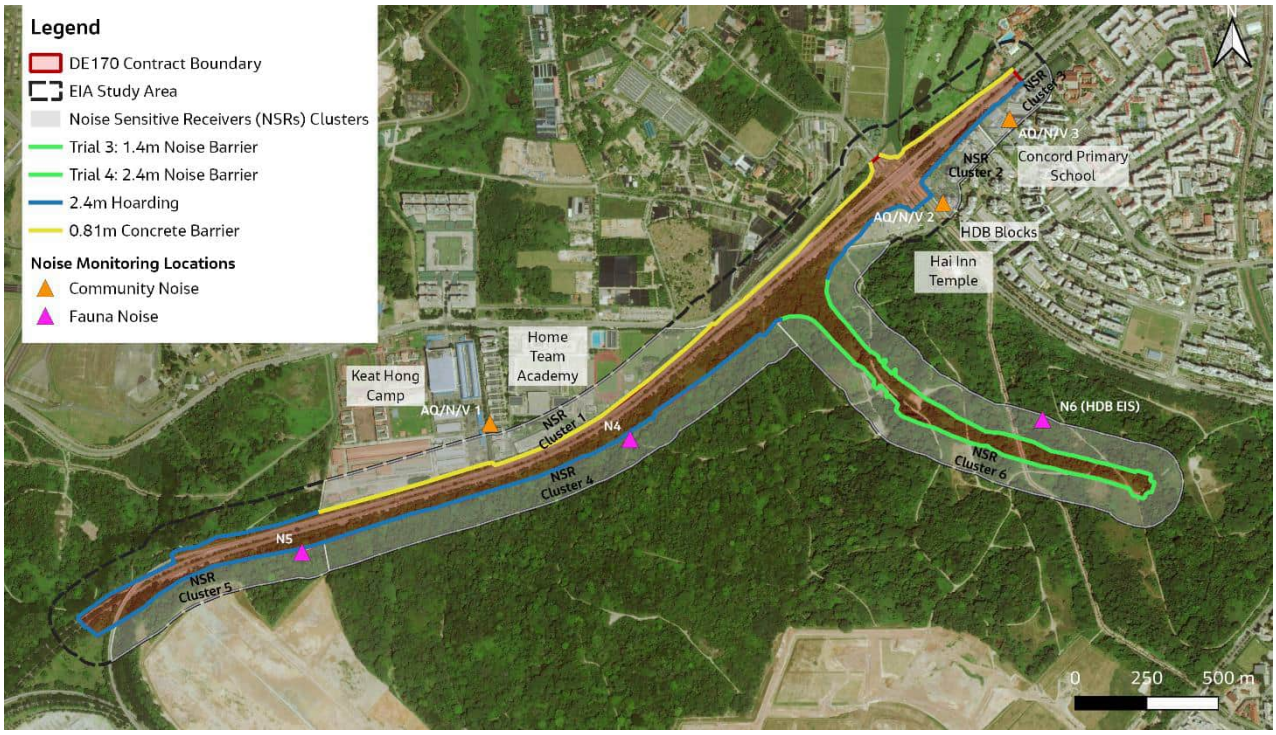


Figure B: Recommended Location of Noise Barriers (Trial 3 and Trial 4)

Note: no noise barrier included at construction site boundary along width of existing roads

Table A: Predicted Noise Level for Mitigation Trial Scenarios

Sampling Point	Type of Affected Premises*	Period	Parameter	Trial 1: N4 and N5 at 2.4m but N6 at 4.0m (dBA)			Trial 2: Low Noise PME without noise barriers			Trial 3 Low Noise PME with barrier 1.4m at N6 area only (Chye Joo input)			Trial 4 Low Noise PME with barrier 2.4m at N6 area only (Chye Joo input)		
				Day Time	Baseline	Exceedance	Day Time	Baseline	Exceedance	Day Time	Baseline	Exceedance	Day Time	Baseline	Exceedance
				(7am-7pm)	(7am-7pm)	(7am-7pm)	(7am-7pm)	(7am-7pm)	(7am-7pm)	(7am--7pm)	(7am-7pm)	(7am-7pm)	(7am-7pm)	(7am-7pm)	(7am-7pm)
N4 (0.5m)	Fauna	Weekday	LAeq 5 mins	87.1	86.9	0.1	87.1	86.9	0.2	87.1	86.9	0.2	87.1	86.9	0.2
			LAeq 1 hour			0.0			0.0			0.0			0.0
			LAeq 12 hours	73.5	73.3	0.2	74.8	73.3	1.5	74.1	73.3	0.8	73.6	73.3	0.3
N4 (15m)	Fauna	Weekday	LAeq 5 mins	87.1	86.9	1.0	87.1	86.9	0.2	87.1	86.9	0.2	87.1	86.9	0.2
			LAeq 1 hour			0.0			0.0			0.0			0.0
			LAeq 12 hours	75.0	73.3	1.7	75.0	73.3	1.7	75.0	73.3	1.7	75.0	73.3	1.7
N5 (0.5m)	Fauna	Weekday	LAeq 5 mins	88.9	88.9	0.0	88.9	88.9	0.0	88.9	88.9	0.0	88.9	88.9	0.0
			LAeq 1 hour			0.0			0.0			0.0			0.0
			LAeq 12 hours	74.8	74.7	0.1	75.1	74.7	0.4	74.8	74.7	0.1	74.8	74.7	0.1
N5 (15m)	Fauna	Weekday	LAeq 5 mins	88.9	88.9	0.0	88.9	88.9	0.0	88.9	88.9	0.0	88.9	88.9	0.0
			LAeq 1 hour			0.0			0.0			0.0			0.0
			LAeq 12 hours	75.4	74.7	0.7	75.4	74.7	0.7	75.4	74.7	0.7	75.4	74.7	0.7
N6 (0.5m)	Fauna	Weekday	LAeq 5 mins	75.5	75.3	1.1	79.2	75.3	3.9	76.3	75.3	0.9	75.7	75.3	0.3
			LAeq 1 hour			0.0			0.0			0.0			0.0
			LAeq 12 hours	62.4	59.5	2.9	**75.7**	59.5	16.2	68.5	59.5	8.9	64.7	59.5	5.1
N6 (15m)	Fauna	Weekday	LAeq 5 mins	77.7	75.3	2.4	79.2	75.3	3.9	77.7	75.3	2.4	77.7	75.3	2.4
			LAeq 1 hour			0.0			0.0			0.0			0.0
			LAeq 12 hours	**72.8**	59.5	13.3	72.8	59.5	13.3	72.8	59.5	13.3	72.8	59.5	13.3

Note: Noise Modelling for Day scenario

Red: Exceedance of baseline levels
***Bold Red**: Exceedance of baseline levels of more than 10 dBA*

The noise impact assessment using RIAM tool is further conducted for the above trial scenarios and summarized on **Table B**.

Table B: Comparison of Noise Impact Assessment Ranking for Mitigation Trial Scenario 1, 2, 3 and 4 with Before Mitigation Measures

Impact Register		Before Mitigation Measures		Post Mitigation Measures							
				Trial 1		Trial 2		Trial 3		Trial 4	
ID	Impacts	Environmental Scores (ES)	Range Bands of ES	Environmental Scores (ES)	Range Bands of ES	Environmental Scores (ES)	Range Bands of ES	Environmental Scores (ES)	Range Bands of ES	Environmental Scores (ES)	Range Bands of ES
	Over Specific Period (L_{Aeq} 12 hours)										
	Fauna at N4										
N-I5	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	-324	Major negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact
N-I6	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	-216	Moderate negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact
N-I7	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	-33	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact
N-I8	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	-324	Major negative impact	-108	Moderate negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact
N-I9	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	-216	Moderate negative impact	-72	Moderate negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact
N-I10	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	-33	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact
	Fauna at N5										
N-I11	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	-324	Major negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact
N-I12	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	-216	Moderate negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact
N-I13	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	-33	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact
N-I14	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	-324	Major negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact
N-I15	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	-216	Moderate negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact
N-I16	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	-33	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact
	Fauna at N6										
N-I17	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	-324	Major negative impact	-108	Minor negative impact	-324	Major negative impact	-216	Moderate negative impact	-216	Moderate negative impact
N-I18	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N6	-216	Moderate negative impact	-72	Moderate negative impact	-216	Moderate negative impact	-144	Moderate negative impact	-144	Moderate negative impact
N-I19	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	-33	Slight negative impact	-11	Slight negative impact	-33	Slight negative impact	-22	Slight negative impact	-22	Slight negative impact

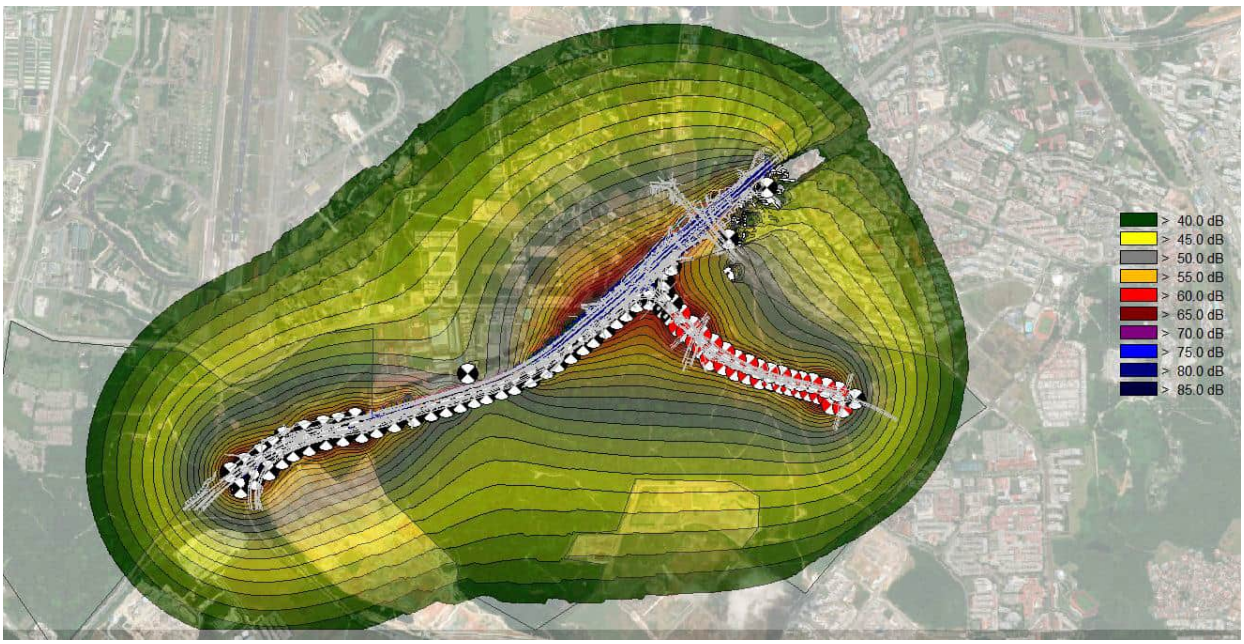
Impact Register		Before Mitigation Measures		Post Mitigation Measures							
				Trial 1		Trial 2		Trial 3		Trial 4	
N-I20	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	-324	Major negative impact	-324	Major negative impact	-324	Major negative impact	-324	Major negative impact	-324	Major negative impact
N-I21	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	-216	Moderate negative impact	-216	Moderate negative impact	-216	Moderate negative impact	-216	Moderate negative impact	-216	Moderate negative impact
N-I22	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N6	-33	Slight negative impact	-33	Slight negative impact	-33	Slight negative impact	-33	Slight negative impact	-33	Slight negative impact
	Over 5 mins (L_{Aeq} 5 mins)										
	Fauna at N4										
N-I23	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N4	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact
N-I24	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N4	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact
N-I25	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N4	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact
N-I26	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N4	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact
N-I27	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N4	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact
N-I28	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N4	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact
	Fauna at N5										
N-I29	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N5	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact
N-I30	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Medium at N5	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact
N-I31	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N5	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact
N-I32	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N5	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact
N-I33	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N5	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact
N-I34	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N5	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact
	Fauna at N6										
N-I35	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - High at N6	-324	Major negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact
N-I36	Noise emission from construction site to ground-dwelling fauna	-216	Moderate negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact

Impact Register		Before Mitigation Measures		Post Mitigation Measures							
				Trial 1		Trial 2		Trial 3		Trial 4	
	of Priority/ Sensitivity Level - Medium at N6										
N-I37	Noise emission from construction site to ground-dwelling fauna of Priority/ Sensitivity Level - Low at N6	-33	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact
N-I38	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - High at N6	-216	Moderate negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact	-108	Minor negative impact
N-I39	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Medium at N6	-144	Moderate negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact	-72	Minor negative impact
N-I40	Noise emission from construction site to arboreal fauna of Priority/ Sensitivity Level - Low at N6	-324	Major negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact	-11	Slight negative impact

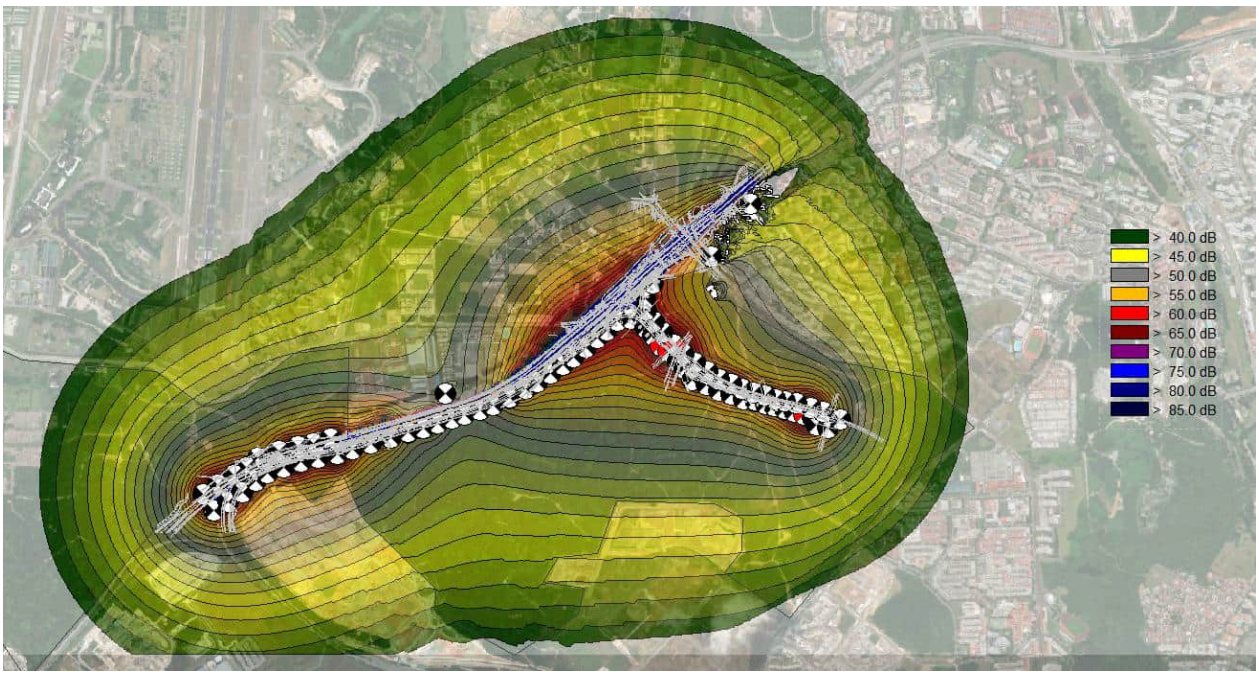
Appendix 8I: Noise Contours

Noise Contours for Construction works in the Day

Scenario 2 (12 hours)- Reduced Sound Power Level at source + 1.4 meters high noise barriers at N6 area



Scenario 2 (5 mins)- Reduced Sound Power Level at source + 1.4 meters high noise barriers at N6 area



Note: Only fauna receptors at 15m height are shown in diagram

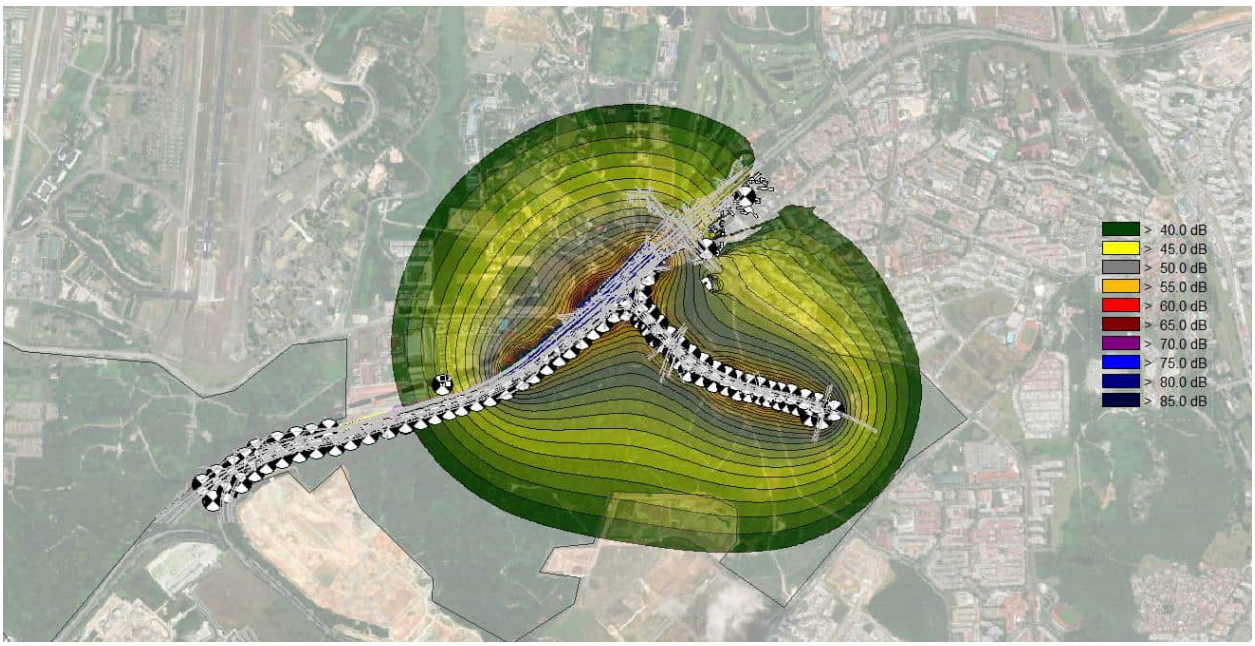
Scenario 3 (12 hours)- Reduced Sound Power Level at source + 1.4 meters high noise barriers at N6 area

Scenario 3 (5 mins)- Reduced Sound Power Level at source + 1.4 meters high noise barriers at N6 area

Note: Only fauna receptors at 15m height are shown in diagram

Noise Contours for Construction Night Works

Scenario 5A (1 hour)- Reduced Sound Power Level at source + 1.4 meters high noise barriers at N6 area



Scenario 5A (5 mins)- Reduced Sound Power Level at source + 1.4 meters high noise barriers at N6 area

Note: Only fauna receptors at 15m height are shown in diagram

Scenario 5C (1 hour)- Reduced Sound Power Level at source + 1.4 meters high noise barriers at N6 area

Scenario 5C (5 mins)- Reduced Sound Power Level at source + 1.4 meters high noise barriers at N6 area

Note: Only fauna receptors at 15m height are shown in diagram

Appendix 9A: Vibration Monitoring Report

CONFIDENTIAL

SUMMARY REPORT

ENVIRONMENTAL BASELINE VIBRATION MONITORING WORK

REPORT - 01

For

CH2M HILL SINGAPORE PTE LTD

150 BEACH ROAD, GATEWAY WEST 34th FLOOR, SINGAPORE 189720

Monitoring Location:

501 OLD CHOA CHU KANG ROAD, HOME TEAM ACADEMY (POINT VM1)

Attention:

MS CATHERINE BALDEDARA

Project No.:

22050608/VMS/CH2M/DE170/VM1

Date of Monitored:

06 April 2022 - 12 April 2022

Date of Report:

6 May 2022

Prepared by:

Ensscom Pte Ltd

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3. The results, conclusion or any recommendations contained in this report pertain to conditions that were observed at the time of the survey. By this report, ENSSCOM PTE LTD makes no representation or assumptions as to the nature of past conditions or future occurrences.

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2.0 SCOPE OF INSTRUMENTATION WORK

3.0 MONITORING RESULTS

3.1 Summary of Vibration Meter Readings

APPENDIX A: BUILDING & CONSTRUCTION AUTHORITY GUIDELINES

APPENDIX B: INSTRUMENT LOCATION PLAN

APPENDIX C: VIBRATION METER DATA

1.0 INTRODUCTION

This survey summarises the results of baseline vibration monitoring works for location at **501 Old Choa Chu Kang Road, Home Team Academy** on behalf of **M/s CH2M HILL SINGAPORE PTE LTD.**

The purpose of the survey for this project is to monitor the vibration conditions **before** the construction phase for further Environment Impact Assessment Study.

The instrumentation work is being carried out continuously for 7 days period.

2.0 SCOPE OF INSTRUMENTATION WORK

The scope of the instrumentation work for this project currently consists of installation and monitoring of the following instruments:

INSTRUMENT TYPE	S/N	TOTAL	INSTALL	ACTIVE
Vibration Meter,VM-1	21670	1	1	1

Note:
1) Vibration meter installed on 5/4/2022
2) Last calibrated on 28/2/2022
The scope of this report is to present:
- A summary of the highest instruments readings recorded for each day of monitoring
- Vibration readings data (highest reading for each axis) recorded at every 5 minutes interval during the 7 days monitoring period.
- The instrument daily self calibration report.

3.0 MONITORING RESULTS

3.1 Summary of Vibration Monitoring Readings and Terms used

The vibration sensor was placed on the site to monitor the baseline vibration level before the commencement of any work activity.

Vibration monitoring unit was set to record vibration readings at every 5 minutes interval continuously for 7 days. The highest reading of each axis is recorded within the 5 minutes interval.

Peak Particle Velocity (**PPV)** - Used for either the peak of a single channel of a triax or the peak vector sum. It has also traditionally been used to mean the Maximum Peak Particle Velocity of all the channels of the triax.

Vector peak particle velocity (VPPV) - The peak level of the particle velocity calculated from the vector formed by the magnitude of the three orthogonal components of the particle velocity over their measured time history.

The Term **Vector Sum** is used for **Vector Peak Particle Velocity (VPPV)** in the report.

Vector Sum

Calculates a particle velocity value based on a single point in time.
For every sample taken during an event, each seismic channel's velocity measurements can be applied to following formula:
$VS = SQR(R^2 + T^2 + V^2)$
Seismic channels = Radial, Transverse, Vertical
Velocity measurements- inches or mm per second

The baseline vibration data recorded during the 7 days of monitoring are listed in Appendix C.

The summary of the daily highest vibration reading recorded for each axis and vector sum is is presented in the Table 3.1 below.

Day 1 - 6/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.381	0.762	0.508	**0.92**
Frequency (Hz)	7.94	78.77	7.94	-
Time	4:04:41 pm	2:51:53 pm	2:51:53 pm	-
Day 2 - 7/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.381	0.381	0.381	**0.48**
Frequency (Hz)	68.27	15.75	40.96	-
Time	6:50:30 am	6:51:05 am	6:50:30 am	-
Day 3 - 8/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.254	0.254	0.254	**0.36**
Frequency (Hz)	9.94	13.65	8.9	-
Time	1:16:57 pm	11:19:37 am	11:27:56 am	-
Day 4 - 9/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.254	0.127	0.254	**0.31**
Frequency (Hz)	10.34	7.47	9.39	-
Time	5:31:06 am	8:33:51 am	9:31:15 am	-
Day 5 - 10/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.127	0.381	0.254	**0.42**
Frequency (Hz)	6.52	8.75	9.75	-
Time	5:45:35 am	12:38:16 pm	12:38:16 pm	-

Day 6 - 11/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.508	0.381	0.508	**0.58**
Frequency (Hz)	113.78	53.89	40.96	-
Time	11:41:35 am	11:22:04 am	11:21:07 am	-
Day 7 - 12/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.381	0.254	0.508	**0.54**
Frequency (Hz)	9.75	7.82	40.96	-
Time	12:48:26 pm	12:48:26 pm	12:48:26 pm	-

Table 3.1 – Summary of Daily Highest Vibration Readings recorded for each axis

APPENDIX A

BUILDING & CONSTRUCTION AUTHORITY GUIDELINES

Figure A11.1 Vibration in Buildings - Combined-Direction Peak Velocity Curves (Figure 5(c) from NZS/ISO 2631-2:1989)

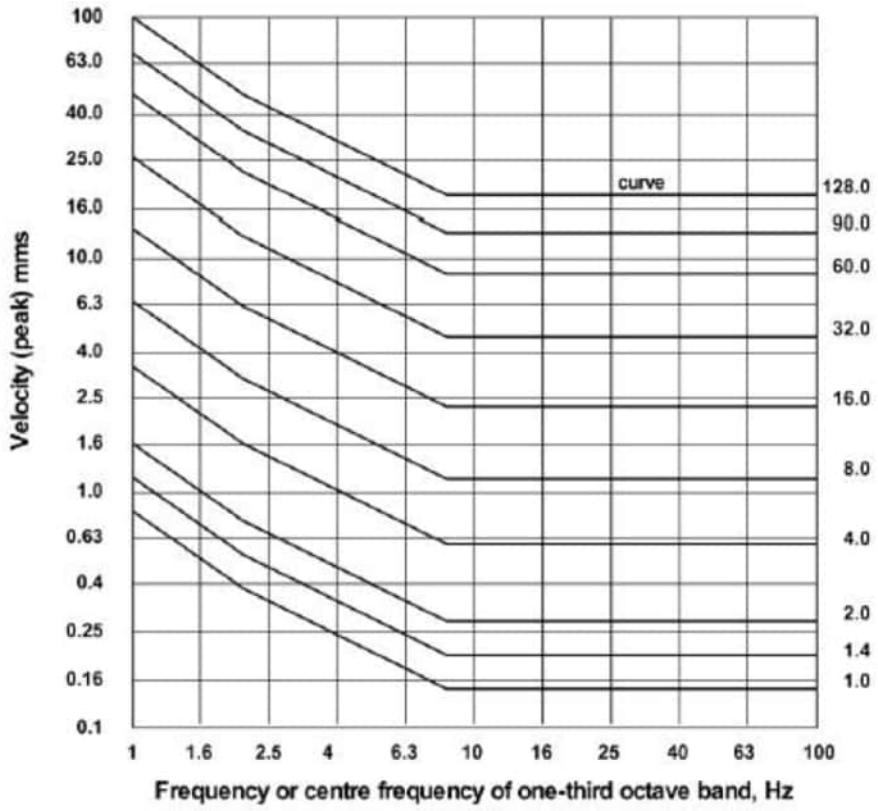
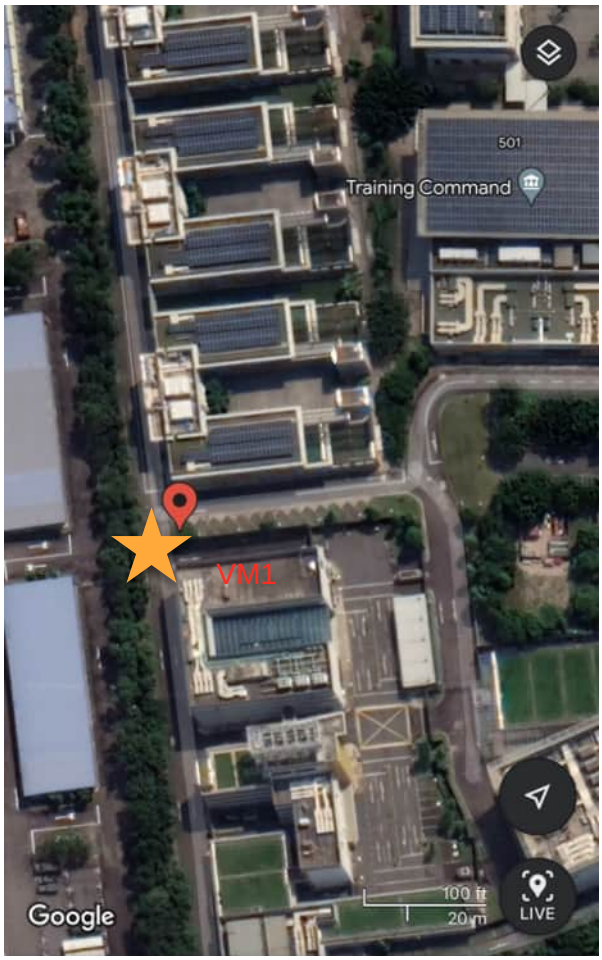


Table A10.2 - Environmental Performance Criteria for Short Term Vibration in Structures (refer DIN 4150-3:1986)

Line No.	Type of Structure	Peak Component Velocity (mm/s) at Foundation for Short Term Vibration			Plane of Floor of Uppermost Storey
		Vibration Frequency			Frequency Mixture
		<10Hz	10-50Hz	50-100Hz*	
1	Buildings used for industrial purposes, industrial buildings and buildings of similar design	20	20-40	40-50	40
2	Dwellings and buildings of similar design and/or use	5	5-15	15-20	15
3	Structures that, because of their particular sensitivity to vibration, do not correspond to those listed in rows 1 and 2, and are of great intrinsic value (e.g. buildings that are under a preservation order)	3	3-8	8-10	8

APPENDIX B

INSTRUMENT LOCATION PLAN


501
Training Command
VM1
100 ft
20 m
LIVE
Google

Chip Seng Contractor Pte
Jln Tapisan
Jln Tapisan
Jln Pring
Old Choa Chu Kang Rd
Home Team Academy
HTA Pool
Cafeteria @ HTA
HTA Stadium
NSR: Home Team Academy Type B Building
504
KJE
Training Command
Home Team Gallery
HTA Range Complex
VM 1
Proposed Work Site
Google

APPENDIX C

VIBRATION MONITORING DATA

Version 2.0.1.9 (07Nov2019(m))

File: Evt1.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

5/4/2022 at 10:30 am Event # 1

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 564.31 mm/s @ 1.11 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7714**	**12.8746**	**12.8349**
Frequency (Hz)	**15.5**	**15.5**	**24.3**

Air

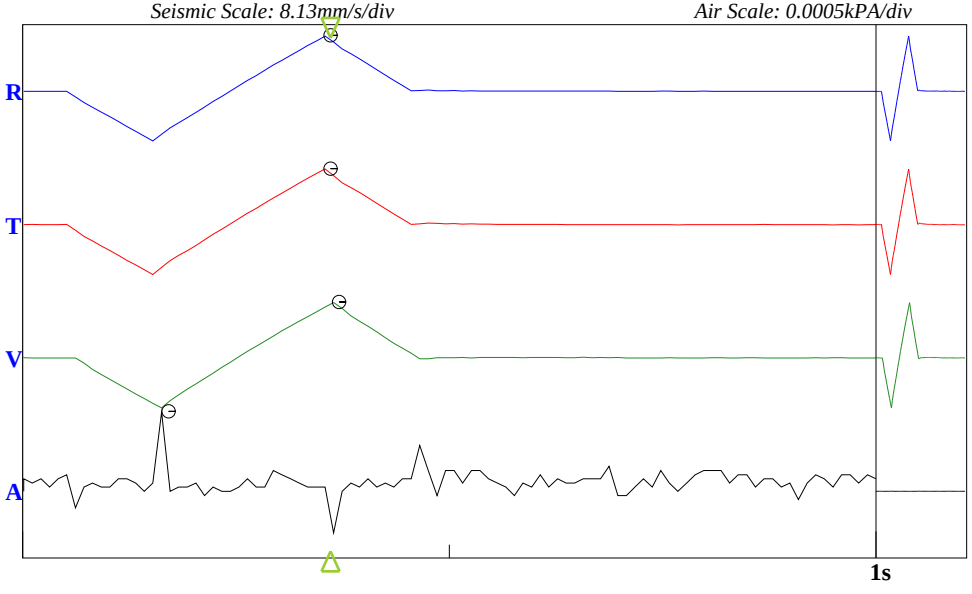
Gain: 1

Measurement	Value		
kPA	0.000469		
dBL	**87.4**		
Hz	512.0		

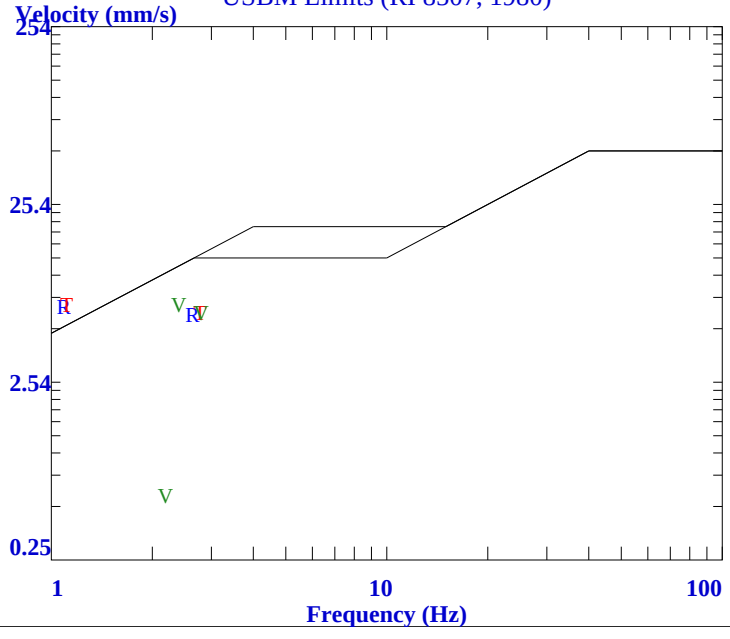
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



File: Evt2.ns8

Version 2.0.1.9 (07Nov2019(m))

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

5/4/2022 at 10:30 am Event # 2

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:03 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 19.0 mm/s

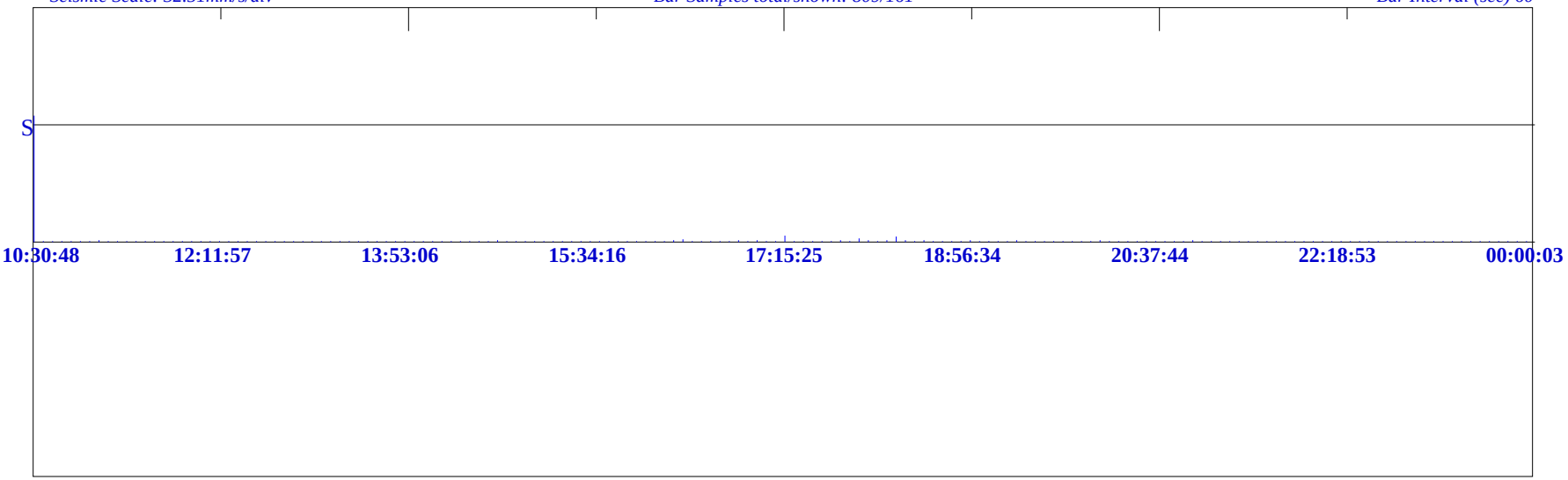
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	13.462	9.017	17.526
Frequency (Hz)	48.76	21.79	26.26
Time	10:33:35 am	10:33:35 am	10:33:35 am

BarGraph

Seismic Scale: 32.51mm/s/div

Bar Samples total/shown: 809/161

Summary Interval (min): 5
Bar Interval (sec) 60



<<<<<<<<<<<<<< 13:29:15 >>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 2
Start: 5/4/2022 10:30:48 am
End: 6/4/2022 12:00:03 am
Summary Interval: 162
Air: 81.9 @ 1.91 Hz
Radial: 13.462 (mm/s) @ 48.76 Hz @ 10:33:35 am
Transverse: 9.017 (mm/s) @ 21.79 Hz @ 10:33:35 am
Vertical: 17.526 (mm/s) @ 26.26 Hz @ 10:33:35 am
Vector Sum: 19.00 (mm/s)
Sample Rate: 1024/sec
Record Duration: 13.49 hr
Battery Level: 6.66

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	10:30:48	13.462	48.762	10:33:35	9.017	21.787	10:33:35	17.526	26.256	10:33:35	19.001
2	10:35:48	0.127	8.192	10:39:06	0.127	9.394	10:38:08	0.127	3.23	10:40:18	0.22
3	10:40:48	0.127	7.062	10:44:16	0.127	9.752	10:45:09	0.127	2.606	10:44:26	0.22
4	10:45:48	0.127	6.781	10:48:32	0.127	8.325	10:49:57	0.127	2.917	10:49:40	0.22
5	10:50:48	0.127	7.262	10:52:47	0.127	8.063	10:55:29	0.127	3.21	10:54:12	0.22
6	10:55:48	0.127	6.693	10:57:05	0.127	8.325	10:58:39	0.127	3.112	11:00:16	0.22
7	11:00:48	0.127	7.699	11:03:34	0.127	10.779	11:04:13	0.127	2.837	11:03:50	0.22
8	11:05:48	0.127	8.325	11:10:29	0.127	9.225	11:07:03	0.254	35.31	11:07:41	0.311
9	11:10:48	0.127	7.474	11:12:04	0.127	9.394	11:10:57	0.127	2.901	11:15:07	0.22
10	11:15:48	0.127	7.262	11:15:58	0.127	8.904	11:17:28	0.127	2.821	11:16:54	0.22
11	11:20:48	0.127	7.474	11:21:27	0.127	11.253	11:22:42	0.127	3.003	11:21:07	0.22
12	11:25:48	0.127	7.474	11:28:54	0.127	10.779	11:29:02	0.127	7.699	11:29:34	0.22
13	11:30:48	0.127	7.699	11:31:37	0.127	8.904	11:33:16	0.127	7.585	11:33:49	0.22
14	11:35:48	0.127	8.192	11:40:46	0.127	11.77	11:36:47	0.127	5.785	11:38:43	0.22
15	11:40:48	0.127	8.192	11:42:05	0.127	9.942	11:45:25	0.127	6.606	11:41:32	0.22
16	11:45:48	0.127	8.063	11:50:13	0.127	11.011	11:45:50	0.127	6.693	11:46:06	0.22
17	11:50:48	0.127	8.904	11:53:37	0.127	9.394	11:50:56	0.127	7.474	11:53:13	0.22
18	11:55:48	0.127	8.325	12:00:39	0.127	11.77	11:55:55	0.127	7.938	11:56:02	0.22
19	12:00:48	0.127	6.872	12:00:52	0.127	8.752	12:01:44	0.127	7.585	12:00:58	0.22
20	12:05:48	0.127	9.57	12:07:09	0.127	11.011	12:06:16	0.127	7.585	12:08:29	0.22
21	12:10:48	0.127	9.225	12:15:40	0.127	10.557	12:13:17	0.127	7.262	12:13:39	0.22
22	12:15:48	0.127	8.325	12:18:41	0.127	9.57	12:19:16	0.127	6.781	12:18:49	0.22
23	12:20:48	0.127	7.938	12:20:58	0.127	9.394	12:25:08	0.127	8.192	12:22:38	0.22
24	12:25:48	0.127	7.938	12:25:53	0.127	11.506	12:27:24	0.127	7.699	12:28:08	0.22
25	12:30:48	0.127	7.474	12:31:58	0.127	9.394	12:34:16	0.127	7.585	12:34:03	0.22
26	12:35:48	0.127	6.606	12:39:13	0.127	10.557	12:36:17	0.127	6.522	12:36:58	0.22
27	12:40:48	0.127	8.605	12:43:21	0.127	7.062	12:41:11	0.127	4.633	12:41:12	0.22
28	12:45:48	0.127	6.693	12:48:43	0.127	7.585	12:46:58	0.127	6.522	12:50:28	0.22
29	12:50:48	0.127	6.606	12:51:46	0.127	10.139	12:50:50	0.127	7.062	12:54:25	0.22
30	12:55:48	0.127	7.938	12:56:54	0.127	12.047	12:58:14	0.127	5.535	12:59:55	0.22
31	13:00:48	0.127	7.699	13:04:18	0.127	11.011	13:01:08	0.127	7.699	13:01:15	0.22
32	13:05:48	0.127	8.325	13:07:37	0.127	9.57	13:07:04	0.127	7.938	13:07:41	0.22
33	13:10:48	0.127	8.325	13:14:02	0.127	11.77	13:11:14	0.127	7.161	13:12:42	0.22
34	13:15:48	0.127	6.606	13:18:38	0.127	10.557	13:17:49	0.127	6.966	13:18:01	0.22
35	13:20:48	0.127	6.693	13:22:27	0.127	9.942	13:24:24	0.127	6.36	13:21:44	0.22
36	13:25:48	0.127	7.699	13:29:01	0.127	9.225	13:29:47	0.127	6.781	13:30:14	0.22
37	13:30:48	0.127	5.721	13:31:58	0.127	9.57	13:33:00	0.127	6.44	13:33:32	0.22
38	13:35:48	0.127	6.966	13:38:10	0.127	12.047	13:39:44	0.127	7.699	13:39:20	0.22
39	13:40:48	0.127	6.693	13:43:50	0.127	11.253	13:44:15	0.127	7.938	13:42:23	0.22
40	13:45:48	0.127	7.062	13:49:24	0.127	9.942	13:48:31	0.127	7.262	13:49:25	0.22
41	13:50:48	0.127	6.781	13:51:05	0.127	10.343	13:53:31	0.127	7.367	13:52:12	0.22
42	13:55:48	0.127	7.367	13:58:59	0.127	11.77	13:58:13	0.127	8.063	13:58:10	0.22
43	14:00:48	0.127	7.938	14:02:59	0.127	8.463	14:01:24	0.127	7.161	14:02:28	0.22
44	14:05:48	0.127	7.585	14:10:41	0.127	10.779	14:10:42	0.127	7.699	14:06:21	0.22
45	14:10:48	0.127	7.367	14:10:52	0.127	8.063	14:12:34	0.127	7.474	14:15:03	0.22
46	14:15:48	0.127	7.938	14:16:44	0.127	8.325	14:19:46	0.127	7.585	14:20:32	0.22
47	14:20:48	0.127	6.781	14:20:54	0.127	9.942	14:20:55	0.127	7.699	14:23:15	0.22
48	14:25:48	0.127	7.474	14:26:26	0.127	12.337	14:26:50	0.127	7.585	14:27:10	0.22
49	14:30:48	0.127	8.325	14:30:54	0.127	12.642	14:35:36	0.127	7.161	14:33:04	0.22
50	14:35:48	0.127	6.781	14:36:00	0.127	8.904	14:39:10	0.127	7.817	14:38:12	0.22
51	14:40:48	0.127	9.225	14:43:27	0.127	9.062	14:44:01	0.254	12.962	14:41:30	0.284
52	14:45:48	0.127	8.325	14:50:13	0.127	11.253	14:50:36	0.127	8.904	14:48:10	0.22
53	14:50:48	0.127	8.192	14:51:58	0.127	13.299	14:52:50	0.127	8.463	14:55:05	0.22
54	14:55:48	0.127	8.063	14:59:58	0.127	11.011	14:59:03	0.127	7.585	14:56:17	0.22
55	15:00:48	0.127	6.966	15:03:27	0.127	12.962	15:02:36	0.127	8.752	15:01:44	0.22
56	15:05:48	0.127	7.699	15:07:01	0.127	12.337	15:07:51	0.127	8.904	15:10:03	0.22

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Graph: 21670
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End: 6/4/2022 12:00:03 am
Summary Interval: 162
Air: 81.9 @ 1.91 Hz
Radial: 13.462 (mm/s) @ 48.76 Hz @ 10:33:35 am
Transverse: 9.017 (mm/s) @ 21.79 Hz @ 10:33:35 am
Vertical: 17.526 (mm/s) @ 26.26 Hz @ 10:33:35 am
Vector Sum: 19.00 (mm/s)
Sample Rate: 1024/sec
Record Duration: 13.49 hr
Battery Level: 6.66

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	15:10:48	0.127	6.781	15:10:53	0.127	12.047	15:13:52	0.127	8.063	15:10:55	0.22
58	15:15:48	0.127	8.605	15:17:23	0.127	11.011	15:17:38	0.127	6.282	15:16:15	0.22
59	15:20:48	0.127	6.606	15:23:38	0.127	10.343	15:23:16	0.127	7.262	15:25:31	0.22
60	15:25:48	0.127	8.063	15:26:22	0.127	9.57	15:29:46	0.127	7.938	15:26:39	0.22
61	15:30:48	0.127	6.872	15:31:06	0.127	8.192	15:31:14	0.127	8.325	15:31:29	0.22
62	15:35:48	0.127	7.699	15:36:04	0.127	8.463	15:39:13	0.127	7.062	15:38:50	0.22
63	15:40:48	0.127	7.367	15:44:06	0.127	10.139	15:45:01	0.127	8.325	15:44:29	0.22
64	15:45:48	0.127	8.463	15:48:32	0.127	11.77	15:47:41	0.127	7.585	15:50:07	0.22
65	15:50:48	0.127	6.966	15:53:29	0.127	8.192	15:53:31	0.127	8.605	15:52:59	0.22
66	15:55:48	0.127	8.463	15:59:50	0.127	11.011	15:58:02	0.127	8.063	15:59:41	0.22
67	16:00:48	0.127	8.325	16:01:01	0.127	11.77	16:01:15	0.127	7.817	16:02:28	0.22
68	16:05:48	0.127	9.062	16:08:00	0.127	11.253	16:08:09	0.127	8.325	16:06:54	0.22
69	16:10:48	0.127	8.063	16:12:18	0.127	9.752	16:14:40	0.127	7.474	16:14:56	0.22
70	16:15:48	0.127	9.225	16:15:55	0.127	11.77	16:20:02	0.254	8.752	16:18:04	0.284
71	16:20:48	0.254	37.926	16:23:09	0.254	37.926	16:23:09	0.381	40.96	16:23:11	0.381
72	16:25:48	0.127	8.063	16:28:47	0.127	11.011	16:29:39	0.127	7.938	16:30:21	0.22
73	16:30:48	0.127	8.325	16:32:39	0.127	13.299	16:35:06	0.127	6.872	16:34:48	0.22
74	16:35:48	0.127	7.699	16:38:46	0.127	9.57	16:36:45	0.127	7.938	16:39:06	0.22
75	16:40:48	0.127	7.585	16:44:10	0.127	12.047	16:44:06	0.127	7.938	16:41:51	0.22
76	16:45:48	0.127	9.57	16:48:18	0.127	9.752	16:47:29	0.127	7.817	16:47:59	0.22
77	16:50:48	0.127	8.063	16:53:14	0.127	11.011	16:55:16	0.254	37.926	16:55:29	0.284
78	16:55:48	0.127	7.474	17:00:32	0.127	9.394	16:55:49	0.127	7.367	17:00:27	0.22
79	17:00:48	0.127	8.325	17:02:33	0.127	12.047	17:03:35	0.254	37.926	17:05:29	0.311
80	17:05:48	0.127	8.605	17:07:47	0.127	8.605	17:10:15	0.127	7.367	17:06:33	0.22
81	17:10:48	0.127	6.606	17:15:25	0.127	6.872	17:14:10	0.127	6.781	17:15:35	0.22
82	17:15:48	0.508	6.966	17:16:20	0.889	21.787	17:16:20	0.635	8.904	17:16:20	1.024
83	17:20:48	0.127	8.904	17:24:57	0.127	12.962	17:23:15	0.127	7.938	17:24:57	0.22
84	17:25:48	0.127	8.605	17:27:20	0.127	12.337	17:26:15	0.127	7.699	17:25:49	0.22
85	17:30:48	0.127	7.817	17:32:53	0.127	11.77	17:33:44	0.127	7.062	17:33:17	0.22
86	17:35:48	0.127	7.699	17:36:45	0.127	7.938	17:39:06	0.127	8.325	17:36:54	0.22
87	17:40:48	0.127	7.585	17:42:35	0.127	13.299	17:45:09	0.127	6.522	17:45:33	0.22
88	17:45:48	0.127	8.325	17:46:36	0.127	12.047	17:50:33	0.254	35.31	17:46:24	0.284
89	17:50:48	0.127	7.474	17:54:30	0.127	9.062	17:52:36	0.127	6.522	17:51:48	0.22
90	17:55:48	0.127	8.904	17:59:22	0.254	37.926	17:59:03	0.508	40.96	17:59:03	0.524
91	18:00:48	0.127	7.585	18:05:42	0.127	12.962	18:05:38	0.254	8.904	18:04:14	0.254
92	18:05:48	0.127	7.367	18:07:19	0.127	9.394	18:07:17	0.127	7.938	18:07:16	0.22
93	18:10:48	0.127	8.752	18:14:00	0.127	11.253	18:11:48	0.254	44.522	18:12:45	0.254
94	18:15:48	0.508	6.781	18:19:02	0.762	10.139	18:19:02	0.635	8.752	18:19:02	0.925
95	18:20:48	0.127	6.872	18:21:21	0.127	11.253	18:24:39	0.254	44.522	18:21:22	0.284
96	18:25:48	0.127	8.752	18:29:51	0.127	8.192	18:25:49	0.127	8.325	18:26:38	0.22
97	18:30:48	0.127	7.585	18:32:37	0.127	10.139	18:32:32	0.254	40.96	18:32:33	0.284
98	18:35:48	0.127	9.57	18:38:35	0.127	11.011	18:36:11	0.127	7.585	18:36:01	0.22
99	18:40:48	0.127	8.605	18:43:06	0.127	10.557	18:42:11	0.127	6.872	18:43:50	0.22
100	18:45:48	0.127	9.225	18:46:19	0.127	13.299	18:48:09	0.127	7.161	18:49:57	0.22
101	18:50:48	0.127	8.063	18:54:53	0.127	13.299	18:54:36	0.127	6.781	18:55:07	0.22
102	18:55:48	0.127	8.605	18:57:18	0.127	10.139	18:56:33	0.254	8.063	18:57:56	0.284
103	19:00:48	0.127	8.192	19:02:36	0.127	9.752	19:03:06	0.127	7.367	19:05:14	0.22
104	19:05:48	0.127	9.394	19:07:56	0.127	11.253	19:09:23	0.127	7.367	19:08:40	0.22
105	19:10:48	0.127	9.225	19:15:35	0.127	12.962	19:12:23	0.127	7.161	19:15:20	0.22
106	19:15:48	0.127	6.966	19:20:25	0.127	9.942	19:20:33	0.127	6.781	19:17:31	0.22
107	19:20:48	0.127	8.605	19:24:52	0.127	9.942	19:25:26	0.254	9.225	19:21:39	0.284
108	19:25:48	0.127	7.817	19:29:58	0.127	14.027	19:27:53	0.127	7.938	19:29:08	0.22
109	19:30:48	0.127	7.699	19:35:11	0.127	13.299	19:30:52	0.127	7.817	19:32:52	0.22
110	19:35:48	0.127	9.394	19:38:24	0.127	9.225	19:36:22	0.127	8.463	19:37:57	0.22
111	19:40:48	0.127	9.752	19:41:49	0.127	13.299	19:44:46	0.127	8.605	19:42:25	0.22
112	19:45:48	0.127	7.817	19:50:36	0.127	10.779	19:46:59	0.127	8.063	19:49:40	0.22

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Radial: 13.462 (mm/s) @ 48.76 Hz @ 10:33:35 am
Transverse: 9.017 (mm/s) @ 21.79 Hz @ 10:33:35 am
Vertical: 17.526 (mm/s) @ 26.26 Hz @ 10:33:35 am
Vector Sum: 19.00 (mm/s)
Sample Rate: 1024/sec
Record Duration: 13.49 hr
Battery Level: 6.66

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	19:50:48	0.127	8.904	19:52:18	0.127	9.942	19:54:43	0.127	7.474	19:52:01	0.22
114	19:55:48	0.127	8.605	19:56:39	0.127	9.225	20:00:38	0.127	5.251	19:56:24	0.22
115	20:00:48	0.127	9.752	20:01:38	0.127	12.642	20:05:41	0.127	9.062	20:05:40	0.22
116	20:05:48	0.127	9.394	20:09:48	0.127	11.253	20:09:53	0.254	93.091	20:06:31	0.284
117	20:10:48	0.127	8.463	20:13:31	0.127	14.841	20:12:43	0.127	7.161	20:12:23	0.22
118	20:15:48	0.127	7.817	20:16:45	0.127	14.027	20:17:11	0.127	8.605	20:17:17	0.22
119	20:20:48	0.127	7.161	20:22:57	0.127	13.299	20:21:09	0.127	5.361	20:24:13	0.22
120	20:25:48	0.127	5.251	20:26:37	0.127	9.225	20:26:42	0.127	7.262	20:29:43	0.22
121	20:30:48	0.127	8.752	20:31:45	0.127	7.817	20:34:18	0.127	6.282	20:32:51	0.22
122	20:35:48	0.127	7.062	20:36:35	0.127	12.047	20:37:19	0.127	6.966	20:36:28	0.22
123	20:40:48	0.127	7.938	20:41:10	0.127	11.77	20:41:13	0.127	6.44	20:42:54	0.22
124	20:45:48	0.127	7.585	20:49:56	0.127	11.77	20:48:51	0.127	8.325	20:47:46	0.22
125	20:50:48	0.127	8.463	20:54:33	0.127	12.962	20:53:46	0.127	8.325	20:52:14	0.22
126	20:55:48	0.127	8.325	20:57:14	0.127	12.642	20:57:07	0.254	8.463	20:57:47	0.284
127	21:00:48	0.127	8.192	21:02:02	0.127	14.027	21:00:54	0.127	8.325	21:02:44	0.22
128	21:05:48	0.127	8.904	21:09:17	0.127	11.506	21:06:06	0.127	7.062	21:07:45	0.22
129	21:10:48	0.127	8.063	21:14:18	0.127	14.027	21:14:07	0.127	7.367	21:14:27	0.22
130	21:15:48	0.127	9.225	21:17:40	0.127	12.962	21:16:51	0.127	6.872	21:16:22	0.22
131	21:20:48	0.127	5.361	21:24:21	0.127	12.642	21:21:15	0.127	7.062	21:22:32	0.22
132	21:25:48	0.127	8.063	21:28:17	0.127	9.062	21:26:03	0.127	6.606	21:26:48	0.22
133	21:30:48	0.127	7.938	21:31:59	0.127	15.284	21:33:38	0.127	7.938	21:33:35	0.22
134	21:35:48	0.127	7.817	21:36:39	0.127	10.779	21:40:37	0.127	8.605	21:37:29	0.22
135	21:40:48	0.127	5.198	21:41:31	0.127	11.011	21:45:22	0.127	7.474	21:45:33	0.22
136	21:45:48	0.127	8.904	21:46:20	0.127	12.337	21:50:23	0.127	8.325	21:45:53	0.22
137	21:50:48	0.127	6.693	21:53:03	0.127	13.653	21:52:09	0.127	8.325	21:51:38	0.22
138	21:55:48	0.127	7.262	21:58:41	0.127	12.642	21:58:36	0.127	8.904	21:58:35	0.22
139	22:00:48	0.127	8.325	22:05:26	0.127	8.904	22:01:17	0.127	6.282	22:03:26	0.22
140	22:05:48	0.127	7.699	22:07:30	0.127	10.779	22:05:57	0.127	8.325	22:06:52	0.22
141	22:10:48	0.127	8.192	22:12:42	0.127	10.779	22:13:15	0.127	7.817	22:13:57	0.22
142	22:15:48	0.127	7.367	22:17:01	0.127	12.047	22:20:11	0.127	8.325	22:18:55	0.22
143	22:20:48	0.127	8.192	22:25:05	0.127	11.011	22:21:53	0.127	6.781	22:23:28	0.22
144	22:25:48	0.127	7.367	22:26:51	0.127	12.962	22:29:29	0.127	8.325	22:27:08	0.22
145	22:30:48	0.127	4.676	22:33:53	0.127	12.047	22:31:30	0.127	6.966	22:32:16	0.22
146	22:35:48	0.127	9.57	22:37:57	0.127	13.299	22:38:56	0.127	8.463	22:38:27	0.22
147	22:40:48	0.127	5.251	22:43:32	0.127	7.161	22:43:32	0.127	6.44	22:43:33	0.22
148	22:45:48	0.127	8.904	22:45:58	0.127	13.299	22:50:04	0.127	10.139	22:47:01	0.22
149	22:50:48	0.127	7.699	22:54:57	0.127	11.77	22:52:48	0.127	7.474	22:55:41	0.22
150	22:55:48	0.127	7.367	22:56:03	0.127	12.337	22:58:13	0.127	7.817	22:58:54	0.22
151	23:00:48	0.127	9.062	23:03:30	0.127	16.254	23:00:49	0.127	9.394	23:04:38	0.22
152	23:05:48	0.127	7.817	23:10:19	0.127	13.299	23:06:22	0.127	8.192	23:07:22	0.22
153	23:10:48	0.127	7.474	23:14:36	0.127	12.642	23:15:05	0.127	6.132	23:15:24	0.22
154	23:15:48	0.127	8.063	23:18:30	0.127	14.027	23:17:02	0.127	8.063	23:18:57	0.22
155	23:20:48	0.127	6.606	23:23:44	0.127	13.299	23:20:57	0.127	8.605	23:23:58	0.22
156	23:25:48	0.127	9.394	23:27:04	0.127	12.337	23:29:14	0.127	8.063	23:27:14	0.22
157	23:30:48	0.127	6.059	23:32:25	0.127	11.77	23:31:49	0.127	8.325	23:32:52	0.22
158	23:35:48	0.127	7.585	23:36:38	0.127	10.557	23:37:27	0.127	8.463	23:36:34	0.22
159	23:40:48	0.127	8.463	23:44:17	0.127	11.253	23:44:57	0.127	10.343	23:41:44	0.22
160	23:45:48	0.127	7.474	23:49:07	0.127	14.027	23:49:37	0.127	7.699	23:49:27	0.22
161	23:50:48	0.127	8.463	23:51:19	0.127	11.011	23:53:04	0.127	8.904	23:52:15	0.22
162	23:55:48	0.127	7.474	23:59:05	0.127	16.254	23:55:55	0.127	8.325	23:59:07	0.22

Version 2.0.1.9 (07Nov2019(m))

File: Evt3.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

6/4/2022 at 12:00 am Event # 3

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 562.34 mm/s @ 1.22 Hz

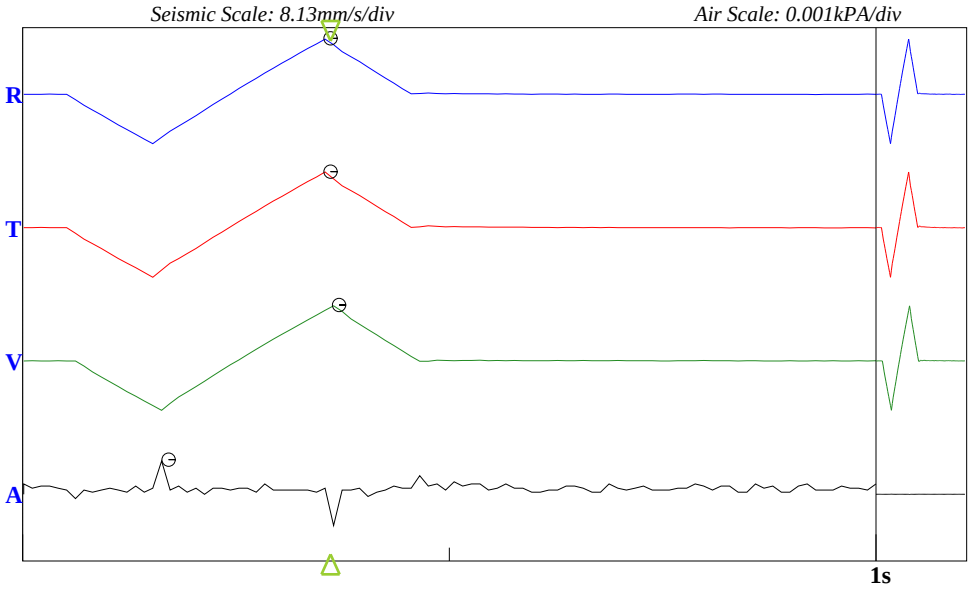
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7635**	**12.8429**	**12.7397**
Frequency (Hz)	**15.0**	**14.2**	**24.3**

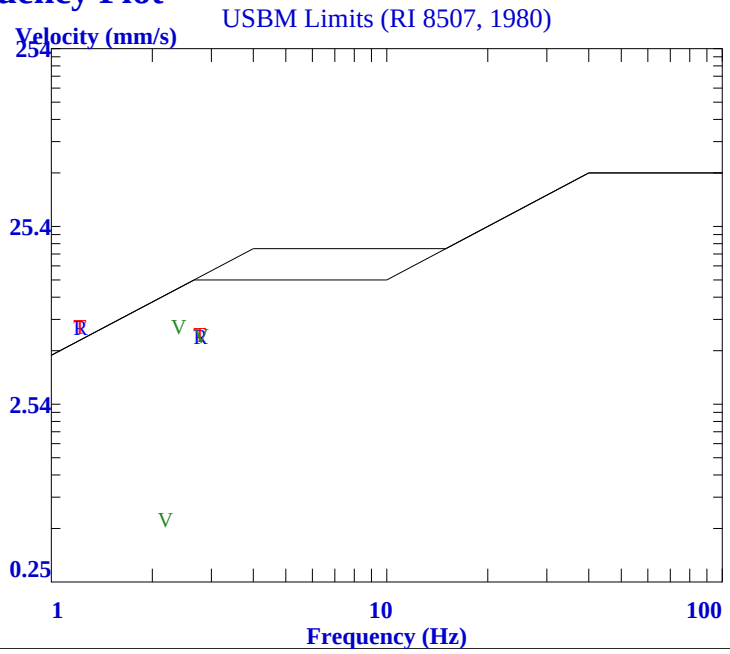
Air

Gain: 1

Measurement	Value		
kPA	0.0005		
dBL	**88.0**		
Hz	512.0		

Waveform Analysis / Frequency Plot





Version 2.0.1.9 (07Nov2019(m))

File: Evt4.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

6/4/2022 at 12:00 am Event # 4

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:01 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.92 mm/s

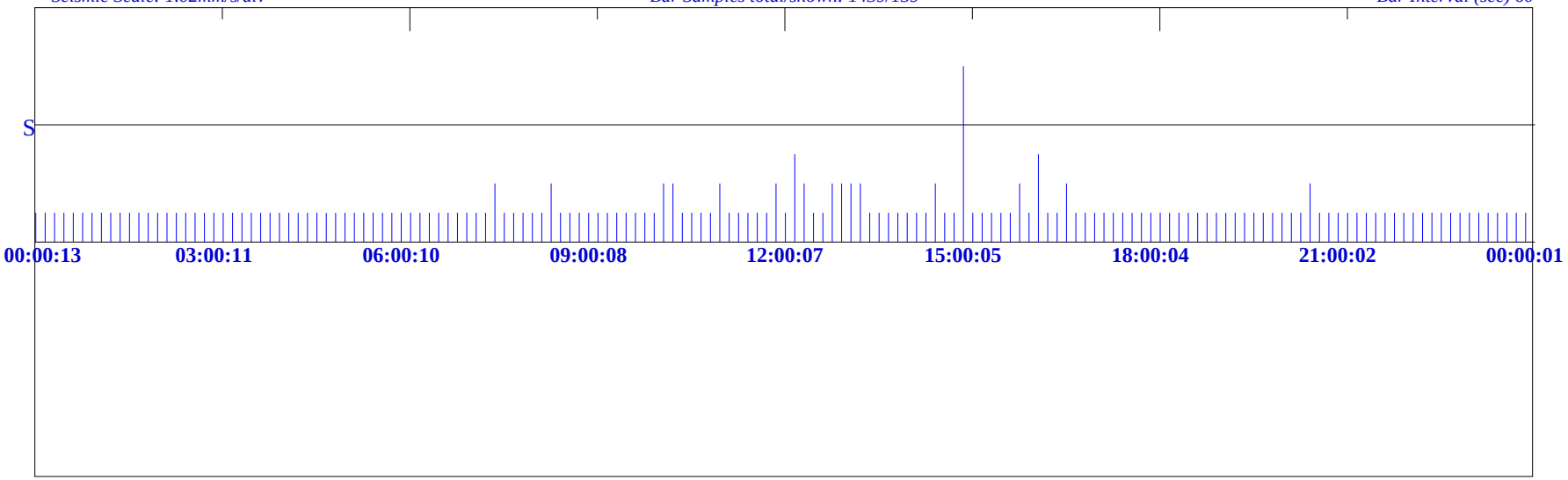
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	0.381	0.762	0.508
Frequency (Hz)	7.94	78.77	7.94
Time	4:04:41 pm	2:51:53 pm	2:51:53 pm

BarGraph

Seismic Scale: 1.02mm/s/div

Bar Samples total/shown: 1439/159

Summary Interval (min): 5
Bar Interval (sec) 60



<<<<<<<<<<<<<<< 23:59:48 >>>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 6/4/2022 12:00:13 am
End: 7/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.39 Hz
Radial: 0.381 (mm/s) @ 7.94 Hz @ 4:04:41 pm
Transverse: 0.762 (mm/s) @ 78.77 Hz @ 2:51:53 pm
Vertical: 0.508 (mm/s) @ 7.94 Hz @ 2:51:53 pm
Vector Sum: .92 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:13	0.127	9.062	0:01:31	0.127	14.841	0:00:32	0.127	9.225	0:01:04	0.22
2	0:05:13	0.127	7.699	0:08:40	0.127	13.653	0:08:53	0.127	9.942	0:09:28	0.22
3	0:10:13	0.127	10.557	0:10:44	0.127	13.299	0:12:45	0.127	8.752	0:14:28	0.22
4	0:15:13	0.127	9.062	0:19:19	0.127	12.642	0:16:20	0.127	6.872	0:16:59	0.22
5	0:20:13	0.127	9.062	0:23:16	0.127	14.027	0:22:22	0.127	8.063	0:22:09	0.22
6	0:25:13	0.127	7.585	0:27:36	0.127	14.841	0:26:20	0.127	8.192	0:28:12	0.22
7	0:30:13	0.127	10.139	0:33:04	0.127	14.423	0:31:03	0.127	8.192	0:30:55	0.22
8	0:35:13	0.127	10.139	0:38:01	0.127	13.653	0:39:18	0.127	9.062	0:36:16	0.22
9	0:40:13	0.127	9.062	0:42:20	0.127	15.284	0:40:16	0.127	9.062	0:41:47	0.22
10	0:45:13	0.127	9.394	0:47:54	0.127	13.299	0:45:35	0.127	8.063	0:45:17	0.22
11	0:50:13	0.127	8.752	0:54:12	0.127	12.337	0:53:24	0.127	9.942	0:51:12	0.22
12	0:55:13	0.127	8.605	0:59:33	0.127	14.027	0:59:02	0.127	10.139	0:55:49	0.22
13	1:00:13	0.127	7.817	1:03:20	0.127	16.787	1:01:54	0.127	9.57	1:02:03	0.22
14	1:05:13	0.127	7.161	1:05:20	0.127	14.423	1:05:21	0.127	9.225	1:08:49	0.22
15	1:10:13	0.127	7.699	1:11:32	0.127	15.754	1:12:35	0.127	9.062	1:12:18	0.22
16	1:15:13	0.127	9.394	1:15:55	0.127	15.754	1:16:27	0.127	8.063	1:19:56	0.22
17	1:20:13	0.127	8.063	1:24:45	0.127	13.653	1:22:17	0.127	7.817	1:22:14	0.22
18	1:25:13	0.127	8.325	1:26:54	0.127	14.841	1:25:57	0.127	9.225	1:28:27	0.22
19	1:30:13	0.127	9.225	1:32:50	0.127	14.027	1:34:22	0.127	7.585	1:30:45	0.22
20	1:35:13	0.127	7.474	1:37:20	0.127	11.253	1:37:04	0.127	9.062	1:35:17	0.22
21	1:40:13	0.127	7.938	1:42:00	0.127	11.77	1:42:25	0.127	7.474	1:44:12	0.22
22	1:45:13	0.127	7.062	1:46:51	0.127	14.027	1:45:20	0.127	9.752	1:45:16	0.22
23	1:50:13	0.127	8.063	1:53:58	0.127	13.299	1:53:03	0.127	8.463	1:50:29	0.22
24	1:55:13	0.127	7.062	1:57:16	0.127	14.027	1:55:32	0.127	8.904	2:00:00	0.22
25	2:00:13	0.127	8.752	2:02:05	0.127	16.254	2:01:13	0.127	9.57	2:02:37	0.22
26	2:05:13	0.127	7.817	2:09:09	0.127	14.027	2:08:07	0.127	8.605	2:09:22	0.22
27	2:10:13	0.127	8.192	2:12:28	0.127	11.506	2:10:41	0.127	8.605	2:14:49	0.22
28	2:15:13	0.127	7.062	2:17:25	0.127	14.841	2:15:37	0.127	8.605	2:20:10	0.22
29	2:20:13	0.127	9.062	2:21:38	0.127	12.337	2:22:49	0.127	6.693	2:20:50	0.22
30	2:25:13	0.127	9.062	2:26:19	0.127	14.027	2:26:25	0.127	8.325	2:25:43	0.22
31	2:30:13	0.127	8.325	2:33:03	0.127	12.337	2:31:27	0.127	8.752	2:31:05	0.22
32	2:35:13	0.127	8.752	2:38:41	0.127	15.284	2:39:48	0.127	8.463	2:39:26	0.22
33	2:40:13	0.127	7.585	2:44:12	0.127	14.841	2:44:59	0.127	9.752	2:44:51	0.22
34	2:45:13	0.127	7.938	2:50:06	0.127	10.139	2:48:32	0.127	8.063	2:47:08	0.22
35	2:50:13	0.127	6.872	2:52:53	0.127	14.423	2:53:01	0.127	7.817	2:53:25	0.22
36	2:55:13	0.127	7.938	2:56:02	0.127	15.284	2:55:14	0.127	8.325	2:56:09	0.22
37	3:00:13	0.127	8.325	3:01:22	0.127	16.254	3:00:30	0.127	9.942	3:04:49	0.22
38	3:05:13	0.127	9.394	3:05:50	0.127	13.653	3:06:16	0.127	8.063	3:09:13	0.22
39	3:10:13	0.127	8.063	3:10:46	0.127	13.653	3:14:47	0.127	9.225	3:10:25	0.22
40	3:15:13	0.127	8.752	3:16:17	0.127	11.506	3:16:43	0.127	7.262	3:16:02	0.22
41	3:20:13	0.127	7.817	3:22:17	0.127	14.027	3:21:18	0.127	8.605	3:23:12	0.22
42	3:25:13	0.127	8.192	3:26:18	0.127	13.299	3:28:38	0.127	8.463	3:27:29	0.22
43	3:30:13	0.127	9.394	3:31:00	0.127	14.841	3:34:09	0.127	8.463	3:32:11	0.22
44	3:35:13	0.127	8.325	3:40:03	0.127	13.299	3:35:59	0.127	8.463	3:39:06	0.22
45	3:40:13	0.127	7.474	3:42:46	0.127	13.299	3:40:49	0.127	5.721	3:42:55	0.22
46	3:45:13	0.127	9.062	3:48:50	0.127	12.642	3:49:55	0.127	9.942	3:49:56	0.22
47	3:50:13	0.127	7.585	3:52:45	0.127	12.642	3:50:38	0.127	8.605	3:52:36	0.22
48	3:55:13	0.127	8.192	3:59:35	0.127	11.011	3:56:52	0.127	6.872	3:55:16	0.22
49	4:00:13	0.127	8.063	4:00:59	0.127	11.253	4:02:16	0.127	7.938	4:01:17	0.22
50	4:05:13	0.127	6.44	4:07:33	0.127	13.299	4:10:04	0.127	9.062	4:09:56	0.22
51	4:10:13	0.127	7.817	4:13:30	0.127	14.027	4:13:02	0.127	8.463	4:10:26	0.22
52	4:15:13	0.127	7.062	4:15:31	0.127	11.011	4:18:29	0.127	7.938	4:18:01	0.22
53	4:20:13	0.127	8.192	4:20:53	0.127	10.557	4:21:40	0.127	8.752	4:23:31	0.22
54	4:25:13	0.127	7.585	4:29:23	0.127	13.299	4:28:17	0.127	7.062	4:29:07	0.22
55	4:30:13	0.127	7.817	4:30:25	0.127	12.642	4:32:23	0.127	8.063	4:34:58	0.22
56	4:35:13	0.127	8.192	4:38:42	0.127	12.047	4:35:25	0.127	7.367	4:37:05	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 6/4/2022 12:00:13 am
End: 7/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.39 Hz
Radial: 0.381 (mm/s) @ 7.94 Hz @ 4:04:41 pm
Transverse: 0.762 (mm/s) @ 78.77 Hz @ 2:51:53 pm
Vertical: 0.508 (mm/s) @ 7.94 Hz @ 2:51:53 pm
Vector Sum: .92 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:13	0.127	7.585	4:40:19	0.127	14.027	4:40:18	0.127	9.225	4:42:24	0.22
58	4:45:13	0.127	9.394	4:45:43	0.127	13.653	4:49:12	0.127	8.752	4:49:09	0.22
59	4:50:13	0.127	6.872	4:53:37	0.127	12.962	4:50:35	0.127	7.262	4:52:39	0.22
60	4:55:13	0.127	7.699	4:57:48	0.127	11.253	4:58:28	0.127	7.367	4:57:44	0.22
61	5:00:13	0.127	8.463	5:00:23	0.127	13.299	5:04:32	0.127	7.474	5:04:53	0.22
62	5:05:13	0.127	6.132	5:09:35	0.127	11.011	5:07:48	0.127	9.57	5:09:59	0.22
63	5:10:13	0.127	8.463	5:13:27	0.127	10.557	5:10:21	0.127	8.752	5:14:24	0.22
64	5:15:13	0.127	6.522	5:19:49	0.127	11.253	5:16:36	0.127	8.463	5:19:43	0.22
65	5:20:13	0.127	7.161	5:22:15	0.127	12.337	5:20:17	0.127	8.325	5:21:02	0.22
66	5:25:13	0.127	7.474	5:29:25	0.127	10.557	5:27:10	0.127	7.367	5:25:44	0.22
67	5:30:13	0.127	8.605	5:30:57	0.127	11.506	5:32:09	0.127	7.938	5:31:14	0.22
68	5:35:13	0.127	7.474	5:39:58	0.127	12.047	5:40:09	0.127	8.605	5:38:46	0.22
69	5:40:13	0.127	7.262	5:40:34	0.127	10.139	5:41:56	0.127	7.817	5:42:27	0.22
70	5:45:13	0.127	7.699	5:47:17	0.127	10.779	5:48:17	0.127	9.394	5:46:28	0.22
71	5:50:13	0.127	8.752	5:51:58	0.127	14.027	5:54:06	0.127	7.938	5:54:22	0.22
72	5:55:13	0.127	7.585	5:57:41	0.127	12.962	5:57:33	0.127	9.225	5:57:37	0.22
73	6:00:13	0.127	8.605	6:03:23	0.127	11.011	6:05:03	0.127	7.699	6:00:39	0.22
74	6:05:13	0.127	7.699	6:08:03	0.127	9.57	6:06:22	0.127	8.752	6:07:03	0.22
75	6:10:13	0.127	8.192	6:12:12	0.127	12.962	6:13:26	0.127	8.605	6:13:13	0.22
76	6:15:13	0.127	9.394	6:18:21	0.127	12.642	6:16:06	0.127	8.904	6:16:35	0.22
77	6:20:13	0.127	8.192	6:23:48	0.127	13.299	6:24:01	0.127	8.463	6:21:07	0.22
78	6:25:13	0.127	6.872	6:25:22	0.127	11.77	6:25:33	0.127	8.063	6:25:16	0.22
79	6:30:13	0.127	5.418	6:35:08	0.127	10.557	6:34:08	0.127	6.966	6:32:06	0.22
80	6:35:13	0.127	7.585	6:36:07	0.127	12.642	6:39:04	0.127	7.474	6:37:12	0.22
81	6:40:13	0.127	7.474	6:43:21	0.127	11.253	6:41:00	0.127	8.752	6:40:56	0.22
82	6:45:13	0.127	8.192	6:49:22	0.127	11.77	6:49:20	0.127	7.938	6:46:55	0.22
83	6:50:13	0.127	7.585	6:53:15	0.127	9.752	6:52:31	0.127	7.938	6:53:36	0.22
84	6:55:13	0.127	8.063	6:57:31	0.127	10.139	6:56:43	0.127	6.522	7:00:04	0.22
85	7:00:13	0.127	7.262	7:03:42	0.127	11.253	7:03:08	0.127	7.161	7:02:22	0.22
86	7:05:13	0.127	7.585	7:08:01	0.127	11.011	7:06:09	0.127	7.817	7:06:44	0.22
87	7:10:13	0.127	7.474	7:14:26	0.127	11.011	7:14:31	0.127	7.938	7:10:22	0.22
88	7:15:13	0.127	6.966	7:15:15	0.127	11.011	7:18:08	0.127	8.192	7:17:47	0.22
89	7:20:13	0.127	8.463	7:21:58	0.127	12.337	7:20:15	0.254	44.522	7:23:56	0.254
90	7:25:13	0.127	7.938	7:28:24	0.127	12.337	7:28:29	0.127	8.192	7:30:13	0.22
91	7:30:13	0.127	7.817	7:33:30	0.127	10.557	7:33:09	0.127	8.063	7:31:01	0.22
92	7:35:13	0.127	7.062	7:36:44	0.127	12.642	7:36:23	0.127	9.225	7:36:14	0.22
93	7:40:13	0.127	6.522	7:44:54	0.127	6.781	7:44:52	0.127	7.585	7:44:52	0.22
94	7:45:13	0.127	7.817	7:46:41	0.127	10.557	7:49:32	0.127	8.325	7:46:09	0.22
95	7:50:13	0.127	6.781	7:53:53	0.127	10.779	7:53:39	0.127	7.817	7:54:45	0.22
96	7:55:13	0.127	8.192	7:57:41	0.127	10.779	7:56:08	0.127	7.367	7:56:07	0.22
97	8:00:13	0.127	6.966	8:04:03	0.127	10.557	8:02:06	0.127	7.699	8:02:24	0.22
98	8:05:13	0.127	6.781	8:07:00	0.127	8.463	8:09:56	0.127	8.605	8:09:54	0.22
99	8:10:13	0.127	7.699	8:10:51	0.127	10.557	8:10:48	0.127	9.225	8:12:14	0.22
100	8:15:13	0.127	5.596	8:20:12	0.127	10.779	8:18:41	0.127	7.474	8:19:16	0.22
101	8:20:13	0.127	6.522	8:21:21	0.127	10.139	8:21:35	0.254	7.817	8:21:03	0.311
102	8:25:13	0.127	4.853	8:28:56	0.127	11.011	8:25:20	0.127	7.262	8:29:42	0.22
103	8:30:13	0.127	7.699	8:33:25	0.127	12.337	8:32:47	0.127	9.225	8:32:47	0.22
104	8:35:13	0.127	6.693	8:36:47	0.127	9.57	8:39:09	0.127	7.817	8:39:08	0.22
105	8:40:13	0.127	5.721	8:44:56	0.127	9.942	8:41:46	0.127	8.063	8:41:00	0.22
106	8:45:13	0.127	6.132	8:49:57	0.127	11.506	8:45:28	0.127	7.367	8:46:49	0.22
107	8:50:13	0.127	6.966	8:52:14	0.127	8.904	8:50:16	0.127	6.44	8:50:18	0.22
108	8:55:13	0.127	6.872	8:57:36	0.127	10.557	8:56:38	0.127	7.585	8:56:01	0.22
109	9:00:13	0.127	6.36	9:02:16	0.127	10.139	9:02:38	0.127	7.817	9:04:43	0.22
110	9:05:13	0.127	7.699	9:05:31	0.127	9.942	9:08:44	0.127	6.966	9:09:26	0.22
111	9:10:13	0.127	6.606	9:14:28	0.127	8.904	9:15:07	0.127	8.063	9:14:24	0.22
112	9:15:13	0.127	5.535	9:17:03	0.127	10.779	9:16:17	0.127	7.474	9:18:36	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 6/4/2022 12:00:13 am
End: 7/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.39 Hz
Radial: 0.381 (mm/s) @ 7.94 Hz @ 4:04:41 pm
Transverse: 0.762 (mm/s) @ 78.77 Hz @ 2:51:53 pm
Vertical: 0.508 (mm/s) @ 7.94 Hz @ 2:51:53 pm
Vector Sum: .92 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:13	0.127	7.474	9:24:23	0.127	12.642	9:22:18	0.127	8.605	9:20:48	0.22
114	9:25:13	0.127	7.367	9:25:23	0.127	10.779	9:25:24	0.127	7.585	9:29:32	0.22
115	9:30:13	0.127	5.657	9:34:28	0.127	11.011	9:30:44	0.127	6.781	9:31:04	0.22
116	9:35:13	0.127	7.062	9:38:47	0.127	9.225	9:38:06	0.127	9.752	9:35:29	0.22
117	9:40:13	0.127	6.132	9:43:18	0.127	12.047	9:44:41	0.127	12.962	9:43:15	0.22
118	9:45:13	0.127	7.262	9:48:20	0.127	11.253	9:47:42	0.127	12.047	9:48:51	0.22
119	9:50:13	0.127	7.474	9:52:05	0.127	10.139	9:52:08	0.127	14.423	9:53:04	0.22
120	9:55:13	0.127	6.693	9:57:30	0.127	11.011	9:56:08	0.127	11.253	9:56:18	0.22
121	10:00:13	0.127	3.519	10:03:08	0.127	11.011	10:03:06	0.127	13.653	10:04:51	0.22
122	10:05:13	0.127	8.063	10:07:14	0.127	12.337	10:07:09	0.127	11.011	10:09:47	0.22
123	10:10:13	0.127	7.161	10:14:56	0.127	9.062	10:12:12	0.254	12.047	10:11:39	0.284
124	10:15:13	0.127	7.938	10:15:52	0.127	10.139	10:16:37	0.254	35.31	10:17:24	0.311
125	10:20:13	0.127	7.474	10:22:17	0.127	11.506	10:24:59	0.127	11.77	10:24:33	0.22
126	10:25:13	0.127	6.059	10:26:49	0.127	9.57	10:28:20	0.127	10.779	10:27:20	0.22
127	10:30:13	0.127	9.062	10:34:20	0.127	13.299	10:32:59	0.127	12.337	10:31:13	0.22
128	10:35:13	0.127	6.44	10:37:59	0.127	10.343	10:39:04	0.127	12.047	10:39:14	0.22
129	10:40:13	0.127	8.063	10:42:29	0.127	12.047	10:42:35	0.127	9.942	10:44:40	0.22
130	10:45:13	0.127	8.192	10:45:34	0.127	11.011	10:47:28	0.127	10.779	10:46:10	0.22
131	10:50:13	0.127	7.585	10:53:25	0.127	11.253	10:50:46	0.127	11.77	10:52:52	0.22
132	10:55:13	0.127	8.325	10:56:46	0.127	11.77	10:55:54	0.127	11.506	10:59:02	0.22
133	11:00:13	0.127	8.605	11:00:33	0.127	11.011	11:04:11	0.127	10.779	11:00:30	0.22
134	11:05:13	0.127	9.752	11:07:06	0.254	20.898	11:05:50	0.254	17.356	11:05:50	0.359
135	11:10:13	0.127	7.367	11:14:19	0.127	12.642	11:13:50	0.127	13.653	11:10:17	0.22
136	11:15:13	0.127	7.699	11:15:37	0.127	12.047	11:15:22	0.127	10.557	11:15:21	0.22
137	11:20:13	0.127	7.699	11:25:02	0.127	10.779	11:21:56	0.127	11.253	11:24:41	0.22
138	11:25:13	0.127	6.44	11:28:00	0.127	7.161	11:28:07	0.127	9.394	11:25:36	0.22
139	11:30:13	0.127	8.904	11:34:31	0.127	11.77	11:31:59	0.127	7.938	11:30:52	0.22
140	11:35:13	0.127	8.752	11:35:51	0.127	12.642	11:36:29	0.127	7.938	11:37:11	0.22
141	11:40:13	0.127	8.752	11:40:52	0.127	10.779	11:43:11	0.127	6.872	11:42:26	0.22
142	11:45:13	0.127	8.063	11:48:23	0.127	13.299	11:49:17	0.127	8.605	11:48:19	0.22
143	11:50:13	0.127	9.225	11:54:48	0.127	11.506	11:54:48	0.127	6.781	11:51:40	0.22
144	11:55:13	0.127	9.752	11:57:07	0.127	14.841	11:57:01	0.254	7.474	11:59:38	0.311
145	12:00:13	0.127	8.325	12:03:43	0.127	11.77	12:01:25	0.127	4.9	12:02:31	0.22
146	12:05:13	0.127	9.225	12:06:09	0.127	11.77	12:05:48	0.127	7.367	12:05:33	0.22
147	12:10:13	0.127	6.966	12:11:50	0.127	13.299	12:13:50	0.127	6.44	12:14:57	0.22
148	12:15:13	0.381	113.778	12:16:41	0.254	13.299	12:18:06	0.254	60.235	12:18:06	0.458
149	12:20:13	0.254	44.522	12:22:33	0.254	8.904	12:24:27	0.127	7.062	12:21:27	0.311
150	12:25:13	0.127	5.851	12:27:11	0.127	11.506	12:27:57	0.127	7.474	12:25:30	0.22
151	12:30:13	0.127	8.605	12:31:17	0.127	11.77	12:32:50	0.127	8.192	12:34:16	0.22
152	12:35:13	0.127	7.585	12:36:46	0.127	14.841	12:35:40	0.127	7.699	12:38:49	0.22
153	12:40:13	0.127	7.817	12:44:05	0.127	11.506	12:43:08	0.127	7.062	12:43:16	0.22
154	12:45:13	0.254	11.77	12:47:29	0.254	9.752	12:47:29	0.254	8.325	12:47:29	0.381
155	12:50:13	0.127	8.904	12:50:32	0.127	15.754	12:50:11	0.127	8.063	12:54:57	0.22
156	12:55:13	0.127	7.938	12:59:29	0.127	13.653	12:58:01	0.127	7.474	12:56:16	0.22
157	13:00:13	0.127	9.942	13:02:04	0.254	12.962	13:01:43	0.127	8.605	13:03:00	0.284
158	13:05:13	0.254	68.267	13:07:27	0.127	14.027	13:07:46	0.254	37.926	13:07:27	0.311
159	13:10:13	0.254	53.895	13:14:33	0.254	12.642	13:14:33	0.127	8.063	13:12:57	0.311
160	13:15:13	0.127	10.139	13:19:49	0.127	14.423	13:20:10	0.127	7.938	13:15:49	0.22
161	13:20:13	0.127	9.752	13:24:59	0.127	12.642	13:23:44	0.127	7.367	13:21:34	0.22
162	13:25:13	0.127	8.192	13:26:38	0.127	13.299	13:26:40	0.127	7.474	13:28:48	0.22
163	13:30:13	0.127	7.699	13:31:01	0.127	13.299	13:33:32	0.127	6.872	13:30:33	0.22
164	13:35:13	0.127	8.605	13:38:37	0.127	11.253	13:35:58	0.127	6.132	13:36:57	0.22
165	13:40:13	0.127	6.282	13:40:44	0.127	9.57	13:44:28	0.127	7.817	13:40:40	0.22
166	13:45:13	0.127	8.605	13:47:51	0.127	10.779	13:48:54	0.127	8.063	13:45:15	0.22
167	13:50:13	0.127	7.938	13:51:37	0.127	12.337	13:54:25	0.127	6.872	13:52:44	0.22
168	13:55:13	0.127	7.161	13:58:48	0.127	9.57	13:59:13	0.127	7.474	13:56:36	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 6/4/2022 12:00:13 am
End: 7/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.39 Hz
Radial: 0.381 (mm/s) @ 7.94 Hz @ 4:04:41 pm
Transverse: 0.762 (mm/s) @ 78.77 Hz @ 2:51:53 pm
Vertical: 0.508 (mm/s) @ 7.94 Hz @ 2:51:53 pm
Vector Sum: .92 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:13	0.127	8.192	14:00:36	0.127	9.752	14:02:16	0.127	7.161	14:04:11	0.22
170	14:05:13	0.127	8.063	14:08:31	0.127	10.557	14:06:16	0.127	6.781	14:06:33	0.22
171	14:10:13	0.127	7.938	14:12:00	0.127	12.642	14:11:28	0.127	7.062	14:10:49	0.22
172	14:15:13	0.127	8.752	14:17:57	0.127	11.506	14:17:03	0.127	7.062	14:19:32	0.22
173	14:20:13	0.254	10.139	14:24:59	0.127	12.642	14:22:19	0.254	7.817	14:24:58	0.311
174	14:25:13	0.127	8.325	14:27:30	0.127	11.253	14:26:16	0.127	6.966	14:29:57	0.22
175	14:30:13	0.127	7.585	14:33:07	0.127	12.642	14:30:50	0.127	5.721	14:31:54	0.22
176	14:35:13	0.127	8.192	14:35:16	0.127	13.653	14:37:45	0.127	8.063	14:37:47	0.22
177	14:40:13	0.127	9.394	14:41:06	0.127	13.653	14:44:35	0.127	8.605	14:43:18	0.22
178	14:45:13	0.127	7.699	14:45:26	0.127	11.506	14:45:19	0.127	7.474	14:49:16	0.22
179	14:50:13	0.381	93.091	14:51:53	0.762	78.769	14:51:53	0.508	7.938	14:51:53	0.925
180	14:55:13	0.127	9.752	14:56:42	0.127	8.904	14:56:54	0.127	7.474	15:00:07	0.22
181	15:00:13	0.127	10.139	15:01:53	0.127	12.642	15:05:08	0.127	8.192	15:03:29	0.22
182	15:05:13	0.127	10.557	15:07:35	0.127	14.423	15:07:49	0.127	8.605	15:06:49	0.22
183	15:10:13	0.127	9.394	15:10:33	0.127	12.962	15:10:24	0.127	6.36	15:10:26	0.22
184	15:15:13	0.127	9.062	15:17:34	0.127	11.77	15:16:12	0.127	8.192	15:17:17	0.22
185	15:20:13	0.127	8.605	15:21:02	0.127	12.642	15:20:17	0.127	6.872	15:21:05	0.22
186	15:25:13	0.127	8.463	15:26:39	0.127	9.225	15:27:13	0.127	7.817	15:28:37	0.22
187	15:30:13	0.127	9.062	15:34:58	0.127	14.027	15:34:56	0.127	6.872	15:33:29	0.22
188	15:35:13	0.127	11.011	15:35:54	0.127	14.423	15:35:48	0.127	8.904	15:37:04	0.22
189	15:40:13	0.127	8.605	15:40:41	0.127	10.557	15:42:58	0.127	7.585	15:41:50	0.22
190	15:45:13	0.254	8.605	15:48:34	0.127	11.506	15:45:25	0.127	7.938	15:48:12	0.311
191	15:50:13	0.254	113.778	15:51:04	0.127	12.962	15:53:33	0.127	8.605	15:51:31	0.311
192	15:55:13	0.127	9.394	16:00:01	0.127	10.779	15:56:42	0.127	7.699	15:56:51	0.22
193	16:00:13	0.381	7.938	16:04:41	0.381	29.257	16:04:41	0.381	8.752	16:04:41	0.539
194	16:05:13	0.127	6.132	16:09:44	0.127	8.325	16:09:44	0.127	7.062	16:05:49	0.22
195	16:10:13	0.127	9.57	16:12:55	0.127	12.642	16:14:51	0.127	7.474	16:14:51	0.22
196	16:15:13	0.127	9.57	16:16:04	0.127	8.752	16:17:34	0.127	8.063	16:19:26	0.22
197	16:20:13	0.127	8.904	16:21:40	0.127	14.423	16:23:26	0.127	7.817	16:22:44	0.22
198	16:25:13	0.127	9.225	16:27:05	0.127	12.962	16:26:11	0.127	7.699	16:29:44	0.22
199	16:30:13	0.127	9.225	16:34:23	0.254	11.011	16:34:55	0.254	7.585	16:34:55	0.311
200	16:35:13	0.127	10.779	16:36:53	0.127	13.299	16:39:32	0.127	7.699	16:39:39	0.22
201	16:40:13	0.127	10.557	16:43:01	0.127	14.423	16:44:00	0.127	9.062	16:44:07	0.22
202	16:45:13	0.127	10.343	16:46:47	0.127	11.506	16:46:40	0.127	7.262	16:49:02	0.22
203	16:50:13	0.127	9.225	16:54:33	0.127	10.779	16:50:49	0.127	7.817	16:54:20	0.22
204	16:55:13	0.127	7.938	16:59:23	0.127	12.337	16:59:29	0.127	7.938	16:59:07	0.22
205	17:00:13	0.127	8.463	17:04:08	0.127	12.047	17:04:13	0.127	7.474	17:01:11	0.22
206	17:05:13	0.127	7.367	17:06:43	0.127	9.394	17:09:21	0.127	11.011	17:09:45	0.22
207	17:10:13	0.127	5.596	17:11:56	0.127	9.57	17:11:04	0.127	9.752	17:10:31	0.22
208	17:15:13	0.127	7.938	17:16:52	0.127	10.557	17:19:36	0.127	11.506	17:19:01	0.22
209	17:20:13	0.127	8.192	17:25:09	0.127	14.423	17:21:08	0.127	10.779	17:23:48	0.22
210	17:25:13	0.127	7.585	17:27:49	0.127	12.642	17:27:56	0.127	11.77	17:25:17	0.22
211	17:30:13	0.127	10.139	17:32:52	0.127	12.962	17:34:17	0.127	12.337	17:32:04	0.22
212	17:35:13	0.127	9.942	17:36:46	0.127	14.423	17:36:46	0.127	14.423	17:35:12	0.22
213	17:40:13	0.127	8.325	17:40:34	0.127	14.423	17:42:21	0.127	8.904	17:45:01	0.22
214	17:45:13	0.127	7.817	17:50:06	0.127	13.299	17:45:20	0.127	6.966	17:45:58	0.22
215	17:50:13	0.127	8.904	17:54:28	0.127	12.962	17:51:24	0.127	8.463	17:52:05	0.22
216	17:55:13	0.127	9.57	17:56:05	0.127	14.027	17:55:12	0.127	8.192	17:56:58	0.22
217	18:00:13	0.127	8.605	18:03:15	0.127	13.653	18:01:09	0.127	7.367	18:00:34	0.22
218	18:05:13	0.127	9.752	18:09:07	0.127	11.253	18:08:13	0.127	8.063	18:09:14	0.22
219	18:10:13	0.127	6.781	18:12:23	0.127	12.337	18:14:52	0.127	7.367	18:13:11	0.22
220	18:15:13	0.127	8.325	18:15:49	0.127	13.299	18:16:14	0.127	6.781	18:19:19	0.22
221	18:20:13	0.127	9.57	18:22:39	0.127	11.011	18:22:43	0.127	7.262	18:24:32	0.22
222	18:25:13	0.127	8.605	18:27:20	0.127	11.506	18:27:19	0.127	8.325	18:26:49	0.22
223	18:30:13	0.127	7.817	18:31:39	0.127	12.337	18:31:11	0.127	8.605	18:31:20	0.22
224	18:35:13	0.127	8.063	18:39:06	0.127	9.394	18:38:58	0.127	7.585	18:39:06	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 6/4/2022 12:00:13 am
End: 7/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.39 Hz
Radial: 0.381 (mm/s) @ 7.94 Hz @ 4:04:41 pm
Transverse: 0.762 (mm/s) @ 78.77 Hz @ 2:51:53 pm
Vertical: 0.508 (mm/s) @ 7.94 Hz @ 2:51:53 pm
Vector Sum: .92 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:13	0.127	7.699	18:41:41	0.127	11.77	18:42:33	0.127	8.325	18:41:55	0.22
226	18:45:13	0.127	8.904	18:47:04	0.127	13.653	18:47:37	0.127	9.225	18:46:06	0.22
227	18:50:13	0.127	7.817	18:53:57	0.127	10.343	18:52:20	0.127	8.192	18:52:49	0.22
228	18:55:13	0.127	9.57	18:56:32	0.127	9.942	18:59:09	0.127	8.605	18:58:48	0.22
229	19:00:13	0.127	10.343	19:02:36	0.127	12.337	19:05:06	0.127	7.585	19:01:42	0.22
230	19:05:13	0.127	6.693	19:08:23	0.127	12.642	19:07:21	0.127	9.062	19:08:13	0.22
231	19:10:13	0.127	7.062	19:14:59	0.127	11.253	19:13:30	0.127	7.062	19:14:59	0.22
232	19:15:13	0.127	7.062	19:16:06	0.127	13.653	19:16:08	0.127	8.463	19:17:11	0.22
233	19:20:13	0.127	9.225	19:23:02	0.127	14.027	19:22:08	0.127	7.161	19:23:34	0.22
234	19:25:13	0.127	8.752	19:25:39	0.127	12.337	19:29:35	0.127	9.062	19:27:27	0.22
235	19:30:13	0.127	8.463	19:33:23	0.127	12.642	19:33:56	0.127	7.161	19:32:09	0.22
236	19:35:13	0.127	8.904	19:37:21	0.127	12.337	19:38:47	0.127	9.57	19:36:44	0.22
237	19:40:13	0.127	7.474	19:42:58	0.127	13.299	19:41:20	0.127	8.063	19:41:05	0.22
238	19:45:13	0.127	9.394	19:47:12	0.127	13.653	19:47:33	0.127	8.325	19:48:31	0.22
239	19:50:13	0.127	8.463	19:53:53	0.127	11.506	19:52:50	0.127	8.752	19:51:59	0.22
240	19:55:13	0.127	7.817	19:55:13	0.127	13.299	19:59:03	0.127	5.851	19:56:34	0.22
241	20:00:13	0.127	9.062	20:04:09	0.127	12.962	20:01:49	0.127	8.325	20:00:41	0.22
242	20:05:13	0.127	7.817	20:06:05	0.127	11.506	20:10:07	0.127	8.192	20:06:40	0.22
243	20:10:13	0.127	8.325	20:15:02	0.127	12.962	20:12:46	0.127	7.817	20:14:32	0.22
244	20:15:13	0.127	8.752	20:20:07	0.127	13.299	20:15:24	0.127	8.192	20:15:48	0.22
245	20:20:13	0.127	7.699	20:22:34	0.127	10.557	20:23:28	0.254	8.463	20:24:39	0.311
246	20:25:13	0.127	7.938	20:26:03	0.127	12.962	20:26:11	0.127	7.262	20:25:47	0.22
247	20:30:13	0.127	9.062	20:31:11	0.127	12.962	20:34:39	0.127	7.367	20:31:09	0.22
248	20:35:13	0.127	7.585	20:39:28	0.127	13.653	20:35:46	0.127	7.817	20:37:27	0.22
249	20:40:13	0.127	5.988	20:44:27	0.127	12.337	20:42:17	0.127	7.474	20:41:41	0.22
250	20:45:13	0.127	7.938	20:47:55	0.127	11.77	20:49:03	0.127	7.262	20:48:26	0.22
251	20:50:13	0.127	8.192	20:50:11	0.127	12.337	20:53:31	0.127	7.474	20:53:28	0.22
252	20:55:13	0.127	8.605	20:55:14	0.127	13.653	20:59:01	0.127	8.752	20:56:48	0.22
253	21:00:13	0.127	8.325	21:02:36	0.127	10.779	21:01:08	0.127	8.463	21:00:13	0.22
254	21:05:13	0.127	7.262	21:06:09	0.127	12.962	21:08:07	0.127	8.463	21:07:11	0.22
255	21:10:13	0.127	9.225	21:12:42	0.127	14.423	21:12:35	0.127	8.463	21:11:26	0.22
256	21:15:13	0.127	8.463	21:17:13	0.127	12.337	21:16:14	0.127	7.161	21:17:04	0.22
257	21:20:13	0.127	7.699	21:24:09	0.127	14.841	21:24:38	0.127	9.062	21:22:07	0.22
258	21:25:13	0.127	8.752	21:27:13	0.127	12.337	21:25:12	0.127	8.463	21:29:55	0.22
259	21:30:13	0.127	9.942	21:32:05	0.127	12.337	21:34:36	0.127	7.817	21:32:52	0.22
260	21:35:13	0.127	8.192	21:37:53	0.127	13.299	21:38:22	0.127	8.325	21:40:01	0.22
261	21:40:13	0.127	7.585	21:41:39	0.127	12.642	21:43:33	0.127	8.192	21:43:33	0.22
262	21:45:13	0.127	8.463	21:48:38	0.127	10.557	21:45:52	0.127	8.463	21:46:15	0.22
263	21:50:13	0.127	9.57	21:50:50	0.127	12.642	21:54:17	0.127	8.605	21:52:59	0.22
264	21:55:13	0.127	8.904	21:55:23	0.127	10.343	21:57:06	0.127	9.062	21:55:30	0.22
265	22:00:13	0.127	9.942	22:02:29	0.127	12.962	22:00:22	0.127	8.605	22:00:32	0.22
266	22:05:13	0.127	8.752	22:06:01	0.127	12.962	22:05:57	0.127	8.752	22:05:14	0.22
267	22:10:13	0.127	9.57	22:11:31	0.127	14.841	22:14:37	0.127	9.752	22:11:26	0.22
268	22:15:13	0.127	9.394	22:17:28	0.127	15.284	22:16:01	0.127	10.779	22:17:14	0.22
269	22:20:13	0.127	9.57	22:20:21	0.127	11.253	22:23:13	0.127	8.463	22:21:18	0.22
270	22:25:13	0.127	8.752	22:26:31	0.127	13.299	22:28:00	0.127	8.752	22:27:30	0.22
271	22:30:13	0.127	9.062	22:31:31	0.127	12.337	22:33:30	0.127	9.57	22:33:36	0.22
272	22:35:13	0.127	8.904	22:39:02	0.127	12.642	22:37:30	0.127	9.57	22:39:38	0.22
273	22:40:13	0.127	9.57	22:43:42	0.127	15.284	22:44:13	0.127	8.605	22:41:33	0.22
274	22:45:13	0.127	8.752	22:49:22	0.127	12.642	22:47:12	0.127	9.394	22:50:03	0.22
275	22:50:13	0.127	8.463	22:52:32	0.127	11.253	22:53:26	0.127	7.938	22:54:27	0.22
276	22:55:13	0.127	9.57	22:57:17	0.127	11.77	22:55:42	0.127	7.938	22:59:32	0.22
277	23:00:13	0.127	8.605	23:02:12	0.127	13.299	23:01:35	0.127	8.463	23:03:28	0.22
278	23:05:13	0.127	8.463	23:07:47	0.127	12.337	23:06:39	0.127	9.57	23:08:07	0.22
279	23:10:13	0.127	8.752	23:13:27	0.127	12.337	23:10:42	0.127	8.904	23:14:09	0.22
280	23:15:13	0.127	9.57	23:17:38	0.127	12.337	23:16:52	0.127	9.394	23:19:44	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 6/4/2022 12:00:13 am
End: 7/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.39 Hz
Radial: 0.381 (mm/s) @ 7.94 Hz @ 4:04:41 pm
Transverse: 0.762 (mm/s) @ 78.77 Hz @ 2:51:53 pm
Vertical: 0.508 (mm/s) @ 7.94 Hz @ 2:51:53 pm
Vector Sum: .92 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:13	0.127	7.938	23:22:10	0.127	14.841	23:24:44	0.127	8.904	23:22:50	0.22
282	23:25:13	0.127	7.817	23:29:56	0.127	13.299	23:25:51	0.127	6.966	23:29:19	0.22
283	23:30:13	0.127	8.063	23:31:40	0.127	14.027	23:34:00	0.127	8.192	23:30:27	0.22
284	23:35:13	0.127	8.752	23:36:34	0.127	12.337	23:38:32	0.127	8.463	23:38:36	0.22
285	23:40:13	0.127	6.132	23:40:59	0.127	12.642	23:43:16	0.127	8.752	23:42:59	0.22
286	23:45:13	0.127	9.942	23:49:50	0.127	15.754	23:45:14	0.127	10.557	23:48:18	0.22
287	23:50:13	0.127	9.394	23:51:49	0.127	16.787	23:53:34	0.127	8.752	23:53:31	0.22
288	23:55:13	0.127	6.872	23:56:17	0.127	15.284	23:59:18	0.127	9.062	23:55:30	0.22

Version 2.0.1.9 (07Nov2019(m))

File: Evt5.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

7/4/2022 at 12:00 am Event # 5

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 564.2 mm/s @ 1.32 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7873**	**12.8905**	**12.7952**
Frequency (Hz)	**16.5**	**24.3**	**24.3**

Air

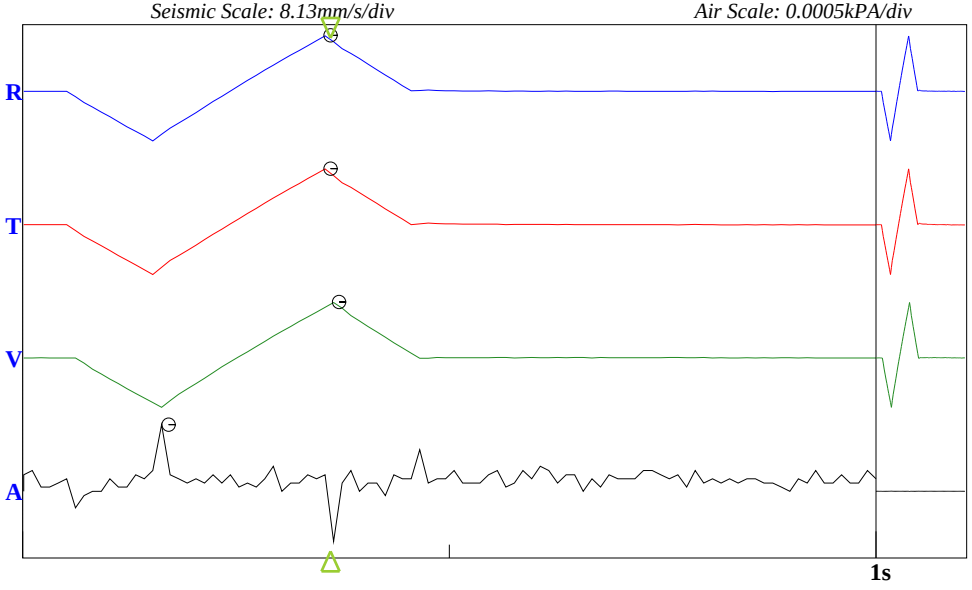
Gain: 1

Measurement	Value		
kPA	0.000453		
dBL	**87.1**		
Hz	256.0		

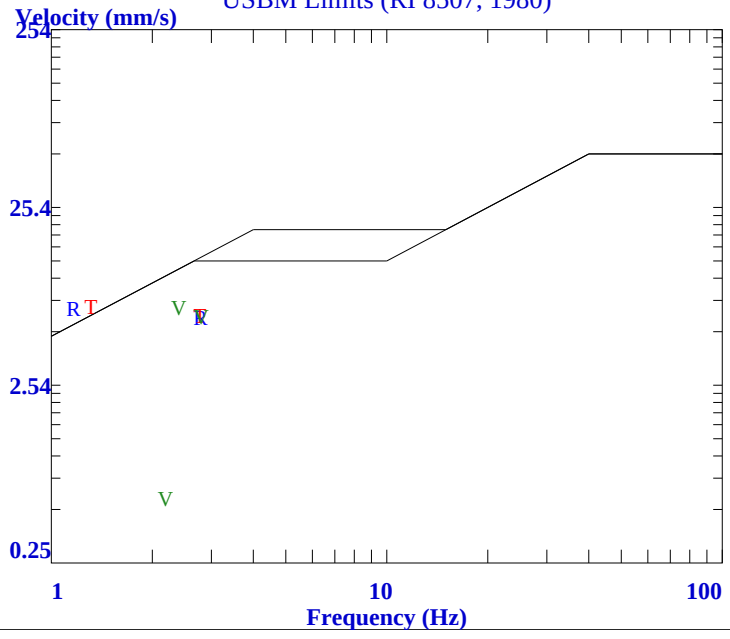
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



File: Evt6.ns8

Version 2.0.1.9 (07Nov2019(m))

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

7/4/2022 at 12:00 am Event # 6

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:02 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.48 mm/s

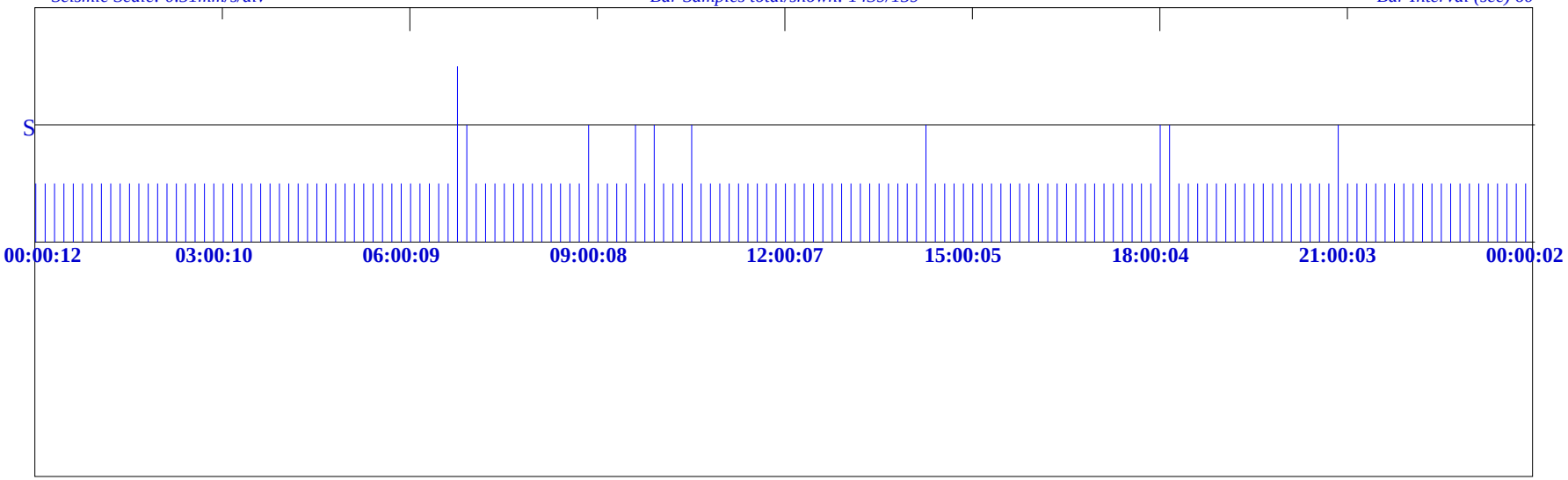
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	0.381	0.381	0.381
Frequency (Hz)	68.27	15.75	40.96
Time	6:50:30 am	6:51:05 am	6:50:30 am

BarGraph

Seismic Scale: 0.51mm/s/div

Bar Samples total/shown: 1439/159

Summary Interval (min): 5
Bar Interval (sec) 60



<<<<<<<<<<<<<<< 23:59:50 >>>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 7/4/2022 12:00:12 am
End: 8/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 2.01 Hz
Radial: 0.381 (mm/s) @ 68.27 Hz @ 6:50:30 am
Transverse: 0.381 (mm/s) @ 15.75 Hz @ 6:51:05 am
Vertical: 0.381 (mm/s) @ 40.96 Hz @ 6:50:30 am
Vector Sum: .48 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:12	0.127	8.605	0:01:05	0.127	13.299	0:02:04	0.127	9.394	0:04:11	0.22
2	0:05:12	0.127	9.225	0:08:47	0.127	15.284	0:07:03	0.127	9.752	0:09:30	0.22
3	0:10:12	0.127	7.817	0:14:51	0.127	13.653	0:11:25	0.127	9.942	0:13:57	0.22
4	0:15:12	0.127	7.699	0:17:38	0.127	14.027	0:15:33	0.127	9.394	0:19:48	0.22
5	0:20:12	0.127	7.161	0:22:10	0.127	12.962	0:20:55	0.127	8.752	0:21:12	0.22
6	0:25:12	0.127	9.062	0:25:45	0.127	15.284	0:26:41	0.127	9.225	0:26:31	0.22
7	0:30:12	0.127	10.139	0:33:02	0.127	16.254	0:32:49	0.127	8.463	0:32:53	0.22
8	0:35:12	0.127	10.557	0:40:05	0.127	14.027	0:37:18	0.127	8.463	0:35:52	0.22
9	0:40:12	0.127	10.343	0:42:50	0.127	13.653	0:42:34	0.127	7.585	0:43:47	0.22
10	0:45:12	0.127	9.57	0:46:47	0.127	14.423	0:45:18	0.127	9.942	0:46:04	0.22
11	0:50:12	0.127	8.463	0:53:48	0.127	14.027	0:50:13	0.127	8.063	0:51:32	0.22
12	0:55:12	0.127	9.394	0:56:32	0.127	11.506	0:56:02	0.127	8.605	0:55:23	0.22
13	1:00:12	0.127	9.225	1:04:56	0.127	11.77	1:03:49	0.127	8.605	1:02:41	0.22
14	1:05:12	0.127	9.394	1:05:27	0.127	13.299	1:05:52	0.127	8.605	1:09:03	0.22
15	1:10:12	0.127	8.463	1:11:31	0.127	12.047	1:12:04	0.127	9.57	1:11:35	0.22
16	1:15:12	0.127	9.394	1:16:26	0.127	13.653	1:16:54	0.127	10.557	1:18:31	0.22
17	1:20:12	0.127	10.779	1:20:58	0.127	14.423	1:23:53	0.127	8.325	1:24:12	0.22
18	1:25:12	0.127	8.463	1:29:57	0.127	14.841	1:26:18	0.127	8.904	1:25:42	0.22
19	1:30:12	0.127	6.966	1:33:59	0.127	15.284	1:31:12	0.127	9.942	1:30:38	0.22
20	1:35:12	0.127	9.062	1:39:01	0.127	14.423	1:39:31	0.127	8.463	1:35:40	0.22
21	1:40:12	0.127	9.57	1:44:32	0.127	15.284	1:43:18	0.127	8.325	1:42:00	0.22
22	1:45:12	0.127	6.872	1:46:41	0.127	15.284	1:46:26	0.127	9.225	1:46:09	0.22
23	1:50:12	0.127	9.394	1:50:15	0.127	12.962	1:54:55	0.127	8.752	1:54:36	0.22
24	1:55:12	0.127	10.139	1:55:31	0.127	15.284	1:55:27	0.127	6.872	1:59:25	0.22
25	2:00:12	0.127	7.938	2:04:12	0.127	12.962	2:02:10	0.127	9.942	2:04:45	0.22
26	2:05:12	0.127	9.062	2:07:16	0.127	16.254	2:05:36	0.127	10.343	2:09:10	0.22
27	2:10:12	0.127	9.225	2:10:24	0.127	15.754	2:11:20	0.127	10.139	2:10:20	0.22
28	2:15:12	0.127	9.062	2:18:51	0.127	12.642	2:18:51	0.127	9.225	2:18:59	0.22
29	2:20:12	0.127	9.394	2:20:49	0.127	12.642	2:22:52	0.127	11.011	2:22:53	0.22
30	2:25:12	0.127	9.752	2:28:15	0.127	14.841	2:26:14	0.127	10.779	2:26:27	0.22
31	2:30:12	0.127	6.693	2:34:24	0.127	13.653	2:33:14	0.127	9.062	2:31:42	0.22
32	2:35:12	0.127	8.463	2:38:16	0.127	15.754	2:38:46	0.127	9.57	2:37:45	0.22
33	2:40:12	0.127	9.394	2:42:38	0.127	14.841	2:40:17	0.127	10.139	2:41:54	0.22
34	2:45:12	0.127	9.225	2:45:32	0.127	14.841	2:46:48	0.127	8.752	2:48:49	0.22
35	2:50:12	0.127	8.325	2:51:20	0.127	14.423	2:53:02	0.127	9.57	2:54:22	0.22
36	2:55:12	0.127	9.942	2:57:46	0.127	10.139	2:58:12	0.127	7.161	2:55:16	0.22
37	3:00:12	0.127	8.325	3:00:31	0.127	16.254	3:02:13	0.127	9.394	3:01:03	0.22
38	3:05:12	0.127	9.225	3:06:09	0.127	9.062	3:09:03	0.127	9.225	3:07:34	0.22
39	3:10:12	0.127	9.57	3:14:10	0.127	11.506	3:12:32	0.127	9.942	3:13:23	0.22
40	3:15:12	0.127	9.942	3:16:32	0.127	14.027	3:17:35	0.127	9.394	3:18:52	0.22
41	3:20:12	0.127	7.817	3:23:11	0.127	13.299	3:22:32	0.127	10.139	3:20:52	0.22
42	3:25:12	0.127	9.942	3:29:28	0.127	14.027	3:26:11	0.127	9.752	3:29:59	0.22
43	3:30:12	0.127	7.062	3:30:37	0.127	13.299	3:33:06	0.127	7.817	3:30:59	0.22
44	3:35:12	0.127	8.325	3:39:07	0.127	10.779	3:37:26	0.127	9.57	3:35:48	0.22
45	3:40:12	0.127	9.225	3:43:20	0.127	14.841	3:43:12	0.127	10.343	3:44:34	0.22
46	3:45:12	0.127	9.942	3:47:56	0.127	15.754	3:47:55	0.127	8.605	3:47:01	0.22
47	3:50:12	0.127	7.699	3:53:26	0.127	15.284	3:51:10	0.127	9.57	3:51:20	0.22
48	3:55:12	0.127	9.225	3:59:48	0.127	12.337	3:59:55	0.127	8.325	3:57:33	0.22
49	4:00:12	0.127	9.752	4:03:26	0.127	15.284	4:01:29	0.127	9.752	4:03:25	0.22
50	4:05:12	0.127	8.325	4:08:18	0.127	10.139	4:08:34	0.127	8.063	4:09:04	0.22
51	4:10:12	0.127	8.904	4:11:11	0.127	17.356	4:10:53	0.127	8.192	4:12:27	0.22
52	4:15:12	0.127	8.605	4:15:54	0.127	15.754	4:18:49	0.127	10.779	4:16:24	0.22
53	4:20:12	0.127	8.605	4:23:08	0.127	12.962	4:25:01	0.127	8.904	4:25:11	0.22
54	4:25:12	0.127	10.343	4:29:15	0.127	12.642	4:25:17	0.127	10.139	4:26:30	0.22
55	4:30:12	0.127	7.474	4:30:57	0.127	12.962	4:32:18	0.127	8.325	4:34:49	0.22
56	4:35:12	0.127	9.394	4:38:04	0.127	15.284	4:38:26	0.127	7.938	4:36:11	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 7/4/2022 12:00:12 am
End: 8/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 2.01 Hz
Radial: 0.381 (mm/s) @ 68.27 Hz @ 6:50:30 am
Transverse: 0.381 (mm/s) @ 15.75 Hz @ 6:51:05 am
Vertical: 0.381 (mm/s) @ 40.96 Hz @ 6:50:30 am
Vector Sum: .48 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:12	0.127	8.192	4:40:53	0.127	14.423	4:41:05	0.127	8.904	4:43:13	0.22
58	4:45:12	0.127	9.062	4:48:51	0.127	14.841	4:49:21	0.127	9.062	4:48:58	0.22
59	4:50:12	0.127	8.605	4:50:53	0.127	13.299	4:51:12	0.127	8.904	4:54:36	0.22
60	4:55:12	0.127	8.904	4:55:51	0.127	15.284	4:56:17	0.127	9.57	4:58:49	0.22
61	5:00:12	0.127	8.463	5:02:11	0.127	11.506	5:04:26	0.127	9.942	5:02:48	0.22
62	5:05:12	0.127	8.605	5:07:03	0.127	12.337	5:07:29	0.127	8.752	5:07:20	0.22
63	5:10:12	0.127	10.139	5:15:03	0.127	14.027	5:14:18	0.127	7.474	5:15:08	0.22
64	5:15:12	0.127	7.585	5:16:14	0.127	12.642	5:16:56	0.127	8.904	5:19:48	0.22
65	5:20:12	0.127	9.225	5:21:51	0.127	16.254	5:21:20	0.127	10.557	5:20:55	0.22
66	5:25:12	0.127	9.752	5:27:29	0.127	16.254	5:25:16	0.127	9.394	5:25:56	0.22
67	5:30:12	0.127	9.752	5:32:10	0.127	12.337	5:31:45	0.127	8.904	5:32:15	0.22
68	5:35:12	0.127	8.605	5:38:46	0.127	13.653	5:38:02	0.127	10.557	5:37:29	0.22
69	5:40:12	0.127	9.57	5:44:07	0.127	15.754	5:41:21	0.127	7.585	5:40:51	0.22
70	5:45:12	0.127	8.463	5:46:04	0.127	15.284	5:47:26	0.127	7.938	5:46:36	0.22
71	5:50:12	0.127	8.904	5:50:47	0.127	12.642	5:52:58	0.127	8.463	5:53:00	0.22
72	5:55:12	0.127	9.225	5:55:26	0.127	14.841	6:00:10	0.127	9.062	5:56:51	0.22
73	6:00:12	0.127	10.139	6:00:52	0.127	13.299	6:01:35	0.127	10.343	6:00:34	0.22
74	6:05:12	0.127	8.904	6:10:01	0.127	12.337	6:06:19	0.127	9.225	6:07:51	0.22
75	6:10:12	0.127	7.817	6:12:13	0.127	12.962	6:13:14	0.127	7.817	6:13:36	0.22
76	6:15:12	0.127	7.474	6:19:16	0.127	12.962	6:19:15	0.127	8.752	6:19:33	0.22
77	6:20:12	0.127	7.474	6:21:57	0.127	11.011	6:20:52	0.127	7.585	6:23:03	0.22
78	6:25:12	0.127	7.262	6:28:40	0.127	12.642	6:25:13	0.127	9.57	6:28:24	0.22
79	6:30:12	0.127	8.063	6:30:36	0.127	10.557	6:30:48	0.127	8.904	6:32:19	0.22
80	6:35:12	0.127	8.752	6:39:24	0.127	12.962	6:39:30	0.127	8.605	6:36:18	0.22
81	6:40:12	0.127	7.938	6:45:04	0.127	12.962	6:41:47	0.127	8.463	6:43:12	0.22
82	6:45:12	0.127	7.062	6:47:12	0.127	9.394	6:45:12	0.127	9.752	6:45:17	0.22
83	6:50:12	0.381	68.267	6:50:30	0.381	15.754	6:51:05	0.381	40.96	6:50:30	0.475
84	6:55:12	0.254	78.769	6:55:24	0.254	48.762	6:55:34	0.254	33.032	6:55:12	0.311
85	7:00:12	0.127	6.44	7:00:33	0.127	10.139	7:03:47	0.254	68.267	7:00:48	0.254
86	7:05:12	0.127	7.161	7:07:16	0.127	11.253	7:07:07	0.127	9.062	7:06:58	0.22
87	7:10:12	0.127	6.966	7:13:34	0.127	14.423	7:11:16	0.127	8.605	7:14:45	0.22
88	7:15:12	0.127	8.752	7:15:19	0.127	12.047	7:15:33	0.127	9.062	7:16:05	0.22
89	7:20:12	0.127	8.325	7:21:11	0.127	11.011	7:23:42	0.127	6.872	7:21:16	0.22
90	7:25:12	0.127	8.192	7:27:29	0.127	12.337	7:27:39	0.127	8.752	7:29:34	0.22
91	7:30:12	0.127	7.474	7:31:33	0.127	14.841	7:33:15	0.127	9.394	7:35:08	0.22
92	7:35:12	0.127	8.752	7:35:49	0.127	12.337	7:39:52	0.127	8.904	7:35:54	0.22
93	7:40:12	0.127	8.192	7:41:02	0.127	12.642	7:40:48	0.127	9.752	7:45:06	0.22
94	7:45:12	0.127	8.063	7:45:45	0.127	11.77	7:50:01	0.127	7.161	7:46:44	0.22
95	7:50:12	0.127	8.192	7:51:34	0.127	12.337	7:51:29	0.127	7.585	7:51:47	0.22
96	7:55:12	0.127	8.325	7:55:56	0.127	9.57	7:58:11	0.127	9.752	7:58:16	0.22
97	8:00:12	0.127	8.192	8:00:23	0.127	9.57	8:00:22	0.127	8.325	8:03:56	0.22
98	8:05:12	0.127	7.585	8:06:12	0.127	11.77	8:07:26	0.127	7.585	8:06:06	0.22
99	8:10:12	0.127	7.938	8:14:59	0.127	14.027	8:11:27	0.127	7.938	8:14:58	0.22
100	8:15:12	0.127	7.817	8:20:02	0.127	13.653	8:15:38	0.127	9.225	8:16:28	0.22
101	8:20:12	0.127	7.699	8:21:37	0.127	12.047	8:21:55	0.127	9.394	8:24:56	0.22
102	8:25:12	0.127	7.062	8:28:32	0.127	11.506	8:26:37	0.127	9.752	8:28:11	0.22
103	8:30:12	0.127	6.872	8:35:09	0.127	9.394	8:31:30	0.127	8.063	8:32:21	0.22
104	8:35:12	0.127	7.474	8:37:46	0.127	11.77	8:38:24	0.127	7.938	8:38:59	0.22
105	8:40:12	0.127	7.699	8:44:56	0.127	10.779	8:43:27	0.127	7.817	8:43:55	0.22
106	8:45:12	0.127	8.325	8:45:20	0.127	12.642	8:45:33	0.127	6.966	8:45:20	0.22
107	8:50:12	0.127	8.063	8:54:32	0.127	10.343	8:51:26	0.254	7.938	8:53:14	0.284
108	8:55:12	0.127	8.325	8:56:23	0.127	10.557	8:55:39	0.127	8.192	8:59:44	0.22
109	9:00:12	0.127	7.161	9:02:27	0.127	9.57	9:03:04	0.127	7.699	9:00:48	0.22
110	9:05:12	0.127	5.988	9:08:50	0.127	11.011	9:08:14	0.127	7.699	9:06:23	0.22
111	9:10:12	0.127	7.161	9:10:24	0.127	11.77	9:12:49	0.127	8.063	9:11:17	0.22
112	9:15:12	0.127	7.161	9:19:30	0.127	10.139	9:15:20	0.127	7.699	9:17:54	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 7/4/2022 12:00:12 am
End: 8/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 2.01 Hz
Radial: 0.381 (mm/s) @ 68.27 Hz @ 6:50:30 am
Transverse: 0.381 (mm/s) @ 15.75 Hz @ 6:51:05 am
Vertical: 0.381 (mm/s) @ 40.96 Hz @ 6:50:30 am
Vector Sum: .48 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:12	0.127	9.225	9:20:14	0.127	11.253	9:24:12	0.127	8.605	9:21:10	0.22
114	9:25:12	0.127	6.966	9:25:51	0.127	10.779	9:27:20	0.127	8.325	9:28:24	0.22
115	9:30:12	0.127	6.966	9:32:26	0.127	12.962	9:31:07	0.127	8.605	9:32:12	0.22
116	9:35:12	0.127	7.367	9:37:07	0.127	10.139	9:36:31	0.127	8.605	9:36:35	0.22
117	9:40:12	0.127	7.262	9:40:42	0.127	11.253	9:42:14	0.254	68.267	9:41:47	0.254
118	9:45:12	0.127	8.325	9:47:13	0.127	11.506	9:48:15	0.127	8.325	9:46:48	0.22
119	9:50:12	0.127	7.367	9:51:41	0.127	8.904	9:52:42	0.127	9.225	9:52:58	0.22
120	9:55:12	0.127	4.214	9:55:14	0.254	27.676	9:55:36	0.254	33.032	9:55:35	0.311
121	10:00:12	0.127	7.699	10:03:44	0.127	10.557	10:02:42	0.127	8.063	10:00:52	0.22
122	10:05:12	0.127	8.904	10:08:07	0.127	10.779	10:06:19	0.127	9.752	10:07:05	0.22
123	10:10:12	0.127	7.262	10:12:07	0.127	12.047	10:11:04	0.127	8.063	10:10:56	0.22
124	10:15:12	0.127	7.161	10:18:59	0.127	11.253	10:18:15	0.127	8.063	10:16:07	0.22
125	10:20:12	0.127	8.192	10:23:02	0.127	12.337	10:24:09	0.127	8.463	10:23:54	0.22
126	10:25:12	0.127	6.059	10:28:22	0.127	8.063	10:25:33	0.127	8.063	10:26:52	0.22
127	10:30:12	0.127	8.192	10:31:44	0.127	10.343	10:34:22	0.254	8.325	10:30:47	0.311
128	10:35:12	0.127	7.474	10:37:59	0.127	10.779	10:39:51	0.127	8.752	10:38:37	0.22
129	10:40:12	0.127	7.161	10:42:19	0.127	11.77	10:40:17	0.127	8.463	10:44:28	0.22
130	10:45:12	0.127	7.699	10:48:42	0.127	9.942	10:46:21	0.127	8.063	10:48:26	0.22
131	10:50:12	0.127	7.062	10:53:35	0.127	10.779	10:53:35	0.127	7.161	10:50:28	0.22
132	10:55:12	0.127	7.062	10:57:32	0.127	12.962	10:58:39	0.127	7.817	10:56:58	0.22
133	11:00:12	0.127	7.474	11:04:15	0.127	11.253	11:01:15	0.127	9.225	11:01:01	0.22
134	11:05:12	0.127	5.657	11:09:56	0.127	7.262	11:09:35	0.127	5.306	11:07:19	0.22
135	11:10:12	0.127	7.817	11:10:59	0.127	12.337	11:12:46	0.127	7.367	11:12:21	0.22
136	11:15:12	0.127	8.605	11:18:42	0.127	9.752	11:18:54	0.127	8.192	11:18:47	0.22
137	11:20:12	0.127	7.699	11:24:55	0.127	11.011	11:20:24	0.127	6.606	11:20:28	0.22
138	11:25:12	0.127	7.699	11:27:34	0.127	10.139	11:28:08	0.127	7.699	11:27:46	0.22
139	11:30:12	0.127	7.474	11:32:39	0.127	12.337	11:31:08	0.127	8.192	11:31:11	0.22
140	11:35:12	0.127	8.605	11:39:56	0.127	11.506	11:39:53	0.127	5.476	11:36:12	0.22
141	11:40:12	0.127	8.192	11:42:02	0.127	10.779	11:43:40	0.127	6.693	11:42:42	0.22
142	11:45:12	0.127	6.781	11:46:59	0.127	12.337	11:47:48	0.127	8.463	11:47:17	0.22
143	11:50:12	0.127	7.474	11:53:32	0.127	12.337	11:54:45	0.127	7.585	11:53:04	0.22
144	11:55:12	0.127	6.606	11:58:44	0.127	10.343	11:58:52	0.127	8.463	11:55:17	0.22
145	12:00:12	0.127	5.988	12:02:18	0.127	9.062	12:02:13	0.127	8.463	12:00:13	0.22
146	12:05:12	0.127	7.474	12:07:22	0.127	10.557	12:07:21	0.127	8.605	12:07:31	0.22
147	12:10:12	0.127	8.063	12:13:18	0.127	11.253	12:11:46	0.127	9.225	12:10:24	0.22
148	12:15:12	0.127	5.785	12:19:45	0.127	8.325	12:16:59	0.127	7.585	12:18:05	0.22
149	12:20:12	0.127	7.585	12:20:45	0.127	10.779	12:22:14	0.127	9.062	12:21:34	0.22
150	12:25:12	0.127	8.463	12:27:47	0.127	11.011	12:30:08	0.127	9.394	12:26:57	0.22
151	12:30:12	0.127	6.206	12:33:00	0.127	9.57	12:33:10	0.127	9.57	12:31:39	0.22
152	12:35:12	0.127	6.132	12:37:18	0.127	8.192	12:38:46	0.127	8.063	12:37:29	0.22
153	12:40:12	0.127	7.161	12:44:34	0.127	13.299	12:41:16	0.127	8.192	12:43:25	0.22
154	12:45:12	0.127	5.095	12:48:19	0.127	10.779	12:48:16	0.127	8.752	12:48:44	0.22
155	12:50:12	0.127	8.325	12:51:34	0.127	12.337	12:52:15	0.127	8.192	12:51:11	0.22
156	12:55:12	0.127	5.721	12:57:03	0.127	12.337	12:57:11	0.127	8.463	12:57:13	0.22
157	13:00:12	0.127	7.817	13:02:23	0.127	12.962	13:01:28	0.127	7.262	13:03:11	0.22
158	13:05:12	0.127	8.192	13:06:02	0.127	14.423	13:09:13	0.127	6.966	13:06:29	0.22
159	13:10:12	0.127	6.606	13:14:09	0.127	12.962	13:10:26	0.127	7.585	13:14:43	0.22
160	13:15:12	0.127	8.752	13:19:26	0.127	11.011	13:16:12	0.127	8.063	13:18:38	0.22
161	13:20:12	0.127	8.192	13:24:19	0.127	12.047	13:21:54	0.127	8.904	13:25:06	0.22
162	13:25:12	0.127	6.606	13:28:14	0.127	12.642	13:28:23	0.127	8.192	13:28:43	0.22
163	13:30:12	0.127	7.062	13:32:59	0.127	12.962	13:34:43	0.127	8.325	13:34:37	0.22
164	13:35:12	0.127	9.062	13:37:54	0.127	7.699	13:38:31	0.127	7.262	13:39:51	0.22
165	13:40:12	0.127	6.206	13:44:14	0.127	9.394	13:43:14	0.127	6.522	13:42:47	0.22
166	13:45:12	0.127	5.988	13:47:33	0.127	12.962	13:49:53	0.127	7.367	13:45:20	0.22
167	13:50:12	0.127	7.817	13:50:39	0.127	10.779	13:52:18	0.127	7.367	13:50:58	0.22
168	13:55:12	0.127	6.44	13:58:44	0.127	9.062	13:56:33	0.127	7.938	13:59:32	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 7/4/2022 12:00:12 am
End: 8/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 2.01 Hz
Radial: 0.381 (mm/s) @ 68.27 Hz @ 6:50:30 am
Transverse: 0.381 (mm/s) @ 15.75 Hz @ 6:51:05 am
Vertical: 0.381 (mm/s) @ 40.96 Hz @ 6:50:30 am
Vector Sum: .48 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:12	0.127	7.474	14:01:29	0.127	7.938	14:03:56	0.127	6.059	14:01:32	0.22
170	14:05:12	0.127	7.938	14:06:25	0.127	9.062	14:07:25	0.127	9.225	14:08:49	0.22
171	14:10:12	0.127	8.752	14:13:38	0.127	11.77	14:11:21	0.127	8.325	14:13:39	0.22
172	14:15:12	0.127	8.325	14:17:57	0.127	10.139	14:15:33	0.127	7.585	14:15:42	0.22
173	14:20:12	0.127	5.785	14:21:18	0.127	10.139	14:23:26	0.254	8.463	14:20:40	0.311
174	14:25:12	0.127	7.262	14:25:49	0.127	10.779	14:25:18	0.127	6.522	14:28:28	0.22
175	14:30:12	0.127	7.474	14:33:53	0.127	10.557	14:31:29	0.127	8.063	14:32:45	0.22
176	14:35:12	0.127	8.192	14:36:04	0.127	9.942	14:38:45	0.127	8.325	14:39:20	0.22
177	14:40:12	0.127	8.063	14:40:37	0.127	9.225	14:40:45	0.127	7.474	14:42:24	0.22
178	14:45:12	0.127	7.938	14:47:20	0.127	11.253	14:50:07	0.127	6.966	14:45:20	0.22
179	14:50:12	0.127	6.606	14:50:38	0.127	12.047	14:50:14	0.127	7.699	14:52:08	0.22
180	14:55:12	0.127	6.522	14:57:12	0.127	10.779	14:59:15	0.127	7.817	14:55:52	0.22
181	15:00:12	0.127	8.192	15:03:38	0.127	10.779	15:02:30	0.127	8.463	15:00:16	0.22
182	15:05:12	0.127	5.851	15:07:38	0.127	11.77	15:09:12	0.127	8.752	15:09:01	0.22
183	15:10:12	0.127	8.325	15:13:28	0.127	9.57	15:12:38	0.127	7.367	15:13:28	0.22
184	15:15:12	0.127	8.463	15:15:36	0.127	12.642	15:15:36	0.127	8.325	15:16:55	0.22
185	15:20:12	0.127	6.872	15:21:23	0.127	10.343	15:21:09	0.127	6.781	15:22:14	0.22
186	15:25:12	0.127	7.367	15:27:24	0.127	10.343	15:26:57	0.127	6.781	15:28:36	0.22
187	15:30:12	0.127	7.699	15:30:17	0.127	12.642	15:33:11	0.127	8.192	15:34:14	0.22
188	15:35:12	0.127	5.785	15:37:52	0.127	11.011	15:37:35	0.127	8.463	15:37:34	0.22
189	15:40:12	0.127	8.463	15:41:02	0.127	8.325	15:42:57	0.127	7.585	15:40:20	0.22
190	15:45:12	0.127	7.367	15:47:18	0.127	11.77	15:49:58	0.127	6.781	15:47:10	0.22
191	15:50:12	0.127	6.872	15:54:18	0.127	12.047	15:54:05	0.127	8.063	15:51:22	0.22
192	15:55:12	0.127	7.062	15:58:04	0.127	12.047	15:59:13	0.127	7.474	15:59:30	0.22
193	16:00:12	0.127	9.062	16:02:13	0.127	12.337	16:02:10	0.127	9.062	16:02:05	0.22
194	16:05:12	0.127	8.192	16:05:42	0.127	10.779	16:09:38	0.127	8.463	16:06:03	0.22
195	16:10:12	0.127	7.817	16:12:24	0.127	9.394	16:14:27	0.127	7.817	16:13:52	0.22
196	16:15:12	0.127	6.966	16:16:06	0.127	11.011	16:15:29	0.127	7.817	16:18:13	0.22
197	16:20:12	0.127	7.585	16:22:40	0.127	10.779	16:21:12	0.127	7.938	16:22:07	0.22
198	16:25:12	0.127	8.063	16:25:19	0.127	9.752	16:28:09	0.127	7.367	16:25:17	0.22
199	16:30:12	0.127	8.192	16:33:25	0.127	12.962	16:32:54	0.127	9.225	16:31:58	0.22
200	16:35:12	0.127	8.605	16:36:21	0.127	11.253	16:39:59	0.127	7.699	16:35:44	0.22
201	16:40:12	0.127	7.262	16:43:11	0.127	8.605	16:44:17	0.127	7.938	16:42:53	0.22
202	16:45:12	0.127	7.161	16:49:54	0.127	11.253	16:45:13	0.127	7.938	16:46:04	0.22
203	16:50:12	0.127	8.904	16:50:27	0.127	11.253	16:50:24	0.127	9.062	16:50:46	0.22
204	16:55:12	0.127	7.817	16:59:56	0.127	11.506	16:55:45	0.127	7.585	16:56:35	0.22
205	17:00:12	0.127	5.657	17:02:13	0.127	10.779	17:00:09	0.127	7.585	17:04:03	0.22
206	17:05:12	0.127	8.605	17:08:42	0.127	10.557	17:09:34	0.127	7.699	17:06:53	0.22
207	17:10:12	0.127	7.699	17:12:30	0.127	11.506	17:12:22	0.127	5.988	17:12:29	0.22
208	17:15:12	0.127	9.57	17:17:25	0.127	12.337	17:17:18	0.127	6.693	17:18:42	0.22
209	17:20:12	0.127	6.966	17:21:09	0.127	12.642	17:21:32	0.127	7.817	17:21:28	0.22
210	17:25:12	0.127	8.463	17:26:35	0.127	11.77	17:25:44	0.127	9.225	17:27:48	0.22
211	17:30:12	0.127	7.938	17:34:00	0.127	12.047	17:35:04	0.127	9.225	17:34:03	0.22
212	17:35:12	0.127	6.44	17:35:33	0.127	10.779	17:40:02	0.127	6.606	17:35:24	0.22
213	17:40:12	0.127	7.161	17:41:28	0.127	10.557	17:41:59	0.127	8.325	17:42:44	0.22
214	17:45:12	0.127	7.474	17:48:31	0.127	11.77	17:45:41	0.127	8.192	17:47:16	0.22
215	17:50:12	0.127	6.132	17:53:45	0.127	11.506	17:52:23	0.127	8.325	17:50:48	0.22
216	17:55:12	0.127	8.463	17:57:44	0.127	12.962	17:58:31	0.127	7.585	17:59:23	0.22
217	18:00:12	0.127	8.463	18:03:36	0.254	93.091	18:00:25	0.254	93.091	18:00:25	0.284
218	18:05:12	0.127	6.966	18:05:26	0.127	8.463	18:08:29	0.127	8.752	18:08:48	0.22
219	18:10:12	0.127	6.606	18:12:21	0.127	12.047	18:11:54	0.254	40.96	18:12:27	0.284
220	18:15:12	0.127	8.463	18:16:32	0.127	11.77	18:17:38	0.127	8.325	18:19:07	0.22
221	18:20:12	0.127	7.161	18:23:09	0.127	11.506	18:24:38	0.127	8.463	18:22:34	0.22
222	18:25:12	0.127	7.699	18:27:46	0.127	7.474	18:29:51	0.127	8.063	18:29:15	0.22
223	18:30:12	0.127	7.585	18:34:37	0.127	9.225	18:32:36	0.127	7.262	18:32:59	0.22
224	18:35:12	0.127	7.817	18:38:26	0.127	14.841	18:40:05	0.127	9.394	18:36:44	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 7/4/2022 12:00:12 am
End: 8/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 2.01 Hz
Radial: 0.381 (mm/s) @ 68.27 Hz @ 6:50:30 am
Transverse: 0.381 (mm/s) @ 15.75 Hz @ 6:51:05 am
Vertical: 0.381 (mm/s) @ 40.96 Hz @ 6:50:30 am
Vector Sum: .48 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:12	0.127	8.192	18:44:30	0.127	10.343	18:41:32	0.127	8.463	18:41:07	0.22
226	18:45:12	0.127	7.699	18:49:01	0.127	12.642	18:45:34	0.127	7.817	18:47:16	0.22
227	18:50:12	0.127	9.225	18:50:52	0.127	14.841	18:51:01	0.127	8.463	18:50:34	0.22
228	18:55:12	0.127	6.522	18:57:12	0.127	10.779	18:59:03	0.127	8.325	18:59:46	0.22
229	19:00:12	0.127	9.062	19:02:24	0.127	9.225	19:00:49	0.127	8.752	19:01:06	0.22
230	19:05:12	0.127	7.699	19:05:59	0.127	12.962	19:06:27	0.127	8.063	19:08:45	0.22
231	19:10:12	0.127	8.752	19:10:14	0.127	13.653	19:14:31	0.127	7.817	19:12:09	0.22
232	19:15:12	0.127	8.752	19:17:35	0.127	12.642	19:16:32	0.127	9.752	19:15:21	0.22
233	19:20:12	0.127	8.463	19:23:10	0.127	14.027	19:22:09	0.127	9.394	19:22:08	0.22
234	19:25:12	0.127	8.752	19:28:31	0.127	12.047	19:28:52	0.127	8.463	19:26:19	0.22
235	19:30:12	0.127	7.585	19:33:54	0.127	10.343	19:30:17	0.127	6.966	19:34:21	0.22
236	19:35:12	0.127	9.062	19:37:49	0.127	15.284	19:36:28	0.127	9.394	19:38:14	0.22
237	19:40:12	0.127	7.585	19:40:26	0.127	13.299	19:40:11	0.127	8.605	19:40:18	0.22
238	19:45:12	0.127	8.605	19:46:38	0.127	11.253	19:49:07	0.127	8.325	19:47:44	0.22
239	19:50:12	0.127	7.262	19:54:01	0.127	14.027	19:50:50	0.127	8.463	19:54:28	0.22
240	19:55:12	0.127	7.699	19:58:44	0.127	14.423	19:56:44	0.127	6.606	19:58:20	0.22
241	20:00:12	0.127	7.817	20:04:24	0.127	15.284	20:00:15	0.127	9.942	20:04:37	0.22
242	20:05:12	0.127	9.57	20:05:53	0.127	14.841	20:06:00	0.127	8.904	20:06:43	0.22
243	20:10:12	0.127	7.938	20:10:18	0.127	13.299	20:10:46	0.127	8.325	20:10:59	0.22
244	20:15:12	0.127	8.325	20:17:39	0.127	13.299	20:19:52	0.127	8.325	20:17:21	0.22
245	20:20:12	0.127	8.063	20:21:05	0.127	11.011	20:23:20	0.127	8.063	20:24:32	0.22
246	20:25:12	0.127	7.938	20:26:42	0.127	15.284	20:26:36	0.127	8.605	20:29:31	0.22
247	20:30:12	0.127	7.585	20:30:55	0.127	12.962	20:34:01	0.127	8.752	20:31:11	0.22
248	20:35:12	0.127	7.474	20:35:29	0.127	13.653	20:35:36	0.127	8.752	20:37:02	0.22
249	20:40:12	0.127	8.752	20:42:12	0.127	13.299	20:43:58	0.127	8.463	20:40:50	0.22
250	20:45:12	0.127	7.699	20:47:40	0.127	12.962	20:46:04	0.127	8.325	20:46:57	0.22
251	20:50:12	0.127	8.325	20:52:02	0.127	11.011	20:52:17	0.254	8.463	20:53:29	0.311
252	20:55:12	0.127	8.904	20:55:17	0.127	14.027	20:58:28	0.127	8.904	20:56:05	0.22
253	21:00:12	0.127	8.904	21:04:19	0.127	11.253	21:00:08	0.127	9.394	21:04:58	0.22
254	21:05:12	0.127	8.605	21:06:13	0.127	10.557	21:07:20	0.127	8.463	21:09:33	0.22
255	21:10:12	0.127	7.262	21:10:10	0.127	15.284	21:13:13	0.127	8.063	21:12:23	0.22
256	21:15:12	0.127	9.062	21:15:34	0.127	12.642	21:17:36	0.127	8.463	21:15:53	0.22
257	21:20:12	0.127	10.343	21:22:10	0.127	14.423	21:22:25	0.127	9.225	21:21:13	0.22
258	21:25:12	0.127	5.988	21:27:27	0.127	12.962	21:25:53	0.127	8.752	21:29:39	0.22
259	21:30:12	0.127	10.343	21:32:58	0.127	12.047	21:31:20	0.127	9.394	21:32:56	0.22
260	21:35:12	0.127	6.966	21:39:46	0.127	12.047	21:35:08	0.127	9.752	21:39:03	0.22
261	21:40:12	0.127	7.699	21:40:48	0.127	11.011	21:40:43	0.127	9.57	21:44:58	0.22
262	21:45:12	0.127	7.585	21:46:26	0.127	14.841	21:46:52	0.127	8.904	21:48:19	0.22
263	21:50:12	0.127	9.394	21:51:08	0.127	15.754	21:54:44	0.127	8.752	21:53:58	0.22
264	21:55:12	0.127	7.062	21:59:03	0.127	15.754	21:59:52	0.127	7.699	21:57:12	0.22
265	22:00:12	0.127	8.605	22:04:31	0.127	11.77	22:01:08	0.127	8.904	22:02:26	0.22
266	22:05:12	0.127	6.966	22:06:59	0.127	14.841	22:05:50	0.127	8.605	22:08:47	0.22
267	22:10:12	0.127	8.463	22:11:37	0.127	12.642	22:13:42	0.127	9.942	22:11:55	0.22
268	22:15:12	0.127	8.063	22:18:57	0.127	14.027	22:18:46	0.127	8.752	22:16:46	0.22
269	22:20:12	0.127	8.192	22:20:25	0.127	16.254	22:20:37	0.127	8.463	22:23:50	0.22
270	22:25:12	0.127	7.699	22:26:54	0.127	12.642	22:27:10	0.127	9.752	22:28:20	0.22
271	22:30:12	0.127	9.752	22:32:57	0.127	13.299	22:31:37	0.127	9.57	22:33:49	0.22
272	22:35:12	0.127	8.904	22:36:15	0.127	9.942	22:39:05	0.127	9.942	22:37:01	0.22
273	22:40:12	0.127	7.474	22:43:43	0.127	15.284	22:44:07	0.127	9.062	22:42:57	0.22
274	22:45:12	0.127	8.605	22:49:40	0.127	13.299	22:46:07	0.127	10.557	22:49:05	0.22
275	22:50:12	0.127	6.132	22:52:39	0.127	16.254	22:52:02	0.127	10.139	22:54:06	0.22
276	22:55:12	0.127	8.325	22:55:54	0.127	14.027	22:55:15	0.127	10.557	22:58:48	0.22
277	23:00:12	0.127	8.752	23:03:13	0.127	15.754	23:03:04	0.127	6.781	23:04:52	0.22
278	23:05:12	0.127	8.605	23:09:13	0.127	9.942	23:09:15	0.127	10.139	23:06:07	0.22
279	23:10:12	0.127	9.062	23:10:49	0.127	15.754	23:14:23	0.127	8.463	23:14:08	0.22
280	23:15:12	0.127	10.139	23:17:08	0.127	17.356	23:19:25	0.127	9.57	23:15:53	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 7/4/2022 12:00:12 am
End: 8/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 2.01 Hz
Radial: 0.381 (mm/s) @ 68.27 Hz @ 6:50:30 am
Transverse: 0.381 (mm/s) @ 15.75 Hz @ 6:51:05 am
Vertical: 0.381 (mm/s) @ 40.96 Hz @ 6:50:30 am
Vector Sum: .48 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:12	0.127	10.139	23:20:13	0.127	14.423	23:23:47	0.127	9.225	23:23:16	0.22
282	23:25:12	0.127	9.394	23:29:18	0.127	14.027	23:27:06	0.127	8.752	23:29:16	0.22
283	23:30:12	0.127	9.752	23:34:31	0.127	12.962	23:35:04	0.127	9.942	23:30:35	0.22
284	23:35:12	0.127	9.225	23:39:27	0.127	14.841	23:37:20	0.127	9.57	23:36:40	0.22
285	23:40:12	0.127	10.557	23:43:45	0.127	15.284	23:44:30	0.127	9.062	23:43:56	0.22
286	23:45:12	0.127	9.752	23:47:10	0.127	14.841	23:46:23	0.127	9.57	23:48:51	0.22
287	23:50:12	0.127	9.752	23:53:50	0.127	15.754	23:53:01	0.127	7.938	23:53:34	0.22
288	23:55:12	0.127	7.474	23:58:04	0.127	15.754	23:55:44	0.127	11.011	23:55:44	0.22

Version 2.0.1.9 (07Nov2019(m))

File: Evt7.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

8/4/2022 at 12:00 am Event # 7

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

Distance: N Wgt. Per Delay: N Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 562.33 mm/s @ 1.39 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7714**	**12.827**	**12.7476**
Frequency (Hz)	**17.6**	**24.3**	**24.3**

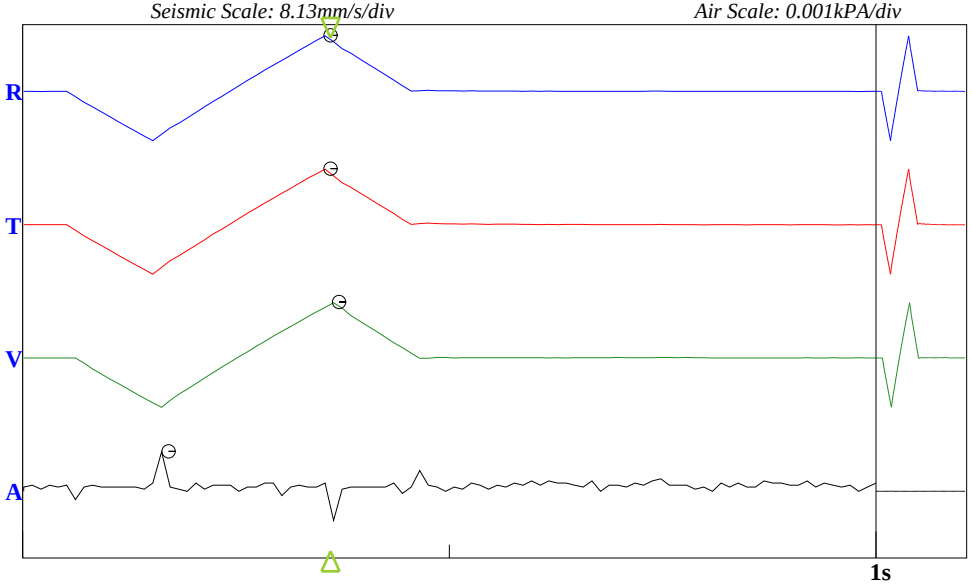
Air

Gain: 1

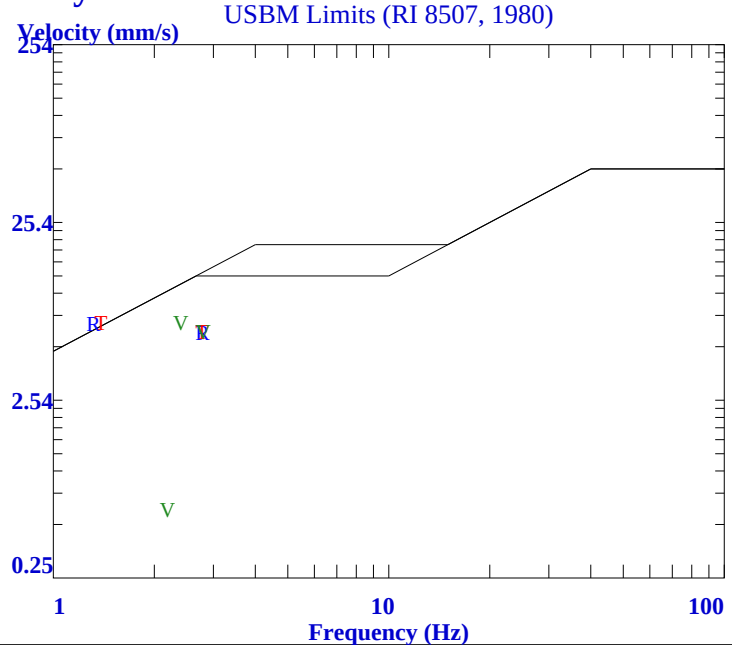
Measurement	Value		
kPA	0.000531		
dBL	**88.5**		
Hz	512.0		

Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div Air Scale: 0.001kPA/div



USBM Limits (RI 8507, 1980)



File: Evt8.ns8

Version 2.0.1.9 (07Nov2019(m))

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

8/4/2022 at 12:00 am Event # 8

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:00 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.36 mm/s

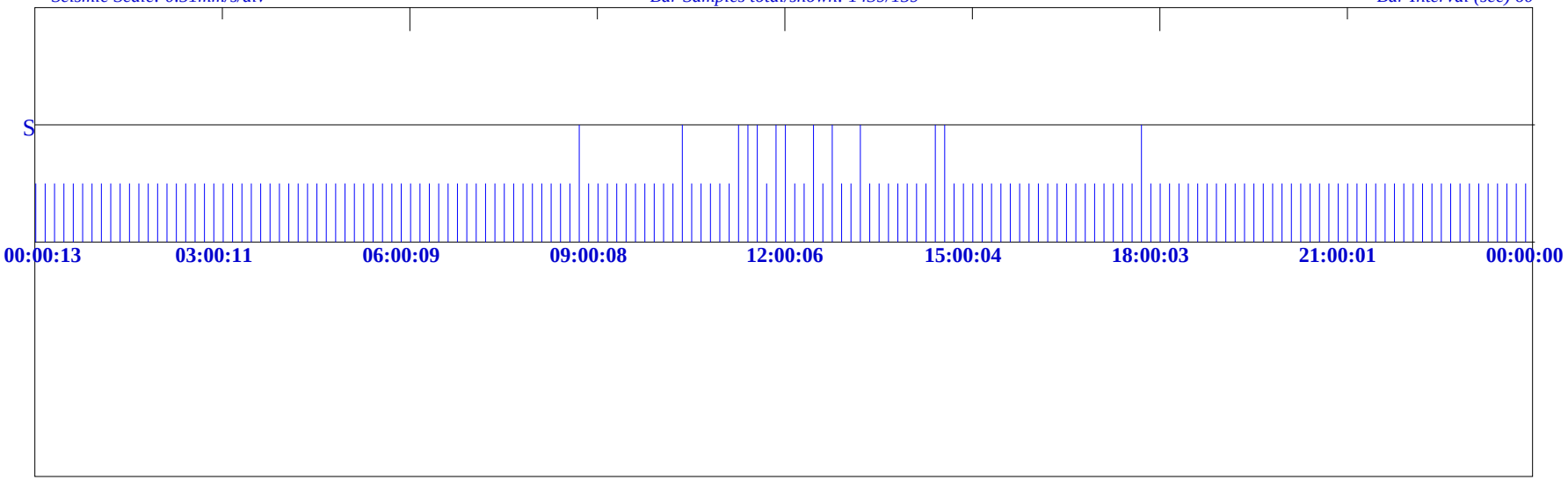
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	0.254	0.254	0.254
Frequency (Hz)	9.94	13.65	8.9
Time	1:16:57 pm	11:19:37 am	11:27:56 am

BarGraph

Seismic Scale: 0.51mm/s/div

Bar Samples total/shown: 1439/159

Summary Interval (min): 5
Bar Interval (sec) 60



<<<<<<<<<<<<<<< 23:59:47 >>>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 8/4/2022 12:00:13 am
End: 9/4/2022
Summary Interval: 288
Air: 81.9 @ 0.44 Hz
Radial: 0.254 (mm/s) @ 9.94 Hz @ 1:16:57 pm
Transverse: 0.254 (mm/s) @ 13.65 Hz @ 11:19:37 am
Vertical: 0.254 (mm/s) @ 8.9 Hz @ 11:27:56 am
Vector Sum: .36 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:13	0.127	8.752	0:02:22	0.127	14.841	0:01:48	0.127	8.904	0:04:51	0.22
2	0:05:13	0.127	8.192	0:06:53	0.127	16.787	0:10:14	0.127	10.557	0:09:17	0.22
3	0:10:13	0.127	9.394	0:13:21	0.127	15.284	0:11:52	0.127	10.343	0:13:24	0.22
4	0:15:13	0.127	9.394	0:18:55	0.127	14.027	0:15:20	0.127	11.011	0:19:16	0.22
5	0:20:13	0.127	9.394	0:23:45	0.127	16.254	0:24:38	0.127	7.938	0:24:05	0.22
6	0:25:13	0.127	9.062	0:25:29	0.127	16.254	0:25:15	0.127	10.343	0:30:14	0.22
7	0:30:13	0.127	9.225	0:32:39	0.127	13.653	0:30:33	0.127	10.139	0:32:59	0.22
8	0:35:13	0.127	8.605	0:36:34	0.127	14.027	0:35:37	0.127	8.904	0:39:09	0.22
9	0:40:13	0.127	11.506	0:42:40	0.127	16.787	0:43:03	0.127	10.557	0:40:44	0.22
10	0:45:13	0.127	10.343	0:48:25	0.127	14.841	0:45:30	0.127	10.139	0:47:42	0.22
11	0:50:13	0.127	9.394	0:52:20	0.127	15.754	0:51:17	0.127	11.253	0:51:24	0.22
12	0:55:13	0.127	9.225	0:57:50	0.127	15.284	0:58:24	0.127	9.225	0:56:12	0.22
13	1:00:13	0.127	11.011	1:00:57	0.127	16.254	1:01:53	0.127	10.139	1:04:18	0.22
14	1:05:13	0.127	8.904	1:09:45	0.127	16.787	1:06:15	0.127	10.779	1:07:11	0.22
15	1:10:13	0.127	8.463	1:12:24	0.127	17.356	1:10:25	0.127	11.011	1:13:59	0.22
16	1:15:13	0.127	11.506	1:16:26	0.127	16.787	1:16:15	0.127	9.57	1:15:32	0.22
17	1:20:13	0.127	9.394	1:20:48	0.127	14.027	1:22:37	0.127	9.394	1:21:50	0.22
18	1:25:13	0.127	8.605	1:26:54	0.127	13.299	1:29:41	0.127	9.942	1:27:37	0.22
19	1:30:13	0.127	8.904	1:34:51	0.127	15.754	1:32:29	0.127	10.779	1:30:45	0.22
20	1:35:13	0.127	8.463	1:37:12	0.127	17.965	1:35:27	0.127	10.779	1:38:38	0.22
21	1:40:13	0.127	7.699	1:42:19	0.127	18.618	1:41:44	0.127	9.57	1:42:03	0.22
22	1:45:13	0.127	7.817	1:48:07	0.127	16.254	1:49:37	0.127	8.463	1:49:32	0.22
23	1:50:13	0.127	9.225	1:51:42	0.127	16.254	1:51:42	0.127	9.942	1:54:22	0.22
24	1:55:13	0.127	9.57	2:00:14	0.127	16.787	1:58:55	0.127	10.557	1:57:34	0.22
25	2:00:13	0.127	10.343	2:04:24	0.127	15.754	2:01:00	0.127	9.752	2:05:04	0.22
26	2:05:13	0.127	9.062	2:09:26	0.127	17.965	2:09:46	0.127	10.139	2:05:48	0.22
27	2:10:13	0.127	9.062	2:10:24	0.127	17.356	2:11:40	0.127	8.063	2:10:26	0.22
28	2:15:13	0.127	10.557	2:15:23	0.127	17.965	2:18:00	0.127	11.506	2:16:58	0.22
29	2:20:13	0.127	8.463	2:20:59	0.127	14.841	2:23:22	0.127	11.506	2:21:18	0.22
30	2:25:13	0.127	9.942	2:27:43	0.127	15.284	2:28:51	0.127	9.942	2:27:34	0.22
31	2:30:13	0.127	9.942	2:34:54	0.127	16.254	2:34:56	0.127	11.506	2:34:39	0.22
32	2:35:13	0.127	9.752	2:37:33	0.127	14.841	2:38:14	0.127	8.463	2:36:22	0.22
33	2:40:13	0.127	10.139	2:42:29	0.127	15.754	2:44:50	0.127	9.394	2:41:00	0.22
34	2:45:13	0.127	10.343	2:46:04	0.127	17.356	2:46:00	0.127	12.047	2:47:39	0.22
35	2:50:13	0.127	9.394	2:53:56	0.127	17.965	2:52:06	0.127	12.962	2:50:49	0.22
36	2:55:13	0.127	9.57	2:59:04	0.127	16.787	2:59:36	0.127	9.394	2:56:43	0.22
37	3:00:13	0.127	9.225	3:03:43	0.127	12.642	3:02:38	0.127	11.77	3:03:34	0.22
38	3:05:13	0.127	10.139	3:05:25	0.127	13.653	3:06:48	0.127	9.57	3:06:47	0.22
39	3:10:13	0.127	9.752	3:10:14	0.127	15.284	3:14:36	0.127	11.011	3:14:07	0.22
40	3:15:13	0.127	9.942	3:19:15	0.127	17.965	3:17:37	0.127	9.225	3:19:02	0.22
41	3:20:13	0.127	11.011	3:21:42	0.127	16.254	3:21:03	0.127	8.192	3:23:03	0.22
42	3:25:13	0.127	11.506	3:28:30	0.127	15.284	3:26:39	0.127	8.325	3:29:50	0.22
43	3:30:13	0.127	9.225	3:32:19	0.127	14.841	3:31:10	0.127	10.779	3:33:19	0.22
44	3:35:13	0.127	8.605	3:39:18	0.127	17.965	3:39:31	0.127	7.262	3:38:28	0.22
45	3:40:13	0.127	11.011	3:40:21	0.127	14.841	3:41:27	0.127	12.047	3:41:35	0.22
46	3:45:13	0.127	9.062	3:48:16	0.127	16.787	3:48:48	0.127	9.394	3:47:26	0.22
47	3:50:13	0.127	10.139	3:50:37	0.127	16.787	3:52:08	0.127	10.779	3:52:18	0.22
48	3:55:13	0.127	10.779	3:56:37	0.127	16.787	3:55:37	0.127	8.192	3:56:24	0.22
49	4:00:13	0.127	11.77	4:05:00	0.127	12.962	4:02:05	0.127	8.904	4:05:00	0.22
50	4:05:13	0.127	9.752	4:09:48	0.127	18.618	4:09:49	0.127	12.047	4:09:44	0.22
51	4:10:13	0.127	8.605	4:14:33	0.127	16.787	4:11:54	0.127	9.752	4:14:20	0.22
52	4:15:13	0.127	8.463	4:17:10	0.127	16.787	4:17:08	0.127	8.063	4:16:55	0.22
53	4:20:13	0.127	7.817	4:20:41	0.127	16.787	4:20:57	0.127	9.394	4:25:06	0.22
54	4:25:13	0.127	10.343	4:29:24	0.127	16.787	4:27:27	0.127	9.394	4:28:13	0.22
55	4:30:13	0.127	11.506	4:33:46	0.127	13.653	4:31:57	0.127	9.394	4:33:19	0.22
56	4:35:13	0.127	10.343	4:39:59	0.127	14.027	4:37:49	0.127	10.779	4:38:24	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 8/4/2022 12:00:13 am
End: 9/4/2022
Summary Interval: 288
Air: 81.9 @ 0.44 Hz
Radial: 0.254 (mm/s) @ 9.94 Hz @ 1:16:57 pm
Transverse: 0.254 (mm/s) @ 13.65 Hz @ 11:19:37 am
Vertical: 0.254 (mm/s) @ 8.9 Hz @ 11:27:56 am
Vector Sum: .36 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:13	0.127	10.139	4:41:20	0.127	16.787	4:44:41	0.127	11.011	4:42:54	0.22
58	4:45:13	0.127	10.139	4:49:30	0.127	14.027	4:49:33	0.127	11.011	4:49:24	0.22
59	4:50:13	0.127	9.225	4:54:47	0.127	14.423	4:51:06	0.127	11.011	4:53:28	0.22
60	4:55:13	0.127	8.752	4:57:47	0.127	16.254	4:55:15	0.127	10.139	4:56:01	0.22
61	5:00:13	0.127	8.904	5:00:39	0.127	14.841	5:03:41	0.127	9.225	5:02:26	0.22
62	5:05:13	0.127	10.139	5:06:26	0.127	17.356	5:07:46	0.127	8.192	5:08:29	0.22
63	5:10:13	0.127	7.262	5:10:27	0.127	14.423	5:13:18	0.127	9.225	5:15:09	0.22
64	5:15:13	0.127	8.192	5:15:48	0.127	12.337	5:17:27	0.127	9.57	5:17:21	0.22
65	5:20:13	0.127	9.752	5:20:29	0.127	13.299	5:23:59	0.127	10.557	5:20:31	0.22
66	5:25:13	0.127	8.463	5:27:21	0.127	14.841	5:28:48	0.127	9.394	5:27:36	0.22
67	5:30:13	0.127	8.904	5:32:08	0.127	15.284	5:31:55	0.127	8.904	5:33:37	0.22
68	5:35:13	0.127	9.225	5:35:17	0.127	13.299	5:38:50	0.127	9.752	5:36:03	0.22
69	5:40:13	0.127	8.325	5:44:44	0.127	12.642	5:44:22	0.127	8.605	5:43:41	0.22
70	5:45:13	0.127	9.062	5:49:25	0.127	12.047	5:49:35	0.127	9.57	5:45:27	0.22
71	5:50:13	0.127	7.262	5:53:15	0.127	12.047	5:53:13	0.127	9.062	5:52:00	0.22
72	5:55:13	0.127	9.062	5:59:15	0.127	13.299	6:00:05	0.127	9.062	5:56:55	0.22
73	6:00:13	0.127	9.062	6:01:47	0.127	14.027	6:03:32	0.127	9.394	6:04:12	0.22
74	6:05:13	0.127	8.192	6:08:03	0.127	15.754	6:06:06	0.127	8.325	6:09:26	0.22
75	6:10:13	0.127	7.938	6:12:04	0.127	14.423	6:11:38	0.127	9.225	6:10:14	0.22
76	6:15:13	0.127	9.752	6:16:42	0.127	9.942	6:15:14	0.127	9.225	6:19:39	0.22
77	6:20:13	0.127	8.325	6:23:08	0.127	15.284	6:20:55	0.127	8.904	6:21:50	0.22
78	6:25:13	0.127	7.938	6:29:31	0.127	12.337	6:26:04	0.127	9.942	6:26:05	0.22
79	6:30:13	0.127	8.192	6:30:32	0.127	15.754	6:32:56	0.127	9.942	6:30:53	0.22
80	6:35:13	0.127	8.904	6:36:47	0.127	15.284	6:36:54	0.127	8.192	6:38:28	0.22
81	6:40:13	0.127	8.605	6:43:33	0.127	14.423	6:40:51	0.127	9.57	6:43:20	0.22
82	6:45:13	0.127	7.474	6:45:50	0.127	15.284	6:45:43	0.127	9.394	6:49:04	0.22
83	6:50:13	0.127	6.522	6:51:43	0.127	12.337	6:54:06	0.127	10.139	6:52:41	0.22
84	6:55:13	0.127	9.225	6:59:35	0.127	13.653	6:57:32	0.127	9.752	6:59:56	0.22
85	7:00:13	0.127	8.063	7:04:30	0.127	10.343	7:03:29	0.127	8.325	7:03:58	0.22
86	7:05:13	0.127	9.062	7:05:44	0.127	12.642	7:05:51	0.127	8.752	7:06:01	0.22
87	7:10:13	0.127	7.367	7:14:16	0.127	12.337	7:12:22	0.127	9.57	7:13:10	0.22
88	7:15:13	0.127	8.605	7:16:05	0.127	8.463	7:18:14	0.127	8.463	7:16:26	0.22
89	7:20:13	0.127	8.325	7:24:59	0.127	12.047	7:22:11	0.127	8.605	7:22:35	0.22
90	7:25:13	0.127	8.463	7:26:26	0.127	10.779	7:28:52	0.127	7.474	7:29:59	0.22
91	7:30:13	0.127	8.463	7:31:54	0.127	12.962	7:33:17	0.127	8.904	7:33:47	0.22
92	7:35:13	0.127	7.062	7:35:28	0.127	11.77	7:38:22	0.127	9.57	7:35:20	0.22
93	7:40:13	0.127	9.062	7:42:37	0.127	10.343	7:40:27	0.127	9.062	7:40:19	0.22
94	7:45:13	0.127	7.367	7:46:55	0.127	11.77	7:47:45	0.127	9.394	7:47:38	0.22
95	7:50:13	0.127	6.36	7:50:18	0.127	13.653	7:50:38	0.127	10.557	7:50:30	0.22
96	7:55:13	0.127	7.161	7:57:24	0.127	13.653	7:55:59	0.127	9.225	7:55:54	0.22
97	8:00:13	0.127	7.062	8:04:36	0.127	8.325	8:04:35	0.127	8.192	8:02:17	0.22
98	8:05:13	0.127	7.817	8:08:46	0.127	12.337	8:06:51	0.127	7.699	8:06:19	0.22
99	8:10:13	0.127	6.606	8:15:05	0.127	11.506	8:13:42	0.127	9.752	8:11:18	0.22
100	8:15:13	0.127	6.872	8:16:38	0.127	11.506	8:18:48	0.127	7.938	8:15:41	0.22
101	8:20:13	0.127	6.522	8:21:49	0.127	11.253	8:25:08	0.127	8.904	8:21:32	0.22
102	8:25:13	0.127	8.325	8:25:39	0.127	11.253	8:28:17	0.127	9.394	8:29:59	0.22
103	8:30:13	0.127	5.657	8:32:03	0.127	11.77	8:33:40	0.127	8.063	8:33:36	0.22
104	8:35:13	0.127	7.161	8:38:31	0.127	9.57	8:37:26	0.127	8.605	8:38:07	0.22
105	8:40:13	0.127	7.585	8:43:12	0.127	10.139	8:40:39	0.127	7.367	8:42:25	0.22
106	8:45:13	0.254	146.286	8:47:22	0.127	11.253	8:45:33	0.127	9.225	8:45:45	0.284
107	8:50:13	0.127	5.785	8:53:05	0.127	11.253	8:52:57	0.127	8.904	8:52:42	0.22
108	8:55:13	0.127	7.938	9:00:02	0.127	9.942	8:55:16	0.127	9.062	8:55:53	0.22
109	9:00:13	0.127	7.062	9:01:53	0.127	11.506	9:03:04	0.127	7.699	9:00:44	0.22
110	9:05:13	0.127	8.463	9:06:49	0.127	9.942	9:06:54	0.127	8.325	9:09:26	0.22
111	9:10:13	0.127	6.44	9:11:07	0.127	10.139	9:11:33	0.127	8.752	9:15:11	0.22
112	9:15:13	0.127	6.606	9:17:46	0.127	11.253	9:16:01	0.127	9.225	9:17:28	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 8/4/2022 12:00:13 am
End: 9/4/2022
Summary Interval: 288
Air: 81.9 @ 0.44 Hz
Radial: 0.254 (mm/s) @ 9.94 Hz @ 1:16:57 pm
Transverse: 0.254 (mm/s) @ 13.65 Hz @ 11:19:37 am
Vertical: 0.254 (mm/s) @ 8.9 Hz @ 11:27:56 am
Vector Sum: .36 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:13	0.127	7.474	9:23:32	0.127	9.752	9:22:29	0.127	8.325	9:23:26	0.22
114	9:25:13	0.127	7.699	9:29:26	0.127	12.962	9:28:47	0.127	8.192	9:26:01	0.22
115	9:30:13	0.127	7.585	9:31:47	0.127	8.904	9:34:02	0.127	7.938	9:32:38	0.22
116	9:35:13	0.127	6.44	9:36:01	0.127	12.962	9:39:52	0.127	7.262	9:36:02	0.22
117	9:40:13	0.127	6.36	9:40:38	0.127	12.047	9:42:44	0.127	7.585	9:43:57	0.22
118	9:45:13	0.127	8.192	9:47:40	0.127	13.299	9:48:42	0.127	8.325	9:45:33	0.22
119	9:50:13	0.127	6.966	9:53:14	0.127	9.57	9:54:36	0.127	8.063	9:54:42	0.22
120	9:55:13	0.127	8.325	9:55:27	0.127	12.962	9:59:00	0.127	6.966	9:55:15	0.22
121	10:00:13	0.127	8.605	10:02:00	0.127	12.337	10:01:45	0.127	8.325	10:01:03	0.22
122	10:05:13	0.127	7.938	10:08:06	0.127	11.253	10:07:00	0.127	8.325	10:07:11	0.22
123	10:10:13	0.127	8.192	10:11:44	0.127	12.962	10:11:45	0.127	7.161	10:11:49	0.22
124	10:15:13	0.127	7.161	10:17:39	0.127	11.253	10:15:23	0.127	8.463	10:16:11	0.22
125	10:20:13	0.254	113.778	10:24:17	0.127	14.841	10:24:12	0.127	7.474	10:23:24	0.311
126	10:25:13	0.127	9.394	10:26:08	0.127	13.653	10:25:13	0.127	8.605	10:27:19	0.22
127	10:30:13	0.127	10.343	10:30:23	0.127	14.423	10:33:22	0.127	8.325	10:34:25	0.22
128	10:35:13	0.127	10.343	10:37:23	0.127	14.027	10:37:23	0.127	7.585	10:38:05	0.22
129	10:40:13	0.127	8.752	10:42:47	0.127	11.253	10:42:58	0.127	8.463	10:43:42	0.22
130	10:45:13	0.127	10.343	10:45:54	0.127	11.011	10:46:06	0.127	7.585	10:49:53	0.22
131	10:50:13	0.127	7.817	10:54:00	0.127	9.752	10:54:01	0.127	6.059	10:53:09	0.22
132	10:55:13	0.127	8.904	10:59:36	0.127	14.027	10:59:18	0.127	6.44	10:55:51	0.22
133	11:00:13	0.127	9.57	11:03:25	0.127	12.642	11:03:22	0.127	7.938	11:03:11	0.22
134	11:05:13	0.127	9.394	11:08:03	0.127	13.299	11:05:53	0.127	7.474	11:06:39	0.22
135	11:10:13	0.127	8.463	11:11:09	0.127	14.027	11:11:11	0.127	8.605	11:12:47	0.22
136	11:15:13	0.127	9.225	11:16:23	0.254	13.653	11:19:37	0.254	60.235	11:19:37	0.311
137	11:20:13	0.127	7.585	11:22:56	0.127	14.423	11:21:55	0.127	8.063	11:22:12	0.22
138	11:25:13	0.127	9.225	11:26:36	0.254	78.769	11:27:56	0.254	8.904	11:27:56	0.359
139	11:30:13	0.127	8.752	11:34:43	0.127	15.754	11:30:34	0.127	8.325	11:30:14	0.22
140	11:35:13	0.127	8.752	11:36:52	0.254	44.522	11:38:48	0.254	68.267	11:38:48	0.311
141	11:40:13	0.127	9.062	11:44:44	0.127	15.754	11:43:04	0.127	7.161	11:40:52	0.22
142	11:45:13	0.127	11.011	11:48:02	0.127	15.284	11:45:52	0.127	7.367	11:48:40	0.22
143	11:50:13	0.127	8.605	11:51:54	0.127	10.779	11:51:40	0.127	7.474	11:52:12	0.22
144	11:55:13	0.254	53.895	11:59:00	0.254	14.841	11:56:49	0.127	8.463	11:57:47	0.311
145	12:00:13	0.254	10.557	12:02:55	0.254	53.895	12:02:55	0.127	6.44	12:02:07	0.311
146	12:05:13	0.127	10.557	12:07:20	0.127	5.851	12:06:36	0.127	8.605	12:06:46	0.22
147	12:10:13	0.127	9.57	12:13:05	0.127	6.206	12:13:03	0.127	9.57	12:13:02	0.22
148	12:15:13	0.127	8.325	12:15:17	0.127	6.606	12:15:42	0.127	7.938	12:16:41	0.22
149	12:20:13	0.127	10.139	12:23:06	0.127	6.36	12:20:40	0.127	9.57	12:21:43	0.22
150	12:25:13	0.254	44.522	12:28:45	0.127	8.605	12:25:56	0.127	7.817	12:26:06	0.284
151	12:30:13	0.127	11.253	12:31:24	0.127	7.585	12:32:11	0.127	9.062	12:32:44	0.22
152	12:35:13	0.127	10.343	12:37:08	0.127	7.817	12:37:30	0.127	9.062	12:39:43	0.22
153	12:40:13	0.127	11.506	12:42:18	0.127	7.938	12:43:07	0.127	9.942	12:42:35	0.22
154	12:45:13	0.127	11.011	12:46:36	0.254	93.091	12:50:05	0.127	10.139	12:46:52	0.284
155	12:50:13	0.254	113.778	12:53:42	0.127	6.872	12:53:06	0.254	113.778	12:53:43	0.359
156	12:55:13	0.127	11.77	12:59:28	0.127	8.325	12:58:45	0.127	7.474	12:58:28	0.22
157	13:00:13	0.127	9.752	13:04:30	0.127	7.474	13:03:21	0.127	8.463	13:01:10	0.22
158	13:05:13	0.127	11.253	13:08:49	0.127	5.988	13:07:23	0.127	9.062	13:08:50	0.22
159	13:10:13	0.127	9.394	13:13:42	0.127	7.474	13:13:21	0.127	8.752	13:13:38	0.22
160	13:15:13	0.254	9.942	13:16:57	0.127	5.721	13:16:20	0.127	9.394	13:15:43	0.311
161	13:20:13	0.127	7.938	13:24:12	0.127	7.474	13:24:20	0.127	8.904	13:23:42	0.22
162	13:25:13	0.127	9.062	13:28:44	0.127	7.367	13:28:57	0.127	8.752	13:27:00	0.22
163	13:30:13	0.127	10.139	13:32:43	0.127	8.063	13:33:18	0.127	8.605	13:33:15	0.22
164	13:35:13	0.127	9.062	13:35:12	0.127	5.657	13:39:17	0.127	7.367	13:39:57	0.22
165	13:40:13	0.127	9.225	13:43:17	0.127	7.699	13:42:56	0.127	8.752	13:42:39	0.22
166	13:45:13	0.127	9.942	13:47:47	0.127	6.132	13:49:23	0.127	7.585	13:46:58	0.22
167	13:50:13	0.127	9.57	13:52:04	0.127	6.522	13:55:08	0.127	6.606	13:53:25	0.22
168	13:55:13	0.127	10.139	13:57:00	0.127	8.325	13:56:33	0.127	8.463	13:58:49	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 8/4/2022 12:00:13 am
End: 9/4/2022
Summary Interval: 288
Air: 81.9 @ 0.44 Hz
Radial: 0.254 (mm/s) @ 9.94 Hz @ 1:16:57 pm
Transverse: 0.254 (mm/s) @ 13.65 Hz @ 11:19:37 am
Vertical: 0.254 (mm/s) @ 8.9 Hz @ 11:27:56 am
Vector Sum: .36 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:13	0.127	9.57	14:01:22	0.127	7.062	14:03:28	0.127	7.262	14:01:58	0.22
170	14:05:13	0.127	9.752	14:09:22	0.127	6.606	14:05:28	0.127	7.367	14:05:49	0.22
171	14:10:13	0.127	8.904	14:13:29	0.127	8.192	14:14:04	0.127	7.474	14:13:28	0.22
172	14:15:13	0.127	9.752	14:18:03	0.127	7.817	14:15:49	0.127	8.463	14:17:10	0.22
173	14:20:13	0.127	10.779	14:23:06	0.127	7.938	14:23:14	0.127	8.904	14:24:50	0.22
174	14:25:13	0.127	11.011	14:27:25	0.127	7.474	14:29:50	0.254	44.522	14:26:11	0.284
175	14:30:13	0.127	9.225	14:32:29	0.127	6.606	14:31:48	0.254	44.522	14:33:48	0.311
176	14:35:13	0.127	8.192	14:37:12	0.127	6.059	14:36:36	0.127	8.463	14:36:57	0.22
177	14:40:13	0.127	8.063	14:42:05	0.127	7.367	14:42:31	0.127	8.752	14:41:01	0.22
178	14:45:13	0.127	11.77	14:49:06	0.127	6.781	14:46:55	0.127	9.225	14:47:22	0.22
179	14:50:13	0.127	10.779	14:52:05	0.127	8.063	14:51:23	0.127	8.752	14:50:28	0.22
180	14:55:13	0.127	11.506	14:55:52	0.127	8.605	14:59:00	0.127	9.752	14:57:26	0.22
181	15:00:13	0.127	10.557	15:02:50	0.127	8.463	15:02:52	0.127	7.817	15:02:15	0.22
182	15:05:13	0.127	8.063	15:07:02	0.127	5.361	15:08:37	0.127	7.474	15:08:14	0.22
183	15:10:13	0.127	9.394	15:12:02	0.127	6.693	15:12:29	0.127	8.904	15:12:36	0.22
184	15:15:13	0.127	9.57	15:17:05	0.127	7.062	15:16:29	0.127	8.904	15:17:07	0.22
185	15:20:13	0.127	11.011	15:24:05	0.127	6.693	15:22:16	0.127	8.192	15:23:24	0.22
186	15:25:13	0.127	9.942	15:28:36	0.127	5.198	15:27:20	0.127	8.063	15:27:37	0.22
187	15:30:13	0.127	11.253	15:33:54	0.127	6.693	15:34:57	0.127	7.817	15:32:40	0.22
188	15:35:13	0.127	9.225	15:37:44	0.127	8.192	15:37:29	0.127	8.325	15:39:01	0.22
189	15:40:13	0.127	9.57	15:45:02	0.127	7.474	15:42:48	0.127	5.146	15:44:17	0.22
190	15:45:13	0.127	9.942	15:48:36	0.127	6.36	15:47:46	0.127	8.192	15:49:03	0.22
191	15:50:13	0.127	11.77	15:52:36	0.127	7.699	15:51:21	0.127	8.904	15:54:59	0.22
192	15:55:13	0.127	10.139	15:58:18	0.127	7.699	15:55:57	0.127	8.325	15:55:23	0.22
193	16:00:13	0.127	9.942	16:00:20	0.127	7.062	16:03:06	0.127	8.752	16:02:31	0.22
194	16:05:13	0.127	9.752	16:06:00	0.127	6.132	16:06:03	0.127	7.817	16:08:06	0.22
195	16:10:13	0.127	7.367	16:11:19	0.127	5.851	16:11:22	0.127	8.463	16:10:49	0.22
196	16:15:13	0.127	10.343	16:18:29	0.127	7.585	16:18:15	0.127	6.966	16:18:23	0.22
197	16:20:13	0.127	11.253	16:22:05	0.127	7.938	16:22:29	0.127	9.942	16:24:56	0.22
198	16:25:13	0.127	8.605	16:25:13	0.127	4.947	16:29:01	0.127	8.463	16:30:00	0.22
199	16:30:13	0.127	7.817	16:33:31	0.127	6.522	16:30:19	0.127	7.938	16:32:56	0.22
200	16:35:13	0.127	9.942	16:36:59	0.127	6.132	16:35:11	0.127	8.325	16:35:38	0.22
201	16:40:13	0.127	6.872	16:44:04	0.127	6.282	16:43:20	0.127	9.942	16:45:05	0.22
202	16:45:13	0.127	10.343	16:49:06	0.127	6.606	16:47:11	0.127	7.262	16:49:38	0.22
203	16:50:13	0.127	9.752	16:53:31	0.127	5.785	16:54:10	0.127	8.605	16:52:23	0.22
204	16:55:13	0.127	9.752	16:58:51	0.127	5.851	16:58:54	0.127	6.606	16:56:06	0.22
205	17:00:13	0.127	8.605	17:00:34	0.127	5.361	17:00:27	0.127	7.938	17:03:33	0.22
206	17:05:13	0.127	10.557	17:05:18	0.127	6.36	17:10:03	0.127	8.904	17:06:11	0.22
207	17:10:13	0.127	8.904	17:11:13	0.127	6.872	17:13:58	0.127	8.063	17:11:13	0.22
208	17:15:13	0.127	10.343	17:18:07	0.127	7.938	17:15:13	0.127	8.904	17:18:14	0.22
209	17:20:13	0.127	8.752	17:22:34	0.127	6.282	17:23:46	0.127	8.904	17:22:35	0.22
210	17:25:13	0.127	7.585	17:28:59	0.127	7.161	17:30:05	0.127	8.192	17:29:53	0.22
211	17:30:13	0.127	7.161	17:32:01	0.127	5.988	17:31:54	0.127	8.752	17:31:22	0.22
212	17:35:13	0.127	7.367	17:39:54	0.127	5.785	17:35:12	0.127	8.063	17:35:13	0.22
213	17:40:13	0.127	9.942	17:40:20	0.127	7.161	17:44:06	0.254	35.31	17:44:27	0.311
214	17:45:13	0.127	9.57	17:45:57	0.127	7.585	17:45:56	0.127	9.225	17:49:24	0.22
215	17:50:13	0.127	8.325	17:55:08	0.127	7.585	17:50:45	0.127	9.062	17:55:09	0.22
216	17:55:13	0.127	9.394	17:57:51	0.127	5.919	17:57:31	0.127	9.062	18:00:03	0.22
217	18:00:13	0.127	9.062	18:00:52	0.127	6.36	18:04:41	0.127	7.938	18:03:42	0.22
218	18:05:13	0.127	10.139	18:07:39	0.127	6.966	18:08:51	0.127	8.752	18:05:51	0.22
219	18:10:13	0.127	8.192	18:14:39	0.127	6.781	18:13:29	0.127	8.192	18:13:44	0.22
220	18:15:13	0.127	9.225	18:18:21	0.127	6.693	18:15:56	0.127	8.752	18:18:08	0.22
221	18:20:13	0.127	10.343	18:22:25	0.127	6.693	18:22:20	0.127	8.605	18:22:27	0.22
222	18:25:13	0.127	9.394	18:29:44	0.127	5.361	18:29:47	0.127	7.262	18:29:47	0.22
223	18:30:13	0.127	9.752	18:33:51	0.127	5.785	18:32:02	0.127	8.192	18:33:49	0.22
224	18:35:13	0.127	9.57	18:36:42	0.127	7.262	18:37:50	0.127	8.605	18:35:12	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 8/4/2022 12:00:13 am
End: 9/4/2022
Summary Interval: 288
Air: 81.9 @ 0.44 Hz
Radial: 0.254 (mm/s) @ 9.94 Hz @ 1:16:57 pm
Transverse: 0.254 (mm/s) @ 13.65 Hz @ 11:19:37 am
Vertical: 0.254 (mm/s) @ 8.9 Hz @ 11:27:56 am
Vector Sum: .36 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:13	0.127	10.343	18:40:36	0.127	5.919	18:40:45	0.127	7.938	18:41:49	0.22
226	18:45:13	0.127	9.57	18:46:28	0.127	5.721	18:47:17	0.127	8.463	18:49:03	0.22
227	18:50:13	0.127	7.161	18:54:00	0.127	5.596	18:50:54	0.127	9.394	18:51:00	0.22
228	18:55:13	0.127	8.605	18:59:20	0.127	5.146	18:57:50	0.127	8.325	18:59:34	0.22
229	19:00:13	0.127	9.57	19:02:18	0.127	6.693	19:00:43	0.127	8.605	19:00:35	0.22
230	19:05:13	0.127	7.938	19:06:32	0.127	5.721	19:06:54	0.127	8.752	19:09:57	0.22
231	19:10:13	0.127	8.325	19:11:21	0.127	6.132	19:11:29	0.127	7.817	19:12:51	0.22
232	19:15:13	0.127	10.557	19:18:38	0.127	6.44	19:19:26	0.127	8.325	19:18:34	0.22
233	19:20:13	0.127	11.011	19:25:04	0.127	7.817	19:21:35	0.127	8.325	19:22:33	0.22
234	19:25:13	0.127	8.463	19:29:01	0.127	7.474	19:26:07	0.127	6.872	19:25:52	0.22
235	19:30:13	0.127	9.57	19:33:48	0.127	4.763	19:34:28	0.127	8.904	19:33:47	0.22
236	19:35:13	0.127	9.752	19:36:32	0.127	5.657	19:39:24	0.127	8.463	19:38:49	0.22
237	19:40:13	0.127	8.904	19:44:36	0.127	6.872	19:45:02	0.127	9.394	19:41:36	0.22
238	19:45:13	0.127	8.463	19:46:02	0.127	4.763	19:46:35	0.127	8.752	19:47:26	0.22
239	19:50:13	0.127	7.062	19:50:23	0.127	14.027	19:51:41	0.127	8.192	19:51:13	0.22
240	19:55:13	0.127	10.139	19:58:02	0.127	17.965	19:55:52	0.127	9.752	19:55:26	0.22
241	20:00:13	0.127	7.817	20:03:37	0.127	11.011	20:01:52	0.127	9.394	20:02:48	0.22
242	20:05:13	0.127	9.57	20:07:34	0.127	12.642	20:07:00	0.127	5.044	20:06:56	0.22
243	20:10:13	0.127	9.062	20:14:58	0.127	15.284	20:10:33	0.127	9.394	20:14:16	0.22
244	20:15:13	0.127	9.57	20:16:05	0.127	14.841	20:17:14	0.127	8.063	20:20:05	0.22
245	20:20:13	0.127	8.904	20:20:48	0.127	12.962	20:24:58	0.127	9.57	20:22:22	0.22
246	20:25:13	0.127	9.225	20:28:08	0.127	12.962	20:29:09	0.127	9.394	20:25:14	0.22
247	20:30:13	0.127	8.752	20:31:24	0.127	10.779	20:31:21	0.127	8.605	20:31:32	0.22
248	20:35:13	0.127	7.699	20:36:05	0.127	12.642	20:37:00	0.127	9.062	20:36:59	0.22
249	20:40:13	0.127	6.966	20:45:03	0.127	14.841	20:44:19	0.127	9.225	20:42:23	0.22
250	20:45:13	0.127	8.063	20:45:25	0.127	14.423	20:45:29	0.127	9.394	20:49:14	0.22
251	20:50:13	0.127	8.463	20:53:46	0.127	12.047	20:52:20	0.127	8.904	20:52:19	0.22
252	20:55:13	0.127	8.904	20:58:30	0.127	14.841	20:58:49	0.127	8.904	20:56:02	0.22
253	21:00:13	0.127	9.394	21:02:43	0.127	13.299	21:00:10	0.127	9.752	21:00:30	0.22
254	21:05:13	0.127	9.062	21:08:36	0.127	12.642	21:09:17	0.127	8.752	21:08:18	0.22
255	21:10:13	0.127	10.779	21:12:11	0.127	13.653	21:14:47	0.127	10.139	21:13:32	0.22
256	21:15:13	0.127	9.394	21:18:47	0.127	15.754	21:19:08	0.127	8.325	21:19:14	0.22
257	21:20:13	0.127	7.817	21:23:48	0.127	10.557	21:20:10	0.127	9.394	21:23:48	0.22
258	21:25:13	0.127	8.605	21:29:38	0.127	16.254	21:29:39	0.127	9.062	21:27:14	0.22
259	21:30:13	0.127	9.225	21:31:01	0.127	14.423	21:30:59	0.127	8.325	21:30:58	0.22
260	21:35:13	0.127	9.225	21:36:39	0.127	11.011	21:36:24	0.127	9.225	21:36:50	0.22
261	21:40:13	0.127	8.192	21:44:14	0.127	14.423	21:44:34	0.127	9.57	21:42:06	0.22
262	21:45:13	0.127	7.585	21:49:51	0.127	18.618	21:45:24	0.127	7.262	21:46:15	0.22
263	21:50:13	0.127	8.192	21:54:33	0.127	12.337	21:54:33	0.127	7.367	21:54:35	0.22
264	21:55:13	0.127	8.192	21:58:44	0.127	13.653	21:57:05	0.127	9.57	21:59:01	0.22
265	22:00:13	0.127	8.463	22:00:37	0.127	14.841	22:01:26	0.127	8.904	22:03:22	0.22
266	22:05:13	0.127	9.752	22:05:13	0.127	13.299	22:06:53	0.127	9.57	22:05:57	0.22
267	22:10:13	0.127	7.474	22:12:53	0.127	11.77	22:14:17	0.127	6.132	22:11:41	0.22
268	22:15:13	0.127	8.904	22:17:50	0.127	11.77	22:15:31	0.127	8.752	22:19:12	0.22
269	22:20:13	0.127	9.394	22:20:53	0.127	13.653	22:21:48	0.127	11.506	22:21:07	0.22
270	22:25:13	0.127	11.011	22:28:18	0.127	19.321	22:27:11	0.127	12.047	22:26:20	0.22
271	22:30:13	0.127	10.557	22:31:22	0.127	12.642	22:32:24	0.127	10.779	22:31:46	0.22
272	22:35:13	0.127	9.942	22:38:03	0.127	19.321	22:36:39	0.127	8.605	22:37:29	0.22
273	22:40:13	0.127	9.225	22:40:14	0.127	16.787	22:41:35	0.127	10.779	22:42:00	0.22
274	22:45:13	0.127	8.752	22:48:27	0.127	15.754	22:49:49	0.127	9.57	22:46:42	0.22
275	22:50:13	0.127	10.343	22:54:47	0.127	13.653	22:52:52	0.127	10.343	22:50:51	0.22
276	22:55:13	0.127	10.557	22:55:37	0.127	14.423	22:57:22	0.127	11.506	22:59:43	0.22
277	23:00:13	0.127	9.942	23:04:32	0.127	17.356	23:02:21	0.127	10.343	23:00:36	0.22
278	23:05:13	0.127	8.752	23:07:35	0.127	17.356	23:05:24	0.127	11.011	23:05:32	0.22
279	23:10:13	0.127	7.062	23:11:19	0.127	13.653	23:13:06	0.127	7.938	23:13:01	0.22
280	23:15:13	0.127	9.57	23:17:22	0.127	16.254	23:15:09	0.127	9.752	23:16:35	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 8/4/2022 12:00:13 am
End: 9/4/2022
Summary Interval: 288
Air: 81.9 @ 0.44 Hz
Radial: 0.254 (mm/s) @ 9.94 Hz @ 1:16:57 pm
Transverse: 0.254 (mm/s) @ 13.65 Hz @ 11:19:37 am
Vertical: 0.254 (mm/s) @ 8.9 Hz @ 11:27:56 am
Vector Sum: .36 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:13	0.127	9.394	23:20:37	0.127	16.254	23:20:10	0.127	9.062	23:24:17	0.22
282	23:25:13	0.127	10.139	23:28:27	0.127	16.254	23:29:12	0.127	8.463	23:29:31	0.22
283	23:30:13	0.127	10.779	23:30:52	0.127	16.254	23:31:44	0.127	9.225	23:32:51	0.22
284	23:35:13	0.127	7.938	23:37:19	0.127	16.787	23:38:15	0.127	10.557	23:37:19	0.22
285	23:40:13	0.127	8.904	23:43:13	0.127	15.284	23:43:02	0.127	9.394	23:41:49	0.22
286	23:45:13	0.127	11.253	23:47:37	0.127	15.284	23:48:55	0.127	10.779	23:48:49	0.22
287	23:50:13	0.127	9.942	23:50:31	0.127	20.078	23:51:11	0.127	10.779	23:53:30	0.22
288	23:55:13	0.127	9.394	23:55:19	0.127	16.254	23:58:10	0.127	11.011	23:58:47	0.22

Version 2.0.1.9 (07Nov2019(m))

File: Evt9.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

9/4/2022 at 12:00 am Event # 9

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 562.8 mm/s @ 1.32 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7714**	**12.8508**	**12.7556**
Frequency (Hz)	**15.5**	**24.3**	**24.3**

Air

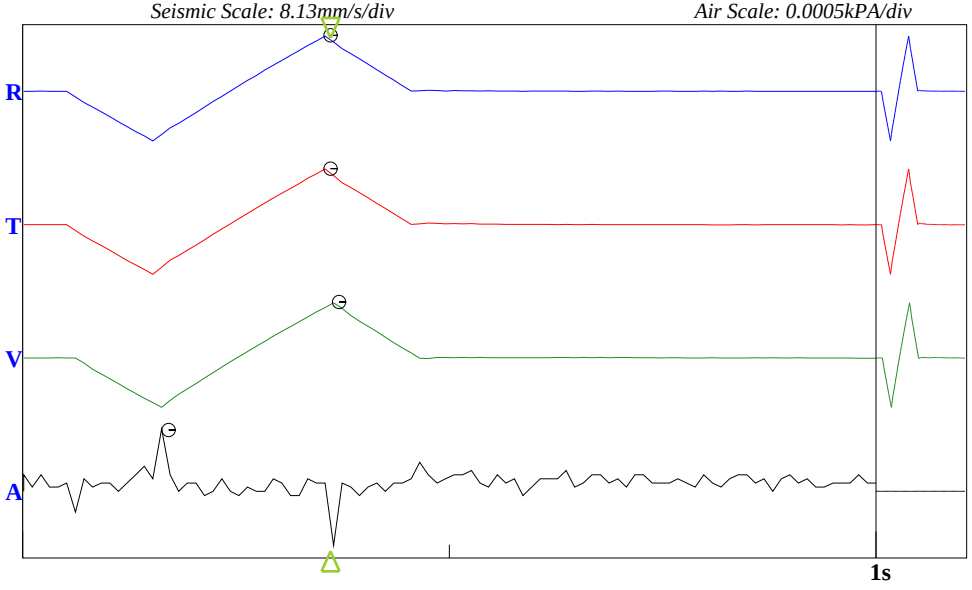
Gain: 1

Measurement	Value		
kPA	0.000453		
dBL	**87.1**		
Hz	0.0		

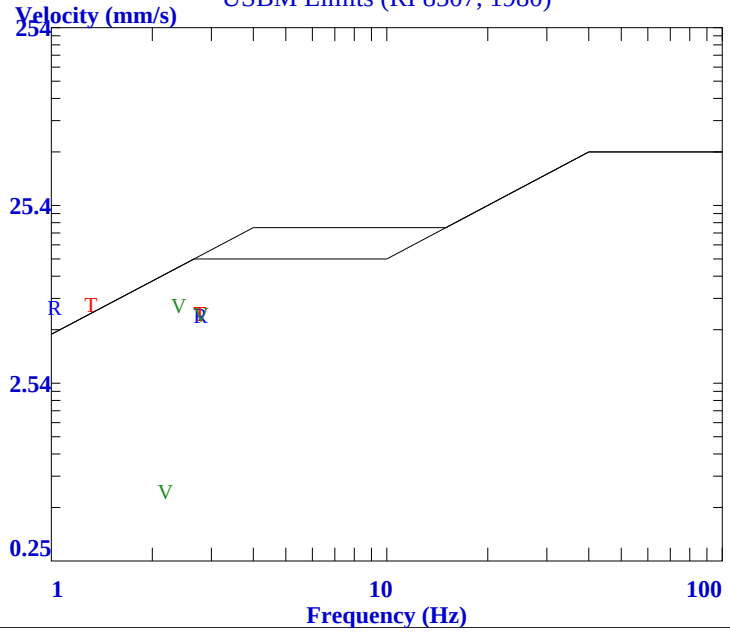
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.1.9 (07Nov2019(m))

File: Evt10.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

9/4/2022 at 12:00 am Event # 10

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:02 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.31 mm/s

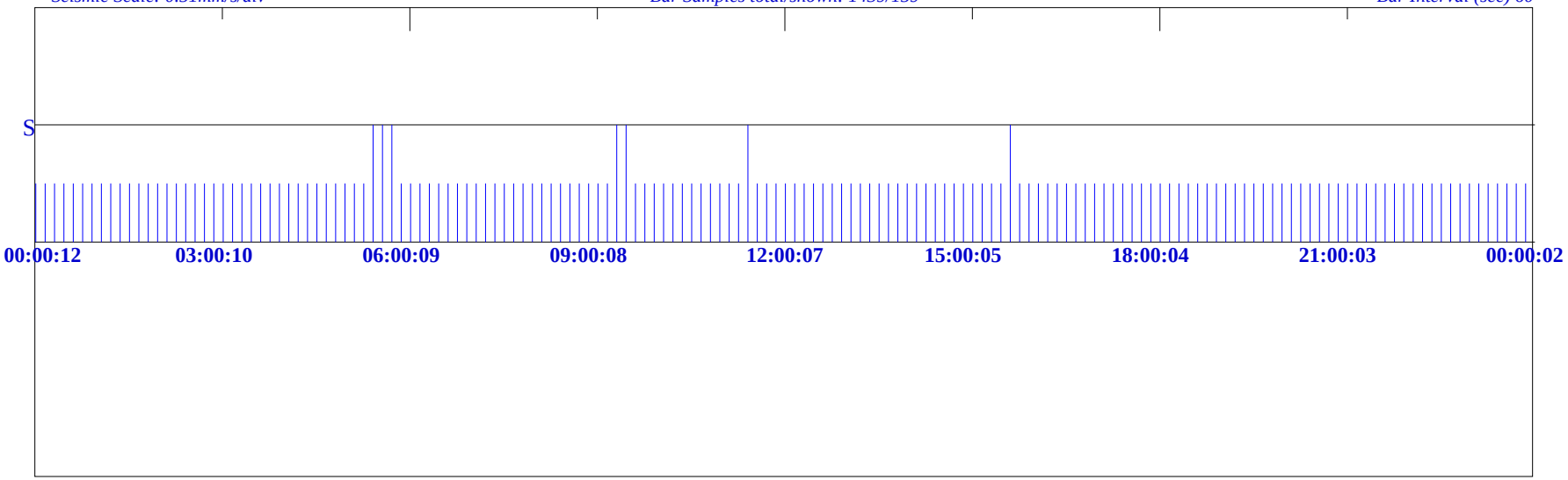
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	0.254	0.127	0.254
Frequency (Hz)	10.34	7.47	9.39
Time	5:31:06 am	8:33:51 am	9:31:15 am

BarGraph

Seismic Scale: 0.51mm/s/div

Bar Samples total/shown: 1439/159

Summary Interval (min): 5
Bar Interval (sec) 60



<<<<<<<<<<<<<<< 23:59:50 >>>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 9/4/2022 12:00:12 am
End: 10/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 0.63 Hz
Radial: 0.254 (mm/s) @ 10.34 Hz @ 5:31:06 am
Transverse: 0.127 (mm/s) @ 7.47 Hz @ 8:33:51 am
Vertical: 0.254 (mm/s) @ 9.39 Hz @ 9:31:15 am
Vector Sum: .31 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:12	0.127	8.904	0:01:13	0.127	16.787	0:01:00	0.127	10.557	0:04:41	0.22
2	0:05:12	0.127	10.779	0:08:56	0.127	8.192	0:06:24	0.127	6.059	0:06:24	0.22
3	0:10:12	0.127	11.77	0:13:30	0.127	14.423	0:12:56	0.127	8.605	0:13:38	0.22
4	0:15:12	0.127	8.752	0:19:09	0.127	16.254	0:19:33	0.127	10.139	0:17:08	0.22
5	0:20:12	0.127	9.942	0:21:41	0.127	15.754	0:20:21	0.127	10.343	0:22:04	0.22
6	0:25:12	0.127	10.557	0:26:53	0.127	15.284	0:25:45	0.127	11.77	0:27:18	0.22
7	0:30:12	0.127	8.904	0:33:50	0.127	17.965	0:33:37	0.127	10.343	0:33:53	0.22
8	0:35:12	0.127	9.225	0:36:36	0.127	16.254	0:37:13	0.127	8.752	0:37:13	0.22
9	0:40:12	0.127	11.011	0:43:27	0.127	12.642	0:43:00	0.127	9.394	0:41:54	0.22
10	0:45:12	0.127	10.779	0:46:04	0.127	16.254	0:49:11	0.127	8.752	0:48:33	0.22
11	0:50:12	0.127	8.463	0:51:41	0.127	16.787	0:51:19	0.127	8.904	0:54:37	0.22
12	0:55:12	0.127	9.57	0:56:55	0.127	16.787	0:56:56	0.127	11.253	0:56:43	0.22
13	1:00:12	0.127	12.047	1:04:55	0.127	14.423	1:04:04	0.127	8.192	1:03:09	0.22
14	1:05:12	0.127	9.394	1:06:10	0.127	15.284	1:09:32	0.127	11.253	1:08:29	0.22
15	1:10:12	0.127	9.394	1:11:41	0.127	17.356	1:10:41	0.127	9.942	1:10:37	0.22
16	1:15:12	0.127	7.938	1:17:46	0.127	15.284	1:18:15	0.127	9.942	1:17:01	0.22
17	1:20:12	0.127	8.605	1:21:14	0.127	15.284	1:21:06	0.127	9.062	1:24:13	0.22
18	1:25:12	0.127	9.394	1:25:51	0.127	14.841	1:29:24	0.127	8.605	1:30:07	0.22
19	1:30:12	0.127	12.337	1:33:45	0.127	15.284	1:33:22	0.127	9.225	1:33:27	0.22
20	1:35:12	0.127	7.938	1:35:52	0.127	15.754	1:39:58	0.127	10.779	1:36:47	0.22
21	1:40:12	0.127	8.605	1:40:15	0.127	12.047	1:43:09	0.127	9.394	1:43:07	0.22
22	1:45:12	0.127	9.57	1:46:03	0.127	18.618	1:46:10	0.127	11.011	1:46:30	0.22
23	1:50:12	0.127	10.343	1:54:05	0.127	15.754	1:55:03	0.127	11.253	1:51:19	0.22
24	1:55:12	0.127	9.752	1:57:32	0.127	14.841	1:58:40	0.127	11.253	1:58:20	0.22
25	2:00:12	0.127	8.463	2:00:45	0.127	15.754	2:01:37	0.127	9.225	2:01:15	0.22
26	2:05:12	0.127	10.557	2:08:55	0.127	15.284	2:07:30	0.127	9.394	2:07:10	0.22
27	2:10:12	0.127	10.779	2:10:50	0.127	17.965	2:13:01	0.127	9.225	2:10:50	0.22
28	2:15:12	0.127	11.011	2:17:35	0.127	14.423	2:15:47	0.127	10.779	2:17:50	0.22
29	2:20:12	0.127	11.253	2:24:29	0.127	15.754	2:24:23	0.127	8.192	2:23:48	0.22
30	2:25:12	0.127	8.325	2:28:21	0.127	14.423	2:28:46	0.127	10.557	2:29:02	0.22
31	2:30:12	0.127	8.904	2:34:54	0.127	13.653	2:34:57	0.127	10.139	2:35:05	0.22
32	2:35:12	0.127	6.44	2:36:11	0.127	16.254	2:38:24	0.127	11.506	2:36:28	0.22
33	2:40:12	0.127	12.047	2:42:18	0.127	16.254	2:43:58	0.127	11.77	2:43:22	0.22
34	2:45:12	0.127	12.337	2:46:12	0.127	11.77	2:45:18	0.127	8.904	2:46:38	0.22
35	2:50:12	0.127	10.139	2:53:39	0.127	14.423	2:55:12	0.127	8.605	2:51:41	0.22
36	2:55:12	0.127	11.506	2:59:00	0.127	19.321	2:55:22	0.127	12.337	2:57:01	0.22
37	3:00:12	0.127	8.605	3:01:45	0.127	12.642	3:01:36	0.127	11.77	3:03:39	0.22
38	3:05:12	0.127	12.337	3:09:00	0.127	17.356	3:05:41	0.127	9.394	3:07:10	0.22
39	3:10:12	0.127	11.011	3:11:35	0.127	15.754	3:13:34	0.127	11.253	3:14:30	0.22
40	3:15:12	0.127	11.253	3:17:03	0.127	16.787	3:19:12	0.127	11.506	3:15:50	0.22
41	3:20:12	0.127	11.253	3:20:26	0.127	19.321	3:21:41	0.127	9.062	3:22:33	0.22
42	3:25:12	0.127	10.139	3:29:24	0.127	14.841	3:28:07	0.127	10.139	3:26:25	0.22
43	3:30:12	0.127	10.343	3:32:55	0.127	11.77	3:31:24	0.127	10.557	3:34:56	0.22
44	3:35:12	0.127	8.752	3:38:40	0.127	9.57	3:38:45	0.127	8.063	3:38:44	0.22
45	3:40:12	0.127	10.557	3:44:10	0.127	15.284	3:41:16	0.127	12.047	3:41:30	0.22
46	3:45:12	0.127	11.506	3:49:27	0.127	17.356	3:46:20	0.127	10.779	3:49:33	0.22
47	3:50:12	0.127	8.192	3:53:30	0.127	14.423	3:51:01	0.127	8.752	3:54:23	0.22
48	3:55:12	0.127	11.011	3:56:23	0.127	12.642	3:56:48	0.127	11.253	3:55:55	0.22
49	4:00:12	0.127	12.047	4:00:54	0.127	15.284	4:01:04	0.127	11.253	4:01:08	0.22
50	4:05:12	0.127	11.253	4:09:43	0.127	16.787	4:09:46	0.127	10.779	4:07:41	0.22
51	4:10:12	0.127	8.605	4:10:27	0.127	15.284	4:12:13	0.127	10.557	4:11:06	0.22
52	4:15:12	0.127	10.343	4:16:22	0.127	16.787	4:18:11	0.127	8.904	4:15:51	0.22
53	4:20:12	0.127	10.779	4:22:24	0.127	17.965	4:20:20	0.127	10.343	4:22:03	0.22
54	4:25:12	0.127	8.904	4:25:46	0.127	15.284	4:29:47	0.127	9.942	4:28:59	0.22
55	4:30:12	0.127	9.225	4:34:56	0.127	13.653	4:32:05	0.127	9.752	4:34:41	0.22
56	4:35:12	0.127	9.062	4:39:11	0.127	18.618	4:40:02	0.127	8.904	4:38:01	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 9/4/2022 12:00:12 am
End: 10/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 0.63 Hz
Radial: 0.254 (mm/s) @ 10.34 Hz @ 5:31:06 am
Transverse: 0.127 (mm/s) @ 7.47 Hz @ 8:33:51 am
Vertical: 0.254 (mm/s) @ 9.39 Hz @ 9:31:15 am
Vector Sum: .31 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:12	0.127	10.343	4:44:41	0.127	14.841	4:44:32	0.127	11.011	4:44:26	0.22
58	4:45:12	0.127	9.942	4:47:54	0.127	15.284	4:46:08	0.127	11.011	4:45:56	0.22
59	4:50:12	0.127	10.557	4:50:23	0.127	15.284	4:53:34	0.127	9.942	4:52:51	0.22
60	4:55:12	0.127	10.779	4:55:57	0.127	16.787	4:56:59	0.127	7.474	4:57:23	0.22
61	5:00:12	0.127	9.942	5:03:40	0.127	15.284	5:00:41	0.127	10.343	5:02:12	0.22
62	5:05:12	0.127	11.011	5:06:22	0.127	14.423	5:09:14	0.127	9.942	5:08:32	0.22
63	5:10:12	0.127	9.062	5:11:54	0.127	14.027	5:10:27	0.127	10.779	5:10:24	0.22
64	5:15:12	0.127	10.557	5:17:56	0.127	14.027	5:17:56	0.127	9.394	5:17:51	0.22
65	5:20:12	0.127	7.161	5:24:05	0.127	16.787	5:21:56	0.127	10.557	5:22:53	0.22
66	5:25:12	0.127	9.57	5:29:03	0.127	17.965	5:27:58	0.127	9.225	5:27:08	0.22
67	5:30:12	0.254	10.343	5:31:06	0.127	12.962	5:31:35	0.127	11.253	5:34:17	0.311
68	5:35:12	0.254	10.779	5:36:27	0.127	14.423	5:37:52	0.127	9.57	5:39:09	0.284
69	5:40:12	0.254	26.256	5:43:33	0.127	12.642	5:42:26	0.127	9.57	5:42:26	0.284
70	5:45:12	0.127	8.605	5:45:58	0.127	14.423	5:49:21	0.127	9.57	5:45:40	0.22
71	5:50:12	0.127	7.585	5:52:05	0.127	15.754	5:54:17	0.127	9.752	5:52:48	0.22
72	5:55:12	0.127	7.585	5:58:29	0.127	15.284	5:55:30	0.127	10.779	5:58:41	0.22
73	6:00:12	0.127	9.225	6:02:38	0.127	11.77	6:03:25	0.127	9.394	6:01:07	0.22
74	6:05:12	0.127	9.57	6:08:09	0.127	16.254	6:07:48	0.127	9.57	6:07:22	0.22
75	6:10:12	0.127	9.752	6:10:30	0.127	14.027	6:13:52	0.127	9.57	6:13:12	0.22
76	6:15:12	0.127	9.57	6:19:38	0.127	14.423	6:19:42	0.127	8.605	6:17:27	0.22
77	6:20:12	0.127	6.606	6:23:35	0.127	11.506	6:22:11	0.127	9.942	6:22:33	0.22
78	6:25:12	0.127	8.605	6:28:32	0.127	13.299	6:26:38	0.127	9.225	6:27:07	0.22
79	6:30:12	0.127	8.192	6:31:21	0.127	13.299	6:31:05	0.127	8.752	6:33:47	0.22
80	6:35:12	0.127	7.161	6:39:28	0.127	15.754	6:37:54	0.127	9.942	6:38:01	0.22
81	6:40:12	0.127	8.325	6:41:46	0.127	12.962	6:44:31	0.127	10.139	6:44:19	0.22
82	6:45:12	0.127	8.463	6:46:11	0.127	14.841	6:46:13	0.127	9.57	6:47:43	0.22
83	6:50:12	0.127	9.57	6:52:47	0.127	12.047	6:54:57	0.127	9.942	6:53:37	0.22
84	6:55:12	0.127	8.325	6:55:14	0.127	14.841	6:57:42	0.127	8.752	6:59:53	0.22
85	7:00:12	0.127	8.463	7:04:12	0.127	16.787	7:01:28	0.127	9.942	7:03:10	0.22
86	7:05:12	0.127	8.192	7:08:10	0.127	14.841	7:06:39	0.127	8.463	7:05:28	0.22
87	7:10:12	0.127	10.139	7:13:36	0.127	15.284	7:13:17	0.127	8.904	7:11:25	0.22
88	7:15:12	0.127	8.605	7:17:58	0.127	14.027	7:17:18	0.127	10.779	7:16:53	0.22
89	7:20:12	0.127	9.394	7:20:39	0.127	14.423	7:20:50	0.127	9.752	7:21:42	0.22
90	7:25:12	0.127	9.394	7:28:39	0.127	16.254	7:28:30	0.127	9.57	7:28:15	0.22
91	7:30:12	0.127	9.062	7:32:40	0.127	14.841	7:31:22	0.127	7.161	7:33:52	0.22
92	7:35:12	0.127	7.367	7:36:20	0.127	14.027	7:37:47	0.127	9.394	7:35:40	0.22
93	7:40:12	0.127	8.192	7:40:43	0.127	15.284	7:44:44	0.127	9.394	7:43:13	0.22
94	7:45:12	0.127	8.752	7:48:11	0.127	16.787	7:47:42	0.127	8.904	7:46:10	0.22
95	7:50:12	0.127	8.463	7:53:18	0.127	11.253	7:52:20	0.127	9.752	7:53:01	0.22
96	7:55:12	0.127	8.463	7:55:29	0.127	11.011	7:59:32	0.127	7.262	7:56:46	0.22
97	8:00:12	0.127	9.225	8:01:59	0.127	11.77	8:01:44	0.127	8.063	8:04:05	0.22
98	8:05:12	0.127	8.325	8:09:59	0.127	15.754	8:07:11	0.127	9.062	8:08:40	0.22
99	8:10:12	0.127	7.817	8:13:04	0.127	10.557	8:10:50	0.127	10.779	8:12:05	0.22
100	8:15:12	0.127	5.851	8:18:58	0.127	12.337	8:18:59	0.127	10.557	8:16:34	0.22
101	8:20:12	0.127	7.817	8:21:57	0.127	11.253	8:23:50	0.127	9.225	8:24:57	0.22
102	8:25:12	0.127	8.063	8:28:40	0.127	9.752	8:27:40	0.127	6.781	8:27:54	0.22
103	8:30:12	0.127	7.367	8:31:51	0.127	7.474	8:33:51	0.127	6.693	8:33:48	0.22
104	8:35:12	0.127	6.059	8:36:03	0.127	12.047	8:38:05	0.127	7.938	8:35:55	0.22
105	8:40:12	0.127	6.606	8:42:36	0.127	13.653	8:44:07	0.127	9.752	8:42:46	0.22
106	8:45:12	0.127	5.198	8:46:44	0.127	11.77	8:45:48	0.127	9.57	8:48:15	0.22
107	8:50:12	0.127	7.817	8:52:19	0.127	12.962	8:53:16	0.127	8.325	8:53:20	0.22
108	8:55:12	0.127	8.752	8:56:53	0.127	11.253	8:58:54	0.127	9.942	8:55:19	0.22
109	9:00:12	0.127	8.192	9:05:03	0.127	12.047	9:03:34	0.127	9.225	9:02:30	0.22
110	9:05:12	0.127	8.752	9:09:59	0.127	9.752	9:07:14	0.127	9.225	9:07:21	0.22
111	9:10:12	0.127	7.262	9:13:31	0.127	12.962	9:10:42	0.127	7.938	9:12:44	0.22
112	9:15:12	0.127	7.938	9:19:13	0.127	12.047	9:16:45	0.127	9.225	9:19:45	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 9/4/2022 12:00:12 am
End: 10/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 0.63 Hz
Radial: 0.254 (mm/s) @ 10.34 Hz @ 5:31:06 am
Transverse: 0.127 (mm/s) @ 7.47 Hz @ 8:33:51 am
Vertical: 0.254 (mm/s) @ 9.39 Hz @ 9:31:15 am
Vector Sum: .31 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:12	0.127	6.059	9:23:32	0.127	8.752	9:23:51	0.254	37.926	9:24:22	0.311
114	9:25:12	0.127	7.817	9:29:27	0.127	12.047	9:26:48	0.127	9.394	9:26:05	0.22
115	9:30:12	0.127	7.699	9:34:31	0.127	13.299	9:30:39	0.254	9.394	9:31:15	0.311
116	9:35:12	0.127	7.474	9:35:59	0.127	12.962	9:38:07	0.127	8.605	9:35:16	0.22
117	9:40:12	0.127	5.988	9:40:49	0.127	9.942	9:40:57	0.127	7.938	9:40:43	0.22
118	9:45:12	0.127	7.474	9:45:53	0.127	11.011	9:46:28	0.127	9.062	9:45:41	0.22
119	9:50:12	0.127	7.585	9:53:33	0.127	9.942	9:55:07	0.127	6.781	9:50:44	0.22
120	9:55:12	0.127	6.36	9:55:32	0.127	9.942	9:55:32	0.127	8.325	9:59:55	0.22
121	10:00:12	0.127	6.44	10:02:44	0.127	12.642	10:04:33	0.127	6.966	10:02:31	0.22
122	10:05:12	0.127	6.282	10:09:02	0.127	11.77	10:09:22	0.127	8.463	10:08:05	0.22
123	10:10:12	0.127	6.522	10:10:12	0.127	11.253	10:11:37	0.127	7.817	10:14:28	0.22
124	10:15:12	0.127	6.872	10:16:13	0.127	11.011	10:16:47	0.127	8.192	10:16:19	0.22
125	10:20:12	0.127	8.463	10:23:28	0.127	11.77	10:21:05	0.127	8.904	10:23:54	0.22
126	10:25:12	0.127	7.062	10:25:36	0.127	12.642	10:28:08	0.127	8.463	10:27:57	0.22
127	10:30:12	0.127	7.585	10:31:59	0.127	9.394	10:34:03	0.127	7.938	10:34:49	0.22
128	10:35:12	0.127	7.699	10:35:57	0.127	13.653	10:36:06	0.127	8.063	10:39:10	0.22
129	10:40:12	0.127	8.063	10:40:36	0.127	12.337	10:42:35	0.127	8.605	10:40:19	0.22
130	10:45:12	0.127	7.817	10:46:14	0.127	12.337	10:46:35	0.127	7.062	10:47:12	0.22
131	10:50:12	0.127	6.44	10:54:38	0.127	9.942	10:55:00	0.127	8.192	10:54:41	0.22
132	10:55:12	0.127	8.192	10:57:40	0.127	14.027	10:56:15	0.127	9.57	10:55:43	0.22
133	11:00:12	0.127	8.463	11:00:14	0.127	12.047	11:02:27	0.127	8.605	11:04:56	0.22
134	11:05:12	0.127	8.325	11:08:38	0.127	9.225	11:06:55	0.127	7.699	11:08:52	0.22
135	11:10:12	0.127	7.699	11:10:25	0.127	14.841	11:12:51	0.127	9.394	11:10:17	0.22
136	11:15:12	0.127	7.699	11:15:18	0.127	12.642	11:15:53	0.127	8.605	11:19:43	0.22
137	11:20:12	0.127	7.474	11:24:56	0.127	11.77	11:24:44	0.127	8.325	11:24:59	0.22
138	11:25:12	0.127	7.699	11:29:44	0.127	12.047	11:28:42	0.127	6.872	11:26:56	0.22
139	11:30:12	0.127	8.605	11:31:33	0.127	10.779	11:32:13	0.254	93.091	11:32:59	0.284
140	11:35:12	0.127	7.474	11:37:35	0.127	9.752	11:37:18	0.127	9.225	11:38:00	0.22
141	11:40:12	0.127	7.262	11:40:44	0.127	14.423	11:41:00	0.127	6.781	11:43:12	0.22
142	11:45:12	0.127	8.063	11:50:07	0.127	12.962	11:49:27	0.127	8.904	11:46:14	0.22
143	11:50:12	0.127	9.57	11:53:49	0.127	10.139	11:51:17	0.127	8.463	11:54:13	0.22
144	11:55:12	0.127	6.872	11:58:23	0.127	14.027	11:57:48	0.127	10.139	11:59:50	0.22
145	12:00:12	0.127	7.161	12:05:09	0.127	12.047	12:00:50	0.127	8.904	12:01:11	0.22
146	12:05:12	0.127	6.282	12:08:04	0.127	13.299	12:06:30	0.127	8.463	12:05:36	0.22
147	12:10:12	0.127	7.938	12:11:15	0.127	9.942	12:11:24	0.127	8.463	12:13:13	0.22
148	12:15:12	0.127	7.585	12:17:21	0.127	10.779	12:19:08	0.127	8.463	12:15:18	0.22
149	12:20:12	0.127	6.44	12:22:40	0.127	10.557	12:22:47	0.127	8.904	12:23:01	0.22
150	12:25:12	0.127	9.062	12:26:02	0.127	11.77	12:26:52	0.127	8.904	12:27:22	0.22
151	12:30:12	0.127	9.062	12:31:03	0.127	13.653	12:32:50	0.127	9.752	12:33:43	0.22
152	12:35:12	0.127	8.463	12:37:58	0.127	10.779	12:37:02	0.127	7.938	12:36:46	0.22
153	12:40:12	0.127	7.062	12:43:49	0.127	11.253	12:42:58	0.127	8.192	12:44:33	0.22
154	12:45:12	0.127	8.904	12:47:19	0.127	13.299	12:48:01	0.127	7.938	12:45:33	0.22
155	12:50:12	0.127	8.192	12:51:30	0.127	11.253	12:52:21	0.127	6.872	12:54:50	0.22
156	12:55:12	0.127	7.817	12:58:20	0.127	12.047	12:57:17	0.127	8.325	12:59:01	0.22
157	13:00:12	0.127	7.938	13:00:50	0.127	14.841	13:01:00	0.127	7.938	13:03:10	0.22
158	13:05:12	0.127	9.57	13:09:57	0.127	12.962	13:10:06	0.127	8.325	13:07:40	0.22
159	13:10:12	0.127	9.57	13:13:22	0.127	13.653	13:15:08	0.127	9.394	13:13:10	0.22
160	13:15:12	0.127	9.57	13:20:00	0.127	13.653	13:15:48	0.127	9.752	13:16:54	0.22
161	13:20:12	0.127	8.192	13:22:18	0.127	12.642	13:22:17	0.127	8.605	13:24:35	0.22
162	13:25:12	0.127	9.225	13:28:46	0.127	11.77	13:28:47	0.127	7.585	13:27:40	0.22
163	13:30:12	0.127	5.851	13:33:59	0.127	11.77	13:30:35	0.127	7.699	13:32:11	0.22
164	13:35:12	0.127	6.36	13:38:29	0.127	11.506	13:39:07	0.127	8.063	13:38:51	0.22
165	13:40:12	0.127	7.585	13:42:22	0.127	8.752	13:41:08	0.127	5.919	13:41:28	0.22
166	13:45:12	0.127	8.752	13:48:26	0.127	16.254	13:45:19	0.127	8.752	13:45:19	0.22
167	13:50:12	0.127	7.938	13:54:49	0.127	11.011	13:53:19	0.127	7.817	13:53:12	0.22
168	13:55:12	0.127	8.605	13:56:39	0.127	11.011	13:56:39	0.127	8.463	13:57:52	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 9/4/2022 12:00:12 am
End: 10/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 0.63 Hz
Radial: 0.254 (mm/s) @ 10.34 Hz @ 5:31:06 am
Transverse: 0.127 (mm/s) @ 7.47 Hz @ 8:33:51 am
Vertical: 0.254 (mm/s) @ 9.39 Hz @ 9:31:15 am
Vector Sum: .31 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:12	0.127	9.57	14:03:04	0.127	13.653	14:00:25	0.127	6.059	14:00:16	0.22
170	14:05:12	0.127	6.522	14:09:22	0.127	11.77	14:08:13	0.127	8.752	14:06:25	0.22
171	14:10:12	0.127	9.062	14:11:59	0.127	9.57	14:13:52	0.127	9.752	14:12:04	0.22
172	14:15:12	0.127	7.474	14:16:35	0.127	15.754	14:18:48	0.127	8.605	14:16:21	0.22
173	14:20:12	0.127	7.817	14:22:31	0.127	11.77	14:22:06	0.127	9.942	14:22:53	0.22
174	14:25:12	0.127	6.606	14:30:04	0.127	12.047	14:26:59	0.127	7.161	14:26:06	0.22
175	14:30:12	0.127	7.161	14:32:55	0.127	10.557	14:32:14	0.127	8.605	14:30:20	0.22
176	14:35:12	0.127	5.721	14:38:18	0.127	10.779	14:38:20	0.127	8.063	14:36:34	0.22
177	14:40:12	0.127	8.463	14:40:22	0.127	10.557	14:40:46	0.127	7.161	14:43:55	0.22
178	14:45:12	0.127	8.605	14:49:11	0.127	10.779	14:47:16	0.127	8.325	14:49:37	0.22
179	14:50:12	0.127	6.282	14:54:04	0.127	13.299	14:52:19	0.127	7.585	14:50:39	0.22
180	14:55:12	0.127	6.606	14:56:39	0.127	8.904	14:56:12	0.127	9.394	14:58:57	0.22
181	15:00:12	0.127	8.904	15:03:16	0.127	12.962	15:00:27	0.127	8.325	15:03:09	0.22
182	15:05:12	0.127	8.463	15:07:16	0.127	13.299	15:05:30	0.127	7.938	15:06:44	0.22
183	15:10:12	0.127	8.904	15:13:19	0.127	11.506	15:13:41	0.127	8.463	15:13:23	0.22
184	15:15:12	0.127	7.817	15:20:00	0.127	11.253	15:18:51	0.127	7.161	15:17:16	0.22
185	15:20:12	0.127	9.57	15:24:38	0.127	11.253	15:21:41	0.127	8.325	15:24:02	0.22
186	15:25:12	0.127	9.062	15:29:23	0.127	10.779	15:27:49	0.127	7.817	15:26:49	0.22
187	15:30:12	0.127	8.752	15:31:52	0.127	12.047	15:31:52	0.127	8.463	15:31:48	0.22
188	15:35:12	0.127	10.139	15:37:33	0.127	11.253	15:38:14	0.127	7.262	15:35:42	0.22
189	15:40:12	0.127	7.817	15:43:04	0.127	12.047	15:44:29	0.254	40.96	15:44:16	0.311
190	15:45:12	0.127	6.44	15:48:25	0.127	11.011	15:46:22	0.127	7.938	15:48:26	0.22
191	15:50:12	0.127	10.343	15:54:19	0.127	14.841	15:53:56	0.127	8.605	15:53:47	0.22
192	15:55:12	0.127	7.817	15:58:59	0.127	11.506	15:59:10	0.127	7.817	15:55:30	0.22
193	16:00:12	0.127	6.059	16:02:38	0.127	12.337	16:01:44	0.127	6.781	16:01:10	0.22
194	16:05:12	0.127	8.463	16:08:23	0.127	12.337	16:07:29	0.127	8.063	16:06:51	0.22
195	16:10:12	0.127	8.605	16:13:43	0.127	13.653	16:10:42	0.127	8.904	16:11:35	0.22
196	16:15:12	0.127	8.904	16:18:36	0.127	11.506	16:16:59	0.127	7.938	16:15:36	0.22
197	16:20:12	0.127	8.192	16:20:36	0.127	11.77	16:24:55	0.127	5.785	16:22:54	0.22
198	16:25:12	0.127	8.192	16:28:30	0.127	12.962	16:25:35	0.127	8.605	16:25:44	0.22
199	16:30:12	0.127	8.904	16:34:05	0.127	12.337	16:33:59	0.127	8.752	16:30:36	0.22
200	16:35:12	0.127	9.062	16:37:49	0.127	9.752	16:37:49	0.127	8.192	16:37:19	0.22
201	16:40:12	0.127	8.463	16:44:49	0.127	13.653	16:40:57	0.127	7.817	16:42:57	0.22
202	16:45:12	0.127	8.463	16:45:12	0.127	11.506	16:48:32	0.127	7.938	16:49:27	0.22
203	16:50:12	0.127	7.474	16:51:45	0.127	11.011	16:51:41	0.127	8.063	16:51:44	0.22
204	16:55:12	0.127	10.779	16:56:10	0.127	16.254	16:56:00	0.127	8.063	16:55:48	0.22
205	17:00:12	0.127	8.192	17:00:33	0.127	11.253	17:02:42	0.127	7.367	17:00:30	0.22
206	17:05:12	0.127	8.463	17:05:52	0.127	11.506	17:09:34	0.127	7.262	17:09:36	0.22
207	17:10:12	0.127	10.779	17:14:33	0.127	11.253	17:12:43	0.127	8.063	17:12:24	0.22
208	17:15:12	0.127	10.139	17:16:07	0.127	14.027	17:15:56	0.127	8.605	17:17:51	0.22
209	17:20:12	0.127	8.192	17:24:44	0.127	15.284	17:24:44	0.127	8.192	17:24:47	0.22
210	17:25:12	0.127	9.394	17:25:14	0.127	14.423	17:27:59	0.127	8.192	17:26:22	0.22
211	17:30:12	0.127	9.942	17:31:24	0.127	14.027	17:34:34	0.127	7.474	17:34:36	0.22
212	17:35:12	0.127	8.192	17:40:00	0.127	9.225	17:39:30	0.127	6.781	17:35:13	0.22
213	17:40:12	0.127	9.225	17:40:40	0.127	11.253	17:41:37	0.127	7.367	17:41:40	0.22
214	17:45:12	0.127	8.904	17:47:50	0.127	10.779	17:47:58	0.127	7.699	17:46:15	0.22
215	17:50:12	0.127	9.942	17:51:58	0.127	14.423	17:52:24	0.127	7.262	17:52:29	0.22
216	17:55:12	0.127	9.225	17:56:49	0.127	12.337	17:59:08	0.127	7.474	17:56:50	0.22
217	18:00:12	0.127	8.325	18:04:05	0.127	15.284	18:00:48	0.127	7.699	18:03:08	0.22
218	18:05:12	0.127	9.394	18:08:03	0.127	12.047	18:09:55	0.127	7.161	18:06:37	0.22
219	18:10:12	0.127	11.011	18:12:10	0.127	14.841	18:12:17	0.127	8.904	18:10:19	0.22
220	18:15:12	0.127	7.062	18:19:05	0.127	15.754	18:19:28	0.127	8.752	18:18:54	0.22
221	18:20:12	0.127	7.474	18:22:15	0.127	12.047	18:22:09	0.127	7.585	18:23:43	0.22
222	18:25:12	0.127	8.904	18:27:56	0.127	14.423	18:25:34	0.127	8.904	18:26:46	0.22
223	18:30:12	0.127	8.325	18:34:49	0.127	14.027	18:34:50	0.127	8.752	18:33:52	0.22
224	18:35:12	0.127	10.343	18:37:44	0.127	11.253	18:36:40	0.127	9.062	18:35:29	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 9/4/2022 12:00:12 am
End: 10/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 0.63 Hz
Radial: 0.254 (mm/s) @ 10.34 Hz @ 5:31:06 am
Transverse: 0.127 (mm/s) @ 7.47 Hz @ 8:33:51 am
Vertical: 0.254 (mm/s) @ 9.39 Hz @ 9:31:15 am
Vector Sum: .31 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:12	0.127	8.463	18:40:42	0.127	14.841	18:44:04	0.127	8.752	18:41:02	0.22
226	18:45:12	0.127	8.325	18:46:31	0.127	12.962	18:48:36	0.127	8.752	18:48:44	0.22
227	18:50:12	0.127	9.57	18:54:02	0.127	12.337	18:53:08	0.127	7.817	18:53:10	0.22
228	18:55:12	0.127	9.57	18:56:47	0.127	13.299	18:55:46	0.127	9.062	18:58:18	0.22
229	19:00:12	0.127	9.062	19:02:32	0.127	12.337	19:02:53	0.127	8.904	19:03:54	0.22
230	19:05:12	0.127	6.606	19:06:05	0.127	11.253	19:07:17	0.127	7.367	19:09:53	0.22
231	19:10:12	0.127	8.605	19:11:02	0.127	15.284	19:10:58	0.127	8.605	19:14:54	0.22
232	19:15:12	0.127	9.752	19:17:05	0.127	12.642	19:16:38	0.127	7.585	19:19:01	0.22
233	19:20:12	0.127	9.394	19:24:50	0.127	12.337	19:22:01	0.127	6.36	19:22:31	0.22
234	19:25:12	0.127	9.942	19:30:00	0.127	11.506	19:25:25	0.127	8.325	19:25:51	0.22
235	19:30:12	0.127	10.139	19:34:57	0.127	12.337	19:31:40	0.127	7.817	19:33:50	0.22
236	19:35:12	0.127	9.062	19:38:14	0.127	12.642	19:39:50	0.127	8.063	19:39:06	0.22
237	19:40:12	0.127	10.343	19:43:02	0.127	9.942	19:44:01	0.127	8.192	19:43:37	0.22
238	19:45:12	0.127	6.966	19:46:47	0.127	9.57	19:49:59	0.127	8.063	19:47:18	0.22
239	19:50:12	0.127	9.942	19:50:56	0.127	11.011	19:50:19	0.127	8.325	19:51:31	0.22
240	19:55:12	0.127	9.225	19:56:20	0.127	14.027	19:57:39	0.127	9.57	19:58:22	0.22
241	20:00:12	0.127	8.752	20:00:15	0.127	12.962	20:01:15	0.127	8.063	20:02:12	0.22
242	20:05:12	0.127	9.225	20:07:07	0.127	13.653	20:05:49	0.127	8.752	20:09:59	0.22
243	20:10:12	0.127	10.557	20:10:43	0.127	12.337	20:12:45	0.127	9.225	20:14:51	0.22
244	20:15:12	0.127	9.942	20:18:33	0.127	13.653	20:16:06	0.127	9.225	20:17:17	0.22
245	20:20:12	0.127	7.817	20:21:02	0.127	15.754	20:21:04	0.127	7.938	20:21:55	0.22
246	20:25:12	0.127	9.752	20:25:38	0.127	10.779	20:29:35	0.127	8.904	20:26:22	0.22
247	20:30:12	0.127	9.062	20:33:03	0.127	14.423	20:33:19	0.127	8.904	20:30:12	0.22
248	20:35:12	0.127	7.367	20:35:29	0.127	15.754	20:37:50	0.127	8.752	20:35:44	0.22
249	20:40:12	0.127	9.752	20:41:00	0.127	14.027	20:41:34	0.127	7.585	20:40:20	0.22
250	20:45:12	0.127	10.139	20:47:10	0.127	12.962	20:50:02	0.127	9.062	20:48:15	0.22
251	20:50:12	0.127	9.394	20:53:43	0.127	14.841	20:51:11	0.127	9.225	20:55:01	0.22
252	20:55:12	0.127	9.752	20:58:15	0.127	12.962	20:58:13	0.127	9.57	20:58:01	0.22
253	21:00:12	0.127	6.781	21:01:44	0.127	14.027	21:01:57	0.127	8.325	21:03:34	0.22
254	21:05:12	0.127	9.394	21:08:11	0.127	15.284	21:09:11	0.127	9.752	21:07:51	0.22
255	21:10:12	0.127	8.752	21:13:12	0.127	16.787	21:14:32	0.127	10.557	21:11:56	0.22
256	21:15:12	0.127	6.282	21:17:02	0.127	9.57	21:17:10	0.127	9.062	21:17:03	0.22
257	21:20:12	0.127	9.752	21:23:28	0.127	14.423	21:25:02	0.127	9.752	21:22:27	0.22
258	21:25:12	0.127	9.752	21:30:02	0.127	15.284	21:30:03	0.127	9.57	21:28:28	0.22
259	21:30:12	0.127	10.343	21:30:22	0.127	17.356	21:33:30	0.127	10.557	21:31:03	0.22
260	21:35:12	0.127	9.752	21:37:56	0.127	14.027	21:35:50	0.127	7.938	21:38:54	0.22
261	21:40:12	0.127	10.343	21:44:01	0.127	11.506	21:43:28	0.127	10.557	21:41:47	0.22
262	21:45:12	0.127	9.062	21:49:12	0.127	14.841	21:49:06	0.127	10.557	21:48:06	0.22
263	21:50:12	0.127	9.942	21:50:31	0.127	11.506	21:53:47	0.127	10.343	21:52:26	0.22
264	21:55:12	0.127	7.474	21:59:58	0.127	12.642	21:58:55	0.127	8.192	21:56:48	0.22
265	22:00:12	0.127	9.942	22:00:45	0.127	17.356	22:01:33	0.127	9.225	22:03:01	0.22
266	22:05:12	0.127	12.047	22:07:33	0.127	17.356	22:07:03	0.127	9.57	22:05:56	0.22
267	22:10:12	0.127	7.367	22:13:17	0.127	14.423	22:14:45	0.127	8.325	22:11:29	0.22
268	22:15:12	0.127	10.779	22:17:30	0.127	14.841	22:18:53	0.127	9.57	22:17:07	0.22
269	22:20:12	0.127	9.394	22:22:53	0.127	16.254	22:24:33	0.127	8.752	22:21:55	0.22
270	22:25:12	0.127	10.139	22:25:31	0.127	17.356	22:26:32	0.127	9.752	22:30:02	0.22
271	22:30:12	0.127	8.605	22:31:52	0.127	15.754	22:30:27	0.127	9.062	22:30:29	0.22
272	22:35:12	0.127	9.394	22:35:08	0.127	12.962	22:37:01	0.127	11.506	22:39:36	0.22
273	22:40:12	0.127	11.77	22:42:37	0.127	15.754	22:44:53	0.127	9.062	22:42:39	0.22
274	22:45:12	0.127	9.394	22:47:48	0.127	14.423	22:46:29	0.127	10.139	22:46:46	0.22
275	22:50:12	0.127	7.938	22:51:19	0.127	16.254	22:54:24	0.127	11.506	22:51:09	0.22
276	22:55:12	0.127	11.253	22:57:33	0.127	12.337	22:55:25	0.127	9.57	22:58:54	0.22
277	23:00:12	0.127	10.139	23:05:05	0.127	15.284	23:02:56	0.127	9.752	23:04:22	0.22
278	23:05:12	0.127	9.752	23:08:09	0.127	16.254	23:07:40	0.127	9.225	23:05:15	0.22
279	23:10:12	0.127	11.011	23:12:30	0.127	14.027	23:13:24	0.127	7.161	23:14:38	0.22
280	23:15:12	0.127	10.343	23:15:11	0.127	14.027	23:15:27	0.127	10.557	23:19:23	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 9/4/2022 12:00:12 am
End: 10/4/2022 12:00:02 am
Summary Interval: 288
Air: 81.9 @ 0.63 Hz
Radial: 0.254 (mm/s) @ 10.34 Hz @ 5:31:06 am
Transverse: 0.127 (mm/s) @ 7.47 Hz @ 8:33:51 am
Vertical: 0.254 (mm/s) @ 9.39 Hz @ 9:31:15 am
Vector Sum: .31 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:12	0.127	11.253	23:21:43	0.127	15.754	23:20:30	0.127	10.779	23:23:08	0.22
282	23:25:12	0.127	9.225	23:25:48	0.127	13.299	23:26:34	0.127	8.605	23:27:14	0.22
283	23:30:12	0.127	8.192	23:33:39	0.127	15.284	23:31:05	0.127	10.557	23:34:44	0.22
284	23:35:12	0.127	9.942	23:38:56	0.127	16.254	23:36:21	0.127	7.062	23:35:38	0.22
285	23:40:12	0.127	9.062	23:41:19	0.127	13.653	23:45:02	0.127	9.394	23:40:23	0.22
286	23:45:12	0.127	9.225	23:49:31	0.127	14.027	23:46:22	0.127	9.942	23:49:13	0.22
287	23:50:12	0.127	8.904	23:51:48	0.127	13.653	23:52:06	0.127	9.57	23:54:45	0.22
288	23:55:12	0.127	12.047	23:58:32	0.127	17.356	23:56:24	0.127	8.752	23:58:04	0.22

Version 2.0.1.9 (07Nov2019(m))

File: Evt11.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

10/4/2022 at 12:00 am Event # 11

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 562.92 mm/s @ 1.19 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7794**	**12.827**	**12.7794**
Frequency (Hz)	**16.5**	**13.4**	**24.3**

Air

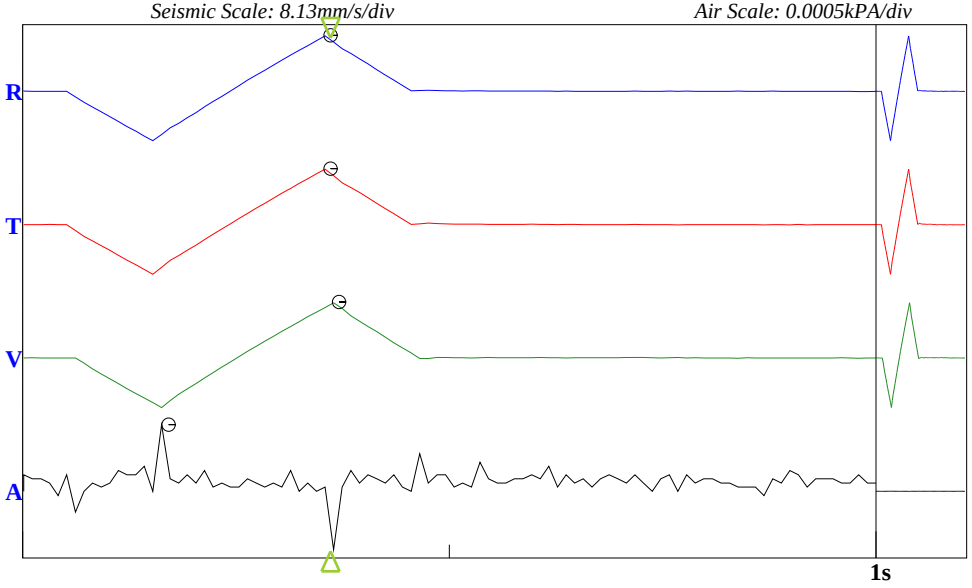
Gain: 1

Measurement	Value		
kPA	0.000484		
dBL	**87.7**		
Hz	512.0		

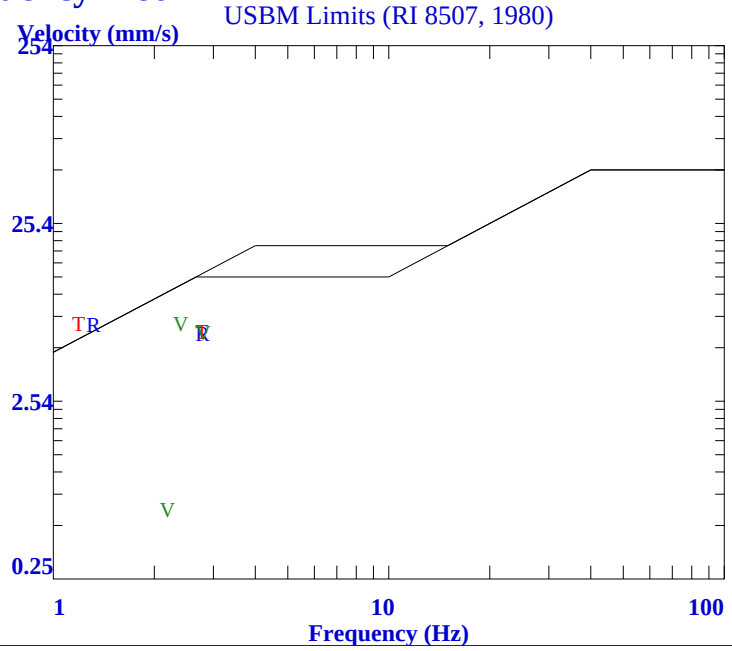
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.1.9 (07Nov2019(m))

File: Evt12.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

10/4/2022 at 12:00 am Event # 12

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:00 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.42 mm/s

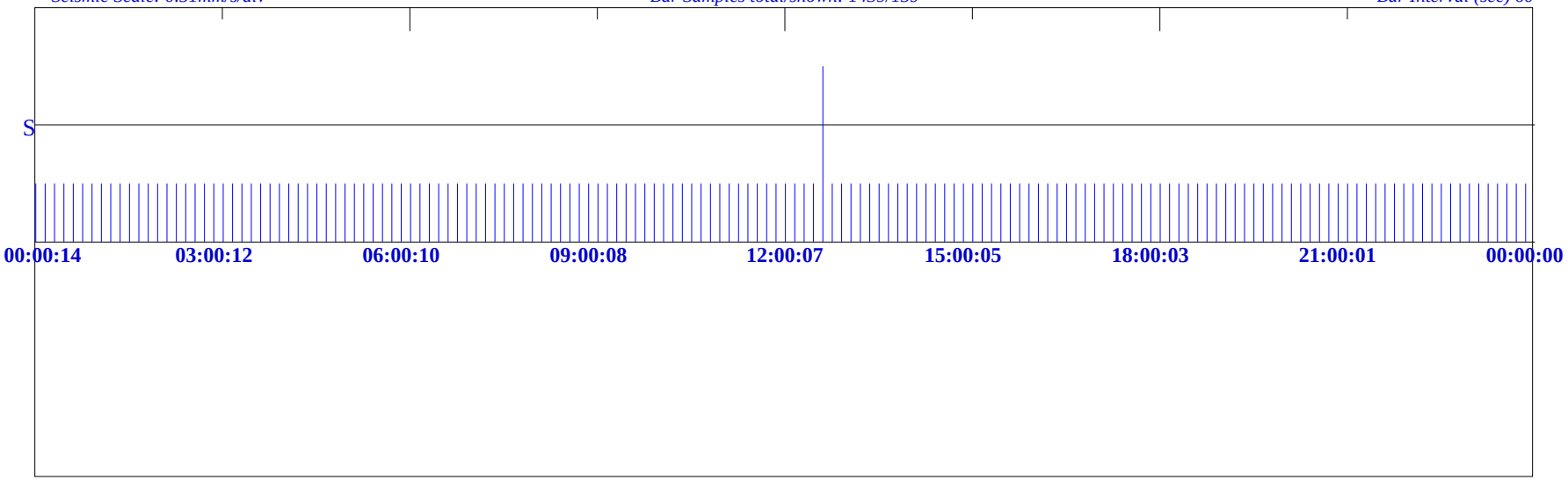
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	0.127	0.381	0.254
Frequency (Hz)	6.52	8.75	9.75
Time	5:45:35 am	12:38:16 pm	12:38:16 pm

BarGraph

Seismic Scale: 0.51mm/s/div

Bar Samples total/shown: 1439/159

Summary Interval (min): 5
Bar Interval (sec) 60



<<<<<<<<<<<<<<< 23:59:46 >>>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 10/4/2022 12:00:14 am
End: 11/4/2022
Summary Interval: 288
Air: 81.9 @ 0.54 Hz
Radial: 0.127 (mm/s) @ 6.52 Hz @ 5:45:35 am
Transverse: 0.381 (mm/s) @ 8.75 Hz @ 12:38:16 pm
Vertical: 0.254 (mm/s) @ 9.75 Hz @ 12:38:16 pm
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:14	0.127	8.752	0:03:19	0.127	17.356	0:03:58	0.127	9.752	0:03:08	0.22
2	0:05:14	0.127	11.253	0:05:38	0.127	13.299	0:05:21	0.127	8.904	0:09:42	0.22
3	0:10:14	0.127	10.557	0:14:21	0.127	15.284	0:13:05	0.127	8.605	0:14:53	0.22
4	0:15:14	0.127	10.139	0:18:41	0.127	16.787	0:19:34	0.127	7.699	0:17:10	0.22
5	0:20:14	0.127	11.506	0:23:19	0.127	14.423	0:23:16	0.127	8.904	0:21:53	0.22
6	0:25:14	0.127	9.942	0:27:35	0.127	16.254	0:27:17	0.127	8.904	0:30:03	0.22
7	0:30:14	0.127	11.506	0:34:00	0.127	15.754	0:34:10	0.127	9.942	0:31:07	0.22
8	0:35:14	0.127	11.011	0:39:49	0.127	17.965	0:36:50	0.127	9.57	0:37:02	0.22
9	0:40:14	0.127	9.942	0:43:08	0.127	14.027	0:41:04	0.127	9.942	0:43:59	0.22
10	0:45:14	0.127	7.938	0:50:10	0.127	17.356	0:45:37	0.127	9.57	0:49:32	0.22
11	0:50:14	0.127	11.011	0:55:14	0.127	14.841	0:50:31	0.127	8.325	0:52:15	0.22
12	0:55:14	0.127	10.779	1:00:00	0.127	15.284	0:55:16	0.127	9.752	0:56:33	0.22
13	1:00:14	0.127	11.77	1:00:49	0.127	16.787	1:01:35	0.127	11.253	1:04:28	0.22
14	1:05:14	0.127	11.77	1:08:40	0.127	16.787	1:06:03	0.127	9.225	1:09:51	0.22
15	1:10:14	0.127	12.047	1:12:59	0.127	15.754	1:13:29	0.127	11.506	1:15:07	0.22
16	1:15:14	0.127	10.779	1:19:47	0.127	14.841	1:17:57	0.127	9.942	1:18:34	0.22
17	1:20:14	0.127	9.57	1:24:00	0.127	17.965	1:23:31	0.127	6.781	1:21:25	0.22
18	1:25:14	0.127	10.557	1:26:02	0.127	15.754	1:26:28	0.127	10.139	1:26:04	0.22
19	1:30:14	0.127	9.942	1:32:06	0.127	16.787	1:35:14	0.127	9.394	1:34:24	0.22
20	1:35:14	0.127	10.779	1:36:10	0.127	14.841	1:36:19	0.127	7.938	1:37:03	0.22
21	1:40:14	0.127	9.752	1:45:00	0.127	15.284	1:42:25	0.127	7.262	1:40:15	0.22
22	1:45:14	0.127	8.192	1:48:21	0.127	15.754	1:49:34	0.127	11.011	1:47:47	0.22
23	1:50:14	0.127	11.253	1:51:06	0.127	17.965	1:53:36	0.127	9.57	1:51:08	0.22
24	1:55:14	0.127	12.962	1:56:55	0.127	15.284	1:58:00	0.127	9.57	1:57:45	0.22
25	2:00:14	0.127	9.942	2:04:12	0.127	16.787	2:01:42	0.127	9.752	2:04:39	0.22
26	2:05:14	0.127	8.752	2:10:08	0.127	16.787	2:07:57	0.127	9.57	2:07:51	0.22
27	2:10:14	0.127	9.57	2:14:55	0.127	13.653	2:15:11	0.127	7.262	2:10:56	0.22
28	2:15:14	0.127	9.752	2:17:59	0.127	15.754	2:18:31	0.127	9.225	2:17:27	0.22
29	2:20:14	0.127	9.57	2:21:00	0.127	16.787	2:21:17	0.127	8.904	2:21:17	0.22
30	2:25:14	0.127	9.942	2:29:52	0.127	15.754	2:29:53	0.127	6.872	2:28:46	0.22
31	2:30:14	0.127	9.942	2:31:54	0.127	16.254	2:31:14	0.127	12.047	2:32:15	0.22
32	2:35:14	0.127	9.752	2:38:17	0.127	19.321	2:37:22	0.127	11.253	2:40:06	0.22
33	2:40:14	0.127	10.779	2:43:43	0.127	13.299	2:40:23	0.127	9.394	2:43:23	0.22
34	2:45:14	0.127	9.394	2:49:46	0.127	14.027	2:47:04	0.127	9.225	2:48:53	0.22
35	2:50:14	0.127	9.942	2:52:27	0.127	17.356	2:51:47	0.127	10.779	2:52:40	0.22
36	2:55:14	0.127	8.325	2:57:01	0.127	12.337	2:58:34	0.127	5.721	2:57:58	0.22
37	3:00:14	0.127	10.139	3:04:28	0.127	17.356	3:05:04	0.127	9.752	3:01:32	0.22
38	3:05:14	0.127	9.942	3:07:28	0.127	16.254	3:06:01	0.127	10.139	3:08:39	0.22
39	3:10:14	0.127	9.394	3:10:55	0.127	15.284	3:11:01	0.127	11.77	3:12:45	0.22
40	3:15:14	0.127	8.752	3:15:53	0.127	17.965	3:17:22	0.127	9.394	3:18:10	0.22
41	3:20:14	0.127	11.506	3:21:05	0.127	14.027	3:25:09	0.127	8.192	3:22:30	0.22
42	3:25:14	0.127	11.253	3:26:31	0.127	17.965	3:26:09	0.127	8.325	3:26:09	0.22
43	3:30:14	0.127	11.011	3:34:16	0.127	14.841	3:32:28	0.127	8.904	3:30:56	0.22
44	3:35:14	0.127	9.942	3:35:36	0.127	17.356	3:36:15	0.127	9.752	3:35:45	0.22
45	3:40:14	0.127	11.253	3:40:49	0.127	14.423	3:45:06	0.127	8.904	3:41:27	0.22
46	3:45:14	0.127	10.557	3:45:57	0.127	13.299	3:48:49	0.127	8.605	3:46:28	0.22
47	3:50:14	0.127	10.557	3:51:01	0.127	15.754	3:53:56	0.127	8.904	3:52:49	0.22
48	3:55:14	0.127	9.225	3:59:59	0.127	14.841	3:56:06	0.127	11.011	3:55:46	0.22
49	4:00:14	0.127	9.225	4:04:04	0.127	12.047	4:01:03	0.127	9.225	4:03:12	0.22
50	4:05:14	0.127	8.904	4:06:54	0.127	15.754	4:05:30	0.127	8.605	4:06:12	0.22
51	4:10:14	0.127	9.394	4:13:04	0.127	13.653	4:13:51	0.127	9.942	4:12:42	0.22
52	4:15:14	0.127	9.57	4:17:09	0.127	13.653	4:19:55	0.127	10.139	4:15:49	0.22
53	4:20:14	0.127	9.394	4:25:03	0.127	18.618	4:21:03	0.127	8.463	4:22:04	0.22
54	4:25:14	0.127	9.752	4:27:08	0.127	14.841	4:25:18	0.127	10.343	4:29:00	0.22
55	4:30:14	0.127	10.343	4:34:14	0.127	16.787	4:31:42	0.127	9.752	4:31:49	0.22
56	4:35:14	0.127	10.779	4:35:54	0.127	14.423	4:36:30	0.127	9.942	4:35:36	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 10/4/2022 12:00:14 am
End: 11/4/2022
Summary Interval: 288
Air: 81.9 @ 0.54 Hz
Radial: 0.127 (mm/s) @ 6.52 Hz @ 5:45:35 am
Transverse: 0.381 (mm/s) @ 8.75 Hz @ 12:38:16 pm
Vertical: 0.254 (mm/s) @ 9.75 Hz @ 12:38:16 pm
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:14	0.127	10.343	4:44:33	0.127	13.299	4:42:58	0.127	11.011	4:41:02	0.22
58	4:45:14	0.127	8.463	4:46:08	0.127	15.754	4:46:13	0.127	9.57	4:49:36	0.22
59	4:50:14	0.127	9.942	4:54:00	0.127	16.787	4:52:48	0.127	6.606	4:54:14	0.22
60	4:55:14	0.127	9.752	4:58:44	0.127	14.027	4:55:21	0.127	8.752	4:55:27	0.22
61	5:00:14	0.127	9.942	5:05:04	0.127	12.337	5:03:04	0.127	6.966	5:01:15	0.22
62	5:05:14	0.127	7.938	5:07:44	0.127	16.787	5:06:59	0.127	9.225	5:09:48	0.22
63	5:10:14	0.127	8.605	5:14:12	0.127	16.254	5:13:41	0.127	10.557	5:15:00	0.22
64	5:15:14	0.127	8.463	5:20:09	0.127	11.77	5:16:58	0.127	8.463	5:16:56	0.22
65	5:20:14	0.127	8.904	5:23:29	0.127	15.284	5:21:09	0.127	10.139	5:20:15	0.22
66	5:25:14	0.127	8.325	5:27:14	0.127	13.653	5:27:14	0.127	9.752	5:27:13	0.22
67	5:30:14	0.127	9.57	5:33:53	0.127	10.139	5:30:43	0.127	8.605	5:34:15	0.22
68	5:35:14	0.127	7.699	5:36:50	0.127	12.047	5:39:27	0.127	9.57	5:35:46	0.22
69	5:40:14	0.127	7.938	5:45:03	0.127	14.027	5:44:51	0.127	10.139	5:43:51	0.22
70	5:45:14	0.127	6.522	5:45:35	0.127	12.337	5:45:49	0.127	9.225	5:47:32	0.22
71	5:50:14	0.127	9.57	5:51:48	0.127	12.337	5:51:42	0.127	8.752	5:51:46	0.22
72	5:55:14	0.127	9.942	5:55:34	0.127	14.841	5:55:14	0.127	11.253	5:57:05	0.22
73	6:00:14	0.127	11.011	6:04:29	0.127	15.284	6:02:34	0.127	9.942	6:01:00	0.22
74	6:05:14	0.127	9.225	6:05:25	0.127	11.77	6:09:02	0.127	7.474	6:05:16	0.22
75	6:10:14	0.127	9.225	6:13:35	0.127	14.423	6:11:53	0.127	7.585	6:10:23	0.22
76	6:15:14	0.127	9.57	6:17:19	0.127	12.642	6:15:14	0.127	9.225	6:15:23	0.22
77	6:20:14	0.127	8.752	6:20:15	0.127	12.642	6:22:49	0.127	8.904	6:24:01	0.22
78	6:25:14	0.127	8.192	6:27:22	0.127	13.653	6:29:11	0.127	10.343	6:27:02	0.22
79	6:30:14	0.127	9.394	6:30:24	0.127	14.423	6:31:41	0.127	9.57	6:32:31	0.22
80	6:35:14	0.127	11.011	6:37:43	0.127	13.653	6:37:48	0.127	10.557	6:38:07	0.22
81	6:40:14	0.127	8.063	6:41:10	0.127	13.299	6:42:28	0.127	9.225	6:42:28	0.22
82	6:45:14	0.127	8.463	6:50:04	0.127	15.284	6:47:33	0.127	9.394	6:47:14	0.22
83	6:50:14	0.127	9.942	6:54:27	0.127	16.787	6:54:59	0.127	9.752	6:52:52	0.22
84	6:55:14	0.127	7.161	6:57:41	0.127	15.284	6:59:02	0.127	9.062	7:00:05	0.22
85	7:00:14	0.127	9.942	7:01:40	0.127	15.284	7:01:13	0.127	10.557	7:01:35	0.22
86	7:05:14	0.127	10.343	7:08:08	0.127	16.254	7:06:53	0.127	11.253	7:09:33	0.22
87	7:10:14	0.127	9.394	7:11:01	0.127	11.77	7:13:47	0.127	8.752	7:13:58	0.22
88	7:15:14	0.127	8.192	7:17:12	0.127	14.423	7:15:57	0.127	11.011	7:16:28	0.22
89	7:20:14	0.127	9.942	7:24:14	0.127	14.841	7:21:33	0.127	9.752	7:21:49	0.22
90	7:25:14	0.127	7.367	7:28:06	0.127	14.841	7:26:47	0.127	9.394	7:28:29	0.22
91	7:30:14	0.127	8.752	7:33:01	0.127	13.653	7:31:40	0.127	7.699	7:31:16	0.22
92	7:35:14	0.127	9.062	7:37:45	0.127	12.047	7:36:46	0.127	11.011	7:39:38	0.22
93	7:40:14	0.127	10.139	7:45:13	0.127	13.653	7:44:21	0.127	8.752	7:44:00	0.22
94	7:45:14	0.127	8.904	7:50:11	0.127	11.77	7:47:02	0.127	6.693	7:46:01	0.22
95	7:50:14	0.127	8.192	7:50:34	0.127	13.653	7:50:40	0.127	8.463	7:53:26	0.22
96	7:55:14	0.127	8.605	7:56:51	0.127	12.962	8:00:12	0.127	9.942	7:59:11	0.22
97	8:00:14	0.127	8.904	8:02:52	0.127	12.047	8:02:18	0.127	8.752	8:04:34	0.22
98	8:05:14	0.127	9.394	8:06:57	0.127	14.841	8:07:05	0.127	7.585	8:07:03	0.22
99	8:10:14	0.127	9.942	8:13:29	0.127	14.841	8:13:54	0.127	9.225	8:15:04	0.22
100	8:15:14	0.127	9.225	8:16:27	0.127	14.841	8:19:15	0.127	9.942	8:19:21	0.22
101	8:20:14	0.127	9.394	8:23:52	0.127	11.77	8:21:27	0.127	7.062	8:20:49	0.22
102	8:25:14	0.127	10.557	8:29:09	0.127	14.841	8:26:29	0.127	9.062	8:27:30	0.22
103	8:30:14	0.127	9.225	8:35:11	0.127	14.841	8:35:11	0.127	10.343	8:33:25	0.22
104	8:35:14	0.127	7.367	8:37:38	0.127	12.642	8:36:52	0.127	9.752	8:36:00	0.22
105	8:40:14	0.127	10.557	8:42:02	0.127	14.841	8:43:48	0.127	9.57	8:42:10	0.22
106	8:45:14	0.127	8.904	8:50:04	0.127	13.299	8:49:29	0.127	8.063	8:48:22	0.22
107	8:50:14	0.127	10.139	8:51:28	0.127	14.423	8:52:21	0.127	9.57	8:51:22	0.22
108	8:55:14	0.127	9.752	8:58:35	0.127	15.284	8:59:15	0.127	8.325	8:59:51	0.22
109	9:00:14	0.127	9.752	9:04:39	0.127	13.653	9:00:38	0.127	7.161	9:03:45	0.22
110	9:05:14	0.127	9.57	9:08:21	0.127	11.77	9:09:01	0.127	8.752	9:06:27	0.22
111	9:10:14	0.127	10.343	9:10:43	0.127	15.284	9:14:11	0.127	8.325	9:14:27	0.22
112	9:15:14	0.127	10.557	9:18:38	0.127	14.841	9:19:53	0.127	8.904	9:15:23	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 10/4/2022 12:00:14 am
End: 11/4/2022
Summary Interval: 288
Air: 81.9 @ 0.54 Hz
Radial: 0.127 (mm/s) @ 6.52 Hz @ 5:45:35 am
Transverse: 0.381 (mm/s) @ 8.75 Hz @ 12:38:16 pm
Vertical: 0.254 (mm/s) @ 9.75 Hz @ 12:38:16 pm
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:14	0.127	9.062	9:24:13	0.127	12.642	9:25:07	0.127	9.225	9:25:07	0.22
114	9:25:14	0.127	9.062	9:29:13	0.127	14.841	9:27:20	0.127	9.57	9:26:35	0.22
115	9:30:14	0.127	9.394	9:32:10	0.127	12.962	9:31:44	0.127	9.394	9:31:50	0.22
116	9:35:14	0.127	9.752	9:37:12	0.127	15.284	9:36:00	0.127	8.904	9:38:14	0.22
117	9:40:14	0.127	9.752	9:41:56	0.127	14.027	9:43:36	0.127	8.463	9:40:30	0.22
118	9:45:14	0.127	10.557	9:48:18	0.127	16.254	9:48:37	0.127	9.394	9:46:49	0.22
119	9:50:14	0.127	11.253	9:53:08	0.127	15.284	9:54:17	0.127	9.57	9:53:21	0.22
120	9:55:14	0.127	9.752	9:58:15	0.127	6.781	9:58:42	0.127	9.942	9:55:19	0.22
121	10:00:14	0.127	11.011	10:01:04	0.127	7.262	10:05:03	0.127	10.139	10:00:58	0.22
122	10:05:14	0.127	12.337	10:06:27	0.127	7.817	10:07:12	0.127	8.904	10:08:59	0.22
123	10:10:14	0.127	11.506	10:11:11	0.127	5.785	10:12:08	0.127	8.904	10:12:52	0.22
124	10:15:14	0.127	12.642	10:17:47	0.127	6.872	10:19:45	0.127	9.225	10:17:02	0.22
125	10:20:14	0.127	11.253	10:24:12	0.127	7.474	10:23:41	0.127	7.817	10:20:27	0.22
126	10:25:14	0.127	8.063	10:27:40	0.127	6.282	10:26:39	0.127	8.605	10:26:52	0.22
127	10:30:14	0.127	12.642	10:30:19	0.127	6.606	10:30:50	0.127	9.225	10:30:43	0.22
128	10:35:14	0.127	15.284	10:37:58	0.127	7.699	10:39:38	0.127	8.752	10:37:49	0.22
129	10:40:14	0.127	10.779	10:42:10	0.127	6.606	10:45:09	0.127	9.752	10:44:00	0.22
130	10:45:14	0.127	8.605	10:49:05	0.127	6.44	10:49:37	0.127	7.817	10:49:44	0.22
131	10:50:14	0.127	10.139	10:54:10	0.127	6.36	10:54:05	0.127	8.752	10:51:41	0.22
132	10:55:14	0.127	12.337	10:56:43	0.127	6.522	10:57:42	0.127	6.522	10:58:01	0.22
133	11:00:14	0.127	9.752	11:00:14	0.127	7.262	11:01:25	0.127	8.063	11:00:34	0.22
134	11:05:14	0.127	9.225	11:05:31	0.127	5.596	11:05:57	0.127	7.817	11:06:19	0.22
135	11:10:14	0.127	10.139	11:13:17	0.127	6.606	11:12:28	0.127	7.817	11:13:47	0.22
136	11:15:14	0.127	11.253	11:18:15	0.127	6.781	11:19:52	0.127	9.225	11:17:00	0.22
137	11:20:14	0.127	9.942	11:23:01	0.127	6.059	11:25:00	0.127	8.904	11:20:24	0.22
138	11:25:14	0.127	9.942	11:25:59	0.127	7.262	11:28:22	0.127	7.367	11:28:18	0.22
139	11:30:14	0.127	11.506	11:33:16	0.127	5.361	11:33:53	0.127	8.192	11:32:08	0.22
140	11:35:14	0.127	8.904	11:35:14	0.127	7.262	11:36:34	0.127	9.225	11:39:54	0.22
141	11:40:14	0.127	11.506	11:44:30	0.127	6.522	11:44:42	0.127	8.463	11:43:20	0.22
142	11:45:14	0.127	10.139	11:48:43	0.127	7.367	11:47:57	0.127	9.062	11:46:04	0.22
143	11:50:14	0.127	13.653	11:53:57	0.127	6.872	11:50:42	0.127	7.938	11:54:39	0.22
144	11:55:14	0.127	11.011	11:59:33	0.127	5.721	11:59:04	0.127	8.752	11:57:17	0.22
145	12:00:14	0.127	10.779	12:00:52	0.127	6.059	12:00:58	0.127	8.904	12:03:14	0.22
146	12:05:14	0.127	11.253	12:09:30	0.127	7.699	12:06:05	0.127	7.161	12:08:50	0.22
147	12:10:14	0.127	10.779	12:14:26	0.127	8.463	12:13:51	0.127	9.062	12:10:50	0.22
148	12:15:14	0.127	10.779	12:18:58	0.127	5.919	12:17:31	0.127	9.062	12:18:58	0.22
149	12:20:14	0.127	12.642	12:21:04	0.127	6.36	12:21:40	0.127	9.062	12:23:00	0.22
150	12:25:14	0.127	11.253	12:27:48	0.127	6.606	12:26:02	0.127	8.063	12:29:43	0.22
151	12:30:14	0.127	10.139	12:34:56	0.127	7.161	12:34:45	0.127	9.225	12:34:59	0.22
152	12:35:14	0.127	12.047	12:38:00	0.381	8.752	12:38:16	0.254	9.752	12:38:16	0.421
153	12:40:14	0.127	12.047	12:40:24	0.127	8.192	12:44:06	0.127	9.225	12:43:18	0.22
154	12:45:14	0.127	13.299	12:49:54	0.127	6.781	12:47:08	0.127	9.225	12:46:08	0.22
155	12:50:14	0.127	12.642	12:53:58	0.127	5.657	12:53:18	0.127	8.605	12:53:54	0.22
156	12:55:14	0.127	9.752	12:57:33	0.127	8.752	12:57:33	0.127	8.752	12:57:47	0.22
157	13:00:14	0.127	9.57	13:00:51	0.127	7.062	13:00:27	0.127	8.752	13:02:41	0.22
158	13:05:14	0.127	11.506	13:09:50	0.127	6.44	13:08:09	0.127	9.225	13:10:08	0.22
159	13:10:14	0.127	14.423	13:13:54	0.127	5.596	13:10:16	0.127	7.161	13:13:58	0.22
160	13:15:14	0.127	10.779	13:18:52	0.127	7.062	13:17:27	0.127	9.225	13:15:34	0.22
161	13:20:14	0.127	10.139	13:23:51	0.127	5.988	13:21:14	0.127	8.192	13:22:44	0.22
162	13:25:14	0.127	15.284	13:29:28	0.127	8.063	13:26:00	0.127	10.343	13:26:46	0.22
163	13:30:14	0.127	9.942	13:31:07	0.127	6.522	13:32:43	0.127	8.063	13:30:21	0.22
164	13:35:14	0.127	9.225	13:38:49	0.127	8.063	13:38:50	0.127	8.904	13:38:11	0.22
165	13:40:14	0.127	11.253	13:43:11	0.127	6.44	13:40:12	0.127	9.942	13:44:31	0.22
166	13:45:14	0.127	12.047	13:47:20	0.127	6.522	13:47:32	0.127	10.343	13:46:18	0.22
167	13:50:14	0.127	8.192	13:54:37	0.127	5.919	13:54:20	0.127	6.966	13:54:05	0.22
168	13:55:14	0.127	11.77	13:58:33	0.127	6.872	13:57:40	0.127	9.57	13:59:17	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 10/4/2022 12:00:14 am
End: 11/4/2022
Summary Interval: 288
Air: 81.9 @ 0.54 Hz
Radial: 0.127 (mm/s) @ 6.52 Hz @ 5:45:35 am
Transverse: 0.381 (mm/s) @ 8.75 Hz @ 12:38:16 pm
Vertical: 0.254 (mm/s) @ 9.75 Hz @ 12:38:16 pm
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:14	0.127	12.962	14:00:37	0.127	5.044	14:00:12	0.127	8.605	14:00:27	0.22
170	14:05:14	0.127	10.343	14:09:26	0.127	7.262	14:07:15	0.127	9.942	14:10:00	0.22
171	14:10:14	0.127	10.779	14:14:16	0.127	6.966	14:10:44	0.127	9.394	14:11:13	0.22
172	14:15:14	0.127	10.779	14:19:02	0.127	5.785	14:15:12	0.127	9.57	14:17:42	0.22
173	14:20:14	0.127	11.506	14:22:54	0.127	6.36	14:21:35	0.127	9.394	14:24:26	0.22
174	14:25:14	0.127	11.011	14:27:39	0.127	6.872	14:29:16	0.127	8.325	14:27:35	0.22
175	14:30:14	0.127	10.343	14:30:23	0.127	6.282	14:34:59	0.127	9.942	14:33:15	0.22
176	14:35:14	0.127	11.011	14:37:28	0.127	4.995	14:38:26	0.127	9.394	14:36:39	0.22
177	14:40:14	0.127	11.506	14:42:11	0.127	6.693	14:40:27	0.127	8.192	14:44:15	0.22
178	14:45:14	0.127	11.253	14:47:38	0.127	7.161	14:45:27	0.127	8.752	14:45:38	0.22
179	14:50:14	0.127	11.011	14:50:28	0.127	6.781	14:51:08	0.127	9.942	14:50:19	0.22
180	14:55:14	0.127	12.962	14:55:47	0.127	6.966	14:59:35	0.127	8.904	14:55:32	0.22
181	15:00:14	0.127	10.139	15:04:23	0.127	6.693	15:05:06	0.127	8.325	15:02:38	0.22
182	15:05:14	0.127	14.027	15:06:11	0.127	6.44	15:09:35	0.127	8.605	15:05:21	0.22
183	15:10:14	0.127	10.343	15:15:05	0.127	6.36	15:10:53	0.127	9.225	15:13:42	0.22
184	15:15:14	0.127	10.343	15:18:15	0.127	6.781	15:18:54	0.127	9.394	15:16:04	0.22
185	15:20:14	0.127	10.779	15:20:29	0.127	7.161	15:24:25	0.127	7.699	15:21:07	0.22
186	15:25:14	0.127	11.506	15:27:22	0.127	7.585	15:26:07	0.127	9.394	15:29:09	0.22
187	15:30:14	0.127	9.062	15:34:07	0.127	6.872	15:33:54	0.127	8.325	15:32:48	0.22
188	15:35:14	0.127	10.557	15:35:30	0.127	6.522	15:37:16	0.127	10.343	15:36:37	0.22
189	15:40:14	0.127	11.506	15:42:46	0.127	6.966	15:44:11	0.127	10.779	15:44:53	0.22
190	15:45:14	0.127	9.57	15:47:08	0.127	6.966	15:46:41	0.127	8.904	15:49:00	0.22
191	15:50:14	0.127	12.047	15:53:53	0.127	4.995	15:54:42	0.127	10.139	15:53:47	0.22
192	15:55:14	0.127	9.225	15:59:23	0.127	5.146	15:55:38	0.127	9.394	15:55:17	0.22
193	16:00:14	0.127	8.904	16:00:52	0.127	13.299	16:02:04	0.127	8.605	16:04:47	0.22
194	16:05:14	0.127	12.642	16:09:00	0.127	13.653	16:05:41	0.127	8.904	16:06:58	0.22
195	16:10:14	0.127	8.063	16:12:30	0.127	15.754	16:14:28	0.127	9.394	16:11:37	0.22
196	16:15:14	0.127	8.605	16:17:32	0.127	14.841	16:16:20	0.127	7.817	16:17:32	0.22
197	16:20:14	0.127	11.011	16:21:53	0.127	15.284	16:23:39	0.127	7.817	16:21:50	0.22
198	16:25:14	0.127	7.817	16:30:00	0.127	11.011	16:27:27	0.127	9.394	16:29:04	0.22
199	16:30:14	0.127	9.062	16:32:46	0.127	12.642	16:32:48	0.127	9.225	16:32:50	0.22
200	16:35:14	0.127	7.161	16:36:01	0.127	14.423	16:39:22	0.127	7.938	16:36:49	0.22
201	16:40:14	0.127	9.394	16:41:28	0.127	14.027	16:41:12	0.127	10.557	16:43:14	0.22
202	16:45:14	0.127	8.063	16:46:38	0.127	15.754	16:46:08	0.127	8.605	16:46:01	0.22
203	16:50:14	0.127	10.557	16:51:09	0.127	12.642	16:53:53	0.127	7.817	16:51:10	0.22
204	16:55:14	0.127	10.779	16:56:57	0.127	14.841	16:57:04	0.127	9.394	16:58:00	0.22
205	17:00:14	0.127	9.57	17:03:01	0.127	16.254	17:01:50	0.127	9.225	17:03:43	0.22
206	17:05:14	0.127	9.942	17:06:48	0.127	14.027	17:08:50	0.127	10.557	17:07:06	0.22
207	17:10:14	0.127	10.343	17:15:02	0.127	12.642	17:14:41	0.127	8.752	17:10:52	0.22
208	17:15:14	0.127	10.779	17:15:28	0.127	15.754	17:18:36	0.127	7.938	17:19:32	0.22
209	17:20:14	0.127	10.779	17:22:15	0.127	16.254	17:21:52	0.127	8.752	17:23:38	0.22
210	17:25:14	0.127	7.938	17:25:45	0.127	14.841	17:26:50	0.127	11.253	17:25:57	0.22
211	17:30:14	0.127	10.779	17:30:44	0.127	13.299	17:33:09	0.127	10.779	17:31:46	0.22
212	17:35:14	0.127	11.253	17:38:09	0.127	16.254	17:38:59	0.127	10.139	17:36:30	0.22
213	17:40:14	0.127	10.343	17:41:08	0.127	14.027	17:43:20	0.127	9.225	17:42:41	0.22
214	17:45:14	0.127	9.942	17:46:43	0.127	14.841	17:49:02	0.127	10.139	17:46:37	0.22
215	17:50:14	0.127	8.063	17:51:09	0.127	14.423	17:52:00	0.127	9.942	17:53:36	0.22
216	17:55:14	0.127	9.062	17:59:20	0.127	16.787	17:56:12	0.127	7.161	17:55:48	0.22
217	18:00:14	0.127	9.394	18:04:58	0.127	14.027	18:04:28	0.127	8.325	18:01:59	0.22
218	18:05:14	0.127	9.225	18:07:56	0.127	15.284	18:07:57	0.127	9.752	18:06:43	0.22
219	18:10:14	0.127	9.57	18:11:53	0.127	12.337	18:12:10	0.127	8.752	18:11:50	0.22
220	18:15:14	0.127	10.343	18:17:47	0.127	15.754	18:15:25	0.127	8.605	18:16:19	0.22
221	18:20:14	0.127	10.779	18:22:21	0.127	13.653	18:21:41	0.127	9.752	18:20:24	0.22
222	18:25:14	0.127	8.904	18:26:40	0.127	14.841	18:29:48	0.127	9.752	18:26:40	0.22
223	18:30:14	0.127	9.752	18:32:51	0.127	14.423	18:32:49	0.127	8.904	18:33:33	0.22
224	18:35:14	0.127	8.463	18:37:21	0.127	16.787	18:38:12	0.127	8.325	18:38:47	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 10/4/2022 12:00:14 am
End: 11/4/2022
Summary Interval: 288
Air: 81.9 @ 0.54 Hz
Radial: 0.127 (mm/s) @ 6.52 Hz @ 5:45:35 am
Transverse: 0.381 (mm/s) @ 8.75 Hz @ 12:38:16 pm
Vertical: 0.254 (mm/s) @ 9.75 Hz @ 12:38:16 pm
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:14	0.127	10.779	18:42:15	0.127	15.284	18:40:34	0.127	9.752	18:42:14	0.22
226	18:45:14	0.127	10.779	18:45:57	0.127	17.356	18:50:09	0.127	8.063	18:46:29	0.22
227	18:50:14	0.127	10.779	18:50:51	0.127	16.254	18:50:20	0.127	9.062	18:54:17	0.22
228	18:55:14	0.127	8.752	18:58:14	0.127	16.254	18:55:58	0.127	8.192	18:56:01	0.22
229	19:00:14	0.127	8.904	19:04:26	0.127	16.787	19:02:46	0.127	7.938	19:04:06	0.22
230	19:05:14	0.127	9.394	19:09:45	0.127	15.284	19:07:27	0.127	10.779	19:07:36	0.22
231	19:10:14	0.127	8.904	19:13:25	0.127	12.642	19:10:18	0.127	10.557	19:14:47	0.22
232	19:15:14	0.127	11.506	19:15:34	0.127	10.343	19:15:52	0.127	11.253	19:16:30	0.22
233	19:20:14	0.127	10.557	19:23:24	0.127	17.356	19:24:07	0.127	8.192	19:23:18	0.22
234	19:25:14	0.127	10.779	19:28:46	0.127	17.965	19:25:57	0.127	11.506	19:26:42	0.22
235	19:30:14	0.127	10.343	19:33:08	0.127	13.653	19:30:27	0.127	9.942	19:32:32	0.22
236	19:35:14	0.127	10.779	19:38:29	0.127	16.787	19:39:43	0.127	12.047	19:39:22	0.22
237	19:40:14	0.127	9.394	19:42:38	0.127	17.965	19:43:55	0.127	9.942	19:45:00	0.22
238	19:45:14	0.127	9.062	19:46:32	0.127	16.254	19:49:37	0.127	10.557	19:45:51	0.22
239	19:50:14	0.127	9.394	19:51:11	0.127	16.254	19:50:42	0.127	7.817	19:51:29	0.22
240	19:55:14	0.127	8.904	19:56:24	0.127	16.787	19:55:30	0.127	11.253	19:56:26	0.22
241	20:00:14	0.127	7.367	20:02:54	0.127	14.423	20:00:28	0.127	9.394	20:02:17	0.22
242	20:05:14	0.127	9.225	20:05:21	0.127	15.754	20:10:09	0.127	10.557	20:06:54	0.22
243	20:10:14	0.127	10.343	20:13:36	0.127	12.962	20:14:18	0.127	11.253	20:10:28	0.22
244	20:15:14	0.127	8.063	20:16:35	0.127	14.027	20:16:55	0.127	10.557	20:19:28	0.22
245	20:20:14	0.127	11.011	20:20:25	0.127	17.356	20:23:50	0.127	8.605	20:23:55	0.22
246	20:25:14	0.127	9.57	20:29:41	0.127	17.356	20:25:33	0.127	10.557	20:26:57	0.22
247	20:30:14	0.127	9.062	20:32:49	0.127	17.356	20:31:53	0.127	9.062	20:32:27	0.22
248	20:35:14	0.127	11.253	20:37:54	0.127	14.027	20:39:19	0.127	9.752	20:38:42	0.22
249	20:40:14	0.127	8.605	20:44:18	0.127	14.841	20:40:49	0.127	10.139	20:44:19	0.22
250	20:45:14	0.127	11.253	20:49:25	0.127	16.254	20:47:14	0.127	8.325	20:46:03	0.22
251	20:50:14	0.127	8.325	20:51:43	0.127	16.254	20:51:13	0.127	9.57	20:50:37	0.22
252	20:55:14	0.127	10.557	20:56:46	0.127	13.299	20:56:52	0.127	9.394	20:59:34	0.22
253	21:00:14	0.127	9.752	21:03:44	0.127	16.787	21:00:31	0.127	11.011	21:00:39	0.22
254	21:05:14	0.127	9.225	21:10:04	0.127	15.284	21:10:06	0.127	10.779	21:10:08	0.22
255	21:10:14	0.127	7.938	21:12:28	0.127	14.027	21:12:28	0.127	11.011	21:13:15	0.22
256	21:15:14	0.127	10.779	21:17:57	0.127	12.337	21:15:24	0.127	11.253	21:15:29	0.22
257	21:20:14	0.127	8.752	21:24:08	0.127	15.754	21:20:56	0.127	10.557	21:20:38	0.22
258	21:25:14	0.127	9.57	21:25:34	0.127	14.027	21:27:46	0.127	12.337	21:25:29	0.22
259	21:30:14	0.127	11.253	21:30:23	0.127	9.57	21:32:25	0.127	9.57	21:33:58	0.22
260	21:35:14	0.127	11.253	21:39:01	0.127	18.618	21:37:26	0.127	12.642	21:35:51	0.22
261	21:40:14	0.127	8.904	21:43:57	0.127	16.254	21:44:16	0.127	10.779	21:44:36	0.22
262	21:45:14	0.127	11.77	21:48:33	0.127	15.284	21:48:21	0.127	10.557	21:50:03	0.22
263	21:50:14	0.127	8.904	21:54:15	0.127	12.337	21:51:21	0.127	10.139	21:51:19	0.22
264	21:55:14	0.127	10.139	21:59:45	0.127	15.284	21:56:28	0.127	8.752	21:58:14	0.22
265	22:00:14	0.127	9.57	22:04:36	0.127	15.284	22:02:56	0.127	10.557	22:02:03	0.22
266	22:05:14	0.127	11.506	22:05:34	0.127	16.787	22:05:21	0.127	9.752	22:06:13	0.22
267	22:10:14	0.127	11.011	22:10:56	0.127	14.423	22:12:38	0.127	9.394	22:10:28	0.22
268	22:15:14	0.127	10.779	22:19:35	0.127	14.841	22:19:48	0.127	10.139	22:15:15	0.22
269	22:20:14	0.127	11.011	22:24:23	0.127	17.965	22:22:58	0.127	9.225	22:23:31	0.22
270	22:25:14	0.127	11.253	22:28:38	0.127	16.254	22:27:50	0.127	13.653	22:25:46	0.22
271	22:30:14	0.127	9.57	22:33:07	0.127	15.284	22:31:36	0.127	11.77	22:33:59	0.22
272	22:35:14	0.127	11.253	22:37:22	0.127	16.787	22:35:10	0.127	10.557	22:38:36	0.22
273	22:40:14	0.127	10.343	22:40:35	0.127	16.787	22:44:26	0.127	11.506	22:44:47	0.22
274	22:45:14	0.127	9.942	22:47:12	0.127	17.965	22:47:27	0.127	10.139	22:46:36	0.22
275	22:50:14	0.127	9.752	22:51:08	0.127	17.356	22:52:07	0.127	10.343	22:53:01	0.22
276	22:55:14	0.127	8.605	22:56:32	0.127	16.787	22:56:25	0.127	10.139	22:59:52	0.22
277	23:00:14	0.127	8.325	23:04:41	0.127	16.254	23:00:41	0.127	8.752	23:01:31	0.22
278	23:05:14	0.127	8.325	23:08:48	0.127	18.618	23:06:47	0.127	9.942	23:06:49	0.22
279	23:10:14	0.127	9.752	23:11:12	0.127	17.356	23:10:52	0.127	9.752	23:12:28	0.22
280	23:15:14	0.127	10.557	23:17:42	0.127	20.898	23:17:28	0.127	10.557	23:18:03	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 10/4/2022 12:00:14 am
End: 11/4/2022
Summary Interval: 288
Air: 81.9 @ 0.54 Hz
Radial: 0.127 (mm/s) @ 6.52 Hz @ 5:45:35 am
Transverse: 0.381 (mm/s) @ 8.75 Hz @ 12:38:16 pm
Vertical: 0.254 (mm/s) @ 9.75 Hz @ 12:38:16 pm
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:14	0.127	9.752	23:23:46	0.127	17.965	23:22:42	0.127	12.337	23:24:08	0.22
282	23:25:14	0.127	12.337	23:26:26	0.127	14.423	23:28:12	0.127	12.962	23:26:06	0.22
283	23:30:14	0.127	10.139	23:32:15	0.127	18.618	23:34:12	0.127	12.962	23:30:29	0.22
284	23:35:14	0.127	11.506	23:38:45	0.127	16.787	23:39:45	0.127	12.642	23:37:50	0.22
285	23:40:14	0.127	11.253	23:41:49	0.127	17.965	23:41:58	0.127	11.011	23:44:37	0.22
286	23:45:14	0.127	10.557	23:48:23	0.127	19.321	23:46:55	0.127	10.779	23:48:05	0.22
287	23:50:14	0.127	8.605	23:50:58	0.127	17.965	23:54:58	0.127	11.506	23:51:13	0.22
288	23:55:14	0.127	11.253	23:59:28	0.127	17.965	23:56:25	0.127	12.642	23:55:17	0.22

Version 2.0.1.9 (07Nov2019(m))

File: Evt13.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

11/4/2022 at 12:00 am Event # 13

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 562.57 mm/s @ 1.09 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7873**	**12.8191**	**12.7556**
Frequency (Hz)	**17.0**	**14.6**	**24.3**

Air

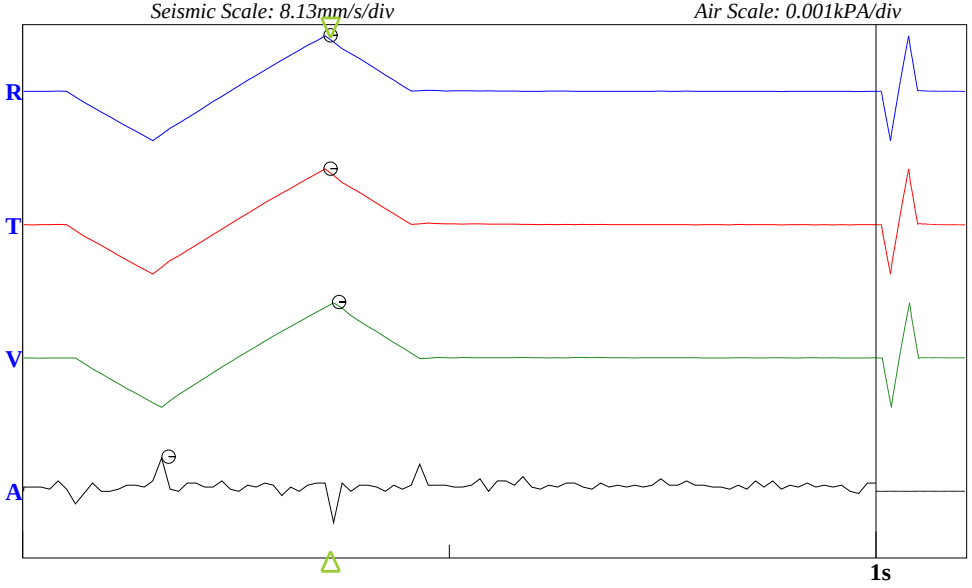
Gain: 1

Measurement	Value		
kPA	0.0005		
dBL	**88.0**		
Hz	512.0		

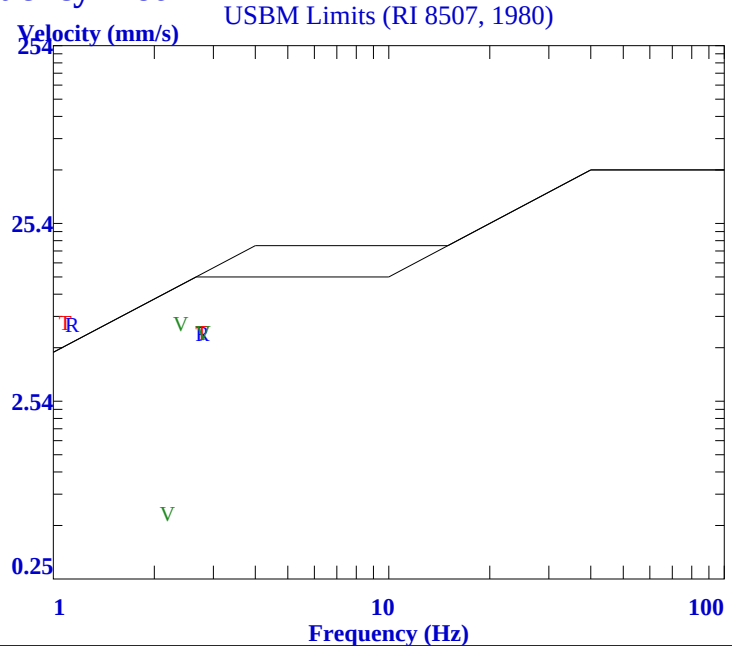
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.001kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.1.9 (07Nov2019(m))

File: Evt14.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

11/4/2022 at 12:00 am Event # 14

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:01 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.58 mm/s

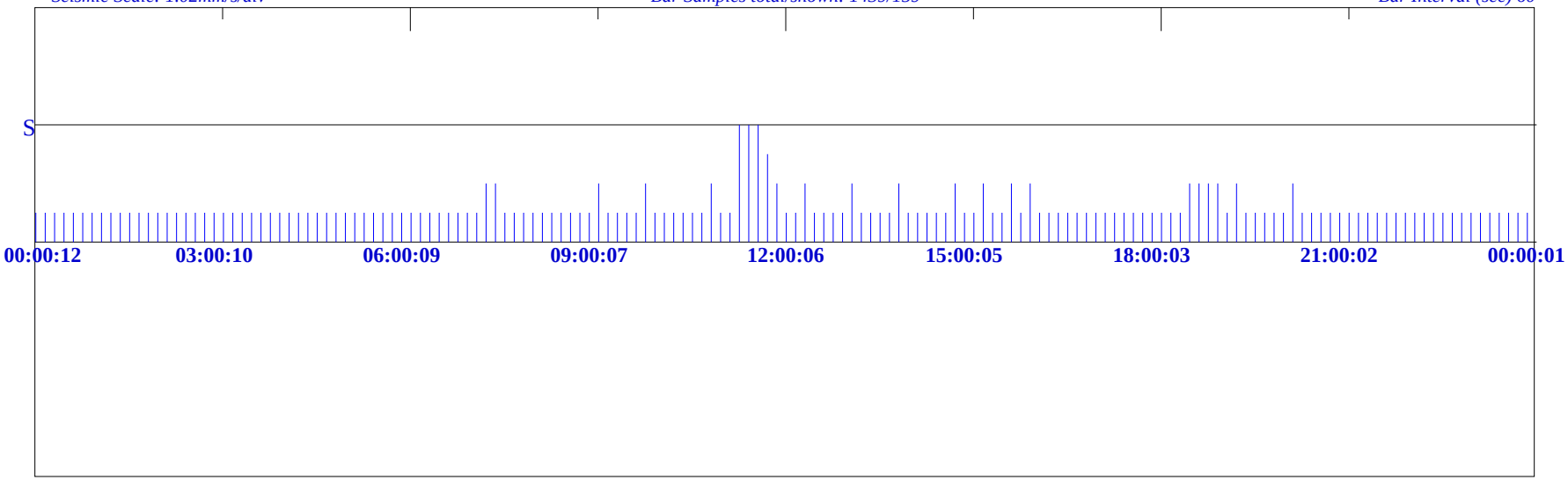
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	0.508	0.381	0.508
Frequency (Hz)	113.78	53.89	40.96
Time	11:41:35 am	11:22:04 am	11:21:07 am

BarGraph

Seismic Scale: 1.02mm/s/div

Bar Samples total/shown: 1439/159

Summary Interval (min): 5
Bar Interval (sec) 60



<<<<<<<<<<<<<<< 23:59:49 >>>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 11/4/2022 12:00:12 am
End: 12/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.7 Hz
Radial: 0.508 (mm/s) @ 113.78 Hz @ 11:41:35 am
Transverse: 0.381 (mm/s) @ 53.89 Hz @ 11:22:04 am
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 11:21:07 am
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:12	0.127	12.047	0:01:11	0.127	17.965	0:03:52	0.127	12.962	0:04:39	0.22
2	0:05:12	0.127	13.299	0:05:58	0.127	18.618	0:06:56	0.127	12.337	0:08:25	0.22
3	0:10:12	0.127	11.011	0:14:38	0.127	16.787	0:13:44	0.127	11.253	0:13:46	0.22
4	0:15:12	0.127	11.77	0:17:26	0.127	16.254	0:18:15	0.127	12.642	0:17:50	0.22
5	0:20:12	0.127	8.605	0:21:30	0.127	15.284	0:25:07	0.127	12.337	0:22:41	0.22
6	0:25:12	0.127	10.343	0:26:01	0.127	17.965	0:26:06	0.127	10.139	0:27:28	0.22
7	0:30:12	0.127	10.779	0:31:03	0.127	14.027	0:33:29	0.127	10.343	0:30:49	0.22
8	0:35:12	0.127	10.343	0:36:44	0.127	17.965	0:39:46	0.127	9.942	0:36:40	0.22
9	0:40:12	0.127	12.962	0:42:06	0.127	16.787	0:45:08	0.127	11.011	0:42:12	0.22
10	0:45:12	0.127	11.77	0:46:13	0.127	17.965	0:46:23	0.127	10.139	0:47:10	0.22
11	0:50:12	0.127	10.779	0:52:24	0.127	19.321	0:50:19	0.127	11.506	0:50:28	0.22
12	0:55:12	0.127	10.343	0:58:21	0.127	16.254	0:56:45	0.127	10.139	0:55:57	0.22
13	1:00:12	0.127	11.253	1:04:38	0.127	16.787	1:02:04	0.127	12.337	1:00:59	0.22
14	1:05:12	0.127	11.77	1:07:19	0.127	16.254	1:09:37	0.127	11.253	1:05:57	0.22
15	1:10:12	0.127	9.062	1:14:43	0.127	15.284	1:13:53	0.127	11.011	1:11:17	0.22
16	1:15:12	0.127	12.047	1:18:49	0.127	14.027	1:17:39	0.127	8.063	1:20:12	0.22
17	1:20:12	0.127	10.557	1:20:19	0.127	14.027	1:24:03	0.127	10.557	1:21:11	0.22
18	1:25:12	0.127	10.343	1:26:58	0.127	18.618	1:28:39	0.127	12.047	1:26:55	0.22
19	1:30:12	0.127	11.253	1:32:16	0.127	16.254	1:31:24	0.127	11.77	1:34:57	0.22
20	1:35:12	0.127	11.77	1:37:48	0.127	16.254	1:39:33	0.127	11.77	1:35:30	0.22
21	1:40:12	0.127	11.011	1:45:02	0.127	14.841	1:41:49	0.127	12.962	1:40:49	0.22
22	1:45:12	0.127	11.253	1:47:26	0.127	15.284	1:47:01	0.127	9.57	1:46:13	0.22
23	1:50:12	0.127	10.343	1:52:42	0.127	14.423	1:52:43	0.127	9.225	1:52:45	0.22
24	1:55:12	0.127	9.062	1:58:11	0.127	14.423	1:57:12	0.127	9.57	1:56:24	0.22
25	2:00:12	0.127	7.367	2:02:53	0.127	17.356	2:01:44	0.127	11.506	2:04:26	0.22
26	2:05:12	0.127	9.225	2:08:44	0.127	14.841	2:08:42	0.127	9.394	2:08:43	0.22
27	2:10:12	0.127	11.011	2:11:44	0.127	16.787	2:12:58	0.127	11.77	2:13:42	0.22
28	2:15:12	0.127	11.77	2:19:02	0.127	14.423	2:15:28	0.127	10.779	2:15:38	0.22
29	2:20:12	0.127	12.047	2:22:52	0.127	19.321	2:21:02	0.127	8.752	2:21:11	0.22
30	2:25:12	0.127	11.011	2:25:47	0.127	16.254	2:25:28	0.127	10.779	2:26:45	0.22
31	2:30:12	0.127	12.962	2:32:44	0.127	14.841	2:31:50	0.127	12.642	2:34:00	0.22
32	2:35:12	0.127	11.011	2:39:34	0.127	19.321	2:37:29	0.127	11.011	2:35:45	0.22
33	2:40:12	0.127	11.253	2:44:51	0.127	17.356	2:41:47	0.127	11.253	2:41:54	0.22
34	2:45:12	0.127	9.752	2:48:29	0.127	16.254	2:45:13	0.127	9.752	2:46:52	0.22
35	2:50:12	0.127	11.011	2:54:11	0.127	17.356	2:50:38	0.127	11.253	2:54:29	0.22
36	2:55:12	0.127	11.253	2:55:55	0.127	15.284	2:55:52	0.127	8.752	2:58:14	0.22
37	3:00:12	0.127	11.011	3:00:26	0.127	18.618	3:04:12	0.127	10.779	3:01:52	0.22
38	3:05:12	0.127	12.642	3:05:16	0.127	19.321	3:05:59	0.127	11.77	3:06:25	0.22
39	3:10:12	0.127	8.904	3:12:45	0.127	14.027	3:12:30	0.127	8.904	3:12:23	0.22
40	3:15:12	0.127	11.253	3:17:09	0.127	19.321	3:15:47	0.127	11.011	3:18:06	0.22
41	3:20:12	0.127	11.77	3:23:47	0.127	16.254	3:21:44	0.127	10.557	3:21:09	0.22
42	3:25:12	0.127	8.904	3:26:42	0.127	19.321	3:26:06	0.127	8.752	3:28:54	0.22
43	3:30:12	0.127	10.343	3:34:28	0.127	18.618	3:33:21	0.127	12.642	3:31:40	0.22
44	3:35:12	0.127	12.047	3:37:08	0.127	16.254	3:40:13	0.127	11.011	3:35:57	0.22
45	3:40:12	0.127	7.817	3:41:34	0.127	14.841	3:41:45	0.127	9.394	3:42:06	0.22
46	3:45:12	0.127	13.299	3:47:49	0.127	20.078	3:47:36	0.127	12.642	3:49:27	0.22
47	3:50:12	0.127	11.77	3:53:13	0.127	17.356	3:51:34	0.127	11.506	3:52:16	0.22
48	3:55:12	0.127	11.253	3:58:40	0.127	19.321	3:56:54	0.127	9.942	3:57:52	0.22
49	4:00:12	0.127	9.062	4:03:37	0.127	13.653	4:05:01	0.127	9.752	4:01:53	0.22
50	4:05:12	0.127	10.779	4:07:35	0.127	19.321	4:05:19	0.127	8.463	4:05:51	0.22
51	4:10:12	0.127	10.139	4:12:23	0.127	17.356	4:12:16	0.127	11.011	4:12:16	0.22
52	4:15:12	0.127	11.011	4:16:24	0.127	18.618	4:16:00	0.127	11.253	4:19:35	0.22
53	4:20:12	0.127	13.299	4:20:23	0.127	19.321	4:23:26	0.127	12.337	4:20:40	0.22
54	4:25:12	0.127	9.394	4:28:34	0.127	20.898	4:25:56	0.127	12.047	4:28:24	0.22
55	4:30:12	0.127	8.463	4:33:54	0.127	17.356	4:31:39	0.127	11.253	4:33:54	0.22
56	4:35:12	0.127	10.343	4:40:07	0.127	19.321	4:39:08	0.127	12.337	4:37:56	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 11/4/2022 12:00:12 am
End: 12/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.7 Hz
Radial: 0.508 (mm/s) @ 113.78 Hz @ 11:41:35 am
Transverse: 0.381 (mm/s) @ 53.89 Hz @ 11:22:04 am
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 11:21:07 am
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:12	0.127	10.557	4:43:02	0.127	17.356	4:43:02	0.127	10.557	4:43:02	0.22
58	4:45:12	0.127	11.506	4:47:24	0.127	16.787	4:47:41	0.127	11.77	4:47:28	0.22
59	4:50:12	0.127	11.506	4:54:55	0.127	18.618	4:50:12	0.127	11.506	4:51:30	0.22
60	4:55:12	0.127	11.506	4:59:19	0.127	14.423	4:59:21	0.127	11.77	4:59:23	0.22
61	5:00:12	0.127	11.253	5:03:08	0.127	16.787	5:03:26	0.127	12.047	5:01:11	0.22
62	5:05:12	0.127	11.253	5:08:50	0.127	17.356	5:07:12	0.127	12.642	5:06:52	0.22
63	5:10:12	0.127	7.938	5:13:39	0.127	20.898	5:12:09	0.127	12.642	5:14:36	0.22
64	5:15:12	0.127	8.752	5:18:51	0.127	12.962	5:18:46	0.127	10.557	5:17:43	0.22
65	5:20:12	0.127	10.343	5:20:13	0.127	17.356	5:22:07	0.127	11.011	5:21:54	0.22
66	5:25:12	0.127	9.57	5:29:09	0.127	17.356	5:26:56	0.127	11.011	5:27:23	0.22
67	5:30:12	0.127	8.752	5:31:13	0.127	20.078	5:30:51	0.127	11.253	5:34:06	0.22
68	5:35:12	0.127	9.942	5:35:42	0.127	17.356	5:35:31	0.127	11.506	5:37:04	0.22
69	5:40:12	0.127	10.343	5:42:19	0.127	16.787	5:44:36	0.127	9.062	5:44:34	0.22
70	5:45:12	0.127	11.506	5:49:13	0.127	12.962	5:45:22	0.127	11.011	5:45:20	0.22
71	5:50:12	0.127	10.139	5:52:32	0.127	17.356	5:50:24	0.127	10.779	5:52:48	0.22
72	5:55:12	0.127	9.942	5:55:49	0.127	15.754	5:57:29	0.127	8.752	5:59:27	0.22
73	6:00:12	0.127	9.225	6:01:13	0.127	17.356	6:03:53	0.127	10.557	6:01:19	0.22
74	6:05:12	0.127	7.585	6:06:51	0.127	17.356	6:05:46	0.127	10.139	6:08:22	0.22
75	6:10:12	0.127	7.938	6:12:40	0.127	16.254	6:15:00	0.127	9.752	6:14:35	0.22
76	6:15:12	0.127	9.394	6:15:41	0.127	16.254	6:17:39	0.127	10.139	6:19:40	0.22
77	6:20:12	0.127	9.57	6:25:06	0.127	14.423	6:23:42	0.127	8.904	6:22:50	0.22
78	6:25:12	0.127	9.062	6:26:13	0.127	14.841	6:25:38	0.127	9.394	6:27:05	0.22
79	6:30:12	0.127	9.942	6:34:58	0.127	13.653	6:30:53	0.127	9.225	6:32:34	0.22
80	6:35:12	0.127	7.938	6:38:38	0.127	10.557	6:39:25	0.127	8.605	6:39:24	0.22
81	6:40:12	0.127	10.139	6:40:35	0.127	14.841	6:40:38	0.127	9.57	6:40:43	0.22
82	6:45:12	0.127	9.394	6:47:05	0.127	12.642	6:46:19	0.127	9.225	6:46:59	0.22
83	6:50:12	0.127	9.57	6:55:02	0.127	11.506	6:50:16	0.127	8.463	6:50:58	0.22
84	6:55:12	0.127	8.752	6:55:44	0.127	15.284	6:57:29	0.127	8.192	6:57:06	0.22
85	7:00:12	0.127	10.139	7:02:23	0.127	12.337	7:01:13	0.127	9.394	7:03:15	0.22
86	7:05:12	0.127	8.904	7:06:19	0.127	11.011	7:06:12	0.127	9.752	7:09:18	0.22
87	7:10:12	0.127	7.938	7:11:30	0.127	14.423	7:11:11	0.127	9.062	7:11:12	0.22
88	7:15:12	0.127	9.394	7:19:34	0.127	14.027	7:20:09	0.254	37.926	7:16:24	0.284
89	7:20:12	0.127	9.062	7:24:24	0.127	9.752	7:20:31	0.127	10.779	7:22:07	0.22
90	7:25:12	0.127	8.063	7:28:41	0.127	15.284	7:28:07	0.254	44.522	7:28:30	0.284
91	7:30:12	0.127	6.522	7:33:39	0.127	11.253	7:33:41	0.127	9.225	7:34:39	0.22
92	7:35:12	0.127	7.699	7:35:27	0.127	13.299	7:39:05	0.127	7.817	7:39:15	0.22
93	7:40:12	0.127	9.062	7:44:40	0.127	11.253	7:43:30	0.127	9.752	7:42:36	0.22
94	7:45:12	0.127	8.463	7:46:11	0.127	12.047	7:49:53	0.127	8.063	7:48:54	0.22
95	7:50:12	0.127	7.161	7:53:13	0.127	14.423	7:51:31	0.127	10.343	7:51:05	0.22
96	7:55:12	0.127	8.752	7:55:48	0.127	14.841	7:56:00	0.127	8.605	7:56:53	0.22
97	8:00:12	0.127	9.394	8:01:45	0.127	13.653	8:00:18	0.127	10.343	8:00:42	0.22
98	8:05:12	0.127	8.463	8:07:29	0.127	15.754	8:09:22	0.127	8.752	8:07:37	0.22
99	8:10:12	0.127	10.557	8:11:38	0.127	13.653	8:11:06	0.127	9.225	8:13:47	0.22
100	8:15:12	0.127	7.585	8:17:31	0.127	12.047	8:19:13	0.127	9.394	8:16:09	0.22
101	8:20:12	0.127	7.938	8:23:54	0.127	9.062	8:25:04	0.127	10.779	8:23:56	0.22
102	8:25:12	0.127	9.57	8:28:46	0.127	11.506	8:25:13	0.127	9.225	8:30:04	0.22
103	8:30:12	0.127	7.817	8:32:19	0.127	13.299	8:32:35	0.127	9.394	8:30:17	0.22
104	8:35:12	0.127	8.463	8:36:37	0.127	13.299	8:39:46	0.127	9.942	8:37:46	0.22
105	8:40:12	0.127	8.063	8:44:20	0.127	12.642	8:44:50	0.127	9.57	8:43:25	0.22
106	8:45:12	0.127	6.522	8:48:41	0.127	13.653	8:45:24	0.127	8.605	8:46:14	0.22
107	8:50:12	0.127	7.262	8:51:31	0.127	11.253	8:52:56	0.127	7.474	8:52:23	0.22
108	8:55:12	0.127	9.752	8:56:05	0.127	14.423	8:59:27	0.127	9.225	8:55:50	0.22
109	9:00:12	0.127	9.225	9:03:49	0.127	14.841	9:02:19	0.127	10.557	9:03:43	0.22
110	9:05:12	0.127	9.062	9:08:58	0.127	16.254	9:07:18	0.254	341.333	9:05:31	0.311
111	9:10:12	0.127	7.817	9:12:33	0.127	12.047	9:12:34	0.127	7.817	9:13:29	0.22
112	9:15:12	0.127	8.463	9:18:21	0.127	9.57	9:19:50	0.127	7.367	9:15:44	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 11/4/2022 12:00:12 am
End: 12/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.7 Hz
Radial: 0.508 (mm/s) @ 113.78 Hz @ 11:41:35 am
Transverse: 0.381 (mm/s) @ 53.89 Hz @ 11:22:04 am
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 11:21:07 am
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:12	0.127	9.394	9:22:45	0.127	12.047	9:21:11	0.127	9.225	9:20:14	0.22
114	9:25:12	0.127	8.752	9:29:00	0.127	14.027	9:26:06	0.127	8.605	9:28:02	0.22
115	9:30:12	0.127	9.942	9:33:23	0.127	7.817	9:32:12	0.127	11.011	9:31:15	0.22
116	9:35:12	0.127	9.57	9:35:49	0.127	6.36	9:37:01	0.127	9.394	9:37:19	0.22
117	9:40:12	0.127	9.57	9:41:34	0.127	8.063	9:41:08	0.127	8.605	9:44:14	0.22
118	9:45:12	0.127	8.325	9:46:52	0.127	7.474	9:46:50	0.254	8.463	9:48:49	0.284
119	9:50:12	0.127	9.394	9:54:51	0.127	8.904	9:54:47	0.127	9.225	9:53:49	0.22
120	9:55:12	0.127	9.394	9:55:27	0.127	7.367	9:59:44	0.127	9.394	9:55:34	0.22
121	10:00:12	0.127	9.394	10:00:51	0.127	7.062	10:00:35	0.127	9.752	10:01:34	0.22
122	10:05:12	0.127	8.063	10:07:47	0.127	7.262	10:08:18	0.127	10.343	10:07:08	0.22
123	10:10:12	0.127	8.463	10:13:21	0.127	6.693	10:13:24	0.127	7.817	10:11:23	0.22
124	10:15:12	0.127	10.343	10:18:37	0.127	7.161	10:17:23	0.127	8.904	10:19:21	0.22
125	10:20:12	0.127	12.047	10:20:37	0.127	6.522	10:23:39	0.127	8.463	10:20:44	0.22
126	10:25:12	0.127	9.394	10:26:28	0.127	5.721	10:29:40	0.127	7.938	10:26:37	0.22
127	10:30:12	0.127	9.062	10:34:12	0.127	7.367	10:30:11	0.127	9.225	10:33:23	0.22
128	10:35:12	0.127	11.506	10:35:41	0.127	5.851	10:38:48	0.127	7.585	10:40:01	0.22
129	10:40:12	0.127	8.904	10:41:19	0.127	7.262	10:44:25	0.127	9.394	10:41:08	0.22
130	10:45:12	0.127	9.062	10:45:35	0.127	4.853	10:45:19	0.127	8.904	10:49:07	0.22
131	10:50:12	0.254	8.752	10:52:51	0.127	5.535	10:53:13	0.127	8.904	10:50:27	0.284
132	10:55:12	0.127	8.904	10:58:41	0.127	6.606	10:58:49	0.127	9.752	10:59:59	0.22
133	11:00:12	0.127	8.904	11:03:44	0.127	7.161	11:03:45	0.127	8.904	11:04:34	0.22
134	11:05:12	0.127	9.752	11:05:45	0.127	6.781	11:08:15	0.127	10.139	11:09:24	0.22
135	11:10:12	0.127	10.779	11:14:02	0.127	7.367	11:10:40	0.127	9.225	11:13:53	0.22
136	11:15:12	0.254	93.091	11:19:30	0.127	7.585	11:17:45	0.127	8.325	11:17:05	0.284
137	11:20:12	0.381	40.96	11:24:22	0.381	53.895	11:22:04	0.508	40.96	11:21:07	0.582
138	11:25:12	0.381	113.778	11:27:57	0.254	20.898	11:25:17	0.254	37.926	11:28:16	0.381
139	11:30:12	0.254	23.814	11:30:13	0.254	68.267	11:30:35	0.381	113.778	11:32:53	0.421
140	11:35:12	0.254	93.091	11:39:50	0.254	8.904	11:37:19	0.381	13.299	11:39:07	0.475
141	11:40:12	0.508	113.778	11:41:35	0.254	53.895	11:42:55	0.508	113.778	11:41:35	0.582
142	11:45:12	0.254	12.047	11:46:46	0.127	8.192	11:48:35	0.381	113.778	11:46:46	0.458
143	11:50:12	0.127	10.139	11:52:28	0.127	6.282	11:52:18	0.254	16.254	11:50:39	0.284
144	11:55:12	0.127	8.192	11:56:31	0.127	6.606	11:56:46	0.254	78.769	11:57:24	0.311
145	12:00:12	0.127	9.062	12:01:21	0.127	7.585	12:01:56	0.127	9.062	12:00:55	0.22
146	12:05:12	0.127	10.343	12:06:12	0.127	7.161	12:06:47	0.127	8.463	12:09:55	0.22
147	12:10:12	0.127	9.225	12:11:38	0.127	6.606	12:11:38	0.127	8.752	12:12:29	0.22
148	12:15:12	0.254	146.286	12:18:35	0.127	6.693	12:15:17	0.254	113.778	12:18:17	0.311
149	12:20:12	0.127	9.57	12:21:41	0.127	7.262	12:21:53	0.127	9.752	12:25:07	0.22
150	12:25:12	0.127	8.463	12:29:20	0.127	6.693	12:28:20	0.127	10.343	12:29:24	0.22
151	12:30:12	0.127	6.132	12:33:34	0.127	6.872	12:30:36	0.127	9.752	12:33:38	0.22
152	12:35:12	0.127	9.57	12:37:00	0.127	7.062	12:37:56	0.127	8.192	12:36:28	0.22
153	12:40:12	0.127	9.752	12:44:45	0.127	6.132	12:44:40	0.127	9.062	12:40:38	0.22
154	12:45:12	0.127	9.752	12:49:46	0.127	6.966	12:45:17	0.127	10.779	12:45:13	0.22
155	12:50:12	0.127	8.605	12:54:55	0.127	5.657	12:52:20	0.127	10.557	12:55:05	0.22
156	12:55:12	0.127	9.942	12:59:29	0.127	6.781	12:56:58	0.127	9.57	12:59:54	0.22
157	13:00:12	0.127	10.139	13:04:25	0.127	5.535	13:03:45	0.127	9.57	13:04:20	0.22
158	13:05:12	0.127	6.693	13:10:08	0.127	5.721	13:07:08	0.254	10.343	13:06:47	0.311
159	13:10:12	0.127	8.904	13:13:22	0.127	5.535	13:13:48	0.127	9.57	13:11:10	0.22
160	13:15:12	0.127	8.752	13:17:33	0.127	6.36	13:16:01	0.127	9.752	13:19:41	0.22
161	13:20:12	0.127	7.938	13:21:52	0.127	6.606	13:22:53	0.127	7.817	13:23:40	0.22
162	13:25:12	0.127	8.605	13:26:24	0.127	6.693	13:27:48	0.127	8.063	13:25:36	0.22
163	13:30:12	0.127	9.57	13:30:54	0.127	6.522	13:31:54	0.127	9.062	13:32:17	0.22
164	13:35:12	0.127	8.325	13:35:31	0.127	5.988	13:35:39	0.127	8.463	13:38:18	0.22
165	13:40:12	0.127	10.779	13:44:41	0.127	5.044	13:40:10	0.127	8.463	13:40:36	0.22
166	13:45:12	0.127	7.938	13:47:22	0.127	6.522	13:47:13	0.254	44.522	13:49:06	0.254
167	13:50:12	0.127	7.817	13:53:38	0.127	5.535	13:51:50	0.254	53.895	13:53:44	0.254
168	13:55:12	0.127	7.262	13:55:37	0.127	6.36	13:55:24	0.127	8.463	13:59:07	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 11/4/2022 12:00:12 am
End: 12/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.7 Hz
Radial: 0.508 (mm/s) @ 113.78 Hz @ 11:41:35 am
Transverse: 0.381 (mm/s) @ 53.89 Hz @ 11:22:04 am
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 11:21:07 am
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:12	0.127	6.781	14:01:52	0.127	6.059	14:04:54	0.127	9.57	14:01:29	0.22
170	14:05:12	0.127	8.752	14:10:01	0.127	5.095	14:05:45	0.127	10.557	14:07:13	0.22
171	14:10:12	0.127	7.817	14:11:48	0.127	5.919	14:11:14	0.127	9.752	14:14:55	0.22
172	14:15:12	0.127	8.063	14:15:12	0.127	6.781	14:18:28	0.127	9.062	14:19:53	0.22
173	14:20:12	0.127	7.699	14:22:17	0.127	7.062	14:20:17	0.127	9.062	14:24:03	0.22
174	14:25:12	0.127	9.752	14:29:12	0.127	7.161	14:29:59	0.127	8.605	14:30:07	0.22
175	14:30:12	0.127	9.57	14:33:00	0.127	6.781	14:34:33	0.127	9.752	14:31:31	0.22
176	14:35:12	0.127	7.817	14:39:17	0.127	7.161	14:36:50	0.127	8.463	14:36:08	0.22
177	14:40:12	0.127	8.063	14:44:35	0.127	6.36	14:42:57	0.254	37.926	14:43:29	0.311
178	14:45:12	0.127	8.325	14:48:30	0.127	6.966	14:46:44	0.127	8.063	14:47:50	0.22
179	14:50:12	0.127	8.904	14:51:24	0.127	7.262	14:51:26	0.127	10.557	14:50:54	0.22
180	14:55:12	0.127	9.57	14:55:30	0.127	6.522	14:58:17	0.127	9.225	14:57:14	0.22
181	15:00:12	0.127	8.063	15:04:51	0.127	6.781	15:00:10	0.127	9.394	15:02:01	0.22
182	15:05:12	0.127	7.585	15:08:25	0.127	6.44	15:09:57	0.127	9.062	15:06:57	0.22
183	15:10:12	0.127	8.463	15:10:19	0.127	7.161	15:14:32	0.127	7.367	15:14:48	0.22
184	15:15:12	0.127	11.011	15:16:52	0.127	6.282	15:18:09	0.254	48.762	15:15:51	0.284
185	15:20:12	0.127	11.253	15:21:40	0.127	7.367	15:23:05	0.127	9.57	15:22:01	0.22
186	15:25:12	0.127	8.192	15:28:01	0.127	6.693	15:25:40	0.127	9.062	15:29:31	0.22
187	15:30:12	0.127	9.942	15:30:36	0.127	6.522	15:33:32	0.127	9.394	15:33:18	0.22
188	15:35:12	0.127	10.139	15:39:34	0.127	6.282	15:37:22	0.254	113.778	15:36:38	0.284
189	15:40:12	0.127	9.062	15:42:51	0.127	7.161	15:40:30	0.127	9.942	15:42:14	0.22
190	15:45:12	0.127	8.904	15:48:39	0.127	7.062	15:45:49	0.127	8.463	15:47:38	0.22
191	15:50:12	0.127	7.938	15:53:02	0.127	5.988	15:52:02	0.127	8.752	15:52:59	0.22
192	15:55:12	0.254	204.8	15:56:23	0.127	4.112	15:59:38	0.254	113.778	15:56:11	0.311
193	16:00:12	0.254	113.778	16:01:47	0.127	6.282	16:03:15	0.254	12.337	16:01:47	0.359
194	16:05:12	0.127	9.57	16:07:46	0.127	6.781	16:06:58	0.127	9.752	16:09:29	0.22
195	16:10:12	0.127	7.262	16:13:41	0.127	6.36	16:10:21	0.127	8.904	16:10:33	0.22
196	16:15:12	0.127	8.904	16:16:06	0.127	5.596	16:17:51	0.127	6.606	16:16:00	0.22
197	16:20:12	0.127	8.752	16:23:24	0.127	6.282	16:24:57	0.127	8.904	16:25:08	0.22
198	16:25:12	0.127	8.463	16:27:08	0.127	6.059	16:27:22	0.127	7.699	16:29:13	0.22
199	16:30:12	0.127	8.063	16:34:36	0.127	5.919	16:33:01	0.127	8.605	16:32:02	0.22
200	16:35:12	0.127	9.225	16:38:45	0.127	5.535	16:36:57	0.127	8.605	16:37:47	0.22
201	16:40:12	0.127	8.463	16:44:19	0.127	6.522	16:43:56	0.127	8.605	16:44:50	0.22
202	16:45:12	0.127	7.817	16:47:42	0.127	6.206	16:48:01	0.127	9.225	16:48:48	0.22
203	16:50:12	0.127	9.57	16:50:42	0.127	5.988	16:51:51	0.127	9.394	16:54:20	0.22
204	16:55:12	0.127	7.474	16:59:30	0.127	5.785	16:59:36	0.127	8.192	16:56:50	0.22
205	17:00:12	0.127	9.57	17:04:02	0.127	6.132	17:04:21	0.127	8.904	17:01:44	0.22
206	17:05:12	0.127	7.062	17:07:36	0.127	6.693	17:07:30	0.127	9.225	17:06:50	0.22
207	17:10:12	0.127	9.394	17:13:34	0.127	6.44	17:11:51	0.127	8.063	17:11:13	0.22
208	17:15:12	0.127	9.062	17:19:08	0.127	6.282	17:16:10	0.127	9.942	17:16:05	0.22
209	17:20:12	0.127	8.752	17:21:49	0.127	6.872	17:21:13	0.127	9.394	17:23:35	0.22
210	17:25:12	0.127	8.752	17:26:51	0.127	7.062	17:25:10	0.127	7.699	17:28:18	0.22
211	17:30:12	0.127	7.938	17:33:07	0.127	5.657	17:33:35	0.127	8.463	17:34:59	0.22
212	17:35:12	0.127	7.161	17:36:59	0.127	6.966	17:38:23	0.127	8.904	17:39:21	0.22
213	17:40:12	0.127	7.474	17:43:17	0.127	3.864	17:41:50	0.127	8.904	17:41:47	0.22
214	17:45:12	0.127	7.699	17:48:30	0.127	6.206	17:50:03	0.127	9.57	17:49:24	0.22
215	17:50:12	0.127	7.474	17:50:30	0.127	5.306	17:50:27	0.127	5.306	17:50:29	0.22
216	17:55:12	0.127	11.253	17:59:54	0.127	5.535	17:59:07	0.127	7.699	17:59:40	0.22
217	18:00:12	0.127	7.699	18:05:04	0.127	6.522	18:01:04	0.127	9.225	18:01:48	0.22
218	18:05:12	0.127	10.139	18:05:32	0.127	6.522	18:05:53	0.127	9.225	18:05:40	0.22
219	18:10:12	0.127	8.192	18:13:35	0.127	6.522	18:14:56	0.127	8.752	18:13:36	0.22
220	18:15:12	0.127	8.192	18:17:50	0.127	6.059	18:17:34	0.127	9.062	18:15:12	0.22
221	18:20:12	0.127	9.57	18:22:49	0.127	6.36	18:24:03	0.127	8.752	18:21:14	0.22
222	18:25:12	0.127	9.942	18:29:59	0.127	6.693	18:27:23	0.127	11.011	18:25:55	0.22
223	18:30:12	0.127	9.225	18:32:09	0.127	7.474	18:31:06	0.254	10.779	18:32:56	0.284
224	18:35:12	0.127	8.192	18:36:44	0.127	6.966	18:35:12	0.254	9.062	18:39:58	0.284

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 11/4/2022 12:00:12 am
End: 12/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.7 Hz
Radial: 0.508 (mm/s) @ 113.78 Hz @ 11:41:35 am
Transverse: 0.381 (mm/s) @ 53.89 Hz @ 11:22:04 am
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 11:21:07 am
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:12	0.127	8.904	18:40:41	0.127	7.161	18:44:17	0.127	9.225	18:44:11	0.22
226	18:45:12	0.127	7.699	18:46:05	0.127	6.966	18:48:29	0.127	8.904	18:49:31	0.22
227	18:50:12	0.127	7.699	18:52:29	0.127	6.206	18:50:25	0.254	60.235	18:52:40	0.284
228	18:55:12	0.127	10.779	19:00:04	0.127	5.988	18:56:38	0.254	68.267	18:57:20	0.254
229	19:00:12	0.127	9.942	19:04:27	0.127	6.781	19:01:18	0.127	8.904	19:04:57	0.22
230	19:05:12	0.127	10.343	19:06:04	0.127	7.161	19:08:10	0.127	10.343	19:06:42	0.22
231	19:10:12	0.127	10.139	19:10:33	0.127	7.062	19:10:25	0.127	11.506	19:12:01	0.22
232	19:15:12	0.127	10.139	19:15:25	0.127	7.585	19:17:48	0.254	12.642	19:16:09	0.284
233	19:20:12	0.127	9.225	19:24:35	0.127	7.585	19:24:21	0.127	10.557	19:24:35	0.22
234	19:25:12	0.127	9.225	19:27:35	0.127	7.161	19:28:20	0.127	9.394	19:28:06	0.22
235	19:30:12	0.127	8.063	19:30:55	0.127	7.699	19:34:38	0.127	9.942	19:30:23	0.22
236	19:35:12	0.127	8.325	19:38:37	0.127	6.872	19:36:32	0.127	9.57	19:40:01	0.22
237	19:40:12	0.127	9.57	19:45:01	0.127	8.463	19:43:03	0.127	9.062	19:40:13	0.22
238	19:45:12	0.127	10.343	19:45:38	0.127	5.919	19:47:40	0.127	10.557	19:45:39	0.22
239	19:50:12	0.127	9.57	19:54:58	0.127	6.781	19:53:39	0.127	8.605	19:52:49	0.22
240	19:55:12	0.127	8.752	19:57:57	0.127	7.474	19:58:30	0.127	9.57	19:58:31	0.22
241	20:00:12	0.127	9.062	20:02:38	0.127	6.872	20:04:32	0.127	10.139	20:03:01	0.22
242	20:05:12	0.127	10.343	20:08:36	0.127	7.262	20:08:02	0.127	11.77	20:07:55	0.22
243	20:10:12	0.127	9.942	20:11:55	0.127	6.872	20:12:54	0.254	146.286	20:13:26	0.284
244	20:15:12	0.127	9.752	20:17:53	0.127	7.062	20:16:51	0.127	9.752	20:20:07	0.22
245	20:20:12	0.127	9.942	20:24:02	0.127	7.585	20:20:47	0.127	11.253	20:21:23	0.22
246	20:25:12	0.127	8.904	20:28:57	0.127	6.966	20:26:43	0.127	8.463	20:26:12	0.22
247	20:30:12	0.127	9.225	20:33:06	0.127	6.44	20:30:08	0.127	9.394	20:32:12	0.22
248	20:35:12	0.127	9.062	20:36:13	0.127	7.262	20:38:18	0.127	9.57	20:36:35	0.22
249	20:40:12	0.127	10.779	20:42:51	0.127	7.367	20:41:32	0.127	11.011	20:40:21	0.22
250	20:45:12	0.127	9.394	20:46:29	0.127	7.585	20:46:00	0.127	9.225	20:46:30	0.22
251	20:50:12	0.127	11.011	20:52:23	0.127	7.474	20:50:56	0.127	10.557	20:50:48	0.22
252	20:55:12	0.127	9.942	20:58:23	0.127	8.463	20:57:24	0.127	7.938	20:58:54	0.22
253	21:00:12	0.127	10.779	21:02:08	0.127	8.752	21:00:34	0.127	11.011	21:02:30	0.22
254	21:05:12	0.127	8.752	21:08:48	0.127	8.063	21:07:33	0.127	9.062	21:08:32	0.22
255	21:10:12	0.127	10.139	21:13:36	0.127	8.605	21:10:49	0.127	9.942	21:14:57	0.22
256	21:15:12	0.127	11.77	21:16:57	0.127	6.693	21:16:27	0.127	11.506	21:16:49	0.22
257	21:20:12	0.127	12.642	21:22:16	0.127	6.781	21:22:40	0.127	10.779	21:20:57	0.22
258	21:25:12	0.127	9.57	21:27:39	0.127	6.693	21:28:20	0.127	9.752	21:26:00	0.22
259	21:30:12	0.127	10.779	21:32:50	0.127	6.282	21:30:09	0.127	11.011	21:32:43	0.22
260	21:35:12	0.127	9.752	21:40:07	0.127	6.872	21:37:14	0.127	11.506	21:38:41	0.22
261	21:40:12	0.127	10.139	21:42:21	0.127	7.474	21:43:21	0.127	11.253	21:40:39	0.22
262	21:45:12	0.127	9.942	21:48:48	0.127	7.062	21:45:47	0.127	9.942	21:47:05	0.22
263	21:50:12	0.127	11.77	21:51:48	0.127	7.367	21:51:41	0.127	11.77	21:50:57	0.22
264	21:55:12	0.127	8.063	21:59:57	0.127	7.699	21:56:40	0.127	7.161	21:59:43	0.22
265	22:00:12	0.127	11.506	22:00:38	0.127	5.198	22:00:50	0.127	9.394	22:01:00	0.22
266	22:05:12	0.127	11.253	22:07:23	0.127	6.966	22:08:55	0.127	10.343	22:09:43	0.22
267	22:10:12	0.127	10.779	22:12:11	0.127	7.938	22:12:23	0.127	10.343	22:15:01	0.22
268	22:15:12	0.127	11.77	22:18:51	0.127	8.463	22:15:12	0.127	10.343	22:18:50	0.22
269	22:20:12	0.127	9.225	22:20:13	0.127	7.699	22:20:23	0.127	10.779	22:23:34	0.22
270	22:25:12	0.127	11.011	22:25:54	0.127	7.817	22:27:25	0.127	12.047	22:29:50	0.22
271	22:30:12	0.127	6.966	22:30:29	0.127	6.206	22:30:25	0.127	10.779	22:30:28	0.22
272	22:35:12	0.127	11.506	22:36:36	0.127	6.966	22:38:23	0.127	12.962	22:36:56	0.22
273	22:40:12	0.127	12.337	22:43:25	0.127	7.474	22:42:55	0.127	12.962	22:44:43	0.22
274	22:45:12	0.127	4.947	22:46:23	0.127	6.693	22:49:54	0.127	10.779	22:47:32	0.22
275	22:50:12	0.127	11.506	22:50:37	0.127	9.062	22:51:47	0.127	12.642	22:52:21	0.22
276	22:55:12	0.127	11.506	22:56:50	0.127	8.752	22:58:32	0.127	12.337	22:59:01	0.22
277	23:00:12	0.127	11.253	23:01:18	0.127	5.418	23:00:31	0.127	12.337	23:02:47	0.22
278	23:05:12	0.127	12.337	23:09:29	0.127	5.988	23:09:59	0.127	12.962	23:06:44	0.22
279	23:10:12	0.127	11.506	23:11:48	0.127	6.606	23:10:54	0.127	11.77	23:10:55	0.22
280	23:15:12	0.127	8.463	23:17:14	0.127	8.063	23:15:56	0.127	9.752	23:15:14	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 11/4/2022 12:00:12 am
End: 12/4/2022 12:00:01 am
Summary Interval: 288
Air: 81.9 @ 0.7 Hz
Radial: 0.508 (mm/s) @ 113.78 Hz @ 11:41:35 am
Transverse: 0.381 (mm/s) @ 53.89 Hz @ 11:22:04 am
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 11:21:07 am
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:12	0.127	10.779	23:20:13	0.127	6.781	23:23:07	0.127	9.942	23:20:17	0.22
282	23:25:12	0.127	9.57	23:25:16	0.127	7.262	23:25:09	0.127	9.225	23:27:08	0.22
283	23:30:12	0.127	10.779	23:31:53	0.127	7.161	23:31:55	0.127	9.062	23:31:47	0.22
284	23:35:12	0.127	9.752	23:37:41	0.127	8.063	23:37:38	0.127	9.225	23:39:19	0.22
285	23:40:12	0.127	10.557	23:43:42	0.127	5.198	23:43:50	0.127	11.506	23:42:14	0.22
286	23:45:12	0.127	12.047	23:49:52	0.127	7.367	23:46:35	0.127	11.77	23:48:35	0.22
287	23:50:12	0.127	10.139	23:52:30	0.127	7.161	23:50:16	0.127	10.779	23:53:13	0.22
288	23:55:12	0.127	9.752	23:55:49	0.127	7.938	23:55:46	0.127	11.011	23:55:49	0.22

Version 2.0.1.9 (07Nov2019(m))

File: Evt15.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

12/4/2022 at 12:00 am Event # 15

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

Distance: N Wgt. Per Delay: N Scaled Distance: N

No GPS Data

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

Seismic

Gain: 1

Vector Sum: 562.92 mm/s @ 1.32 Hz

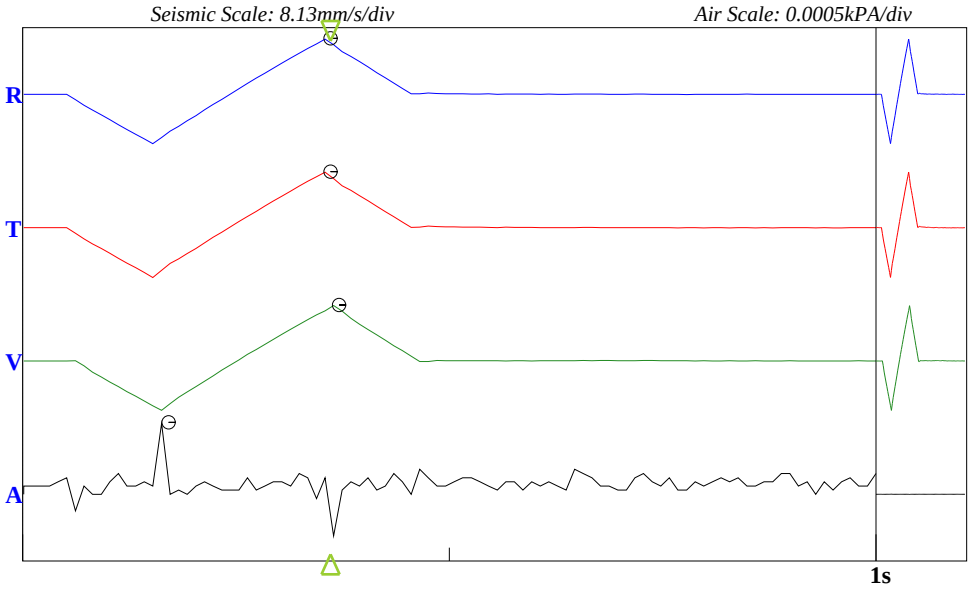
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7556**	**12.8508**	**12.7794**
Frequency (Hz)	**17.0**	**24.3**	**24.3**

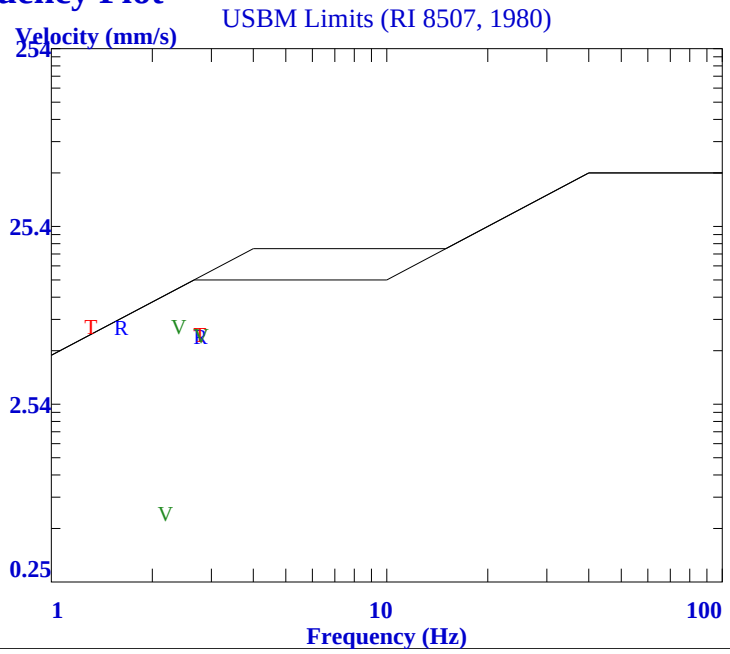
Air

Gain: 1

Measurement	Value		
kPA	0.000437		
dBL	**86.8**		
Hz	512.0		

Waveform Analysis / Frequency Plot





Version 2.0.1.9 (07Nov2019(m))

File: Evt16.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

12/4/2022 at 12:00 am Event # 16

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:03 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.54 mm/s

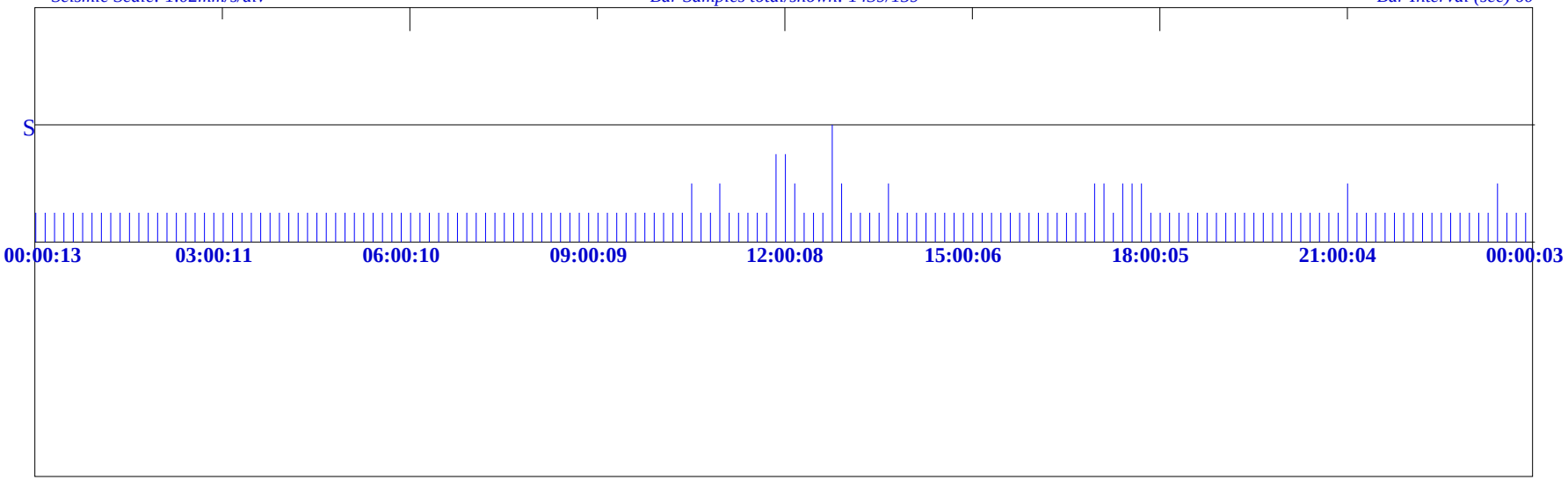
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	0.381	0.254	0.508
Frequency (Hz)	9.75	7.82	40.96
Time	12:48:26 pm	12:48:26 pm	12:48:26 pm

BarGraph

Seismic Scale: 1.02mm/s/div

Bar Samples total/shown: 1439/159

Summary Interval (min): 5
Bar Interval (sec) 60



<<<<<<<<<<<<<<< 23:59:50 >>>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 12/4/2022 12:00:13 am
End: 13/4/2022 12:00:03 am
Summary Interval: 288
Air: 81.9 @ 0.72 Hz
Radial: 0.381 (mm/s) @ 9.75 Hz @ 12:48:26 pm
Transverse: 0.254 (mm/s) @ 7.82 Hz @ 12:48:26 pm
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 12:48:26 pm
Vector Sum: .54 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:13	0.127	10.139	0:01:42	0.127	17.965	0:00:43	0.127	11.253	0:01:47	0.22
2	0:05:13	0.127	11.77	0:08:10	0.127	18.618	0:05:43	0.127	12.962	0:10:11	0.22
3	0:10:13	0.127	10.139	0:14:54	0.127	15.284	0:14:56	0.127	10.343	0:12:49	0.22
4	0:15:13	0.127	12.047	0:18:54	0.127	17.356	0:16:11	0.127	9.062	0:16:32	0.22
5	0:20:13	0.127	10.139	0:24:03	0.127	14.841	0:23:14	0.127	10.779	0:21:01	0.22
6	0:25:13	0.127	10.779	0:27:39	0.127	19.321	0:25:48	0.127	9.062	0:29:04	0.22
7	0:30:13	0.127	13.653	0:31:25	0.127	19.321	0:31:33	0.127	11.506	0:32:02	0.22
8	0:35:13	0.127	10.139	0:37:25	0.127	19.321	0:39:52	0.127	12.337	0:37:25	0.22
9	0:40:13	0.127	12.337	0:40:32	0.127	14.841	0:42:45	0.127	12.047	0:40:29	0.22
10	0:45:13	0.127	9.062	0:47:04	0.127	20.078	0:47:59	0.127	10.779	0:46:54	0.22
11	0:50:13	0.127	10.139	0:53:08	0.127	20.898	0:53:15	0.127	10.557	0:53:08	0.22
12	0:55:13	0.127	8.752	0:59:04	0.127	17.965	0:58:38	0.127	11.506	0:59:05	0.22
13	1:00:13	0.127	11.77	1:02:30	0.127	19.321	1:05:12	0.127	12.962	1:04:55	0.22
14	1:05:13	0.127	11.253	1:07:47	0.127	21.787	1:07:38	0.127	9.942	1:07:20	0.22
15	1:10:13	0.127	11.77	1:10:29	0.127	17.356	1:13:04	0.127	10.779	1:14:45	0.22
16	1:15:13	0.127	12.962	1:17:59	0.127	19.321	1:16:12	0.127	11.253	1:17:02	0.22
17	1:20:13	0.127	10.779	1:20:50	0.127	16.254	1:24:09	0.127	11.506	1:25:03	0.22
18	1:25:13	0.127	11.506	1:28:29	0.127	20.898	1:30:10	0.127	11.011	1:27:21	0.22
19	1:30:13	0.127	9.942	1:33:04	0.127	15.284	1:30:33	0.127	11.011	1:30:29	0.22
20	1:35:13	0.127	12.642	1:39:52	0.127	19.321	1:36:49	0.127	12.337	1:38:26	0.22
21	1:40:13	0.127	7.817	1:42:17	0.127	16.254	1:40:32	0.127	11.253	1:42:17	0.22
22	1:45:13	0.127	9.942	1:48:45	0.127	15.284	1:48:35	0.127	9.752	1:48:47	0.22
23	1:50:13	0.127	10.343	1:53:59	0.127	20.898	1:54:14	0.127	8.752	1:53:59	0.22
24	1:55:13	0.127	12.642	1:57:48	0.127	14.423	1:55:50	0.127	11.77	1:59:52	0.22
25	2:00:13	0.127	11.011	2:03:52	0.127	19.321	2:00:41	0.127	12.962	2:01:55	0.22
26	2:05:13	0.127	11.011	2:05:55	0.127	14.841	2:06:16	0.127	11.253	2:09:00	0.22
27	2:10:13	0.127	11.253	2:12:42	0.127	21.787	2:11:13	0.127	12.337	2:12:08	0.22
28	2:15:13	0.127	10.557	2:15:29	0.127	21.787	2:17:02	0.127	11.506	2:16:08	0.22
29	2:20:13	0.127	11.011	2:22:27	0.127	20.898	2:20:28	0.127	10.557	2:21:24	0.22
30	2:25:13	0.127	11.011	2:28:50	0.127	17.356	2:28:36	0.127	9.942	2:27:39	0.22
31	2:30:13	0.127	11.506	2:33:40	0.127	21.787	2:31:17	0.127	14.423	2:31:50	0.22
32	2:35:13	0.127	10.343	2:39:52	0.127	20.898	2:35:15	0.127	11.77	2:37:41	0.22
33	2:40:13	0.127	8.752	2:44:15	0.127	20.898	2:41:16	0.127	10.557	2:41:08	0.22
34	2:45:13	0.127	10.139	2:46:37	0.127	16.787	2:47:07	0.127	13.299	2:48:15	0.22
35	2:50:13	0.127	11.011	2:53:34	0.127	19.321	2:50:50	0.127	12.337	2:51:53	0.22
36	2:55:13	0.127	10.139	2:58:42	0.127	17.965	2:57:07	0.127	11.77	2:58:22	0.22
37	3:00:13	0.127	10.343	3:02:38	0.127	17.356	3:02:43	0.127	9.752	3:00:56	0.22
38	3:05:13	0.127	11.506	3:07:28	0.127	16.254	3:05:38	0.127	9.942	3:06:46	0.22
39	3:10:13	0.127	12.337	3:13:53	0.127	18.618	3:10:34	0.127	14.423	3:12:00	0.22
40	3:15:13	0.127	10.343	3:15:58	0.127	21.787	3:16:17	0.127	11.011	3:19:59	0.22
41	3:20:13	0.127	12.337	3:23:16	0.127	19.321	3:24:11	0.127	12.642	3:24:49	0.22
42	3:25:13	0.127	12.047	3:29:26	0.127	20.898	3:27:08	0.127	11.506	3:26:35	0.22
43	3:30:13	0.127	11.506	3:30:51	0.127	13.653	3:33:57	0.127	12.962	3:34:00	0.22
44	3:35:13	0.127	12.337	3:39:26	0.127	18.618	3:37:07	0.127	10.139	3:35:48	0.22
45	3:40:13	0.127	12.047	3:41:48	0.127	13.653	3:43:37	0.127	11.506	3:42:03	0.22
46	3:45:13	0.127	9.57	3:49:30	0.127	20.078	3:48:49	0.127	11.506	3:49:21	0.22
47	3:50:13	0.127	10.343	3:55:07	0.127	14.841	3:55:04	0.127	10.557	3:53:03	0.22
48	3:55:13	0.127	10.557	3:55:42	0.127	18.618	3:55:56	0.127	9.942	3:55:21	0.22
49	4:00:13	0.127	11.77	4:02:45	0.127	14.841	4:01:13	0.127	9.57	4:03:42	0.22
50	4:05:13	0.127	10.343	4:08:12	0.127	17.356	4:06:55	0.127	11.506	4:07:36	0.22
51	4:10:13	0.127	8.192	4:13:54	0.127	14.423	4:14:05	0.127	12.642	4:13:59	0.22
52	4:15:13	0.127	8.904	4:20:13	0.127	16.787	4:19:07	0.127	9.394	4:15:58	0.22
53	4:20:13	0.127	10.557	4:23:44	0.127	16.787	4:24:53	0.127	11.253	4:23:38	0.22
54	4:25:13	0.127	8.904	4:25:25	0.127	15.284	4:28:45	0.127	10.779	4:27:36	0.22
55	4:30:13	0.127	10.139	4:32:32	0.127	15.284	4:33:15	0.127	11.77	4:33:30	0.22
56	4:35:13	0.127	9.942	4:36:34	0.127	18.618	4:38:52	0.127	9.942	4:40:08	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 12/4/2022 12:00:13 am
End: 13/4/2022 12:00:03 am
Summary Interval: 288
Air: 81.9 @ 0.72 Hz
Radial: 0.381 (mm/s) @ 9.75 Hz @ 12:48:26 pm
Transverse: 0.254 (mm/s) @ 7.82 Hz @ 12:48:26 pm
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 12:48:26 pm
Vector Sum: .54 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:13	0.127	8.463	4:44:29	0.127	15.284	4:42:29	0.127	9.57	4:43:14	0.22
58	4:45:13	0.127	8.063	4:47:05	0.127	17.965	4:47:20	0.127	12.962	4:45:28	0.22
59	4:50:13	0.127	9.942	4:54:46	0.127	14.423	4:51:33	0.127	10.779	4:51:14	0.22
60	4:55:13	0.127	9.062	4:56:36	0.127	19.321	4:59:43	0.127	10.343	4:58:18	0.22
61	5:00:13	0.127	12.047	5:00:47	0.127	17.356	5:02:08	0.127	11.77	5:03:59	0.22
62	5:05:13	0.127	8.463	5:07:12	0.127	17.356	5:08:38	0.127	10.343	5:05:28	0.22
63	5:10:13	0.127	10.779	5:14:06	0.127	14.027	5:14:48	0.127	9.752	5:14:15	0.22
64	5:15:13	0.127	7.699	5:19:32	0.127	12.962	5:19:22	0.127	8.904	5:19:24	0.22
65	5:20:13	0.127	11.253	5:24:03	0.127	14.841	5:20:53	0.127	9.062	5:22:42	0.22
66	5:25:13	0.127	11.253	5:25:26	0.127	16.787	5:26:42	0.127	11.253	5:25:20	0.22
67	5:30:13	0.127	9.942	5:32:50	0.127	20.078	5:31:41	0.127	11.011	5:33:05	0.22
68	5:35:13	0.127	9.062	5:36:07	0.127	14.841	5:37:54	0.127	10.139	5:37:54	0.22
69	5:40:13	0.127	9.942	5:44:05	0.127	17.965	5:40:46	0.127	11.253	5:44:05	0.22
70	5:45:13	0.127	9.394	5:49:30	0.127	17.356	5:45:32	0.127	9.57	5:48:30	0.22
71	5:50:13	0.127	8.463	5:52:49	0.127	15.284	5:54:07	0.127	9.942	5:51:03	0.22
72	5:55:13	0.127	8.463	5:59:39	0.127	12.047	5:59:54	0.127	9.225	5:58:52	0.22
73	6:00:13	0.127	8.605	6:02:12	0.127	14.841	6:02:43	0.127	10.557	6:02:03	0.22
74	6:05:13	0.127	8.752	6:07:03	0.127	16.254	6:06:09	0.127	8.904	6:05:37	0.22
75	6:10:13	0.127	8.752	6:11:45	0.127	14.841	6:12:11	0.127	11.253	6:13:30	0.22
76	6:15:13	0.127	6.966	6:19:47	0.127	14.027	6:15:21	0.127	8.063	6:15:51	0.22
77	6:20:13	0.127	9.752	6:23:44	0.127	13.653	6:21:00	0.127	8.904	6:24:40	0.22
78	6:25:13	0.127	8.752	6:27:29	0.127	15.284	6:28:28	0.127	9.394	6:27:19	0.22
79	6:30:13	0.127	10.779	6:33:25	0.127	13.299	6:32:03	0.127	9.225	6:32:03	0.22
80	6:35:13	0.127	10.139	6:38:40	0.127	11.011	6:39:56	0.127	8.904	6:36:26	0.22
81	6:40:13	0.127	10.139	6:41:22	0.127	14.027	6:44:25	0.127	7.699	6:42:04	0.22
82	6:45:13	0.127	8.752	6:48:28	0.127	13.653	6:47:57	0.127	10.779	6:50:09	0.22
83	6:50:13	0.127	8.325	6:50:17	0.127	15.284	6:51:00	0.127	10.779	6:51:02	0.22
84	6:55:13	0.127	9.752	6:55:52	0.127	14.841	6:55:52	0.127	9.57	6:55:46	0.22
85	7:00:13	0.127	8.463	7:02:50	0.127	12.047	7:02:50	0.127	11.253	7:03:31	0.22
86	7:05:13	0.127	5.851	7:09:56	0.127	6.781	7:09:55	0.127	10.557	7:07:30	0.22
87	7:10:13	0.127	8.463	7:11:38	0.127	14.027	7:14:57	0.127	8.752	7:12:54	0.22
88	7:15:13	0.127	8.752	7:16:23	0.127	15.284	7:16:34	0.127	7.817	7:19:21	0.22
89	7:20:13	0.127	7.938	7:24:20	0.127	14.027	7:20:30	0.127	9.225	7:24:47	0.22
90	7:25:13	0.127	8.605	7:28:57	0.127	15.284	7:27:26	0.127	10.557	7:28:26	0.22
91	7:30:13	0.127	9.062	7:34:22	0.127	13.653	7:34:40	0.127	9.062	7:31:48	0.22
92	7:35:13	0.127	8.192	7:36:48	0.127	12.337	7:38:30	0.127	9.062	7:36:49	0.22
93	7:40:13	0.127	9.942	7:42:20	0.127	15.284	7:42:36	0.127	9.225	7:45:06	0.22
94	7:45:13	0.127	9.394	7:45:41	0.127	13.299	7:49:45	0.127	9.57	7:48:48	0.22
95	7:50:13	0.127	10.139	7:50:32	0.127	16.254	7:52:51	0.127	9.225	7:50:27	0.22
96	7:55:13	0.127	7.262	7:57:52	0.127	14.423	7:58:33	0.127	11.77	7:55:14	0.22
97	8:00:13	0.127	9.394	8:02:24	0.127	13.653	8:03:09	0.127	10.343	8:04:45	0.22
98	8:05:13	0.127	8.752	8:08:06	0.127	13.299	8:05:58	0.127	10.343	8:06:28	0.22
99	8:10:13	0.127	9.57	8:12:57	0.127	9.394	8:12:58	0.127	9.57	8:11:40	0.22
100	8:15:13	0.127	7.817	8:18:16	0.127	14.423	8:19:05	0.127	8.752	8:16:31	0.22
101	8:20:13	0.127	8.904	8:22:41	0.127	12.337	8:23:26	0.127	10.557	8:20:29	0.22
102	8:25:13	0.127	9.942	8:28:18	0.127	12.962	8:25:54	0.127	10.139	8:26:43	0.22
103	8:30:13	0.127	8.463	8:34:10	0.127	9.752	8:30:58	0.127	9.57	8:32:27	0.22
104	8:35:13	0.127	7.938	8:39:17	0.127	11.011	8:38:58	0.127	9.225	8:39:13	0.22
105	8:40:13	0.127	8.752	8:42:51	0.127	12.962	8:41:16	0.127	7.585	8:45:04	0.22
106	8:45:13	0.127	7.474	8:45:22	0.127	13.653	8:50:05	0.127	10.139	8:47:19	0.22
107	8:50:13	0.127	7.938	8:53:39	0.127	15.284	8:53:00	0.127	9.225	8:51:01	0.22
108	8:55:13	0.127	8.192	8:59:29	0.127	11.011	8:58:52	0.127	8.192	8:59:05	0.22
109	9:00:13	0.127	7.161	9:00:47	0.127	14.027	9:00:52	0.127	7.474	9:00:52	0.22
110	9:05:13	0.127	6.44	9:09:58	0.127	12.047	9:08:09	0.127	8.463	9:05:36	0.22
111	9:10:13	0.127	7.585	9:10:43	0.127	14.027	9:13:05	0.127	8.463	9:15:07	0.22
112	9:15:13	0.127	9.752	9:16:42	0.127	13.299	9:19:20	0.127	9.942	9:15:16	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 12/4/2022 12:00:13 am
End: 13/4/2022 12:00:03 am
Summary Interval: 288
Air: 81.9 @ 0.72 Hz
Radial: 0.381 (mm/s) @ 9.75 Hz @ 12:48:26 pm
Transverse: 0.254 (mm/s) @ 7.82 Hz @ 12:48:26 pm
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 12:48:26 pm
Vector Sum: .54 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:13	0.127	7.367	9:20:31	0.127	13.299	9:22:49	0.127	7.367	9:23:04	0.22
114	9:25:13	0.127	8.605	9:27:03	0.127	13.299	9:27:18	0.127	8.904	9:27:23	0.22
115	9:30:13	0.127	7.938	9:32:50	0.127	16.254	9:31:08	0.127	7.699	9:34:18	0.22
116	9:35:13	0.127	7.817	9:36:29	0.127	11.253	9:38:24	0.127	9.752	9:35:23	0.22
117	9:40:13	0.127	8.325	9:41:40	0.127	11.77	9:43:57	0.127	9.062	9:41:00	0.22
118	9:45:13	0.127	9.57	9:47:56	0.127	14.027	9:45:46	0.127	8.904	9:47:11	0.22
119	9:50:13	0.127	7.367	9:50:28	0.127	9.752	9:50:15	0.127	7.585	9:50:26	0.22
120	9:55:13	0.127	10.557	9:55:15	0.127	8.325	9:58:57	0.127	9.394	9:55:36	0.22
121	10:00:13	0.127	8.752	10:03:03	0.127	6.522	10:04:14	0.127	7.262	10:01:59	0.22
122	10:05:13	0.127	9.942	10:07:03	0.127	7.262	10:08:14	0.127	7.161	10:07:40	0.22
123	10:10:13	0.127	9.225	10:14:11	0.127	6.966	10:11:12	0.127	8.904	10:13:53	0.22
124	10:15:13	0.127	9.752	10:19:41	0.127	7.817	10:17:11	0.127	9.752	10:17:53	0.22
125	10:20:13	0.127	8.192	10:22:06	0.127	6.606	10:23:00	0.127	9.225	10:22:32	0.22
126	10:25:13	0.127	9.942	10:29:24	0.127	7.585	10:26:45	0.127	8.605	10:29:27	0.22
127	10:30:13	0.127	10.779	10:33:16	0.127	6.872	10:32:56	0.127	10.343	10:30:40	0.22
128	10:35:13	0.127	8.325	10:36:00	0.254	78.769	10:38:32	0.254	48.762	10:35:38	0.284
129	10:40:13	0.127	9.394	10:41:20	0.127	6.781	10:41:27	0.127	9.57	10:43:13	0.22
130	10:45:13	0.127	9.062	10:45:35	0.127	7.474	10:48:44	0.127	8.192	10:47:17	0.22
131	10:50:13	0.127	10.139	10:52:42	0.127	7.367	10:51:09	0.127	8.192	10:51:58	0.22
132	10:55:13	0.127	9.942	10:59:34	0.127	7.938	10:59:25	0.127	8.192	10:56:15	0.22
133	11:00:13	0.127	9.752	11:04:22	0.254	93.091	11:03:03	0.127	9.942	11:02:44	0.284
134	11:05:13	0.127	9.942	11:06:48	0.127	7.262	11:06:20	0.127	7.262	11:09:18	0.22
135	11:10:13	0.127	9.942	11:13:09	0.127	6.781	11:11:26	0.127	8.463	11:11:17	0.22
136	11:15:13	0.127	10.343	11:17:16	0.127	7.161	11:18:22	0.127	8.904	11:15:22	0.22
137	11:20:13	0.127	9.394	11:21:36	0.127	6.606	11:21:48	0.127	7.817	11:22:53	0.22
138	11:25:13	0.127	9.062	11:25:35	0.127	6.781	11:26:33	0.127	9.942	11:29:29	0.22
139	11:30:13	0.127	10.139	11:34:45	0.127	8.192	11:34:39	0.127	8.192	11:32:16	0.22
140	11:35:13	0.127	9.752	11:35:31	0.127	5.785	11:37:16	0.127	9.062	11:39:16	0.22
141	11:40:13	0.127	9.225	11:41:27	0.127	7.585	11:43:01	0.127	8.605	11:44:59	0.22
142	11:45:13	0.127	8.325	11:48:26	0.127	7.585	11:47:25	0.127	10.343	11:47:19	0.22
143	11:50:13	0.127	8.463	11:50:25	0.127	6.781	11:51:02	0.127	8.463	11:54:58	0.22
144	11:55:13	0.381	146.286	11:58:50	0.254	8.325	11:58:50	0.254	10.343	11:58:07	0.402
145	12:00:13	0.381	113.778	12:04:58	0.254	44.522	12:01:11	0.254	35.31	12:03:48	0.381
146	12:05:13	0.381	93.091	12:06:06	0.254	40.96	12:06:55	0.254	31.03	12:05:13	0.402
147	12:10:13	0.254	48.762	12:10:56	0.254	48.762	12:11:29	0.127	9.062	12:14:52	0.284
148	12:15:13	0.127	9.57	12:16:45	0.127	7.262	12:17:19	0.127	9.062	12:16:35	0.22
149	12:20:13	0.127	9.942	12:22:06	0.127	7.262	12:20:45	0.127	8.752	12:21:10	0.22
150	12:25:13	0.127	9.062	12:26:29	0.127	5.785	12:27:32	0.127	8.904	12:25:28	0.22
151	12:30:13	0.127	9.394	12:32:50	0.127	6.966	12:34:09	0.127	8.605	12:34:18	0.22
152	12:35:13	0.127	8.752	12:36:55	0.127	7.938	12:35:12	0.127	9.394	12:39:22	0.22
153	12:40:13	0.127	12.337	12:42:22	0.127	6.781	12:42:23	0.127	8.463	12:41:17	0.22
154	12:45:13	0.381	9.752	12:48:26	0.254	7.817	12:48:26	0.508	40.96	12:48:26	0.539
155	12:50:13	0.127	8.192	12:54:21	0.127	6.872	12:54:32	0.127	9.394	12:54:21	0.22
156	12:55:13	0.254	113.778	12:56:47	0.127	7.938	12:59:41	0.127	10.557	12:56:05	0.311
157	13:00:13	0.127	9.225	13:01:49	0.127	7.585	13:04:16	0.127	10.779	13:03:03	0.22
158	13:05:13	0.127	7.699	13:08:33	0.127	7.062	13:08:47	0.127	7.699	13:09:57	0.22
159	13:10:13	0.127	11.011	13:10:14	0.127	7.062	13:13:16	0.127	7.699	13:12:19	0.22
160	13:15:13	0.127	9.942	13:18:14	0.127	8.192	13:18:10	0.127	8.904	13:17:59	0.22
161	13:20:13	0.127	8.192	13:22:02	0.127	7.367	13:21:33	0.127	9.394	13:22:06	0.22
162	13:25:13	0.127	9.942	13:26:34	0.127	6.781	13:27:34	0.127	7.262	13:27:16	0.22
163	13:30:13	0.127	10.343	13:31:43	0.127	5.919	13:34:04	0.127	8.463	13:31:30	0.22
164	13:35:13	0.127	10.343	13:36:13	0.127	6.781	13:38:03	0.127	9.394	13:35:35	0.22
165	13:40:13	0.127	8.752	13:44:21	0.127	6.282	13:40:52	0.127	8.063	13:43:42	0.22
166	13:45:13	0.254	93.091	13:45:20	0.127	7.262	13:48:33	0.254	113.778	13:45:20	0.359
167	13:50:13	0.127	8.752	13:52:12	0.127	7.161	13:52:29	0.127	9.394	13:50:22	0.22
168	13:55:13	0.127	9.062	13:56:14	0.127	6.282	13:56:56	0.127	8.325	13:57:55	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 12/4/2022 12:00:13 am
End: 13/4/2022 12:00:03 am
Summary Interval: 288
Air: 81.9 @ 0.72 Hz
Radial: 0.381 (mm/s) @ 9.75 Hz @ 12:48:26 pm
Transverse: 0.254 (mm/s) @ 7.82 Hz @ 12:48:26 pm
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 12:48:26 pm
Vector Sum: .54 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:13	0.127	10.139	14:02:16	0.127	6.059	14:04:39	0.127	9.394	14:01:50	0.22
170	14:05:13	0.127	11.011	14:06:58	0.127	5.657	14:06:57	0.127	9.752	14:06:02	0.22
171	14:10:13	0.127	10.139	14:12:01	0.127	6.781	14:11:40	0.127	9.394	14:10:25	0.22
172	14:15:13	0.127	8.752	14:15:47	0.127	6.44	14:19:19	0.127	9.752	14:16:26	0.22
173	14:20:13	0.127	8.325	14:24:09	0.127	6.206	14:21:27	0.127	9.062	14:20:44	0.22
174	14:25:13	0.127	8.463	14:29:15	0.127	6.693	14:29:10	0.127	8.192	14:27:34	0.22
175	14:30:13	0.127	9.062	14:32:02	0.127	7.367	14:32:20	0.127	9.394	14:32:25	0.22
176	14:35:13	0.127	7.938	14:39:09	0.127	7.367	14:37:53	0.127	7.585	14:39:12	0.22
177	14:40:13	0.127	9.752	14:40:57	0.127	6.522	14:43:13	0.127	7.938	14:43:56	0.22
178	14:45:13	0.127	5.361	14:45:35	0.127	6.606	14:48:51	0.127	8.192	14:48:30	0.22
179	14:50:13	0.127	10.557	14:53:28	0.127	5.919	14:52:20	0.127	8.752	14:55:06	0.22
180	14:55:13	0.127	9.225	14:56:30	0.127	7.262	14:56:33	0.127	8.192	14:57:04	0.22
181	15:00:13	0.127	7.817	15:01:59	0.127	6.872	15:03:35	0.127	9.225	15:02:53	0.22
182	15:05:13	0.127	9.57	15:09:27	0.127	6.781	15:05:17	0.127	8.904	15:06:32	0.22
183	15:10:13	0.127	8.463	15:11:02	0.127	6.872	15:11:53	0.127	7.817	15:14:31	0.22
184	15:15:13	0.127	9.57	15:17:44	0.127	7.938	15:18:59	0.127	7.938	15:15:17	0.22
185	15:20:13	0.127	10.139	15:24:34	0.127	6.059	15:20:29	0.127	9.062	15:22:47	0.22
186	15:25:13	0.127	8.752	15:28:26	0.127	6.282	15:25:15	0.127	8.063	15:29:02	0.22
187	15:30:13	0.127	10.343	15:32:26	0.127	6.606	15:30:11	0.127	7.161	15:33:12	0.22
188	15:35:13	0.127	8.063	15:37:07	0.127	5.251	15:38:13	0.127	8.752	15:39:08	0.22
189	15:40:13	0.127	8.752	15:41:12	0.127	6.44	15:44:27	0.127	8.063	15:41:50	0.22
190	15:45:13	0.127	10.557	15:48:50	0.127	6.606	15:48:51	0.127	7.262	15:48:08	0.22
191	15:50:13	0.127	9.225	15:53:40	0.127	6.132	15:52:54	0.127	8.325	15:52:56	0.22
192	15:55:13	0.127	9.394	15:57:06	0.127	6.36	15:55:57	0.127	8.904	15:57:13	0.22
193	16:00:13	0.127	10.557	16:00:39	0.127	6.132	16:01:26	0.127	8.463	16:02:16	0.22
194	16:05:13	0.127	8.904	16:09:38	0.127	5.919	16:05:45	0.127	8.904	16:05:21	0.22
195	16:10:13	0.127	8.463	16:11:10	0.127	5.596	16:11:11	0.127	8.904	16:11:42	0.22
196	16:15:13	0.127	10.779	16:15:17	0.127	7.367	16:16:39	0.127	7.262	16:16:20	0.22
197	16:20:13	0.127	9.57	16:22:52	0.127	6.966	16:21:13	0.127	8.325	16:21:39	0.22
198	16:25:13	0.127	9.062	16:28:32	0.127	6.606	16:29:16	0.127	8.752	16:29:19	0.22
199	16:30:13	0.127	7.062	16:30:37	0.127	6.606	16:33:23	0.127	8.063	16:31:36	0.22
200	16:35:13	0.127	8.605	16:38:23	0.127	6.872	16:39:49	0.127	8.192	16:37:53	0.22
201	16:40:13	0.127	8.463	16:42:50	0.127	5.919	16:42:18	0.127	8.325	16:44:25	0.22
202	16:45:13	0.127	9.752	16:49:32	0.127	5.785	16:46:46	0.127	7.262	16:48:08	0.22
203	16:50:13	0.127	9.225	16:52:05	0.127	7.161	16:50:42	0.127	9.394	16:54:12	0.22
204	16:55:13	0.127	11.011	16:55:42	0.254	60.235	16:59:27	0.254	40.96	16:59:32	0.311
205	17:00:13	0.127	8.904	17:01:23	0.254	53.895	17:03:59	0.254	10.139	17:03:59	0.311
206	17:05:13	0.254	146.286	17:07:48	0.127	8.063	17:06:03	0.127	9.752	17:09:03	0.284
207	17:10:13	0.127	8.605	17:12:20	0.127	7.062	17:13:17	0.127	5.418	17:15:11	0.22
208	17:15:13	0.127	10.139	17:18:14	0.127	7.367	17:17:26	0.127	8.192	17:18:14	0.22
209	17:20:13	0.127	9.062	17:22:59	0.127	5.919	17:21:16	0.127	8.325	17:24:47	0.22
210	17:25:13	0.127	7.585	17:25:54	0.127	6.693	17:29:25	0.254	68.267	17:28:22	0.284
211	17:30:13	0.127	8.904	17:33:59	0.127	6.693	17:30:59	0.254	8.325	17:32:16	0.284
212	17:35:13	0.127	8.752	17:39:08	0.127	5.095	17:37:09	0.254	8.752	17:37:40	0.284
213	17:40:13	0.254	93.091	17:41:18	0.127	8.063	17:43:55	0.254	48.762	17:41:49	0.381
214	17:45:13	0.127	8.325	17:48:28	0.127	6.206	17:47:21	0.254	53.895	17:45:45	0.284
215	17:50:13	0.127	11.506	17:50:34	0.127	6.606	17:54:09	0.127	8.752	17:51:23	0.22
216	17:55:13	0.127	9.062	17:56:54	0.127	6.36	17:58:10	0.127	8.463	17:56:21	0.22
217	18:00:13	0.127	12.337	18:01:57	0.127	5.476	18:01:06	0.127	7.699	18:04:42	0.22
218	18:05:13	0.127	9.57	18:08:49	0.127	6.522	18:08:32	0.127	10.343	18:09:07	0.22
219	18:10:13	0.127	8.904	18:13:02	0.127	7.062	18:10:39	0.127	7.938	18:12:44	0.22
220	18:15:13	0.127	8.463	18:18:21	0.127	6.966	18:15:20	0.127	8.904	18:16:56	0.22
221	18:20:13	0.127	7.585	18:21:34	0.127	7.062	18:22:19	0.127	9.225	18:22:17	0.22
222	18:25:13	0.127	8.605	18:26:18	0.127	6.36	18:27:32	0.127	8.904	18:28:04	0.22
223	18:30:13	0.127	9.394	18:30:17	0.127	6.781	18:31:17	0.127	9.394	18:31:06	0.22
224	18:35:13	0.127	8.904	18:37:38	0.127	7.062	18:37:23	0.127	9.752	18:39:16	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 12/4/2022 12:00:13 am
End: 13/4/2022 12:00:03 am
Summary Interval: 288
Air: 81.9 @ 0.72 Hz
Radial: 0.381 (mm/s) @ 9.75 Hz @ 12:48:26 pm
Transverse: 0.254 (mm/s) @ 7.82 Hz @ 12:48:26 pm
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 12:48:26 pm
Vector Sum: .54 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:13	0.127	9.752	18:41:36	0.127	6.206	18:43:10	0.127	7.817	18:44:33	0.22
226	18:45:13	0.127	8.605	18:47:17	0.127	6.872	18:46:58	0.127	6.872	18:47:17	0.22
227	18:50:13	0.127	10.139	18:52:38	0.127	6.44	18:52:15	0.127	8.904	18:51:37	0.22
228	18:55:13	0.127	8.752	18:56:32	0.127	6.44	18:56:50	0.127	8.752	18:56:48	0.22
229	19:00:13	0.127	10.343	19:02:09	0.127	8.325	19:01:08	0.127	9.57	19:03:14	0.22
230	19:05:13	0.127	11.506	19:06:31	0.127	7.817	19:06:40	0.127	9.062	19:07:15	0.22
231	19:10:13	0.127	8.904	19:10:49	0.127	6.872	19:11:58	0.127	8.605	19:10:49	0.22
232	19:15:13	0.127	8.463	19:17:53	0.127	6.282	19:17:37	0.127	10.343	19:17:37	0.22
233	19:20:13	0.127	10.779	19:20:18	0.127	8.463	19:20:54	0.127	10.139	19:24:30	0.22
234	19:25:13	0.127	9.062	19:26:02	0.127	7.262	19:29:32	0.127	9.57	19:26:40	0.22
235	19:30:13	0.127	9.225	19:31:18	0.127	6.693	19:33:42	0.127	10.343	19:33:35	0.22
236	19:35:13	0.127	9.57	19:36:40	0.127	7.585	19:35:27	0.127	8.752	19:35:24	0.22
237	19:40:13	0.127	10.343	19:44:39	0.127	7.585	19:42:43	0.127	10.139	19:43:35	0.22
238	19:45:13	0.127	8.325	19:48:37	0.127	8.325	19:48:31	0.127	8.904	19:46:03	0.22
239	19:50:13	0.127	11.77	19:51:47	0.127	7.062	19:50:10	0.127	9.752	19:55:05	0.22
240	19:55:13	0.127	8.192	19:59:10	0.127	7.938	19:59:03	0.127	10.343	19:59:11	0.22
241	20:00:13	0.127	8.605	20:03:58	0.127	6.522	20:03:53	0.127	9.394	20:03:30	0.22
242	20:05:13	0.127	8.752	20:08:34	0.127	7.367	20:06:38	0.127	8.192	20:06:35	0.22
243	20:10:13	0.127	9.942	20:11:42	0.127	6.282	20:14:20	0.127	9.225	20:10:30	0.22
244	20:15:13	0.127	9.394	20:19:09	0.127	6.606	20:17:53	0.127	7.938	20:18:33	0.22
245	20:20:13	0.127	12.337	20:24:37	0.127	6.966	20:23:38	0.127	11.506	20:24:10	0.22
246	20:25:13	0.127	12.047	20:27:08	0.127	7.817	20:25:42	0.127	9.752	20:26:09	0.22
247	20:30:13	0.127	10.343	20:31:19	0.127	6.966	20:31:37	0.127	9.062	20:31:19	0.22
248	20:35:13	0.127	9.752	20:38:23	0.127	7.938	20:35:29	0.127	11.506	20:39:42	0.22
249	20:40:13	0.127	12.047	20:42:48	0.127	6.606	20:43:43	0.127	11.506	20:44:10	0.22
250	20:45:13	0.127	11.506	20:47:03	0.127	6.966	20:49:38	0.127	8.904	20:47:46	0.22
251	20:50:13	0.127	9.942	20:54:09	0.127	6.206	20:51:41	0.127	10.139	20:52:27	0.22
252	20:55:13	0.127	11.506	20:55:41	0.127	6.872	20:59:54	0.127	9.225	20:56:43	0.22
253	21:00:13	0.127	8.752	21:01:06	0.127	6.966	21:02:14	0.127	9.57	21:03:37	0.22
254	21:05:13	0.127	11.506	21:07:41	0.127	7.474	21:06:53	0.254	11.506	21:06:38	0.311
255	21:10:13	0.127	12.642	21:13:20	0.127	6.606	21:13:27	0.127	9.394	21:15:09	0.22
256	21:15:13	0.127	10.557	21:18:37	0.127	6.36	21:17:21	0.127	9.752	21:15:24	0.22
257	21:20:13	0.127	11.011	21:23:09	0.127	7.474	21:20:43	0.127	10.779	21:20:45	0.22
258	21:25:13	0.127	9.394	21:29:58	0.127	7.938	21:26:11	0.127	11.011	21:29:25	0.22
259	21:30:13	0.127	8.904	21:31:40	0.127	6.44	21:32:50	0.127	10.557	21:31:59	0.22
260	21:35:13	0.127	12.047	21:37:19	0.127	8.325	21:39:50	0.127	9.394	21:37:43	0.22
261	21:40:13	0.127	12.337	21:40:50	0.127	7.699	21:43:47	0.127	9.394	21:42:36	0.22
262	21:45:13	0.127	7.062	21:46:14	0.127	7.062	21:47:53	0.127	10.779	21:46:11	0.22
263	21:50:13	0.127	9.062	21:50:36	0.127	7.161	21:51:10	0.127	10.557	21:50:36	0.22
264	21:55:13	0.127	10.779	21:57:58	0.127	8.063	21:56:32	0.127	8.605	21:57:56	0.22
265	22:00:13	0.127	11.253	22:01:30	0.127	7.062	22:03:22	0.127	10.343	22:02:42	0.22
266	22:05:13	0.127	10.557	22:06:08	0.127	7.585	22:07:14	0.127	9.394	22:07:52	0.22
267	22:10:13	0.127	9.752	22:13:58	0.127	7.585	22:14:29	0.127	9.57	22:11:07	0.22
268	22:15:13	0.127	10.343	22:19:44	0.127	6.206	22:17:00	0.127	7.817	22:20:06	0.22
269	22:20:13	0.127	11.011	22:21:26	0.127	6.522	22:24:53	0.127	11.506	22:20:25	0.22
270	22:25:13	0.127	10.139	22:25:52	0.127	7.585	22:28:01	0.127	7.262	22:29:20	0.22
271	22:30:13	0.127	9.225	22:34:08	0.127	7.699	22:31:01	0.127	9.394	22:30:13	0.22
272	22:35:13	0.127	11.011	22:37:08	0.127	8.325	22:36:17	0.127	9.752	22:39:36	0.22
273	22:40:13	0.127	11.506	22:40:45	0.127	6.44	22:44:02	0.127	11.253	22:43:18	0.22
274	22:45:13	0.127	9.062	22:47:05	0.127	7.262	22:47:04	0.127	11.011	22:47:17	0.22
275	22:50:13	0.127	11.506	22:50:21	0.127	7.262	22:54:42	0.127	11.506	22:52:05	0.22
276	22:55:13	0.127	9.062	22:56:50	0.127	6.781	22:59:06	0.127	9.942	22:56:50	0.22
277	23:00:13	0.127	12.047	23:03:11	0.127	7.699	23:00:33	0.127	11.506	23:03:10	0.22
278	23:05:13	0.127	11.77	23:05:33	0.127	7.161	23:09:42	0.127	11.253	23:08:09	0.22
279	23:10:13	0.127	11.011	23:14:44	0.127	5.785	23:10:41	0.127	10.779	23:13:09	0.22
280	23:15:13	0.127	11.253	23:18:02	0.127	6.693	23:17:06	0.127	8.325	23:15:30	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 12/4/2022 12:00:13 am
End: 13/4/2022 12:00:03 am
Summary Interval: 288
Air: 81.9 @ 0.72 Hz
Radial: 0.381 (mm/s) @ 9.75 Hz @ 12:48:26 pm
Transverse: 0.254 (mm/s) @ 7.82 Hz @ 12:48:26 pm
Vertical: 0.508 (mm/s) @ 40.96 Hz @ 12:48:26 pm
Vector Sum: .54 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:13	0.127	12.642	23:23:16	0.127	8.325	23:21:31	0.127	12.337	23:21:08	0.22
282	23:25:13	0.127	11.253	23:27:36	0.127	7.062	23:28:47	0.254	35.31	23:28:07	0.284
283	23:30:13	0.127	9.942	23:31:50	0.127	7.938	23:34:23	0.127	9.57	23:30:59	0.22
284	23:35:13	0.127	11.011	23:39:04	0.127	7.367	23:36:46	0.127	8.463	23:39:04	0.22
285	23:40:13	0.127	10.343	23:40:59	0.127	6.966	23:40:09	0.127	11.506	23:44:19	0.22
286	23:45:13	0.127	11.77	23:49:49	0.127	8.063	23:46:14	0.127	10.343	23:45:09	0.22
287	23:50:13	0.127	10.139	23:50:11	0.127	6.693	23:51:41	0.127	8.904	23:50:11	0.22
288	23:55:13	0.127	9.942	23:56:44	0.127	8.192	23:56:41	0.127	10.343	23:58:55	0.22

Version 2.0.1.9 (07Nov2019(m))

File: Evt17.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

13/4/2022 at 12:00 am Event # 17

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

Distance: N Wgt. Per Delay: N Scaled Distance: N

No GPS Data

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

Seismic

Gain: 1

Vector Sum: 563.62 mm/s @ 1.22 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.8111**	**12.8429**	**12.7794**
Frequency (Hz)	**25.6**	**24.3**	**24.3**

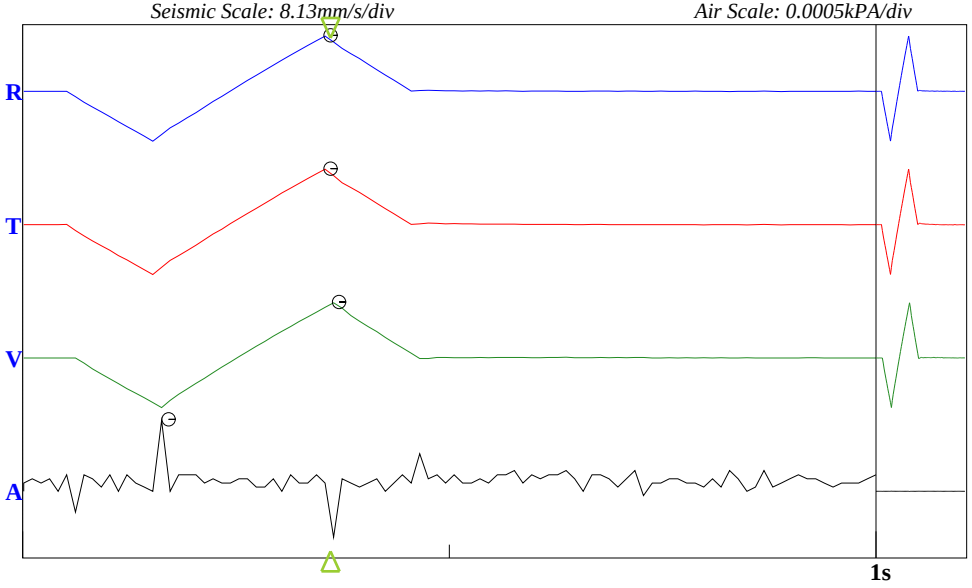
Air

Gain: 1

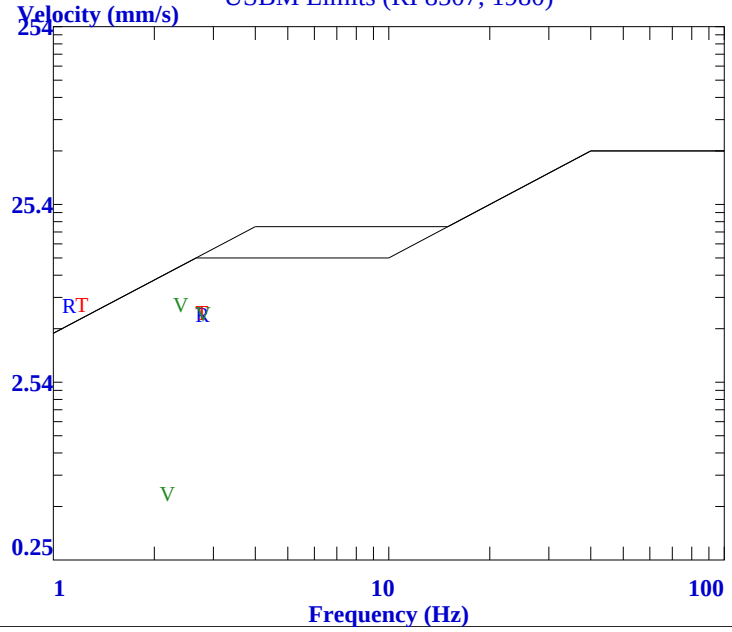
Measurement	Value		
kPA	0.000453		
dBL	**87.1**		
Hz	512.0		

Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.1.9 (07Nov2019(m))

File: Evt18.ns8

Nomis Seismographs

Telephone: 205-592-2488

Nomis Seismographs, Inc.

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

13/4/2022 at 12:00 am Event # 18

Location: 501 OLD CHOA CHU KANG ROAD

Operator: ENSSCOM PTE LTD

Notes:

End Time: 10:33:53 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 6.3 mm/s

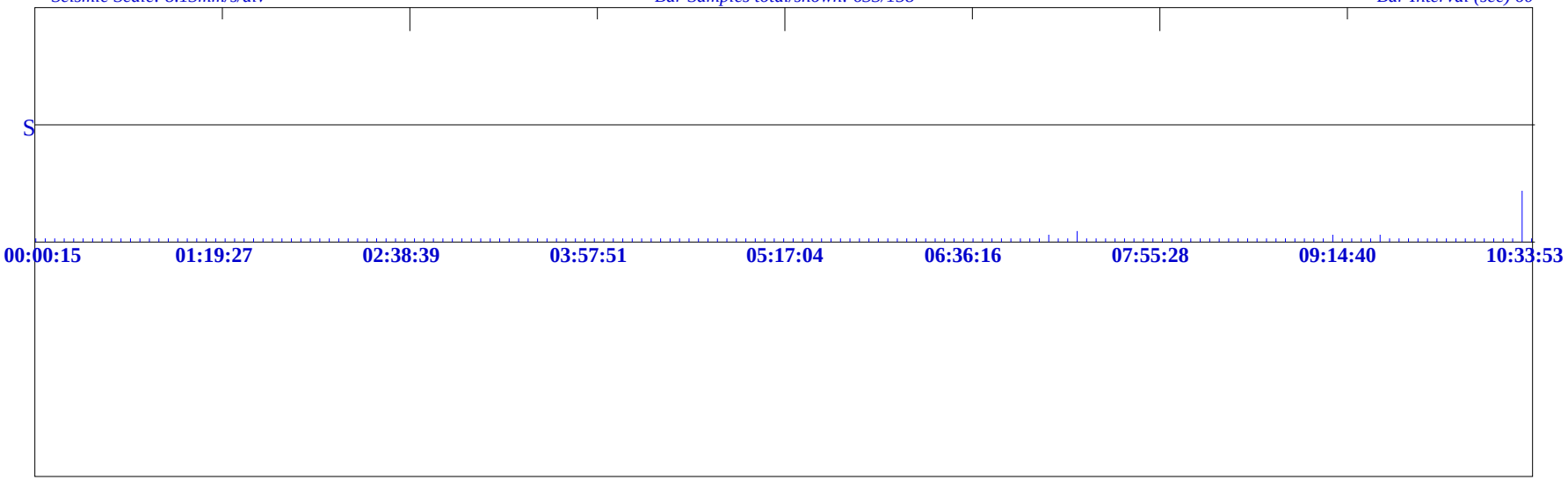
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	3.937	2.794	5.461
Frequency (Hz)	93.09	53.89	60.24
Time	10:33:32 am	10:33:33 am	10:33:33 am

BarGraph

Seismic Scale: 8.13mm/s/div

Bar Samples total/shown: 633/158

Summary Interval (min): 5
Bar Interval (sec) 60



<<<<<<<<<<<<<<< 10:33:38 >>>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 18
Start: 13/4/2022 12:00:15 am
End: 13/4/2022 10:33:53 am
Summary Interval: 127
Air: 81.9 @ 0.66 Hz
Radial: 3.937 (mm/s) @ 93.09 Hz @ 10:33:32 am
Transverse: 2.794 (mm/s) @ 53.89 Hz @ 10:33:33 am
Vertical: 5.461 (mm/s) @ 60.24 Hz @ 10:33:33 am
Vector Sum: 6.30 (mm/s)
Sample Rate: 1024/sec
Record Duration: 10.56 hr
Battery Level: 6.67

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:15	0.127	9.752	0:00:24	0.127	16.787	0:02:46	0.127	9.752	0:02:34	0.22
2	0:05:15	0.127	10.779	0:07:20	0.127	19.321	0:09:48	0.127	10.779	0:07:44	0.22
3	0:10:15	0.127	11.253	0:15:00	0.127	15.754	0:10:38	0.127	7.474	0:10:44	0.22
4	0:15:15	0.127	11.77	0:20:05	0.127	19.321	0:19:09	0.127	9.57	0:19:47	0.22
5	0:20:15	0.127	8.605	0:20:46	0.127	16.254	0:24:32	0.127	11.253	0:22:57	0.22
6	0:25:15	0.127	12.047	0:25:59	0.127	14.841	0:25:46	0.127	12.047	0:25:38	0.22
7	0:30:15	0.127	7.817	0:33:50	0.127	20.078	0:33:07	0.127	11.011	0:34:19	0.22
8	0:35:15	0.127	11.77	0:37:48	0.127	18.618	0:38:25	0.127	11.011	0:37:53	0.22
9	0:40:15	0.127	12.642	0:44:39	0.127	17.965	0:41:58	0.127	12.337	0:42:48	0.22
10	0:45:15	0.127	9.57	0:46:09	0.127	14.841	0:47:31	0.127	10.139	0:47:45	0.22
11	0:50:15	0.127	12.962	0:52:10	0.127	20.898	0:53:38	0.127	10.343	0:52:11	0.22
12	0:55:15	0.127	12.962	0:55:35	0.127	20.078	0:58:47	0.127	12.337	0:58:29	0.22
13	1:00:15	0.127	9.394	1:04:23	0.127	14.027	1:00:42	0.127	11.011	1:00:43	0.22
14	1:05:15	0.127	11.77	1:08:26	0.127	20.078	1:06:55	0.127	10.139	1:06:56	0.22
15	1:10:15	0.127	10.779	1:12:20	0.127	16.787	1:12:25	0.127	9.752	1:10:52	0.22
16	1:15:15	0.127	9.752	1:19:08	0.127	17.356	1:19:57	0.127	11.253	1:18:03	0.22
17	1:20:15	0.127	10.779	1:21:39	0.127	16.787	1:21:38	0.127	13.299	1:21:12	0.22
18	1:25:15	0.127	11.011	1:26:48	0.127	18.618	1:27:20	0.127	11.011	1:29:20	0.22
19	1:30:15	0.127	9.752	1:34:49	0.127	20.898	1:34:49	0.127	12.337	1:34:28	0.22
20	1:35:15	0.127	11.506	1:38:05	0.127	18.618	1:37:29	0.127	11.011	1:38:55	0.22
21	1:40:15	0.127	12.337	1:44:19	0.127	17.356	1:44:07	0.127	12.047	1:41:57	0.22
22	1:45:15	0.127	11.011	1:47:15	0.127	18.618	1:46:06	0.127	12.642	1:46:01	0.22
23	1:50:15	0.127	10.557	1:53:09	0.127	17.356	1:52:26	0.127	8.325	1:55:09	0.22
24	1:55:15	0.127	9.225	1:59:11	0.127	20.078	1:55:20	0.127	11.506	1:56:37	0.22
25	2:00:15	0.127	12.047	2:01:26	0.127	18.618	2:04:34	0.127	12.047	2:01:02	0.22
26	2:05:15	0.127	10.343	2:09:06	0.127	14.841	2:09:01	0.127	10.343	2:09:04	0.22
27	2:10:15	0.127	10.557	2:14:51	0.127	17.965	2:14:37	0.127	9.225	2:10:31	0.22
28	2:15:15	0.127	10.557	2:16:08	0.127	17.356	2:16:20	0.127	10.343	2:19:12	0.22
29	2:20:15	0.127	9.062	2:21:25	0.127	18.618	2:20:17	0.127	9.752	2:22:16	0.22
30	2:25:15	0.127	8.063	2:26:34	0.127	16.254	2:29:28	0.127	11.506	2:29:05	0.22
31	2:30:15	0.127	13.299	2:32:05	0.127	20.898	2:32:35	0.127	12.047	2:31:55	0.22
32	2:35:15	0.127	11.011	2:35:34	0.127	16.787	2:35:32	0.127	10.343	2:35:23	0.22
33	2:40:15	0.127	8.752	2:42:26	0.127	16.787	2:40:22	0.127	13.299	2:41:13	0.22
34	2:45:15	0.127	11.506	2:47:43	0.127	16.787	2:50:04	0.127	10.779	2:47:37	0.22
35	2:50:15	0.127	8.904	2:52:24	0.127	17.356	2:52:13	0.127	9.752	2:52:25	0.22
36	2:55:15	0.127	10.779	2:59:34	0.127	15.284	2:57:06	0.127	11.253	2:59:45	0.22
37	3:00:15	0.127	10.557	3:02:38	0.127	18.618	3:05:08	0.127	10.557	3:02:18	0.22
38	3:05:15	0.127	9.394	3:05:32	0.127	14.027	3:09:06	0.127	12.337	3:09:14	0.22
39	3:10:15	0.127	13.299	3:12:47	0.127	16.787	3:10:31	0.127	11.506	3:13:05	0.22
40	3:15:15	0.127	11.011	3:19:02	0.127	17.356	3:17:58	0.127	11.506	3:15:29	0.22
41	3:20:15	0.127	9.57	3:22:32	0.127	17.356	3:22:58	0.127	12.047	3:23:52	0.22
42	3:25:15	0.127	12.962	3:29:30	0.127	17.356	3:28:24	0.127	10.779	3:26:14	0.22
43	3:30:15	0.127	8.904	3:31:23	0.127	15.754	3:31:53	0.127	11.77	3:34:07	0.22
44	3:35:15	0.127	6.872	3:37:52	0.127	16.787	3:38:28	0.127	10.779	3:35:42	0.22
45	3:40:15	0.127	12.047	3:43:00	0.127	19.321	3:41:25	0.127	11.506	3:45:15	0.22
46	3:45:15	0.127	11.506	3:48:48	0.127	14.423	3:48:44	0.127	12.337	3:49:24	0.22
47	3:50:15	0.127	10.557	3:51:22	0.127	19.321	3:52:10	0.127	12.337	3:53:18	0.22
48	3:55:15	0.127	12.962	3:58:11	0.127	17.965	3:56:12	0.127	11.253	3:56:34	0.22
49	4:00:15	0.127	11.506	4:02:03	0.127	16.254	4:03:32	0.127	12.337	4:02:12	0.22
50	4:05:15	0.127	10.139	4:07:38	0.127	18.618	4:08:08	0.127	10.139	4:05:49	0.22
51	4:10:15	0.127	11.77	4:12:01	0.127	16.787	4:13:54	0.127	11.77	4:11:49	0.22
52	4:15:15	0.127	9.394	4:16:01	0.127	17.965	4:18:35	0.127	10.557	4:20:09	0.22
53	4:20:15	0.127	10.557	4:21:24	0.127	15.754	4:24:16	0.127	9.752	4:21:20	0.22
54	4:25:15	0.127	11.77	4:28:11	0.127	15.754	4:29:14	0.127	10.779	4:26:07	0.22
55	4:30:15	0.127	12.337	4:31:23	0.127	16.787	4:34:26	0.127	9.752	4:30:29	0.22
56	4:35:15	0.127	11.253	4:36:44	0.127	19.321	4:37:04	0.127	12.047	4:37:24	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 18
Start: 13/4/2022 12:00:15 am
End: 13/4/2022 10:33:53 am
Summary Interval: 127
Air: 81.9 @ 0.66 Hz
Radial: 3.937 (mm/s) @ 93.09 Hz @ 10:33:32 am
Transverse: 2.794 (mm/s) @ 53.89 Hz @ 10:33:33 am
Vertical: 5.461 (mm/s) @ 60.24 Hz @ 10:33:33 am
Vector Sum: 6.30 (mm/s)
Sample Rate: 1024/sec
Record Duration: 10.56 hr
Battery Level: 6.67

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:15	0.127	12.962	4:42:15	0.127	11.253	4:41:00	0.127	9.57	4:44:16	0.22
58	4:45:15	0.127	9.942	4:46:39	0.127	13.653	4:46:39	0.127	10.139	4:46:39	0.22
59	4:50:15	0.127	10.343	4:54:11	0.127	15.754	4:50:53	0.127	9.942	4:51:54	0.22
60	4:55:15	0.127	10.779	4:56:20	0.127	16.254	4:58:47	0.127	9.752	4:55:39	0.22
61	5:00:15	0.127	9.57	5:01:27	0.127	17.356	5:04:43	0.127	7.938	5:03:51	0.22
62	5:05:15	0.127	9.752	5:07:49	0.127	16.787	5:09:10	0.127	8.463	5:06:15	0.22
63	5:10:15	0.127	9.225	5:14:09	0.127	17.965	5:10:46	0.127	9.225	5:13:52	0.22
64	5:15:15	0.127	9.062	5:17:48	0.127	16.787	5:16:55	0.127	9.752	5:20:13	0.22
65	5:20:15	0.127	8.192	5:20:18	0.127	17.356	5:20:31	0.127	10.779	5:22:34	0.22
66	5:25:15	0.127	7.817	5:28:50	0.127	17.356	5:25:26	0.127	11.506	5:26:30	0.22
67	5:30:15	0.127	7.938	5:33:27	0.127	17.965	5:31:20	0.127	11.506	5:31:48	0.22
68	5:35:15	0.127	11.506	5:36:13	0.127	17.356	5:38:05	0.127	12.047	5:35:44	0.22
69	5:40:15	0.127	10.779	5:40:56	0.127	17.356	5:44:32	0.127	8.752	5:43:53	0.22
70	5:45:15	0.127	9.394	5:50:09	0.127	18.618	5:45:43	0.127	11.253	5:49:12	0.22
71	5:50:15	0.127	9.394	5:54:13	0.127	15.754	5:52:07	0.127	8.752	5:51:36	0.22
72	5:55:15	0.127	8.463	5:55:29	0.127	9.752	5:55:25	0.127	8.463	5:55:28	0.22
73	6:00:15	0.127	10.343	6:02:33	0.127	18.618	6:03:00	0.127	10.343	6:02:19	0.22
74	6:05:15	0.127	9.57	6:05:38	0.127	16.254	6:09:46	0.127	9.942	6:09:24	0.22
75	6:10:15	0.127	9.394	6:13:51	0.127	16.254	6:11:28	0.127	11.011	6:14:04	0.22
76	6:15:15	0.127	10.139	6:17:31	0.127	16.254	6:18:43	0.127	10.139	6:18:35	0.22
77	6:20:15	0.127	8.192	6:23:52	0.127	14.841	6:24:19	0.127	8.325	6:22:33	0.22
78	6:25:15	0.127	11.253	6:29:38	0.127	14.423	6:27:46	0.127	10.779	6:25:17	0.22
79	6:30:15	0.127	8.463	6:32:03	0.127	15.754	6:31:27	0.127	10.557	6:34:17	0.22
80	6:35:15	0.127	8.904	6:36:08	0.127	16.254	6:36:08	0.127	10.139	6:38:07	0.22
81	6:40:15	0.127	10.779	6:42:52	0.127	17.965	6:44:09	0.127	10.779	6:42:19	0.22
82	6:45:15	0.127	9.394	6:47:24	0.127	15.754	6:46:53	0.127	10.557	6:45:45	0.22
83	6:50:15	0.127	8.752	6:51:05	0.127	12.047	6:51:18	0.127	9.225	6:53:00	0.22
84	6:55:15	0.127	9.225	6:55:51	0.127	16.787	6:55:33	0.127	7.938	6:57:34	0.22
85	7:00:15	0.127	8.192	7:03:24	0.127	13.299	7:03:19	0.127	9.225	7:01:44	0.22
86	7:05:15	0.127	9.752	7:10:01	0.127	14.423	7:10:09	0.127	9.57	7:10:12	0.22
87	7:10:15	0.127	10.139	7:14:53	0.127	17.356	7:11:02	0.254	29.257	7:11:07	0.311
88	7:15:15	0.127	8.325	7:18:34	0.127	15.284	7:15:45	0.127	10.139	7:15:45	0.22
89	7:20:15	0.254	204.8	7:21:13	0.254	13.299	7:21:13	0.381	10.343	7:21:13	0.421
90	7:25:15	0.127	9.57	7:26:32	0.127	14.423	7:26:52	0.127	10.779	7:28:53	0.22
91	7:30:15	0.127	6.693	7:34:32	0.127	9.752	7:32:36	0.127	8.904	7:32:36	0.22
92	7:35:15	0.127	9.57	7:38:38	0.127	13.653	7:37:49	0.127	11.011	7:37:48	0.22
93	7:40:15	0.127	9.57	7:42:30	0.127	13.653	7:44:46	0.127	9.225	7:44:49	0.22
94	7:45:15	0.127	7.817	7:47:13	0.127	15.284	7:50:02	0.127	9.752	7:47:47	0.22
95	7:50:15	0.127	9.062	7:54:19	0.127	11.011	7:53:12	0.127	9.57	7:54:11	0.22
96	7:55:15	0.127	9.225	7:55:49	0.127	14.027	7:58:17	0.127	9.57	7:55:32	0.22
97	8:00:15	0.127	8.463	8:00:20	0.127	14.841	8:04:33	0.127	9.394	8:03:17	0.22
98	8:05:15	0.127	7.474	8:08:34	0.127	10.779	8:08:34	0.127	8.463	8:08:34	0.22
99	8:10:15	0.127	7.585	8:11:17	0.127	15.284	8:12:36	0.127	9.394	8:13:50	0.22
100	8:15:15	0.127	8.904	8:15:54	0.127	15.754	8:19:37	0.127	11.011	8:19:20	0.22
101	8:20:15	0.127	9.062	8:23:10	0.127	17.356	8:24:49	0.127	11.253	8:24:52	0.22
102	8:25:15	0.127	9.942	8:29:17	0.127	12.962	8:29:37	0.127	10.343	8:29:21	0.22
103	8:30:15	0.127	6.781	8:34:24	0.127	12.962	8:32:39	0.127	9.062	8:33:27	0.22
104	8:35:15	0.127	8.463	8:39:09	0.127	13.653	8:39:09	0.127	8.752	8:35:29	0.22
105	8:40:15	0.127	9.225	8:43:14	0.127	15.284	8:43:55	0.127	9.225	8:43:58	0.22
106	8:45:15	0.127	7.585	8:46:44	0.127	13.299	8:46:28	0.127	10.557	8:45:39	0.22
107	8:50:15	0.127	9.062	8:53:08	0.127	16.254	8:54:57	0.127	9.225	8:50:20	0.22
108	8:55:15	0.127	8.063	8:57:59	0.127	11.011	8:57:43	0.127	9.225	8:58:00	0.22
109	9:00:15	0.127	7.938	9:00:55	0.127	12.962	9:00:56	0.127	7.699	9:04:15	0.22
110	9:05:15	0.127	8.752	9:06:02	0.127	14.423	9:07:11	0.127	9.394	9:07:16	0.22
111	9:10:15	0.127	9.062	9:14:54	0.127	15.284	9:14:53	0.254	12.047	9:11:33	0.284
112	9:15:15	0.127	8.463	9:19:54	0.127	14.841	9:17:13	0.127	10.343	9:18:44	0.22

CH2M HILL SPORE PTE LTD
501 OLD CHOA CHU KANG ROAD
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 18
Start: 13/4/2022 12:00:15 am
End: 13/4/2022 10:33:53 am
Summary Interval: 127
Air: 81.9 @ 0.66 Hz
Radial: 3.937 (mm/s) @ 93.09 Hz @ 10:33:32 am
Transverse: 2.794 (mm/s) @ 53.89 Hz @ 10:33:33 am
Vertical: 5.461 (mm/s) @ 60.24 Hz @ 10:33:33 am
Vector Sum: 6.30 (mm/s)
Sample Rate: 1024/sec
Record Duration: 10.56 hr
Battery Level: 6.67

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:15	0.127	7.585	9:20:58	0.127	14.027	9:24:56	0.127	9.752	9:21:02	0.22
114	9:25:15	0.127	6.522	9:29:58	0.127	13.299	9:28:09	0.127	9.57	9:28:20	0.22
115	9:30:15	0.127	8.063	9:31:59	0.127	10.779	9:31:56	0.254	14.423	9:30:47	0.311
116	9:35:15	0.127	9.394	9:38:37	0.127	7.367	9:39:56	0.127	7.817	9:37:09	0.22
117	9:40:15	0.127	10.139	9:40:19	0.127	7.585	9:43:52	0.127	9.062	9:40:26	0.22
118	9:45:15	0.127	7.585	9:45:23	0.127	6.36	9:48:45	0.127	8.063	9:45:43	0.22
119	9:50:15	0.127	7.262	9:54:22	0.127	7.161	9:51:09	0.127	9.225	9:50:33	0.22
120	9:55:15	0.127	8.192	9:59:22	0.127	7.585	9:55:50	0.127	9.942	9:56:06	0.22
121	10:00:15	0.127	9.942	10:02:30	0.127	7.585	10:01:15	0.127	10.139	10:02:30	0.22
122	10:05:15	0.127	8.904	10:09:03	0.127	6.522	10:08:26	0.127	9.752	10:09:31	0.22
123	10:10:15	0.127	10.139	10:12:47	0.127	7.062	10:12:14	0.127	8.752	10:11:05	0.22
124	10:15:15	0.127	9.752	10:17:42	0.127	8.463	10:15:55	0.127	9.062	10:17:55	0.22
125	10:20:15	0.127	8.904	10:20:23	0.127	5.418	10:24:19	0.127	9.752	10:24:20	0.22
126	10:25:15	1.778	12.337	10:28:43	0.635	6.966	10:28:43	1.143	9.942	10:28:43	1.892
127	10:30:15	3.937	93.091	10:33:32	2.794	53.895	10:33:33	5.461	60.235	10:33:33	6.298

NOMIS SEISMOGRAPHS

CERTIFICATE OF CALIBRATION

Record No.: 15592-21670

Date of Calibration: 2/28/2022
Calibration Due: 2/28/2023

CLIENT

CEP Services PTE LTD

EQUIPMENT

Serial: 21670

Manufacturer: NOMIS Seismographs LLC
Model: MiniSupergraph II

Transducer: 21670
Microphone: N/A

Gain: X2
Type: N/A

ENVIRONMENT

Temperature: 72 °F

Humidity: 28 %

STATEMENT

The above equipment has been calibrated using the calibration equipment and reference values on page 2 of this document. The results comply with the requirements of the International Society of Explosives Engineers (ISEE) Performance Specifications for Blasting Seismographs set forth in the 2017 Edition and are supported by a calibration system which conforms to the requirements of MIL-STD-45662A and meets ISO – 9000 customer requirements.

Accuracy of the calibrated reference equipment is traceable to and in accordance with the requirements as specified in ISO-16063-21 and IEC61094-4/5/6 as stated by the accreditation body of DANAK (Registration No. 307), which Is in compliance with EU regulation No. 765/2008.

Calibrated by: Chris Reese

Monday, February 28, 2022

ADDRESS
4766 Grantswood Rd Suite 100
Irondale, Alabama 35210
USA

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1-(800)749-2477
1-(205) 951-3766

ONLINE
www.nomis.com
sales@nomis.com

NOMIS SEISMOGRAPHS

CERTIFICATE OF CALIBRATION

Record No.: 15592-21670

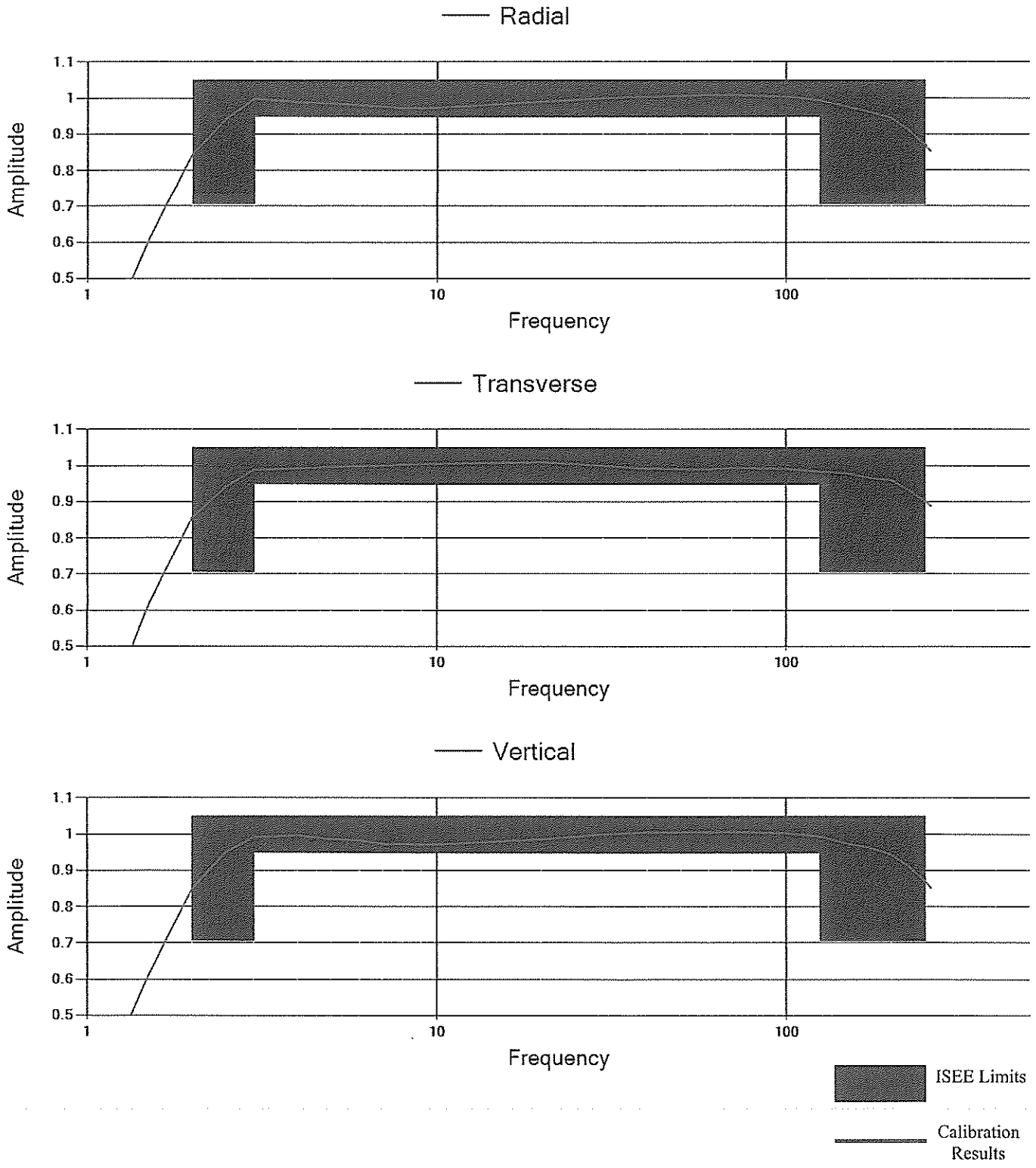
Reference Equipment

Instrument	Manufacturer	Type	Serial Number	Date of last Calibration	Traceability
ANALYZER	Brüel & Kjaer	3160-A-042 4/2-ch. Input/Output Module LAN-XI 51.2	3160-106773	2/8/2022	B&K Cert. No. 22-001
REFERENCE TRANSDUCER	Bruel & Kjaer	4574-D	71018	9/21/2021	BK Cert No: CDK2107021, CDK2107022
EXCITER	LDS	V450-MS	430573/1	1/4/2022	

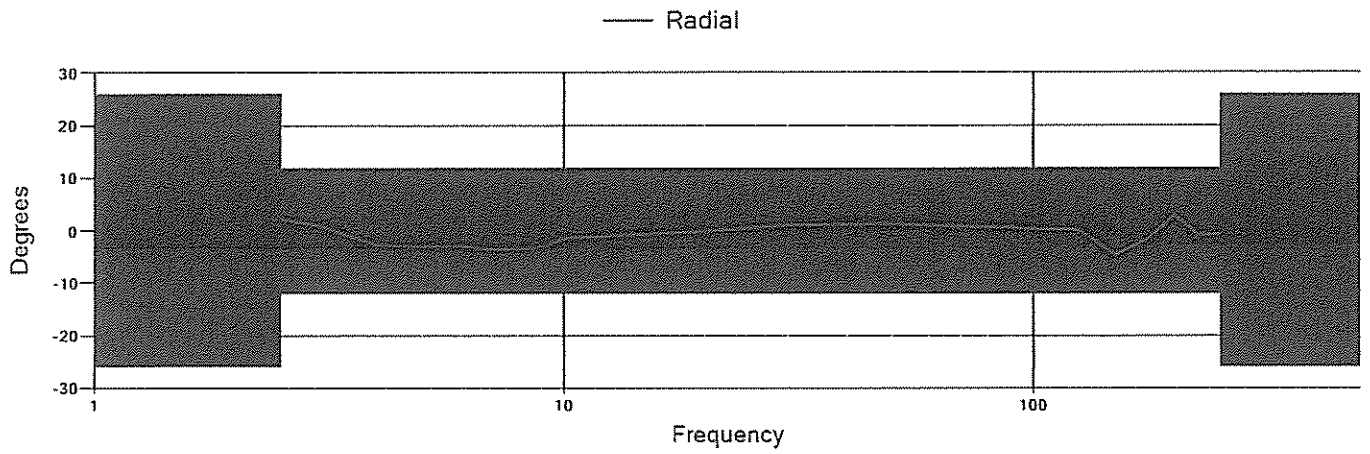
Reference Values

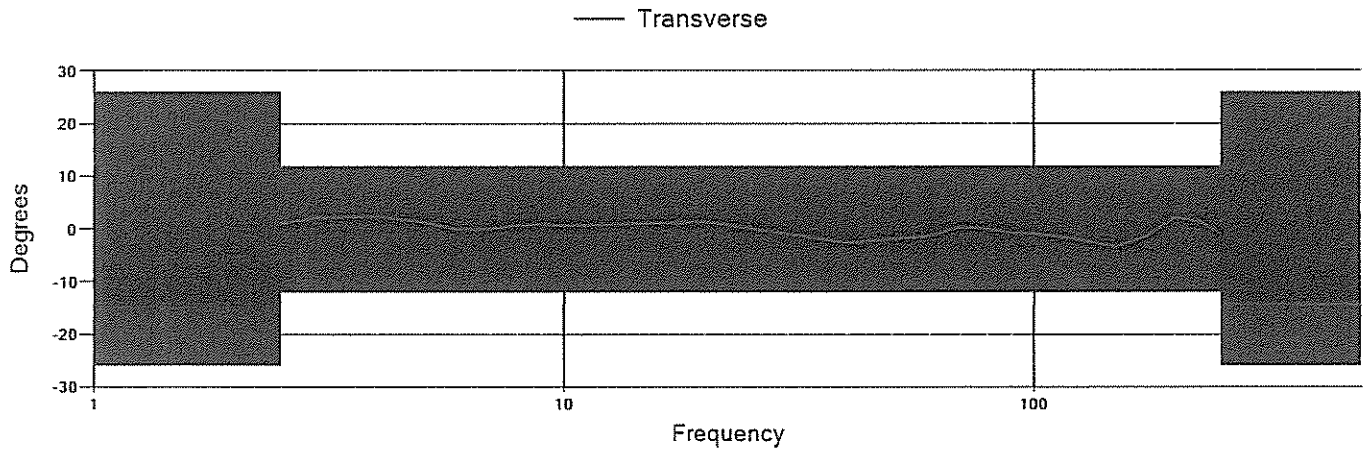
Channel	Frequency [Hz]	244mV = 1 in/s (R/T/V) +/- 4mv
R	30	243.9 mV
T	30	242.3 mV
V	30	244.1 mV
Air	30	137dB

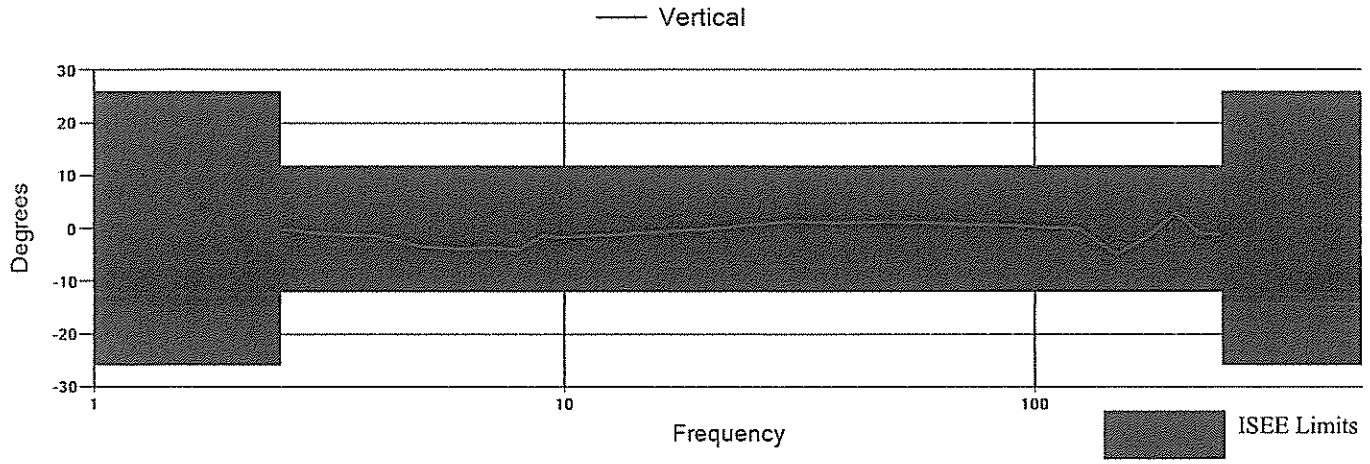
Transducer Calibration Charts - As Final



Phase Response Charts







ISEE Limits

Calibration Results

ENSSCOM
Improving Your Workplace Safety & Health

CONFIDENTIAL

SUMMARY REPORT

ENVIRONMENTAL BASELINE VIBRATION MONITORING WORK

REPORT - 02

For

CH2M HILL SINGAPORE PTE LTD

150 BEACH ROAD, GATEWAY WEST 34th FLOOR, SINGAPORE 189720

Monitoring Location:

460 CHOA CHU KANG AVENUE 4 (POINT VM2)

Attention:

MS CATHERINE BALDEDARA

Project No.:

22050608/VMS/CH2M/DE170/VM2

Date of Monitored:

14 April 2022 - 20 April 2022

Date of Report:

6 May 2022

Prepared by:

Ensscom Pte Ltd

Report is issued under the following conditions

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2.0 SCOPE OF INSTRUMENTATION WORK

3.0 MONITORING RESULTS

3.1 Summary of Vibration Meter Readings

APPENDIX A: BUILDING & CONSTRUCTION AUTHORITY GUIDELINES

APPENDIX B: INSTRUMENT LOCATION PLAN

APPENDIX C: VIBRATION METER DATA

1.0 INTRODUCTION

This survey summarises the results of baseline vibration monitoring works for location at **460 Choa Chu Kang Avenue 4** on behalf of **M/s CH2M HILL SINGAPORE PTE LTD.**

The purpose of the survey for this project is to monitor the vibration conditions **before** the construction phase for further Environment Impact Assessment Study.

The instrumentation work is being carried out continuously for 7 days period.

2.0 SCOPE OF INSTRUMENTATION WORK

The scope of the instrumentation work for this project currently consists of installation and monitoring of the following instruments:

INSTRUMENT TYPE	S/N	TOTAL	INSTALL	ACTIVE
Vibration Meter,VM-2	21670	1	1	1

Note:

1) Vibration meter installed on 13/4/2022

2) Last calibrated on 28/2/2022

The scope of this report is to present:

- A summary of the highest instruments readings recorded for each day of monitoring

- Vibration readings data (highest reading for each axis) recorded at every 5 minutes interval during the 7 days monitoring period.

- The instrument daily self calibration report.

3.0 MONITORING RESULTS

3.1 Summary of Vibration Monitoring Readings and Terms used

The vibration sensor was placed on the site to monitor the baseline vibration level before the commencement of any work activity.

Vibration monitoring unit was set to record vibration readings at every 5 minutes interval continuously for 7 days. The highest reading of each axis is recorded within the 5 minutes interval.

Peak Particle Velocity (**PPV)** - Used for either the peak of a single channel of a triax or the peak vector sum. It has also traditionally been used to mean the Maximum Peak Particle Velocity of all the channels of the triax.

Vector peak particle velocity (VPPV) - The peak level of the particle velocity calculated from the vector formed by the magnitude of the three orthogonal components of the particle velocity over their measured time history.

The Term **Vector Sum** is used for **Vector Peak Particle Velocity (VPPV)** in the report.

Vector Sum

Calculates a particle velocity value based on a single point in time.
For every sample taken during an event, each seismic channel's velocity measurements can be applied to following formula:
$VS = SQR(R^2 + T^2 + V^2)$
Seismic channels = Radial, Transverse, Vertical
Velocity measurements- inches or mm per second

The baseline vibration data recorded during the 7 days of monitoring are listed in Appendix C.

The summary of the daily highest vibration reading recorded for each axis and vector sum is is presented in the Table 3.1 below.

Day 1 - 14/2/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.508	0.381	0.508	**0.68**
Frequency (Hz)	13.65	13.3	21.79	-
Time	1:39:18 am	1:39:56 am	1:39:14 am	-
Day 2 - 15/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.381	0.381	0.508	**0.58**
Frequency (Hz)	27.68	113.78	44.52	-
Time	7:55:25 am	7:07:07 am	7:48:48 am	-
Day 3 - 16/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.381	0.254	0.381	**0.46**
Frequency (Hz)	48.76	12.64	37.93	-
Time	5:41:52 am	5:31:04 am	5:45:17 am	-
Day 4 - 17/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.127	0.127	0.254	**0.28**
Frequency (Hz)	5.2	4.32	113.78	-
Time	2:49:13 pm	7:06:27 pm	8:22:08 pm	-
Day 5 - 18/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.381	0.254	0.381	**0.42**
Frequency (Hz)	53.89	20.9	146.29	-
Time	1:24:37 am	3:58:30 am	12:53:29 am	-

Day 6 - 19/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.508	0.254	0.508	**0.58**
Frequency (Hz)	7.47	9.23	53.89	-
Time	3:04:22 pm	3:43:45 pm	4:20:17 pm	-
Day 7 - 20/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	1.143	1.016	1.778	**1.82**
Frequency (Hz)	204.8	204.8	93.09	-
Time	5:41:35 pm	5:35:12 pm	5:35:12 pm	-

Table 3.1 – Summary of Daily Highest Vibration Readings recorded for each axis

APPENDIX A

BUILDING & CONSTRUCTION AUTHORITY GUIDELINES

Figure A11.1 Vibration in Buildings - Combined-Direction Peak Velocity Curves (Figure 5(c) from NZS/ISO 2631-2:1989)

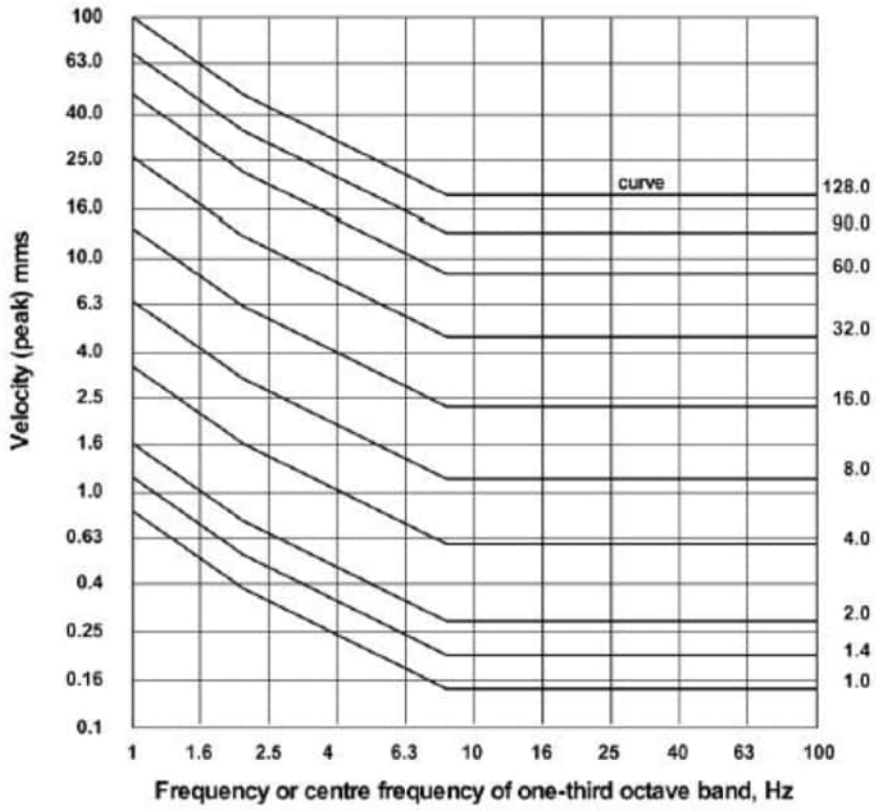
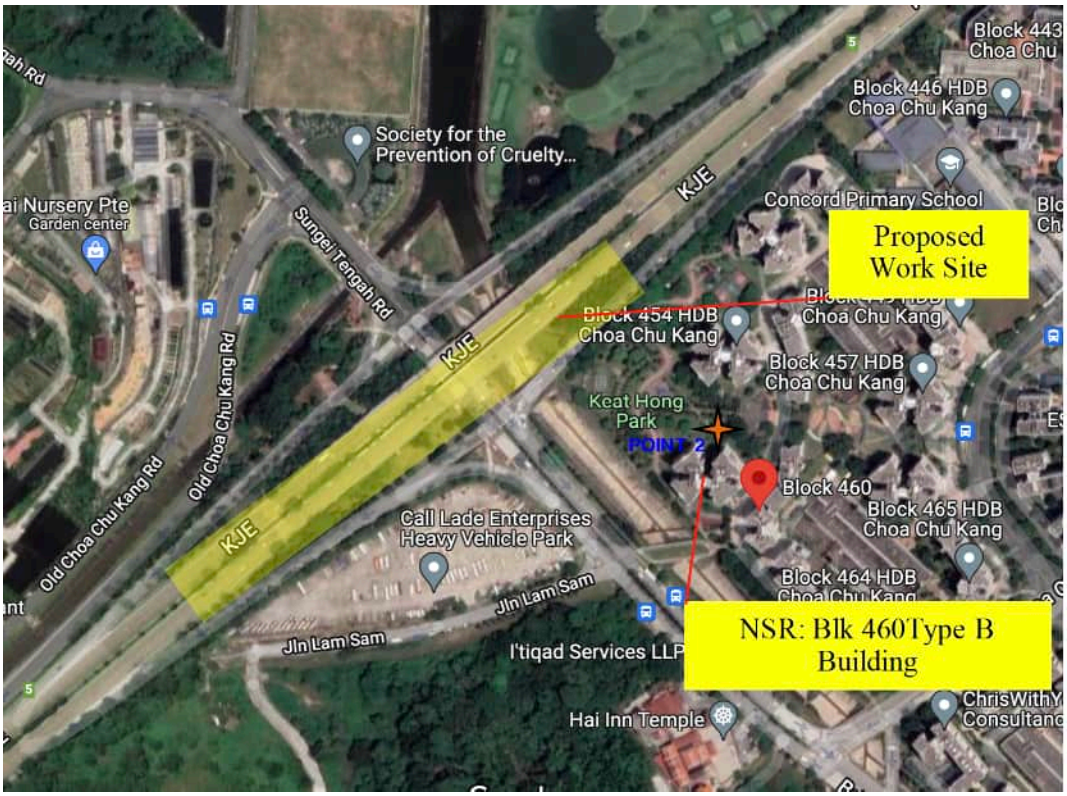


Table A10.2 - Environmental Performance Criteria for Short Term Vibration in Structures (refer DIN 4150-3:1986)

Line No.	Type of Structure	Peak Component Velocity (mm/s) at Foundation for Short Term Vibration			Plane of Floor of Uppermost Storey
		Vibration Frequency			Frequency Mixture
		<10Hz	10-50Hz	50-100Hz*	
1	Buildings used for industrial purposes, industrial buildings and buildings of similar design	20	20-40	40-50	40
2	Dwellings and buildings of similar design and/or use	5	5-15	15-20	15
3	Structures that, because of their particular sensitivity to vibration, do not correspond to those listed in rows 1 and 2, and are of great intrinsic value (e.g. buildings that are under a preservation order)	3	3-8	8-10	8

APPENDIX B

INSTRUMENT LOCATION PLAN


Society for the Prevention of Cruelty...
Nursery Pte
Garden center
Sungei Tengah Rd
KJE
Old Choa Chu Kang Rd
Block 446 HDB Choa Chu Kang
Concord Primary School
Proposed Work Site
Block 454 HDB Choa Chu Kang
Block 457 HDB Choa Chu Kang
Keat Hong Park
POINT 2
Block 460
Block 465 HDB Choa Chu Kang
Block 464 HDB
Call Lade Enterprises Heavy Vehicle Park
Jln Lam Sam
I'tiqad Services LLP
NSR: Blk 460Type B Building
Hai Inn Temple

APPENDIX C

VIBRATION MONITORING DATA

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

13/4/2022 at 11:28 am Event # 1

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 22.16 mm/s @ 1.39 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7873**	**12.8587**	**12.7397**
Frequency (Hz)	**14.2**	**24.3**	**24.3**

Air

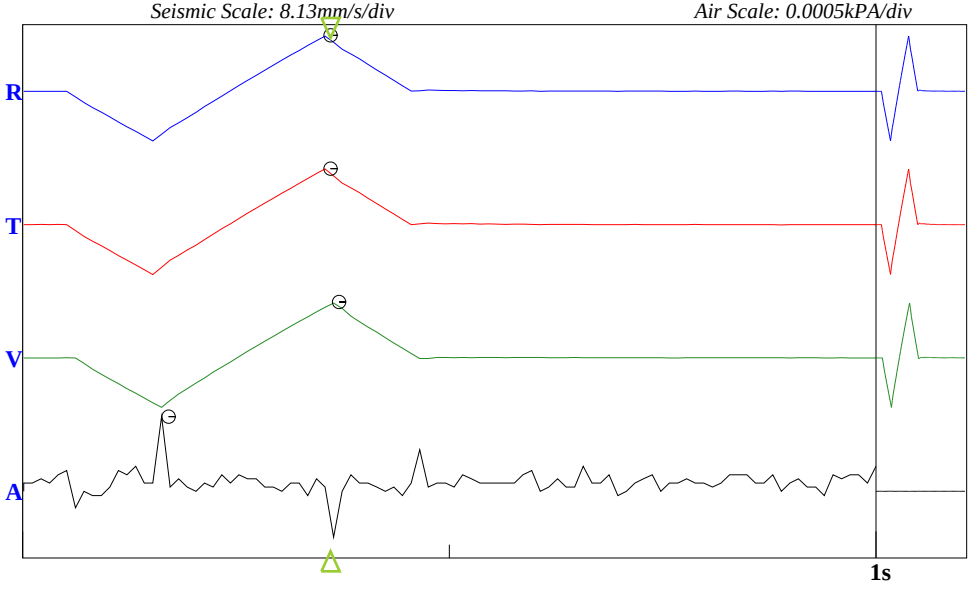
Gain: 1

Measurement	Value		
kPA	0.000469		
dBL	**87.4**		
Hz	512.0		

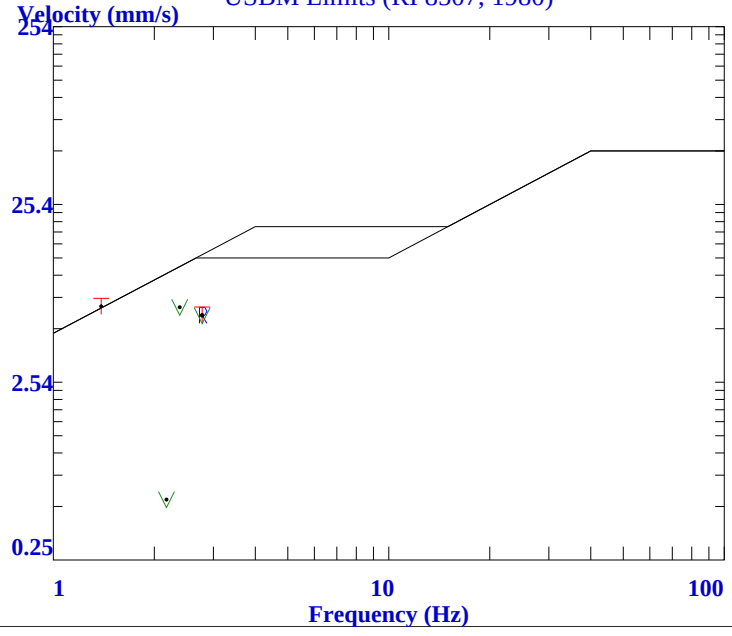
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

13/4/2022 at 11:28:36 am Event # 2

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance-Source: N

No GPS Data

End Time: 12:00:02 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Seismic

Gain: 1

Vector Sum: 20.27 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**7.493**	**6.858**	**18.796**
Frequency (Hz)	**48.76**	**21.79**	**37.93**
Time	11:34:06 am	11:34:06 am	11:34:06 am

Air

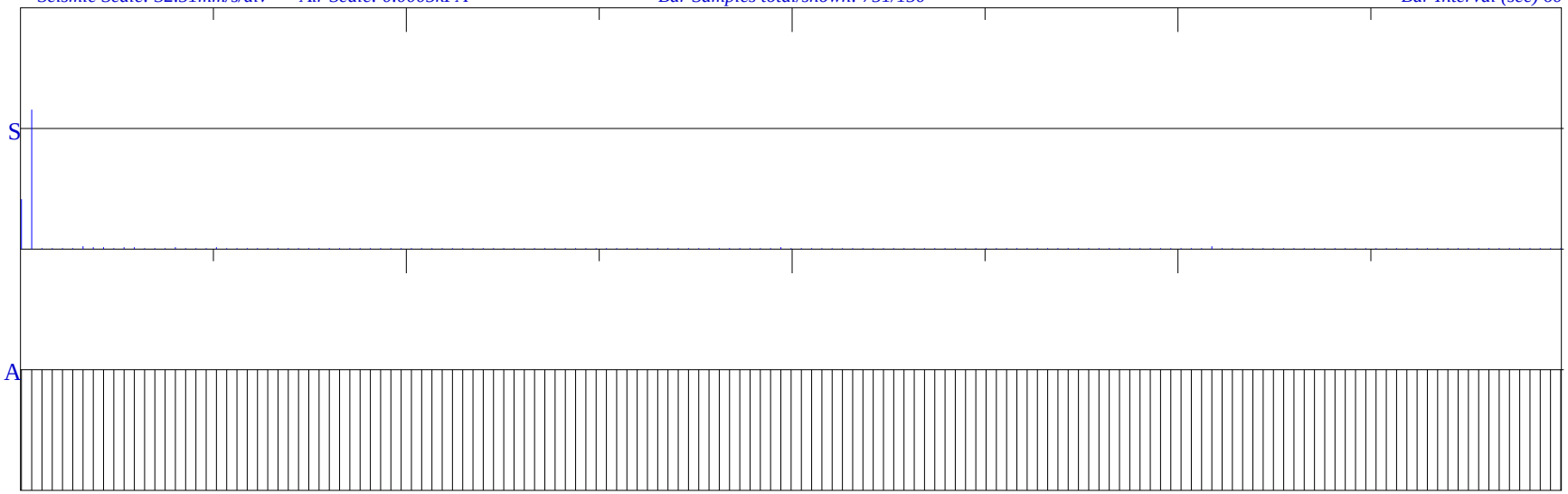
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.91		
Time	2:54:28 pm		

BarGraph

Seismic Scale: 32.51mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 751/150*

Summary Interval (min): 5
Bar Interval (sec) 60



11:28:36 **13:02:31** **14:36:27** **16:10:23** **17:44:19** **19:18:14** **20:52:10** **22:26:06** **00:00:02**

<<<<<<<<<<<<<< **12:31:26** >>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 2
Start: 13/4/2022 @ 11:28:36
End: 14/4/2022 @ 00:00:02
Summary Interval: 151
Air: 81.9 dBL @ 0.91 Hz
Radial: 7.493 (mm/s) @ 48.76 Hz @ 11:34:06
Transverse: 6.858 (mm/s) @ 21.79 Hz @ 11:34:06
Vertical: 18.796 (mm/s) @ 37.93 Hz @ 11:34:06
Vector Sum: 20.27 (mm/s)
Sample Rate: 1024/sec
Record Duration: 12.52 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	11:28:36	5.461	2.165	11:33:11	4.699	7.161	11:33:08	6.731	5.535	11:33:08	7.27
2	11:33:36	7.493	48.762	11:34:06	6.858	21.787	11:34:06	18.796	37.926	11:34:06	20.267
3	11:38:36	0.127	7.938	11:41:24	0.127	8.904	11:42:09	0.127	6.966	11:39:21	0.22
4	11:43:36	0.127	5.476	11:44:24	0.127	10.557	11:45:51	0.127	7.938	11:43:40	0.22
5	11:48:36	0.127	6.872	11:50:14	0.127	8.463	11:52:15	0.127	8.605	11:52:04	0.22
6	11:53:36	0.127	7.938	11:55:34	0.127	9.942	11:58:04	0.127	8.904	11:56:27	0.22
7	11:58:36	0.254	113.778	12:01:13	0.254	93.091	12:01:27	0.381	341.333	12:01:27	0.402
8	12:03:36	0.254	146.286	12:06:31	0.127	12.337	12:04:16	0.254	93.091	12:06:32	0.284
9	12:08:36	0.254	341.333	12:11:13	0.127	7.817	12:12:02	0.254	204.8	12:11:13	0.284
10	12:13:36	0.127	7.262	12:14:27	0.127	9.57	12:14:33	0.127	10.557	12:13:45	0.22
11	12:18:36	0.254	341.333	12:22:30	0.127	11.253	12:22:16	0.254	78.769	12:22:43	0.284
12	12:23:36	0.254	7.585	12:25:50	0.127	11.253	12:26:19	0.254	37.926	12:25:50	0.311
13	12:28:36	0.127	8.325	12:32:49	0.127	13.299	12:28:43	0.127	8.192	12:32:09	0.22
14	12:33:36	0.127	7.062	12:37:27	0.127	10.779	12:33:40	0.127	8.904	12:34:16	0.22
15	12:38:36	0.127	7.367	12:42:31	0.127	10.557	12:40:19	0.127	8.752	12:42:28	0.22
16	12:43:36	0.127	5.476	12:48:20	0.254	8.192	12:48:37	0.254	9.225	12:48:37	0.311
17	12:48:36	0.127	5.657	12:48:54	0.127	11.506	12:50:03	0.127	10.779	12:51:31	0.22
18	12:53:36	0.127	5.146	12:56:32	0.127	11.011	12:56:32	0.127	9.394	12:55:00	0.22
19	12:58:36	0.127	6.872	13:00:17	0.127	10.139	13:03:18	0.127	9.57	13:03:04	0.22
20	13:03:36	0.127	6.966	13:07:34	0.254	93.091	13:05:14	0.254	9.57	13:05:14	0.311
21	13:08:36	0.127	7.585	13:09:15	0.127	9.752	13:10:59	0.127	7.938	13:11:49	0.22
22	13:13:36	0.127	6.693	13:17:59	0.127	10.557	13:15:31	0.127	9.394	13:14:20	0.22
23	13:18:36	0.127	5.476	13:20:38	0.127	8.063	13:22:23	0.127	7.585	13:19:59	0.22
24	13:23:36	0.127	7.699	13:26:34	0.127	7.367	13:26:00	0.127	8.904	13:25:04	0.22
25	13:28:36	0.127	8.063	13:31:06	0.127	9.225	13:32:28	0.127	7.817	13:31:28	0.22
26	13:33:36	0.127	5.988	13:35:50	0.127	5.919	13:35:50	0.127	9.942	13:36:52	0.22
27	13:38:36	0.127	6.059	13:39:56	0.127	10.343	13:39:13	0.127	10.779	13:39:29	0.22
28	13:43:36	0.127	8.752	13:47:00	0.127	10.343	13:47:11	0.127	9.062	13:47:56	0.22
29	13:48:36	0.127	6.36	13:49:15	0.127	8.904	13:49:12	0.127	8.463	13:51:18	0.22
30	13:53:36	0.127	4.763	13:55:50	0.127	7.161	13:55:42	0.127	9.752	13:58:25	0.22
31	13:58:36	0.127	7.262	13:59:25	0.127	9.062	14:03:19	0.127	9.942	14:03:19	0.22
32	14:03:36	0.127	6.36	14:05:48	0.127	10.139	14:08:23	0.127	10.139	14:05:38	0.22
33	14:08:36	0.127	6.872	14:12:14	0.127	7.938	14:12:11	0.127	10.779	14:10:18	0.22
34	14:13:36	0.127	8.463	14:18:35	0.127	11.506	14:13:41	0.127	9.225	14:17:32	0.22
35	14:18:36	0.127	7.585	14:20:38	0.127	8.192	14:20:37	0.127	9.752	14:21:28	0.22
36	14:23:36	0.127	7.938	14:27:40	0.127	9.394	14:24:40	0.127	8.904	14:27:27	0.22
37	14:28:36	0.127	7.367	14:31:09	0.127	10.139	14:31:10	0.127	9.394	14:31:06	0.22
38	14:33:36	0.127	6.781	14:34:16	0.127	9.394	14:36:59	0.127	9.942	14:37:28	0.22
39	14:38:36	0.127	6.132	14:39:35	0.127	9.752	14:39:16	0.127	9.394	14:39:59	0.22
40	14:43:36	0.127	8.463	14:48:35	0.127	10.343	14:44:41	0.127	10.779	14:44:25	0.22
41	14:48:36	0.127	8.063	14:52:32	0.127	9.57	14:53:33	0.127	10.779	14:49:41	0.22
42	14:53:36	0.127	5.721	14:55:27	0.127	10.139	14:58:08	0.127	9.225	14:55:12	0.22
43	14:58:36	0.127	7.367	15:02:08	0.127	8.063	15:00:46	0.127	11.506	14:58:58	0.22
44	15:03:36	0.127	6.282	15:04:22	0.127	8.605	15:04:11	0.127	11.253	15:04:04	0.22
45	15:08:36	0.127	8.752	15:09:25	0.127	8.605	15:13:25	0.127	9.062	15:13:20	0.22
46	15:13:36	0.127	7.062	15:15:41	0.127	8.605	15:14:03	0.127	9.752	15:15:38	0.22
47	15:18:36	0.127	7.161	15:18:44	0.127	9.225	15:19:10	0.127	8.904	15:19:11	0.22
48	15:23:36	0.127	7.585	15:25:07	0.127	9.57	15:28:02	0.127	10.343	15:25:29	0.22
49	15:28:36	0.127	8.063	15:29:08	0.127	5.306	15:32:17	0.127	9.752	15:28:40	0.22
50	15:33:36	0.127	8.192	15:37:53	0.127	6.059	15:38:19	0.127	9.062	15:38:26	0.22
51	15:38:36	0.127	7.817	15:42:39	0.127	6.44	15:40:21	0.127	8.752	15:43:12	0.22
52	15:43:36	0.127	6.872	15:45:00	0.127	5.988	15:47:43	0.127	9.225	15:47:00	0.22
53	15:48:36	0.127	8.904	15:51:16	0.127	6.206	15:50:01	0.127	8.904	15:49:17	0.22
54	15:53:36	0.127	8.063	15:56:33	0.127	4.214	15:56:52	0.127	10.557	15:57:43	0.22
55	15:58:36	0.127	7.474	16:03:02	0.127	5.988	16:01:13	0.127	10.139	16:02:02	0.22
56	16:03:36	0.127	7.367	16:03:59	0.127	6.606	16:07:12	0.127	10.343	16:04:20	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 2
Start: 13/4/2022 @ 11:28:36
End: 14/4/2022 @ 00:00:02
Summary Interval: 151
Air: 81.9 dBL @ 0.91 Hz
Radial: 7.493 (mm/s) @ 48.76 Hz @ 11:34:06
Transverse: 6.858 (mm/s) @ 21.79 Hz @ 11:34:06
Vertical: 18.796 (mm/s) @ 37.93 Hz @ 11:34:06
Vector Sum: 20.27 (mm/s)
Sample Rate: 1024/sec
Record Duration: 12.52 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	16:08:36	0.127	7.585	16:13:01	0.127	6.059	16:13:04	0.127	11.253	16:09:48	0.22
58	16:13:36	0.127	7.062	16:15:50	0.127	5.146	16:15:53	0.127	10.779	16:15:53	0.22
59	16:18:36	0.127	7.161	16:21:19	0.127	6.059	16:19:16	0.127	10.139	16:20:05	0.22
60	16:23:36	0.127	8.605	16:27:31	0.127	6.44	16:26:23	0.127	8.752	16:27:23	0.22
61	16:28:36	0.127	7.817	16:29:09	0.127	5.535	16:30:42	0.127	10.139	16:32:22	0.22
62	16:33:36	0.127	5.535	16:33:45	0.127	5.535	16:34:03	0.127	8.752	16:35:26	0.22
63	16:38:36	0.127	5.919	16:41:42	0.127	5.146	16:42:47	0.127	9.394	16:40:35	0.22
64	16:43:36	0.127	5.535	16:48:23	0.127	4.676	16:44:19	0.127	9.942	16:48:17	0.22
65	16:48:36	0.127	7.262	16:49:50	0.127	6.282	16:49:03	0.127	9.942	16:52:15	0.22
66	16:53:36	0.127	5.306	16:56:52	0.127	6.206	16:55:37	0.127	9.394	16:56:02	0.22
67	16:58:36	0.127	6.781	17:00:24	0.127	5.596	17:01:11	0.127	9.57	16:59:29	0.22
68	17:03:36	0.127	8.605	17:03:52	0.127	6.522	17:04:51	0.127	10.343	17:05:23	0.22
69	17:08:36	0.127	7.817	17:08:41	0.127	6.132	17:12:04	0.127	8.463	17:09:01	0.22
70	17:13:36	0.127	7.474	17:18:36	0.127	5.251	17:17:27	0.127	9.062	17:17:51	0.22
71	17:18:36	0.127	7.262	17:23:00	0.127	5.657	17:20:11	0.127	8.752	17:18:40	0.22
72	17:23:36	0.127	8.063	17:28:03	0.127	5.095	17:28:03	0.127	9.394	17:23:46	0.22
73	17:28:36	0.127	8.325	17:29:32	0.127	5.251	17:29:43	0.127	11.011	17:32:11	0.22
74	17:33:36	0.127	7.699	17:38:08	0.127	6.606	17:34:52	0.127	10.343	17:36:24	0.22
75	17:38:36	0.127	7.585	17:41:04	0.127	5.198	17:42:20	0.254	78.769	17:41:21	0.284
76	17:43:36	0.127	8.063	17:47:43	0.127	6.522	17:44:45	0.127	8.904	17:47:01	0.22
77	17:48:36	0.127	7.367	17:50:53	0.127	5.657	17:53:24	0.127	10.139	17:50:57	0.22
78	17:53:36	0.127	8.063	17:58:19	0.127	6.282	17:58:12	0.127	9.57	17:54:27	0.22
79	17:58:36	0.127	5.919	17:59:27	0.127	5.988	17:58:45	0.127	9.57	17:59:26	0.22
80	18:03:36	0.127	7.474	18:04:27	0.127	6.282	18:08:30	0.127	9.062	18:07:10	0.22
81	18:08:36	0.127	7.474	18:13:17	0.127	6.206	18:11:48	0.127	11.506	18:09:28	0.22
82	18:13:36	0.127	7.474	18:14:20	0.127	6.132	18:15:54	0.127	9.394	18:16:46	0.22
83	18:18:36	0.127	9.062	18:19:16	0.127	5.851	18:19:16	0.127	9.942	18:22:24	0.22
84	18:23:36	0.127	7.699	18:28:09	0.127	7.062	18:28:18	0.127	9.752	18:24:52	0.22
85	18:28:36	0.127	6.44	18:29:12	0.127	4.472	18:29:20	0.127	10.779	18:30:46	0.22
86	18:33:36	0.127	5.851	18:34:52	0.127	6.606	18:34:39	0.127	9.225	18:35:17	0.22
87	18:38:36	0.127	7.938	18:39:01	0.127	5.988	18:42:37	0.127	9.57	18:39:54	0.22
88	18:43:36	0.127	8.605	18:46:50	0.127	6.36	18:45:47	0.127	9.942	18:44:27	0.22
89	18:48:36	0.127	6.606	18:52:52	0.127	5.919	18:51:14	0.127	10.139	18:53:27	0.22
90	18:53:36	0.127	8.752	18:55:40	0.127	6.44	18:56:18	0.127	7.938	18:56:41	0.22
91	18:58:36	0.127	6.44	18:59:18	0.127	4.853	19:00:10	0.127	11.253	18:59:44	0.22
92	19:03:36	0.127	7.062	19:06:59	0.127	5.095	19:05:09	0.127	10.557	19:05:28	0.22
93	19:08:36	0.127	9.062	19:13:13	0.127	5.361	19:09:33	0.127	9.752	19:11:18	0.22
94	19:13:36	0.127	7.585	19:16:58	0.127	6.606	19:15:58	0.127	10.779	19:15:09	0.22
95	19:18:36	0.127	6.44	19:20:49	0.127	7.062	19:20:51	0.127	9.225	19:21:03	0.22
96	19:23:36	0.127	8.063	19:27:18	0.127	4.9	19:25:00	0.127	11.506	19:27:51	0.22
97	19:28:36	0.127	7.938	19:29:20	0.127	6.44	19:33:15	0.127	10.779	19:30:49	0.22
98	19:33:36	0.127	7.699	19:37:19	0.127	6.693	19:35:08	0.127	9.225	19:34:45	0.22
99	19:38:36	0.127	8.752	19:39:39	0.127	5.851	19:42:48	0.127	8.463	19:39:57	0.22
100	19:43:36	0.127	7.699	19:47:48	0.127	6.44	19:44:20	0.127	9.062	19:48:12	0.22
101	19:48:36	0.127	7.585	19:49:25	0.127	5.596	19:52:51	0.127	10.139	19:52:54	0.22
102	19:53:36	0.127	8.752	19:57:31	0.127	6.059	19:55:42	0.127	10.557	19:53:53	0.22
103	19:58:36	0.127	8.752	20:02:45	0.127	5.535	20:02:37	0.127	8.605	20:01:16	0.22
104	20:03:36	0.127	9.225	20:04:27	0.127	5.919	20:04:29	0.127	10.557	20:03:45	0.22
105	20:08:36	0.127	9.752	20:13:11	0.127	7.062	20:11:55	0.127	12.337	20:09:27	0.22
106	20:13:36	0.127	8.325	20:15:37	0.127	5.657	20:15:33	0.127	10.343	20:14:44	0.22
107	20:18:36	0.127	5.251	20:22:11	0.127	6.781	20:23:05	0.127	11.253	20:19:48	0.22
108	20:23:36	0.127	7.699	20:24:17	0.127	5.535	20:24:18	0.127	11.253	20:27:22	0.22
109	20:28:36	0.127	9.225	20:29:53	0.127	7.367	20:29:14	0.127	9.752	20:31:05	0.22
110	20:33:36	0.127	10.557	20:38:06	0.127	6.693	20:38:33	0.127	10.139	20:33:53	0.22
111	20:38:36	0.127	8.752	20:42:31	0.127	6.781	20:39:32	0.127	13.299	20:41:51	0.22
112	20:43:36	0.127	9.062	20:46:44	0.127	7.062	20:45:41	0.127	9.752	20:43:38	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 2
Start: 13/4/2022 @ 11:28:36
End: 14/4/2022 @ 00:00:02
Summary Interval: 151
Air: 81.9 dBL @ 0.91 Hz
Radial: 7.493 (mm/s) @ 48.76 Hz @ 11:34:06
Transverse: 6.858 (mm/s) @ 21.79 Hz @ 11:34:06
Vertical: 18.796 (mm/s) @ 37.93 Hz @ 11:34:06
Vector Sum: 20.27 (mm/s)
Sample Rate: 1024/sec
Record Duration: 12.52 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	20:48:36	0.127	8.063	20:48:41	0.127	5.596	20:52:27	0.127	11.253	20:49:07	0.22
114	20:53:36	0.127	9.752	20:53:56	0.127	6.693	20:55:31	0.127	10.139	20:56:20	0.22
115	20:58:36	0.127	8.904	21:00:28	0.127	5.785	21:00:31	0.127	10.343	21:00:44	0.22
116	21:03:36	0.127	8.325	21:06:28	0.127	6.966	21:08:19	0.127	11.506	21:05:43	0.22
117	21:08:36	0.381	44.522	21:11:53	0.254	33.032	21:11:53	0.381	33.032	21:11:53	0.475
118	21:13:36	0.127	7.817	21:14:59	0.127	5.785	21:14:25	0.127	9.225	21:15:44	0.22
119	21:18:36	0.127	9.394	21:19:52	0.127	6.44	21:19:17	0.127	9.752	21:20:21	0.22
120	21:23:36	0.127	8.192	21:25:45	0.127	6.44	21:27:03	0.127	10.343	21:26:52	0.22
121	21:28:36	0.127	8.904	21:31:09	0.127	7.262	21:29:14	0.127	10.139	21:29:52	0.22
122	21:33:36	0.127	8.605	21:36:17	0.127	5.919	21:34:04	0.127	9.942	21:36:47	0.22
123	21:38:36	0.127	7.585	21:39:40	0.127	5.919	21:39:17	0.127	9.942	21:43:20	0.22
124	21:43:36	0.127	11.011	21:45:35	0.127	7.262	21:46:16	0.127	9.57	21:43:47	0.22
125	21:48:36	0.127	7.699	21:49:35	0.127	8.192	21:53:19	0.127	12.047	21:52:40	0.22
126	21:53:36	0.127	8.463	21:53:49	0.127	6.522	21:55:00	0.127	11.253	21:55:19	0.22
127	21:58:36	0.127	8.063	21:59:30	0.127	5.721	22:02:16	0.127	7.585	22:00:30	0.22
128	22:03:36	0.127	9.225	22:08:11	0.127	7.817	22:04:58	0.127	9.57	22:06:00	0.22
129	22:08:36	0.127	6.132	22:10:43	0.127	5.721	22:12:20	0.127	10.557	22:10:19	0.22
130	22:13:36	0.127	9.752	22:15:36	0.127	6.872	22:14:33	0.127	12.047	22:14:29	0.22
131	22:18:36	0.127	10.557	22:20:56	0.127	6.966	22:21:01	0.127	11.77	22:23:12	0.22
132	22:23:36	0.127	9.225	22:23:42	0.127	7.062	22:26:40	0.127	9.752	22:24:43	0.22
133	22:28:36	0.127	9.57	22:32:38	0.127	6.966	22:33:27	0.127	9.942	22:31:44	0.22
134	22:33:36	0.127	10.779	22:34:03	0.127	8.192	22:34:14	0.127	12.642	22:37:57	0.22
135	22:38:36	0.127	7.474	22:42:10	0.127	5.418	22:39:19	0.127	12.642	22:41:20	0.22
136	22:43:36	0.127	9.394	22:44:25	0.127	5.657	22:46:06	0.127	8.752	22:45:56	0.22
137	22:48:36	0.127	8.325	22:53:04	0.127	5.988	22:53:05	0.127	11.253	22:49:08	0.22
138	22:53:36	0.127	8.605	22:54:04	0.127	6.606	22:54:04	0.127	9.57	22:54:44	0.22
139	22:58:36	0.127	8.192	22:59:31	0.127	6.522	23:01:12	0.127	9.752	22:59:57	0.22
140	23:03:36	0.127	7.262	23:06:26	0.127	6.606	23:04:17	0.127	9.062	23:06:35	0.22
141	23:08:36	0.127	10.557	23:10:27	0.127	6.781	23:11:20	0.127	10.343	23:09:16	0.22
142	23:13:36	0.127	10.139	23:16:43	0.127	6.36	23:15:17	0.127	11.253	23:18:24	0.22
143	23:18:36	0.127	7.161	23:20:32	0.127	5.851	23:20:19	0.127	10.779	23:20:37	0.22
144	23:23:36	0.127	11.253	23:26:33	0.127	6.966	23:23:59	0.127	10.779	23:27:09	0.22
145	23:28:36	0.127	9.942	23:32:05	0.127	6.872	23:29:01	0.127	9.57	23:30:53	0.22
146	23:33:36	0.127	8.752	23:33:43	0.127	7.938	23:38:01	0.127	9.225	23:35:08	0.22
147	23:38:36	0.127	11.011	23:42:40	0.127	6.872	23:38:44	0.127	10.779	23:38:48	0.22
148	23:43:36	0.127	10.557	23:44:12	0.127	7.817	23:45:33	0.127	11.253	23:43:57	0.22
149	23:48:36	0.127	11.011	23:50:40	0.127	6.522	23:50:05	0.127	12.047	23:49:51	0.22
150	23:53:36	0.127	9.394	23:54:10	0.127	7.262	23:55:42	0.127	12.047	23:55:22	0.22
151	23:58:36	0.127	11.253	23:59:35	0.127	7.585	23:59:35	0.127	12.962	23:59:25	0.22

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

14/4/2022 at 12:00 am Event # 3

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 22.13 mm/s @ 1.16 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7476**	**12.8191**	**12.7556**
Frequency (Hz)	**17.6**	**14.2**	**24.3**

Air

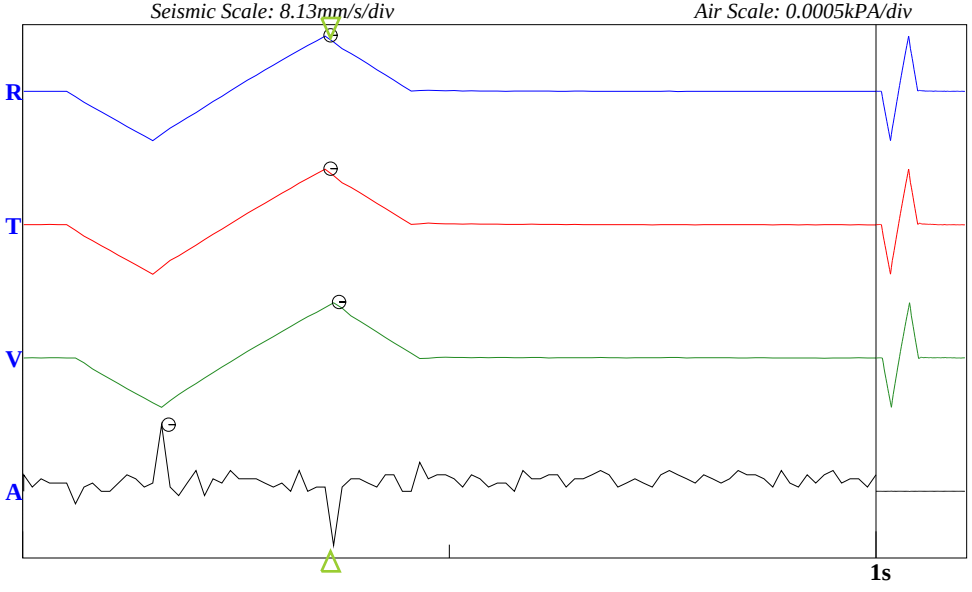
Gain: 1

Measurement	Value		
kPA	0.000469		
dBL	**87.4**		
Hz	512.0		

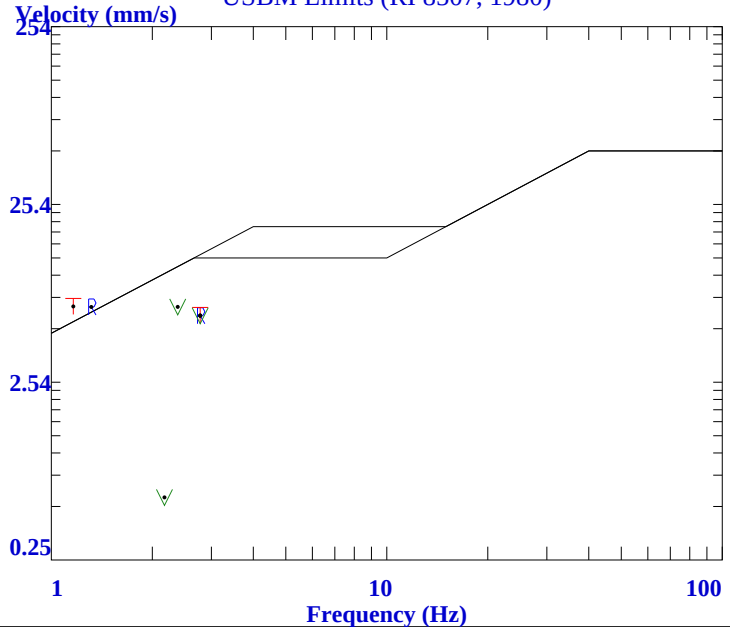
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

14/4/2022 at 12:00:14 am Event # 4

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance-Source: N

No GPS Data

End Time: 12:00:03 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Seismic

Gain: 1

Vector Sum: 0.68 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.508**	**0.381**	**0.508**
Frequency (Hz)	**13.65**	**13.3**	**21.79**
Time	1:39:18 am	1:39:56 am	1:39:14 am

Air

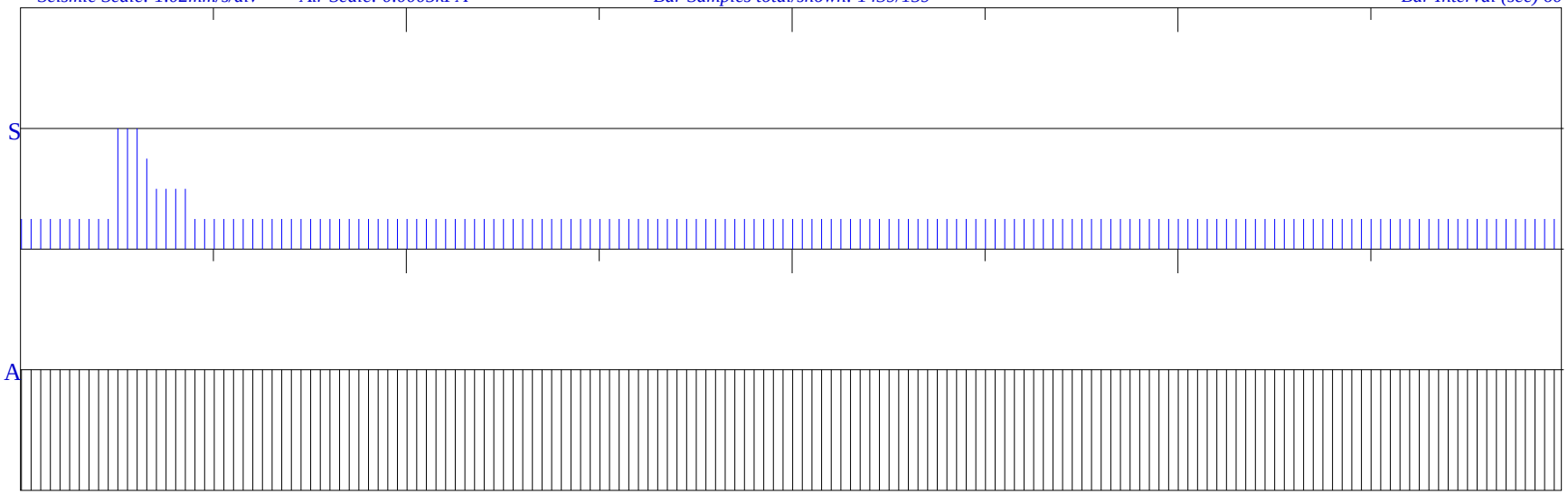
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.6		
Time	3:09:39 am		

BarGraph

Seismic Scale: 1.02mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159*

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:14 **03:00:12** **06:00:11** **09:00:09** **12:00:08** **15:00:07** **18:00:05** **21:00:04** **00:00:03**

<<<<<<<<<<<<<< **23:59:49** >>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 14/4/2022 @ 00:00:14
End: 15/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.508 (mm/s) @ 13.65 Hz @ 01:39:18
Transverse: 0.381 (mm/s) @ 13.3 Hz @ 01:39:56
Vertical: 0.508 (mm/s) @ 21.79 Hz @ 01:39:14
Vector Sum: .68 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:14	0.127	10.139	0:02:26	0.127	16.787	0:00:48	0.127	11.011	0:03:18	0.22
2	0:05:14	0.127	10.343	0:09:11	0.127	14.423	0:05:37	0.127	11.506	0:06:58	0.22
3	0:10:14	0.127	10.779	0:11:42	0.127	14.841	0:14:00	0.127	12.337	0:14:34	0.22
4	0:15:14	0.127	12.047	0:18:51	0.127	17.356	0:16:05	0.127	9.062	0:16:06	0.22
5	0:20:14	0.127	9.225	0:23:59	0.127	17.356	0:21:49	0.127	9.942	0:20:51	0.22
6	0:25:14	0.127	12.047	0:29:06	0.127	16.787	0:29:14	0.127	9.225	0:28:41	0.22
7	0:30:14	0.127	9.57	0:32:15	0.127	13.653	0:32:15	0.127	8.904	0:35:11	0.22
8	0:35:14	0.127	5.596	0:37:28	0.127	15.284	0:37:28	0.127	10.557	0:35:39	0.22
9	0:40:14	0.127	9.394	0:40:46	0.127	17.356	0:45:15	0.127	10.557	0:41:48	0.22
10	0:45:14	0.127	12.337	0:46:52	0.127	16.254	0:47:20	0.127	12.337	0:49:46	0.22
11	0:50:14	0.127	9.062	0:53:36	0.127	12.642	0:53:37	0.127	10.139	0:53:36	0.22
12	0:55:14	0.127	10.779	0:57:04	0.127	17.356	0:57:26	0.127	14.423	0:55:22	0.22
13	1:00:14	0.127	11.253	1:00:40	0.127	14.423	1:00:19	0.127	13.653	1:03:45	0.22
14	1:05:14	0.127	11.506	1:07:44	0.127	20.078	1:07:22	0.127	12.337	1:06:44	0.22
15	1:10:14	0.127	9.394	1:14:51	0.127	11.506	1:14:01	0.127	14.027	1:11:48	0.22
16	1:15:14	0.127	10.557	1:17:50	0.127	14.841	1:20:11	0.127	11.253	1:17:15	0.22
17	1:20:14	0.127	10.139	1:25:06	0.127	16.787	1:24:59	0.127	12.337	1:24:05	0.22
18	1:25:14	0.127	11.506	1:29:42	0.127	16.254	1:29:14	0.127	11.011	1:26:56	0.22
19	1:30:14	0.254	14.841	1:31:43	0.254	35.31	1:32:04	0.508	40.96	1:33:54	0.539
20	1:35:14	0.508	13.653	1:39:18	0.381	13.299	1:39:56	0.508	21.787	1:39:14	0.684
21	1:40:14	0.508	48.762	1:41:26	0.381	35.31	1:41:26	0.508	44.522	1:41:25	0.648
22	1:45:14	0.381	44.522	1:49:40	0.254	31.03	1:49:47	0.381	33.032	1:49:47	0.524
23	1:50:14	0.381	48.762	1:52:34	0.254	35.31	1:50:45	0.508	44.522	1:50:53	0.568
24	1:55:14	0.254	33.032	1:55:28	0.254	35.31	1:55:56	0.508	44.522	1:55:44	0.539
25	2:00:14	0.254	40.96	2:04:51	0.127	16.787	2:03:50	0.254	37.926	2:01:03	0.381
26	2:05:14	0.254	53.895	2:07:07	0.127	12.337	2:05:49	0.254	35.31	2:05:15	0.311
27	2:10:14	0.254	12.962	2:11:26	0.127	18.618	2:12:11	0.254	35.31	2:11:26	0.311
28	2:15:14	0.127	10.557	2:16:43	0.127	20.898	2:18:53	0.254	26.256	2:15:15	0.284
29	2:20:14	0.127	9.752	2:21:53	0.127	16.254	2:24:57	0.254	40.96	2:21:14	0.311
30	2:25:14	0.127	11.253	2:26:22	0.127	16.787	2:27:18	0.254	44.522	2:25:29	0.284
31	2:30:14	0.127	12.047	2:30:29	0.127	16.787	2:34:15	0.254	44.522	2:30:23	0.284
32	2:35:14	0.127	9.394	2:37:15	0.127	12.337	2:39:12	0.127	12.047	2:39:11	0.22
33	2:40:14	0.127	9.752	2:41:08	0.127	16.787	2:42:59	0.127	11.506	2:43:36	0.22
34	2:45:14	0.127	5.988	2:46:20	0.127	10.557	2:46:01	0.127	11.253	2:49:19	0.22
35	2:50:14	0.127	10.139	2:50:47	0.127	10.557	2:50:48	0.127	10.343	2:53:20	0.22
36	2:55:14	0.127	9.062	2:58:14	0.127	16.254	2:58:51	0.127	14.027	2:55:54	0.22
37	3:00:14	0.127	10.557	3:00:49	0.127	16.787	3:04:04	0.127	9.394	3:04:14	0.22
38	3:05:14	0.127	10.557	3:09:22	0.127	17.356	3:09:39	0.127	11.011	3:06:09	0.22
39	3:10:14	0.127	8.463	3:11:07	0.127	14.423	3:12:42	0.127	7.938	3:12:47	0.22
40	3:15:14	0.127	9.57	3:17:21	0.127	17.965	3:19:43	0.127	11.77	3:17:36	0.22
41	3:20:14	0.127	9.062	3:24:15	0.127	6.282	3:25:05	0.127	10.343	3:21:03	0.22
42	3:25:14	0.127	10.139	3:27:46	0.127	7.585	3:25:37	0.127	11.506	3:25:21	0.22
43	3:30:14	0.127	10.343	3:32:03	0.127	7.367	3:30:41	0.127	13.299	3:31:23	0.22
44	3:35:14	0.127	9.57	3:36:43	0.127	6.606	3:38:16	0.127	12.962	3:36:36	0.22
45	3:40:14	0.127	10.557	3:42:19	0.127	6.36	3:40:15	0.127	12.047	3:41:43	0.22
46	3:45:14	0.127	9.942	3:47:11	0.127	5.657	3:46:29	0.127	10.779	3:49:54	0.22
47	3:50:14	0.127	10.343	3:53:12	0.127	7.062	3:53:00	0.127	10.779	3:54:12	0.22
48	3:55:14	0.127	9.57	3:57:42	0.127	5.919	3:59:55	0.127	11.77	3:57:46	0.22
49	4:00:14	0.127	9.225	4:02:29	0.127	6.606	4:03:19	0.127	12.047	4:02:34	0.22
50	4:05:14	0.127	8.752	4:07:38	0.127	7.367	4:08:30	0.127	11.506	4:05:56	0.22
51	4:10:14	0.127	9.57	4:13:55	0.127	6.781	4:10:34	0.127	12.337	4:13:37	0.22
52	4:15:14	0.127	9.57	4:15:22	0.127	7.262	4:19:51	0.127	12.337	4:15:50	0.22
53	4:20:14	0.127	9.942	4:22:44	0.127	6.206	4:25:10	0.127	14.027	4:20:53	0.22
54	4:25:14	0.127	10.139	4:29:39	0.127	7.367	4:28:22	0.127	10.779	4:30:09	0.22
55	4:30:14	0.127	9.225	4:31:25	0.127	6.132	4:31:04	0.127	10.557	4:31:56	0.22
56	4:35:14	0.127	7.262	4:35:27	0.127	5.851	4:37:45	0.127	13.299	4:36:30	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 14/4/2022 @ 00:00:14
End: 15/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.508 (mm/s) @ 13.65 Hz @ 01:39:18
Transverse: 0.381 (mm/s) @ 13.3 Hz @ 01:39:56
Vertical: 0.508 (mm/s) @ 21.79 Hz @ 01:39:14
Vector Sum: .68 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:14	0.127	8.325	4:43:12	0.127	7.474	4:42:16	0.127	11.011	4:41:44	0.22
58	4:45:14	0.127	10.779	4:49:54	0.127	6.781	4:48:13	0.127	10.139	4:46:44	0.22
59	4:50:14	0.127	10.557	4:53:06	0.127	7.161	4:51:15	0.127	11.77	4:54:24	0.22
60	4:55:14	0.127	11.506	4:56:52	0.127	8.063	4:58:04	0.127	11.253	5:00:11	0.22
61	5:00:14	0.127	8.904	5:04:47	0.127	7.161	5:03:52	0.127	9.57	5:03:17	0.22
62	5:05:14	0.127	8.904	5:09:27	0.127	6.206	5:06:43	0.127	11.506	5:09:56	0.22
63	5:10:14	0.127	8.752	5:12:55	0.127	6.966	5:10:55	0.127	10.779	5:10:21	0.22
64	5:15:14	0.127	10.557	5:15:33	0.127	5.851	5:18:29	0.127	10.779	5:20:04	0.22
65	5:20:14	0.127	7.262	5:22:01	0.127	6.44	5:22:31	0.127	10.557	5:22:19	0.22
66	5:25:14	0.127	7.474	5:29:24	0.127	6.522	5:27:35	0.127	9.225	5:29:37	0.22
67	5:30:14	0.127	8.904	5:35:09	0.127	6.966	5:33:15	0.127	11.506	5:31:30	0.22
68	5:35:14	0.127	10.139	5:40:03	0.127	7.474	5:37:06	0.127	9.225	5:36:04	0.22
69	5:40:14	0.127	8.463	5:43:08	0.127	7.817	5:42:04	0.127	10.139	5:44:05	0.22
70	5:45:14	0.127	9.225	5:50:06	0.127	6.872	5:46:00	0.127	11.77	5:47:33	0.22
71	5:50:14	0.127	8.904	5:52:44	0.127	6.693	5:54:50	0.127	11.253	5:55:04	0.22
72	5:55:14	0.127	6.44	5:56:57	0.127	5.657	5:56:58	0.127	9.57	5:55:56	0.22
73	6:00:14	0.127	11.253	6:01:37	0.127	6.693	6:02:04	0.127	11.77	6:00:32	0.22
74	6:05:14	0.127	7.062	6:09:26	0.127	5.721	6:09:16	0.127	12.642	6:09:51	0.22
75	6:10:14	0.127	9.57	6:13:47	0.127	6.781	6:12:28	0.127	11.011	6:11:54	0.22
76	6:15:14	0.127	7.474	6:15:42	0.127	6.522	6:15:43	0.127	10.557	6:18:10	0.22
77	6:20:14	0.127	9.57	6:23:32	0.127	6.132	6:21:32	0.127	11.77	6:23:34	0.22
78	6:25:14	0.127	6.966	6:28:31	0.127	7.262	6:28:34	0.127	11.77	6:28:53	0.22
79	6:30:14	0.127	7.817	6:31:44	0.127	4.995	6:34:19	0.127	9.942	6:31:38	0.22
80	6:35:14	0.127	8.752	6:40:03	0.127	6.132	6:37:48	0.127	12.047	6:36:49	0.22
81	6:40:14	0.127	9.062	6:42:27	0.127	6.282	6:45:01	0.127	10.139	6:43:32	0.22
82	6:45:14	0.127	9.062	6:45:45	0.127	7.367	6:48:15	0.127	10.557	6:48:14	0.22
83	6:50:14	0.127	7.161	6:54:32	0.127	5.919	6:54:47	0.127	9.942	6:54:08	0.22
84	6:55:14	0.127	7.699	6:59:00	0.127	5.919	6:59:40	0.127	10.557	6:56:53	0.22
85	7:00:14	0.127	7.262	7:00:39	0.127	6.282	7:00:20	0.127	8.192	7:02:11	0.22
86	7:05:14	0.127	7.262	7:06:15	0.127	4.947	7:08:36	0.127	9.394	7:07:51	0.22
87	7:10:14	0.127	7.699	7:14:19	0.127	5.361	7:11:16	0.127	10.779	7:14:00	0.22
88	7:15:14	0.127	9.225	7:16:40	0.127	5.721	7:16:10	0.127	10.343	7:20:04	0.22
89	7:20:14	0.127	7.817	7:21:29	0.127	4.763	7:21:57	0.127	10.779	7:22:40	0.22
90	7:25:14	0.127	8.192	7:28:47	0.127	6.282	7:27:29	0.127	9.225	7:28:46	0.22
91	7:30:14	0.127	5.361	7:31:19	0.127	4.433	7:31:25	0.127	11.011	7:32:19	0.22
92	7:35:14	0.127	5.919	7:35:38	0.127	5.361	7:39:26	0.127	10.343	7:38:40	0.22
93	7:40:14	0.127	6.966	7:45:06	0.127	4.321	7:40:55	0.127	8.463	7:40:50	0.22
94	7:45:14	0.127	7.161	7:49:27	0.127	6.206	7:48:02	0.127	10.343	7:47:54	0.22
95	7:50:14	0.127	6.206	7:54:07	0.127	4.853	7:55:10	0.127	10.139	7:52:51	0.22
96	7:55:14	0.127	7.161	7:56:14	0.127	5.146	7:59:34	0.127	11.011	7:56:09	0.22
97	8:00:14	0.127	6.606	8:01:44	0.127	5.919	8:01:46	0.127	11.506	8:04:55	0.22
98	8:05:14	0.127	8.063	8:05:16	0.127	5.919	8:05:26	0.127	11.011	8:06:00	0.22
99	8:10:14	0.127	7.262	8:10:37	0.127	5.785	8:12:50	0.127	9.942	8:11:57	0.22
100	8:15:14	0.127	6.781	8:17:35	0.127	4.676	8:17:36	0.127	11.011	8:16:58	0.22
101	8:20:14	0.127	7.938	8:20:53	0.127	6.282	8:22:55	0.127	11.506	8:20:20	0.22
102	8:25:14	0.127	8.325	8:25:59	0.127	4.592	8:28:45	0.127	12.962	8:28:03	0.22
103	8:30:14	0.127	7.938	8:32:22	0.127	5.851	8:34:41	0.127	9.942	8:31:11	0.22
104	8:35:14	0.127	6.693	8:39:01	0.127	5.535	8:37:59	0.127	8.752	8:38:02	0.22
105	8:40:14	0.127	5.988	8:42:16	0.127	5.851	8:40:24	0.127	8.605	8:41:35	0.22
106	8:45:14	0.127	6.059	8:46:08	0.127	5.418	8:46:59	0.127	10.557	8:48:34	0.22
107	8:50:14	0.127	7.585	8:51:50	0.127	6.606	8:54:00	0.127	11.011	8:50:58	0.22
108	8:55:14	0.127	5.988	8:55:19	0.127	5.146	8:55:20	0.127	11.011	8:55:19	0.22
109	9:00:14	0.127	6.059	9:02:41	0.127	4.472	9:02:41	0.127	9.57	9:00:44	0.22
110	9:05:14	0.127	7.262	9:09:07	0.127	4.995	9:05:55	0.127	10.139	9:08:19	0.22
111	9:10:14	0.127	7.817	9:11:11	0.127	6.132	9:10:13	0.127	7.817	9:15:01	0.22
112	9:15:14	0.127	6.872	9:18:18	0.127	4.995	9:16:09	0.127	10.779	9:17:19	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 14/4/2022 @ 00:00:14
End: 15/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.508 (mm/s) @ 13.65 Hz @ 01:39:18
Transverse: 0.381 (mm/s) @ 13.3 Hz @ 01:39:56
Vertical: 0.508 (mm/s) @ 21.79 Hz @ 01:39:14
Vector Sum: .68 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:14	0.127	7.062	9:21:12	0.127	5.361	9:21:38	0.127	10.139	9:20:17	0.22
114	9:25:14	0.127	5.535	9:26:10	0.127	4.9	9:25:24	0.127	10.779	9:26:55	0.22
115	9:30:14	0.127	5.476	9:31:38	0.127	3.448	9:30:51	0.127	9.394	9:34:54	0.22
116	9:35:14	0.127	6.44	9:39:48	0.127	4.112	9:38:09	0.127	9.062	9:38:57	0.22
117	9:40:14	0.127	6.522	9:43:59	0.127	5.198	9:43:04	0.127	7.161	9:41:47	0.22
118	9:45:14	0.127	6.522	9:49:19	0.127	4.285	9:49:52	0.127	9.942	9:48:41	0.22
119	9:50:14	0.127	5.919	9:52:24	0.127	5.721	9:52:28	0.127	10.557	9:51:29	0.22
120	9:55:14	0.127	7.367	9:57:38	0.127	6.282	9:58:10	0.127	9.225	9:57:03	0.22
121	10:00:14	0.127	6.522	10:04:36	0.127	4.853	10:01:08	0.127	10.557	10:04:44	0.22
122	10:05:14	0.127	6.693	10:06:54	0.127	5.198	10:05:37	0.127	9.942	10:09:12	0.22
123	10:10:14	0.127	7.585	10:13:33	0.127	4.995	10:13:51	0.127	10.779	10:13:24	0.22
124	10:15:14	0.127	5.596	10:16:11	0.127	5.146	10:16:11	0.127	9.942	10:19:38	0.22
125	10:20:14	0.127	7.367	10:20:17	0.127	5.361	10:25:12	0.127	9.752	10:23:58	0.22
126	10:25:14	0.127	7.699	10:25:43	0.127	5.721	10:28:28	0.127	10.557	10:26:37	0.22
127	10:30:14	0.127	6.44	10:34:11	0.127	5.418	10:34:09	0.127	11.506	10:33:43	0.22
128	10:35:14	0.127	6.36	10:39:15	0.127	5.044	10:35:57	0.127	9.942	10:35:45	0.22
129	10:40:14	0.127	5.095	10:42:50	0.127	4.633	10:42:48	0.127	8.063	10:43:27	0.22
130	10:45:14	0.127	6.44	10:50:04	0.127	5.476	10:45:39	0.127	10.343	10:47:56	0.22
131	10:50:14	0.127	6.693	10:53:53	0.127	5.306	10:53:33	0.127	9.942	10:53:58	0.22
132	10:55:14	0.127	6.282	10:57:03	0.127	4.853	10:57:56	0.127	10.139	10:55:39	0.22
133	11:00:14	0.127	5.476	11:03:15	0.127	5.251	11:03:00	0.127	8.904	11:04:49	0.22
134	11:05:14	0.127	3.697	11:10:00	0.127	5.095	11:09:51	0.127	8.063	11:08:32	0.22
135	11:10:14	0.127	7.367	11:11:31	0.127	4.719	11:11:39	0.127	9.062	11:13:03	0.22
136	11:15:14	0.127	5.657	11:19:48	0.127	5.476	11:15:17	0.127	8.605	11:19:13	0.22
137	11:20:14	0.127	6.606	11:21:45	0.127	5.198	11:24:14	0.127	9.752	11:22:35	0.22
138	11:25:14	0.127	4.853	11:28:19	0.127	4.719	11:29:48	0.127	9.225	11:30:12	0.22
139	11:30:14	0.127	6.966	11:33:44	0.127	5.251	11:33:48	0.127	8.325	11:31:32	0.22
140	11:35:14	0.127	7.474	11:37:15	0.127	4.995	11:38:23	0.127	10.343	11:39:31	0.22
141	11:40:14	0.127	7.062	11:44:32	0.127	4.9	11:44:44	0.127	9.57	11:42:44	0.22
142	11:45:14	0.127	7.585	11:48:04	0.127	4.9	11:47:37	0.127	8.605	11:46:15	0.22
143	11:50:14	0.127	6.693	11:53:54	0.127	5.535	11:53:27	0.127	10.139	11:50:58	0.22
144	11:55:14	0.127	7.161	11:58:22	0.127	6.132	11:59:52	0.127	8.463	11:57:14	0.22
145	12:00:14	0.127	6.693	12:04:44	0.127	5.361	12:03:21	0.127	12.337	12:04:55	0.22
146	12:05:14	0.127	6.059	12:08:27	0.127	5.721	12:09:14	0.127	11.011	12:08:05	0.22
147	12:10:14	0.127	7.474	12:15:06	0.127	6.606	12:12:34	0.127	11.77	12:15:03	0.22
148	12:15:14	0.127	8.192	12:17:30	0.127	5.361	12:17:54	0.127	10.139	12:16:37	0.22
149	12:20:14	0.127	7.817	12:25:09	0.127	6.059	12:22:11	0.127	9.942	12:22:13	0.22
150	12:25:14	0.127	6.206	12:28:57	0.127	4.18	12:28:28	0.127	12.047	12:25:12	0.22
151	12:30:14	0.127	7.367	12:33:46	0.127	5.596	12:33:30	0.127	11.011	12:34:00	0.22
152	12:35:14	0.127	6.872	12:37:03	0.127	6.693	12:37:17	0.127	9.942	12:39:09	0.22
153	12:40:14	0.127	7.367	12:40:20	0.127	6.36	12:43:13	0.127	11.506	12:41:35	0.22
154	12:45:14	0.127	5.919	12:46:39	0.127	5.919	12:46:33	0.127	9.57	12:47:02	0.22
155	12:50:14	0.127	5.596	12:53:00	0.127	5.095	12:52:12	0.127	11.253	12:51:55	0.22
156	12:55:14	0.127	7.474	12:57:30	0.127	4.947	12:59:30	0.127	10.557	12:59:40	0.22
157	13:00:14	0.127	8.192	13:01:11	0.127	6.282	13:04:49	0.127	10.343	13:02:38	0.22
158	13:05:14	0.127	6.606	13:05:17	0.127	5.251	13:05:28	0.127	11.506	13:05:15	0.22
159	13:10:14	0.127	8.904	13:13:29	0.127	5.146	13:11:15	0.127	9.225	13:10:42	0.22
160	13:15:14	0.127	6.693	13:15:56	0.127	6.36	13:17:11	0.127	10.779	13:17:26	0.22
161	13:20:14	0.127	6.44	13:21:10	0.127	5.198	13:21:09	0.127	10.557	13:24:59	0.22
162	13:25:14	0.127	7.585	13:27:19	0.127	4.853	13:29:36	0.127	9.394	13:26:22	0.22
163	13:30:14	0.127	4.808	13:31:59	0.127	5.198	13:30:25	0.127	9.752	13:33:05	0.22
164	13:35:14	0.127	7.585	13:36:40	0.127	5.146	13:36:41	0.127	8.192	13:38:36	0.22
165	13:40:14	0.127	6.282	13:42:44	0.127	5.306	13:42:44	0.127	8.752	13:42:39	0.22
166	13:45:14	0.127	8.325	13:45:49	0.127	5.361	13:45:49	0.127	9.062	13:48:25	0.22
167	13:50:14	0.127	5.657	13:51:55	0.127	5.198	13:54:09	0.127	9.225	13:52:42	0.22
168	13:55:14	0.127	8.463	13:58:56	0.127	5.476	13:55:47	0.127	6.966	13:55:41	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 14/4/2022 @ 00:00:14
End: 15/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.508 (mm/s) @ 13.65 Hz @ 01:39:18
Transverse: 0.381 (mm/s) @ 13.3 Hz @ 01:39:56
Vertical: 0.508 (mm/s) @ 21.79 Hz @ 01:39:14
Vector Sum: .68 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:14	0.127	6.282	14:00:55	0.127	5.146	14:03:11	0.127	9.394	14:03:59	0.22
170	14:05:14	0.127	7.161	14:07:58	0.127	6.206	14:07:56	0.127	10.779	14:06:05	0.22
171	14:10:14	0.127	5.851	14:13:08	0.127	4.592	14:10:39	0.127	10.557	14:11:23	0.22
172	14:15:14	0.127	6.693	14:19:42	0.127	6.132	14:19:27	0.127	11.77	14:18:40	0.22
173	14:20:14	0.127	7.367	14:22:44	0.127	5.919	14:23:15	0.127	9.752	14:20:52	0.22
174	14:25:14	0.127	5.851	14:28:37	0.127	6.206	14:28:37	0.127	7.938	14:29:51	0.22
175	14:30:14	0.127	6.522	14:31:35	0.127	5.988	14:30:34	0.127	9.942	14:34:06	0.22
176	14:35:14	0.127	6.282	14:36:40	0.127	6.059	14:38:36	0.127	10.343	14:36:35	0.22
177	14:40:14	0.127	9.225	14:40:43	0.127	6.44	14:41:45	0.127	11.011	14:40:13	0.22
178	14:45:14	0.127	5.919	14:49:00	0.127	4.9	14:49:36	0.127	9.942	14:45:27	0.22
179	14:50:14	0.127	8.752	14:52:55	0.127	5.418	14:51:57	0.127	10.557	14:50:38	0.22
180	14:55:14	0.127	7.262	14:59:31	0.127	5.095	14:57:00	0.127	10.557	14:57:57	0.22
181	15:00:14	0.127	5.988	15:00:17	0.127	5.361	15:00:18	0.127	8.063	15:00:14	0.22
182	15:05:14	0.127	5.044	15:07:44	0.127	6.206	15:08:55	0.127	9.062	15:08:20	0.22
183	15:10:14	0.127	6.282	15:10:52	0.127	4.763	15:10:48	0.127	10.779	15:10:56	0.22
184	15:15:14	0.127	7.817	15:18:19	0.127	5.721	15:16:53	0.127	10.139	15:18:13	0.22
185	15:20:14	0.127	8.325	15:21:14	0.127	6.059	15:21:12	0.127	10.557	15:24:12	0.22
186	15:25:14	0.127	9.57	15:26:38	0.127	6.36	15:28:55	0.127	9.225	15:28:00	0.22
187	15:30:14	0.127	6.522	15:30:19	0.127	4.321	15:34:35	0.127	10.557	15:35:11	0.22
188	15:35:14	0.127	5.919	15:39:41	0.127	4.9	15:35:33	0.127	9.752	15:36:04	0.22
189	15:40:14	0.127	4.719	15:41:52	0.127	4.357	15:41:55	0.127	8.325	15:41:55	0.22
190	15:45:14	0.127	8.904	15:47:22	0.127	4.357	15:47:53	0.127	8.605	15:47:51	0.22
191	15:50:14	0.127	7.817	15:53:50	0.127	6.44	15:50:33	0.127	10.139	15:51:57	0.22
192	15:55:14	0.127	6.606	15:55:46	0.127	5.919	15:55:18	0.127	10.139	15:57:14	0.22
193	16:00:14	0.127	7.367	16:03:03	0.127	4.9	16:00:49	0.127	9.062	16:04:58	0.22
194	16:05:14	0.127	8.192	16:06:54	0.127	5.306	16:06:58	0.127	12.047	16:09:54	0.22
195	16:10:14	0.127	5.851	16:14:26	0.127	5.198	16:14:26	0.127	9.57	16:13:35	0.22
196	16:15:14	0.127	7.367	16:19:58	0.127	5.146	16:15:29	0.127	10.343	16:17:25	0.22
197	16:20:14	0.127	6.282	16:20:14	0.127	5.657	16:22:00	0.127	8.752	16:22:18	0.22
198	16:25:14	0.127	6.606	16:27:34	0.127	6.522	16:28:45	0.127	8.605	16:25:42	0.22
199	16:30:14	0.127	7.938	16:32:38	0.127	5.919	16:30:27	0.127	9.062	16:34:02	0.22
200	16:35:14	0.127	5.851	16:37:09	0.127	4.995	16:36:19	0.127	8.192	16:37:39	0.22
201	16:40:14	0.127	8.192	16:42:47	0.127	6.522	16:43:50	0.127	10.779	16:43:47	0.22
202	16:45:14	0.127	8.463	16:48:33	0.127	5.095	16:48:56	0.127	8.904	16:50:08	0.22
203	16:50:14	0.127	7.699	16:51:28	0.127	6.36	16:51:58	0.127	8.904	16:50:14	0.22
204	16:55:14	0.127	6.966	16:57:58	0.127	4.853	16:56:30	0.127	9.062	16:56:59	0.22
205	17:00:14	0.127	7.699	17:05:07	0.127	5.306	17:03:38	0.127	8.325	17:05:06	0.22
206	17:05:14	0.127	7.817	17:08:21	0.127	5.851	17:08:16	0.127	9.752	17:08:46	0.22
207	17:10:14	0.127	6.44	17:14:21	0.127	6.781	17:14:25	0.127	9.752	17:11:40	0.22
208	17:15:14	0.127	7.474	17:17:42	0.127	5.657	17:15:29	0.127	8.605	17:15:51	0.22
209	17:20:14	0.127	8.904	17:23:44	0.127	6.132	17:22:43	0.127	9.062	17:20:17	0.22
210	17:25:14	0.127	7.817	17:26:04	0.127	5.851	17:25:29	0.127	9.225	17:25:48	0.22
211	17:30:14	0.127	8.752	17:33:39	0.127	6.132	17:31:15	0.127	9.062	17:30:59	0.22
212	17:35:14	0.127	8.605	17:35:11	0.127	5.988	17:36:23	0.127	8.904	17:39:46	0.22
213	17:40:14	0.127	7.585	17:41:56	0.127	6.132	17:40:46	0.127	10.139	17:43:05	0.22
214	17:45:14	0.127	8.605	17:48:45	0.127	5.095	17:47:49	0.127	10.557	17:48:40	0.22
215	17:50:14	0.127	6.522	17:50:50	0.127	5.721	17:50:43	0.127	10.343	17:52:41	0.22
216	17:55:14	0.127	6.44	17:59:59	0.127	5.988	17:58:36	0.127	8.904	17:58:05	0.22
217	18:00:14	0.127	9.942	18:04:09	0.127	4.853	18:00:11	0.127	9.942	18:04:41	0.22
218	18:05:14	0.127	8.904	18:08:05	0.127	6.44	18:08:08	0.127	9.942	18:07:23	0.22
219	18:10:14	0.127	8.325	18:11:41	0.127	5.044	18:10:43	0.127	10.343	18:14:54	0.22
220	18:15:14	0.127	6.966	18:15:46	0.127	6.872	18:16:11	0.127	10.343	18:17:00	0.22
221	18:20:14	0.127	7.474	18:21:37	0.127	5.306	18:24:35	0.127	8.463	18:21:00	0.22
222	18:25:14	0.127	9.394	18:26:13	0.127	6.872	18:27:32	0.127	9.942	18:27:22	0.22
223	18:30:14	0.127	5.919	18:30:18	0.127	5.146	18:30:15	0.127	9.752	18:30:47	0.22
224	18:35:14	0.127	8.325	18:37:42	0.127	5.657	18:35:18	0.127	8.752	18:39:43	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 14/4/2022 @ 00:00:14
End: 15/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.508 (mm/s) @ 13.65 Hz @ 01:39:18
Transverse: 0.381 (mm/s) @ 13.3 Hz @ 01:39:56
Vertical: 0.508 (mm/s) @ 21.79 Hz @ 01:39:14
Vector Sum: .68 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:14	0.127	9.394	18:45:02	0.127	7.062	18:44:55	0.127	9.57	18:44:48	0.22
226	18:45:14	0.127	8.752	18:45:16	0.127	6.282	18:45:26	0.127	11.77	18:48:27	0.22
227	18:50:14	0.127	7.817	18:50:46	0.127	6.522	18:51:29	0.127	10.343	18:51:53	0.22
228	18:55:14	0.127	9.062	18:58:39	0.127	5.476	18:55:24	0.127	10.779	18:55:22	0.22
229	19:00:14	0.127	6.206	19:01:08	0.127	6.282	19:05:06	0.127	11.011	19:03:43	0.22
230	19:05:14	0.127	6.44	19:07:36	0.127	7.062	19:06:20	0.127	9.394	19:05:12	0.22
231	19:10:14	0.127	8.752	19:14:18	0.127	4.947	19:14:08	0.127	9.57	19:13:39	0.22
232	19:15:14	0.127	7.161	19:15:32	0.127	6.282	19:18:36	0.127	9.394	19:20:08	0.22
233	19:20:14	0.127	9.062	19:24:54	0.127	6.966	19:21:38	0.127	11.506	19:21:43	0.22
234	19:25:14	0.127	9.394	19:26:19	0.127	5.785	19:28:33	0.127	8.904	19:26:03	0.22
235	19:30:14	0.127	7.161	19:35:08	0.127	6.44	19:33:38	0.127	9.394	19:34:44	0.22
236	19:35:14	0.127	7.474	19:35:14	0.127	6.606	19:37:27	0.127	9.394	19:38:45	0.22
237	19:40:14	0.127	9.225	19:40:53	0.127	6.059	19:41:15	0.127	9.57	19:44:32	0.22
238	19:45:14	0.127	8.605	19:45:46	0.127	6.059	19:47:34	0.127	11.011	19:48:18	0.22
239	19:50:14	0.127	8.904	19:52:11	0.127	7.262	19:51:59	0.127	11.77	19:52:14	0.22
240	19:55:14	0.127	7.938	19:56:07	0.127	6.872	19:58:30	0.127	9.57	19:58:48	0.22
241	20:00:14	0.127	9.394	20:02:31	0.127	5.851	20:01:50	0.127	12.047	20:04:14	0.22
242	20:05:14	0.127	7.938	20:09:38	0.127	7.367	20:10:07	0.127	9.394	20:08:38	0.22
243	20:10:14	0.127	8.752	20:10:24	0.127	6.206	20:13:32	0.127	8.752	20:13:00	0.22
244	20:15:14	0.127	8.752	20:19:55	0.127	5.988	20:17:45	0.127	9.57	20:17:47	0.22
245	20:20:14	0.127	7.585	20:21:34	0.127	5.146	20:20:27	0.127	9.942	20:20:56	0.22
246	20:25:14	0.127	8.063	20:27:33	0.127	6.36	20:25:32	0.127	11.011	20:27:19	0.22
247	20:30:14	0.127	10.139	20:33:29	0.127	7.161	20:35:07	0.127	8.904	20:30:25	0.22
248	20:35:14	0.127	8.325	20:39:53	0.127	6.132	20:38:41	0.127	8.605	20:38:42	0.22
249	20:40:14	0.127	9.062	20:41:36	0.127	5.306	20:43:52	0.127	11.506	20:40:34	0.22
250	20:45:14	0.127	6.44	20:45:32	0.127	6.282	20:46:32	0.127	10.139	20:47:23	0.22
251	20:50:14	0.127	6.966	20:53:48	0.127	4.808	20:50:54	0.127	12.642	20:51:01	0.22
252	20:55:14	0.127	7.938	20:57:13	0.127	5.785	20:58:42	0.127	11.77	21:00:07	0.22
253	21:00:14	0.127	10.557	21:01:23	0.127	8.463	21:01:12	0.127	11.253	21:02:41	0.22
254	21:05:14	0.127	8.605	21:07:35	0.127	7.062	21:08:34	0.127	11.77	21:09:52	0.22
255	21:10:14	0.127	7.817	21:14:37	0.127	6.966	21:14:28	0.127	12.047	21:12:56	0.22
256	21:15:14	0.127	7.817	21:15:37	0.127	6.44	21:16:03	0.127	11.011	21:20:05	0.22
257	21:20:14	0.127	5.721	21:21:52	0.127	4.763	21:21:53	0.127	10.779	21:23:43	0.22
258	21:25:14	0.127	8.192	21:27:13	0.127	5.785	21:27:45	0.127	9.942	21:25:52	0.22
259	21:30:14	0.127	8.752	21:31:15	0.127	7.062	21:34:06	0.127	12.642	21:34:48	0.22
260	21:35:14	0.127	5.851	21:37:46	0.127	4.676	21:37:53	0.127	12.047	21:36:09	0.22
261	21:40:14	0.127	8.752	21:42:41	0.127	7.262	21:44:36	0.127	13.653	21:42:10	0.22
262	21:45:14	0.127	6.781	21:46:12	0.127	6.36	21:48:25	0.127	10.139	21:46:34	0.22
263	21:50:14	0.127	10.779	21:53:20	0.127	7.062	21:50:39	0.127	10.139	21:53:24	0.22
264	21:55:14	0.127	10.557	21:58:32	0.127	5.535	21:59:59	0.127	11.253	21:57:37	0.22
265	22:00:14	0.127	9.062	22:01:57	0.127	6.606	22:01:13	0.127	9.57	22:01:58	0.22
266	22:05:14	0.127	8.904	22:07:16	0.127	7.367	22:09:34	0.127	12.047	22:08:36	0.22
267	22:10:14	0.127	7.161	22:10:57	0.127	6.132	22:10:56	0.127	10.343	22:12:04	0.22
268	22:15:14	0.127	7.474	22:15:24	0.127	5.596	22:16:23	0.127	10.779	22:15:22	0.22
269	22:20:14	0.127	8.063	22:24:27	0.127	6.44	22:25:06	0.127	12.047	22:20:13	0.22
270	22:25:14	0.127	9.394	22:28:25	0.127	6.693	22:25:49	0.127	12.642	22:25:31	0.22
271	22:30:14	0.127	9.942	22:31:42	0.127	6.872	22:33:15	0.127	9.394	22:33:15	0.22
272	22:35:14	0.127	9.57	22:36:53	0.127	5.657	22:38:14	0.127	9.942	22:37:18	0.22
273	22:40:14	0.127	10.557	22:41:23	0.127	7.817	22:41:37	0.127	11.011	22:43:38	0.22
274	22:45:14	0.127	8.192	22:48:56	0.127	5.657	22:48:56	0.127	12.962	22:45:11	0.22
275	22:50:14	0.127	7.161	22:53:01	0.127	6.606	22:54:26	0.127	9.225	22:50:40	0.22
276	22:55:14	0.127	4.947	22:58:35	0.127	5.721	22:58:33	0.127	9.752	22:56:50	0.22
277	23:00:14	0.127	8.605	23:03:57	0.127	7.161	23:03:36	0.127	10.557	23:04:25	0.22
278	23:05:14	0.127	10.139	23:09:49	0.127	7.585	23:08:11	0.127	10.779	23:08:32	0.22
279	23:10:14	0.127	10.343	23:14:26	0.127	5.306	23:14:09	0.127	10.779	23:14:23	0.22
280	23:15:14	0.127	7.938	23:17:37	0.127	5.851	23:17:31	0.127	9.942	23:16:50	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 14/4/2022 @ 00:00:14
End: 15/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.508 (mm/s) @ 13.65 Hz @ 01:39:18
Transverse: 0.381 (mm/s) @ 13.3 Hz @ 01:39:56
Vertical: 0.508 (mm/s) @ 21.79 Hz @ 01:39:14
Vector Sum: .68 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:14	0.127	9.752	23:21:21	0.127	5.988	23:22:27	0.127	12.337	23:22:55	0.22
282	23:25:14	0.127	8.325	23:29:47	0.127	6.781	23:29:47	0.127	10.557	23:27:12	0.22
283	23:30:14	0.127	8.463	23:33:49	0.127	6.606	23:34:02	0.127	8.063	23:33:50	0.22
284	23:35:14	0.127	8.605	23:37:23	0.127	5.418	23:37:22	0.127	11.253	23:39:26	0.22
285	23:40:14	0.127	10.343	23:41:46	0.127	6.966	23:43:35	0.127	9.942	23:41:47	0.22
286	23:45:14	0.127	10.343	23:48:45	0.127	7.699	23:48:36	0.127	9.752	23:48:11	0.22
287	23:50:14	0.127	11.011	23:54:16	0.127	8.904	23:54:48	0.127	8.752	23:52:00	0.22
288	23:55:14	0.127	10.139	23:58:49	0.127	6.44	23:58:04	0.127	9.062	23:56:52	0.22

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

15/4/2022 at 12:00 am Event # 5

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 22.09 mm/s @ 1.22 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7397**	**12.8032**	**12.7159**
Frequency (Hz)	**16.5**	**24.3**	**24.3**

Air

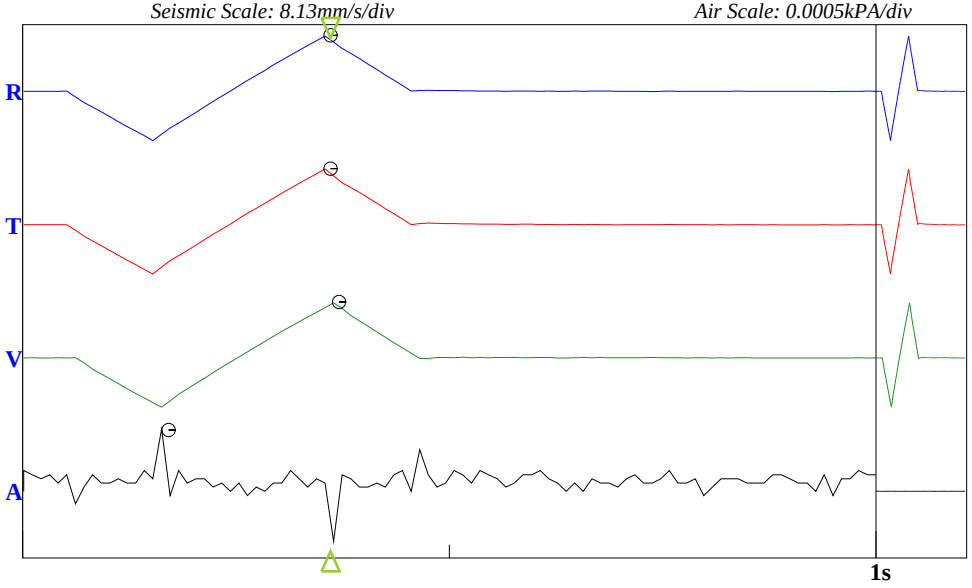
Gain: 1

Measurement	Value		
kPA	0.000437		
dBL	**86.8**		
Hz	0.0		

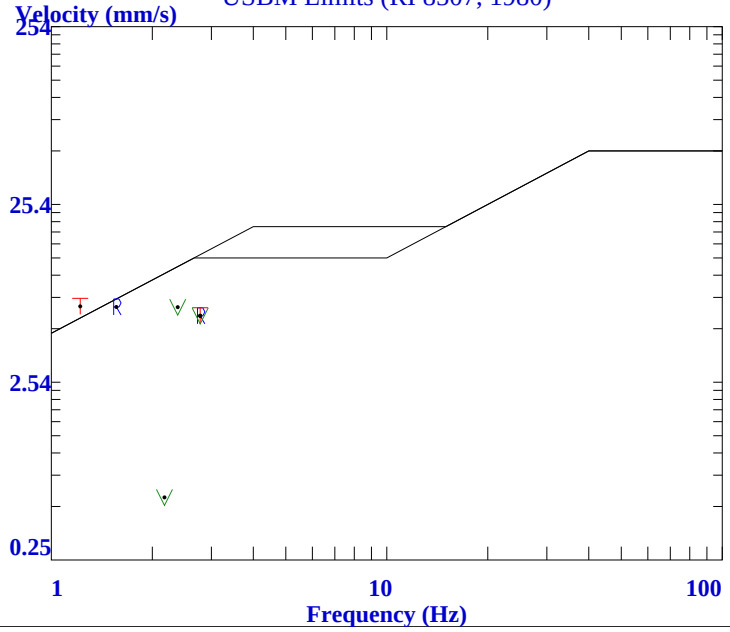
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

15/4/2022 at 12:00:14 am Event # 6

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance-Source: N

No GPS Data

End Time: 12:00:01 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Seismic

Gain: 1

Vector Sum: 0.58 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.381**	**0.381**	**0.508**
Frequency (Hz)	**27.68**	**113.78**	**44.52**
Time	7:55:25 am	7:07:07 am	7:48:48 am

Air

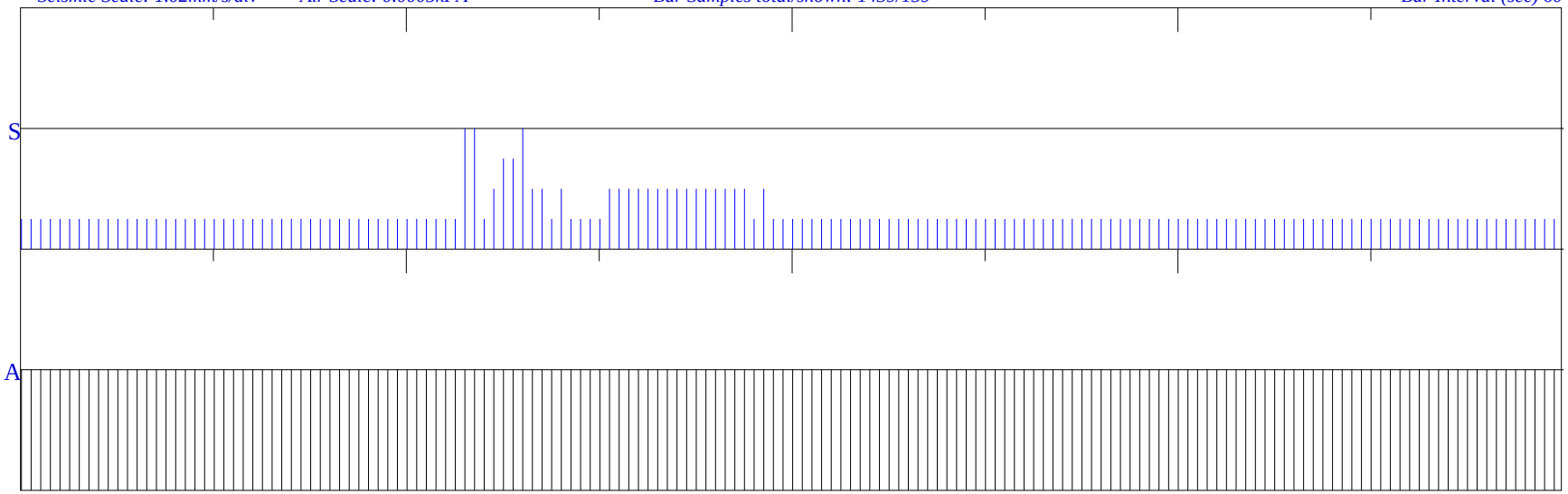
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.78		
Time	12:35:47 am		

BarGraph

Seismic Scale: 1.02mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159*

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:14 **03:00:12** **06:00:10** **09:00:09** **12:00:07** **15:00:05** **18:00:04** **21:00:02** **00:00:01**

<<<<<<<<<<<<<< **23:59:47** >>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 15/4/2022 @ 00:00:14
End: 16/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.381 (mm/s) @ 27.68 Hz @ 07:55:25
Transverse: 0.381 (mm/s) @ 113.78 Hz @ 07:07:07
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 07:48:48
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:14	0.127	10.557	0:01:17	0.127	15.284	0:00:50	0.127	11.253	0:03:31	0.22
2	0:05:14	0.127	9.062	0:05:56	0.127	13.299	0:05:34	0.127	12.047	0:07:24	0.22
3	0:10:14	0.127	11.77	0:15:03	0.127	14.841	0:13:46	0.127	12.962	0:13:08	0.22
4	0:15:14	0.127	8.904	0:15:44	0.127	14.423	0:15:18	0.127	11.011	0:17:48	0.22
5	0:20:14	0.127	7.474	0:22:21	0.127	15.754	0:25:04	0.127	9.062	0:24:03	0.22
6	0:25:14	0.127	9.752	0:26:19	0.127	14.423	0:29:38	0.127	11.77	0:28:19	0.22
7	0:30:14	0.127	11.506	0:31:45	0.127	16.254	0:31:38	0.127	11.253	0:31:33	0.22
8	0:35:14	0.127	11.011	0:37:59	0.127	14.027	0:37:59	0.127	11.77	0:39:23	0.22
9	0:40:14	0.127	10.779	0:40:52	0.127	17.965	0:40:16	0.127	14.027	0:43:11	0.22
10	0:45:14	0.127	11.77	0:49:03	0.127	20.898	0:48:57	0.127	11.506	0:48:09	0.22
11	0:50:14	0.127	10.343	0:53:14	0.127	15.754	0:52:49	0.127	12.047	0:52:26	0.22
12	0:55:14	0.127	11.011	0:58:25	0.127	21.787	0:55:20	0.127	12.337	0:56:37	0.22
13	1:00:14	0.127	12.642	1:02:00	0.127	15.284	1:05:13	0.127	12.962	1:05:13	0.22
14	1:05:14	0.127	12.047	1:09:42	0.127	18.618	1:07:30	0.127	13.653	1:06:03	0.22
15	1:10:14	0.127	12.337	1:10:18	0.127	16.787	1:11:12	0.127	10.779	1:12:14	0.22
16	1:15:14	0.127	11.011	1:17:46	0.127	15.754	1:16:19	0.127	11.77	1:19:59	0.22
17	1:20:14	0.127	10.139	1:23:59	0.127	17.356	1:20:28	0.127	11.77	1:22:18	0.22
18	1:25:14	0.127	11.253	1:26:46	0.127	21.787	1:27:40	0.127	13.299	1:27:18	0.22
19	1:30:14	0.127	12.047	1:30:26	0.127	19.321	1:31:20	0.127	10.343	1:33:31	0.22
20	1:35:14	0.127	9.394	1:37:49	0.127	17.965	1:36:04	0.127	14.027	1:36:00	0.22
21	1:40:14	0.127	8.192	1:44:21	0.127	12.962	1:44:29	0.127	14.027	1:44:07	0.22
22	1:45:14	0.127	13.653	1:46:09	0.127	19.321	1:47:36	0.127	11.011	1:49:56	0.22
23	1:50:14	0.127	12.337	1:50:40	0.127	19.321	1:51:48	0.127	12.337	1:51:01	0.22
24	1:55:14	0.127	11.253	1:55:17	0.127	17.356	1:59:35	0.127	12.337	1:59:13	0.22
25	2:00:14	0.127	12.047	2:01:33	0.127	21.787	2:02:56	0.127	12.642	2:05:11	0.22
26	2:05:14	0.127	12.962	2:06:32	0.127	19.321	2:05:38	0.127	11.506	2:06:01	0.22
27	2:10:14	0.127	8.325	2:12:02	0.127	16.787	2:14:52	0.127	15.284	2:10:38	0.22
28	2:15:14	0.127	10.779	2:18:14	0.127	17.356	2:15:56	0.127	12.337	2:16:59	0.22
29	2:20:14	0.127	10.139	2:21:58	0.127	12.962	2:20:59	0.127	9.942	2:20:57	0.22
30	2:25:14	0.127	9.942	2:29:44	0.127	15.754	2:28:00	0.127	9.752	2:25:36	0.22
31	2:30:14	0.127	12.047	2:31:23	0.127	16.787	2:31:33	0.127	14.027	2:31:10	0.22
32	2:35:14	0.127	9.394	2:36:12	0.127	20.078	2:38:23	0.127	10.557	2:40:15	0.22
33	2:40:14	0.127	12.337	2:43:48	0.127	20.898	2:41:55	0.127	14.027	2:42:22	0.22
34	2:45:14	0.127	6.132	2:47:00	0.127	12.047	2:47:02	0.127	12.642	2:48:16	0.22
35	2:50:14	0.127	11.77	2:52:07	0.127	10.139	2:54:20	0.127	12.337	2:54:26	0.22
36	2:55:14	0.127	12.962	3:00:08	0.127	21.787	2:57:30	0.127	12.962	2:56:34	0.22
37	3:00:14	0.127	6.693	3:02:57	0.127	17.356	3:00:52	0.127	13.299	3:01:18	0.22
38	3:05:14	0.127	12.337	3:08:53	0.127	20.898	3:09:03	0.127	11.77	3:06:49	0.22
39	3:10:14	0.127	11.506	3:14:03	0.127	20.078	3:12:00	0.127	14.027	3:11:42	0.22
40	3:15:14	0.127	10.343	3:15:46	0.127	16.254	3:19:26	0.127	9.942	3:19:11	0.22
41	3:20:14	0.127	10.779	3:21:29	0.127	15.754	3:21:14	0.127	9.942	3:23:19	0.22
42	3:25:14	0.127	11.77	3:29:18	0.127	22.756	3:28:45	0.127	13.653	3:29:26	0.22
43	3:30:14	0.127	9.942	3:31:47	0.127	20.078	3:32:22	0.127	11.506	3:34:59	0.22
44	3:35:14	0.127	11.77	3:36:21	0.127	15.754	3:36:19	0.127	11.77	3:36:09	0.22
45	3:40:14	0.127	11.77	3:40:33	0.127	18.618	3:41:31	0.127	13.653	3:44:47	0.22
46	3:45:14	0.127	12.047	3:48:54	0.127	15.284	3:49:32	0.127	13.653	3:46:28	0.22
47	3:50:14	0.127	12.962	3:52:32	0.127	15.754	3:52:11	0.127	13.299	3:50:15	0.22
48	3:55:14	0.127	8.325	3:56:42	0.127	9.394	3:56:43	0.127	13.299	3:58:36	0.22
49	4:00:14	0.127	10.557	4:03:04	0.127	20.898	4:00:35	0.127	12.962	4:01:14	0.22
50	4:05:14	0.127	11.77	4:08:23	0.127	18.618	4:09:25	0.127	11.77	4:06:05	0.22
51	4:10:14	0.127	9.752	4:13:56	0.127	18.618	4:14:00	0.127	11.011	4:14:29	0.22
52	4:15:14	0.127	9.57	4:19:24	0.127	17.965	4:18:23	0.127	15.754	4:16:18	0.22
53	4:20:14	0.127	13.299	4:22:12	0.127	13.653	4:21:37	0.127	11.506	4:21:32	0.22
54	4:25:14	0.127	11.77	4:26:22	0.127	16.254	4:26:42	0.127	11.506	4:29:06	0.22
55	4:30:14	0.127	12.337	4:32:49	0.127	18.618	4:32:08	0.127	13.299	4:33:41	0.22
56	4:35:14	0.127	12.047	4:39:49	0.127	17.965	4:39:50	0.127	13.299	4:35:31	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 15/4/2022 @ 00:00:14
End: 16/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.381 (mm/s) @ 27.68 Hz @ 07:55:25
Transverse: 0.381 (mm/s) @ 113.78 Hz @ 07:07:07
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 07:48:48
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:14	0.127	12.337	4:42:22	0.127	19.321	4:44:32	0.127	13.653	4:42:09	0.22
58	4:45:14	0.127	11.506	4:47:03	0.127	17.356	4:49:42	0.127	12.642	4:45:53	0.22
59	4:50:14	0.127	11.506	4:52:56	0.127	15.754	4:54:18	0.127	12.642	4:53:44	0.22
60	4:55:14	0.127	12.642	4:57:09	0.127	17.965	4:57:10	0.127	11.011	4:59:41	0.22
61	5:00:14	0.127	11.506	5:02:04	0.127	17.965	5:00:56	0.127	13.299	5:02:32	0.22
62	5:05:14	0.127	11.77	5:08:55	0.127	17.356	5:09:29	0.127	11.506	5:08:26	0.22
63	5:10:14	0.127	12.337	5:14:29	0.127	18.618	5:10:27	0.127	13.653	5:13:21	0.22
64	5:15:14	0.127	11.506	5:15:47	0.127	17.356	5:18:52	0.127	12.047	5:18:28	0.22
65	5:20:14	0.127	11.506	5:22:14	0.127	14.423	5:21:35	0.127	12.047	5:21:01	0.22
66	5:25:14	0.127	9.942	5:25:15	0.127	15.754	5:29:57	0.127	12.962	5:28:15	0.22
67	5:30:14	0.127	6.872	5:30:39	0.127	10.557	5:32:09	0.127	9.225	5:32:09	0.22
68	5:35:14	0.127	9.57	5:39:18	0.127	17.356	5:39:17	0.127	11.011	5:35:27	0.22
69	5:40:14	0.127	8.904	5:43:31	0.127	8.063	5:43:39	0.127	9.752	5:43:39	0.22
70	5:45:14	0.127	11.77	5:48:52	0.127	15.754	5:48:10	0.127	10.779	5:48:11	0.22
71	5:50:14	0.127	10.343	5:53:15	0.127	16.254	5:53:18	0.127	10.343	5:54:00	0.22
72	5:55:14	0.127	9.57	5:55:34	0.127	10.343	5:55:34	0.127	9.225	5:59:12	0.22
73	6:00:14	0.127	10.779	6:01:43	0.127	14.841	6:02:21	0.127	11.011	6:02:16	0.22
74	6:05:14	0.127	10.779	6:07:54	0.127	14.027	6:08:00	0.127	10.779	6:09:31	0.22
75	6:10:14	0.127	11.506	6:15:01	0.127	17.356	6:13:58	0.127	9.225	6:15:04	0.22
76	6:15:14	0.127	6.059	6:18:02	0.127	14.027	6:18:02	0.127	12.047	6:18:13	0.22
77	6:20:14	0.127	10.779	6:20:30	0.127	12.962	6:20:47	0.127	10.343	6:20:45	0.22
78	6:25:14	0.127	7.817	6:27:55	0.127	14.423	6:26:45	0.127	12.047	6:26:28	0.22
79	6:30:14	0.127	11.011	6:33:19	0.127	10.139	6:32:46	0.127	9.57	6:33:19	0.22
80	6:35:14	0.127	8.904	6:39:02	0.127	13.299	6:38:55	0.127	9.942	6:39:02	0.22
81	6:40:14	0.127	10.557	6:40:43	0.127	15.754	6:43:06	0.127	11.77	6:41:10	0.22
82	6:45:14	0.127	8.605	6:49:55	0.127	14.841	6:46:06	0.127	11.253	6:46:06	0.22
83	6:50:14	0.381	341.333	6:54:21	0.254	113.778	6:54:21	0.508	146.286	6:54:21	0.582
84	6:55:14	0.127	7.474	6:55:32	0.127	16.254	6:55:22	0.127	12.962	6:55:52	0.22
85	7:00:14	0.127	11.506	7:01:42	0.254	12.962	7:04:13	0.254	14.027	7:04:12	0.381
86	7:05:14	0.254	113.778	7:07:07	0.381	113.778	7:07:07	0.508	48.762	7:07:07	0.539
87	7:10:14	0.127	11.011	7:14:30	0.127	15.754	7:10:30	0.127	13.653	7:10:40	0.22
88	7:15:14	0.127	11.011	7:20:12	0.127	10.557	7:17:46	0.127	11.011	7:16:01	0.22
89	7:20:14	0.127	9.57	7:21:34	0.127	10.779	7:20:33	0.127	10.779	7:22:22	0.22
90	7:25:14	0.127	8.605	7:29:31	0.127	12.962	7:29:24	0.254	146.286	7:29:07	0.284
91	7:30:14	0.254	93.091	7:31:56	0.254	12.642	7:31:56	0.381	9.752	7:31:56	0.458
92	7:35:14	0.127	8.904	7:35:17	0.127	9.225	7:35:17	0.127	10.779	7:35:17	0.22
93	7:40:14	0.254	9.942	7:41:21	0.254	68.267	7:41:21	0.254	37.926	7:41:00	0.381
94	7:45:14	0.254	35.31	7:48:15	0.254	37.926	7:49:18	0.508	44.522	7:48:48	0.508
95	7:50:14	0.381	35.31	7:51:00	0.254	35.31	7:55:02	0.381	40.96	7:50:16	0.475
96	7:55:14	0.381	27.676	7:55:25	0.254	37.926	7:55:25	0.254	24.976	7:59:37	0.475
97	8:00:14	0.254	37.926	8:00:46	0.127	5.596	8:03:56	0.254	60.235	8:02:15	0.311
98	8:05:14	0.127	9.225	8:05:41	0.127	6.781	8:10:10	0.254	44.522	8:06:02	0.254
99	8:10:14	0.127	11.77	8:15:14	0.127	5.919	8:11:02	0.127	12.642	8:13:45	0.22
100	8:15:14	0.127	9.57	8:18:11	0.127	7.699	8:20:04	0.127	11.77	8:18:01	0.22
101	8:20:14	0.127	8.904	8:23:23	0.127	5.988	8:23:23	0.127	11.011	8:24:53	0.22
102	8:25:14	0.127	10.343	8:25:43	0.127	7.474	8:26:51	0.254	146.286	8:29:49	0.254
103	8:30:14	0.127	8.063	8:33:32	0.127	6.693	8:34:00	0.127	9.394	8:34:24	0.22
104	8:35:14	0.127	10.557	8:37:21	0.127	6.606	8:40:07	0.127	9.942	8:35:53	0.22
105	8:40:14	0.127	7.262	8:41:14	0.127	6.206	8:41:31	0.127	14.027	8:42:32	0.22
106	8:45:14	0.127	6.966	8:45:52	0.127	5.198	8:45:53	0.127	11.77	8:45:59	0.22
107	8:50:14	0.127	7.699	8:51:48	0.127	5.785	8:54:50	0.127	12.962	8:51:19	0.22
108	8:55:14	0.127	7.062	8:57:44	0.127	6.132	8:57:42	0.127	11.506	8:57:19	0.22
109	9:00:14	0.127	10.139	9:02:46	0.127	6.282	9:01:55	0.127	13.299	9:01:49	0.22
110	9:05:14	0.127	10.343	9:05:40	0.127	7.699	9:05:41	0.127	11.506	9:05:37	0.22
111	9:10:14	0.127	10.779	9:13:31	0.127	5.146	9:14:57	0.254	44.522	9:14:27	0.254
112	9:15:14	0.127	13.299	9:17:41	0.127	6.966	9:15:59	0.254	40.96	9:15:20	0.311

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 15/4/2022 @ 00:00:14
End: 16/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.381 (mm/s) @ 27.68 Hz @ 07:55:25
Transverse: 0.381 (mm/s) @ 113.78 Hz @ 07:07:07
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 07:48:48
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:14	0.127	13.299	9:22:04	0.127	8.192	9:22:08	0.254	40.96	9:20:25	0.311
114	9:25:14	0.127	9.752	9:25:31	0.127	8.192	9:26:38	0.254	40.96	9:27:54	0.284
115	9:30:14	0.127	12.047	9:32:16	0.127	6.781	9:30:35	0.254	40.96	9:32:17	0.311
116	9:35:14	0.127	8.752	9:35:51	0.127	7.817	9:35:25	0.254	44.522	9:35:40	0.284
117	9:40:14	0.127	11.506	9:40:44	0.127	7.938	9:42:48	0.254	40.96	9:42:46	0.284
118	9:45:14	0.127	11.011	9:46:09	0.127	5.251	9:49:23	0.254	40.96	9:47:32	0.254
119	9:50:14	0.127	9.394	9:50:48	0.127	8.063	9:54:39	0.254	44.522	9:53:38	0.254
120	9:55:14	0.127	10.557	9:59:40	0.127	7.262	9:56:57	0.254	44.522	9:55:30	0.284
121	10:00:14	0.127	11.253	10:01:42	0.127	9.394	10:00:44	0.254	48.762	10:00:22	0.254
122	10:05:14	0.127	10.343	10:07:55	0.127	6.693	10:08:52	0.254	40.96	10:08:09	0.254
123	10:10:14	0.127	10.779	10:12:12	0.127	6.781	10:14:48	0.254	44.522	10:11:27	0.284
124	10:15:14	0.127	8.192	10:20:00	0.127	6.781	10:17:31	0.254	40.96	10:18:44	0.254
125	10:20:14	0.127	9.752	10:24:38	0.127	6.872	10:21:11	0.254	40.96	10:22:54	0.254
126	10:25:14	0.127	10.343	10:26:37	0.127	5.919	10:29:19	0.254	44.522	10:25:25	0.254
127	10:30:14	0.127	8.904	10:30:14	0.127	8.192	10:35:11	0.254	40.96	10:32:15	0.284
128	10:35:14	0.127	10.557	10:38:32	0.127	7.474	10:37:29	0.254	40.96	10:39:05	0.254
129	10:40:14	0.127	10.343	10:44:07	0.127	7.699	10:41:36	0.254	40.96	10:44:32	0.254
130	10:45:14	0.127	10.139	10:48:14	0.127	7.474	10:48:23	0.254	40.96	10:46:48	0.284
131	10:50:14	0.127	8.192	10:53:09	0.127	8.463	10:50:17	0.254	40.96	10:51:36	0.284
132	10:55:14	0.127	7.474	11:00:01	0.127	7.262	11:00:01	0.254	40.96	10:59:17	0.284
133	11:00:14	0.127	10.557	11:01:17	0.127	6.522	11:01:11	0.254	44.522	11:01:15	0.254
134	11:05:14	0.127	11.011	11:06:45	0.127	7.699	11:09:56	0.254	44.522	11:06:40	0.254
135	11:10:14	0.127	9.57	11:11:37	0.127	5.146	11:10:50	0.254	44.522	11:10:51	0.254
136	11:15:14	0.127	5.306	11:17:26	0.127	6.522	11:15:19	0.127	12.337	11:16:31	0.22
137	11:20:14	0.127	7.699	11:23:14	0.127	6.872	11:23:22	0.254	40.96	11:20:51	0.254
138	11:25:14	0.127	11.011	11:26:50	0.127	6.206	11:27:03	0.127	12.962	11:30:09	0.22
139	11:30:14	0.127	7.817	11:32:51	0.127	6.872	11:31:18	0.127	11.011	11:31:27	0.22
140	11:35:14	0.127	8.904	11:39:44	0.127	6.693	11:35:59	0.254	53.895	11:39:12	0.254
141	11:40:14	0.127	9.062	11:42:38	0.127	6.132	11:42:43	0.127	13.653	11:42:38	0.22
142	11:45:14	0.127	7.938	11:48:26	0.127	6.781	11:48:28	0.127	11.253	11:46:55	0.22
143	11:50:14	0.127	8.904	11:52:01	0.127	8.463	11:52:47	0.127	9.57	11:53:18	0.22
144	11:55:14	0.127	7.474	11:55:32	0.127	6.966	11:57:14	0.127	11.77	11:57:58	0.22
145	12:00:14	0.127	10.343	12:02:19	0.127	7.062	12:03:54	0.127	11.506	12:02:06	0.22
146	12:05:14	0.127	6.206	12:06:58	0.127	7.699	12:07:51	0.127	11.011	12:06:10	0.22
147	12:10:14	0.127	8.325	12:12:08	0.127	7.062	12:10:29	0.127	11.506	12:13:07	0.22
148	12:15:14	0.127	9.394	12:18:50	0.127	7.262	12:17:22	0.127	10.343	12:17:28	0.22
149	12:20:14	0.127	7.585	12:23:55	0.127	7.367	12:20:36	0.127	11.011	12:21:19	0.22
150	12:25:14	0.127	10.343	12:28:19	0.127	8.063	12:25:46	0.127	13.299	12:26:24	0.22
151	12:30:14	0.127	9.942	12:33:17	0.127	7.262	12:34:54	0.127	8.605	12:34:43	0.22
152	12:35:14	0.127	8.904	12:36:21	0.127	5.721	12:39:56	0.127	9.942	12:37:25	0.22
153	12:40:14	0.127	7.817	12:43:47	0.127	6.966	12:44:30	0.127	12.047	12:43:08	0.22
154	12:45:14	0.127	8.063	12:47:34	0.127	6.606	12:46:52	0.127	12.047	12:49:02	0.22
155	12:50:14	0.127	9.942	12:52:33	0.127	5.988	12:50:13	0.127	12.047	12:51:17	0.22
156	12:55:14	0.127	11.011	12:56:13	0.127	5.851	12:57:24	0.127	9.225	12:57:31	0.22
157	13:00:14	0.127	10.139	13:03:14	0.127	6.781	13:01:30	0.127	10.343	13:04:40	0.22
158	13:05:14	0.127	11.011	13:05:49	0.127	6.44	13:05:34	0.127	10.139	13:09:50	0.22
159	13:10:14	0.127	10.557	13:14:24	0.127	6.206	13:12:15	0.127	9.394	13:12:58	0.22
160	13:15:14	0.127	4.995	13:17:27	0.127	5.535	13:17:31	0.127	10.779	13:17:38	0.22
161	13:20:14	0.127	10.557	13:22:25	0.127	6.44	13:20:32	0.127	12.642	13:23:45	0.22
162	13:25:14	0.127	9.752	13:28:56	0.127	7.699	13:28:50	0.127	9.942	13:26:51	0.22
163	13:30:14	0.127	8.463	13:33:21	0.127	5.919	13:31:41	0.127	9.57	13:34:52	0.22
164	13:35:14	0.127	8.063	13:39:56	0.127	7.585	13:35:26	0.127	11.011	13:38:35	0.22
165	13:40:14	0.127	10.139	13:41:56	0.127	7.367	13:40:31	0.127	9.752	13:42:55	0.22
166	13:45:14	0.127	8.904	13:47:49	0.127	4.808	13:47:38	0.127	12.337	13:46:55	0.22
167	13:50:14	0.127	7.817	13:53:54	0.127	6.282	13:54:42	0.127	12.047	13:50:24	0.22
168	13:55:14	0.127	7.262	13:57:38	0.127	6.44	13:58:28	0.127	8.752	13:58:38	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 15/4/2022 @ 00:00:14
End: 16/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.381 (mm/s) @ 27.68 Hz @ 07:55:25
Transverse: 0.381 (mm/s) @ 113.78 Hz @ 07:07:07
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 07:48:48
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:14	0.127	9.225	14:00:23	0.127	6.693	14:02:38	0.127	14.027	14:01:47	0.22
170	14:05:14	0.127	8.904	14:07:23	0.127	6.522	14:06:42	0.127	10.343	14:08:40	0.22
171	14:10:14	0.127	9.752	14:13:20	0.127	5.146	14:10:32	0.127	9.062	14:14:38	0.22
172	14:15:14	0.127	10.779	14:19:58	0.127	5.988	14:16:04	0.127	10.139	14:18:53	0.22
173	14:20:14	0.127	10.139	14:23:36	0.127	6.132	14:20:27	0.127	10.779	14:21:26	0.22
174	14:25:14	0.127	8.904	14:27:31	0.127	7.262	14:28:52	0.127	11.77	14:29:01	0.22
175	14:30:14	0.127	8.192	14:34:37	0.127	7.474	14:34:36	0.127	9.57	14:32:38	0.22
176	14:35:14	0.127	9.752	14:35:40	0.127	6.872	14:35:48	0.127	12.047	14:35:52	0.22
177	14:40:14	0.127	9.394	14:43:08	0.127	6.781	14:42:53	0.127	10.343	14:40:16	0.22
178	14:45:14	0.127	9.942	14:46:16	0.127	6.781	14:46:17	0.127	14.423	14:45:35	0.22
179	14:50:14	0.127	9.752	14:54:54	0.127	7.699	14:54:50	0.127	11.77	14:54:57	0.22
180	14:55:14	0.127	12.337	14:57:22	0.127	6.872	14:59:15	0.127	12.642	14:59:18	0.22
181	15:00:14	0.127	7.585	15:03:50	0.127	6.206	15:00:27	0.127	12.642	15:00:37	0.22
182	15:05:14	0.127	9.225	15:07:37	0.127	7.699	15:08:46	0.127	10.557	15:06:40	0.22
183	15:10:14	0.127	8.463	15:13:50	0.127	6.44	15:14:17	0.127	10.557	15:14:44	0.22
184	15:15:14	0.127	9.942	15:19:04	0.127	6.966	15:16:12	0.127	12.047	15:16:41	0.22
185	15:20:14	0.127	7.817	15:23:39	0.127	7.161	15:23:53	0.127	10.779	15:23:30	0.22
186	15:25:14	0.127	8.063	15:29:51	0.127	6.966	15:26:37	0.127	8.605	15:25:33	0.22
187	15:30:14	0.127	9.062	15:32:08	0.127	7.585	15:30:50	0.127	8.904	15:32:33	0.22
188	15:35:14	0.127	10.343	15:39:10	0.127	6.44	15:39:07	0.127	12.337	15:36:49	0.22
189	15:40:14	0.127	8.063	15:44:55	0.127	7.817	15:40:25	0.127	10.139	15:42:22	0.22
190	15:45:14	0.127	6.872	15:47:38	0.127	6.606	15:46:31	0.127	9.225	15:45:45	0.22
191	15:50:14	0.127	8.605	15:54:33	0.127	7.367	15:54:31	0.127	12.337	15:54:32	0.22
192	15:55:14	0.127	11.506	15:59:21	0.127	7.474	15:56:08	0.127	14.027	15:57:29	0.22
193	16:00:14	0.127	10.557	16:00:49	0.127	6.36	16:01:17	0.127	12.642	16:04:25	0.22
194	16:05:14	0.127	8.904	16:06:35	0.127	6.606	16:07:53	0.127	11.77	16:09:49	0.22
195	16:10:14	0.127	10.343	16:10:12	0.127	7.699	16:12:48	0.127	12.642	16:15:09	0.22
196	16:15:14	0.127	9.57	16:16:57	0.127	6.606	16:19:10	0.127	11.77	16:19:08	0.22
197	16:20:14	0.127	9.225	16:20:36	0.127	6.522	16:20:24	0.127	11.011	16:21:43	0.22
198	16:25:14	0.127	12.047	16:29:42	0.127	8.752	16:28:45	0.127	11.506	16:25:21	0.22
199	16:30:14	0.127	8.063	16:32:38	0.127	7.938	16:34:03	0.127	10.557	16:34:22	0.22
200	16:35:14	0.127	8.463	16:35:23	0.127	7.367	16:39:34	0.127	9.062	16:39:35	0.22
201	16:40:14	0.127	10.343	16:44:26	0.127	8.463	16:44:53	0.127	12.047	16:41:23	0.22
202	16:45:14	0.127	8.463	16:45:17	0.127	5.785	16:48:55	0.127	9.57	16:48:40	0.22
203	16:50:14	0.127	6.606	16:52:20	0.127	5.418	16:52:19	0.127	9.942	16:53:45	0.22
204	16:55:14	0.127	10.557	16:56:09	0.127	6.966	16:58:48	0.127	12.047	16:59:44	0.22
205	17:00:14	0.127	12.337	17:00:52	0.127	7.062	17:01:09	0.127	12.047	17:04:40	0.22
206	17:05:14	0.127	9.394	17:06:39	0.127	6.872	17:08:08	0.127	9.942	17:06:01	0.22
207	17:10:14	0.127	9.752	17:10:40	0.127	7.474	17:14:24	0.127	9.942	17:14:55	0.22
208	17:15:14	0.127	11.506	17:19:41	0.127	8.325	17:17:54	0.127	11.77	17:18:42	0.22
209	17:20:14	0.127	7.817	17:20:34	0.127	6.282	17:20:30	0.127	11.77	17:25:03	0.22
210	17:25:14	0.127	8.192	17:29:40	0.127	7.938	17:25:33	0.127	8.752	17:25:29	0.22
211	17:30:14	0.127	9.752	17:34:11	0.127	7.262	17:31:34	0.127	7.938	17:30:45	0.22
212	17:35:14	0.127	11.011	17:36:38	0.127	6.693	17:38:45	0.127	10.343	17:36:19	0.22
213	17:40:14	0.127	9.394	17:43:46	0.127	8.463	17:43:44	0.127	9.942	17:42:41	0.22
214	17:45:14	0.127	9.57	17:45:34	0.127	7.062	17:45:30	0.127	9.062	17:46:15	0.22
215	17:50:14	0.127	12.047	17:53:04	0.127	6.872	17:51:54	0.127	10.557	17:50:47	0.22
216	17:55:14	0.127	7.062	17:56:51	0.127	6.606	18:00:10	0.127	10.139	17:57:52	0.22
217	18:00:14	0.127	9.225	18:01:39	0.127	7.699	18:00:18	0.127	12.642	18:04:58	0.22
218	18:05:14	0.127	9.752	18:06:07	0.127	7.938	18:10:00	0.127	9.57	18:07:46	0.22
219	18:10:14	0.127	9.57	18:11:31	0.127	7.161	18:12:50	0.127	9.394	18:13:02	0.22
220	18:15:14	0.127	6.522	18:19:49	0.127	6.206	18:19:49	0.127	9.394	18:17:18	0.22
221	18:20:14	0.127	10.343	18:24:48	0.127	7.817	18:24:08	0.127	11.253	18:25:09	0.22
222	18:25:14	0.127	9.57	18:30:02	0.127	7.817	18:25:47	0.127	12.047	18:25:42	0.22
223	18:30:14	0.127	12.047	18:34:27	0.127	7.474	18:32:05	0.127	9.942	18:33:36	0.22
224	18:35:14	0.127	11.253	18:38:47	0.127	7.262	18:37:40	0.127	11.77	18:38:53	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 15/4/2022 @ 00:00:14
End: 16/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.381 (mm/s) @ 27.68 Hz @ 07:55:25
Transverse: 0.381 (mm/s) @ 113.78 Hz @ 07:07:07
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 07:48:48
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:14	0.127	10.557	18:40:23	0.127	6.781	18:44:32	0.127	8.904	18:43:04	0.22
226	18:45:14	0.127	11.011	18:46:31	0.127	7.262	18:46:31	0.127	10.557	18:49:19	0.22
227	18:50:14	0.127	8.904	18:52:40	0.127	6.522	18:52:40	0.127	11.506	18:50:35	0.22
228	18:55:14	0.127	8.463	18:59:10	0.127	5.476	18:59:11	0.127	12.047	18:58:56	0.22
229	19:00:14	0.127	11.77	19:00:16	0.127	6.872	19:01:55	0.127	11.506	19:01:33	0.22
230	19:05:14	0.127	6.966	19:09:23	0.127	6.781	19:07:27	0.127	9.225	19:06:24	0.22
231	19:10:14	0.127	7.817	19:14:58	0.127	7.161	19:10:19	0.127	11.011	19:13:06	0.22
232	19:15:14	0.127	7.367	19:16:41	0.127	6.872	19:16:40	0.127	9.752	19:16:43	0.22
233	19:20:14	0.127	7.938	19:23:20	0.127	5.251	19:23:19	0.127	10.139	19:22:53	0.22
234	19:25:14	0.127	11.011	19:26:33	0.127	5.657	19:25:21	0.127	10.139	19:25:31	0.22
235	19:30:14	0.127	9.062	19:31:36	0.127	7.585	19:34:05	0.127	12.047	19:32:05	0.22
236	19:35:14	0.127	10.557	19:37:45	0.127	7.817	19:37:35	0.127	12.337	19:38:17	0.22
237	19:40:14	0.127	11.77	19:42:11	0.127	7.262	19:40:24	0.127	11.253	19:42:41	0.22
238	19:45:14	0.127	9.062	19:48:27	0.127	7.938	19:48:14	0.127	8.063	19:49:53	0.22
239	19:50:14	0.127	7.585	19:54:57	0.127	7.367	19:55:10	0.127	11.77	19:51:55	0.22
240	19:55:14	0.127	9.752	19:58:46	0.127	8.063	19:55:34	0.127	10.139	19:57:50	0.22
241	20:00:14	0.127	9.752	20:00:51	0.127	6.693	20:00:41	0.127	12.962	20:01:38	0.22
242	20:05:14	0.127	11.011	20:05:53	0.127	8.325	20:06:48	0.127	11.011	20:08:04	0.22
243	20:10:14	0.127	10.139	20:13:11	0.127	8.063	20:15:02	0.127	9.752	20:11:51	0.22
244	20:15:14	0.127	8.904	20:15:15	0.127	7.367	20:18:35	0.127	10.779	20:18:43	0.22
245	20:20:14	0.127	10.139	20:21:10	0.127	7.474	20:21:16	0.127	9.942	20:21:12	0.22
246	20:25:14	0.127	8.904	20:27:27	0.127	5.919	20:27:30	0.127	9.942	20:27:25	0.22
247	20:30:14	0.127	8.325	20:30:51	0.127	7.262	20:31:09	0.127	9.57	20:32:29	0.22
248	20:35:14	0.127	8.904	20:38:45	0.127	12.337	20:38:37	0.127	11.506	20:37:05	0.22
249	20:40:14	0.127	9.394	20:42:25	0.127	11.506	20:42:24	0.127	11.77	20:40:46	0.22
250	20:45:14	0.127	10.343	20:49:17	0.127	12.047	20:49:17	0.127	9.225	20:46:20	0.22
251	20:50:14	0.127	10.139	20:53:17	0.127	12.962	20:52:36	0.127	11.77	20:51:24	0.22
252	20:55:14	0.127	10.343	20:57:20	0.127	13.299	20:55:34	0.127	10.779	20:59:46	0.22
253	21:00:14	0.127	8.904	21:00:19	0.127	9.752	21:00:19	0.127	11.253	21:00:31	0.22
254	21:05:14	0.127	10.779	21:05:57	0.127	15.754	21:06:49	0.127	10.139	21:05:46	0.22
255	21:10:14	0.127	9.225	21:11:10	0.127	14.027	21:14:18	0.127	9.942	21:13:29	0.22
256	21:15:14	0.127	10.557	21:17:29	0.127	11.77	21:16:07	0.127	11.506	21:18:51	0.22
257	21:20:14	0.127	9.394	21:24:20	0.127	13.653	21:20:51	0.127	9.752	21:22:52	0.22
258	21:25:14	0.127	9.942	21:28:30	0.127	11.77	21:25:30	0.127	10.557	21:26:44	0.22
259	21:30:14	0.127	8.904	21:34:49	0.127	11.77	21:31:28	0.127	11.011	21:33:54	0.22
260	21:35:14	0.127	9.57	21:36:25	0.127	14.841	21:35:37	0.127	10.343	21:36:58	0.22
261	21:40:14	0.127	10.139	21:40:59	0.127	12.642	21:41:11	0.127	11.506	21:43:25	0.22
262	21:45:14	0.127	9.225	21:49:10	0.127	12.337	21:49:03	0.127	7.938	21:46:34	0.22
263	21:50:14	0.127	10.139	21:54:49	0.127	15.754	21:52:40	0.127	12.047	21:54:26	0.22
264	21:55:14	0.127	8.605	21:56:27	0.127	10.779	21:56:08	0.127	9.062	21:56:09	0.22
265	22:00:14	0.127	8.325	22:04:29	0.127	14.423	22:03:18	0.127	10.779	22:01:32	0.22
266	22:05:14	0.127	9.225	22:08:15	0.127	9.57	22:05:26	0.127	8.325	22:10:01	0.22
267	22:10:14	0.127	8.063	22:11:55	0.127	13.653	22:14:13	0.127	11.011	22:13:00	0.22
268	22:15:14	0.127	9.225	22:17:53	0.127	15.754	22:19:06	0.127	9.57	22:18:23	0.22
269	22:20:14	0.127	12.047	22:21:18	0.127	10.557	22:25:04	0.127	12.337	22:20:59	0.22
270	22:25:14	0.127	9.57	22:26:49	0.127	11.253	22:27:10	0.127	6.522	22:26:03	0.22
271	22:30:14	0.127	10.557	22:31:54	0.127	17.356	22:32:46	0.127	8.325	22:31:46	0.22
272	22:35:14	0.127	7.062	22:37:11	0.127	11.77	22:38:45	0.127	11.253	22:35:16	0.22
273	22:40:14	0.127	8.752	22:43:30	0.127	13.653	22:43:35	0.127	12.962	22:42:11	0.22
274	22:45:14	0.127	9.57	22:46:42	0.127	13.653	22:47:12	0.127	10.779	22:49:44	0.22
275	22:50:14	0.127	9.752	22:52:49	0.127	10.557	22:52:54	0.127	9.752	22:52:40	0.22
276	22:55:14	0.127	8.325	22:59:42	0.127	12.337	22:57:40	0.127	11.506	22:57:45	0.22
277	23:00:14	0.127	6.781	23:01:05	0.127	11.506	23:02:31	0.127	10.139	23:01:13	0.22
278	23:05:14	0.127	5.535	23:06:00	0.127	12.337	23:09:41	0.127	10.139	23:09:40	0.22
279	23:10:14	0.127	8.904	23:10:43	0.127	11.506	23:13:05	0.127	12.047	23:10:15	0.22
280	23:15:14	0.127	9.225	23:16:11	0.127	12.962	23:19:32	0.127	10.557	23:17:22	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 15/4/2022 @ 00:00:14
End: 16/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.381 (mm/s) @ 27.68 Hz @ 07:55:25
Transverse: 0.381 (mm/s) @ 113.78 Hz @ 07:07:07
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 07:48:48
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:14	0.127	9.062	23:21:03	0.127	10.779	23:21:03	0.127	10.343	23:22:58	0.22
282	23:25:14	0.127	10.343	23:27:43	0.127	12.962	23:29:38	0.127	12.642	23:29:16	0.22
283	23:30:14	0.127	8.463	23:33:35	0.127	9.225	23:33:35	0.127	8.904	23:33:35	0.22
284	23:35:14	0.127	8.605	23:37:31	0.127	20.898	23:36:34	0.127	11.506	23:39:50	0.22
285	23:40:14	0.127	8.904	23:44:44	0.127	12.962	23:44:36	0.127	11.011	23:44:44	0.22
286	23:45:14	0.127	9.752	23:47:51	0.127	14.027	23:47:36	0.127	8.752	23:49:18	0.22
287	23:50:14	0.127	9.752	23:52:29	0.127	18.618	23:50:10	0.127	12.337	23:50:37	0.22
288	23:55:14	0.127	11.506	23:57:30	0.127	12.337	23:57:59	0.127	9.394	23:55:11	0.22

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

16/4/2022 at 12:00 am Event # 7

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance: N Wgt. Per Delay: N Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1 Vector Sum: 22.14 mm/s @ 1.35 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	12.7476	12.8508	12.7556
Frequency (Hz)	19.6	15.0	24.3

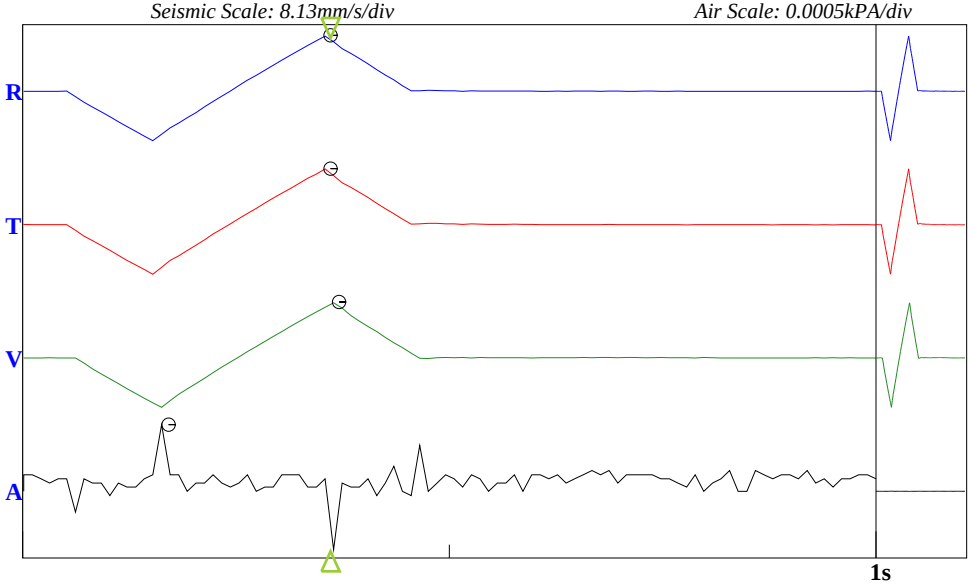
Air

Gain: 1

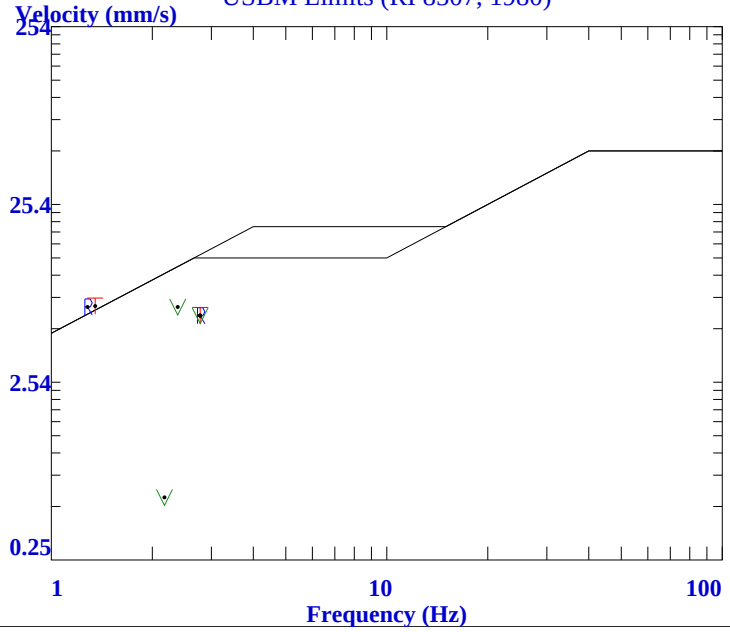
Measurement	Value		
kPA	0.000484		
dBL	**87.7**		
Hz	170.6		

Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

16/4/2022 at 12:00:12 am Event # 8

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:03 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.46 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.381**	**0.254**	**0.381**
Frequency (Hz)	**48.76**	**12.64**	**37.93**
Time	5:41:52 am	5:31:04 am	5:45:17 am

Air

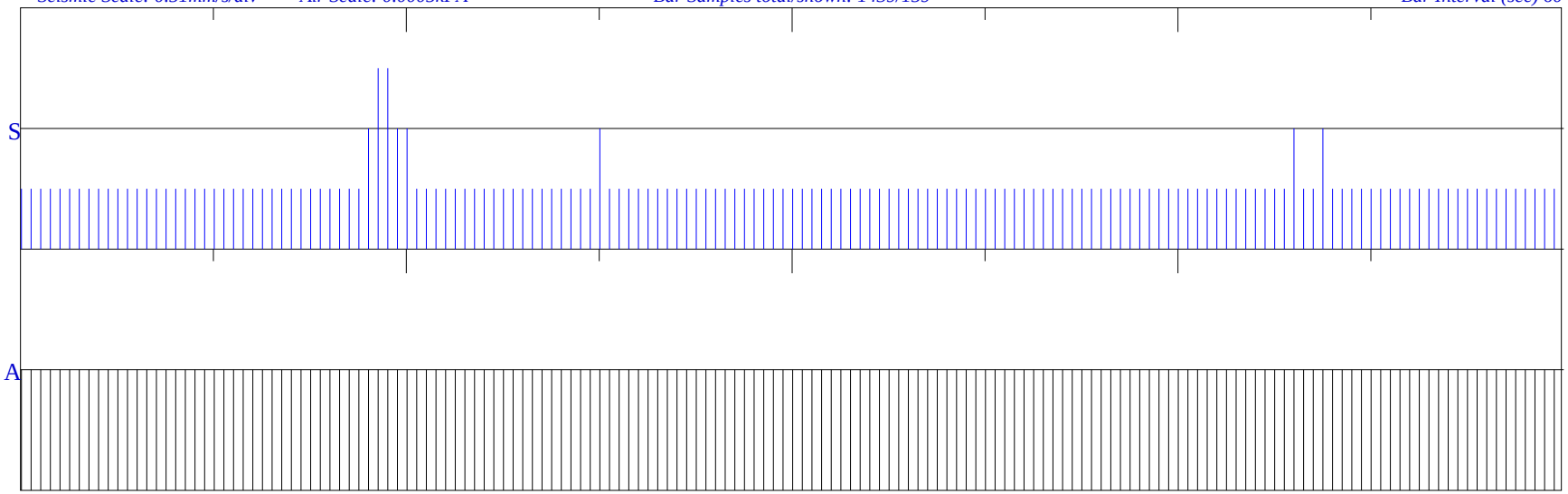
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.6		
Time	10:19:43 am		

BarGraph

Seismic Scale: 0.51mm/s/div Air Scale: 0.0005kPA Bar Samples total/shown: 1439/159

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:12 03:00:10 06:00:09 09:00:08 12:00:07 15:00:06 18:00:05 21:00:04 00:00:03

<<<<<<<<<<<<<< 23:59:51 >>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 16/4/2022 @ 00:00:12
End: 17/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 05:41:52
Transverse: 0.254 (mm/s) @ 12.64 Hz @ 05:31:04
Vertical: 0.381 (mm/s) @ 37.93 Hz @ 05:45:17
Vector Sum: .46 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:12	0.127	11.011	0:03:09	0.127	12.337	0:03:02	0.127	10.139	0:02:49	0.22
2	0:05:12	0.127	8.325	0:09:56	0.127	10.139	0:09:56	0.127	10.139	0:08:56	0.22
3	0:10:12	0.127	7.938	0:15:00	0.127	12.047	0:12:34	0.127	12.337	0:10:21	0.22
4	0:15:12	0.127	8.063	0:18:56	0.127	15.284	0:17:43	0.127	10.779	0:15:42	0.22
5	0:20:12	0.127	9.225	0:22:25	0.127	14.841	0:21:13	0.127	7.938	0:22:39	0.22
6	0:25:12	0.127	9.57	0:29:13	0.127	10.139	0:29:24	0.127	11.77	0:26:03	0.22
7	0:30:12	0.127	9.942	0:33:01	0.127	14.027	0:31:40	0.127	10.557	0:34:50	0.22
8	0:35:12	0.127	9.57	0:37:56	0.127	13.299	0:37:45	0.127	11.506	0:38:13	0.22
9	0:40:12	0.127	9.57	0:45:13	0.127	17.356	0:41:35	0.127	9.942	0:41:01	0.22
10	0:45:12	0.127	8.192	0:45:45	0.127	16.787	0:48:01	0.127	10.557	0:48:58	0.22
11	0:50:12	0.127	8.463	0:52:27	0.127	14.027	0:52:03	0.127	11.506	0:51:14	0.22
12	0:55:12	0.127	11.77	0:59:59	0.127	14.841	0:55:40	0.127	11.506	0:57:20	0.22
13	1:00:12	0.127	10.139	1:03:35	0.127	10.343	1:03:32	0.127	12.337	1:04:57	0.22
14	1:05:12	0.127	10.779	1:06:46	0.127	11.77	1:08:10	0.127	12.047	1:06:51	0.22
15	1:10:12	0.127	7.062	1:11:08	0.127	14.027	1:12:27	0.127	11.506	1:13:13	0.22
16	1:15:12	0.127	9.942	1:16:50	0.127	12.642	1:16:58	0.127	10.779	1:15:21	0.22
17	1:20:12	0.127	9.394	1:20:42	0.127	12.337	1:24:07	0.127	11.011	1:23:16	0.22
18	1:25:12	0.127	5.785	1:29:38	0.127	16.787	1:29:37	0.127	12.642	1:26:51	0.22
19	1:30:12	0.127	8.752	1:33:35	0.127	21.787	1:31:17	0.127	11.77	1:31:40	0.22
20	1:35:12	0.127	10.557	1:39:15	0.127	13.299	1:37:01	0.127	11.011	1:39:56	0.22
21	1:40:12	0.127	12.962	1:44:19	0.127	17.965	1:44:12	0.127	11.253	1:44:34	0.22
22	1:45:12	0.127	8.463	1:45:46	0.127	20.078	1:50:10	0.127	11.77	1:45:39	0.22
23	1:50:12	0.127	9.394	1:54:42	0.127	16.787	1:54:43	0.127	15.284	1:51:04	0.22
24	1:55:12	0.127	10.779	1:56:02	0.127	18.618	1:59:10	0.127	14.027	1:57:01	0.22
25	2:00:12	0.127	12.047	2:01:48	0.127	20.898	2:01:56	0.127	12.337	2:02:56	0.22
26	2:05:12	0.127	10.779	2:05:14	0.127	17.965	2:07:25	0.127	10.343	2:07:40	0.22
27	2:10:12	0.127	12.962	2:12:05	0.127	15.754	2:14:59	0.127	14.841	2:11:05	0.22
28	2:15:12	0.127	6.693	2:16:26	0.127	11.253	2:16:31	0.127	14.423	2:18:18	0.22
29	2:20:12	0.127	11.011	2:24:10	0.127	15.754	2:23:03	0.127	11.506	2:23:02	0.22
30	2:25:12	0.127	10.557	2:28:51	0.127	16.787	2:26:04	0.127	12.337	2:25:16	0.22
31	2:30:12	0.127	8.605	2:32:42	0.127	17.965	2:33:02	0.127	11.506	2:33:17	0.22
32	2:35:12	0.127	11.011	2:37:54	0.127	16.254	2:36:09	0.127	12.962	2:35:23	0.22
33	2:40:12	0.127	8.904	2:44:58	0.127	17.356	2:44:11	0.127	10.343	2:40:24	0.22
34	2:45:12	0.127	11.253	2:47:56	0.127	15.754	2:46:33	0.127	11.506	2:48:21	0.22
35	2:50:12	0.127	8.325	2:51:11	0.127	20.078	2:51:02	0.127	11.77	2:54:01	0.22
36	2:55:12	0.127	9.752	2:55:38	0.127	14.423	2:58:13	0.127	12.047	2:55:33	0.22
37	3:00:12	0.127	11.506	3:03:56	0.127	18.618	3:03:01	0.127	12.337	3:02:50	0.22
38	3:05:12	0.127	9.752	3:06:11	0.127	10.139	3:07:22	0.127	12.642	3:06:10	0.22
39	3:10:12	0.127	6.872	3:11:01	0.127	13.653	3:11:24	0.127	11.77	3:11:56	0.22
40	3:15:12	0.127	11.77	3:16:50	0.127	18.618	3:16:21	0.127	8.904	3:18:40	0.22
41	3:20:12	0.127	8.463	3:23:19	0.127	11.77	3:22:52	0.127	12.642	3:21:52	0.22
42	3:25:12	0.127	7.585	3:28:45	0.127	18.618	3:26:56	0.127	10.343	3:25:27	0.22
43	3:30:12	0.127	10.779	3:32:36	0.127	14.027	3:33:39	0.127	11.253	3:31:22	0.22
44	3:35:12	0.127	8.752	3:38:25	0.127	15.754	3:38:40	0.127	12.047	3:39:27	0.22
45	3:40:12	0.127	10.557	3:43:27	0.127	15.284	3:43:37	0.127	12.047	3:42:24	0.22
46	3:45:12	0.127	10.343	3:49:11	0.127	11.506	3:49:27	0.127	9.062	3:48:21	0.22
47	3:50:12	0.127	8.063	3:53:11	0.127	17.965	3:55:04	0.127	9.752	3:50:13	0.22
48	3:55:12	0.127	9.225	3:58:50	0.127	14.027	3:58:47	0.127	10.779	3:58:10	0.22
49	4:00:12	0.127	11.506	4:02:41	0.127	14.027	4:01:25	0.127	10.139	4:01:24	0.22
50	4:05:12	0.127	9.394	4:08:18	0.127	12.962	4:08:02	0.127	11.253	4:05:18	0.22
51	4:10:12	0.127	9.942	4:14:57	0.127	17.356	4:11:41	0.127	11.77	4:11:44	0.22
52	4:15:12	0.127	10.139	4:16:29	0.127	14.841	4:18:39	0.127	11.011	4:18:19	0.22
53	4:20:12	0.127	8.605	4:22:23	0.127	16.254	4:24:21	0.127	12.642	4:24:35	0.22
54	4:25:12	0.127	9.225	4:27:36	0.127	11.77	4:27:41	0.127	12.642	4:27:39	0.22
55	4:30:12	0.127	7.585	4:32:12	0.127	13.299	4:32:13	0.127	10.343	4:32:22	0.22
56	4:35:12	0.127	11.77	4:38:47	0.127	18.618	4:38:47	0.127	12.962	4:37:39	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 16/4/2022 @ 00:00:12
End: 17/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 05:41:52
Transverse: 0.254 (mm/s) @ 12.64 Hz @ 05:31:04
Vertical: 0.381 (mm/s) @ 37.93 Hz @ 05:45:17
Vector Sum: .46 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:12	0.127	8.605	4:42:34	0.127	14.027	4:40:59	0.127	13.653	4:40:42	0.22
58	4:45:12	0.127	9.062	4:49:47	0.127	16.787	4:47:09	0.127	12.642	4:46:54	0.22
59	4:50:12	0.127	8.904	4:54:56	0.127	15.754	4:54:57	0.127	12.047	4:54:57	0.22
60	4:55:12	0.127	8.904	4:55:27	0.127	12.642	4:55:30	0.127	11.506	4:55:52	0.22
61	5:00:12	0.127	9.394	5:04:16	0.127	16.787	5:04:49	0.127	10.557	5:03:06	0.22
62	5:05:12	0.127	7.474	5:09:08	0.127	13.653	5:08:14	0.127	10.343	5:08:21	0.22
63	5:10:12	0.127	8.904	5:14:20	0.127	14.027	5:13:17	0.127	11.506	5:14:08	0.22
64	5:15:12	0.127	6.872	5:18:52	0.127	12.642	5:18:09	0.127	12.047	5:16:55	0.22
65	5:20:12	0.127	9.225	5:22:17	0.127	11.77	5:21:15	0.127	9.062	5:20:48	0.22
66	5:25:12	0.127	11.77	5:25:59	0.127	15.754	5:25:58	0.127	12.962	5:26:26	0.22
67	5:30:12	0.254	24.976	5:31:05	0.254	12.642	5:31:04	0.127	8.605	5:32:53	0.311
68	5:35:12	0.127	6.781	5:38:41	0.127	16.254	5:35:30	0.254	93.091	5:40:04	0.254
69	5:40:12	0.381	48.762	5:41:52	0.254	37.926	5:42:05	0.381	40.96	5:44:52	0.458
70	5:45:12	0.254	37.926	5:47:53	0.254	33.032	5:47:01	0.381	37.926	5:45:17	0.458
71	5:50:12	0.254	40.96	5:51:03	0.127	12.047	5:51:21	0.254	40.96	5:50:23	0.311
72	5:55:12	0.127	7.262	6:00:04	0.127	10.343	5:57:31	0.254	9.225	5:57:10	0.284
73	6:00:12	0.127	7.367	6:00:49	0.127	9.394	6:00:48	0.254	9.394	6:03:40	0.311
74	6:05:12	0.127	9.752	6:08:55	0.127	13.299	6:09:55	0.254	113.778	6:08:38	0.254
75	6:10:12	0.127	7.474	6:14:48	0.127	11.506	6:12:24	0.127	9.942	6:10:47	0.22
76	6:15:12	0.127	8.063	6:15:13	0.127	16.254	6:16:27	0.127	12.962	6:15:53	0.22
77	6:20:12	0.127	5.721	6:23:20	0.127	14.027	6:24:09	0.127	12.642	6:21:27	0.22
78	6:25:12	0.127	7.585	6:28:19	0.127	12.642	6:29:26	0.127	10.557	6:29:13	0.22
79	6:30:12	0.127	6.44	6:32:38	0.127	10.557	6:32:38	0.127	12.047	6:31:59	0.22
80	6:35:12	0.127	8.192	6:39:18	0.127	10.343	6:39:06	0.127	9.394	6:39:08	0.22
81	6:40:12	0.127	8.463	6:41:28	0.127	12.642	6:42:36	0.127	10.557	6:41:47	0.22
82	6:45:12	0.127	7.817	6:48:22	0.127	13.653	6:48:27	0.127	12.962	6:46:34	0.22
83	6:50:12	0.127	7.367	6:52:05	0.127	12.962	6:51:38	0.127	9.57	6:55:05	0.22
84	6:55:12	0.127	6.606	6:56:29	0.127	11.253	6:57:43	0.127	11.253	7:00:09	0.22
85	7:00:12	0.127	7.474	7:03:06	0.127	10.343	7:04:30	0.127	9.752	7:02:20	0.22
86	7:05:12	0.127	7.367	7:07:01	0.127	10.139	7:09:14	0.127	10.779	7:08:49	0.22
87	7:10:12	0.127	6.693	7:14:30	0.127	10.139	7:10:38	0.127	10.779	7:10:39	0.22
88	7:15:12	0.127	7.585	7:15:44	0.127	12.337	7:15:36	0.127	12.047	7:17:24	0.22
89	7:20:12	0.127	6.966	7:21:39	0.127	12.047	7:23:31	0.127	10.779	7:23:45	0.22
90	7:25:12	0.127	7.817	7:28:12	0.127	9.752	7:29:16	0.127	12.962	7:29:16	0.22
91	7:30:12	0.127	7.062	7:32:04	0.127	6.44	7:32:04	0.127	10.139	7:35:10	0.22
92	7:35:12	0.127	6.522	7:37:37	0.127	9.752	7:37:48	0.127	9.225	7:35:16	0.22
93	7:40:12	0.127	7.474	7:44:11	0.127	10.139	7:42:16	0.127	10.779	7:43:10	0.22
94	7:45:12	0.127	8.904	7:46:24	0.127	9.752	7:49:41	0.127	11.506	7:46:34	0.22
95	7:50:12	0.127	5.919	7:54:46	0.127	11.506	7:51:55	0.127	9.225	7:52:39	0.22
96	7:55:12	0.127	6.606	7:56:46	0.127	11.506	7:58:39	0.127	9.394	8:00:06	0.22
97	8:00:12	0.127	5.919	8:00:39	0.127	9.062	8:01:20	0.127	8.904	8:01:30	0.22
98	8:05:12	0.127	6.44	8:07:46	0.127	11.506	8:07:05	0.127	9.942	8:05:33	0.22
99	8:10:12	0.127	6.522	8:14:09	0.127	11.253	8:15:07	0.127	11.253	8:13:59	0.22
100	8:15:12	0.127	5.851	8:17:41	0.127	9.752	8:16:02	0.127	10.139	8:18:23	0.22
101	8:20:12	0.127	6.966	8:20:17	0.127	9.752	8:23:52	0.127	9.942	8:23:12	0.22
102	8:25:12	0.127	7.161	8:26:54	0.127	8.904	8:29:03	0.127	9.225	8:29:04	0.22
103	8:30:12	0.127	5.418	8:32:35	0.127	10.557	8:34:04	0.127	11.506	8:32:14	0.22
104	8:35:12	0.127	6.132	8:37:12	0.127	10.139	8:37:22	0.127	10.139	8:37:56	0.22
105	8:40:12	0.127	6.781	8:44:35	0.127	14.027	8:40:53	0.127	12.642	8:40:28	0.22
106	8:45:12	0.127	7.062	8:49:03	0.127	9.225	8:49:18	0.127	8.192	8:45:51	0.22
107	8:50:12	0.127	6.693	8:52:22	0.127	8.904	8:53:10	0.127	9.394	8:53:15	0.22
108	8:55:12	0.127	6.132	8:55:26	0.127	9.57	8:55:57	0.127	10.139	8:56:45	0.22
109	9:00:12	0.127	6.606	9:00:13	0.127	10.779	9:01:47	0.127	11.253	9:03:02	0.22
110	9:05:12	0.127	6.44	9:07:19	0.127	9.062	9:05:50	0.254	48.762	9:06:19	0.254
111	9:10:12	0.127	7.161	9:14:46	0.127	9.225	9:14:43	0.127	11.506	9:10:29	0.22
112	9:15:12	0.127	7.161	9:18:22	0.127	10.343	9:19:40	0.127	12.337	9:17:24	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 16/4/2022 @ 00:00:12
End: 17/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 05:41:52
Transverse: 0.254 (mm/s) @ 12.64 Hz @ 05:31:04
Vertical: 0.381 (mm/s) @ 37.93 Hz @ 05:45:17
Vector Sum: .46 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:12	0.127	7.585	9:22:20	0.127	11.011	9:21:35	0.127	10.343	9:22:20	0.22
114	9:25:12	0.127	5.721	9:27:55	0.127	5.919	9:27:54	0.127	11.77	9:26:58	0.22
115	9:30:12	0.127	6.44	9:30:48	0.127	12.337	9:30:18	0.127	11.253	9:34:52	0.22
116	9:35:12	0.127	5.306	9:39:12	0.127	11.253	9:39:40	0.127	9.225	9:38:07	0.22
117	9:40:12	0.127	7.262	9:44:13	0.127	11.506	9:44:19	0.127	11.011	9:44:46	0.22
118	9:45:12	0.127	5.044	9:49:29	0.127	10.139	9:45:57	0.127	10.779	9:48:06	0.22
119	9:50:12	0.127	6.132	9:54:39	0.127	9.752	9:53:54	0.127	11.011	9:53:31	0.22
120	9:55:12	0.127	5.851	9:55:34	0.127	6.606	9:55:34	0.127	10.779	9:56:56	0.22
121	10:00:12	0.127	6.059	10:02:45	0.127	8.325	10:02:45	0.127	11.011	10:02:49	0.22
122	10:05:12	0.127	7.474	10:08:49	0.127	11.253	10:07:26	0.127	10.343	10:08:25	0.22
123	10:10:12	0.127	4.995	10:13:52	0.127	9.225	10:13:55	0.127	9.394	10:10:26	0.22
124	10:15:12	0.127	5.306	10:16:38	0.127	9.062	10:15:19	0.127	11.011	10:19:45	0.22
125	10:20:12	0.127	6.966	10:25:04	0.127	8.063	10:21:34	0.127	10.557	10:21:04	0.22
126	10:25:12	0.127	5.721	10:26:03	0.127	9.062	10:28:03	0.127	8.063	10:25:39	0.22
127	10:30:12	0.127	6.606	10:34:30	0.127	10.139	10:33:14	0.127	8.325	10:32:37	0.22
128	10:35:12	0.127	7.262	10:38:40	0.127	9.942	10:36:52	0.127	9.225	10:38:36	0.22
129	10:40:12	0.127	5.146	10:43:13	0.127	9.57	10:41:16	0.127	9.394	10:41:22	0.22
130	10:45:12	0.127	6.522	10:48:57	0.127	9.225	10:45:29	0.127	8.605	10:45:58	0.22
131	10:50:12	0.127	9.57	10:53:54	0.127	11.011	10:53:54	0.127	12.642	10:53:59	0.22
132	10:55:12	0.127	7.699	10:58:31	0.127	8.605	11:00:10	0.127	10.779	10:56:12	0.22
133	11:00:12	0.127	5.919	11:00:46	0.127	6.872	11:00:46	0.127	10.779	11:04:43	0.22
134	11:05:12	0.127	4.592	11:06:00	0.127	10.139	11:08:07	0.127	11.011	11:09:55	0.22
135	11:10:12	0.127	6.966	11:10:48	0.127	10.779	11:13:08	0.127	9.57	11:14:58	0.22
136	11:15:12	0.127	5.535	11:17:35	0.127	9.062	11:18:30	0.127	11.011	11:18:35	0.22
137	11:20:12	0.127	6.059	11:22:34	0.127	7.817	11:20:45	0.127	10.557	11:21:06	0.22
138	11:25:12	0.127	6.693	11:29:26	0.127	10.779	11:25:32	0.127	10.139	11:29:06	0.22
139	11:30:12	0.127	8.325	11:30:11	0.127	9.752	11:32:10	0.127	10.557	11:33:55	0.22
140	11:35:12	0.127	6.206	11:37:52	0.127	7.367	11:39:47	0.127	10.343	11:38:48	0.22
141	11:40:12	0.127	8.063	11:42:32	0.127	9.942	11:40:11	0.127	11.77	11:40:25	0.22
142	11:45:12	0.127	7.699	11:47:21	0.127	12.337	11:49:02	0.127	11.253	11:47:37	0.22
143	11:50:12	0.127	7.474	11:51:20	0.127	9.752	11:54:08	0.127	12.047	11:53:28	0.22
144	11:55:12	0.127	6.206	11:58:12	0.127	9.57	11:58:13	0.127	9.942	12:00:07	0.22
145	12:00:12	0.127	7.262	12:01:26	0.127	10.779	12:01:06	0.127	12.337	12:04:12	0.22
146	12:05:12	0.127	5.535	12:06:22	0.127	8.325	12:07:16	0.127	9.394	12:09:53	0.22
147	12:10:12	0.127	6.606	12:11:13	0.127	8.605	12:15:05	0.127	9.394	12:12:13	0.22
148	12:15:12	0.127	8.192	12:16:22	0.127	10.343	12:15:17	0.127	8.904	12:19:51	0.22
149	12:20:12	0.127	8.605	12:21:31	0.127	10.557	12:22:42	0.127	11.253	12:20:48	0.22
150	12:25:12	0.127	8.192	12:29:44	0.127	11.253	12:25:27	0.127	12.962	12:26:33	0.22
151	12:30:12	0.127	5.361	12:30:30	0.127	8.605	12:30:33	0.127	9.394	12:34:57	0.22
152	12:35:12	0.127	6.522	12:35:27	0.127	10.557	12:35:29	0.127	9.942	12:35:41	0.22
153	12:40:12	0.127	7.262	12:40:33	0.127	10.557	12:42:13	0.127	9.752	12:44:36	0.22
154	12:45:12	0.127	6.693	12:45:27	0.127	7.699	12:50:01	0.127	11.506	12:46:49	0.22
155	12:50:12	0.127	6.36	12:53:09	0.127	5.785	12:52:40	0.127	8.752	12:50:59	0.22
156	12:55:12	0.127	8.463	12:56:58	0.127	6.132	12:57:10	0.127	8.904	12:58:50	0.22
157	13:00:12	0.127	7.699	13:03:37	0.127	5.919	13:03:53	0.127	11.506	13:01:00	0.22
158	13:05:12	0.127	7.585	13:05:57	0.127	5.476	13:06:01	0.127	10.343	13:08:06	0.22
159	13:10:12	0.127	5.596	13:15:02	0.127	6.36	13:12:27	0.127	10.139	13:11:38	0.22
160	13:15:12	0.127	7.938	13:17:05	0.127	5.095	13:17:19	0.127	9.57	13:15:52	0.22
161	13:20:12	0.127	8.904	13:23:15	0.127	6.206	13:22:51	0.127	10.557	13:24:39	0.22
162	13:25:12	0.127	6.872	13:29:45	0.127	5.535	13:27:26	0.127	9.942	13:27:04	0.22
163	13:30:12	0.127	7.817	13:32:11	0.127	5.535	13:34:51	0.127	12.642	13:34:29	0.22
164	13:35:12	0.127	6.966	13:37:17	0.127	6.606	13:37:27	0.127	13.299	13:39:21	0.22
165	13:40:12	0.127	7.062	13:43:29	0.127	6.36	13:44:08	0.127	12.337	13:44:58	0.22
166	13:45:12	0.127	6.44	13:48:17	0.127	6.282	13:45:51	0.127	9.225	13:49:10	0.22
167	13:50:12	0.127	7.699	13:51:08	0.127	6.206	13:51:07	0.127	12.642	13:50:19	0.22
168	13:55:12	0.127	6.781	13:59:44	0.127	5.988	13:58:09	0.127	10.557	13:59:34	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 16/4/2022 @ 00:00:12
End: 17/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 05:41:52
Transverse: 0.254 (mm/s) @ 12.64 Hz @ 05:31:04
Vertical: 0.381 (mm/s) @ 37.93 Hz @ 05:45:17
Vector Sum: .46 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:12	0.127	6.781	14:01:38	0.127	5.988	14:03:26	0.127	11.011	14:00:51	0.22
170	14:05:12	0.127	8.752	14:05:17	0.127	6.282	14:07:18	0.127	9.225	14:07:46	0.22
171	14:10:12	0.127	7.262	14:13:58	0.127	5.721	14:13:36	0.127	9.57	14:10:50	0.22
172	14:15:12	0.127	8.904	14:17:12	0.127	6.872	14:16:26	0.127	9.394	14:17:50	0.22
173	14:20:12	0.127	8.325	14:21:18	0.127	6.522	14:24:43	0.127	12.047	14:25:01	0.22
174	14:25:12	0.127	9.394	14:29:06	0.127	7.262	14:25:26	0.127	11.506	14:25:51	0.22
175	14:30:12	0.127	7.817	14:32:04	0.127	5.657	14:32:24	0.127	10.779	14:32:12	0.22
176	14:35:12	0.127	8.904	14:36:39	0.127	6.44	14:36:07	0.127	10.139	14:36:24	0.22
177	14:40:12	0.127	8.605	14:44:26	0.127	4.763	14:41:20	0.127	10.343	14:44:26	0.22
178	14:45:12	0.127	7.262	14:46:06	0.127	5.306	14:50:09	0.127	9.394	14:46:33	0.22
179	14:50:12	0.127	9.942	14:51:07	0.127	5.095	14:52:21	0.127	10.779	14:53:29	0.22
180	14:55:12	0.127	7.262	14:55:22	0.127	5.988	14:55:20	0.127	9.942	14:58:49	0.22
181	15:00:12	0.127	8.063	15:02:05	0.127	5.095	15:00:51	0.127	9.57	15:03:15	0.22
182	15:05:12	0.127	8.325	15:06:56	0.127	5.657	15:07:15	0.127	9.062	15:05:38	0.22
183	15:10:12	0.127	7.817	15:14:09	0.127	5.919	15:12:02	0.127	8.463	15:15:07	0.22
184	15:15:12	0.127	8.605	15:17:14	0.127	6.132	15:16:42	0.127	9.394	15:19:03	0.22
185	15:20:12	0.127	7.474	15:20:26	0.127	6.606	15:25:09	0.127	10.557	15:24:35	0.22
186	15:25:12	0.127	6.781	15:30:07	0.127	7.817	15:26:55	0.127	9.752	15:29:33	0.22
187	15:30:12	0.127	5.721	15:31:15	0.127	6.966	15:31:17	0.127	9.942	15:34:33	0.22
188	15:35:12	0.127	7.938	15:40:02	0.127	5.251	15:39:57	0.127	8.063	15:39:03	0.22
189	15:40:12	0.127	7.474	15:42:14	0.127	6.282	15:41:10	0.127	9.942	15:43:13	0.22
190	15:45:12	0.127	9.57	15:49:22	0.127	5.988	15:48:44	0.127	9.225	15:46:13	0.22
191	15:50:12	0.127	8.904	15:52:27	0.127	4.995	15:50:32	0.127	10.779	15:51:33	0.22
192	15:55:12	0.127	5.851	15:57:58	0.127	6.606	15:57:21	0.127	9.942	15:56:20	0.22
193	16:00:12	0.127	6.606	16:04:12	0.127	7.585	16:01:18	0.127	10.557	16:01:53	0.22
194	16:05:12	0.127	7.474	16:05:26	0.127	5.851	16:05:26	0.127	10.139	16:09:40	0.22
195	16:10:12	0.127	6.693	16:13:14	0.127	6.132	16:14:41	0.127	10.557	16:11:09	0.22
196	16:15:12	0.127	7.817	16:18:13	0.127	7.161	16:15:28	0.127	9.942	16:19:08	0.22
197	16:20:12	0.127	10.343	16:21:43	0.127	6.781	16:23:07	0.127	11.011	16:22:23	0.22
198	16:25:12	0.127	6.872	16:27:02	0.127	6.872	16:28:55	0.127	12.047	16:27:24	0.22
199	16:30:12	0.127	9.394	16:31:51	0.127	5.785	16:30:15	0.127	10.557	16:35:05	0.22
200	16:35:12	0.127	8.605	16:35:31	0.127	6.872	16:37:21	0.127	10.557	16:35:29	0.22
201	16:40:12	0.127	8.463	16:44:55	0.127	6.132	16:42:17	0.127	9.942	16:42:09	0.22
202	16:45:12	0.127	7.367	16:48:57	0.127	5.657	16:46:16	0.127	8.904	16:47:59	0.22
203	16:50:12	0.127	7.474	16:50:59	0.127	5.535	16:54:28	0.127	9.752	16:54:23	0.22
204	16:55:12	0.127	8.063	16:58:13	0.127	6.522	17:00:04	0.127	10.343	16:55:19	0.22
205	17:00:12	0.127	7.262	17:04:25	0.127	6.781	17:02:19	0.127	12.337	17:01:58	0.22
206	17:05:12	0.127	8.463	17:09:38	0.127	5.988	17:10:05	0.127	9.225	17:07:49	0.22
207	17:10:12	0.127	7.699	17:10:33	0.127	6.781	17:11:13	0.127	8.904	17:14:11	0.22
208	17:15:12	0.127	9.225	17:18:52	0.127	5.785	17:18:31	0.127	9.942	17:18:12	0.22
209	17:20:12	0.127	9.57	17:22:30	0.127	5.146	17:23:58	0.127	11.011	17:22:34	0.22
210	17:25:12	0.127	7.938	17:28:39	0.127	6.36	17:28:39	0.127	10.343	17:28:54	0.22
211	17:30:12	0.127	9.062	17:33:06	0.127	5.785	17:33:49	0.127	11.011	17:30:25	0.22
212	17:35:12	0.127	6.44	17:38:37	0.127	4.676	17:38:37	0.127	9.942	17:37:51	0.22
213	17:40:12	0.127	8.063	17:42:13	0.127	5.306	17:41:10	0.127	9.57	17:40:58	0.22
214	17:45:12	0.127	8.752	17:47:51	0.127	4.9	17:45:25	0.127	9.942	17:47:52	0.22
215	17:50:12	0.127	5.851	17:51:45	0.127	6.606	17:54:21	0.127	9.225	17:50:14	0.22
216	17:55:12	0.127	7.262	17:55:32	0.127	5.535	17:58:09	0.127	8.605	17:59:44	0.22
217	18:00:12	0.127	6.781	18:04:13	0.127	4.995	18:04:13	0.127	9.225	18:01:09	0.22
218	18:05:12	0.127	7.938	18:07:34	0.127	4.249	18:07:37	0.127	10.779	18:08:52	0.22
219	18:10:12	0.127	7.161	18:12:46	0.127	5.146	18:14:42	0.127	10.139	18:10:36	0.22
220	18:15:12	0.127	8.063	18:15:53	0.127	6.36	18:18:02	0.127	10.779	18:15:31	0.22
221	18:20:12	0.127	7.817	18:23:01	0.127	5.361	18:23:01	0.127	9.062	18:24:56	0.22
222	18:25:12	0.127	4.9	18:25:19	0.127	4.9	18:25:17	0.127	12.047	18:25:47	0.22
223	18:30:12	0.127	10.139	18:33:26	0.127	5.988	18:33:26	0.127	9.062	18:31:17	0.22
224	18:35:12	0.127	6.36	18:36:56	0.127	5.535	18:39:44	0.127	9.752	18:38:18	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 16/4/2022 @ 00:00:12
End: 17/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 05:41:52
Transverse: 0.254 (mm/s) @ 12.64 Hz @ 05:31:04
Vertical: 0.381 (mm/s) @ 37.93 Hz @ 05:45:17
Vector Sum: .46 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:12	0.127	8.904	18:40:47	0.127	5.418	18:42:20	0.127	9.225	18:42:52	0.22
226	18:45:12	0.127	5.657	18:49:00	0.127	5.535	18:49:00	0.127	10.779	18:45:47	0.22
227	18:50:12	0.127	5.596	18:51:08	0.127	5.361	18:51:08	0.127	9.57	18:54:20	0.22
228	18:55:12	0.127	8.463	18:55:31	0.127	6.282	18:58:55	0.127	8.904	18:58:33	0.22
229	19:00:12	0.127	7.817	19:03:08	0.127	7.062	19:01:36	0.127	9.394	19:01:47	0.22
230	19:05:12	0.127	8.752	19:05:52	0.127	6.059	19:05:56	0.127	12.047	19:05:49	0.22
231	19:10:12	0.127	9.394	19:11:20	0.127	6.522	19:11:21	0.127	10.343	19:12:58	0.22
232	19:15:12	0.127	7.161	19:15:47	0.127	7.367	19:15:41	0.127	10.343	19:18:04	0.22
233	19:20:12	0.127	6.966	19:21:03	0.127	5.919	19:20:48	0.127	10.139	19:20:30	0.22
234	19:25:12	0.127	8.463	19:27:50	0.127	7.699	19:28:01	0.127	9.752	19:28:34	0.22
235	19:30:12	0.127	8.904	19:30:45	0.127	5.535	19:34:31	0.127	9.57	19:32:48	0.22
236	19:35:12	0.127	7.585	19:40:07	0.127	6.059	19:40:00	0.127	10.557	19:36:36	0.22
237	19:40:12	0.127	7.699	19:43:17	0.127	6.36	19:43:13	0.127	8.904	19:41:10	0.22
238	19:45:12	0.127	6.606	19:47:04	0.127	5.851	19:46:58	0.127	9.225	19:47:09	0.22
239	19:50:12	0.127	8.325	19:52:37	0.127	5.919	19:52:37	0.254	53.895	19:52:50	0.254
240	19:55:12	0.127	7.367	19:57:52	0.127	5.095	19:58:23	0.127	8.752	19:55:46	0.22
241	20:00:12	0.127	7.262	20:02:40	0.127	4.633	20:02:06	0.127	11.77	20:03:55	0.22
242	20:05:12	0.127	8.752	20:08:05	0.127	4.719	20:05:58	0.127	10.779	20:10:05	0.22
243	20:10:12	0.127	7.938	20:12:24	0.127	5.657	20:13:19	0.127	12.047	20:14:36	0.22
244	20:15:12	0.127	9.062	20:15:26	0.127	6.522	20:18:10	0.127	11.77	20:17:45	0.22
245	20:20:12	0.127	6.693	20:21:54	0.127	4.551	20:21:54	0.254	12.642	20:21:55	0.284
246	20:25:12	0.127	11.253	20:29:35	0.127	6.693	20:29:35	0.127	10.139	20:25:53	0.22
247	20:30:12	0.127	8.605	20:35:04	0.127	6.522	20:31:53	0.127	9.225	20:33:52	0.22
248	20:35:12	0.127	7.585	20:39:55	0.127	4.472	20:39:53	0.127	10.557	20:38:35	0.22
249	20:40:12	0.127	5.476	20:44:09	0.127	4.357	20:44:09	0.127	9.225	20:42:47	0.22
250	20:45:12	0.127	7.161	20:49:47	0.127	6.36	20:49:46	0.127	11.253	20:45:26	0.22
251	20:50:12	0.127	4.853	20:54:56	0.127	5.919	20:54:56	0.127	8.463	20:55:08	0.22
252	20:55:12	0.127	7.262	20:56:22	0.127	6.781	20:56:55	0.127	9.394	20:58:27	0.22
253	21:00:12	0.127	8.904	21:01:35	0.127	4.18	21:00:43	0.127	8.063	21:04:14	0.22
254	21:05:12	0.127	8.463	21:05:44	0.127	6.36	21:08:22	0.127	9.225	21:08:37	0.22
255	21:10:12	0.127	8.192	21:14:41	0.127	5.596	21:14:43	0.127	11.253	21:12:38	0.22
256	21:15:12	0.127	6.781	21:17:58	0.127	5.919	21:15:25	0.127	10.343	21:16:54	0.22
257	21:20:12	0.127	6.693	21:23:11	0.127	5.657	21:24:59	0.127	11.77	21:20:55	0.22
258	21:25:12	0.127	9.942	21:26:56	0.127	7.585	21:30:05	0.127	10.139	21:25:37	0.22
259	21:30:12	0.127	8.463	21:31:22	0.127	5.851	21:32:27	0.127	12.047	21:33:47	0.22
260	21:35:12	0.127	8.752	21:39:53	0.127	7.161	21:39:43	0.127	11.506	21:36:33	0.22
261	21:40:12	0.127	6.522	21:43:26	0.127	5.721	21:40:22	0.127	11.506	21:40:28	0.22
262	21:45:12	0.127	7.367	21:50:00	0.127	7.474	21:48:17	0.127	9.752	21:49:22	0.22
263	21:50:12	0.127	7.938	21:51:45	0.127	7.474	21:51:41	0.127	10.343	21:52:04	0.22
264	21:55:12	0.127	5.988	21:56:52	0.127	4.719	21:56:56	0.127	12.962	21:58:07	0.22
265	22:00:12	0.127	8.192	22:02:17	0.127	5.919	22:02:22	0.127	10.557	22:03:34	0.22
266	22:05:12	0.127	9.752	22:05:26	0.127	6.966	22:05:41	0.127	8.752	22:06:01	0.22
267	22:10:12	0.127	7.474	22:13:30	0.127	6.282	22:14:08	0.127	11.506	22:11:57	0.22
268	22:15:12	0.127	8.325	22:17:02	0.127	7.062	22:17:38	0.127	11.253	22:17:41	0.22
269	22:20:12	0.127	8.904	22:21:43	0.127	7.817	22:20:40	0.127	11.011	22:20:13	0.22
270	22:25:12	0.127	8.192	22:29:11	0.127	6.132	22:30:02	0.127	11.506	22:26:33	0.22
271	22:30:12	0.127	6.36	22:31:56	0.127	5.657	22:31:55	0.127	10.557	22:33:01	0.22
272	22:35:12	0.127	10.557	22:36:42	0.127	6.132	22:40:02	0.127	10.343	22:36:26	0.22
273	22:40:12	0.127	5.657	22:40:52	0.127	5.146	22:43:50	0.127	12.962	22:41:21	0.22
274	22:45:12	0.127	9.062	22:47:28	0.127	5.596	22:45:55	0.127	11.506	22:47:53	0.22
275	22:50:12	0.127	8.904	22:52:59	0.127	8.605	22:54:52	0.127	10.779	22:50:57	0.22
276	22:55:12	0.127	9.752	22:59:35	0.127	8.463	22:56:09	0.127	9.752	22:57:46	0.22
277	23:00:12	0.127	5.851	23:02:24	0.127	5.851	23:02:23	0.127	9.752	23:02:02	0.22
278	23:05:12	0.127	8.325	23:09:39	0.127	6.206	23:08:47	0.127	10.139	23:06:33	0.22
279	23:10:12	0.127	8.325	23:11:16	0.127	6.966	23:10:09	0.127	9.942	23:12:04	0.22
280	23:15:12	0.127	6.606	23:19:27	0.127	6.44	23:18:52	0.127	9.57	23:19:43	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 16/4/2022 @ 00:00:12
End: 17/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.6 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 05:41:52
Transverse: 0.254 (mm/s) @ 12.64 Hz @ 05:31:04
Vertical: 0.381 (mm/s) @ 37.93 Hz @ 05:45:17
Vector Sum: .46 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.68

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:12	0.127	9.57	23:23:40	0.127	14.841	23:23:06	0.127	8.325	23:21:49	0.22
282	23:25:12	0.127	8.752	23:29:54	0.127	14.027	23:30:05	0.127	9.752	23:27:10	0.22
283	23:30:12	0.127	8.063	23:31:12	0.127	11.506	23:33:17	0.127	10.557	23:34:42	0.22
284	23:35:12	0.127	8.605	23:38:42	0.127	15.754	23:35:22	0.127	12.962	23:39:00	0.22
285	23:40:12	0.127	10.343	23:44:22	0.127	16.254	23:41:07	0.127	10.343	23:41:17	0.22
286	23:45:12	0.127	8.904	23:45:40	0.127	14.423	23:46:23	0.127	11.506	23:49:58	0.22
287	23:50:12	0.127	11.011	23:54:23	0.127	20.078	23:50:14	0.127	12.337	23:52:43	0.22
288	23:55:12	0.127	9.062	23:58:11	0.127	17.356	23:59:37	0.127	12.962	23:55:16	0.22

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

17/4/2022 at 12:00 am Event # 9

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance: N Wgt. Per Delay: N Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1 Vector Sum: 22.17 mm/s @ 1.09 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	12.7794	12.8429	12.7794
Frequency (Hz)	21.3	13.1	24.3

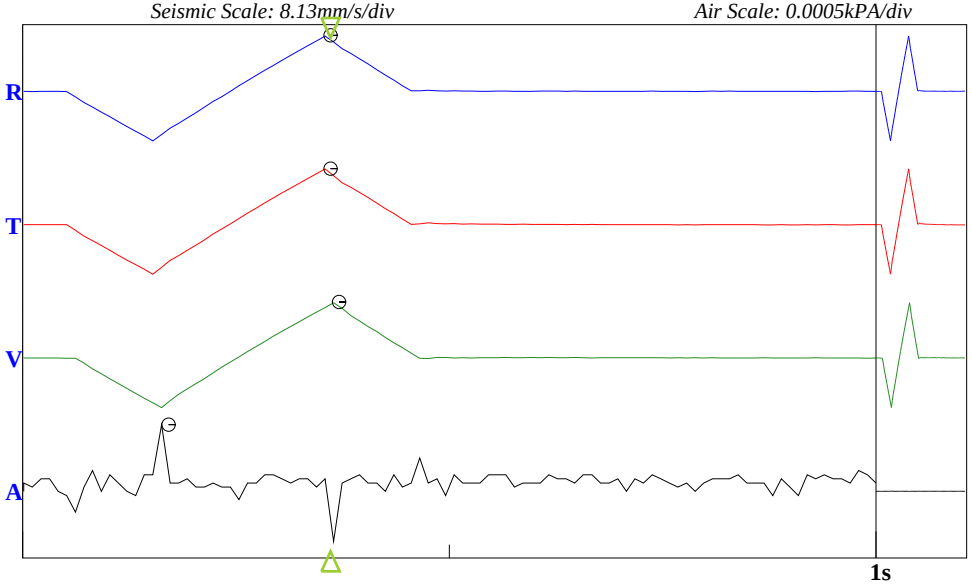
Air

Gain: 1

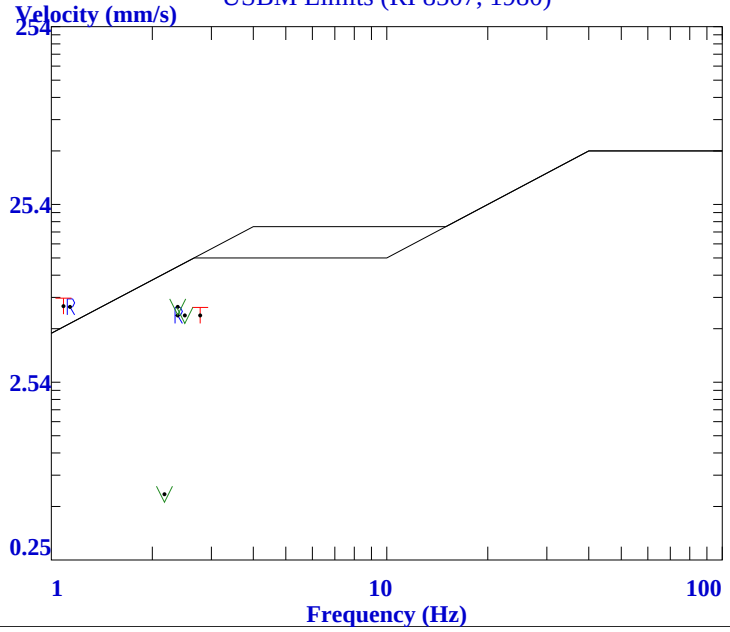
Measurement	Value		
kPA	0.000453		
dBL	87.1		
Hz	512.0		

Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

17/4/2022 at 12:00:15 am Event # 10

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:01 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.28 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.127**	**0.127**	**0.254**
Frequency (Hz)	**5.2**	**4.32**	**113.78**
Time	2:49:13 pm	7:06:27 pm	8:22:08 pm

Air

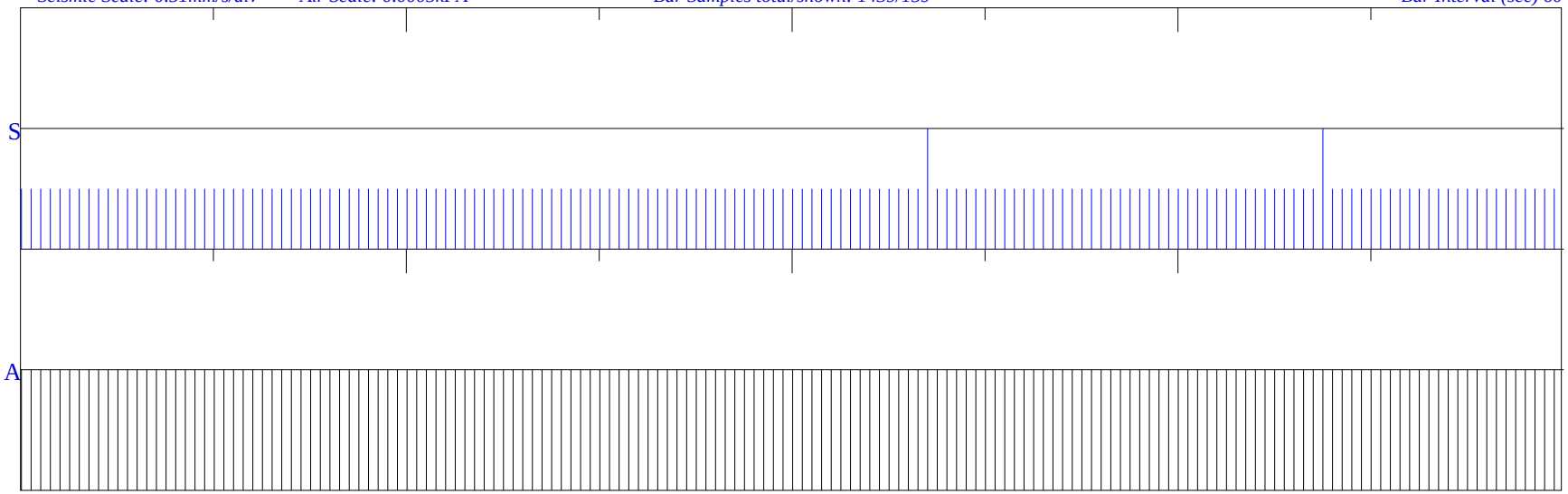
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.61		
Time	10:12:23 am		

BarGraph

Seismic Scale: 0.51mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159*

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:15 **03:00:13** **06:00:11** **09:00:09** **12:00:08** **15:00:06** **18:00:04** **21:00:02** **00:00:01**

<<<<<<<<<<<<<< **23:59:46** >>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 17/4/2022 @ 00:00:15
End: 18/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.61 Hz
Radial: 0.127 (mm/s) @ 5.2 Hz @ 14:49:13
Transverse: 0.127 (mm/s) @ 4.32 Hz @ 19:06:27
Vertical: 0.254 (mm/s) @ 113.78 Hz @ 20:22:08
Vector Sum: .28 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:15	0.127	8.463	0:02:50	0.127	12.962	0:03:19	0.127	12.337	0:02:44	0.22
2	0:05:15	0.127	11.011	0:09:15	0.127	19.321	0:07:07	0.127	11.253	0:05:44	0.22
3	0:10:15	0.127	9.942	0:10:27	0.127	17.965	0:10:23	0.127	14.423	0:11:51	0.22
4	0:15:15	0.127	9.062	0:18:47	0.127	17.356	0:17:51	0.127	13.299	0:18:01	0.22
5	0:20:15	0.127	10.779	0:22:54	0.127	18.618	0:24:21	0.127	13.299	0:21:21	0.22
6	0:25:15	0.127	5.785	0:29:55	0.127	16.787	0:26:20	0.127	10.139	0:28:59	0.22
7	0:30:15	0.127	9.942	0:34:53	0.127	14.027	0:31:10	0.127	10.343	0:33:50	0.22
8	0:35:15	0.127	10.779	0:35:54	0.127	15.284	0:38:24	0.127	12.047	0:35:32	0.22
9	0:40:15	0.127	10.139	0:43:26	0.127	13.653	0:43:17	0.127	10.779	0:40:26	0.22
10	0:45:15	0.127	9.225	0:49:04	0.127	18.618	0:48:43	0.127	12.047	0:45:27	0.22
11	0:50:15	0.127	10.343	0:53:41	0.127	11.253	0:53:49	0.127	11.011	0:53:26	0.22
12	0:55:15	0.127	10.139	0:57:04	0.127	17.965	0:58:01	0.127	12.047	0:56:53	0.22
13	1:00:15	0.127	9.394	1:03:57	0.127	15.284	1:04:11	0.127	11.77	1:03:51	0.22
14	1:05:15	0.127	10.139	1:07:05	0.127	13.299	1:09:05	0.127	13.299	1:05:52	0.22
15	1:10:15	0.127	10.779	1:13:25	0.127	14.423	1:10:51	0.127	12.337	1:10:17	0.22
16	1:15:15	0.127	8.752	1:20:14	0.127	14.423	1:20:10	0.127	13.299	1:17:48	0.22
17	1:20:15	0.127	9.225	1:24:16	0.127	17.965	1:23:55	0.127	12.047	1:22:20	0.22
18	1:25:15	0.127	9.394	1:27:42	0.127	15.754	1:27:36	0.127	9.394	1:26:30	0.22
19	1:30:15	0.127	11.011	1:33:56	0.127	12.337	1:30:34	0.127	12.642	1:34:57	0.22
20	1:35:15	0.127	9.57	1:38:50	0.127	20.078	1:39:37	0.127	9.225	1:39:41	0.22
21	1:40:15	0.127	10.779	1:44:31	0.127	14.027	1:41:05	0.127	12.642	1:42:50	0.22
22	1:45:15	0.127	9.752	1:50:12	0.127	14.841	1:46:25	0.127	11.253	1:46:49	0.22
23	1:50:15	0.127	12.047	1:50:40	0.127	13.653	1:50:39	0.127	12.642	1:52:56	0.22
24	1:55:15	0.127	9.394	1:55:33	0.127	13.653	1:59:28	0.127	13.299	1:56:23	0.22
25	2:00:15	0.127	11.506	2:05:02	0.127	18.618	2:02:54	0.127	13.653	2:01:30	0.22
26	2:05:15	0.127	8.752	2:09:52	0.127	9.942	2:08:16	0.127	11.506	2:10:09	0.22
27	2:10:15	0.127	10.557	2:12:10	0.127	19.321	2:11:14	0.127	11.253	2:12:13	0.22
28	2:15:15	0.127	9.942	2:15:53	0.127	20.898	2:16:07	0.127	9.942	2:18:47	0.22
29	2:20:15	0.127	10.557	2:21:45	0.127	14.423	2:20:59	0.127	10.343	2:22:02	0.22
30	2:25:15	0.127	12.047	2:29:13	0.127	17.356	2:29:30	0.127	11.011	2:30:13	0.22
31	2:30:15	0.127	8.063	2:33:34	0.127	17.356	2:34:14	0.127	14.027	2:34:46	0.22
32	2:35:15	0.127	11.77	2:39:36	0.127	19.321	2:39:29	0.127	14.423	2:35:30	0.22
33	2:40:15	0.127	9.942	2:44:15	0.127	17.356	2:44:14	0.127	12.642	2:43:25	0.22
34	2:45:15	0.127	10.343	2:46:14	0.127	15.284	2:45:16	0.127	11.011	2:50:04	0.22
35	2:50:15	0.127	11.011	2:54:06	0.127	18.618	2:51:01	0.127	12.962	2:50:46	0.22
36	2:55:15	0.127	9.225	2:56:08	0.127	17.965	2:59:24	0.127	13.299	2:56:26	0.22
37	3:00:15	0.127	9.942	3:03:06	0.127	22.756	3:01:30	0.127	10.557	3:01:43	0.22
38	3:05:15	0.127	11.253	3:07:43	0.127	17.965	3:06:10	0.127	12.337	3:09:15	0.22
39	3:10:15	0.127	9.942	3:12:08	0.127	18.618	3:14:16	0.127	11.77	3:10:16	0.22
40	3:15:15	0.127	11.011	3:19:22	0.127	20.078	3:17:34	0.127	14.841	3:18:01	0.22
41	3:20:15	0.127	9.062	3:24:37	0.127	20.898	3:23:24	0.127	13.653	3:20:20	0.22
42	3:25:15	0.127	10.557	3:29:51	0.127	16.254	3:28:31	0.127	13.653	3:28:01	0.22
43	3:30:15	0.127	11.011	3:32:48	0.127	11.506	3:31:20	0.127	13.653	3:31:22	0.22
44	3:35:15	0.127	10.557	3:40:10	0.127	14.027	3:39:36	0.127	12.047	3:39:43	0.22
45	3:40:15	0.127	7.161	3:42:17	0.127	12.642	3:42:16	0.127	11.506	3:44:28	0.22
46	3:45:15	0.127	10.557	3:46:49	0.127	20.078	3:49:09	0.127	11.506	3:49:56	0.22
47	3:50:15	0.127	9.394	3:52:23	0.127	15.284	3:55:07	0.127	10.343	3:54:20	0.22
48	3:55:15	0.127	9.062	3:57:18	0.127	14.027	3:59:25	0.127	11.77	3:59:39	0.22
49	4:00:15	0.127	11.253	4:01:58	0.127	14.027	4:00:33	0.127	12.047	4:01:40	0.22
50	4:05:15	0.127	9.062	4:06:11	0.127	11.506	4:06:23	0.127	11.506	4:07:19	0.22
51	4:10:15	0.127	5.851	4:10:24	0.127	16.787	4:10:27	0.127	12.047	4:13:45	0.22
52	4:15:15	0.127	9.942	4:20:10	0.127	21.787	4:15:40	0.127	14.027	4:16:08	0.22
53	4:20:15	0.127	9.752	4:22:46	0.127	16.254	4:23:02	0.127	11.253	4:22:34	0.22
54	4:25:15	0.127	10.343	4:26:07	0.127	19.321	4:26:59	0.127	11.77	4:29:31	0.22
55	4:30:15	0.127	9.57	4:31:21	0.127	15.284	4:33:44	0.127	12.047	4:33:05	0.22
56	4:35:15	0.127	11.506	4:35:23	0.127	17.356	4:39:51	0.127	14.027	4:35:37	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 17/4/2022 @ 00:00:15
End: 18/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.61 Hz
Radial: 0.127 (mm/s) @ 5.2 Hz @ 14:49:13
Transverse: 0.127 (mm/s) @ 4.32 Hz @ 19:06:27
Vertical: 0.254 (mm/s) @ 113.78 Hz @ 20:22:08
Vector Sum: .28 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:15	0.127	10.139	4:44:03	0.127	15.284	4:44:55	0.127	12.962	4:42:07	0.22
58	4:45:15	0.127	9.57	4:48:03	0.127	14.841	4:48:05	0.127	12.962	4:47:48	0.22
59	4:50:15	0.127	10.343	4:50:30	0.127	16.254	4:50:25	0.127	13.299	4:51:50	0.22
60	4:55:15	0.127	9.942	4:55:59	0.127	12.962	4:56:11	0.127	9.57	4:57:07	0.22
61	5:00:15	0.127	10.343	5:00:29	0.127	15.754	5:00:29	0.127	12.337	5:04:24	0.22
62	5:05:15	0.127	9.225	5:06:06	0.127	15.284	5:06:07	0.127	8.463	5:06:00	0.22
63	5:10:15	0.127	9.752	5:14:46	0.127	19.321	5:14:57	0.127	11.253	5:10:28	0.22
64	5:15:15	0.127	9.942	5:18:25	0.127	12.337	5:19:06	0.127	9.57	5:16:32	0.22
65	5:20:15	0.127	5.851	5:22:50	0.127	12.962	5:21:39	0.127	9.225	5:21:48	0.22
66	5:25:15	0.127	10.779	5:30:06	0.127	14.423	5:26:37	0.127	10.779	5:29:01	0.22
67	5:30:15	0.127	9.062	5:33:01	0.127	13.653	5:33:40	0.127	9.942	5:33:41	0.22
68	5:35:15	0.127	9.57	5:39:06	0.127	13.653	5:39:19	0.127	9.062	5:37:47	0.22
69	5:40:15	0.127	8.325	5:40:52	0.127	12.337	5:42:09	0.127	11.011	5:43:23	0.22
70	5:45:15	0.127	8.752	5:46:24	0.127	10.779	5:46:26	0.127	8.752	5:46:25	0.22
71	5:50:15	0.127	11.506	5:51:28	0.127	13.299	5:53:57	0.127	12.047	5:51:29	0.22
72	5:55:15	0.127	8.325	5:56:12	0.127	10.139	5:56:12	0.127	9.752	5:56:07	0.22
73	6:00:15	0.127	7.585	6:03:33	0.127	13.653	6:03:15	0.127	11.506	6:01:47	0.22
74	6:05:15	0.127	9.394	6:09:53	0.127	12.642	6:05:40	0.127	11.77	6:09:25	0.22
75	6:10:15	0.127	11.506	6:14:03	0.127	15.284	6:12:40	0.127	12.337	6:13:18	0.22
76	6:15:15	0.127	9.942	6:16:16	0.127	13.299	6:16:10	0.127	11.011	6:18:25	0.22
77	6:20:15	0.127	9.062	6:22:46	0.127	15.284	6:23:57	0.127	9.752	6:22:08	0.22
78	6:25:15	0.127	10.139	6:26:40	0.127	14.027	6:26:47	0.127	10.139	6:28:20	0.22
79	6:30:15	0.127	8.752	6:32:51	0.127	11.253	6:32:56	0.127	11.77	6:30:30	0.22
80	6:35:15	0.127	9.394	6:36:03	0.127	11.253	6:39:09	0.127	12.642	6:38:21	0.22
81	6:40:15	0.127	9.57	6:41:42	0.127	10.779	6:43:24	0.127	11.011	6:43:15	0.22
82	6:45:15	0.127	9.062	6:46:54	0.127	12.962	6:50:11	0.127	12.337	6:46:09	0.22
83	6:50:15	0.127	10.343	6:50:56	0.127	12.337	6:50:41	0.127	9.752	6:52:23	0.22
84	6:55:15	0.127	9.394	6:59:02	0.127	13.299	6:57:39	0.127	11.011	6:59:44	0.22
85	7:00:15	0.127	10.557	7:05:09	0.127	14.423	7:01:23	0.127	13.299	7:03:24	0.22
86	7:05:15	0.127	8.752	7:07:59	0.127	10.343	7:08:24	0.127	12.962	7:07:58	0.22
87	7:10:15	0.127	9.062	7:14:27	0.127	15.754	7:12:48	0.127	10.779	7:15:00	0.22
88	7:15:15	0.127	8.605	7:17:13	0.127	11.77	7:18:14	0.127	9.942	7:17:40	0.22
89	7:20:15	0.127	8.325	7:21:27	0.127	10.779	7:24:15	0.127	10.139	7:22:00	0.22
90	7:25:15	0.127	8.192	7:28:16	0.127	9.225	7:27:28	0.127	9.225	7:30:11	0.22
91	7:30:15	0.127	8.463	7:30:17	0.127	11.77	7:31:59	0.127	11.506	7:30:43	0.22
92	7:35:15	0.127	8.192	7:36:24	0.127	9.394	7:36:25	0.127	8.752	7:36:20	0.22
93	7:40:15	0.127	7.817	7:40:52	0.127	9.942	7:41:24	0.127	9.394	7:42:34	0.22
94	7:45:15	0.127	7.938	7:47:38	0.127	11.77	7:47:40	0.127	10.343	7:47:44	0.22
95	7:50:15	0.127	8.752	7:53:11	0.127	11.253	7:52:37	0.127	9.752	7:52:37	0.22
96	7:55:15	0.127	7.161	7:57:56	0.127	10.557	7:57:53	0.127	9.062	7:58:28	0.22
97	8:00:15	0.127	6.966	8:03:38	0.127	14.423	8:03:44	0.127	12.047	8:02:57	0.22
98	8:05:15	0.127	5.721	8:05:17	0.127	13.653	8:05:17	0.127	12.642	8:05:25	0.22
99	8:10:15	0.127	7.367	8:13:58	0.127	13.653	8:12:29	0.127	9.062	8:10:41	0.22
100	8:15:15	0.127	6.522	8:17:19	0.127	11.506	8:17:20	0.127	11.506	8:19:40	0.22
101	8:20:15	0.127	8.904	8:23:17	0.127	11.77	8:23:19	0.127	11.011	8:21:53	0.22
102	8:25:15	0.127	8.605	8:29:50	0.127	14.027	8:29:50	0.127	11.77	8:29:44	0.22
103	8:30:15	0.127	6.693	8:30:52	0.127	11.253	8:33:01	0.127	9.752	8:34:44	0.22
104	8:35:15	0.127	7.367	8:38:42	0.127	12.962	8:37:14	0.127	10.343	8:39:45	0.22
105	8:40:15	0.127	8.192	8:43:27	0.127	11.77	8:43:27	0.127	11.77	8:40:59	0.22
106	8:45:15	0.127	9.062	8:49:43	0.127	12.047	8:45:57	0.127	9.57	8:48:17	0.22
107	8:50:15	0.127	7.062	8:51:29	0.127	11.506	8:51:29	0.127	12.962	8:54:10	0.22
108	8:55:15	0.127	11.011	8:55:21	0.127	13.299	8:57:29	0.127	11.77	8:55:44	0.22
109	9:00:15	0.127	8.752	9:00:39	0.127	11.506	9:02:30	0.127	8.904	9:02:09	0.22
110	9:05:15	0.127	7.585	9:07:18	0.127	11.506	9:06:15	0.127	11.506	9:06:15	0.22
111	9:10:15	0.127	10.557	9:11:18	0.127	12.642	9:14:00	0.127	10.343	9:13:51	0.22
112	9:15:15	0.127	8.752	9:15:40	0.127	11.506	9:15:52	0.127	11.77	9:17:42	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 17/4/2022 @ 00:00:15
End: 18/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.61 Hz
Radial: 0.127 (mm/s) @ 5.2 Hz @ 14:49:13
Transverse: 0.127 (mm/s) @ 4.32 Hz @ 19:06:27
Vertical: 0.254 (mm/s) @ 113.78 Hz @ 20:22:08
Vector Sum: .28 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:15	0.127	7.817	9:23:30	0.127	8.752	9:23:30	0.127	11.77	9:21:19	0.22
114	9:25:15	0.127	9.225	9:25:37	0.127	15.754	9:26:03	0.127	9.752	9:29:04	0.22
115	9:30:15	0.127	8.325	9:33:50	0.127	11.506	9:30:30	0.127	11.253	9:34:48	0.22
116	9:35:15	0.127	9.062	9:37:34	0.127	11.77	9:36:53	0.127	9.57	9:36:45	0.22
117	9:40:15	0.127	9.394	9:40:29	0.127	12.962	9:41:32	0.127	9.062	9:43:27	0.22
118	9:45:15	0.127	9.225	9:49:17	0.127	11.77	9:49:43	0.127	9.752	9:47:47	0.22
119	9:50:15	0.127	5.361	9:52:03	0.127	8.904	9:52:13	0.127	9.942	9:52:03	0.22
120	9:55:15	0.127	7.699	9:55:28	0.127	14.027	9:55:27	0.127	10.779	9:55:18	0.22
121	10:00:15	0.127	6.966	10:02:50	0.127	9.942	10:02:35	0.127	8.605	10:02:31	0.22
122	10:05:15	0.127	8.904	10:06:08	0.127	14.423	10:09:17	0.127	10.139	10:07:09	0.22
123	10:10:15	0.127	8.192	10:11:49	0.127	14.027	10:12:22	0.127	8.605	10:11:38	0.22
124	10:15:15	0.127	7.474	10:20:13	0.127	8.325	10:18:43	0.127	11.011	10:16:31	0.22
125	10:20:15	0.127	9.57	10:22:20	0.127	10.343	10:21:27	0.127	11.253	10:25:03	0.22
126	10:25:15	0.127	9.394	10:29:44	0.127	16.254	10:27:22	0.127	10.343	10:30:04	0.22
127	10:30:15	0.127	9.394	10:33:35	0.127	7.817	10:32:49	0.127	9.394	10:33:27	0.22
128	10:35:15	0.127	9.225	10:35:43	0.127	14.027	10:35:53	0.127	9.752	10:35:49	0.22
129	10:40:15	0.127	7.699	10:40:48	0.127	12.337	10:40:49	0.127	10.779	10:42:03	0.22
130	10:45:15	0.127	7.474	10:46:10	0.127	12.047	10:46:18	0.127	11.011	10:48:08	0.22
131	10:50:15	0.127	7.817	10:54:27	0.127	13.299	10:53:44	0.127	9.225	10:53:34	0.22
132	10:55:15	0.127	6.206	10:59:15	0.127	8.605	10:57:01	0.127	11.011	10:56:52	0.22
133	11:00:15	0.127	9.062	11:00:19	0.127	12.642	11:03:39	0.127	9.225	11:01:58	0.22
134	11:05:15	0.127	8.904	11:05:37	0.127	14.027	11:10:05	0.127	10.139	11:09:31	0.22
135	11:10:15	0.127	9.752	11:10:36	0.127	12.337	11:10:23	0.127	11.011	11:12:32	0.22
136	11:15:15	0.127	9.394	11:19:09	0.127	16.787	11:17:37	0.127	10.557	11:19:17	0.22
137	11:20:15	0.127	10.343	11:20:19	0.127	10.139	11:24:11	0.127	9.062	11:23:47	0.22
138	11:25:15	0.127	8.605	11:28:05	0.127	14.841	11:28:04	0.127	12.642	11:29:46	0.22
139	11:30:15	0.127	10.139	11:30:54	0.127	16.254	11:32:29	0.127	11.77	11:33:07	0.22
140	11:35:15	0.127	9.062	11:37:42	0.127	10.779	11:38:38	0.127	11.77	11:37:40	0.22
141	11:40:15	0.127	9.752	11:43:04	0.127	14.027	11:44:36	0.127	10.139	11:42:11	0.22
142	11:45:15	0.127	7.585	11:49:03	0.127	14.841	11:46:50	0.127	13.299	11:46:43	0.22
143	11:50:15	0.127	7.161	11:52:48	0.127	15.754	11:52:48	0.127	10.557	11:53:36	0.22
144	11:55:15	0.127	8.463	11:59:48	0.127	14.423	11:59:43	0.127	10.557	11:57:20	0.22
145	12:00:15	0.127	5.851	12:00:31	0.127	12.337	12:01:54	0.127	11.506	12:02:07	0.22
146	12:05:15	0.127	6.206	12:08:18	0.127	9.942	12:08:23	0.127	9.942	12:08:23	0.22
147	12:10:15	0.127	9.394	12:14:15	0.127	13.653	12:14:38	0.127	10.557	12:10:32	0.22
148	12:15:15	0.127	9.394	12:18:08	0.127	9.57	12:18:47	0.127	10.139	12:15:18	0.22
149	12:20:15	0.127	7.262	12:22:28	0.127	12.962	12:21:35	0.127	10.557	12:23:32	0.22
150	12:25:15	0.127	6.606	12:27:42	0.127	10.779	12:26:55	0.127	8.904	12:26:56	0.22
151	12:30:15	0.127	7.367	12:34:39	0.127	8.463	12:32:56	0.127	11.253	12:32:19	0.22
152	12:35:15	0.127	8.192	12:37:21	0.127	11.506	12:35:51	0.127	13.299	12:35:32	0.22
153	12:40:15	0.127	6.781	12:41:39	0.127	13.299	12:41:38	0.127	8.463	12:44:32	0.22
154	12:45:15	0.127	10.139	12:45:15	0.127	12.047	12:45:32	0.127	10.139	12:45:25	0.22
155	12:50:15	0.127	10.139	12:54:39	0.127	12.047	12:50:51	0.127	11.253	12:51:14	0.22
156	12:55:15	0.127	10.343	12:59:02	0.127	14.027	12:58:57	0.127	12.047	12:58:40	0.22
157	13:00:15	0.127	7.367	13:00:35	0.127	12.642	13:02:01	0.127	12.337	13:03:37	0.22
158	13:05:15	0.127	7.817	13:05:21	0.127	11.506	13:06:35	0.127	9.394	13:05:44	0.22
159	13:10:15	0.127	9.752	13:13:49	0.127	15.284	13:13:28	0.127	10.557	13:13:46	0.22
160	13:15:15	0.127	9.225	13:16:53	0.127	16.787	13:17:24	0.127	14.027	13:20:01	0.22
161	13:20:15	0.127	6.781	13:20:40	0.127	4.719	13:20:41	0.127	10.557	13:24:58	0.22
162	13:25:15	0.127	9.225	13:29:40	0.127	6.966	13:25:45	0.127	9.225	13:29:53	0.22
163	13:30:15	0.127	8.463	13:33:46	0.127	6.522	13:32:32	0.127	11.253	13:30:41	0.22
164	13:35:15	0.127	8.752	13:37:19	0.127	6.966	13:39:45	0.127	9.752	13:39:31	0.22
165	13:40:15	0.127	6.36	13:40:59	0.127	5.919	13:40:59	0.127	8.605	13:44:31	0.22
166	13:45:15	0.127	7.585	13:48:19	0.127	6.36	13:45:14	0.127	10.779	13:48:42	0.22
167	13:50:15	0.127	9.57	13:51:52	0.127	5.851	13:53:28	0.127	8.192	13:50:18	0.22
168	13:55:15	0.127	9.394	13:59:32	0.127	8.063	13:58:45	0.127	12.642	13:57:24	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 17/4/2022 @ 00:00:15
End: 18/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.61 Hz
Radial: 0.127 (mm/s) @ 5.2 Hz @ 14:49:13
Transverse: 0.127 (mm/s) @ 4.32 Hz @ 19:06:27
Vertical: 0.254 (mm/s) @ 113.78 Hz @ 20:22:08
Vector Sum: .28 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:15	0.127	8.192	14:00:30	0.127	6.872	14:04:07	0.127	8.605	14:00:29	0.22
170	14:05:15	0.127	7.585	14:06:28	0.127	6.781	14:09:51	0.127	12.337	14:07:58	0.22
171	14:10:15	0.127	6.522	14:13:41	0.127	5.596	14:13:36	0.254	341.333	14:10:24	0.284
172	14:15:15	0.127	8.752	14:19:58	0.127	6.872	14:19:10	0.127	10.779	14:18:16	0.22
173	14:20:15	0.127	6.693	14:21:34	0.127	5.919	14:21:35	0.127	9.394	14:21:42	0.22
174	14:25:15	0.127	8.063	14:29:56	0.127	5.418	14:26:52	0.127	12.047	14:29:05	0.22
175	14:30:15	0.127	7.161	14:31:06	0.127	5.476	14:33:36	0.127	10.139	14:33:36	0.22
176	14:35:15	0.127	7.699	14:35:28	0.127	6.059	14:38:26	0.127	8.605	14:35:43	0.22
177	14:40:15	0.127	10.343	14:44:41	0.127	5.198	14:42:01	0.127	9.57	14:43:38	0.22
178	14:45:15	0.127	5.198	14:49:13	0.127	5.418	14:49:13	0.127	10.343	14:47:31	0.22
179	14:50:15	0.127	8.904	14:51:04	0.127	6.872	14:51:52	0.127	12.047	14:51:17	0.22
180	14:55:15	0.127	9.394	14:59:44	0.127	7.262	14:57:00	0.127	10.343	14:58:00	0.22
181	15:00:15	0.127	6.44	15:02:13	0.127	5.851	15:02:13	0.127	8.325	15:04:30	0.22
182	15:05:15	0.127	8.752	15:07:52	0.127	6.606	15:07:31	0.127	10.557	15:08:38	0.22
183	15:10:15	0.127	10.779	15:14:52	0.127	7.474	15:14:36	0.127	11.011	15:14:21	0.22
184	15:15:15	0.127	9.752	15:15:33	0.127	7.262	15:19:01	0.127	12.047	15:19:00	0.22
185	15:20:15	0.127	11.506	15:22:31	0.127	7.938	15:21:34	0.127	11.77	15:22:14	0.22
186	15:25:15	0.127	8.325	15:29:11	0.127	6.282	15:29:46	0.127	11.011	15:29:27	0.22
187	15:30:15	0.127	7.161	15:31:14	0.127	6.44	15:34:05	0.127	9.394	15:31:14	0.22
188	15:35:15	0.127	10.343	15:36:04	0.127	7.817	15:36:18	0.127	8.904	15:36:04	0.22
189	15:40:15	0.127	10.139	15:42:11	0.127	4.995	15:42:18	0.127	11.253	15:42:37	0.22
190	15:45:15	0.127	8.192	15:46:10	0.127	5.418	15:46:10	0.127	13.653	15:46:15	0.22
191	15:50:15	0.127	9.062	15:54:43	0.127	5.851	15:53:20	0.127	12.337	15:52:16	0.22
192	15:55:15	0.127	7.938	15:59:32	0.127	6.606	15:58:56	0.127	12.047	15:58:03	0.22
193	16:00:15	0.127	9.394	16:00:23	0.127	7.367	16:00:23	0.127	11.506	16:00:38	0.22
194	16:05:15	0.127	7.367	16:09:40	0.127	6.781	16:08:39	0.127	9.752	16:07:05	0.22
195	16:10:15	0.127	8.325	16:13:39	0.127	6.966	16:13:25	0.127	10.139	16:10:49	0.22
196	16:15:15	0.127	10.139	16:18:51	0.127	7.062	16:19:08	0.127	11.253	16:19:24	0.22
197	16:20:15	0.127	9.942	16:21:26	0.127	8.063	16:21:04	0.127	11.77	16:24:20	0.22
198	16:25:15	0.127	10.343	16:28:18	0.127	5.721	16:26:52	0.127	11.253	16:28:25	0.22
199	16:30:15	0.127	10.343	16:30:50	0.127	5.919	16:32:32	0.127	12.337	16:31:53	0.22
200	16:35:15	0.127	11.011	16:36:02	0.127	7.474	16:37:18	0.127	11.506	16:35:18	0.22
201	16:40:15	0.127	9.57	16:42:45	0.127	6.693	16:43:33	0.127	12.642	16:40:40	0.22
202	16:45:15	0.127	9.942	16:46:27	0.127	6.606	16:49:00	0.127	10.343	16:45:17	0.22
203	16:50:15	0.127	7.938	16:51:47	0.127	7.062	16:52:59	0.127	12.642	16:50:51	0.22
204	16:55:15	0.127	10.139	17:00:11	0.127	7.062	16:56:53	0.127	10.779	16:56:28	0.22
205	17:00:15	0.127	12.337	17:01:23	0.127	7.938	17:02:58	0.127	11.253	17:02:54	0.22
206	17:05:15	0.127	11.506	17:07:20	0.127	6.206	17:06:02	0.127	10.557	17:10:07	0.22
207	17:10:15	0.127	9.394	17:12:42	0.127	5.721	17:13:18	0.127	10.343	17:12:37	0.22
208	17:15:15	0.127	7.474	17:18:43	0.127	6.36	17:17:28	0.127	12.642	17:15:13	0.22
209	17:20:15	0.127	11.506	17:23:30	0.127	8.192	17:20:35	0.127	10.779	17:24:13	0.22
210	17:25:15	0.127	7.817	17:28:15	0.127	6.522	17:26:17	0.127	12.642	17:25:45	0.22
211	17:30:15	0.127	11.253	17:35:00	0.127	5.535	17:30:31	0.127	10.779	17:35:00	0.22
212	17:35:15	0.127	11.011	17:36:33	0.127	7.161	17:39:09	0.127	11.253	17:37:57	0.22
213	17:40:15	0.127	9.225	17:45:08	0.127	7.585	17:40:29	0.127	12.337	17:43:32	0.22
214	17:45:15	0.127	9.57	17:47:40	0.127	6.36	17:45:13	0.127	12.962	17:45:52	0.22
215	17:50:15	0.127	10.557	17:53:35	0.127	7.474	17:50:13	0.127	11.011	17:50:39	0.22
216	17:55:15	0.127	10.139	17:55:18	0.127	6.206	17:58:49	0.127	10.557	17:58:53	0.22
217	18:00:15	0.127	11.011	18:03:11	0.127	8.904	18:00:49	0.127	11.011	18:02:57	0.22
218	18:05:15	0.127	10.343	18:05:13	0.127	6.522	18:09:21	0.127	11.506	18:10:08	0.22
219	18:10:15	0.127	11.011	18:11:37	0.127	6.872	18:11:00	0.127	11.253	18:12:08	0.22
220	18:15:15	0.127	10.343	18:17:52	0.127	6.206	18:15:53	0.127	11.77	18:17:39	0.22
221	18:20:15	0.127	11.011	18:20:33	0.127	6.059	18:20:25	0.127	10.343	18:23:34	0.22
222	18:25:15	0.127	9.752	18:27:50	0.127	6.36	18:28:24	0.127	12.962	18:28:45	0.22
223	18:30:15	0.127	11.011	18:30:19	0.127	8.063	18:32:21	0.127	12.642	18:32:11	0.22
224	18:35:15	0.127	9.394	18:37:18	0.127	6.206	18:37:42	0.127	12.962	18:36:26	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 17/4/2022 @ 00:00:15
End: 18/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.61 Hz
Radial: 0.127 (mm/s) @ 5.2 Hz @ 14:49:13
Transverse: 0.127 (mm/s) @ 4.32 Hz @ 19:06:27
Vertical: 0.254 (mm/s) @ 113.78 Hz @ 20:22:08
Vector Sum: .28 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:15	0.127	10.557	18:41:08	0.127	7.161	18:41:36	0.127	10.343	18:40:54	0.22
226	18:45:15	0.127	11.506	18:48:16	0.127	8.063	18:50:09	0.127	11.253	18:47:22	0.22
227	18:50:15	0.127	10.139	18:51:28	0.127	6.36	18:51:30	0.127	11.77	18:52:00	0.22
228	18:55:15	0.127	11.77	18:57:09	0.127	7.262	18:59:02	0.127	12.962	18:59:51	0.22
229	19:00:15	0.127	11.253	19:01:22	0.127	6.966	19:01:28	0.127	9.225	19:01:29	0.22
230	19:05:15	0.127	10.779	19:08:31	0.127	4.321	19:06:27	0.127	11.011	19:09:18	0.22
231	19:10:15	0.127	9.752	19:13:12	0.127	6.606	19:11:06	0.127	11.253	19:14:00	0.22
232	19:15:15	0.127	9.062	19:16:48	0.127	6.522	19:17:00	0.127	11.253	19:16:53	0.22
233	19:20:15	0.127	11.011	19:23:25	0.127	5.785	19:22:07	0.127	12.047	19:21:22	0.22
234	19:25:15	0.127	10.139	19:25:57	0.127	6.872	19:28:11	0.127	11.011	19:28:07	0.22
235	19:30:15	0.127	9.57	19:32:24	0.127	6.36	19:32:01	0.127	9.225	19:34:50	0.22
236	19:35:15	0.127	12.962	19:35:49	0.127	5.198	19:39:03	0.127	12.047	19:39:45	0.22
237	19:40:15	0.127	10.779	19:42:58	0.127	6.872	19:42:05	0.127	9.225	19:44:50	0.22
238	19:45:15	0.127	9.942	19:45:31	0.127	7.367	19:48:28	0.127	11.506	19:46:00	0.22
239	19:50:15	0.127	9.57	19:50:28	0.127	6.282	19:52:55	0.127	12.962	19:52:10	0.22
240	19:55:15	0.127	13.653	19:59:07	0.127	7.699	19:58:03	0.127	10.139	19:55:16	0.22
241	20:00:15	0.127	11.506	20:04:20	0.127	6.059	20:03:20	0.127	8.904	20:04:08	0.22
242	20:05:15	0.127	11.506	20:09:46	0.127	6.206	20:06:36	0.127	12.047	20:07:09	0.22
243	20:10:15	0.127	12.047	20:13:53	0.127	7.699	20:13:22	0.127	11.506	20:13:37	0.22
244	20:15:15	0.127	10.779	20:15:16	0.127	7.367	20:16:23	0.127	11.506	20:15:19	0.22
245	20:20:15	0.127	9.942	20:24:56	0.127	7.262	20:24:59	0.254	113.778	20:22:08	0.254
246	20:25:15	0.127	11.253	20:26:59	0.127	6.206	20:27:31	0.127	12.047	20:26:36	0.22
247	20:30:15	0.127	11.77	20:34:12	0.127	6.872	20:33:23	0.127	12.047	20:35:05	0.22
248	20:35:15	0.127	8.904	20:38:57	0.127	7.474	20:35:56	0.127	11.253	20:35:56	0.22
249	20:40:15	0.127	10.779	20:44:54	0.127	7.699	20:44:14	0.127	9.062	20:43:52	0.22
250	20:45:15	0.127	10.139	20:47:51	0.127	6.872	20:48:40	0.127	10.139	20:47:59	0.22
251	20:50:15	0.127	8.325	20:54:46	0.127	6.282	20:50:52	0.127	9.942	20:51:53	0.22
252	20:55:15	0.127	10.343	20:55:26	0.127	6.282	20:55:27	0.127	9.57	20:56:47	0.22
253	21:00:15	0.127	8.463	21:00:57	0.127	6.966	21:02:59	0.127	11.253	21:01:21	0.22
254	21:05:15	0.127	9.394	21:08:22	0.127	8.063	21:09:47	0.127	11.011	21:08:24	0.22
255	21:10:15	0.127	8.063	21:14:29	0.127	7.817	21:14:53	0.127	10.779	21:14:27	0.22
256	21:15:15	0.127	9.57	21:15:29	0.127	6.44	21:18:03	0.127	10.557	21:15:31	0.22
257	21:20:15	0.127	11.77	21:23:28	0.127	6.606	21:22:08	0.127	10.343	21:22:17	0.22
258	21:25:15	0.127	7.817	21:29:39	0.127	6.606	21:27:17	0.127	10.779	21:28:35	0.22
259	21:30:15	0.127	9.752	21:31:29	0.127	7.262	21:34:51	0.127	10.139	21:31:31	0.22
260	21:35:15	0.127	9.752	21:37:42	0.127	7.367	21:39:30	0.127	12.047	21:39:30	0.22
261	21:40:15	0.127	8.904	21:40:57	0.127	6.872	21:41:05	0.127	10.779	21:42:51	0.22
262	21:45:15	0.127	12.337	21:48:43	0.127	7.474	21:49:46	0.127	13.299	21:46:12	0.22
263	21:50:15	0.127	9.57	21:51:51	0.127	6.693	21:51:43	0.127	11.506	21:53:03	0.22
264	21:55:15	0.127	9.394	21:57:18	0.127	5.919	21:57:42	0.127	9.57	21:57:18	0.22
265	22:00:15	0.127	9.57	22:05:11	0.127	6.872	22:00:31	0.127	11.506	22:02:19	0.22
266	22:05:15	0.127	11.253	22:10:07	0.127	6.872	22:08:46	0.127	10.343	22:08:19	0.22
267	22:10:15	0.127	8.752	22:14:45	0.127	7.585	22:12:09	0.127	10.557	22:15:07	0.22
268	22:15:15	0.127	9.942	22:17:09	0.127	7.062	22:16:48	0.127	11.011	22:16:23	0.22
269	22:20:15	0.127	8.463	22:25:08	0.127	7.262	22:21:50	0.127	10.139	22:23:04	0.22
270	22:25:15	0.127	10.557	22:28:37	0.127	6.36	22:26:02	0.127	12.337	22:26:54	0.22
271	22:30:15	0.127	8.192	22:31:55	0.127	6.781	22:30:49	0.127	8.192	22:31:55	0.22
272	22:35:15	0.127	11.011	22:36:48	0.127	6.206	22:38:00	0.127	12.047	22:37:30	0.22
273	22:40:15	0.127	10.343	22:43:11	0.127	6.522	22:43:42	0.127	11.011	22:42:00	0.22
274	22:45:15	0.127	11.506	22:47:53	0.127	7.699	22:46:45	0.127	10.139	22:47:48	0.22
275	22:50:15	0.127	9.394	22:54:11	0.127	5.721	22:50:48	0.127	10.779	22:50:39	0.22
276	22:55:15	0.127	12.047	22:59:57	0.127	6.206	22:58:16	0.127	12.047	22:57:12	0.22
277	23:00:15	0.127	8.325	23:01:00	0.127	5.476	23:00:48	0.127	10.139	23:02:45	0.22
278	23:05:15	0.127	10.557	23:10:06	0.127	6.44	23:06:10	0.127	11.253	23:06:40	0.22
279	23:10:15	0.127	7.262	23:12:13	0.127	6.606	23:12:49	0.127	11.011	23:13:16	0.22
280	23:15:15	0.127	12.337	23:16:43	0.127	7.262	23:15:47	0.127	11.506	23:19:04	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 17/4/2022 @ 00:00:15
End: 18/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.61 Hz
Radial: 0.127 (mm/s) @ 5.2 Hz @ 14:49:13
Transverse: 0.127 (mm/s) @ 4.32 Hz @ 19:06:27
Vertical: 0.254 (mm/s) @ 113.78 Hz @ 20:22:08
Vector Sum: .28 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:15	0.127	12.642	23:24:11	0.127	5.535	23:21:28	0.127	9.394	23:21:35	0.22
282	23:25:15	0.127	8.904	23:27:01	0.127	7.938	23:26:03	0.127	12.337	23:29:53	0.22
283	23:30:15	0.127	8.904	23:34:10	0.127	5.785	23:30:54	0.127	10.779	23:32:03	0.22
284	23:35:15	0.127	11.77	23:38:20	0.127	6.606	23:36:22	0.127	10.557	23:36:45	0.22
285	23:40:15	0.127	11.77	23:44:05	0.127	7.262	23:43:09	0.127	12.962	23:44:59	0.22
286	23:45:15	0.127	10.557	23:46:05	0.127	7.817	23:46:30	0.127	12.642	23:47:11	0.22
287	23:50:15	0.127	7.474	23:51:23	0.127	7.699	23:51:29	0.127	11.77	23:50:39	0.22
288	23:55:15	0.127	9.225	23:58:31	0.127	6.872	23:58:42	0.127	10.343	23:58:21	0.22

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

18/4/2022 at 12:00 am Event # 11

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 22.13 mm/s @ 1.28 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7714**	**12.8111**	**12.7397**
Frequency (Hz)	**17.0**	**14.2**	**24.3**

Air

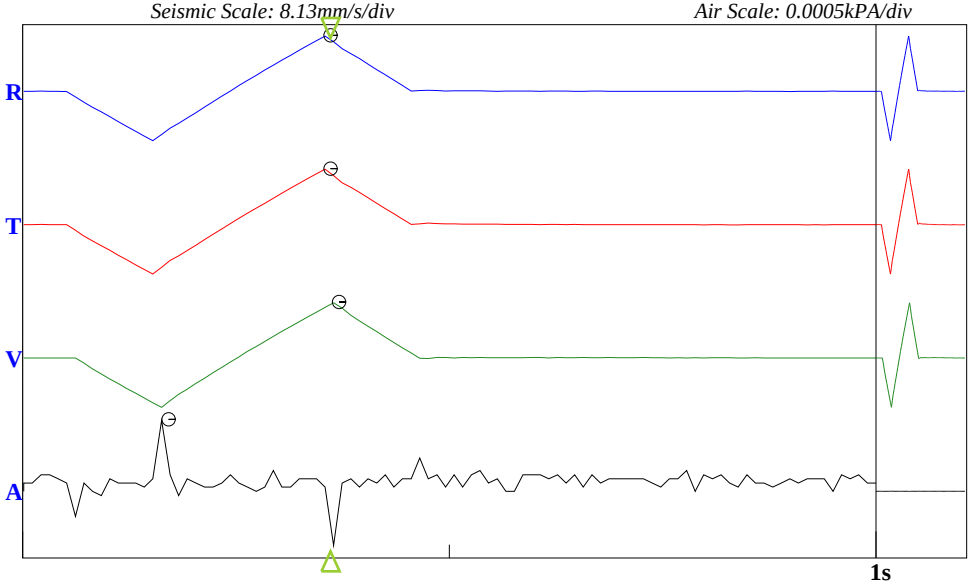
Gain: 1

Measurement	Value		
kPA	0.000484		
dBL	**87.7**		
Hz	256.0		

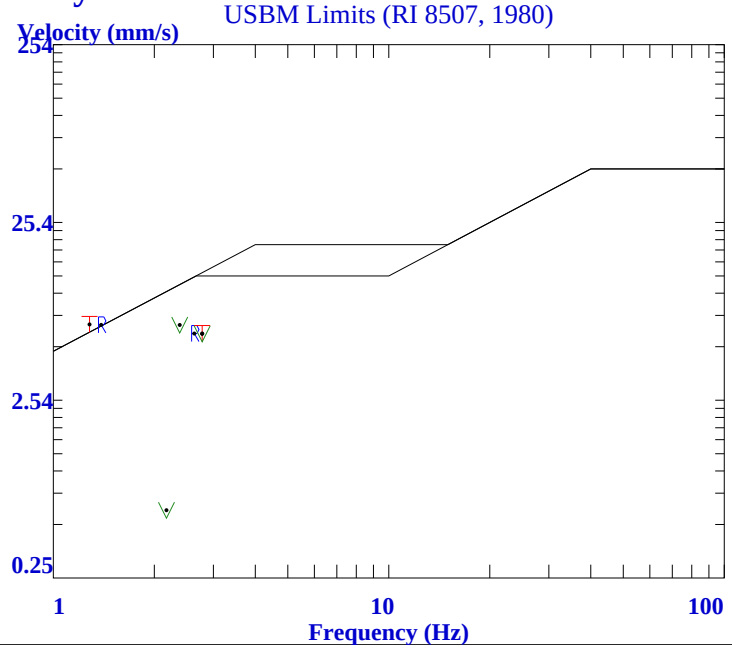
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

18/4/2022 at 12:00:13 am Event # 12

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:02 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.42 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.381**	**0.254**	**0.381**
Frequency (Hz)	**53.89**	**20.9**	**146.29**
Time	1:24:37 am	3:58:30 am	12:53:29 am

Air

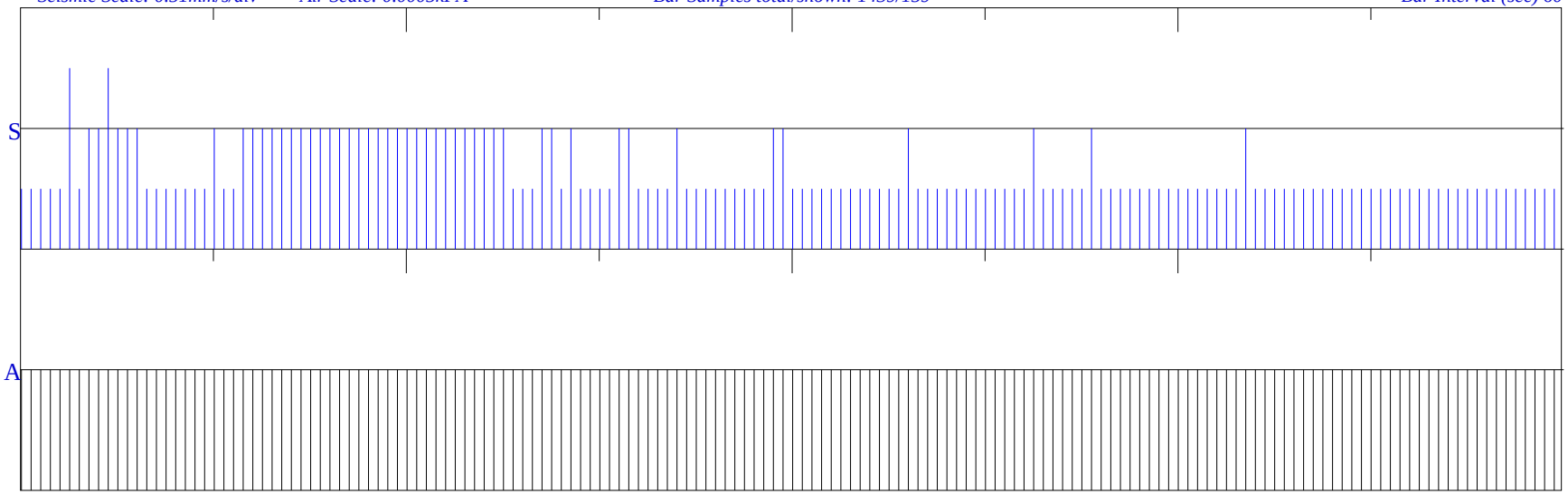
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.57		
Time	8:01:19 am		

BarGraph

Seismic Scale: 0.51mm/s/div Air Scale: 0.0005kPA Bar Samples total/shown: 1439/159

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:13 03:00:11 06:00:10 09:00:08 12:00:07 15:00:06 18:00:04 21:00:03 00:00:02

<<<<<<<<<<<<<< 23:59:49 >>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 18/4/2022 @ 00:00:13
End: 19/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.57 Hz
Radial: 0.381 (mm/s) @ 53.89 Hz @ 01:24:37
Transverse: 0.254 (mm/s) @ 20.9 Hz @ 03:58:30
Vertical: 0.381 (mm/s) @ 146.29 Hz @ 00:53:29
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:13	0.127	11.506	0:01:45	0.127	15.754	0:01:32	0.127	12.047	0:00:18	0.22
2	0:05:13	0.127	10.343	0:07:52	0.127	17.965	0:08:02	0.127	14.423	0:05:31	0.22
3	0:10:13	0.127	9.942	0:13:07	0.127	15.754	0:11:06	0.127	12.337	0:10:55	0.22
4	0:15:13	0.127	11.506	0:19:57	0.127	16.254	0:18:49	0.127	11.011	0:17:30	0.22
5	0:20:13	0.127	9.57	0:20:29	0.127	14.027	0:23:38	0.127	11.253	0:21:11	0.22
6	0:25:13	0.127	9.062	0:29:36	0.127	16.787	0:28:23	0.127	10.557	0:29:37	0.22
7	0:30:13	0.127	12.642	0:30:19	0.127	12.642	0:33:57	0.127	11.253	0:32:52	0.22
8	0:35:13	0.127	11.77	0:36:23	0.127	13.299	0:39:17	0.127	14.841	0:35:23	0.22
9	0:40:13	0.127	7.817	0:43:05	0.127	15.754	0:43:36	0.127	12.047	0:41:46	0.22
10	0:45:13	0.127	8.325	0:47:50	0.127	16.787	0:46:06	0.127	11.506	0:49:29	0.22
11	0:50:13	0.127	9.57	0:51:41	0.254	146.286	0:53:29	0.381	146.286	0:53:29	0.421
12	0:55:13	0.127	12.047	0:55:40	0.127	18.618	0:55:42	0.127	12.642	0:56:20	0.22
13	1:00:13	0.127	8.605	1:03:43	0.127	17.356	1:03:16	0.127	13.299	1:00:56	0.22
14	1:05:13	0.127	11.253	1:06:12	0.127	15.754	1:08:20	0.254	17.356	1:05:23	0.284
15	1:10:13	0.127	9.752	1:13:44	0.127	10.557	1:13:46	0.127	12.047	1:12:00	0.22
16	1:15:13	0.127	9.394	1:15:42	0.127	15.284	1:15:44	0.254	146.286	1:18:17	0.254
17	1:20:13	0.381	53.895	1:24:37	0.254	60.235	1:24:37	0.254	48.762	1:24:37	0.402
18	1:25:13	0.254	13.653	1:25:45	0.127	16.787	1:29:22	0.254	15.284	1:25:45	0.359
19	1:30:13	0.127	11.506	1:33:38	0.127	12.962	1:30:52	0.254	93.091	1:32:01	0.284
20	1:35:13	0.127	11.506	1:39:05	0.127	14.423	1:38:32	0.254	78.769	1:36:30	0.254
21	1:40:13	0.127	11.506	1:41:01	0.127	17.965	1:40:45	0.127	14.423	1:44:19	0.22
22	1:45:13	0.254	11.011	1:46:40	0.127	18.618	1:47:39	0.254	14.841	1:46:40	0.311
23	1:50:13	0.127	9.752	1:54:25	0.127	12.337	1:52:51	0.254	93.091	1:51:24	0.254
24	1:55:13	0.127	12.337	1:59:04	0.127	18.618	1:56:03	0.127	12.337	1:56:39	0.22
25	2:00:13	0.127	11.77	2:03:49	0.127	17.965	2:02:31	0.127	9.942	2:04:39	0.22
26	2:05:13	0.127	11.77	2:09:09	0.127	15.754	2:09:30	0.127	11.506	2:07:37	0.22
27	2:10:13	0.127	11.011	2:14:20	0.127	20.078	2:11:09	0.127	11.506	2:12:17	0.22
28	2:15:13	0.127	9.394	2:15:58	0.127	17.356	2:19:57	0.127	14.423	2:18:24	0.22
29	2:20:13	0.127	10.557	2:25:09	0.127	16.787	2:22:39	0.127	14.027	2:20:26	0.22
30	2:25:13	0.127	10.779	2:28:57	0.127	18.618	2:27:39	0.127	14.027	2:25:17	0.22
31	2:30:13	0.127	8.752	2:33:27	0.127	16.254	2:32:48	0.127	10.343	2:33:34	0.22
32	2:35:13	0.127	12.337	2:37:36	0.127	18.618	2:39:19	0.127	12.047	2:40:09	0.22
33	2:40:13	0.127	10.343	2:41:57	0.127	16.254	2:40:38	0.127	14.027	2:40:27	0.22
34	2:45:13	0.127	11.011	2:46:56	0.127	11.77	2:45:14	0.127	14.423	2:47:40	0.22
35	2:50:13	0.127	11.77	2:53:54	0.127	16.787	2:52:37	0.127	13.653	2:51:51	0.22
36	2:55:13	0.127	11.253	2:58:52	0.127	17.965	2:58:57	0.127	8.325	2:57:38	0.22
37	3:00:13	0.254	11.506	3:02:17	0.127	17.356	3:00:44	0.254	15.754	3:02:17	0.381
38	3:05:13	0.127	11.253	3:07:30	0.127	19.321	3:05:29	0.127	12.642	3:05:30	0.22
39	3:10:13	0.127	9.752	3:14:55	0.127	18.618	3:10:32	0.127	9.394	3:10:46	0.22
40	3:15:13	0.127	7.585	3:17:43	0.127	16.787	3:15:40	0.127	14.841	3:15:44	0.22
41	3:20:13	0.127	10.779	3:22:35	0.127	15.284	3:23:47	0.127	9.942	3:22:01	0.22
42	3:25:13	0.127	11.011	3:27:26	0.127	20.078	3:28:02	0.254	204.8	3:28:56	0.284
43	3:30:13	0.127	12.337	3:31:45	0.127	19.321	3:31:05	0.127	13.653	3:30:39	0.22
44	3:35:13	0.127	8.192	3:37:25	0.127	14.027	3:36:47	0.254	93.091	3:39:09	0.254
45	3:40:13	0.127	6.966	3:44:10	0.127	16.254	3:44:03	0.254	93.091	3:40:15	0.284
46	3:45:13	0.127	12.337	3:49:24	0.127	17.356	3:48:42	0.254	93.091	3:46:35	0.284
47	3:50:13	0.127	11.77	3:53:03	0.127	11.77	3:53:04	0.254	11.011	3:55:10	0.284
48	3:55:13	0.254	11.77	3:58:30	0.254	20.898	3:58:30	0.254	14.423	3:58:30	0.381
49	4:00:13	0.254	9.394	4:01:57	0.127	11.77	4:00:20	0.254	48.762	4:01:57	0.311
50	4:05:13	0.127	11.253	4:09:18	0.127	19.321	4:06:08	0.254	93.091	4:05:28	0.254
51	4:10:13	0.127	12.337	4:13:30	0.127	17.965	4:10:36	0.127	14.841	4:13:35	0.22
52	4:15:13	0.127	10.557	4:19:22	0.127	11.77	4:19:26	0.254	113.778	4:18:51	0.254
53	4:20:13	0.127	11.253	4:21:47	0.127	14.027	4:24:12	0.254	48.762	4:25:05	0.254
54	4:25:13	0.127	12.047	4:28:56	0.127	12.962	4:26:30	0.254	44.522	4:29:58	0.311
55	4:30:13	0.127	11.011	4:33:48	0.127	17.965	4:33:38	0.254	29.257	4:30:14	0.311
56	4:35:13	0.127	10.557	4:39:03	0.127	19.321	4:37:11	0.254	48.762	4:39:42	0.284

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 18/4/2022 @ 00:00:13
End: 19/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.57 Hz
Radial: 0.381 (mm/s) @ 53.89 Hz @ 01:24:37
Transverse: 0.254 (mm/s) @ 20.9 Hz @ 03:58:30
Vertical: 0.381 (mm/s) @ 146.29 Hz @ 00:53:29
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:13	0.254	48.762	4:42:08	0.127	16.254	4:43:10	0.254	40.96	4:44:21	0.311
58	4:45:13	0.127	12.337	4:45:30	0.127	16.787	4:48:18	0.254	44.522	4:47:57	0.311
59	4:50:13	0.127	9.942	4:54:39	0.127	16.254	4:53:09	0.254	20.078	4:50:18	0.311
60	4:55:13	0.127	8.063	4:58:56	0.127	11.253	4:59:30	0.254	48.762	4:58:47	0.311
61	5:00:13	0.127	8.463	5:03:19	0.127	10.139	5:03:21	0.254	44.522	5:00:34	0.311
62	5:05:13	0.127	10.139	5:09:28	0.127	14.841	5:08:58	0.254	48.762	5:07:05	0.311
63	5:10:13	0.127	10.139	5:11:33	0.127	12.962	5:11:33	0.254	44.522	5:15:00	0.254
64	5:15:13	0.254	48.762	5:16:44	0.127	10.557	5:16:26	0.254	40.96	5:19:01	0.311
65	5:20:13	0.127	9.57	5:23:59	0.127	11.506	5:23:56	0.254	48.762	5:21:49	0.254
66	5:25:13	0.127	10.343	5:26:16	0.127	13.653	5:28:15	0.254	53.895	5:25:32	0.284
67	5:30:13	0.127	9.394	5:34:04	0.127	14.841	5:30:45	0.254	48.762	5:30:51	0.254
68	5:35:13	0.127	7.938	5:39:46	0.127	10.779	5:38:01	0.254	53.895	5:37:38	0.254
69	5:40:13	0.127	9.394	5:44:29	0.127	11.77	5:43:07	0.254	44.522	5:42:49	0.254
70	5:45:13	0.127	9.225	5:49:33	0.127	12.642	5:49:20	0.254	93.091	5:46:42	0.254
71	5:50:13	0.127	9.225	5:52:06	0.127	12.642	5:53:06	0.254	93.091	5:50:24	0.254
72	5:55:13	0.127	5.044	5:56:33	0.127	8.325	5:56:33	0.254	60.235	5:55:24	0.254
73	6:00:13	0.127	9.062	6:03:12	0.127	12.962	6:04:31	0.254	93.091	6:04:17	0.254
74	6:05:13	0.127	8.904	6:08:24	0.127	10.343	6:08:37	0.254	93.091	6:05:40	0.254
75	6:10:13	0.127	8.192	6:13:06	0.127	10.557	6:10:59	0.254	53.895	6:12:20	0.254
76	6:15:13	0.127	7.699	6:17:05	0.127	9.57	6:16:24	0.254	60.235	6:16:20	0.254
77	6:20:13	0.127	6.36	6:22:29	0.127	11.253	6:24:15	0.254	48.762	6:23:45	0.254
78	6:25:13	0.127	7.585	6:29:48	0.127	12.337	6:26:14	0.254	68.267	6:27:35	0.254
79	6:30:13	0.127	8.752	6:30:36	0.127	12.962	6:31:46	0.254	53.895	6:34:14	0.254
80	6:35:13	0.127	8.063	6:37:34	0.127	10.779	6:36:22	0.254	60.235	6:35:39	0.254
81	6:40:13	0.127	9.394	6:43:12	0.127	12.047	6:42:45	0.254	53.895	6:41:59	0.254
82	6:45:13	0.127	7.699	6:47:01	0.127	8.463	6:47:18	0.254	93.091	6:49:31	0.254
83	6:50:13	0.127	6.872	6:52:48	0.127	10.343	6:53:50	0.254	93.091	6:51:32	0.254
84	6:55:13	0.127	5.721	7:00:10	0.127	9.394	6:55:56	0.254	93.091	6:58:10	0.254
85	7:00:13	0.127	6.872	7:03:52	0.127	8.325	7:03:32	0.254	113.778	7:00:30	0.254
86	7:05:13	0.127	6.966	7:07:17	0.127	10.343	7:09:52	0.254	146.286	7:06:23	0.254
87	7:10:13	0.127	7.367	7:11:51	0.127	8.463	7:13:24	0.254	60.235	7:13:06	0.254
88	7:15:13	0.127	6.966	7:17:15	0.127	8.325	7:17:33	0.254	68.267	7:18:51	0.254
89	7:20:13	0.127	7.062	7:20:24	0.127	11.77	7:22:12	0.254	60.235	7:25:00	0.254
90	7:25:13	0.127	6.966	7:27:40	0.127	7.938	7:29:22	0.127	9.942	7:28:26	0.22
91	7:30:13	0.127	7.585	7:31:45	0.127	10.779	7:31:46	0.254	93.091	7:32:59	0.254
92	7:35:13	0.127	7.161	7:38:44	0.127	8.752	7:36:11	0.127	11.77	7:36:07	0.22
93	7:40:13	0.127	8.463	7:41:57	0.127	9.942	7:43:27	0.127	11.506	7:45:11	0.22
94	7:45:13	0.127	6.36	7:48:54	0.127	7.161	7:48:54	0.127	10.343	7:47:36	0.22
95	7:50:13	0.127	7.062	7:53:04	0.127	8.904	7:52:19	0.127	9.57	7:50:30	0.22
96	7:55:13	0.127	6.44	7:59:00	0.127	12.047	7:59:55	0.127	9.752	8:00:03	0.22
97	8:00:13	0.127	5.596	8:00:45	0.127	9.942	8:03:00	0.127	10.779	8:01:56	0.22
98	8:05:13	0.127	6.522	8:08:38	0.127	9.752	8:06:37	0.254	113.778	8:09:44	0.284
99	8:10:13	0.127	5.721	8:13:49	0.127	9.062	8:13:50	0.127	11.253	8:13:27	0.22
100	8:15:13	0.127	7.062	8:19:19	0.127	9.394	8:19:14	0.254	93.091	8:20:02	0.284
101	8:20:13	0.127	8.063	8:21:37	0.127	10.343	8:24:51	0.127	9.57	8:21:48	0.22
102	8:25:13	0.127	6.206	8:26:42	0.127	10.557	8:26:11	0.127	11.011	8:25:20	0.22
103	8:30:13	0.127	9.225	8:31:39	0.127	8.325	8:30:17	0.254	113.778	8:35:08	0.254
104	8:35:13	0.127	7.585	8:36:52	0.127	11.506	8:36:44	0.254	146.286	8:35:34	0.254
105	8:40:13	0.127	4.853	8:40:13	0.127	9.942	8:45:04	0.127	10.557	8:43:07	0.22
106	8:45:13	0.127	7.262	8:50:02	0.127	10.557	8:45:46	0.127	9.225	8:46:41	0.22
107	8:50:13	0.127	6.606	8:54:29	0.127	7.474	8:54:29	0.127	10.139	8:54:22	0.22
108	8:55:13	0.127	7.262	8:59:56	0.127	10.139	8:57:15	0.127	9.752	8:55:54	0.22
109	9:00:13	0.127	8.192	9:01:59	0.127	10.139	9:04:37	0.127	9.57	9:04:48	0.22
110	9:05:13	0.127	8.752	9:08:56	0.127	10.779	9:07:00	0.127	9.942	9:09:28	0.22
111	9:10:13	0.127	6.606	9:10:47	0.127	10.779	9:10:47	0.127	11.011	9:12:34	0.22
112	9:15:13	0.127	6.693	9:19:31	0.127	8.325	9:19:11	0.127	11.011	9:15:23	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 18/4/2022 @ 00:00:13
End: 19/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.57 Hz
Radial: 0.381 (mm/s) @ 53.89 Hz @ 01:24:37
Transverse: 0.254 (mm/s) @ 20.9 Hz @ 03:58:30
Vertical: 0.381 (mm/s) @ 146.29 Hz @ 00:53:29
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:13	0.127	7.367	9:24:57	0.127	10.557	9:21:27	0.254	113.778	9:22:56	0.284
114	9:25:13	0.254	113.778	9:27:44	0.254	93.091	9:27:44	0.254	78.769	9:27:45	0.359
115	9:30:13	0.127	6.781	9:33:29	0.127	11.011	9:31:50	0.127	10.343	9:34:12	0.22
116	9:35:13	0.127	6.44	9:38:53	0.127	9.394	9:36:47	0.127	9.942	9:39:18	0.22
117	9:40:13	0.127	5.535	9:40:48	0.127	8.325	9:41:45	0.127	8.063	9:43:04	0.22
118	9:45:13	0.127	6.36	9:48:19	0.127	9.57	9:46:10	0.127	8.063	9:47:20	0.22
119	9:50:13	0.127	5.306	9:53:00	0.127	8.752	9:53:01	0.127	8.463	9:53:37	0.22
120	9:55:13	0.127	6.206	9:58:49	0.127	8.325	10:00:03	0.127	9.394	9:58:20	0.22
121	10:00:13	0.127	4.763	10:03:21	0.127	7.262	10:02:48	0.127	9.062	10:03:26	0.22
122	10:05:13	0.127	6.872	10:06:03	0.127	6.966	10:09:18	0.127	9.225	10:06:38	0.22
123	10:10:13	0.127	7.262	10:11:37	0.127	8.325	10:13:40	0.127	9.062	10:13:42	0.22
124	10:15:13	0.127	7.474	10:16:04	0.127	5.535	10:16:52	0.254	113.778	10:15:40	0.254
125	10:20:13	0.127	6.059	10:24:18	0.127	7.161	10:24:22	0.127	9.752	10:21:55	0.22
126	10:25:13	0.127	5.476	10:27:14	0.127	8.463	10:26:20	0.127	9.942	10:27:48	0.22
127	10:30:13	0.127	6.522	10:32:13	0.127	8.325	10:34:57	0.127	9.225	10:33:36	0.22
128	10:35:13	0.127	5.596	10:39:03	0.127	10.139	10:40:02	0.127	8.605	10:40:10	0.22
129	10:40:13	0.127	6.36	10:44:10	0.127	9.062	10:41:22	0.127	9.57	10:41:09	0.22
130	10:45:13	0.127	6.44	10:46:28	0.127	9.942	10:50:06	0.127	9.942	10:48:00	0.22
131	10:50:13	0.127	5.851	10:54:16	0.127	8.192	10:50:49	0.127	7.262	10:53:00	0.22
132	10:55:13	0.127	5.361	10:57:04	0.127	9.225	10:58:18	0.127	7.938	10:57:53	0.22
133	11:00:13	0.127	5.851	11:00:15	0.127	8.752	11:01:52	0.127	10.139	11:01:00	0.22
134	11:05:13	0.127	6.44	11:08:56	0.127	8.463	11:09:54	0.127	8.192	11:05:37	0.22
135	11:10:13	0.127	5.361	11:12:54	0.127	9.57	11:10:16	0.127	7.938	11:14:13	0.22
136	11:15:13	0.127	6.282	11:18:59	0.127	8.904	11:17:24	0.127	9.57	11:18:02	0.22
137	11:20:13	0.127	5.251	11:21:18	0.127	9.942	11:24:53	0.127	10.557	11:20:52	0.22
138	11:25:13	0.127	6.522	11:25:56	0.127	9.225	11:25:49	0.127	8.325	11:25:54	0.22
139	11:30:13	0.127	5.919	11:33:32	0.127	8.325	11:35:11	0.127	9.942	11:30:38	0.22
140	11:35:13	0.127	6.872	11:39:28	0.127	7.062	11:39:41	0.127	9.57	11:35:12	0.22
141	11:40:13	0.127	5.251	11:43:21	0.127	10.139	11:42:58	0.254	113.778	11:45:00	0.284
142	11:45:13	0.127	6.522	11:48:48	0.127	8.904	11:48:49	0.254	93.091	11:47:43	0.311
143	11:50:13	0.127	6.781	11:54:29	0.127	7.367	11:53:30	0.127	9.394	11:51:59	0.22
144	11:55:13	0.127	7.817	11:58:26	0.127	8.463	11:55:15	0.254	93.091	11:59:55	0.311
145	12:00:13	0.127	5.657	12:02:05	0.127	7.699	12:02:04	0.127	7.817	12:02:54	0.22
146	12:05:13	0.127	6.059	12:06:08	0.127	6.059	12:06:17	0.127	6.966	12:05:33	0.22
147	12:10:13	0.127	7.817	12:11:41	0.127	9.394	12:13:46	0.127	7.699	12:12:31	0.22
148	12:15:13	0.127	8.192	12:15:15	0.127	7.262	12:17:10	0.127	8.752	12:17:49	0.22
149	12:20:13	0.127	7.474	12:21:22	0.127	8.463	12:21:55	0.127	10.343	12:20:16	0.22
150	12:25:13	0.127	6.872	12:25:49	0.127	8.463	12:30:05	0.127	10.779	12:27:51	0.22
151	12:30:13	0.127	7.262	12:33:34	0.127	10.779	12:30:51	0.127	9.752	12:30:31	0.22
152	12:35:13	0.127	6.872	12:39:07	0.127	9.062	12:40:09	0.127	9.57	12:37:23	0.22
153	12:40:13	0.127	8.605	12:44:30	0.127	8.904	12:44:31	0.127	9.942	12:42:50	0.22
154	12:45:13	0.127	6.693	12:46:19	0.127	8.192	12:46:16	0.127	8.605	12:47:49	0.22
155	12:50:13	0.127	7.699	12:54:46	0.127	8.063	12:55:01	0.127	9.062	12:54:31	0.22
156	12:55:13	0.127	6.282	12:57:49	0.127	9.062	12:56:50	0.127	9.394	12:59:30	0.22
157	13:00:13	0.127	5.919	13:02:56	0.127	10.779	13:01:05	0.127	8.605	13:02:46	0.22
158	13:05:13	0.127	5.476	13:09:11	0.127	5.361	13:09:51	0.127	10.557	13:06:49	0.22
159	13:10:13	0.127	6.872	13:11:22	0.127	6.872	13:13:48	0.127	10.557	13:14:04	0.22
160	13:15:13	0.127	8.325	13:19:47	0.127	4.853	13:18:20	0.127	8.752	13:17:49	0.22
161	13:20:13	0.127	8.605	13:22:06	0.127	4.947	13:22:09	0.127	8.904	13:24:17	0.22
162	13:25:13	0.127	6.44	13:29:21	0.127	4.633	13:26:34	0.127	12.337	13:26:21	0.22
163	13:30:13	0.127	9.225	13:33:52	0.127	4.511	13:31:16	0.127	10.139	13:33:54	0.22
164	13:35:13	0.127	5.919	13:39:40	0.127	4.947	13:40:06	0.127	10.343	13:39:55	0.22
165	13:40:13	0.127	5.198	13:42:31	0.127	4.633	13:42:31	0.127	9.752	13:41:43	0.22
166	13:45:13	0.127	8.752	13:49:25	0.127	5.721	13:45:27	0.254	113.778	13:49:32	0.284
167	13:50:13	0.127	7.585	13:54:07	0.127	4.853	13:52:30	0.127	8.904	13:52:14	0.22
168	13:55:13	0.127	6.36	13:58:52	0.127	4.947	13:55:54	0.127	9.394	13:58:08	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 18/4/2022 @ 00:00:13
End: 19/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.57 Hz
Radial: 0.381 (mm/s) @ 53.89 Hz @ 01:24:37
Transverse: 0.254 (mm/s) @ 20.9 Hz @ 03:58:30
Vertical: 0.381 (mm/s) @ 146.29 Hz @ 00:53:29
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:13	0.127	6.606	14:02:56	0.127	5.306	14:00:57	0.127	11.253	14:04:34	0.22
170	14:05:13	0.127	6.132	14:08:22	0.127	5.251	14:06:37	0.127	11.506	14:09:19	0.22
171	14:10:13	0.127	5.785	14:11:30	0.127	5.361	14:10:23	0.127	8.904	14:10:13	0.22
172	14:15:13	0.127	8.063	14:15:51	0.127	4.9	14:16:00	0.127	10.343	14:17:51	0.22
173	14:20:13	0.127	6.606	14:20:51	0.127	5.535	14:20:49	0.127	10.557	14:21:39	0.22
174	14:25:13	0.127	5.251	14:30:03	0.127	4.9	14:30:03	0.127	10.343	14:27:09	0.22
175	14:30:13	0.127	6.282	14:34:16	0.127	5.044	14:33:22	0.127	9.752	14:30:35	0.22
176	14:35:13	0.127	6.872	14:35:32	0.127	4.551	14:36:02	0.127	9.394	14:36:45	0.22
177	14:40:13	0.127	6.781	14:42:47	0.127	6.522	14:41:29	0.127	7.699	14:41:22	0.22
178	14:45:13	0.127	8.192	14:45:32	0.127	4.633	14:48:54	0.127	9.57	14:49:48	0.22
179	14:50:13	0.127	6.966	14:54:06	0.127	5.251	14:51:37	0.127	9.752	14:50:29	0.22
180	14:55:13	0.127	6.781	14:59:08	0.127	5.919	14:59:06	0.127	8.904	14:57:43	0.22
181	15:00:13	0.127	7.938	15:03:32	0.127	5.596	15:04:13	0.127	10.779	15:00:27	0.22
182	15:05:13	0.127	6.206	15:09:15	0.127	5.361	15:09:15	0.127	8.904	15:05:23	0.22
183	15:10:13	0.127	7.062	15:11:41	0.127	6.059	15:13:40	0.127	9.752	15:10:18	0.22
184	15:15:13	0.127	7.585	15:20:05	0.127	6.132	15:18:41	0.127	8.752	15:16:51	0.22
185	15:20:13	0.127	7.262	15:22:27	0.127	5.785	15:22:07	0.127	9.942	15:20:44	0.22
186	15:25:13	0.127	8.063	15:25:16	0.127	4.995	15:29:03	0.127	10.779	15:29:17	0.22
187	15:30:13	0.127	7.938	15:31:23	0.127	6.44	15:30:53	0.127	9.752	15:30:52	0.22
188	15:35:13	0.127	8.063	15:37:46	0.127	5.919	15:39:48	0.127	8.752	15:37:53	0.22
189	15:40:13	0.127	8.605	15:42:31	0.127	5.919	15:44:21	0.127	9.57	15:42:59	0.22
190	15:45:13	0.254	341.333	15:49:57	0.254	341.333	15:50:00	0.254	78.769	15:49:58	0.311
191	15:50:13	0.127	7.367	15:51:21	0.127	4.551	15:51:08	0.127	8.463	15:53:18	0.22
192	15:55:13	0.127	8.063	15:55:49	0.127	6.693	15:57:04	0.127	9.57	15:55:31	0.22
193	16:00:13	0.127	7.699	16:03:04	0.127	6.36	16:03:06	0.127	11.253	16:03:58	0.22
194	16:05:13	0.127	8.063	16:08:15	0.127	5.535	16:09:49	0.127	9.752	16:06:43	0.22
195	16:10:13	0.127	6.206	16:14:30	0.127	5.476	16:11:00	0.127	11.77	16:13:30	0.22
196	16:15:13	0.127	5.721	16:17:24	0.127	4.995	16:16:56	0.127	9.062	16:17:02	0.22
197	16:20:13	0.127	7.938	16:21:20	0.127	5.535	16:21:53	0.127	9.752	16:20:38	0.22
198	16:25:13	0.127	6.966	16:26:47	0.127	4.995	16:28:04	0.127	8.752	16:25:50	0.22
199	16:30:13	0.127	8.325	16:31:16	0.127	5.306	16:30:44	0.127	10.779	16:32:35	0.22
200	16:35:13	0.127	6.872	16:38:03	0.127	5.095	16:37:05	0.127	8.605	16:37:25	0.22
201	16:40:13	0.127	7.585	16:40:39	0.127	5.095	16:43:20	0.127	10.779	16:44:12	0.22
202	16:45:13	0.254	341.333	16:46:06	0.127	5.476	16:49:50	0.254	93.091	16:46:07	0.311
203	16:50:13	0.127	7.062	16:53:53	0.127	5.785	16:52:55	0.127	7.938	16:51:39	0.22
204	16:55:13	0.127	7.474	16:56:38	0.127	5.785	16:59:51	0.127	8.605	16:56:24	0.22
205	17:00:13	0.127	7.474	17:01:56	0.127	5.146	17:04:12	0.127	8.192	17:02:25	0.22
206	17:05:13	0.127	7.585	17:09:54	0.127	4.995	17:06:46	0.127	8.904	17:06:53	0.22
207	17:10:13	0.127	7.474	17:13:06	0.127	5.361	17:10:43	0.127	8.605	17:12:16	0.22
208	17:15:13	0.127	4.853	17:19:59	0.127	6.132	17:17:35	0.127	9.225	17:17:52	0.22
209	17:20:13	0.127	7.161	17:21:20	0.127	5.146	17:21:19	0.127	10.557	17:21:01	0.22
210	17:25:13	0.127	6.36	17:28:07	0.127	4.472	17:28:03	0.127	9.942	17:29:39	0.22
211	17:30:13	0.127	7.817	17:32:37	0.127	5.851	17:32:42	0.127	9.942	17:31:06	0.22
212	17:35:13	0.127	5.919	17:36:00	0.127	6.059	17:38:36	0.127	7.262	17:39:56	0.22
213	17:40:13	0.127	5.418	17:43:27	0.127	4.719	17:44:45	0.127	10.139	17:40:48	0.22
214	17:45:13	0.127	6.606	17:45:11	0.127	5.535	17:45:26	0.127	10.779	17:49:27	0.22
215	17:50:13	0.127	8.463	17:55:03	0.127	6.206	17:55:10	0.127	11.506	17:50:26	0.22
216	17:55:13	0.127	7.062	17:56:18	0.127	5.476	17:56:19	0.127	10.557	17:55:34	0.22
217	18:00:13	0.127	7.474	18:01:59	0.127	4.146	18:02:58	0.127	9.394	18:01:25	0.22
218	18:05:13	0.127	5.919	18:07:54	0.127	4.592	18:07:04	0.127	9.942	18:08:02	0.22
219	18:10:13	0.127	7.062	18:14:24	0.127	5.657	18:11:49	0.127	10.139	18:11:09	0.22
220	18:15:13	0.127	7.585	18:15:35	0.127	5.596	18:16:53	0.127	10.343	18:15:56	0.22
221	18:20:13	0.127	6.522	18:24:17	0.127	6.781	18:22:04	0.127	9.942	18:25:10	0.22
222	18:25:13	0.127	6.781	18:28:14	0.127	5.657	18:25:10	0.127	10.779	18:28:50	0.22
223	18:30:13	0.127	8.192	18:35:08	0.127	5.851	18:34:41	0.127	9.752	18:34:08	0.22
224	18:35:13	0.127	7.699	18:38:33	0.127	6.44	18:39:53	0.127	9.394	18:35:50	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 18/4/2022 @ 00:00:13
End: 19/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.57 Hz
Radial: 0.381 (mm/s) @ 53.89 Hz @ 01:24:37
Transverse: 0.254 (mm/s) @ 20.9 Hz @ 03:58:30
Vertical: 0.381 (mm/s) @ 146.29 Hz @ 00:53:29
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:13	0.127	7.062	18:41:53	0.127	4.9	18:41:53	0.127	10.779	18:44:16	0.22
226	18:45:13	0.127	7.474	18:49:35	0.127	6.44	18:46:55	0.127	9.225	18:46:42	0.22
227	18:50:13	0.127	8.605	18:51:00	0.127	6.522	18:50:39	0.127	9.062	18:50:34	0.22
228	18:55:13	0.127	7.474	18:58:54	0.127	6.282	18:55:25	0.127	10.139	18:57:59	0.22
229	19:00:13	0.127	6.872	19:02:53	0.127	6.36	19:01:38	0.127	8.752	19:01:19	0.22
230	19:05:13	0.127	7.938	19:07:33	0.127	4.551	19:09:39	0.254	48.762	19:07:28	0.311
231	19:10:13	0.127	8.605	19:12:49	0.127	6.132	19:11:00	0.127	7.699	19:12:46	0.22
232	19:15:13	0.127	8.605	19:16:22	0.127	6.132	19:16:34	0.127	11.77	19:19:54	0.22
233	19:20:13	0.127	6.781	19:21:13	0.127	6.693	19:22:17	0.127	9.752	19:23:11	0.22
234	19:25:13	0.127	6.966	19:28:38	0.127	5.095	19:29:23	0.127	10.779	19:29:28	0.22
235	19:30:13	0.127	8.605	19:32:15	0.127	6.282	19:35:00	0.127	9.752	19:32:03	0.22
236	19:35:13	0.127	6.44	19:39:57	0.127	5.361	19:38:39	0.127	13.299	19:36:07	0.22
237	19:40:13	0.127	8.325	19:41:27	0.127	4.472	19:40:13	0.127	9.752	19:44:08	0.22
238	19:45:13	0.127	6.966	19:47:16	0.127	5.146	19:47:47	0.127	9.394	19:47:15	0.22
239	19:50:13	0.127	7.938	19:51:35	0.127	5.919	19:52:37	0.127	9.394	19:52:50	0.22
240	19:55:13	0.127	7.817	19:55:12	0.127	12.962	19:59:16	0.127	9.942	19:56:30	0.22
241	20:00:13	0.127	7.699	20:04:25	0.127	10.557	20:04:10	0.127	9.942	20:03:51	0.22
242	20:05:13	0.127	7.262	20:07:54	0.127	7.262	20:08:14	0.127	11.011	20:10:08	0.22
243	20:10:13	0.127	7.161	20:12:20	0.127	11.011	20:11:53	0.127	10.779	20:13:52	0.22
244	20:15:13	0.127	8.192	20:15:51	0.127	9.225	20:17:03	0.127	10.779	20:17:01	0.22
245	20:20:13	0.127	6.966	20:22:20	0.127	7.938	20:22:19	0.127	8.904	20:25:04	0.22
246	20:25:13	0.127	8.063	20:27:06	0.127	10.343	20:27:10	0.127	11.253	20:28:29	0.22
247	20:30:13	0.127	6.606	20:33:48	0.127	6.606	20:33:51	0.127	11.011	20:32:40	0.22
248	20:35:13	0.127	5.657	20:38:05	0.127	10.139	20:36:47	0.127	10.343	20:36:17	0.22
249	20:40:13	0.127	6.872	20:42:07	0.127	7.585	20:42:48	0.127	9.225	20:41:46	0.22
250	20:45:13	0.127	6.132	20:49:48	0.127	12.047	20:45:49	0.127	10.557	20:49:30	0.22
251	20:50:13	0.127	6.282	20:51:39	0.127	11.011	20:51:43	0.127	9.062	20:51:37	0.22
252	20:55:13	0.127	9.394	20:55:19	0.127	14.027	20:59:36	0.127	11.506	20:59:24	0.22
253	21:00:13	0.127	8.463	21:05:08	0.127	11.011	21:05:06	0.127	9.942	21:01:01	0.22
254	21:05:13	0.127	8.752	21:09:26	0.127	11.77	21:05:59	0.127	9.942	21:08:22	0.22
255	21:10:13	0.127	6.282	21:10:13	0.127	11.77	21:14:59	0.127	11.011	21:14:54	0.22
256	21:15:13	0.127	7.161	21:19:24	0.127	13.299	21:18:06	0.127	11.253	21:18:11	0.22
257	21:20:13	0.127	6.206	21:23:19	0.127	7.938	21:23:23	0.127	10.343	21:23:35	0.22
258	21:25:13	0.127	9.752	21:25:21	0.127	13.653	21:25:15	0.127	9.57	21:25:23	0.22
259	21:30:13	0.127	8.605	21:33:11	0.127	11.506	21:31:49	0.127	11.253	21:34:09	0.22
260	21:35:13	0.127	6.966	21:37:50	0.127	10.557	21:38:12	0.127	11.253	21:37:56	0.22
261	21:40:13	0.127	9.062	21:44:15	0.127	11.506	21:44:18	0.127	11.506	21:43:05	0.22
262	21:45:13	0.127	8.605	21:49:00	0.127	12.337	21:50:07	0.127	10.139	21:45:42	0.22
263	21:50:13	0.127	8.904	21:55:08	0.127	12.047	21:51:30	0.127	10.139	21:53:17	0.22
264	21:55:13	0.127	7.262	21:55:26	0.127	9.942	21:57:03	0.127	9.225	21:57:03	0.22
265	22:00:13	0.127	5.596	22:04:25	0.127	13.653	22:04:25	0.127	11.011	22:04:20	0.22
266	22:05:13	0.127	7.161	22:08:39	0.127	8.063	22:06:41	0.127	10.557	22:08:38	0.22
267	22:10:13	0.127	6.966	22:14:56	0.127	13.653	22:10:40	0.127	10.343	22:12:44	0.22
268	22:15:13	0.127	9.752	22:19:44	0.127	10.779	22:15:37	0.127	9.225	22:15:42	0.22
269	22:20:13	0.127	8.192	22:22:15	0.127	11.253	22:24:15	0.127	8.605	22:23:38	0.22
270	22:25:13	0.127	7.062	22:28:00	0.127	12.047	22:28:47	0.127	9.062	22:27:59	0.22
271	22:30:13	0.127	7.585	22:31:26	0.127	10.557	22:34:57	0.127	9.942	22:30:29	0.22
272	22:35:13	0.127	5.851	22:35:25	0.127	12.642	22:36:57	0.127	9.942	22:35:27	0.22
273	22:40:13	0.127	9.394	22:43:55	0.127	11.011	22:43:05	0.127	8.192	22:43:03	0.22
274	22:45:13	0.127	8.752	22:47:19	0.127	16.254	22:46:00	0.127	10.557	22:46:26	0.22
275	22:50:13	0.127	8.904	22:53:31	0.127	12.047	22:51:57	0.127	9.942	22:52:46	0.22
276	22:55:13	0.127	8.605	22:55:19	0.127	16.787	22:59:36	0.127	10.557	22:56:49	0.22
277	23:00:13	0.127	8.904	23:01:52	0.127	11.506	23:04:55	0.127	9.942	23:00:26	0.22
278	23:05:13	0.127	8.192	23:08:03	0.127	11.253	23:08:03	0.127	11.253	23:07:03	0.22
279	23:10:13	0.127	6.693	23:10:10	0.127	12.337	23:14:09	0.127	9.394	23:12:57	0.22
280	23:15:13	0.127	8.063	23:17:17	0.127	14.027	23:15:57	0.127	8.752	23:15:10	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 18/4/2022 @ 00:00:13
End: 19/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.57 Hz
Radial: 0.381 (mm/s) @ 53.89 Hz @ 01:24:37
Transverse: 0.254 (mm/s) @ 20.9 Hz @ 03:58:30
Vertical: 0.381 (mm/s) @ 146.29 Hz @ 00:53:29
Vector Sum: .42 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:13	0.127	8.605	23:23:22	0.127	10.557	23:20:14	0.127	9.942	23:21:44	0.22
282	23:25:13	0.127	11.253	23:28:51	0.127	16.787	23:25:26	0.127	9.942	23:27:12	0.22
283	23:30:13	0.127	7.699	23:32:39	0.127	11.253	23:32:38	0.127	11.011	23:32:52	0.22
284	23:35:13	0.127	7.699	23:38:37	0.127	9.062	23:38:40	0.127	8.325	23:38:39	0.22
285	23:40:13	0.127	8.063	23:41:32	0.127	15.754	23:43:18	0.127	10.557	23:44:33	0.22
286	23:45:13	0.127	7.585	23:46:39	0.127	13.299	23:46:33	0.127	9.942	23:46:33	0.22
287	23:50:13	0.127	10.139	23:50:44	0.127	17.965	23:52:21	0.127	12.962	23:53:38	0.22
288	23:55:13	0.127	7.585	23:57:43	0.127	9.752	23:59:14	0.127	12.337	23:58:10	0.22

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

19/4/2022 at 12:00 am Event # 13

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 22.19 mm/s @ 1.16 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	12.7952	12.8746	12.7714
Frequency (Hz)	17.0	14.6	24.3

Air

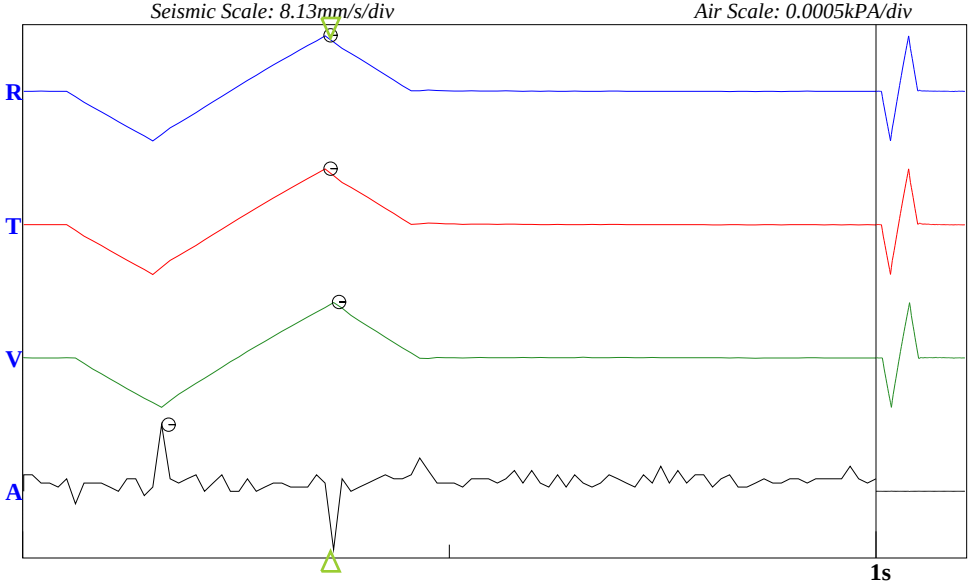
Gain: 1

Measurement	Value		
kPA	0.000484		
dBL	**87.7**		
Hz	512.0		

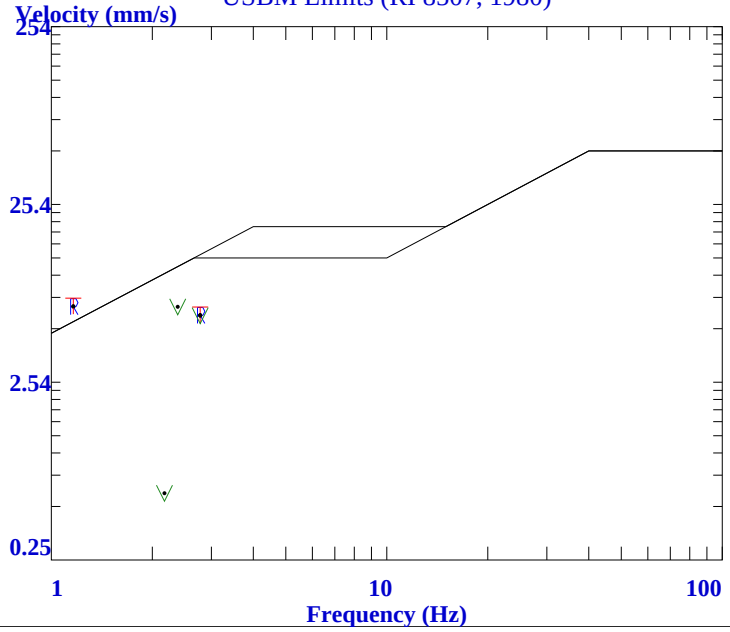
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c)) Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

19/4/2022 at 12:00:14 am Event # 14

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:00 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1 Vector Sum: 0.58 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.508**	**0.254**	**0.508**
Frequency (Hz)	**7.47**	**9.23**	**53.89**
Time	3:04:22 pm	3:43:45 pm	4:20:17 pm

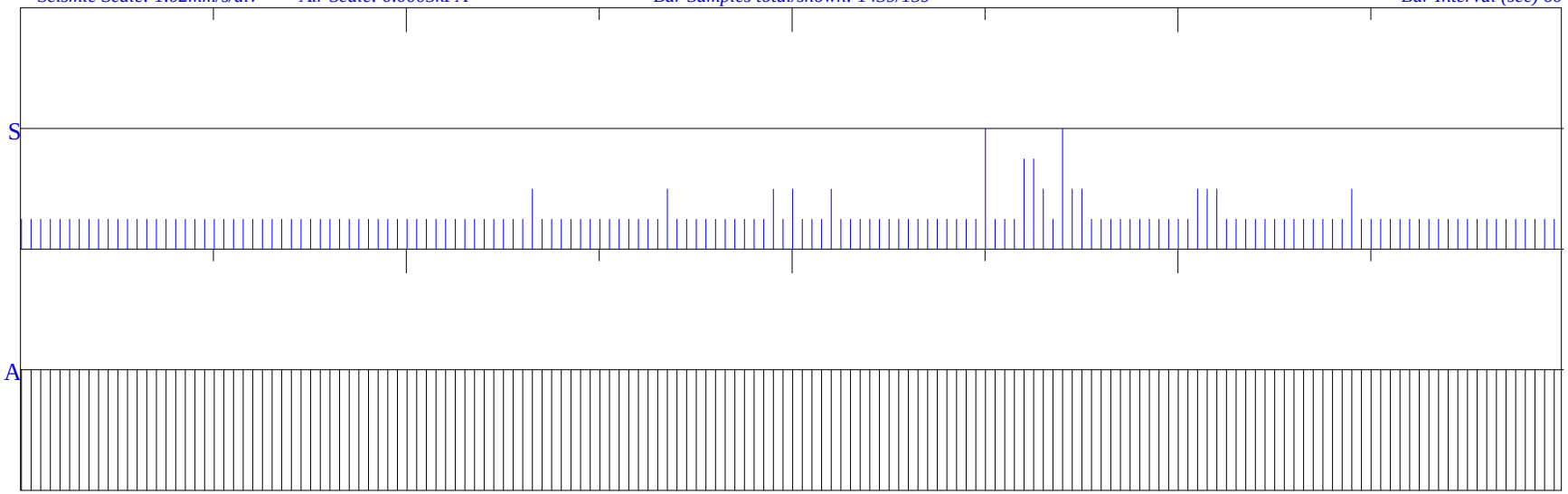
Air

Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.59		
Time	12:23:50 am		

BarGraph

Seismic Scale: 1.02mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159* *Summary Interval (min): 5* *Bar Interval (sec) 60*



00:00:14 **03:00:12** **06:00:10** **09:00:08** **12:00:07** **15:00:05** **18:00:03** **21:00:01** **00:00:00**

<<<<<<<<<<<<<< **23:59:46** >>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 19/4/2022 @ 00:00:14
End: 20/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.59 Hz
Radial: 0.508 (mm/s) @ 7.47 Hz @ 15:04:22
Transverse: 0.254 (mm/s) @ 9.23 Hz @ 15:43:45
Vertical: 0.508 (mm/s) @ 53.89 Hz @ 16:20:17
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:14	0.127	12.337	0:02:41	0.127	14.841	0:04:46	0.127	9.225	0:03:51	0.22
2	0:05:14	0.127	8.192	0:09:57	0.127	14.841	0:06:01	0.127	9.062	0:07:28	0.22
3	0:10:14	0.127	9.225	0:11:03	0.127	13.653	0:12:17	0.127	10.779	0:11:48	0.22
4	0:15:14	0.127	8.325	0:19:14	0.127	10.343	0:19:15	0.127	10.779	0:19:43	0.22
5	0:20:14	0.127	9.57	0:20:33	0.127	12.962	0:24:10	0.127	9.062	0:21:21	0.22
6	0:25:14	0.127	8.904	0:29:21	0.127	11.011	0:30:03	0.127	10.779	0:29:56	0.22
7	0:30:14	0.127	7.817	0:31:54	0.127	15.754	0:34:15	0.127	11.77	0:33:51	0.22
8	0:35:14	0.127	8.605	0:36:17	0.127	12.642	0:38:22	0.127	9.942	0:37:49	0.22
9	0:40:14	0.127	9.225	0:45:07	0.127	13.653	0:45:06	0.127	10.343	0:41:53	0.22
10	0:45:14	0.127	8.063	0:47:31	0.127	16.254	0:45:22	0.127	10.557	0:47:50	0.22
11	0:50:14	0.127	8.063	0:50:44	0.127	12.642	0:51:59	0.127	8.325	0:54:26	0.22
12	0:55:14	0.127	10.557	0:55:32	0.127	11.506	0:55:16	0.127	11.253	0:56:48	0.22
13	1:00:14	0.127	9.062	1:02:33	0.127	12.642	1:02:02	0.127	12.962	1:00:55	0.22
14	1:05:14	0.127	8.463	1:09:59	0.127	14.841	1:07:10	0.127	12.962	1:09:54	0.22
15	1:10:14	0.127	9.752	1:10:41	0.127	11.77	1:10:49	0.127	11.011	1:13:25	0.22
16	1:15:14	0.127	10.343	1:17:28	0.127	19.321	1:19:17	0.127	12.047	1:16:02	0.22
17	1:20:14	0.127	9.394	1:24:09	0.127	13.299	1:21:24	0.127	11.506	1:22:48	0.22
18	1:25:14	0.127	10.139	1:30:07	0.127	15.754	1:29:40	0.127	12.337	1:26:03	0.22
19	1:30:14	0.127	10.779	1:31:27	0.127	15.754	1:32:24	0.127	8.904	1:30:53	0.22
20	1:35:14	0.127	11.011	1:40:07	0.127	10.139	1:40:14	0.127	10.557	1:39:48	0.22
21	1:40:14	0.127	11.011	1:43:23	0.127	16.787	1:40:17	0.127	10.343	1:42:57	0.22
22	1:45:14	0.127	11.77	1:49:10	0.127	14.423	1:50:02	0.127	11.011	1:47:02	0.22
23	1:50:14	0.127	7.585	1:53:26	0.127	14.423	1:53:52	0.127	11.011	1:51:08	0.22
24	1:55:14	0.127	8.904	1:59:51	0.127	16.787	1:58:08	0.127	10.779	1:56:44	0.22
25	2:00:14	0.127	9.57	2:00:28	0.127	16.254	2:00:26	0.127	12.337	2:01:46	0.22
26	2:05:14	0.127	9.062	2:06:13	0.127	14.423	2:06:15	0.127	11.011	2:08:34	0.22
27	2:10:14	0.127	8.463	2:14:58	0.127	17.356	2:11:03	0.127	12.962	2:11:00	0.22
28	2:15:14	0.127	10.139	2:17:14	0.127	15.284	2:16:20	0.127	9.57	2:18:58	0.22
29	2:20:14	0.127	9.062	2:22:50	0.127	14.027	2:22:51	0.127	15.284	2:21:22	0.22
30	2:25:14	0.127	10.779	2:26:49	0.127	14.841	2:26:49	0.127	14.841	2:27:30	0.22
31	2:30:14	0.127	12.337	2:33:27	0.127	17.356	2:31:09	0.127	13.653	2:33:24	0.22
32	2:35:14	0.127	9.752	2:38:51	0.127	15.284	2:40:10	0.127	12.337	2:38:01	0.22
33	2:40:14	0.127	8.463	2:40:55	0.127	14.027	2:43:44	0.127	12.642	2:43:04	0.22
34	2:45:14	0.127	12.962	2:47:04	0.127	20.078	2:47:29	0.127	13.653	2:46:16	0.22
35	2:50:14	0.127	12.047	2:52:13	0.127	14.027	2:52:13	0.127	12.642	2:52:19	0.22
36	2:55:14	0.127	11.011	2:59:28	0.127	18.618	2:57:32	0.127	12.962	2:57:08	0.22
37	3:00:14	0.127	9.942	3:02:33	0.127	12.642	3:02:33	0.127	13.299	3:01:00	0.22
38	3:05:14	0.127	11.253	3:08:53	0.127	16.254	3:06:22	0.127	13.653	3:08:20	0.22
39	3:10:14	0.127	11.011	3:11:18	0.127	19.321	3:11:56	0.127	14.027	3:10:38	0.22
40	3:15:14	0.127	8.904	3:18:59	0.127	11.011	3:16:38	0.127	10.779	3:19:55	0.22
41	3:20:14	0.127	8.752	3:20:45	0.127	17.356	3:20:38	0.127	12.047	3:24:38	0.22
42	3:25:14	0.127	9.942	3:27:54	0.127	21.787	3:25:21	0.127	9.225	3:29:03	0.22
43	3:30:14	0.127	11.011	3:31:41	0.127	15.754	3:34:21	0.127	11.253	3:33:17	0.22
44	3:35:14	0.127	10.343	3:35:19	0.127	17.356	3:39:14	0.127	10.557	3:39:09	0.22
45	3:40:14	0.127	9.942	3:42:31	0.127	16.787	3:44:24	0.127	12.047	3:40:34	0.22
46	3:45:14	0.127	10.779	3:45:28	0.127	18.618	3:45:43	0.127	12.047	3:48:58	0.22
47	3:50:14	0.127	9.752	3:51:55	0.127	16.254	3:53:52	0.127	10.557	3:52:03	0.22
48	3:55:14	0.127	6.522	3:55:52	0.127	16.254	3:55:47	0.127	11.77	3:58:58	0.22
49	4:00:14	0.127	9.57	4:03:22	0.127	16.787	4:01:36	0.127	10.343	4:00:24	0.22
50	4:05:14	0.127	8.605	4:06:45	0.127	12.047	4:06:36	0.127	10.779	4:05:59	0.22
51	4:10:14	0.127	8.063	4:14:14	0.127	13.299	4:11:51	0.127	12.642	4:11:39	0.22
52	4:15:14	0.127	9.394	4:16:15	0.127	12.337	4:16:34	0.127	12.642	4:15:37	0.22
53	4:20:14	0.127	10.139	4:22:36	0.127	20.078	4:20:16	0.127	11.253	4:23:39	0.22
54	4:25:14	0.127	10.557	4:29:36	0.127	20.078	4:25:53	0.127	12.962	4:27:05	0.22
55	4:30:14	0.127	7.817	4:35:10	0.127	15.754	4:34:57	0.127	13.653	4:35:07	0.22
56	4:35:14	0.127	9.062	4:38:41	0.127	15.754	4:38:52	0.127	13.653	4:38:07	0.22

CH2M HILL SPORE PTE LTD
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Summary Interval: 288
Air: 81.9 dBL @ 0.59 Hz
Radial: 0.508 (mm/s) @ 7.47 Hz @ 15:04:22
Transverse: 0.254 (mm/s) @ 9.23 Hz @ 15:43:45
Vertical: 0.508 (mm/s) @ 53.89 Hz @ 16:20:17
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:14	0.127	9.942	4:44:59	0.127	17.965	4:42:05	0.127	11.77	4:43:23	0.22
58	4:45:14	0.127	6.966	4:49:50	0.127	13.653	4:48:59	0.127	11.77	4:46:22	0.22
59	4:50:14	0.127	8.063	4:53:13	0.127	13.653	4:53:28	0.127	12.047	4:54:15	0.22
60	4:55:14	0.127	10.343	4:57:32	0.127	14.841	4:55:21	0.127	12.962	4:56:53	0.22
61	5:00:14	0.127	9.752	5:02:27	0.127	16.254	5:02:34	0.127	11.506	5:02:30	0.22
62	5:05:14	0.127	8.463	5:05:34	0.127	12.962	5:08:46	0.127	9.752	5:07:37	0.22
63	5:10:14	0.127	10.779	5:12:21	0.127	11.506	5:11:26	0.127	13.653	5:11:54	0.22
64	5:15:14	0.127	8.904	5:19:38	0.127	14.841	5:15:28	0.127	11.011	5:15:28	0.22
65	5:20:14	0.127	6.693	5:20:50	0.127	11.011	5:24:32	0.127	9.57	5:23:18	0.22
66	5:25:14	0.127	7.474	5:27:17	0.127	13.299	5:26:46	0.127	9.942	5:27:51	0.22
67	5:30:14	0.127	7.474	5:33:44	0.127	12.337	5:33:49	0.127	9.394	5:31:57	0.22
68	5:35:14	0.127	9.394	5:35:58	0.127	12.962	5:37:00	0.127	11.506	5:38:18	0.22
69	5:40:14	0.127	8.605	5:40:28	0.127	10.139	5:44:05	0.127	9.062	5:44:05	0.22
70	5:45:14	0.127	7.938	5:45:50	0.127	12.337	5:49:55	0.127	10.779	5:46:34	0.22
71	5:50:14	0.127	8.192	5:52:05	0.127	9.225	5:52:02	0.127	8.752	5:51:59	0.22
72	5:55:14	0.127	8.463	5:57:50	0.127	10.557	5:55:19	0.127	9.394	5:55:19	0.22
73	6:00:14	0.127	6.522	6:02:45	0.127	12.337	6:03:54	0.127	10.557	6:03:55	0.22
74	6:05:14	0.127	8.605	6:09:18	0.127	11.253	6:05:21	0.127	10.343	6:08:24	0.22
75	6:10:14	0.127	7.262	6:13:29	0.127	12.642	6:14:09	0.127	10.343	6:15:01	0.22
76	6:15:14	0.127	8.192	6:17:06	0.127	12.962	6:15:17	0.127	10.343	6:19:31	0.22
77	6:20:14	0.127	7.062	6:22:29	0.127	9.752	6:21:54	0.127	8.463	6:21:58	0.22
78	6:25:14	0.127	5.306	6:29:17	0.127	6.693	6:29:17	0.127	9.942	6:28:52	0.22
79	6:30:14	0.127	6.44	6:33:58	0.127	11.506	6:34:16	0.127	12.962	6:32:18	0.22
80	6:35:14	0.127	7.938	6:38:30	0.127	11.011	6:39:04	0.127	9.225	6:36:32	0.22
81	6:40:14	0.127	7.367	6:43:42	0.127	11.253	6:41:21	0.127	9.57	6:41:16	0.22
82	6:45:14	0.127	8.605	6:48:42	0.127	12.337	6:50:08	0.127	10.343	6:46:24	0.22
83	6:50:14	0.127	6.966	6:51:36	0.127	12.047	6:53:15	0.127	13.299	6:50:27	0.22
84	6:55:14	0.127	5.919	6:56:59	0.127	7.474	6:55:20	0.127	9.062	6:57:39	0.22
85	7:00:14	0.127	5.596	7:04:36	0.127	9.394	7:03:30	0.127	9.57	7:03:25	0.22
86	7:05:14	0.127	7.938	7:09:39	0.127	10.779	7:10:07	0.127	9.225	7:05:50	0.22
87	7:10:14	0.127	6.966	7:11:37	0.127	6.872	7:14:34	0.127	10.139	7:12:13	0.22
88	7:15:14	0.127	7.585	7:19:33	0.127	8.192	7:18:27	0.127	9.752	7:19:43	0.22
89	7:20:14	0.127	6.206	7:24:23	0.127	9.57	7:24:23	0.127	10.779	7:21:11	0.22
90	7:25:14	0.127	5.251	7:25:44	0.127	5.596	7:28:39	0.127	9.752	7:26:04	0.22
91	7:30:14	0.127	6.781	7:30:33	0.127	10.343	7:30:33	0.127	9.57	7:32:27	0.22
92	7:35:14	0.127	5.418	7:39:02	0.127	6.606	7:39:02	0.127	8.752	7:36:36	0.22
93	7:40:14	0.127	5.418	7:43:35	0.127	9.225	7:41:31	0.127	9.942	7:41:01	0.22
94	7:45:14	0.127	5.361	7:49:07	0.127	7.262	7:49:52	0.127	9.394	7:47:58	0.22
95	7:50:14	0.127	6.522	7:52:59	0.127	9.57	7:50:42	0.127	11.011	7:54:46	0.22
96	7:55:14	0.254	204.8	7:59:28	0.127	7.262	7:56:42	0.254	60.235	7:59:18	0.311
97	8:00:14	0.127	6.36	8:00:41	0.127	9.394	8:00:46	0.254	93.091	8:00:25	0.311
98	8:05:14	0.127	5.535	8:07:45	0.127	10.343	8:09:05	0.127	9.942	8:08:41	0.22
99	8:10:14	0.127	6.606	8:11:38	0.127	7.699	8:13:19	0.127	10.139	8:14:30	0.22
100	8:15:14	0.127	5.988	8:16:51	0.127	11.253	8:15:19	0.127	11.253	8:17:34	0.22
101	8:20:14	0.127	7.062	8:20:45	0.127	9.752	8:25:13	0.127	9.57	8:22:05	0.22
102	8:25:14	0.127	5.785	8:27:35	0.127	8.752	8:26:53	0.127	10.557	8:27:27	0.22
103	8:30:14	0.127	6.872	8:30:19	0.127	10.557	8:34:07	0.127	12.047	8:31:30	0.22
104	8:35:14	0.127	7.367	8:36:06	0.127	8.605	8:36:32	0.127	9.225	8:37:17	0.22
105	8:40:14	0.127	7.585	8:44:20	0.127	9.752	8:45:03	0.127	11.011	8:44:01	0.22
106	8:45:14	0.127	6.872	8:48:42	0.127	8.463	8:46:17	0.127	11.253	8:47:01	0.22
107	8:50:14	0.127	6.781	8:54:37	0.127	10.557	8:54:38	0.127	12.962	8:53:11	0.22
108	8:55:14	0.127	6.282	8:56:33	0.127	7.938	8:56:32	0.127	10.557	8:57:46	0.22
109	9:00:14	0.127	7.938	9:02:18	0.127	9.942	9:01:00	0.127	9.062	9:02:47	0.22
110	9:05:14	0.127	5.044	9:07:49	0.127	9.752	9:06:34	0.127	11.77	9:06:32	0.22
111	9:10:14	0.127	5.988	9:11:49	0.127	6.966	9:10:55	0.127	11.253	9:13:59	0.22
112	9:15:14	0.127	7.262	9:19:50	0.127	9.394	9:16:53	0.127	8.463	9:16:53	0.22

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Transverse: 0.254 (mm/s) @ 9.23 Hz @ 15:43:45
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Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:14	0.127	7.062	9:23:51	0.127	10.779	9:22:39	0.127	11.011	9:22:06	0.22
114	9:25:14	0.127	6.693	9:28:10	0.127	8.605	9:29:36	0.127	10.139	9:28:36	0.22
115	9:30:14	0.127	7.367	9:31:46	0.127	9.225	9:32:26	0.127	12.047	9:33:42	0.22
116	9:35:14	0.127	6.206	9:37:07	0.127	8.063	9:37:07	0.127	10.343	9:38:33	0.22
117	9:40:14	0.127	7.367	9:40:43	0.127	8.752	9:42:02	0.127	9.57	9:42:59	0.22
118	9:45:14	0.127	5.657	9:45:50	0.127	6.522	9:45:50	0.127	12.337	9:49:17	0.22
119	9:50:14	0.127	7.062	9:51:08	0.127	10.557	9:51:48	0.127	8.325	9:50:52	0.22
120	9:55:14	0.127	6.059	9:57:59	0.127	10.139	9:59:12	0.127	9.225	9:56:19	0.22
121	10:00:14	0.254	341.333	10:03:20	0.127	8.463	10:01:07	0.254	341.333	10:03:20	0.284
122	10:05:14	0.127	7.817	10:06:04	0.127	9.062	10:06:56	0.127	10.139	10:06:50	0.22
123	10:10:14	0.127	6.966	10:12:15	0.127	9.57	10:12:14	0.127	11.011	10:11:51	0.22
124	10:15:14	0.127	7.585	10:18:25	0.127	8.192	10:17:58	0.127	10.139	10:15:54	0.22
125	10:20:14	0.127	7.062	10:22:00	0.127	9.062	10:23:01	0.127	10.557	10:23:05	0.22
126	10:25:14	0.127	7.262	10:29:11	0.127	8.752	10:25:34	0.127	8.063	10:27:51	0.22
127	10:30:14	0.127	5.919	10:34:37	0.127	7.062	10:34:50	0.127	11.506	10:33:02	0.22
128	10:35:14	0.127	5.657	10:36:15	0.127	7.585	10:36:16	0.127	9.57	10:37:34	0.22
129	10:40:14	0.127	5.306	10:40:40	0.127	7.262	10:40:41	0.127	9.752	10:43:51	0.22
130	10:45:14	0.127	7.474	10:46:46	0.127	9.752	10:49:26	0.127	9.394	10:45:35	0.22
131	10:50:14	0.127	7.062	10:53:35	0.127	9.942	10:53:25	0.127	9.57	10:50:58	0.22
132	10:55:14	0.127	7.367	10:57:51	0.127	9.062	10:57:00	0.127	8.752	10:57:29	0.22
133	11:00:14	0.127	7.938	11:03:45	0.127	8.325	11:03:55	0.127	9.942	11:03:38	0.22
134	11:05:14	0.127	5.657	11:09:31	0.127	8.605	11:05:35	0.127	9.752	11:08:46	0.22
135	11:10:14	0.127	5.361	11:14:14	0.127	10.343	11:10:38	0.127	9.752	11:11:50	0.22
136	11:15:14	0.127	7.262	11:18:47	0.127	8.325	11:18:13	0.127	9.062	11:15:57	0.22
137	11:20:14	0.127	6.206	11:23:06	0.127	5.988	11:22:49	0.127	8.752	11:20:14	0.22
138	11:25:14	0.127	5.657	11:26:47	0.127	8.605	11:28:31	0.127	8.605	11:26:01	0.22
139	11:30:14	0.127	5.361	11:32:54	0.127	8.605	11:32:54	0.127	9.225	11:32:19	0.22
140	11:35:14	0.127	6.44	11:36:52	0.127	8.463	11:37:59	0.127	10.139	11:36:20	0.22
141	11:40:14	0.127	6.522	11:41:40	0.127	10.139	11:40:20	0.254	204.8	11:42:27	0.311
142	11:45:14	0.127	6.522	11:49:10	0.127	7.699	11:49:54	0.254	93.091	11:47:41	0.311
143	11:50:14	0.127	7.161	11:50:19	0.127	8.904	11:55:13	0.127	10.139	11:54:23	0.22
144	11:55:14	0.127	6.781	11:55:14	0.127	6.872	11:56:09	0.127	8.463	11:55:37	0.22
145	12:00:14	0.127	7.585	12:03:19	0.127	9.752	12:03:45	0.254	93.091	12:00:40	0.311
146	12:05:14	0.127	6.872	12:09:36	0.127	8.605	12:09:33	0.127	10.139	12:08:25	0.22
147	12:10:14	0.127	7.938	12:11:33	0.127	10.779	12:11:19	0.127	10.139	12:11:00	0.22
148	12:15:14	0.127	6.206	12:19:25	0.127	8.904	12:16:50	0.127	9.942	12:20:06	0.22
149	12:20:14	0.127	6.693	12:21:56	0.127	10.343	12:22:43	0.127	10.343	12:20:48	0.22
150	12:25:14	0.127	6.522	12:28:25	0.127	8.463	12:25:32	0.127	7.474	12:25:28	0.22
151	12:30:14	0.127	6.781	12:32:58	0.127	8.904	12:33:28	0.127	9.942	12:33:01	0.22
152	12:35:14	0.254	341.333	12:37:03	0.127	12.642	12:39:17	0.254	146.286	12:37:03	0.311
153	12:40:14	0.127	6.606	12:41:10	0.127	9.942	12:42:39	0.127	9.942	12:42:55	0.22
154	12:45:14	0.127	7.062	12:45:29	0.127	9.394	12:49:01	0.127	8.752	12:47:03	0.22
155	12:50:14	0.127	7.474	12:53:06	0.127	8.325	12:50:55	0.127	9.942	12:51:08	0.22
156	12:55:14	0.127	5.146	12:56:26	0.127	11.506	12:58:34	0.127	9.752	12:56:49	0.22
157	13:00:14	0.127	6.781	13:00:50	0.127	12.337	13:03:03	0.127	11.253	13:00:48	0.22
158	13:05:14	0.127	6.966	13:06:51	0.127	8.063	13:09:49	0.127	8.904	13:05:42	0.22
159	13:10:14	0.127	7.062	13:10:38	0.127	9.394	13:13:28	0.127	9.394	13:12:00	0.22
160	13:15:14	0.127	7.161	13:16:55	0.127	11.011	13:17:12	0.127	8.605	13:19:14	0.22
161	13:20:14	0.127	6.693	13:25:10	0.127	9.062	13:20:30	0.127	11.506	13:24:33	0.22
162	13:25:14	0.127	7.817	13:27:34	0.127	12.047	13:25:50	0.127	9.225	13:29:28	0.22
163	13:30:14	0.127	7.367	13:32:51	0.127	11.253	13:30:22	0.127	9.942	13:31:32	0.22
164	13:35:14	0.127	5.988	13:38:35	0.127	5.596	13:38:35	0.127	8.463	13:35:44	0.22
165	13:40:14	0.127	6.36	13:41:58	0.127	8.605	13:41:24	0.127	9.57	13:40:27	0.22
166	13:45:14	0.127	6.966	13:46:31	0.127	9.394	13:49:31	0.127	9.57	13:47:47	0.22
167	13:50:14	0.127	5.535	13:54:50	0.127	9.942	13:51:17	0.127	10.343	13:50:40	0.22
168	13:55:14	0.127	7.161	13:58:08	0.127	9.394	13:58:15	0.127	8.463	13:58:09	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 19/4/2022 @ 00:00:14
End: 20/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.59 Hz
Radial: 0.508 (mm/s) @ 7.47 Hz @ 15:04:22
Transverse: 0.254 (mm/s) @ 9.23 Hz @ 15:43:45
Vertical: 0.508 (mm/s) @ 53.89 Hz @ 16:20:17
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:14	0.127	7.367	14:04:19	0.127	11.011	14:02:41	0.127	10.139	14:00:53	0.22
170	14:05:14	0.127	8.063	14:07:51	0.127	11.011	14:08:17	0.127	8.752	14:09:02	0.22
171	14:10:14	0.127	7.367	14:14:30	0.127	8.752	14:14:09	0.127	9.225	14:11:20	0.22
172	14:15:14	0.127	7.161	14:15:47	0.127	11.506	14:17:50	0.127	9.394	14:18:02	0.22
173	14:20:14	0.127	6.44	14:23:36	0.127	8.325	14:23:38	0.127	9.394	14:23:39	0.22
174	14:25:14	0.127	6.36	14:28:43	0.127	8.325	14:28:08	0.127	10.557	14:27:42	0.22
175	14:30:14	0.127	6.282	14:33:41	0.127	6.781	14:33:43	0.127	8.063	14:31:03	0.22
176	14:35:14	0.127	8.325	14:36:35	0.127	9.225	14:36:55	0.127	10.779	14:37:19	0.22
177	14:40:14	0.127	5.418	14:43:47	0.127	7.161	14:40:49	0.127	7.817	14:42:45	0.22
178	14:45:14	0.127	5.361	14:49:40	0.127	8.904	14:48:43	0.127	9.225	14:46:49	0.22
179	14:50:14	0.127	7.699	14:52:22	0.127	10.139	14:50:38	0.127	9.394	14:51:18	0.22
180	14:55:14	0.127	6.872	14:58:52	0.127	9.942	14:55:23	0.127	8.463	14:57:23	0.22
181	15:00:14	0.508	7.474	15:04:22	0.254	10.557	15:04:22	0.127	10.343	15:00:57	0.568
182	15:05:14	0.127	8.463	15:07:36	0.127	10.557	15:07:17	0.127	10.557	15:06:07	0.22
183	15:10:14	0.127	6.522	15:14:04	0.127	10.139	15:12:31	0.127	11.506	15:10:40	0.22
184	15:15:14	0.127	6.966	15:19:34	0.127	9.394	15:16:06	0.127	10.343	15:19:24	0.22
185	15:20:14	0.127	5.657	15:21:02	0.127	10.557	15:21:00	0.127	9.942	15:22:24	0.22
186	15:25:14	0.127	7.699	15:27:31	0.127	9.942	15:26:49	0.127	9.942	15:25:48	0.22
187	15:30:14	0.127	6.781	15:34:27	0.127	9.57	15:31:25	0.127	10.779	15:33:36	0.22
188	15:35:14	0.127	6.206	15:36:56	0.127	7.817	15:40:04	0.254	9.57	15:40:09	0.311
189	15:40:14	0.127	6.966	15:43:21	0.254	9.225	15:43:45	0.381	68.267	15:42:57	0.402
190	15:45:14	0.127	6.781	15:46:11	0.127	9.942	15:48:56	0.381	146.286	15:45:56	0.421
191	15:50:14	0.127	7.262	15:54:20	0.127	8.463	15:54:45	0.254	146.286	15:54:11	0.311
192	15:55:14	0.127	7.585	15:57:10	0.127	10.139	15:57:25	0.254	10.557	15:57:21	0.311
193	16:00:14	0.127	6.872	16:03:21	0.127	8.325	16:00:27	0.127	8.325	16:03:09	0.22
194	16:05:14	0.127	5.919	16:06:55	0.127	7.474	16:06:57	0.127	9.752	16:07:04	0.22
195	16:10:14	0.254	53.895	16:14:00	0.254	93.091	16:14:38	0.254	53.895	16:13:12	0.311
196	16:15:14	0.381	113.778	16:15:53	0.254	20.898	16:15:53	0.508	68.267	16:15:53	0.582
197	16:20:14	0.381	113.778	16:20:19	0.254	19.321	16:20:17	0.508	53.895	16:20:17	0.524
198	16:25:14	0.254	12.962	16:25:22	0.254	93.091	16:25:45	0.254	68.267	16:29:27	0.359
199	16:30:14	0.254	17.965	16:30:16	0.127	8.752	16:34:41	0.254	93.091	16:30:44	0.311
200	16:35:14	0.127	8.063	16:35:24	0.127	8.904	16:37:36	0.254	113.778	16:36:57	0.254
201	16:40:14	0.127	7.938	16:44:49	0.127	10.343	16:42:10	0.127	9.062	16:43:26	0.22
202	16:45:14	0.127	6.206	16:46:04	0.127	10.343	16:49:43	0.127	9.394	16:49:10	0.22
203	16:50:14	0.127	8.904	16:51:55	0.127	10.557	16:50:54	0.127	8.325	16:54:04	0.22
204	16:55:14	0.127	9.062	16:56:05	0.127	10.557	16:59:49	0.127	9.942	16:57:31	0.22
205	17:00:14	0.127	6.693	17:03:05	0.127	9.942	17:03:57	0.127	10.779	17:01:58	0.22
206	17:05:14	0.127	4.9	17:08:13	0.127	9.942	17:05:53	0.127	10.343	17:10:04	0.22
207	17:10:14	0.127	6.606	17:12:47	0.127	8.463	17:12:23	0.127	8.192	17:12:10	0.22
208	17:15:14	0.127	5.596	17:19:42	0.127	7.161	17:19:41	0.127	8.904	17:17:42	0.22
209	17:20:14	0.127	7.161	17:22:30	0.127	10.139	17:20:46	0.127	8.325	17:22:22	0.22
210	17:25:14	0.127	5.657	17:29:39	0.127	8.325	17:29:38	0.127	9.942	17:27:51	0.22
211	17:30:14	0.127	5.535	17:33:20	0.127	7.367	17:33:57	0.127	9.394	17:32:19	0.22
212	17:35:14	0.127	7.699	17:35:53	0.127	8.904	17:38:19	0.127	9.942	17:36:58	0.22
213	17:40:14	0.127	6.132	17:40:28	0.127	9.752	17:41:32	0.127	11.011	17:43:52	0.22
214	17:45:14	0.127	7.161	17:47:47	0.127	10.779	17:47:32	0.127	9.942	17:45:41	0.22
215	17:50:14	0.127	6.606	17:52:09	0.127	8.463	17:53:39	0.127	9.062	17:51:42	0.22
216	17:55:14	0.127	6.059	17:56:35	0.127	7.262	17:56:40	0.127	11.506	17:56:04	0.22
217	18:00:14	0.127	7.367	18:01:28	0.127	6.282	18:04:16	0.127	8.904	18:04:16	0.22
218	18:05:14	0.127	7.585	18:06:35	0.127	8.752	18:07:57	0.127	10.139	18:07:33	0.22
219	18:10:14	0.127	6.36	18:10:45	0.127	9.062	18:13:32	0.127	11.011	18:14:24	0.22
220	18:15:14	0.127	6.872	18:19:29	0.127	9.752	18:19:25	0.254	204.8	18:18:30	0.254
221	18:20:14	0.127	7.161	18:25:04	0.127	6.132	18:24:26	0.254	93.091	18:23:39	0.254
222	18:25:14	0.127	8.463	18:26:51	0.127	5.721	18:29:23	0.254	113.778	18:29:20	0.254
223	18:30:14	0.127	7.161	18:34:27	0.127	5.785	18:35:00	0.127	11.77	18:30:24	0.22
224	18:35:14	0.127	5.535	18:35:38	0.127	6.282	18:36:27	0.127	12.047	18:35:19	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 19/4/2022 @ 00:00:14
End: 20/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.59 Hz
Radial: 0.508 (mm/s) @ 7.47 Hz @ 15:04:22
Transverse: 0.254 (mm/s) @ 9.23 Hz @ 15:43:45
Vertical: 0.508 (mm/s) @ 53.89 Hz @ 16:20:17
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:14	0.127	8.192	18:42:06	0.127	4.995	18:42:17	0.254	93.091	18:44:57	0.254
226	18:45:14	0.127	5.361	18:48:11	0.127	4.853	18:46:51	0.127	10.779	18:49:11	0.22
227	18:50:14	0.127	7.367	18:53:17	0.127	5.251	18:54:41	0.127	10.779	18:53:45	0.22
228	18:55:14	0.127	9.062	18:56:04	0.127	5.044	18:58:16	0.127	11.253	18:56:45	0.22
229	19:00:14	0.127	8.463	19:03:51	0.127	5.418	19:03:49	0.127	10.557	19:05:07	0.22
230	19:05:14	0.127	7.161	19:09:29	0.127	5.721	19:09:30	0.127	10.779	19:09:14	0.22
231	19:10:14	0.127	6.693	19:10:47	0.127	4.947	19:15:06	0.127	9.394	19:14:22	0.22
232	19:15:14	0.127	9.942	19:18:00	0.127	6.059	19:18:19	0.127	8.904	19:18:01	0.22
233	19:20:14	0.127	6.522	19:21:33	0.127	5.657	19:21:34	0.127	9.942	19:20:21	0.22
234	19:25:14	0.127	6.872	19:27:46	0.127	6.44	19:26:31	0.127	10.779	19:30:01	0.22
235	19:30:14	0.127	7.817	19:32:02	0.127	6.132	19:33:35	0.127	11.77	19:33:15	0.22
236	19:35:14	0.127	8.904	19:36:13	0.127	5.198	19:37:17	0.127	9.942	19:35:54	0.22
237	19:40:14	0.127	8.463	19:42:12	0.127	6.132	19:42:53	0.127	9.57	19:41:07	0.22
238	19:45:14	0.127	5.306	19:49:29	0.127	4.511	19:46:25	0.127	10.557	19:48:21	0.22
239	19:50:14	0.127	7.699	19:53:30	0.127	5.361	19:53:28	0.127	12.642	19:51:52	0.22
240	19:55:14	0.127	7.699	19:55:33	0.127	6.282	19:55:34	0.127	11.77	19:58:35	0.22
241	20:00:14	0.127	8.904	20:01:34	0.127	6.132	20:01:53	0.127	9.225	20:04:37	0.22
242	20:05:14	0.127	8.605	20:05:52	0.127	5.361	20:08:40	0.127	11.253	20:07:37	0.22
243	20:10:14	0.127	6.44	20:13:57	0.127	6.36	20:13:40	0.127	11.506	20:12:37	0.22
244	20:15:14	0.127	8.904	20:19:07	0.127	6.522	20:15:23	0.127	11.77	20:19:39	0.22
245	20:20:14	0.127	7.699	20:21:26	0.127	6.606	20:23:47	0.127	11.253	20:21:33	0.22
246	20:25:14	0.127	6.872	20:25:49	0.127	4.676	20:25:52	0.127	9.57	20:29:54	0.22
247	20:30:14	0.127	7.262	20:33:36	0.127	6.693	20:30:19	0.127	9.752	20:32:55	0.22
248	20:35:14	0.127	8.192	20:36:49	0.127	6.132	20:38:36	0.127	11.506	20:38:27	0.22
249	20:40:14	0.127	7.585	20:42:48	0.127	5.095	20:42:53	0.127	9.394	20:41:17	0.22
250	20:45:14	0.127	8.752	20:46:00	0.127	4.016	20:46:35	0.254	78.769	20:49:04	0.284
251	20:50:14	0.127	8.463	20:52:30	0.127	6.872	20:50:18	0.127	12.047	20:54:58	0.22
252	20:55:14	0.127	7.938	20:57:47	0.127	6.206	20:57:11	0.127	11.77	20:55:58	0.22
253	21:00:14	0.127	7.817	21:03:45	0.127	7.474	21:05:03	0.127	11.77	21:03:02	0.22
254	21:05:14	0.127	8.752	21:07:24	0.127	6.059	21:09:40	0.127	9.942	21:07:54	0.22
255	21:10:14	0.127	9.394	21:11:46	0.127	5.418	21:13:18	0.127	9.57	21:13:56	0.22
256	21:15:14	0.127	9.57	21:17:23	0.127	6.059	21:15:37	0.127	11.77	21:16:48	0.22
257	21:20:14	0.127	8.325	21:22:37	0.127	5.919	21:21:06	0.127	10.343	21:24:38	0.22
258	21:25:14	0.127	7.367	21:27:34	0.127	5.251	21:28:06	0.127	7.817	21:27:06	0.22
259	21:30:14	0.127	7.699	21:31:56	0.127	5.919	21:31:43	0.127	11.011	21:32:39	0.22
260	21:35:14	0.127	7.585	21:39:38	0.127	5.657	21:38:34	0.127	10.343	21:38:52	0.22
261	21:40:14	0.127	9.394	21:41:53	0.127	5.851	21:43:23	0.127	10.343	21:43:54	0.22
262	21:45:14	0.127	9.394	21:47:23	0.127	7.062	21:45:52	0.127	12.337	21:46:18	0.22
263	21:50:14	0.127	8.752	21:52:10	0.127	6.059	21:52:03	0.127	9.225	21:54:54	0.22
264	21:55:14	0.127	8.063	21:56:54	0.127	6.36	21:57:07	0.127	8.063	21:57:21	0.22
265	22:00:14	0.127	7.474	22:02:25	0.127	6.206	22:03:15	0.127	11.506	22:02:01	0.22
266	22:05:14	0.127	7.474	22:09:08	0.127	7.262	22:09:41	0.127	9.57	22:09:13	0.22
267	22:10:14	0.127	7.699	22:12:04	0.127	5.095	22:13:09	0.127	9.752	22:11:42	0.22
268	22:15:14	0.127	9.394	22:19:54	0.127	6.059	22:18:55	0.127	11.506	22:18:03	0.22
269	22:20:14	0.127	9.752	22:20:17	0.127	8.063	22:25:09	0.127	9.394	22:20:25	0.22
270	22:25:14	0.127	9.225	22:28:35	0.127	7.367	22:26:41	0.127	11.77	22:27:17	0.22
271	22:30:14	0.127	9.394	22:30:43	0.127	4.146	22:34:28	0.127	9.062	22:34:08	0.22
272	22:35:14	0.127	6.206	22:38:43	0.127	6.282	22:37:51	0.127	10.139	22:38:39	0.22
273	22:40:14	0.127	10.557	22:40:27	0.127	7.699	22:40:34	0.127	11.77	22:40:52	0.22
274	22:45:14	0.127	8.192	22:47:53	0.127	6.781	22:48:27	0.127	10.557	22:47:18	0.22
275	22:50:14	0.127	10.557	22:53:42	0.127	5.251	22:50:35	0.127	11.253	22:51:34	0.22
276	22:55:14	0.127	8.904	22:55:45	0.127	4.995	22:58:59	0.127	11.77	22:55:50	0.22
277	23:00:14	0.127	11.506	23:03:12	0.127	6.606	23:00:14	0.127	10.557	23:02:16	0.22
278	23:05:14	0.127	7.585	23:05:14	0.127	6.059	23:06:54	0.127	8.752	23:09:32	0.22
279	23:10:14	0.127	10.343	23:10:21	0.127	6.606	23:14:29	0.127	10.343	23:14:29	0.22
280	23:15:14	0.127	8.752	23:18:29	0.127	6.693	23:16:13	0.127	11.253	23:18:30	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 19/4/2022 @ 00:00:14
End: 20/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.59 Hz
Radial: 0.508 (mm/s) @ 7.47 Hz @ 15:04:22
Transverse: 0.254 (mm/s) @ 9.23 Hz @ 15:43:45
Vertical: 0.508 (mm/s) @ 53.89 Hz @ 16:20:17
Vector Sum: .58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:14	0.127	10.343	23:20:30	0.127	6.966	23:24:38	0.127	12.962	23:21:24	0.22
282	23:25:14	0.127	9.752	23:27:06	0.127	6.132	23:26:01	0.127	9.394	23:28:25	0.22
283	23:30:14	0.127	7.817	23:34:35	0.127	5.919	23:30:10	0.127	8.605	23:34:31	0.22
284	23:35:14	0.127	9.752	23:36:25	0.127	6.206	23:36:14	0.127	10.139	23:35:56	0.22
285	23:40:14	0.127	9.225	23:40:26	0.127	6.132	23:40:21	0.127	11.011	23:40:24	0.22
286	23:45:14	0.127	5.851	23:47:15	0.127	6.522	23:45:58	0.127	8.904	23:47:22	0.22
287	23:50:14	0.127	8.325	23:51:08	0.127	5.721	23:52:08	0.127	11.77	23:52:39	0.22
288	23:55:14	0.127	10.779	23:58:04	0.127	6.522	23:57:41	0.127	12.047	23:57:15	0.22

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

20/4/2022 at 12:00 am Event # 15

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 22.16 mm/s @ 1.22 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7794**	**12.8508**	**12.7476**
Frequency (Hz)	**16.5**	**15.5**	**24.3**

Air

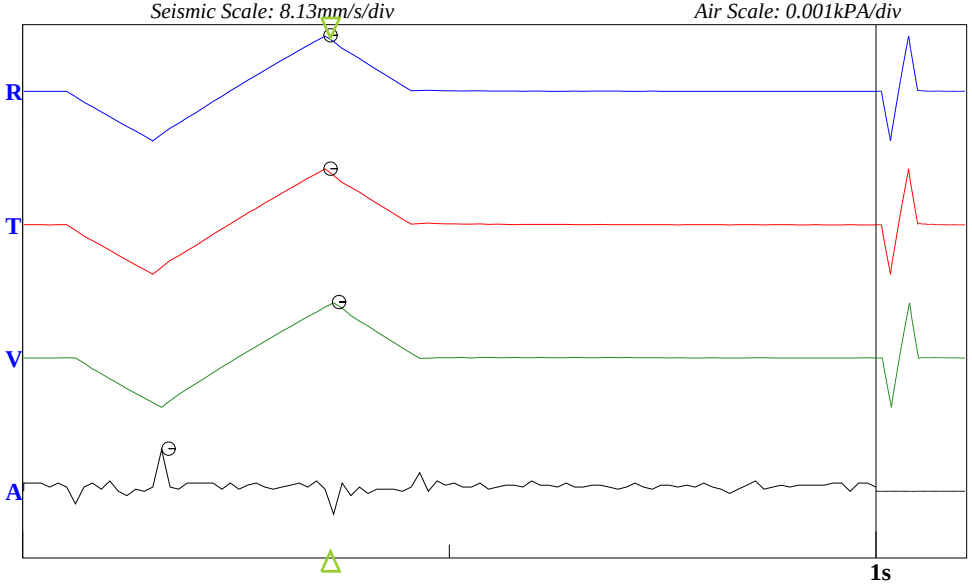
Gain: 1

Measurement	Value		
kPA	0.0005		
dBL	**88.0**		
Hz	512.0		

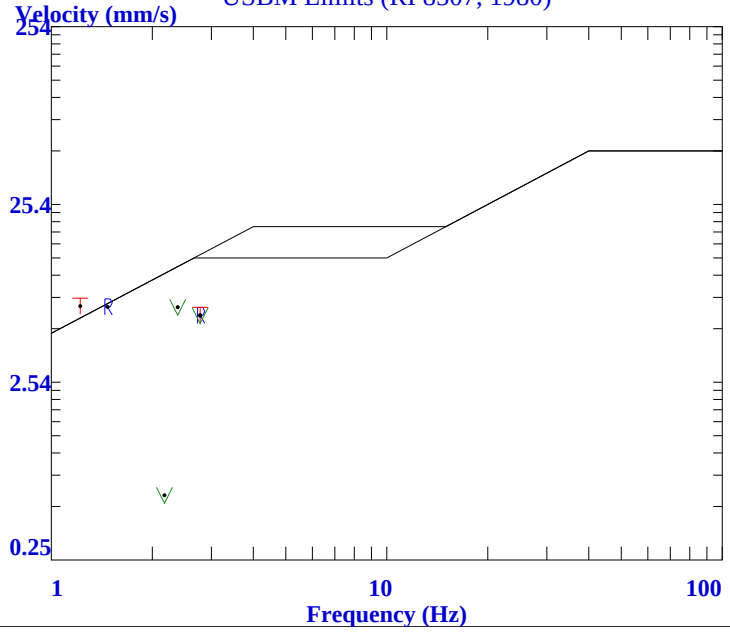
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.001kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

20/4/2022 at 12:00:12 am Event # 16

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:02 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 1.82 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**1.143**	**1.016**	**1.778**
Frequency (Hz)	**204.8**	**204.8**	**93.09**
Time	5:41:35 pm	5:35:12 pm	5:35:12 pm

Air

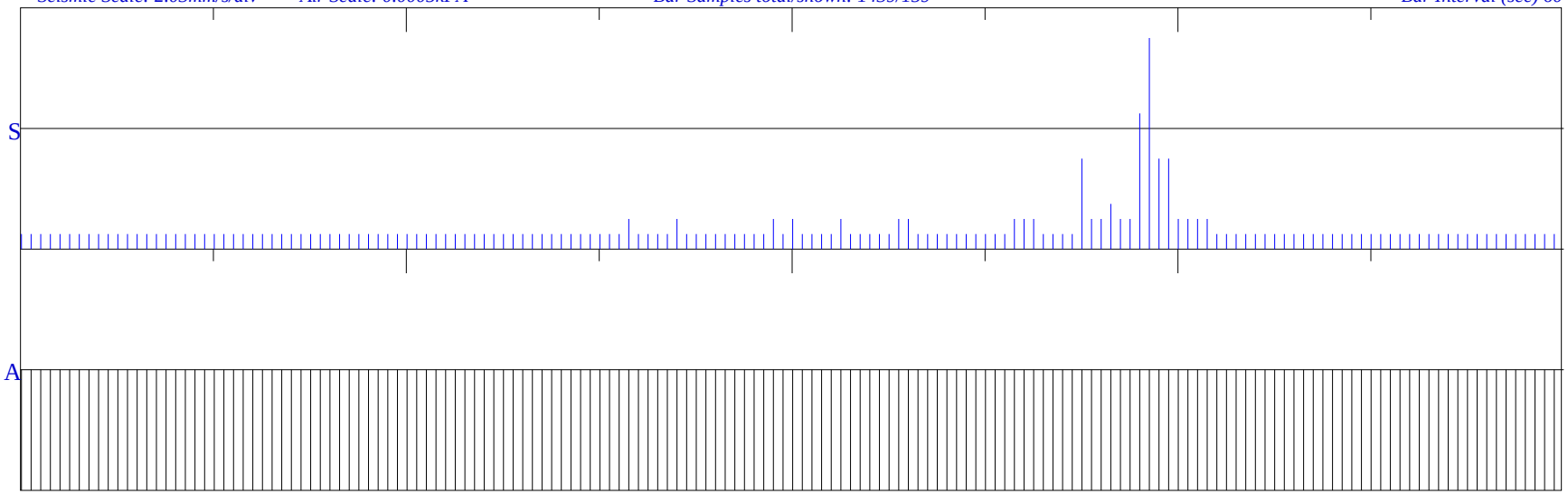
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.64		
Time	7:12:17 am		

BarGraph

Seismic Scale: 2.03mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159*

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:12 **03:00:10** **06:00:09** **09:00:08** **12:00:07** **15:00:05** **18:00:04** **21:00:03** **00:00:02**

<<<<<<<<<<<<<< **23:59:50** >>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 20/4/2022 @ 00:00:12
End: 21/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 1.143 (mm/s) @ 204.8 Hz @ 17:41:35
Transverse: 1.016 (mm/s) @ 204.8 Hz @ 17:35:12
Vertical: 1.778 (mm/s) @ 93.09 Hz @ 17:35:12
Vector Sum: 1.82 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:12	0.127	7.161	0:01:06	0.127	12.642	0:01:07	0.127	9.394	0:02:23	0.22
2	0:05:12	0.127	8.063	0:08:10	0.127	15.284	0:08:39	0.127	10.557	0:05:46	0.22
3	0:10:12	0.127	7.585	0:11:24	0.127	13.653	0:11:26	0.127	8.752	0:13:45	0.22
4	0:15:12	0.127	8.063	0:18:30	0.127	15.754	0:15:55	0.127	10.779	0:19:07	0.22
5	0:20:12	0.127	7.262	0:24:55	0.127	17.965	0:22:15	0.127	10.557	0:21:49	0.22
6	0:25:12	0.127	8.752	0:27:48	0.127	11.506	0:28:11	0.127	10.139	0:26:05	0.22
7	0:30:12	0.127	10.139	0:33:59	0.127	17.356	0:31:15	0.127	8.192	0:31:16	0.22
8	0:35:12	0.127	10.557	0:37:47	0.127	15.284	0:38:58	0.127	12.642	0:39:16	0.22
9	0:40:12	0.127	9.942	0:41:55	0.127	16.787	0:42:53	0.127	10.779	0:41:37	0.22
10	0:45:12	0.127	9.062	0:50:08	0.127	13.653	0:46:50	0.127	12.047	0:46:14	0.22
11	0:50:12	0.127	9.062	0:54:45	0.127	14.027	0:52:22	0.127	9.57	0:53:15	0.22
12	0:55:12	0.127	8.752	0:57:27	0.127	11.506	0:59:42	0.127	10.557	0:58:57	0.22
13	1:00:12	0.127	11.011	1:01:26	0.127	14.423	1:00:59	0.127	11.506	1:02:53	0.22
14	1:05:12	0.127	9.57	1:06:01	0.127	17.356	1:05:43	0.127	8.752	1:05:39	0.22
15	1:10:12	0.127	8.463	1:11:32	0.127	11.253	1:11:35	0.127	10.557	1:14:58	0.22
16	1:15:12	0.127	11.011	1:19:29	0.127	17.965	1:16:54	0.127	12.047	1:18:00	0.22
17	1:20:12	0.127	10.139	1:22:18	0.127	12.962	1:22:07	0.127	9.062	1:23:35	0.22
18	1:25:12	0.127	7.938	1:26:38	0.127	15.284	1:29:32	0.127	11.77	1:28:11	0.22
19	1:30:12	0.127	9.394	1:33:21	0.127	12.642	1:32:16	0.127	11.77	1:32:18	0.22
20	1:35:12	0.127	9.225	1:39:08	0.127	13.299	1:38:38	0.127	10.139	1:36:49	0.22
21	1:40:12	0.127	7.938	1:41:43	0.127	14.423	1:40:44	0.127	11.77	1:43:01	0.22
22	1:45:12	0.127	9.394	1:46:28	0.127	14.841	1:49:13	0.127	10.557	1:45:34	0.22
23	1:50:12	0.127	8.063	1:53:16	0.127	17.356	1:51:11	0.127	9.752	1:50:48	0.22
24	1:55:12	0.127	10.139	1:55:30	0.127	14.841	1:56:06	0.127	11.011	1:55:17	0.22
25	2:00:12	0.127	8.904	2:01:38	0.127	15.754	2:02:32	0.127	13.653	2:02:22	0.22
26	2:05:12	0.127	9.062	2:10:07	0.127	16.254	2:09:02	0.127	11.77	2:07:11	0.22
27	2:10:12	0.127	8.605	2:13:35	0.127	15.754	2:13:53	0.127	11.506	2:10:28	0.22
28	2:15:12	0.127	9.57	2:15:43	0.127	17.356	2:16:57	0.127	11.506	2:17:21	0.22
29	2:20:12	0.127	8.904	2:21:29	0.127	12.962	2:21:34	0.127	11.253	2:21:28	0.22
30	2:25:12	0.127	7.474	2:29:54	0.127	17.356	2:27:38	0.127	12.047	2:27:32	0.22
31	2:30:12	0.127	9.394	2:34:51	0.127	15.284	2:33:53	0.127	11.77	2:31:32	0.22
32	2:35:12	0.127	8.463	2:36:40	0.127	12.337	2:37:52	0.127	12.642	2:37:54	0.22
33	2:40:12	0.127	7.699	2:40:23	0.127	5.596	2:40:22	0.127	13.653	2:43:13	0.22
34	2:45:12	0.127	11.506	2:45:42	0.127	11.253	2:45:29	0.127	12.047	2:45:30	0.22
35	2:50:12	0.127	7.817	2:50:51	0.127	13.299	2:53:44	0.127	10.557	2:53:47	0.22
36	2:55:12	0.127	9.062	2:55:43	0.127	11.011	2:55:47	0.127	11.77	2:59:38	0.22
37	3:00:12	0.127	9.57	3:00:53	0.127	16.254	3:03:05	0.127	12.962	3:03:52	0.22
38	3:05:12	0.127	7.938	3:06:30	0.127	12.962	3:05:40	0.127	10.139	3:08:13	0.22
39	3:10:12	0.127	10.557	3:10:16	0.127	14.841	3:12:06	0.127	11.77	3:13:50	0.22
40	3:15:12	0.127	10.139	3:16:03	0.127	16.254	3:16:59	0.127	12.642	3:18:37	0.22
41	3:20:12	0.127	9.225	3:22:21	0.127	12.642	3:20:44	0.127	11.506	3:21:39	0.22
42	3:25:12	0.127	7.585	3:27:49	0.127	16.254	3:29:02	0.127	12.642	3:29:02	0.22
43	3:30:12	0.127	8.463	3:31:48	0.127	11.253	3:30:47	0.127	11.011	3:31:42	0.22
44	3:35:12	0.127	7.699	3:38:02	0.127	11.506	3:38:02	0.127	11.011	3:35:24	0.22
45	3:40:12	0.127	10.343	3:43:53	0.127	14.027	3:42:37	0.127	8.325	3:43:22	0.22
46	3:45:12	0.127	9.752	3:48:47	0.127	18.618	3:45:45	0.127	12.047	3:45:43	0.22
47	3:50:12	0.127	9.942	3:50:38	0.127	14.841	3:51:36	0.127	11.011	3:54:18	0.22
48	3:55:12	0.127	8.904	3:57:23	0.127	11.77	3:58:00	0.127	10.343	3:57:59	0.22
49	4:00:12	0.127	8.325	4:00:58	0.127	13.299	4:00:46	0.127	10.343	4:00:50	0.22
50	4:05:12	0.127	6.44	4:08:54	0.127	14.841	4:05:23	0.127	11.77	4:06:31	0.22
51	4:10:12	0.127	11.77	4:12:07	0.127	14.027	4:11:20	0.127	10.779	4:12:24	0.22
52	4:15:12	0.127	9.394	4:17:49	0.127	13.299	4:17:19	0.127	12.047	4:15:21	0.22
53	4:20:12	0.127	8.063	4:22:00	0.127	11.011	4:21:38	0.127	11.506	4:24:12	0.22
54	4:25:12	0.127	9.062	4:29:02	0.127	14.027	4:27:44	0.127	13.299	4:26:24	0.22
55	4:30:12	0.127	10.557	4:30:55	0.127	12.047	4:32:52	0.127	12.337	4:31:43	0.22
56	4:35:12	0.127	7.367	4:38:32	0.127	17.356	4:37:19	0.127	12.642	4:36:59	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 20/4/2022 @ 00:00:12
End: 21/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 1.143 (mm/s) @ 204.8 Hz @ 17:41:35
Transverse: 1.016 (mm/s) @ 204.8 Hz @ 17:35:12
Vertical: 1.778 (mm/s) @ 93.09 Hz @ 17:35:12
Vector Sum: 1.82 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:12	0.127	10.557	4:41:22	0.127	11.506	4:43:45	0.127	12.642	4:44:03	0.22
58	4:45:12	0.127	9.394	4:48:34	0.127	14.841	4:45:21	0.127	12.642	4:45:17	0.22
59	4:50:12	0.127	6.966	4:54:24	0.127	9.062	4:50:29	0.127	6.966	4:53:23	0.22
60	4:55:12	0.127	6.282	4:55:59	0.127	12.642	4:58:17	0.127	12.047	4:56:00	0.22
61	5:00:12	0.127	5.361	5:01:21	0.127	9.57	5:01:20	0.127	9.225	5:01:06	0.22
62	5:05:12	0.127	10.343	5:05:52	0.127	12.047	5:07:50	0.127	10.557	5:09:30	0.22
63	5:10:12	0.127	8.463	5:11:49	0.127	12.047	5:12:38	0.127	9.394	5:14:22	0.22
64	5:15:12	0.127	8.463	5:15:51	0.127	9.752	5:18:49	0.127	8.325	5:19:34	0.22
65	5:20:12	0.127	9.752	5:23:51	0.127	13.653	5:20:15	0.127	10.779	5:20:44	0.22
66	5:25:12	0.127	7.161	5:28:21	0.127	9.394	5:26:03	0.127	11.011	5:25:58	0.22
67	5:30:12	0.127	7.585	5:35:10	0.127	10.139	5:34:48	0.127	11.011	5:32:03	0.22
68	5:35:12	0.127	7.474	5:36:14	0.127	9.942	5:36:10	0.127	9.394	5:36:15	0.22
69	5:40:12	0.127	6.206	5:43:57	0.127	10.139	5:43:31	0.127	10.779	5:41:21	0.22
70	5:45:12	0.127	7.938	5:49:05	0.127	11.011	5:48:08	0.127	10.779	5:49:35	0.22
71	5:50:12	0.127	9.062	5:52:27	0.127	14.027	5:51:40	0.127	12.047	5:54:38	0.22
72	5:55:12	0.127	8.463	5:58:38	0.127	8.904	5:56:56	0.127	8.752	5:58:38	0.22
73	6:00:12	0.127	5.919	6:03:33	0.127	12.962	6:04:22	0.127	11.506	6:04:54	0.22
74	6:05:12	0.127	7.585	6:07:47	0.127	13.653	6:06:40	0.127	9.752	6:07:10	0.22
75	6:10:12	0.127	6.132	6:12:19	0.127	8.904	6:12:19	0.127	9.394	6:15:07	0.22
76	6:15:12	0.127	6.693	6:17:28	0.127	12.337	6:17:48	0.127	10.139	6:19:18	0.22
77	6:20:12	0.127	7.817	6:24:58	0.127	12.047	6:22:32	0.127	9.752	6:24:40	0.22
78	6:25:12	0.127	5.146	6:28:20	0.127	10.343	6:28:20	0.127	6.966	6:25:56	0.22
79	6:30:12	0.127	6.781	6:32:07	0.127	10.557	6:32:46	0.127	10.343	6:32:12	0.22
80	6:35:12	0.127	6.522	6:39:08	0.127	10.343	6:38:39	0.127	11.77	6:39:57	0.22
81	6:40:12	0.127	6.36	6:40:50	0.127	9.225	6:43:04	0.127	8.463	6:43:26	0.22
82	6:45:12	0.127	6.059	6:47:34	0.127	9.225	6:48:56	0.127	8.904	6:48:05	0.22
83	6:50:12	0.127	7.474	6:53:22	0.127	9.062	6:52:38	0.127	10.343	6:54:00	0.22
84	6:55:12	0.127	6.966	6:55:13	0.127	9.942	6:59:48	0.127	8.904	6:56:59	0.22
85	7:00:12	0.127	8.325	7:01:22	0.127	9.225	7:03:26	0.127	9.57	7:00:41	0.22
86	7:05:12	0.127	5.988	7:06:01	0.127	6.966	7:09:59	0.127	10.343	7:06:31	0.22
87	7:10:12	0.127	6.059	7:10:54	0.127	7.161	7:10:56	0.127	8.904	7:13:24	0.22
88	7:15:12	0.127	6.059	7:17:10	0.127	9.225	7:19:10	0.127	10.557	7:16:38	0.22
89	7:20:12	0.127	5.476	7:20:30	0.127	8.192	7:20:30	0.127	10.343	7:21:44	0.22
90	7:25:12	0.127	6.781	7:29:41	0.127	8.463	7:27:12	0.127	8.325	7:28:58	0.22
91	7:30:12	0.127	6.059	7:34:38	0.127	9.062	7:32:05	0.127	9.062	7:32:58	0.22
92	7:35:12	0.127	5.476	7:35:50	0.127	8.325	7:35:46	0.127	10.343	7:36:35	0.22
93	7:40:12	0.127	5.198	7:42:12	0.127	5.851	7:42:31	0.127	10.557	7:42:52	0.22
94	7:45:12	0.127	5.785	7:47:47	0.127	7.474	7:49:42	0.127	9.752	7:49:47	0.22
95	7:50:12	0.127	6.36	7:54:09	0.127	8.325	7:53:18	0.127	10.139	7:50:32	0.22
96	7:55:12	0.127	6.206	7:57:29	0.127	9.394	7:56:05	0.127	9.57	7:55:35	0.22
97	8:00:12	0.127	6.606	8:02:55	0.127	8.752	8:04:13	0.127	8.063	8:04:32	0.22
98	8:05:12	0.127	5.146	8:05:14	0.127	9.062	8:05:54	0.127	9.752	8:10:10	0.22
99	8:10:12	0.127	6.872	8:15:01	0.127	9.225	8:13:19	0.127	12.047	8:11:06	0.22
100	8:15:12	0.127	5.785	8:15:13	0.127	8.605	8:17:57	0.127	10.139	8:18:50	0.22
101	8:20:12	0.127	4.808	8:20:22	0.127	9.225	8:21:15	0.127	10.139	8:23:16	0.22
102	8:25:12	0.127	5.146	8:25:12	0.127	6.606	8:29:58	0.127	9.225	8:28:54	0.22
103	8:30:12	0.127	7.367	8:34:35	0.127	8.904	8:30:58	0.127	8.605	8:35:11	0.22
104	8:35:12	0.127	4.9	8:35:48	0.127	5.657	8:35:48	0.127	10.343	8:38:09	0.22
105	8:40:12	0.127	4.592	8:43:35	0.127	5.988	8:43:35	0.127	9.57	8:42:52	0.22
106	8:45:12	0.127	7.585	8:47:52	0.127	8.904	8:46:24	0.127	9.57	8:46:11	0.22
107	8:50:12	0.127	6.282	8:53:35	0.127	8.605	8:53:19	0.127	9.394	8:50:29	0.22
108	8:55:12	0.127	6.44	8:56:36	0.127	6.693	8:56:37	0.127	8.605	8:59:34	0.22
109	9:00:12	0.127	5.146	9:01:50	0.127	10.557	9:00:37	0.127	11.253	9:02:02	0.22
110	9:05:12	0.127	7.367	9:08:42	0.127	7.161	9:08:07	0.127	10.139	9:07:30	0.22
111	9:10:12	0.127	7.817	9:14:13	0.127	7.474	9:11:02	0.127	11.77	9:10:17	0.22
112	9:15:12	0.127	6.872	9:15:44	0.127	8.192	9:17:25	0.127	10.343	9:17:04	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 20/4/2022 @ 00:00:12
End: 21/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 1.143 (mm/s) @ 204.8 Hz @ 17:41:35
Transverse: 1.016 (mm/s) @ 204.8 Hz @ 17:35:12
Vertical: 1.778 (mm/s) @ 93.09 Hz @ 17:35:12
Vector Sum: 1.82 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:12	0.127	6.693	9:21:26	0.127	8.463	9:23:42	0.127	10.557	9:21:30	0.22
114	9:25:12	0.127	6.781	9:27:25	0.127	7.699	9:29:07	0.127	10.557	9:30:04	0.22
115	9:30:12	0.127	5.721	9:33:14	0.127	7.161	9:32:03	0.254	8.904	9:32:12	0.284
116	9:35:12	0.127	6.522	9:36:14	0.127	9.225	9:37:32	0.127	8.325	9:39:20	0.22
117	9:40:12	0.127	6.44	9:44:52	0.127	7.367	9:42:21	0.127	8.063	9:40:49	0.22
118	9:45:12	0.127	5.596	9:48:46	0.127	8.063	9:45:53	0.127	9.752	9:46:25	0.22
119	9:50:12	0.127	6.059	9:52:44	0.127	8.192	9:52:41	0.127	11.253	9:50:27	0.22
120	9:55:12	0.127	5.361	9:57:53	0.127	9.225	9:57:53	0.127	8.904	9:55:30	0.22
121	10:00:12	0.127	7.262	10:02:22	0.127	11.253	10:03:08	0.127	11.011	10:01:38	0.22
122	10:05:12	0.127	6.966	10:08:09	0.127	10.139	10:07:25	0.127	12.047	10:09:25	0.22
123	10:10:12	0.254	204.8	10:14:24	0.127	9.57	10:11:06	0.254	146.286	10:14:24	0.284
124	10:15:12	0.127	6.693	10:16:40	0.127	10.139	10:16:42	0.127	7.938	10:15:50	0.22
125	10:20:12	0.127	5.657	10:20:57	0.127	9.942	10:23:02	0.127	6.966	10:24:41	0.22
126	10:25:12	0.127	5.785	10:27:15	0.127	8.063	10:30:07	0.127	8.752	10:29:06	0.22
127	10:30:12	0.127	5.988	10:32:04	0.127	6.522	10:31:59	0.127	9.942	10:33:35	0.22
128	10:35:12	0.127	6.36	10:36:58	0.127	8.904	10:36:36	0.127	8.752	10:38:52	0.22
129	10:40:12	0.127	6.44	10:43:16	0.127	7.817	10:42:51	0.127	8.605	10:40:46	0.22
130	10:45:12	0.127	6.206	10:46:29	0.127	9.752	10:48:02	0.127	11.253	10:46:10	0.22
131	10:50:12	0.127	6.132	10:51:19	0.127	9.942	10:53:15	0.127	10.557	10:52:53	0.22
132	10:55:12	0.127	6.282	10:55:34	0.127	7.367	10:59:14	0.127	9.062	10:59:23	0.22
133	11:00:12	0.127	6.282	11:03:35	0.127	9.225	11:05:03	0.127	9.394	11:03:51	0.22
134	11:05:12	0.127	5.851	11:07:19	0.127	7.817	11:07:16	0.127	9.752	11:08:10	0.22
135	11:10:12	0.127	5.476	11:13:15	0.127	6.693	11:10:57	0.127	9.942	11:13:53	0.22
136	11:15:12	0.127	5.361	11:19:02	0.127	6.282	11:19:00	0.127	8.904	11:16:39	0.22
137	11:20:12	0.127	6.059	11:25:03	0.127	9.57	11:25:04	0.127	10.779	11:25:10	0.22
138	11:25:12	0.127	6.282	11:27:59	0.127	7.817	11:27:59	0.127	9.942	11:28:36	0.22
139	11:30:12	0.127	6.059	11:33:19	0.127	5.988	11:33:19	0.127	9.942	11:30:36	0.22
140	11:35:12	0.127	7.474	11:35:41	0.127	9.394	11:38:02	0.127	10.139	11:35:54	0.22
141	11:40:12	0.127	5.785	11:40:25	0.127	7.062	11:40:25	0.127	7.817	11:43:49	0.22
142	11:45:12	0.127	6.966	11:46:12	0.127	8.325	11:46:12	0.254	146.286	11:49:03	0.311
143	11:50:12	0.127	6.132	11:52:39	0.127	7.938	11:51:36	0.127	9.394	11:51:54	0.22
144	11:55:12	0.127	5.095	11:59:56	0.127	9.57	12:00:04	0.127	10.139	11:57:34	0.22
145	12:00:12	0.127	5.919	12:01:57	0.127	10.139	12:01:35	0.254	146.286	12:03:26	0.254
146	12:05:12	0.127	6.44	12:06:55	0.127	8.904	12:08:52	0.127	9.225	12:05:30	0.22
147	12:10:12	0.127	6.966	12:14:49	0.127	11.506	12:14:54	0.127	11.253	12:12:26	0.22
148	12:15:12	0.127	7.938	12:17:10	0.127	5.361	12:20:05	0.127	9.57	12:17:29	0.22
149	12:20:12	0.127	7.817	12:20:17	0.127	4.676	12:21:42	0.127	10.343	12:20:34	0.22
150	12:25:12	0.127	5.785	12:27:51	0.127	4.995	12:25:14	0.127	10.557	12:29:06	0.22
151	12:30:12	0.127	5.988	12:32:06	0.127	5.476	12:33:25	0.127	9.062	12:33:50	0.22
152	12:35:12	0.127	5.988	12:35:23	0.127	3.954	12:39:34	0.127	8.605	12:37:28	0.22
153	12:40:12	0.127	6.206	12:41:21	0.127	5.988	12:41:35	0.127	10.557	12:43:03	0.22
154	12:45:12	0.127	5.721	12:49:06	0.127	5.851	12:49:06	0.127	9.394	12:46:08	0.22
155	12:50:12	0.127	5.535	12:53:04	0.127	6.781	12:53:55	0.254	204.8	12:51:01	0.284
156	12:55:12	0.127	6.282	12:57:55	0.127	3.402	12:55:51	0.127	10.139	12:59:40	0.22
157	13:00:12	0.127	8.904	13:02:28	0.127	4.9	13:01:05	0.127	8.752	13:01:55	0.22
158	13:05:12	0.127	6.781	13:09:19	0.127	5.146	13:05:43	0.127	10.343	13:07:13	0.22
159	13:10:12	0.127	8.605	13:12:45	0.127	4.285	13:14:45	0.127	9.942	13:12:49	0.22
160	13:15:12	0.127	7.161	13:18:06	0.127	5.146	13:17:14	0.127	9.752	13:18:37	0.22
161	13:20:12	0.127	6.606	13:22:31	0.127	5.785	13:21:52	0.127	10.139	13:23:06	0.22
162	13:25:12	0.127	7.367	13:28:55	0.127	5.476	13:26:17	0.127	10.779	13:25:56	0.22
163	13:30:12	0.127	8.752	13:31:55	0.127	5.418	13:33:30	0.127	10.557	13:33:25	0.22
164	13:35:12	0.127	7.817	13:37:42	0.127	4.995	13:38:58	0.127	10.139	13:36:53	0.22
165	13:40:12	0.127	6.44	13:44:37	0.127	5.306	13:42:56	0.254	146.286	13:40:20	0.284
166	13:45:12	0.127	5.988	13:47:27	0.127	5.596	13:49:26	0.254	341.333	13:50:06	0.284
167	13:50:12	0.254	341.333	13:50:13	0.127	5.251	13:52:01	0.127	10.779	13:52:58	0.284
168	13:55:12	0.127	5.361	13:59:59	0.127	4.995	13:55:42	0.127	11.011	13:59:28	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 20/4/2022 @ 00:00:12
End: 21/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 1.143 (mm/s) @ 204.8 Hz @ 17:41:35
Transverse: 1.016 (mm/s) @ 204.8 Hz @ 17:35:12
Vertical: 1.778 (mm/s) @ 93.09 Hz @ 17:35:12
Vector Sum: 1.82 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:12	0.127	8.752	14:01:15	0.127	5.418	14:01:02	0.127	9.225	14:01:14	0.22
170	14:05:12	0.127	8.605	14:06:22	0.127	6.132	14:05:10	0.127	10.557	14:08:37	0.22
171	14:10:12	0.127	6.872	14:14:32	0.127	4.853	14:11:02	0.127	10.139	14:11:07	0.22
172	14:15:12	0.127	5.721	14:20:01	0.127	5.306	14:20:05	0.127	9.225	14:18:13	0.22
173	14:20:12	0.127	6.606	14:21:17	0.127	4.285	14:24:07	0.127	11.011	14:24:24	0.22
174	14:25:12	0.127	5.919	14:27:52	0.127	5.476	14:28:53	0.127	10.779	14:25:14	0.22
175	14:30:12	0.127	7.161	14:33:39	0.127	5.095	14:31:45	0.127	9.062	14:31:24	0.22
176	14:35:12	0.127	7.938	14:37:30	0.127	6.966	14:37:17	0.127	9.942	14:38:36	0.22
177	14:40:12	0.127	5.851	14:40:12	0.127	4.633	14:40:12	0.127	10.343	14:40:28	0.22
178	14:45:12	0.127	7.262	14:46:48	0.127	4.947	14:49:03	0.127	9.394	14:49:16	0.22
179	14:50:12	0.127	6.966	14:50:56	0.127	5.721	14:52:53	0.127	8.752	14:51:18	0.22
180	14:55:12	0.127	6.522	14:58:47	0.127	4.853	14:56:47	0.127	8.063	14:58:45	0.22
181	15:00:12	0.127	7.367	15:00:49	0.127	5.535	15:00:59	0.127	8.192	15:02:32	0.22
182	15:05:12	0.127	6.282	15:07:02	0.127	4.551	15:06:45	0.127	9.062	15:06:19	0.22
183	15:10:12	0.127	7.262	15:12:52	0.127	9.225	15:14:59	0.127	8.063	15:14:05	0.22
184	15:15:12	0.127	6.522	15:15:23	0.127	8.752	15:18:55	0.127	8.904	15:17:34	0.22
185	15:20:12	0.127	6.522	15:23:28	0.127	8.463	15:23:27	0.127	9.062	15:22:52	0.22
186	15:25:12	0.127	8.063	15:29:03	0.127	8.325	15:29:14	0.127	10.139	15:29:03	0.22
187	15:30:12	0.127	5.198	15:31:54	0.127	5.418	15:31:53	0.254	204.8	15:31:04	0.284
188	15:35:12	0.254	204.8	15:38:05	0.127	8.605	15:35:41	0.254	93.091	15:38:05	0.311
189	15:40:12	0.127	6.522	15:45:01	0.127	11.253	15:44:05	0.127	10.139	15:45:10	0.22
190	15:45:12	0.127	6.282	15:48:16	0.127	5.919	15:48:17	0.254	146.286	15:47:50	0.284
191	15:50:12	0.127	6.781	15:52:59	0.127	7.938	15:51:14	0.127	8.605	15:54:58	0.22
192	15:55:12	0.127	8.192	15:57:15	0.127	10.139	15:56:58	0.127	8.904	15:57:09	0.22
193	16:00:12	0.127	7.474	16:03:04	0.127	7.938	16:03:05	0.127	8.752	16:04:35	0.22
194	16:05:12	0.127	7.062	16:09:28	0.127	8.463	16:06:38	0.127	9.225	16:05:37	0.22
195	16:10:12	0.127	7.474	16:13:54	0.127	9.225	16:12:16	0.127	9.942	16:10:49	0.22
196	16:15:12	0.127	6.36	16:19:17	0.127	8.463	16:17:27	0.127	10.557	16:20:10	0.22
197	16:20:12	0.127	5.476	16:22:47	0.127	7.367	16:22:52	0.127	8.063	16:24:53	0.22
198	16:25:12	0.127	7.161	16:25:26	0.127	8.463	16:25:59	0.127	9.225	16:25:12	0.22
199	16:30:12	0.381	113.778	16:35:00	0.254	93.091	16:35:00	0.762	146.286	16:35:01	0.783
200	16:35:12	0.127	6.606	16:37:53	0.254	146.286	16:38:35	0.381	48.762	16:38:35	0.402
201	16:40:12	0.127	6.781	16:42:31	0.127	9.394	16:42:31	0.254	68.267	16:44:59	0.311
202	16:45:12	0.127	8.063	16:46:33	0.127	8.325	16:45:32	0.254	60.235	16:46:45	0.311
203	16:50:12	0.127	9.062	16:50:47	0.127	10.343	16:50:55	0.254	22.756	16:50:12	0.311
204	16:55:12	0.127	8.605	16:57:46	0.127	10.557	16:58:22	0.254	9.942	16:59:35	0.284
205	17:00:12	0.127	7.699	17:03:31	0.127	11.77	17:02:52	0.381	113.778	17:02:56	0.402
206	17:05:12	0.127	6.282	17:07:46	0.127	10.139	17:08:46	0.127	10.139	17:07:19	0.22
207	17:10:12	0.127	7.585	17:11:02	0.127	11.253	17:14:00	0.254	93.091	17:12:52	0.284
208	17:15:12	0.127	8.463	17:16:50	0.127	10.557	17:16:57	0.254	93.091	17:16:22	0.284
209	17:20:12	0.127	6.966	17:21:09	0.254	146.286	17:24:23	0.381	146.286	17:24:23	0.402
210	17:25:12	0.254	146.286	17:28:11	0.254	93.091	17:28:11	0.381	113.778	17:28:11	0.402
211	17:30:12	0.889	204.8	17:33:32	0.889	146.286	17:32:34	1.397	78.769	17:33:32	1.54
212	17:35:12	0.889	113.778	17:35:12	1.016	204.8	17:35:12	1.778	93.091	17:35:12	1.818
213	17:40:12	1.143	204.8	17:41:35	0.635	78.769	17:41:35	0.889	78.769	17:41:35	1.178
214	17:45:12	0.508	204.8	17:48:28	0.508	341.333	17:48:28	0.762	146.286	17:48:28	0.783
215	17:50:12	0.381	146.286	17:53:12	0.381	68.267	17:53:12	0.762	204.8	17:53:12	0.813
216	17:55:12	0.635	113.778	17:57:32	0.381	93.091	17:57:32	0.762	204.8	17:57:25	0.773
217	18:00:12	0.254	68.267	18:02:12	0.127	11.011	18:02:02	0.254	60.235	18:01:54	0.311
218	18:05:12	0.254	68.267	18:05:36	0.127	7.262	18:06:56	0.254	93.091	18:08:54	0.311
219	18:10:12	0.127	8.752	18:15:01	0.127	9.57	18:14:52	0.254	78.769	18:14:48	0.284
220	18:15:12	0.254	93.091	18:15:16	0.127	11.77	18:18:15	0.254	60.235	18:15:16	0.311
221	18:20:12	0.127	6.966	18:22:48	0.127	10.779	18:22:46	0.254	78.769	18:20:40	0.284
222	18:25:12	0.127	6.44	18:28:55	0.127	10.779	18:26:43	0.254	113.778	18:29:52	0.284
223	18:30:12	0.127	7.062	18:35:00	0.127	11.011	18:32:40	0.127	12.642	18:35:08	0.22
224	18:35:12	0.127	6.206	18:39:56	0.127	12.047	18:35:11	0.127	9.062	18:37:18	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 20/4/2022 @ 00:00:12
End: 21/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 1.143 (mm/s) @ 204.8 Hz @ 17:41:35
Transverse: 1.016 (mm/s) @ 204.8 Hz @ 17:35:12
Vertical: 1.778 (mm/s) @ 93.09 Hz @ 17:35:12
Vector Sum: 1.82 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:12	0.127	6.966	18:41:55	0.127	8.063	18:40:47	0.127	12.337	18:41:12	0.22
226	18:45:12	0.127	7.938	18:46:21	0.127	5.361	18:45:28	0.127	11.011	18:47:33	0.22
227	18:50:12	0.127	7.938	18:50:47	0.127	5.476	18:53:19	0.127	10.139	18:50:16	0.22
228	18:55:12	0.127	6.059	18:58:34	0.127	5.251	18:57:21	0.127	11.011	18:57:27	0.22
229	19:00:12	0.127	7.262	19:03:33	0.127	5.721	19:01:47	0.127	12.337	19:03:34	0.22
230	19:05:12	0.127	7.938	19:08:16	0.127	6.132	19:08:04	0.127	11.506	19:07:38	0.22
231	19:10:12	0.127	6.693	19:14:00	0.127	4.146	19:14:25	0.127	9.942	19:10:55	0.22
232	19:15:12	0.127	7.062	19:15:40	0.127	6.282	19:15:42	0.127	9.225	19:19:49	0.22
233	19:20:12	0.127	9.062	19:23:55	0.127	5.919	19:20:15	0.127	12.047	19:24:41	0.22
234	19:25:12	0.127	8.325	19:25:52	0.127	4.472	19:26:25	0.127	11.253	19:29:10	0.22
235	19:30:12	0.127	6.522	19:30:29	0.127	5.044	19:30:31	0.127	11.253	19:31:46	0.22
236	19:35:12	0.127	7.938	19:38:23	0.127	6.282	19:35:43	0.127	11.011	19:39:27	0.22
237	19:40:12	0.127	7.938	19:42:29	0.127	5.919	19:41:12	0.127	10.779	19:40:28	0.22
238	19:45:12	0.127	6.606	19:46:32	0.127	4.433	19:49:17	0.127	11.253	19:47:49	0.22
239	19:50:12	0.127	8.325	19:50:17	0.127	5.988	19:53:20	0.127	10.557	19:50:39	0.22
240	19:55:12	0.127	7.262	19:58:20	0.127	5.988	19:58:01	0.127	10.779	19:57:51	0.22
241	20:00:12	0.127	6.36	20:03:22	0.127	5.095	20:03:20	0.127	10.139	20:03:20	0.22
242	20:05:12	0.127	8.063	20:07:06	0.127	5.721	20:07:33	0.127	9.57	20:07:54	0.22
243	20:10:12	0.127	9.225	20:14:27	0.127	5.476	20:11:59	0.127	9.752	20:12:42	0.22
244	20:15:12	0.127	7.262	20:15:19	0.127	5.657	20:16:08	0.127	9.225	20:15:15	0.22
245	20:20:12	0.127	8.463	20:22:25	0.127	6.132	20:20:14	0.127	12.047	20:21:04	0.22
246	20:25:12	0.127	5.657	20:28:57	0.127	5.198	20:29:33	0.127	9.942	20:29:36	0.22
247	20:30:12	0.127	8.063	20:31:18	0.127	5.146	20:32:41	0.127	11.506	20:32:16	0.22
248	20:35:12	0.127	9.225	20:35:12	0.127	6.606	20:36:20	0.127	8.325	20:36:42	0.22
249	20:40:12	0.127	9.752	20:43:19	0.127	5.851	20:40:56	0.127	9.57	20:43:53	0.22
250	20:45:12	0.127	8.063	20:48:27	0.127	4.808	20:48:56	0.127	11.77	20:47:41	0.22
251	20:50:12	0.127	9.062	20:51:16	0.127	6.44	20:54:41	0.127	8.904	20:50:39	0.22
252	20:55:12	0.127	8.904	20:57:18	0.127	6.781	20:57:19	0.127	11.253	20:59:50	0.22
253	21:00:12	0.127	9.225	21:01:43	0.127	5.988	21:00:08	0.127	11.77	21:01:37	0.22
254	21:05:12	0.127	6.693	21:09:02	0.127	5.198	21:09:02	0.127	11.011	21:05:40	0.22
255	21:10:12	0.127	7.367	21:11:43	0.127	5.851	21:14:54	0.127	10.343	21:13:43	0.22
256	21:15:12	0.127	6.693	21:19:19	0.127	6.44	21:19:00	0.127	11.77	21:16:56	0.22
257	21:20:12	0.127	8.192	21:21:01	0.127	5.919	21:20:53	0.127	8.752	21:20:41	0.22
258	21:25:12	0.127	7.699	21:29:49	0.127	6.282	21:29:07	0.127	12.642	21:29:08	0.22
259	21:30:12	0.127	7.585	21:31:14	0.127	6.781	21:34:53	0.127	10.557	21:30:21	0.22
260	21:35:12	0.127	6.522	21:37:42	0.127	6.872	21:39:40	0.127	11.011	21:38:04	0.22
261	21:40:12	0.127	8.192	21:42:16	0.127	6.44	21:41:12	0.127	11.011	21:41:15	0.22
262	21:45:12	0.127	6.44	21:46:50	0.127	5.785	21:47:11	0.127	12.962	21:45:17	0.22
263	21:50:12	0.127	7.262	21:50:14	0.127	6.132	21:50:36	0.127	8.752	21:54:42	0.22
264	21:55:12	0.127	8.904	21:56:22	0.127	6.44	21:58:06	0.127	10.779	21:58:00	0.22
265	22:00:12	0.127	6.606	22:03:11	0.127	6.872	22:03:09	0.127	13.653	22:02:45	0.22
266	22:05:12	0.127	8.325	22:08:14	0.127	6.522	22:07:48	0.127	11.253	22:08:00	0.22
267	22:10:12	0.127	9.225	22:11:17	0.127	7.474	22:14:24	0.127	10.779	22:14:54	0.22
268	22:15:12	0.127	6.781	22:15:29	0.127	6.282	22:17:01	0.127	12.047	22:15:26	0.22
269	22:20:12	0.127	8.192	22:22:51	0.127	6.872	22:21:33	0.127	9.062	22:21:10	0.22
270	22:25:12	0.127	10.139	22:29:23	0.127	6.522	22:28:13	0.127	11.011	22:28:08	0.22
271	22:30:12	0.127	6.872	22:30:10	0.127	5.785	22:31:22	0.127	9.752	22:34:14	0.22
272	22:35:12	0.127	8.904	22:38:29	0.127	6.282	22:36:51	0.127	10.779	22:38:18	0.22
273	22:40:12	0.127	8.325	22:41:58	0.127	5.721	22:41:00	0.127	12.337	22:43:16	0.22
274	22:45:12	0.127	9.752	22:48:59	0.127	6.132	22:45:38	0.127	12.642	22:49:02	0.22
275	22:50:12	0.127	9.57	22:50:43	0.127	6.36	22:51:08	0.127	13.653	22:54:00	0.22
276	22:55:12	0.127	8.463	22:56:30	0.127	6.781	22:59:43	0.127	10.139	22:55:43	0.22
277	23:00:12	0.127	10.557	23:04:02	0.127	6.966	23:00:58	0.127	12.962	23:05:05	0.22
278	23:05:12	0.127	8.463	23:06:53	0.127	8.325	23:06:24	0.127	9.57	23:07:07	0.22
279	23:10:12	0.127	5.476	23:12:26	0.127	4.112	23:12:26	0.127	12.962	23:10:45	0.22
280	23:15:12	0.127	7.699	23:18:28	0.127	7.585	23:15:19	0.127	13.299	23:15:43	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 20/4/2022 @ 00:00:12
End: 21/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 1.143 (mm/s) @ 204.8 Hz @ 17:41:35
Transverse: 1.016 (mm/s) @ 204.8 Hz @ 17:35:12
Vertical: 1.778 (mm/s) @ 93.09 Hz @ 17:35:12
Vector Sum: 1.82 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:12	0.127	11.253	23:24:45	0.127	9.062	23:20:10	0.127	11.77	23:24:05	0.22
282	23:25:12	0.127	10.343	23:28:31	0.127	8.463	23:26:43	0.127	11.253	23:28:17	0.22
283	23:30:12	0.127	9.225	23:33:23	0.127	7.585	23:34:17	0.127	10.343	23:33:23	0.22
284	23:35:12	0.127	12.047	23:36:50	0.127	7.817	23:35:29	0.127	12.642	23:37:28	0.22
285	23:40:12	0.127	9.062	23:44:01	0.127	6.966	23:44:39	0.127	11.506	23:44:00	0.22
286	23:45:12	0.127	9.062	23:49:06	0.127	4.511	23:49:06	0.127	13.299	23:45:49	0.22
287	23:50:12	0.127	12.047	23:50:09	0.127	7.585	23:54:32	0.127	11.253	23:54:28	0.22
288	23:55:12	0.127	11.506	23:55:12	0.127	7.367	23:59:43	0.127	12.047	23:55:48	0.22

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

21/4/2022 at 12:00 am Event # 17

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 22.17 mm/s @ 1.19 Hz

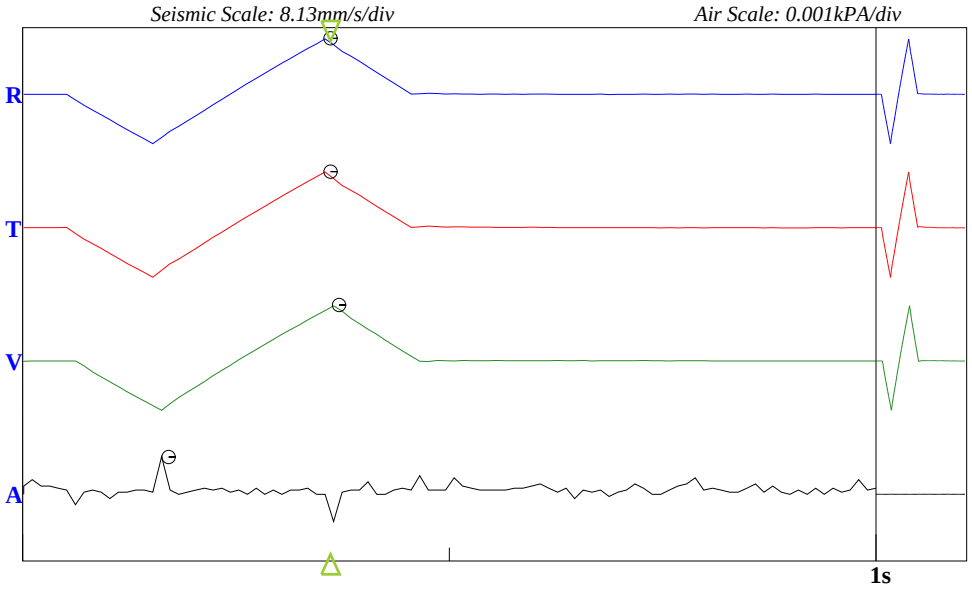
Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7794**	**12.8508**	**12.7635**
Frequency (Hz)	**18.2**	**15.0**	**24.3**

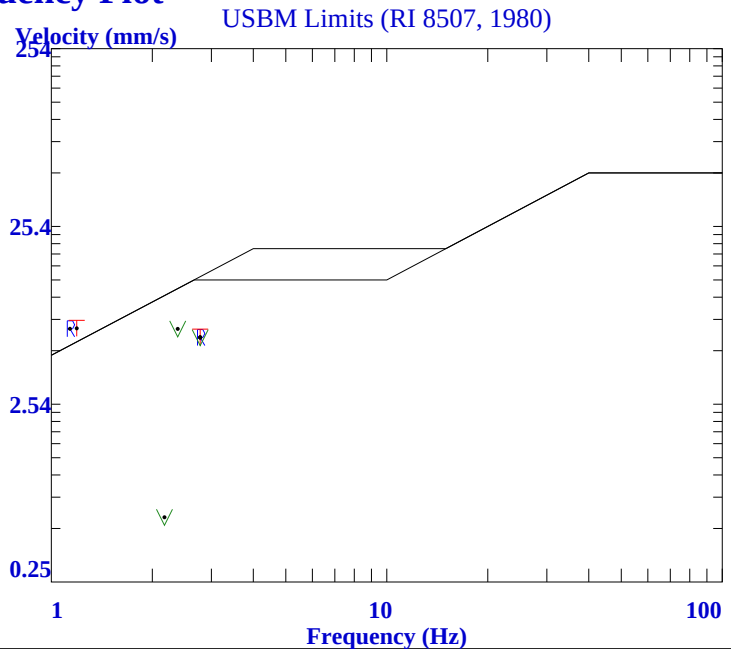
Air

Gain: 1

Measurement	Value		
kPA	0.0005		
dBL	**88.0**		
Hz	512.0		

Waveform Analysis / Frequency Plot





Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SPORE PTE LTD

Unit #: 21670

21/4/2022 at 12:00:14 am Event # 18

Location: 460 CHOA CHU KANG AVENUE 4

Operator: ENSSCOM PTE LTD

Notes:

Distance-Source: N

No GPS Data

End Time: 10:17:02 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Seismic

Gain: 1

Vector Sum: 5.18 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**4.191**	**2.794**	**5.08**
Frequency (Hz)	**78.77**	**44.52**	**17.36**
Time	10:16:58 am	10:16:58 am	10:16:46 am

Air

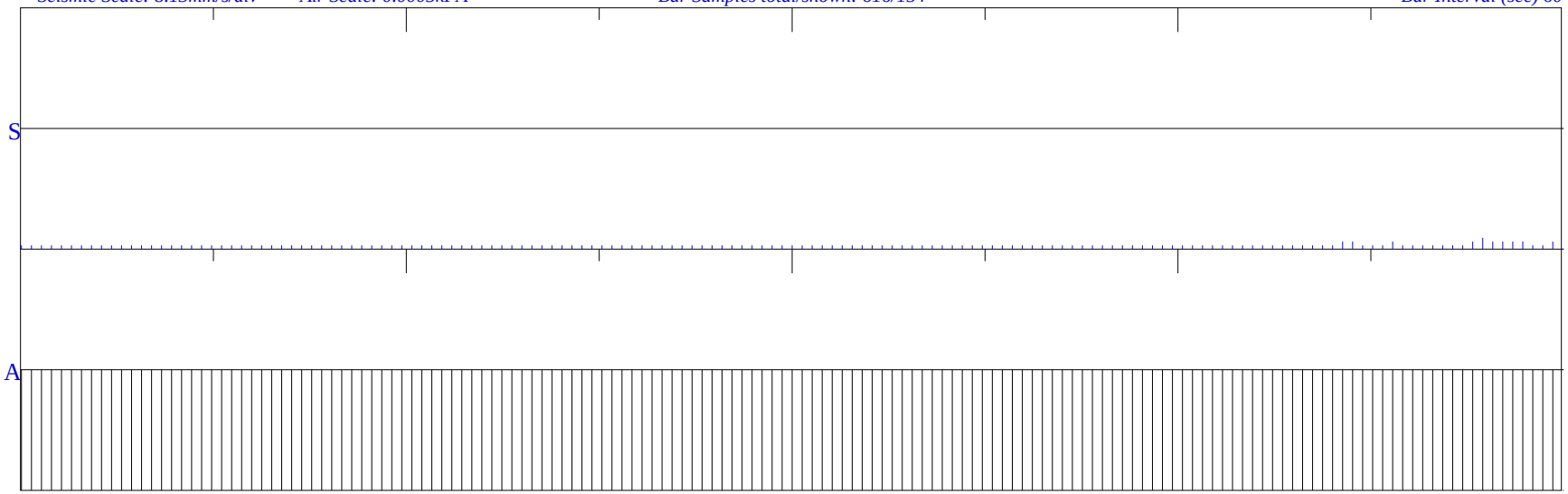
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.8		
Time	3:54:56 am		

BarGraph

Seismic Scale: 8.13mm/s/div Air Scale: 0.0005kPA Bar Samples total/shown: 616/154

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:14 01:17:20 02:34:26 03:51:32 05:08:38 06:25:44 07:42:50 08:59:56 10:17:02

<<<<<<<<<<<<<< 10:16:48 >>>>>>>>>>>>>>

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 18
Start: 21/4/2022 @ 00:00:14
End: 21/4/2022 @ 10:17:02
Summary Interval: 124
Air: 81.9 dBL @ 0.8 Hz
Radial: 4.191 (mm/s) @ 78.77 Hz @ 10:16:58
Transverse: 2.794 (mm/s) @ 44.52 Hz @ 10:16:58
Vertical: 5.08 (mm/s) @ 17.36 Hz @ 10:16:46
Vector Sum: 5.18 (mm/s)
Sample Rate: 1024/sec
Record Duration: 10.28 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:14	0.127	9.394	0:05:07	0.127	17.965	0:00:35	0.127	11.011	0:04:34	0.22
2	0:05:14	0.127	10.779	0:07:06	0.127	13.653	0:08:30	0.127	14.423	0:06:42	0.22
3	0:10:14	0.127	8.904	0:12:32	0.127	12.047	0:15:11	0.127	13.299	0:13:09	0.22
4	0:15:14	0.127	9.57	0:19:32	0.127	14.841	0:20:00	0.127	11.77	0:17:57	0.22
5	0:20:14	0.127	11.77	0:20:21	0.127	20.898	0:21:12	0.127	15.754	0:20:33	0.22
6	0:25:14	0.127	10.343	0:28:40	0.127	16.787	0:28:44	0.127	13.653	0:28:40	0.22
7	0:30:14	0.127	10.343	0:33:49	0.127	17.356	0:33:08	0.127	12.642	0:31:57	0.22
8	0:35:14	0.127	8.325	0:39:20	0.127	16.254	0:36:53	0.127	15.284	0:39:58	0.22
9	0:40:14	0.127	9.752	0:44:49	0.127	17.356	0:42:18	0.127	14.027	0:45:04	0.22
10	0:45:14	0.127	11.253	0:50:03	0.127	12.962	0:48:31	0.127	13.653	0:46:57	0.22
11	0:50:14	0.127	10.557	0:54:39	0.127	14.027	0:50:47	0.127	11.77	0:54:37	0.22
12	0:55:14	0.127	10.779	0:58:19	0.127	19.321	0:56:46	0.127	11.011	0:58:08	0.22
13	1:00:14	0.127	9.942	1:00:55	0.127	12.337	1:00:16	0.127	12.337	1:00:19	0.22
14	1:05:14	0.127	10.557	1:08:01	0.127	18.618	1:06:26	0.127	14.423	1:06:20	0.22
15	1:10:14	0.127	11.77	1:12:49	0.127	13.299	1:14:40	0.127	13.653	1:14:42	0.22
16	1:15:14	0.127	10.343	1:17:44	0.127	12.337	1:17:48	0.127	13.653	1:17:48	0.22
17	1:20:14	0.127	7.938	1:22:36	0.127	13.653	1:24:43	0.127	12.047	1:22:48	0.22
18	1:25:14	0.127	10.139	1:26:38	0.127	16.254	1:28:12	0.127	11.011	1:30:11	0.22
19	1:30:14	0.127	10.779	1:32:49	0.127	14.423	1:32:46	0.127	9.57	1:32:49	0.22
20	1:35:14	0.127	10.139	1:39:01	0.127	18.618	1:37:58	0.127	12.337	1:37:48	0.22
21	1:40:14	0.127	11.011	1:43:39	0.127	17.356	1:41:29	0.127	13.299	1:41:45	0.22
22	1:45:14	0.127	9.225	1:48:20	0.127	20.898	1:49:47	0.127	11.506	1:45:17	0.22
23	1:50:14	0.127	9.942	1:52:27	0.127	15.284	1:54:14	0.127	14.027	1:50:18	0.22
24	1:55:14	0.127	11.77	1:56:13	0.127	20.898	1:56:36	0.127	15.754	1:58:09	0.22
25	2:00:14	0.127	11.506	2:01:11	0.127	24.976	2:01:54	0.127	12.962	2:02:06	0.22
26	2:05:14	0.127	12.047	2:09:27	0.127	18.618	2:08:16	0.127	10.779	2:09:15	0.22
27	2:10:14	0.127	8.904	2:13:19	0.127	14.841	2:14:12	0.127	12.962	2:12:26	0.22
28	2:15:14	0.127	10.139	2:18:13	0.127	15.284	2:16:59	0.127	12.642	2:15:40	0.22
29	2:20:14	0.127	10.343	2:20:43	0.127	12.337	2:20:49	0.127	14.841	2:21:04	0.22
30	2:25:14	0.127	7.585	2:26:31	0.127	15.754	2:27:22	0.127	11.77	2:29:20	0.22
31	2:30:14	0.127	9.225	2:34:40	0.127	17.965	2:34:07	0.127	14.423	2:32:21	0.22
32	2:35:14	0.127	12.962	2:37:07	0.127	18.618	2:37:21	0.127	14.423	2:37:16	0.22
33	2:40:14	0.127	9.394	2:45:02	0.127	14.841	2:42:48	0.127	14.027	2:44:51	0.22
34	2:45:14	0.127	9.942	2:48:52	0.127	20.078	2:45:29	0.127	12.962	2:47:18	0.22
35	2:50:14	0.127	11.011	2:52:50	0.127	14.423	2:54:37	0.127	13.299	2:53:33	0.22
36	2:55:14	0.127	9.225	2:56:47	0.127	10.343	2:56:53	0.127	13.299	2:56:53	0.22
37	3:00:14	0.127	11.253	3:01:23	0.127	14.841	3:02:58	0.127	15.754	3:03:34	0.22
38	3:05:14	0.127	11.011	3:09:58	0.127	18.618	3:08:41	0.127	14.423	3:07:57	0.22
39	3:10:14	0.127	13.299	3:13:24	0.127	17.965	3:12:24	0.127	12.337	3:10:43	0.22
40	3:15:14	0.127	10.779	3:16:07	0.127	20.078	3:15:33	0.127	13.299	3:16:41	0.22
41	3:20:14	0.127	9.225	3:20:53	0.127	12.047	3:20:47	0.127	15.284	3:20:29	0.22
42	3:25:14	0.127	9.57	3:25:36	0.127	22.756	3:28:19	0.127	11.506	3:26:07	0.22
43	3:30:14	0.127	10.779	3:31:13	0.127	13.299	3:31:02	0.127	14.027	3:31:00	0.22
44	3:35:14	0.127	10.779	3:37:55	0.127	18.618	3:37:17	0.127	11.77	3:37:37	0.22
45	3:40:14	0.127	9.942	3:42:04	0.127	10.139	3:42:03	0.127	10.139	3:40:32	0.22
46	3:45:14	0.127	8.325	3:45:26	0.127	17.356	3:45:26	0.127	13.299	3:49:47	0.22
47	3:50:14	0.127	7.699	3:54:19	0.127	16.787	3:52:25	0.127	10.779	3:54:07	0.22
48	3:55:14	0.127	9.062	3:58:58	0.127	18.618	3:59:17	0.127	11.253	3:56:26	0.22
49	4:00:14	0.127	9.942	4:04:25	0.127	11.506	4:02:00	0.127	14.027	4:03:12	0.22
50	4:05:14	0.127	8.463	4:07:52	0.127	17.356	4:05:15	0.127	14.027	4:07:46	0.22
51	4:10:14	0.127	11.011	4:11:14	0.127	18.618	4:10:17	0.127	14.841	4:10:31	0.22
52	4:15:14	0.127	9.225	4:15:48	0.127	10.343	4:18:29	0.127	9.752	4:15:48	0.22
53	4:20:14	0.127	14.027	4:20:52	0.127	21.787	4:23:16	0.127	12.642	4:23:34	0.22
54	4:25:14	0.127	12.642	4:26:26	0.127	19.321	4:27:51	0.127	13.653	4:29:38	0.22
55	4:30:14	0.127	9.752	4:30:46	0.127	18.618	4:30:14	0.127	14.027	4:31:57	0.22
56	4:35:14	0.127	7.262	4:35:40	0.127	15.284	4:37:47	0.127	14.423	4:38:41	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 18
Start: 21/4/2022 @ 00:00:14
End: 21/4/2022 @ 10:17:02
Summary Interval: 124
Air: 81.9 dBL @ 0.8 Hz
Radial: 4.191 (mm/s) @ 78.77 Hz @ 10:16:58
Transverse: 2.794 (mm/s) @ 44.52 Hz @ 10:16:58
Vertical: 5.08 (mm/s) @ 17.36 Hz @ 10:16:46
Vector Sum: 5.18 (mm/s)
Sample Rate: 1024/sec
Record Duration: 10.28 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:14	0.127	10.557	4:44:14	0.127	18.618	4:45:04	0.127	12.962	4:42:43	0.22
58	4:45:14	0.127	8.904	4:46:43	0.127	16.254	4:45:26	0.127	13.653	4:48:04	0.22
59	4:50:14	0.127	12.047	4:51:18	0.127	19.321	4:51:20	0.127	11.77	4:51:44	0.22
60	4:55:14	0.127	9.062	4:56:03	0.127	17.356	4:56:02	0.127	12.337	4:58:31	0.22
61	5:00:14	0.127	8.325	5:03:44	0.127	16.787	5:00:16	0.127	10.779	5:00:19	0.22
62	5:05:14	0.127	9.752	5:07:55	0.127	12.642	5:05:23	0.127	13.299	5:05:33	0.22
63	5:10:14	0.127	10.779	5:11:56	0.127	12.337	5:14:16	0.127	12.337	5:13:42	0.22
64	5:15:14	0.127	10.557	5:16:17	0.127	12.337	5:16:18	0.127	12.962	5:18:38	0.22
65	5:20:14	0.127	8.904	5:21:46	0.127	14.423	5:20:31	0.127	9.752	5:22:52	0.22
66	5:25:14	0.127	8.063	5:28:07	0.127	12.642	5:28:56	0.127	9.394	5:27:11	0.22
67	5:30:14	0.127	8.752	5:33:43	0.127	15.754	5:34:00	0.127	12.962	5:33:59	0.22
68	5:35:14	0.127	9.225	5:39:37	0.127	14.423	5:38:42	0.127	10.343	5:38:24	0.22
69	5:40:14	0.127	7.262	5:41:53	0.127	11.77	5:44:36	0.127	10.139	5:44:29	0.22
70	5:45:14	0.127	7.938	5:50:09	0.127	11.253	5:48:41	0.127	9.752	5:48:41	0.22
71	5:50:14	0.127	10.557	5:53:56	0.127	16.254	5:52:31	0.127	10.343	5:54:03	0.22
72	5:55:14	0.127	8.463	5:58:16	0.127	9.57	5:58:16	0.127	9.062	5:58:14	0.22
73	6:00:14	0.127	5.657	6:01:38	0.127	13.299	6:01:34	0.127	14.841	6:01:48	0.22
74	6:05:14	0.127	7.938	6:06:12	0.127	13.653	6:09:35	0.127	12.047	6:08:23	0.22
75	6:10:14	0.127	11.77	6:13:00	0.127	11.011	6:13:07	0.127	12.642	6:15:05	0.22
76	6:15:14	0.127	9.57	6:17:03	0.127	15.284	6:19:21	0.127	12.642	6:19:18	0.22
77	6:20:14	0.127	9.752	6:23:23	0.127	14.841	6:22:55	0.127	11.77	6:20:46	0.22
78	6:25:14	0.127	7.938	6:27:22	0.127	10.139	6:28:06	0.127	11.253	6:29:11	0.22
79	6:30:14	0.127	9.225	6:30:19	0.127	12.337	6:32:14	0.127	10.779	6:35:13	0.22
80	6:35:14	0.127	8.325	6:38:54	0.127	14.841	6:38:43	0.127	11.011	6:38:40	0.22
81	6:40:14	0.127	8.752	6:42:15	0.127	12.962	6:42:41	0.127	12.047	6:44:29	0.22
82	6:45:14	0.127	6.606	6:49:17	0.127	13.299	6:49:30	0.127	10.557	6:49:41	0.22
83	6:50:14	0.127	5.657	6:52:35	0.127	9.062	6:53:30	0.127	12.047	6:53:24	0.22
84	6:55:14	0.127	7.062	7:00:04	0.127	10.779	6:55:20	0.127	12.642	6:57:31	0.22
85	7:00:14	0.127	6.781	7:02:23	0.127	11.253	7:02:35	0.127	14.027	7:02:19	0.22
86	7:05:14	0.127	8.904	7:06:51	0.127	15.284	7:05:42	0.127	12.962	7:05:46	0.22
87	7:10:14	0.127	6.872	7:12:43	0.127	14.841	7:13:25	0.127	12.337	7:14:49	0.22
88	7:15:14	0.127	8.325	7:19:57	0.127	14.027	7:17:26	0.127	13.299	7:18:20	0.22
89	7:20:14	0.127	8.752	7:25:04	0.127	11.506	7:25:03	0.127	11.506	7:21:26	0.22
90	7:25:14	0.127	7.367	7:29:49	0.127	11.011	7:25:34	0.127	12.337	7:25:32	0.22
91	7:30:14	0.127	6.872	7:30:49	0.127	11.253	7:30:49	0.127	11.253	7:34:11	0.22
92	7:35:14	0.127	7.938	7:38:01	0.127	8.904	7:38:01	0.127	9.394	7:38:01	0.22
93	7:40:14	0.127	7.161	7:43:09	0.127	9.57	7:42:34	0.127	12.962	7:41:38	0.22
94	7:45:14	0.127	8.463	7:48:08	0.127	13.299	7:47:27	0.127	11.011	7:47:20	0.22
95	7:50:14	0.127	6.781	7:55:12	0.127	9.225	7:51:25	0.127	13.299	7:54:08	0.22
96	7:55:14	0.127	6.36	7:57:19	0.127	8.063	7:57:19	0.127	12.337	7:56:57	0.22
97	8:00:14	0.127	8.605	8:00:49	0.127	10.779	8:05:10	0.127	10.779	8:01:29	0.22
98	8:05:14	0.127	6.282	8:08:41	0.127	10.139	8:08:50	0.127	11.011	8:06:13	0.22
99	8:10:14	0.127	8.063	8:13:17	0.127	8.904	8:14:59	0.127	11.253	8:13:13	0.22
100	8:15:14	0.127	6.206	8:17:16	0.127	9.225	8:17:12	0.127	11.253	8:20:01	0.22
101	8:20:14	0.127	5.657	8:20:48	0.127	13.299	8:24:38	0.127	12.962	8:23:43	0.22
102	8:25:14	0.127	6.522	8:25:17	0.127	11.011	8:26:01	0.127	12.337	8:29:17	0.22
103	8:30:14	0.127	9.062	8:33:56	0.127	9.394	8:33:11	0.127	9.57	8:33:08	0.22
104	8:35:14	0.127	7.585	8:36:39	0.127	7.474	8:36:54	0.127	10.557	8:38:42	0.22
105	8:40:14	0.127	7.699	8:43:31	0.127	10.779	8:41:50	0.127	10.139	8:43:41	0.22
106	8:45:14	0.127	6.522	8:46:29	0.127	7.161	8:48:08	0.127	13.299	8:48:41	0.22
107	8:50:14	0.254	53.895	8:53:54	0.127	10.779	8:51:26	0.254	44.522	8:53:54	0.311
108	8:55:14	0.127	8.325	8:57:45	0.127	8.904	8:57:49	0.254	113.778	8:55:53	0.254
109	9:00:14	0.127	8.192	9:03:45	0.127	9.062	9:02:00	0.127	12.047	9:01:01	0.22
110	9:05:14	0.127	7.062	9:06:36	0.127	8.463	9:06:07	0.254	113.778	9:10:11	0.284
111	9:10:14	0.127	7.474	9:13:59	0.127	9.57	9:12:35	0.127	11.011	9:10:22	0.22
112	9:15:14	0.127	7.938	9:15:46	0.127	9.942	9:15:48	0.127	10.139	9:18:05	0.22

CH2M HILL SPORE PTE LTD
BLK 460 CHOA CHU KANG AVENUE 4
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 18
Start: 21/4/2022 @ 00:00:14
End: 21/4/2022 @ 10:17:02
Summary Interval: 124
Air: 81.9 dBL @ 0.8 Hz
Radial: 4.191 (mm/s) @ 78.77 Hz @ 10:16:58
Transverse: 2.794 (mm/s) @ 44.52 Hz @ 10:16:58
Vertical: 5.08 (mm/s) @ 17.36 Hz @ 10:16:46
Vector Sum: 5.18 (mm/s)
Sample Rate: 1024/sec
Record Duration: 10.28 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:14	0.127	7.585	9:25:01	0.127	5.721	9:21:17	0.127	12.047	9:22:39	0.22
114	9:25:14	0.127	5.721	9:28:03	0.127	9.062	9:25:56	0.127	12.337	9:28:39	0.22
115	9:30:14	0.127	9.394	9:30:17	0.127	10.343	9:32:10	0.127	11.253	9:34:40	0.22
116	9:35:14	0.127	8.463	9:39:17	0.127	7.817	9:39:41	0.127	12.047	9:36:59	0.22
117	9:40:14	0.254	48.762	9:44:30	0.127	12.962	9:43:30	0.381	93.091	9:44:52	0.381
118	9:45:14	0.254	48.762	9:46:11	0.127	14.841	9:46:30	0.254	48.762	9:45:23	0.311
119	9:50:14	0.254	53.895	9:55:13	0.127	10.557	9:52:30	0.254	68.267	9:50:57	0.284
120	9:55:14	0.254	12.642	9:55:33	0.127	11.77	10:00:04	0.254	78.769	10:00:07	0.311
121	10:00:14	0.127	7.938	10:05:07	0.127	12.047	10:04:02	0.254	113.778	10:02:41	0.254
122	10:05:14	0.127	7.585	10:06:12	0.127	11.011	10:05:43	0.127	12.642	10:07:14	0.22
123	10:10:14	0.254	8.063	10:14:20	0.127	8.325	10:14:35	0.254	12.047	10:14:20	0.311
124	10:15:14	4.191	78.769	10:16:58	2.794	44.522	10:16:58	5.08	17.356	10:16:46	5.182

ENSSCOM
Improving Your Workplace Safety & Health

CONFIDENTIAL

SUMMARY REPORT

ENVIRONMENTAL BASELINE VIBRATION MONITORING WORK

REPORT - 03

For

CH2M HILL SINGAPORE PTE LTD

150 BEACH ROAD, GATEWAY WEST 34th FLOOR, SINGAPORE 189720

Monitoring Location:

446 Choa Chu Kang Avenue 4 (POINT VM3)

Attention:

MS CATHERINE BALDEDARA

Project No.:

22050608/VMS/CH2M/DE170/VM1

Date of Monitored:

22 April 2022 - 28 April 2022

Date of Report:

6 May 2022

Prepared by:

Ensscom Pte Ltd

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3.0 MONITORING RESULTS

3.1 Summary of Vibration Meter Readings

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APPENDIX B: INSTRUMENT LOCATION PLAN

APPENDIX C: VIBRATION METER DATA

1.0 INTRODUCTION

This survey summarises the results of baseline vibration monitoring works for location at **446 Choa Chu Kang Avenue 4** on behalf of **M/s CH2M HILL SINGAPORE PTE LTD.**

The purpose of the survey for this project is to monitor the vibration conditions **before** the construction phase for further Environment Impact Assessment Study.

The instrumentation work is being carried out continuously for 7 days period.

2.0 SCOPE OF INSTRUMENTATION WORK

The scope of the instrumentation work for this project currently consists of installation and monitoring of the following instruments:

INSTRUMENT TYPE	S/N	TOTAL	INSTALL	ACTIVE
Vibration Meter,VM-3	21670	1	1	1

Note:

1) Vibration meter installed on 21/4/2022

2) Last calibrated on 28/2/2022

The scope of this report is to present:

- A summary of the highest instruments readings recorded for each day of monitoring

- Vibration readings data (highest reading for each axis) recorded at every 5 minutes interval during the 7 days monitoring period.

- The instrument daily self calibration report.

3.0 MONITORING RESULTS

3.1 Summary of Vibration Monitoring Readings and Terms used

The vibration sensor was placed on the site to monitor the baseline vibration level before the commencement of any work activity.

Vibration monitoring unit was set to record vibration readings at every 5 minutes interval continuously for 7 days. The highest reading of each axis is recorded within the 5 minutes interval.

Peak Particle Velocity (**PPV)** - Used for either the peak of a single channel of a triax or the peak vector sum. It has also traditionally been used to mean the Maximum Peak Particle Velocity of all the channels of the triax.

Vector peak particle velocity (VPPV) - The peak level of the particle velocity calculated from the vector formed by the magnitude of the three orthogonal components of the particle velocity over their measured time history.

The Term **Vector Sum** is used for **Vector Peak Particle Velocity (VPPV)** in the report.

Vector Sum

Calculates a particle velocity value based on a single point in time.
For every sample taken during an event, each seismic channel's velocity measurements can be applied to following formula:
$VS = SQR(R^2 + T^2 + V^2)$
Seismic channels = Radial, Transverse, Vertical
Velocity measurements- inches or mm per second

The baseline vibration data recorded during the 7 days of monitoring are listed in Appendix C.

The summary of the daily highest vibration reading recorded for each axis and vector sum is is presented in the Table 3.1 below.

Day 1 - 22/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.381	0.381	0.508	**0.63**
Frequency (Hz)	6.52	341.33	8.61	-
Time	7:19:20 am	1:07:16 pm	8:28:25 pm	-
Day 2 - 23/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	1.651	3.556	1.397	**3.58**
Frequency (Hz)	204.8	2.21	146.29	-
Time	2:38:45 pm	2:40:15 pm	2:40:15 pm	-
Day 3 - 24/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.254	0.254	0.381	**0.4**
Frequency (Hz)	8.9	341.33	12.96	-
Time	6:09:36 pm	1:19:03 pm	1:53:48 pm	-
Day 4 - 25/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.762	1.27	0.762	**1.33**
Frequency (Hz)	146.29	204.8	93.09	-
Time	12:15:44 pm	12:15:45 pm	12:15:44 pm	-
Day 5 - 26/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.254	0.889	0.508	**0.91**
Frequency (Hz)	6.61	341.33	44.52	-
Time	11:16:57 am	8:35:05 pm	10:59:03 am	-

Day 6 - 27/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.254	0.635	0.889	**0.91**
Frequency (Hz)	7.82	341.33	44.52	-
Time	6:41:35 pm	12:39:44 pm	2:09:17 pm	-
Day 7 - 28/4/2022				
Channel	**Radial**	**Transverse**	**Vertical**	**Vector Sum**
Velocity (mm/s)	0.381	0.254	0.508	**0.52**
Frequency (Hz)	48.76	341.33	7.82	-
Time	4:11:57 pm	10:54:55 pm	4:11:57 pm	-

APPENDIX A

BUILDING & CONSTRUCTION AUTHORITY GUIDELINES

Figure A11.1 Vibration in Buildings - Combined-Direction Peak Velocity Curves (Figure 5(c) from NZS/ISO 2631-2:1989)

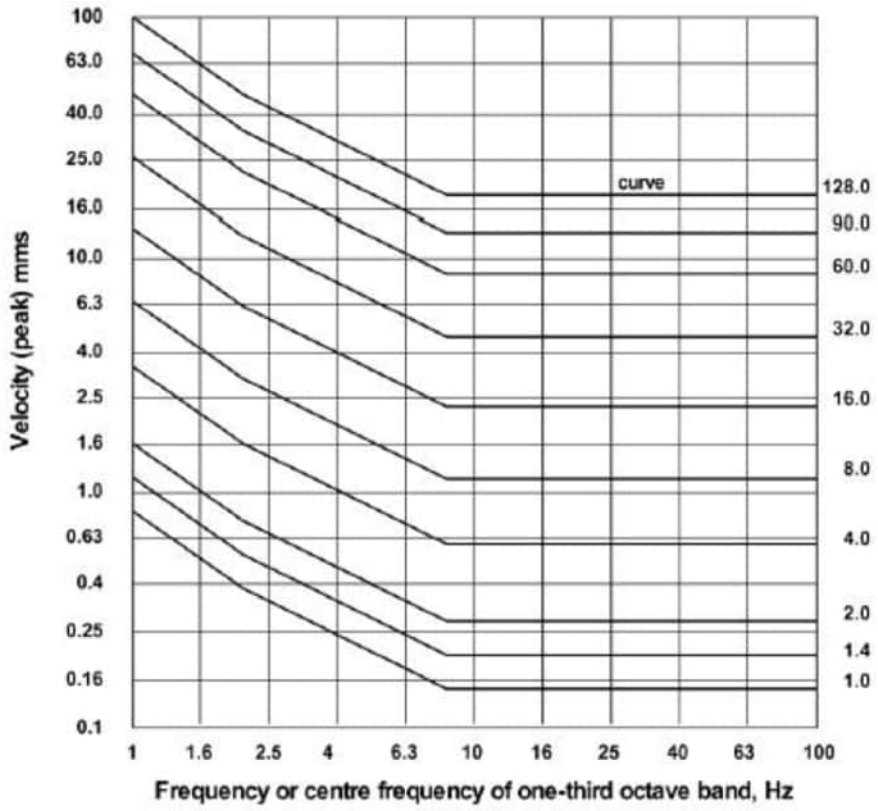
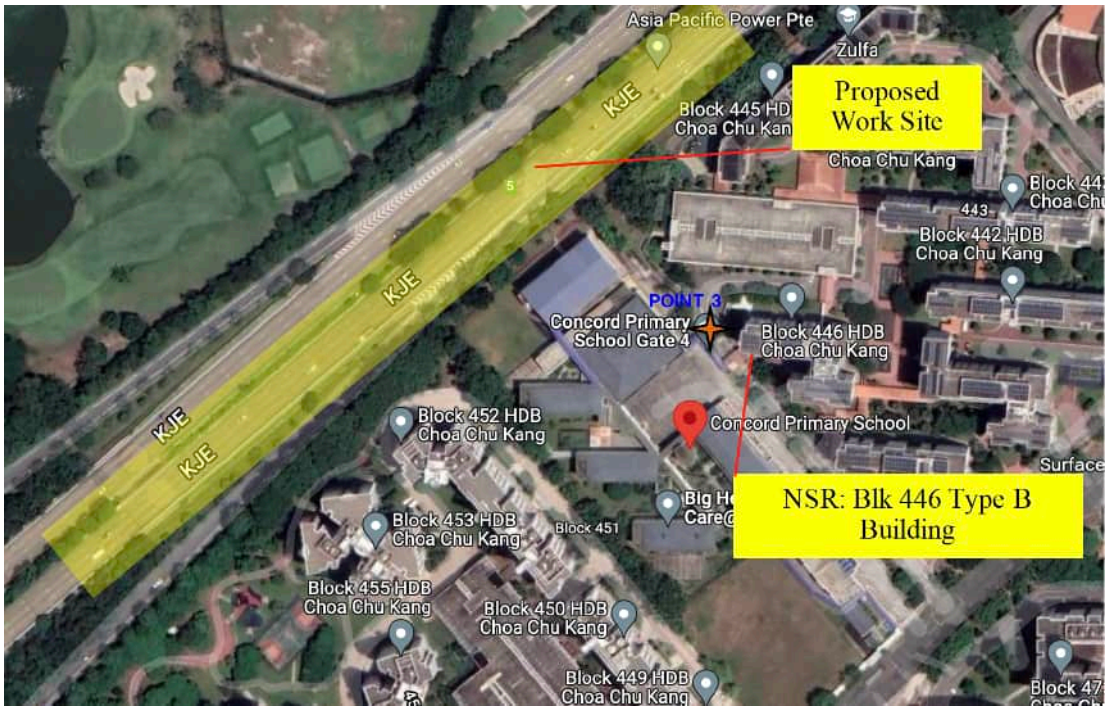


Table A10.2 - Environmental Performance Criteria for Short Term Vibration in Structures (refer DIN 4150-3:1986)

Line No.	Type of Structure	Peak Component Velocity (mm/s) at Foundation for Short Term Vibration			Plane of Floor of Uppermost Storey
		Vibration Frequency			Frequency Mixture
		<10Hz	10-50Hz	50-100Hz*	
1	Buildings used for industrial purposes, industrial buildings and buildings of similar design	20	20-40	40-50	40
2	Dwellings and buildings of similar design and/or use	5	5-15	15-20	15
3	Structures that, because of their particular sensitivity to vibration, do not correspond to those listed in rows 1 and 2, and are of great intrinsic value (e.g. buildings that are under a preservation order)	3	3-8	8-10	8

APPENDIX B

INSTRUMENT LOCATION PLAN


Asia Pacific Power Pte
Zulfa
Proposed Work Site
Block 445 HDB Choa Chu Kang
Choa Chu Kang
KJE
KJE
KJE
KJE
Block 442 HDB Choa Chu Kang
POINT 3
Concord Primary School Gate 4
Block 446 HDB Choa Chu Kang
Block 452 HDB Choa Chu Kang
Concord Primary School
NSR: Blk 446 Type B Building
Block 453 HDB Choa Chu Kang
Block 451
Block 455 HDB Choa Chu Kang
Block 450 HDB Choa Chu Kang
Block 449 HDB Choa Chu Kang

APPENDIX C

VIBRATION MONITORING DATA

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

21/4/2022 at 11:13 am Event # 1

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 18.47 mm/s @ 1.22 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7317**	**4.1354**	**12.7317**
Frequency (Hz)	**13.8**	**36.5**	**24.3**

Air

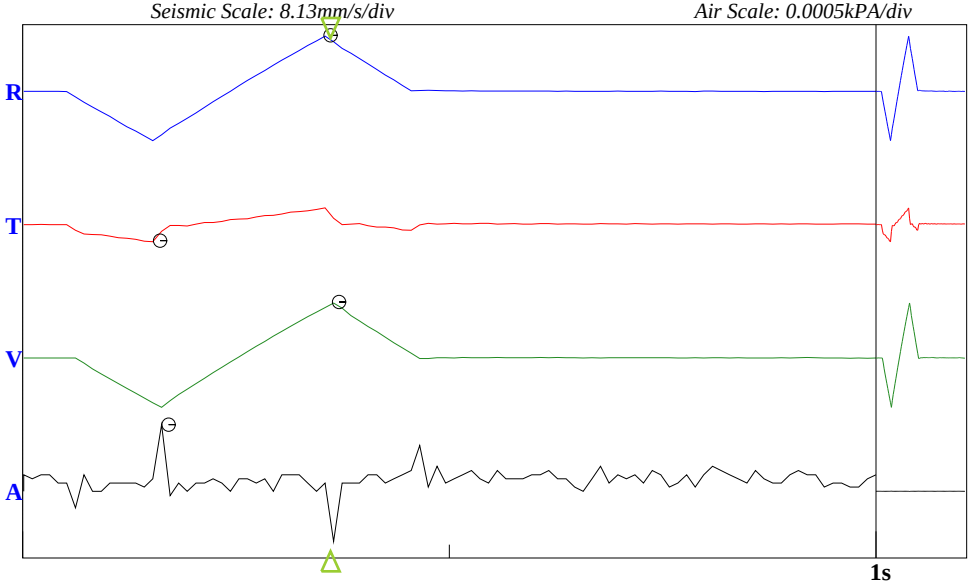
Gain: 1

Measurement	Value		
kPA	0.000453		
dBL	**87.1**		
Hz	512.0		

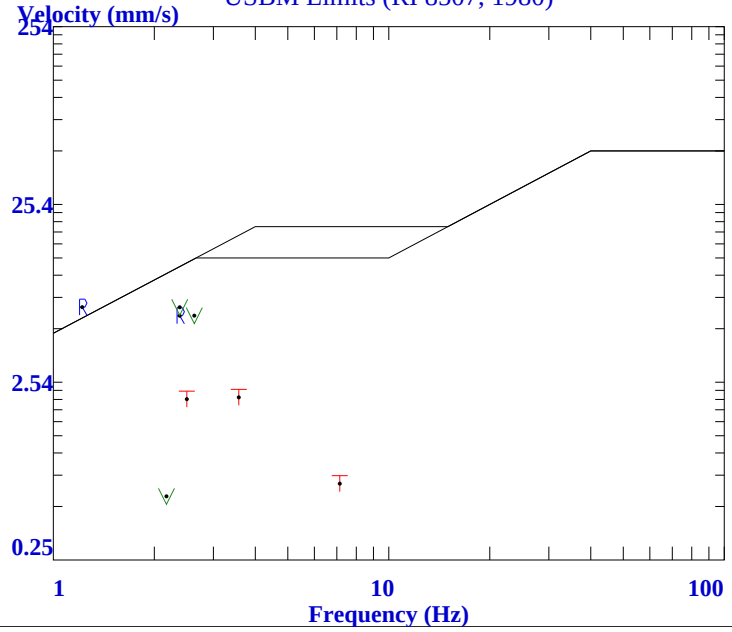
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

21/4/2022 at 11:13:46 am Event # 2

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:01 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 13.94 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**9.652**	**5.842**	**13.208**
Frequency (Hz)	**44.52**	**2.29**	**9.06**
Time	11:15:02 am	11:15:02 am	11:15:06 am

Air

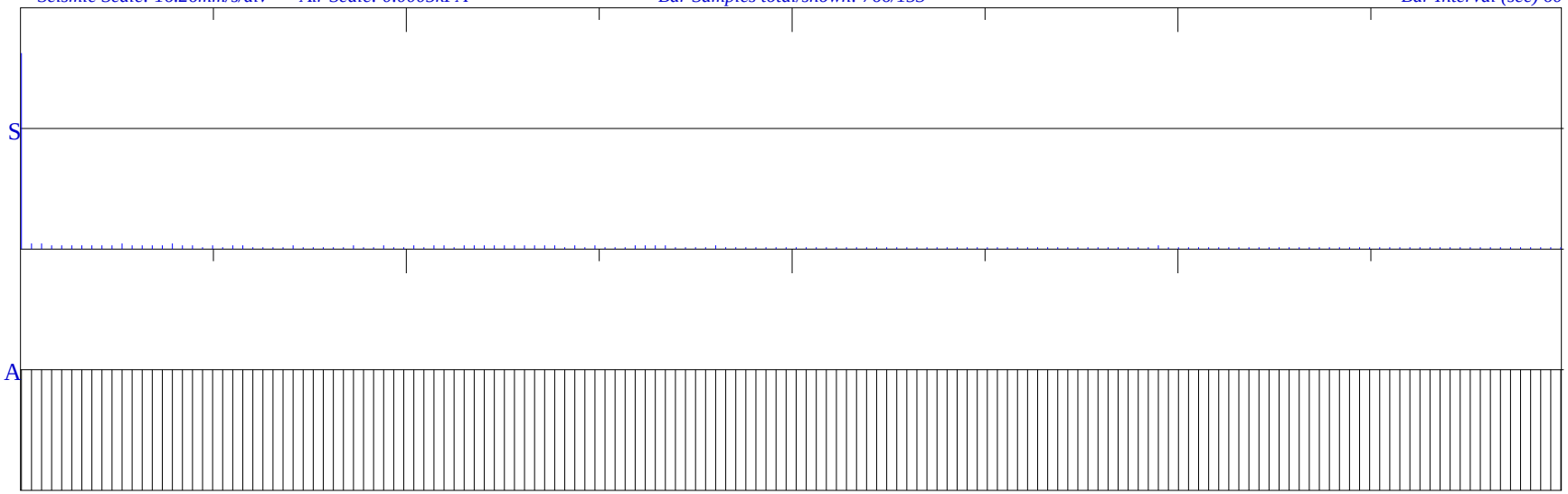
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.65		
Time	11:15:22 am		

BarGraph

Seismic Scale: 16.26mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 766/153*

Summary Interval (min): 5
Bar Interval (sec) 60



11:13:46 **12:49:32** **14:25:19** **16:01:06** **17:36:53** **19:12:40** **20:48:27** **22:24:14** **00:00:01**

<<<<<<<<<<<<<< **12:46:15** >>>>>>>>>>>>>>

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 2
Start: 21/4/2022 @ 11:13:46
End: 22/4/2022 @ 00:00:01
Summary Interval: 154
Air: 81.9 dBL @ 0.65 Hz
Radial: 9.652 (mm/s) @ 44.52 Hz @ 11:15:02
Transverse: 5.842 (mm/s) @ 2.29 Hz @ 11:15:02
Vertical: 13.208 (mm/s) @ 9.06 Hz @ 11:15:06
Vector Sum: 13.94 (mm/s)
Sample Rate: 1024/sec
Record Duration: 12.77 hr
Battery Level: 6.72

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	11:13:46	9.651999	44.522	11:15:02	5.842	2.291	11:15:02	13.208	9.062	11:15:06	13.936
2	11:18:46	0.127	3.724	11:21:54	0.127	6.872	11:19:45	0.381	33.032	11:18:49	0.421
3	11:23:46	0.254	78.769	11:26:13	0.127	7.817	11:28:00	0.381	33.032	11:26:13	0.421
4	11:28:46	0.127	4.249	11:30:27	0.127	8.463	11:32:43	0.254	33.032	11:31:40	0.311
5	11:33:46	0.127	4.551	11:35:44	0.127	8.463	11:36:47	0.254	18.618	11:33:49	0.311
6	11:38:46	0.127	4.146	11:40:46	0.127	7.817	11:42:52	0.254	33.032	11:40:51	0.311
7	11:43:46	0.127	3.697	11:44:39	0.127	7.062	11:44:06	0.254	33.032	11:44:53	0.311
8	11:48:46	0.254	4.592	11:50:52	0.127	9.752	11:49:13	0.254	33.032	11:51:32	0.381
9	11:53:46	0.127	3.923	11:55:39	0.127	7.938	11:58:45	0.254	31.03	11:57:02	0.311
10	11:58:46	0.254	3.568	12:03:16	0.127	7.161	12:01:49	0.254	35.31	11:59:05	0.311
11	12:03:46	0.254	33.032	12:07:45	0.127	7.062	12:04:27	0.381	6.872	12:08:38	0.402
12	12:08:46	0.254	44.522	12:11:15	0.127	7.262	12:11:56	0.254	33.032	12:08:58	0.311
13	12:13:46	0.127	4.016	12:16:45	0.127	6.059	12:18:01	0.254	33.032	12:14:58	0.311
14	12:18:46	0.254	40.96	12:19:13	0.127	7.817	12:22:55	0.254	7.367	12:19:13	0.311
15	12:23:46	0.254	4.592	12:27:38	0.127	7.474	12:23:48	0.254	5.988	12:25:49	0.311
16	12:28:46	0.254	5.596	12:29:15	0.127	8.063	12:32:25	0.381	9.062	12:29:15	0.421
17	12:33:46	0.254	3.425	12:34:29	0.127	6.132	12:38:06	0.254	5.306	12:34:24	0.311
18	12:38:46	0.127	4.357	12:41:19	0.127	7.938	12:40:09	0.254	35.31	12:41:33	0.284
19	12:43:46	0.127	4.249	12:48:35	0.127	8.463	12:45:47	0.127	5.988	12:47:49	0.22
20	12:48:46	0.127	4.18	12:53:03	0.127	5.657	12:53:13	0.254	44.522	12:50:33	0.284
21	12:53:46	0.127	3.38	12:54:57	0.127	7.817	12:56:19	0.127	5.721	12:54:52	0.22
22	12:58:46	0.127	4.047	13:00:38	0.127	8.605	12:59:39	0.254	37.926	12:59:22	0.284
23	13:03:46	0.127	3.495	13:05:30	0.127	8.904	13:05:52	0.254	4.763	13:04:55	0.311
24	13:08:46	0.127	4.321	13:11:43	0.127	7.699	13:08:55	0.127	4.947	13:09:16	0.22
25	13:13:46	0.127	4.719	13:17:14	0.127	6.36	13:17:30	0.127	6.44	13:18:43	0.22
26	13:18:46	0.127	4.112	13:23:24	0.127	10.139	13:21:00	0.127	6.36	13:21:37	0.22
27	13:23:46	0.127	4.511	13:26:22	0.127	7.262	13:27:41	0.127	5.306	13:25:48	0.22
28	13:28:46	0.127	4.016	13:30:31	0.127	7.699	13:28:56	0.254	35.31	13:28:58	0.284
29	13:33:46	0.127	3.751	13:37:26	0.127	7.367	13:35:52	0.127	4.947	13:37:52	0.22
30	13:38:46	0.127	2.951	13:42:12	0.127	8.605	13:40:59	0.127	5.418	13:39:43	0.22
31	13:43:46	0.127	3.864	13:45:47	0.127	8.752	13:45:16	0.127	4.592	13:45:24	0.22
32	13:48:46	0.127	4.249	13:49:57	0.127	6.36	13:50:28	0.127	5.418	13:49:11	0.22
33	13:53:46	0.127	4.285	13:56:36	0.127	8.605	13:57:24	0.127	4.853	13:57:00	0.22
34	13:58:46	0.127	4.633	14:00:37	0.127	9.062	14:00:35	0.254	35.31	14:02:43	0.284
35	14:03:46	0.127	3.057	14:06:58	0.127	8.904	14:05:43	0.127	5.535	14:03:49	0.22
36	14:08:46	0.127	3.644	14:12:42	0.127	9.942	14:09:40	0.127	6.36	14:09:58	0.22
37	14:13:46	0.127	3.448	14:14:43	0.127	8.752	14:18:15	0.254	6.059	14:16:56	0.311
38	14:18:46	0.127	3.618	14:22:08	0.127	8.904	14:19:22	0.127	5.095	14:18:51	0.22
39	14:23:46	0.127	4.551	14:25:44	0.127	9.394	14:28:06	0.127	5.535	14:28:47	0.22
40	14:28:46	0.127	2.731	14:31:20	0.127	7.062	14:30:05	0.254	35.31	14:31:56	0.254
41	14:33:46	0.127	4.321	14:33:58	0.127	8.605	14:38:21	0.127	6.059	14:35:10	0.22
42	14:38:46	0.127	4.472	14:42:47	0.127	8.752	14:41:25	0.254	6.872	14:39:44	0.311
43	14:43:46	0.127	3.644	14:45:06	0.127	7.938	14:46:38	0.254	7.699	14:44:02	0.284
44	14:48:46	0.127	4.433	14:50:50	0.127	7.161	14:51:19	0.127	5.657	14:50:57	0.22
45	14:53:46	0.127	4.285	14:54:02	0.127	8.605	14:54:17	0.254	9.394	14:53:52	0.311
46	14:58:46	0.127	4.472	14:58:53	0.127	7.938	15:00:32	0.254	37.926	15:00:03	0.254
47	15:03:46	0.127	4.433	15:05:43	0.127	8.904	15:06:14	0.254	31.03	15:07:49	0.311
48	15:08:46	0.127	4.146	15:11:05	0.127	7.699	15:13:33	0.254	6.132	15:10:28	0.311
49	15:13:46	0.127	4.285	15:17:13	0.127	9.752	15:14:40	0.254	7.161	15:14:03	0.311
50	15:18:46	0.254	4.472	15:22:05	0.127	9.225	15:23:05	0.254	5.785	15:19:43	0.311
51	15:23:46	0.127	4.016	15:27:15	0.127	8.063	15:28:18	0.254	6.606	15:25:02	0.311
52	15:28:46	0.127	3.697	15:30:41	0.127	9.57	15:32:03	0.254	35.31	15:33:09	0.311
53	15:33:46	0.127	3.984	15:36:46	0.127	8.463	15:37:00	0.254	37.926	15:36:31	0.284
54	15:38:46	0.127	4.18	15:41:59	0.127	9.57	15:39:57	0.254	35.31	15:39:01	0.284
55	15:43:46	0.127	3.984	15:44:41	0.127	10.139	15:47:12	0.127	5.535	15:47:29	0.22
56	15:48:46	0.127	3.835	15:51:44	0.127	9.062	15:51:24	0.254	48.762	15:51:42	0.284

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 2
Start: 21/4/2022 @ 11:13:46
End: 22/4/2022 @ 00:00:01
Summary Interval: 154
Air: 81.9 dBL @ 0.65 Hz
Radial: 9.652 (mm/s) @ 44.52 Hz @ 11:15:02
Transverse: 5.842 (mm/s) @ 2.29 Hz @ 11:15:02
Vertical: 13.208 (mm/s) @ 9.06 Hz @ 11:15:06
Vector Sum: 13.94 (mm/s)
Sample Rate: 1024/sec
Record Duration: 12.77 hr
Battery Level: 6.72

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	15:53:46	0.127	4.395	15:56:07	0.127	9.942	15:58:29	0.127	5.251	15:53:53	0.22
58	15:58:46	0.127	3.751	16:00:41	0.127	9.752	15:59:37	0.254	7.474	15:59:00	0.311
59	16:03:46	0.127	4.08	16:04:18	0.127	8.904	16:05:54	0.127	5.535	16:04:02	0.22
60	16:08:46	0.127	4.763	16:12:10	0.127	6.693	16:11:11	0.127	5.418	16:11:53	0.22
61	16:13:46	0.127	4.511	16:16:30	0.127	8.752	16:14:46	0.127	5.596	16:15:01	0.22
62	16:18:46	0.127	4.511	16:21:01	0.127	9.062	16:19:26	0.254	3.543	16:21:16	0.284
63	16:23:46	0.127	4.285	16:24:06	0.254	341.333	16:26:44	0.254	35.31	16:26:21	0.284
64	16:28:46	0.127	4.633	16:31:55	0.127	7.474	16:32:48	0.254	7.062	16:29:15	0.311
65	16:33:46	0.127	4.853	16:37:57	0.127	8.192	16:35:42	0.254	60.235	16:35:46	0.284
66	16:38:46	0.127	4.214	16:40:32	0.127	8.325	16:43:21	0.127	5.044	16:40:46	0.22
67	16:43:46	0.127	3.984	16:46:03	0.127	7.062	16:44:23	0.127	6.059	16:44:51	0.22
68	16:48:46	0.127	4.146	16:51:25	0.127	9.225	16:51:38	0.127	5.361	16:51:00	0.22
69	16:53:46	0.127	4.719	16:54:01	0.127	8.605	16:56:54	0.127	3.112	16:55:01	0.22
70	16:58:46	0.127	4.249	16:59:37	0.127	8.325	16:59:27	0.254	5.919	17:00:53	0.254
71	17:03:46	0.127	4.592	17:05:20	0.127	7.938	17:05:06	0.127	5.306	17:06:20	0.22
72	17:08:46	0.127	3.644	17:10:02	0.127	8.463	17:10:20	0.127	4.808	17:13:20	0.22
73	17:13:46	0.127	5.044	17:17:49	0.127	9.225	17:14:27	0.127	5.535	17:16:37	0.22
74	17:18:46	0.127	4.321	17:19:28	0.127	9.57	17:23:42	0.127	4.853	17:22:14	0.22
75	17:23:46	0.127	4.18	17:25:10	0.127	8.325	17:26:10	0.127	5.657	17:26:47	0.22
76	17:28:46	0.127	4.249	17:30:49	0.127	8.605	17:29:48	0.127	5.146	17:30:53	0.22
77	17:33:46	0.127	4.433	17:34:04	0.127	9.394	17:36:35	0.127	5.657	17:38:43	0.22
78	17:38:46	0.127	4.763	17:42:16	0.127	9.394	17:41:45	0.127	6.132	17:42:00	0.22
79	17:43:46	0.127	4.676	17:45:41	0.127	9.394	17:48:30	0.127	5.361	17:47:39	0.22
80	17:48:46	0.127	4.321	17:52:19	0.127	9.225	17:49:33	0.127	5.721	17:50:09	0.22
81	17:53:46	0.127	4.592	17:57:52	0.127	8.904	17:53:57	0.127	4.249	17:56:46	0.22
82	17:58:46	0.127	3.751	17:59:27	0.127	10.343	18:02:52	0.127	5.044	18:01:10	0.22
83	18:03:46	0.127	5.418	18:04:06	0.127	9.394	18:05:11	0.127	5.785	18:06:35	0.22
84	18:08:46	0.127	4.592	18:12:15	0.127	9.942	18:10:46	0.127	5.251	18:12:17	0.22
85	18:13:46	0.127	4.633	18:15:04	0.127	9.062	18:16:11	0.127	5.657	18:15:21	0.22
86	18:18:46	0.127	4.214	18:20:55	0.127	9.57	18:21:32	0.127	5.044	18:22:46	0.22
87	18:23:46	0.127	4.511	18:26:59	0.127	9.752	18:25:46	0.127	5.476	18:26:49	0.22
88	18:28:46	0.127	5.476	18:32:46	0.127	10.343	18:32:22	0.127	5.851	18:32:36	0.22
89	18:33:46	0.127	3.495	18:36:24	0.127	10.779	18:36:04	0.127	5.721	18:36:19	0.22
90	18:38:46	0.127	4.719	18:43:29	0.127	8.752	18:41:20	0.127	5.785	18:43:33	0.22
91	18:43:46	0.127	4.592	18:48:39	0.127	11.253	18:47:02	0.127	4.947	18:44:38	0.22
92	18:48:46	0.127	5.476	18:51:15	0.127	8.063	18:50:22	0.127	5.721	18:53:39	0.22
93	18:53:46	0.127	4.995	18:56:37	0.127	8.463	18:58:39	0.127	6.132	18:56:25	0.22
94	18:58:46	0.127	4.808	19:00:31	0.127	8.325	19:01:34	0.127	6.206	19:02:40	0.22
95	19:03:46	0.127	4.995	19:06:56	0.127	9.062	19:04:07	0.127	4.357	19:05:32	0.22
96	19:08:46	0.127	4.112	19:08:48	0.127	9.062	19:13:11	0.127	4.511	19:08:47	0.22
97	19:13:46	0.127	4.808	19:17:54	0.127	9.225	19:15:23	0.127	5.361	19:18:13	0.22
98	19:18:46	0.127	4.214	19:22:27	0.127	8.752	19:20:33	0.127	4.719	19:22:27	0.22
99	19:23:46	0.127	4.08	19:24:54	0.127	9.225	19:26:57	0.127	5.251	19:25:27	0.22
100	19:28:46	0.127	4.395	19:29:41	0.127	8.325	19:32:36	0.127	5.596	19:30:55	0.22
101	19:33:46	0.127	4.719	19:36:01	0.127	8.325	19:34:26	0.127	5.306	19:35:54	0.22
102	19:38:46	0.127	4.214	19:43:03	0.127	8.605	19:43:04	0.127	5.535	19:41:46	0.22
103	19:43:46	0.127	3.923	19:48:06	0.127	10.779	19:45:41	0.127	4.551	19:46:57	0.22
104	19:48:46	0.127	4.472	19:52:43	0.127	9.062	19:49:37	0.127	5.146	19:52:46	0.22
105	19:53:46	0.127	4.763	19:54:14	0.127	9.225	19:53:47	0.127	5.851	19:54:36	0.22
106	19:58:46	0.127	4.719	20:02:42	0.127	8.192	20:00:17	0.127	4.947	20:03:43	0.22
107	20:03:46	0.127	4.676	20:04:25	0.127	10.557	20:06:50	0.127	5.721	20:04:08	0.22
108	20:08:46	0.127	5.044	20:10:44	0.127	8.463	20:08:52	0.127	5.198	20:08:51	0.22
109	20:13:46	0.127	4.808	20:13:58	0.127	9.57	20:16:16	0.127	5.988	20:17:12	0.22
110	20:18:46	0.127	4.947	20:18:55	0.127	9.225	20:21:17	0.127	3.923	20:21:45	0.22
111	20:23:46	0.127	4.08	20:24:26	0.127	9.394	20:28:17	0.127	5.198	20:28:33	0.22
112	20:28:46	0.127	4.214	20:33:05	0.127	7.474	20:32:43	0.127	4.995	20:31:17	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 2
Start: 21/4/2022 @ 11:13:46
End: 22/4/2022 @ 00:00:01
Summary Interval: 154
Air: 81.9 dBL @ 0.65 Hz
Radial: 9.652 (mm/s) @ 44.52 Hz @ 11:15:02
Transverse: 5.842 (mm/s) @ 2.29 Hz @ 11:15:02
Vertical: 13.208 (mm/s) @ 9.06 Hz @ 11:15:06
Vector Sum: 13.94 (mm/s)
Sample Rate: 1024/sec
Record Duration: 12.77 hr
Battery Level: 6.72

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	20:33:46	0.127	4.285	20:37:23	0.127	8.752	20:35:49	0.127	4.719	20:34:39	0.22
114	20:38:46	0.127	3.67	20:39:25	0.127	9.394	20:40:03	0.254	5.476	20:42:40	0.284
115	20:43:46	0.127	4.18	20:45:59	0.127	7.062	20:44:20	0.127	5.535	20:44:28	0.22
116	20:48:46	0.127	4.321	20:49:40	0.127	6.522	20:49:45	0.127	5.306	20:51:16	0.22
117	20:53:46	0.127	4.357	20:58:44	0.127	7.161	20:55:12	0.127	5.785	20:55:39	0.22
118	20:58:46	0.127	4.395	20:58:52	0.127	8.904	21:01:43	0.127	5.044	20:59:17	0.22
119	21:03:46	0.127	4.18	21:07:22	0.127	8.192	21:07:44	0.127	4.321	21:04:08	0.22
120	21:08:46	0.127	3.835	21:11:13	0.127	8.904	21:12:21	0.127	5.596	21:12:47	0.22
121	21:13:46	0.127	4.511	21:15:19	0.127	7.367	21:14:07	0.127	5.596	21:18:07	0.22
122	21:18:46	0.127	4.633	21:20:23	0.127	8.605	21:19:28	0.127	5.044	21:20:10	0.22
123	21:23:46	0.127	4.719	21:25:28	0.127	8.904	21:24:29	0.127	5.361	21:26:31	0.22
124	21:28:46	0.127	4.395	21:29:48	0.127	8.605	21:30:05	0.127	5.988	21:32:46	0.22
125	21:33:46	0.127	4.511	21:35:53	0.127	8.463	21:35:58	0.127	4.995	21:37:18	0.22
126	21:38:46	0.127	3.984	21:39:48	0.127	7.062	21:42:17	0.127	5.361	21:39:21	0.22
127	21:43:46	0.127	4.433	21:46:18	0.127	8.463	21:48:11	0.127	5.251	21:47:51	0.22
128	21:48:46	0.127	4.633	21:49:17	0.127	8.325	21:51:23	0.127	5.361	21:49:46	0.22
129	21:53:46	0.127	4.995	21:58:03	0.127	8.463	21:54:02	0.127	5.044	21:54:11	0.22
130	21:58:46	0.127	4.016	22:01:21	0.127	7.474	22:00:50	0.127	5.851	22:01:47	0.22
131	22:03:46	0.127	4.511	22:06:07	0.127	8.752	22:07:30	0.127	6.282	22:04:04	0.22
132	22:08:46	0.127	4.551	22:12:41	0.127	10.139	22:09:50	0.127	6.36	22:11:51	0.22
133	22:13:46	0.127	4.995	22:15:15	0.127	10.139	22:14:23	0.127	5.596	22:13:58	0.22
134	22:18:46	0.127	4.676	22:19:32	0.127	6.44	22:22:37	0.127	6.059	22:20:25	0.22
135	22:23:46	0.127	4.146	22:27:24	0.127	8.325	22:28:39	0.127	4.947	22:27:33	0.22
136	22:28:46	0.127	5.476	22:29:04	0.127	8.605	22:28:54	0.127	5.535	22:31:17	0.22
137	22:33:46	0.127	4.633	22:38:45	0.127	8.605	22:38:01	0.127	5.476	22:38:10	0.22
138	22:38:46	0.127	4.146	22:43:42	0.127	8.463	22:42:52	0.127	5.657	22:39:01	0.22
139	22:43:46	0.127	4.995	22:44:10	0.127	10.557	22:44:19	0.127	5.988	22:48:05	0.22
140	22:48:46	0.127	5.251	22:53:30	0.127	10.139	22:53:04	0.127	4.357	22:49:32	0.22
141	22:53:46	0.127	4.763	22:56:01	0.127	10.779	22:53:59	0.127	5.418	22:58:00	0.22
142	22:58:46	0.127	4.808	23:02:23	0.127	10.779	23:00:26	0.127	6.282	23:02:57	0.22
143	23:03:46	0.127	5.657	23:05:34	0.127	9.225	23:08:27	0.127	5.851	23:05:20	0.22
144	23:08:46	0.127	5.476	23:10:05	0.127	9.394	23:08:57	0.127	5.988	23:11:59	0.22
145	23:13:46	0.127	3.954	23:15:57	0.127	8.904	23:16:57	0.127	5.851	23:17:59	0.22
146	23:18:46	0.127	4.808	23:23:19	0.127	10.557	23:21:58	0.127	3.954	23:19:50	0.22
147	23:23:46	0.127	4.285	23:28:16	0.127	6.606	23:28:17	0.127	6.44	23:24:58	0.22
148	23:28:46	0.127	4.633	23:33:39	0.127	10.779	23:29:06	0.127	5.418	23:30:52	0.22
149	23:33:46	0.127	4.995	23:35:35	0.127	7.161	23:35:12	0.127	3.835	23:34:06	0.22
150	23:38:46	0.127	4.633	23:39:25	0.127	10.139	23:40:40	0.127	5.095	23:42:34	0.22
151	23:43:46	0.127	4.214	23:48:11	0.127	8.463	23:47:08	0.127	4.047	23:46:39	0.22
152	23:48:46	0.127	5.095	23:51:33	0.127	8.192	23:52:46	0.127	5.476	23:52:49	0.22
153	23:53:46	0.127	4.395	23:55:55	0.127	9.394	23:56:43	0.127	5.095	23:56:27	0.22
154	23:58:46	0.127	4.472	23:59:16	0.127	8.904	23:59:18	0.127	6.059	23:59:11	0.22

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

22/4/2022 at 12:00 am Event # 3

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 18.51 mm/s @ 1.09 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7714**	**4.1275**	**12.7476**
Frequency (Hz)	**17.6**	**36.5**	**24.3**

Air

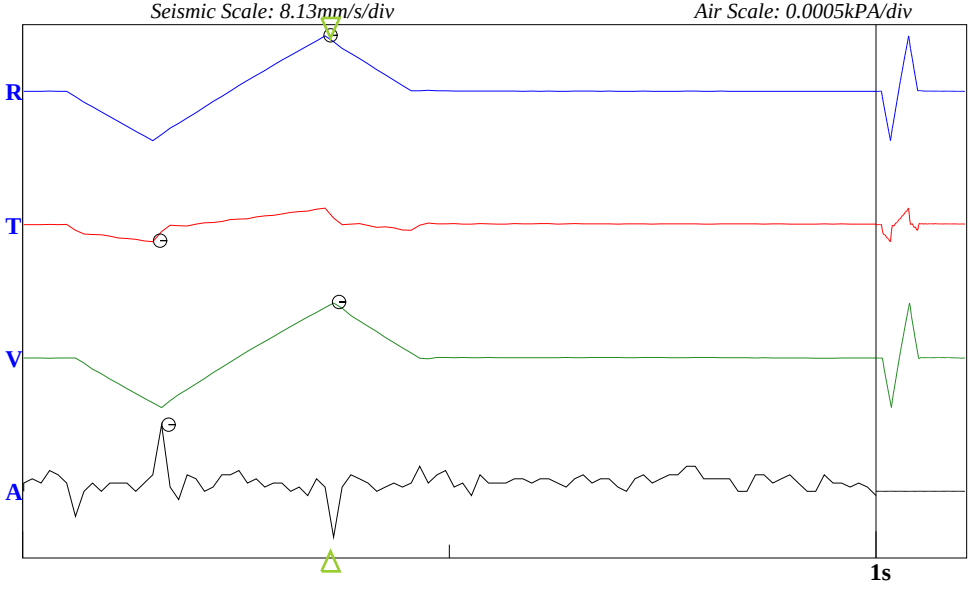
Gain: 1

Measurement	Value		
kPA	0.000437		
dBL	**86.8**		
Hz	512.0		

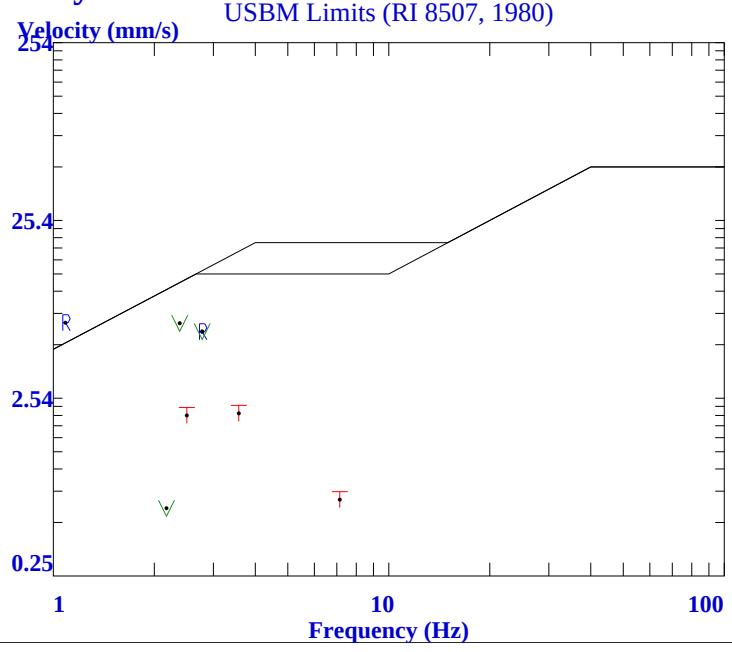
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

22/4/2022 at 12:00:12 am Event # 4

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:03 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.63 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.381**	**0.381**	**0.508**
Frequency (Hz)	**6.52**	**341.33**	**8.61**
Time	7:19:20 am	1:07:16 pm	8:28:25 pm

Air

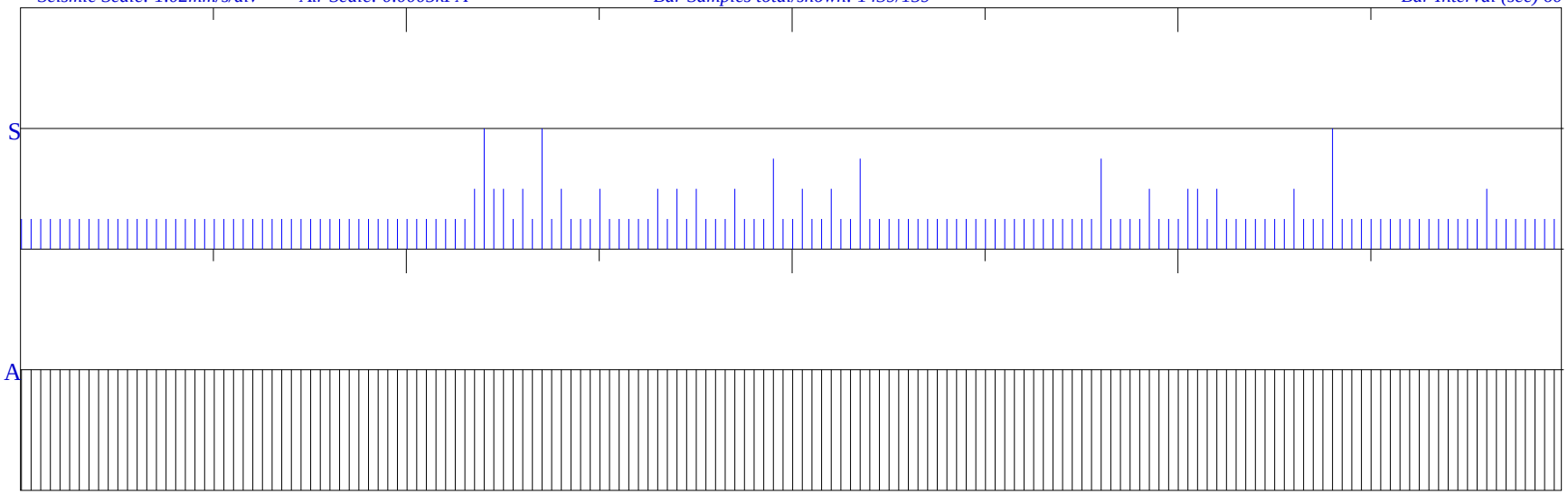
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.67		
Time	4:13:07 am		

BarGraph

Seismic Scale: 1.02mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159*

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:12 **03:00:10** **06:00:09** **09:00:08** **12:00:07** **15:00:06** **18:00:05** **21:00:04** **00:00:03**

<<<<<<<<<<<<<< **23:59:51** >>>>>>>>>>>>>>

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 22/4/2022 @ 00:00:12
End: 23/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.67 Hz
Radial: 0.381 (mm/s) @ 6.52 Hz @ 07:19:20
Transverse: 0.381 (mm/s) @ 341.33 Hz @ 13:07:16
Vertical: 0.508 (mm/s) @ 8.61 Hz @ 20:28:25
Vector Sum: .63 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:12	0.127	9.942	0:04:55	0.127	20.898	0:02:19	0.127	9.394	0:04:54	0.22
2	0:05:12	0.127	10.139	0:07:11	0.127	20.898	0:09:38	0.127	9.225	0:09:51	0.22
3	0:10:12	0.127	9.57	0:11:06	0.127	18.618	0:11:54	0.127	11.011	0:14:13	0.22
4	0:15:12	0.127	9.225	0:16:29	0.127	21.787	0:16:43	0.127	8.752	0:17:34	0.22
5	0:20:12	0.127	8.063	0:23:34	0.127	20.898	0:22:44	0.127	9.942	0:23:34	0.22
6	0:25:12	0.127	9.942	0:26:33	0.127	20.898	0:29:23	0.127	11.253	0:27:18	0.22
7	0:30:12	0.127	11.011	0:30:40	0.127	17.965	0:30:56	0.127	10.343	0:33:01	0.22
8	0:35:12	0.127	8.463	0:36:31	0.127	17.965	0:39:33	0.127	9.942	0:36:51	0.22
9	0:40:12	0.127	8.192	0:44:48	0.127	14.841	0:43:38	0.127	10.779	0:41:01	0.22
10	0:45:12	0.127	9.394	0:45:25	0.127	18.618	0:49:33	0.127	12.047	0:47:22	0.22
11	0:50:12	0.127	10.139	0:50:28	0.127	18.618	0:50:27	0.127	11.506	0:51:36	0.22
12	0:55:12	0.127	9.942	0:56:12	0.127	23.814	0:57:45	0.127	9.57	0:59:54	0.22
13	1:00:12	0.127	9.394	1:05:11	0.127	21.787	1:00:44	0.127	8.904	1:05:12	0.22
14	1:05:12	0.127	9.062	1:06:35	0.127	19.321	1:05:16	0.127	9.57	1:09:37	0.22
15	1:10:12	0.127	9.57	1:11:36	0.127	17.965	1:12:45	0.127	10.139	1:11:37	0.22
16	1:15:12	0.127	8.752	1:17:27	0.127	21.787	1:18:18	0.127	9.225	1:17:10	0.22
17	1:20:12	0.127	10.139	1:24:48	0.127	21.787	1:22:20	0.127	9.752	1:24:47	0.22
18	1:25:12	0.127	9.942	1:28:51	0.127	18.618	1:28:34	0.127	8.752	1:28:50	0.22
19	1:30:12	0.127	7.699	1:32:34	0.127	16.787	1:32:08	0.127	8.904	1:33:31	0.22
20	1:35:12	0.127	9.57	1:38:25	0.127	19.321	1:37:44	0.127	9.225	1:35:54	0.22
21	1:40:12	0.127	9.062	1:44:20	0.127	18.618	1:40:51	0.127	10.139	1:44:20	0.22
22	1:45:12	0.127	10.343	1:47:05	0.127	20.898	1:45:51	0.127	12.337	1:49:44	0.22
23	1:50:12	0.127	9.752	1:50:29	0.127	15.284	1:51:52	0.127	12.337	1:51:16	0.22
24	1:55:12	0.127	11.77	1:55:23	0.127	20.078	1:55:46	0.127	13.299	1:59:14	0.22
25	2:00:12	0.127	9.942	2:02:41	0.127	18.618	2:01:13	0.127	10.779	2:02:24	0.22
26	2:05:12	0.127	10.343	2:08:22	0.127	22.756	2:05:47	0.127	12.962	2:07:22	0.22
27	2:10:12	0.127	9.752	2:11:49	0.127	20.078	2:14:51	0.127	10.343	2:11:47	0.22
28	2:15:12	0.127	10.343	2:17:07	0.127	20.078	2:16:26	0.127	11.253	2:17:11	0.22
29	2:20:12	0.127	10.779	2:22:12	0.127	17.965	2:23:33	0.127	10.139	2:22:03	0.22
30	2:25:12	0.127	11.506	2:26:07	0.127	21.787	2:25:15	0.127	10.779	2:25:41	0.22
31	2:30:12	0.127	10.557	2:34:32	0.127	21.787	2:34:49	0.127	11.253	2:34:05	0.22
32	2:35:12	0.127	9.225	2:39:54	0.127	19.321	2:35:35	0.127	10.779	2:38:56	0.22
33	2:40:12	0.127	10.343	2:44:14	0.127	21.787	2:44:49	0.127	10.557	2:43:27	0.22
34	2:45:12	0.127	10.139	2:47:04	0.127	18.618	2:45:17	0.127	12.962	2:46:16	0.22
35	2:50:12	0.127	12.047	2:50:50	0.127	18.618	2:54:16	0.127	8.904	2:50:52	0.22
36	2:55:12	0.127	10.779	2:57:40	0.127	20.078	2:58:26	0.127	10.557	2:57:40	0.22
37	3:00:12	0.127	10.343	3:02:44	0.127	24.976	3:03:29	0.127	11.253	3:02:45	0.22
38	3:05:12	0.127	9.57	3:09:19	0.127	20.898	3:08:50	0.127	9.394	3:09:21	0.22
39	3:10:12	0.127	11.506	3:13:30	0.127	22.756	3:10:37	0.127	11.506	3:14:50	0.22
40	3:15:12	0.127	6.872	3:18:43	0.127	20.898	3:17:13	0.127	11.253	3:18:43	0.22
41	3:20:12	0.127	7.161	3:21:51	0.127	20.078	3:20:13	0.127	12.337	3:21:30	0.22
42	3:25:12	0.127	10.779	3:26:00	0.127	22.756	3:26:34	0.127	10.779	3:26:00	0.22
43	3:30:12	0.127	10.343	3:33:11	0.127	21.787	3:30:23	0.127	11.253	3:33:08	0.22
44	3:35:12	0.127	9.752	3:37:14	0.127	21.787	3:38:04	0.127	9.942	3:37:23	0.22
45	3:40:12	0.127	9.942	3:41:09	0.127	21.787	3:41:05	0.127	9.394	3:41:41	0.22
46	3:45:12	0.127	9.062	3:48:29	0.127	26.256	3:46:33	0.127	10.139	3:45:54	0.22
47	3:50:12	0.127	9.225	3:52:11	0.127	18.618	3:54:56	0.127	9.942	3:54:55	0.22
48	3:55:12	0.127	8.752	3:56:59	0.127	21.787	3:57:16	0.127	11.506	3:55:25	0.22
49	4:00:12	0.127	9.062	4:05:05	0.127	15.754	4:04:27	0.127	8.463	4:05:02	0.22
50	4:05:12	0.127	9.225	4:06:13	0.127	19.321	4:06:56	0.127	9.57	4:06:14	0.22
51	4:10:12	0.127	9.062	4:12:58	0.127	17.965	4:10:20	0.127	9.942	4:15:10	0.22
52	4:15:12	0.127	7.262	4:16:46	0.127	20.078	4:18:10	0.127	8.063	4:16:47	0.22
53	4:20:12	0.127	9.062	4:23:01	0.127	22.756	4:20:26	0.127	9.225	4:23:08	0.22
54	4:25:12	0.127	8.463	4:26:02	0.127	21.787	4:25:13	0.127	10.779	4:25:28	0.22
55	4:30:12	0.127	8.752	4:31:56	0.127	18.618	4:34:31	0.127	9.57	4:33:04	0.22
56	4:35:12	0.127	11.253	4:38:54	0.127	22.756	4:38:28	0.127	10.343	4:38:29	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 22/4/2022 @ 00:00:12
End: 23/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.67 Hz
Radial: 0.381 (mm/s) @ 6.52 Hz @ 07:19:20
Transverse: 0.381 (mm/s) @ 341.33 Hz @ 13:07:16
Vertical: 0.508 (mm/s) @ 8.61 Hz @ 20:28:25
Vector Sum: .63 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:12	0.127	8.325	4:45:06	0.127	18.618	4:40:21	0.127	9.225	4:45:06	0.22
58	4:45:12	0.127	9.062	4:49:36	0.127	14.841	4:45:19	0.127	7.817	4:45:45	0.22
59	4:50:12	0.127	9.062	4:53:28	0.127	19.321	4:52:03	0.127	8.752	4:52:11	0.22
60	4:55:12	0.127	9.942	4:58:27	0.127	19.321	4:57:47	0.127	8.463	4:58:50	0.22
61	5:00:12	0.127	8.904	5:03:36	0.127	22.756	5:04:09	0.127	8.063	5:03:37	0.22
62	5:05:12	0.127	9.942	5:09:27	0.127	17.356	5:08:27	0.127	10.343	5:08:31	0.22
63	5:10:12	0.127	6.781	5:10:17	0.127	19.321	5:11:10	0.127	8.904	5:10:33	0.22
64	5:15:12	0.127	7.262	5:15:45	0.127	20.078	5:16:19	0.127	9.394	5:15:43	0.22
65	5:20:12	0.127	7.161	5:22:21	0.127	20.078	5:20:46	0.127	7.367	5:23:23	0.22
66	5:25:12	0.127	8.904	5:25:29	0.127	20.078	5:28:38	0.127	9.57	5:25:28	0.22
67	5:30:12	0.127	7.062	5:31:39	0.127	16.254	5:34:45	0.127	8.325	5:33:39	0.22
68	5:35:12	0.127	7.938	5:37:09	0.127	17.965	5:35:55	0.127	7.262	5:37:09	0.22
69	5:40:12	0.127	7.699	5:43:03	0.127	19.321	5:41:57	0.127	7.817	5:44:20	0.22
70	5:45:12	0.127	7.817	5:47:16	0.127	17.356	5:45:31	0.127	7.262	5:47:24	0.22
71	5:50:12	0.127	7.938	5:52:01	0.127	18.618	5:51:14	0.127	9.57	5:53:43	0.22
72	5:55:12	0.127	7.161	5:58:05	0.127	20.078	5:58:00	0.127	8.904	5:59:27	0.22
73	6:00:12	0.127	8.325	6:04:15	0.127	16.787	6:01:45	0.127	8.752	6:04:06	0.22
74	6:05:12	0.127	7.474	6:10:11	0.127	18.618	6:08:51	0.127	8.192	6:06:28	0.22
75	6:10:12	0.127	7.699	6:14:45	0.127	16.254	6:10:21	0.127	8.192	6:11:36	0.22
76	6:15:12	0.127	6.522	6:17:43	0.127	19.321	6:17:40	0.127	8.192	6:19:47	0.22
77	6:20:12	0.127	5.535	6:24:49	0.127	17.965	6:21:50	0.127	7.817	6:23:25	0.22
78	6:25:12	0.127	6.522	6:26:10	0.127	20.898	6:26:58	0.127	7.367	6:27:41	0.22
79	6:30:12	0.127	7.699	6:31:29	0.127	18.618	6:33:45	0.127	8.192	6:32:28	0.22
80	6:35:12	0.127	6.206	6:38:37	0.127	16.254	6:40:03	0.127	7.938	6:38:33	0.22
81	6:40:12	0.127	7.585	6:44:34	0.127	15.284	6:40:27	0.127	8.192	6:40:18	0.22
82	6:45:12	0.127	5.657	6:47:18	0.127	17.965	6:49:00	0.127	8.192	6:47:16	0.22
83	6:50:12	0.127	6.693	6:52:58	0.127	20.898	6:52:46	0.127	8.605	6:55:00	0.22
84	6:55:12	0.127	7.367	6:59:32	0.127	21.787	6:59:19	0.127	8.325	6:55:59	0.22
85	7:00:12	0.127	7.817	7:04:19	0.127	20.078	7:02:23	0.127	8.192	7:01:55	0.22
86	7:05:12	0.127	7.367	7:05:29	0.127	20.078	7:05:28	0.127	7.938	7:05:27	0.22
87	7:10:12	0.127	8.063	7:12:11	0.127	20.078	7:11:07	0.254	8.605	7:12:06	0.284
88	7:15:12	0.381	6.522	7:19:20	0.127	18.618	7:16:04	0.508	37.926	7:19:20	0.568
89	7:20:12	0.127	6.606	7:20:33	0.127	17.356	7:24:36	0.127	7.474	7:23:44	0.22
90	7:25:12	0.127	6.966	7:28:19	0.127	17.965	7:29:42	0.254	12.337	7:25:16	0.284
91	7:30:12	0.127	6.282	7:30:39	0.127	17.965	7:32:49	0.254	35.31	7:30:26	0.254
92	7:35:12	0.127	6.606	7:36:08	0.127	20.078	7:37:13	0.127	8.325	7:36:08	0.22
93	7:40:12	0.127	5.851	7:43:32	0.127	20.898	7:41:46	0.127	7.262	7:43:17	0.22
94	7:45:12	0.127	7.062	7:45:34	0.127	19.321	7:45:49	0.127	9.062	7:46:45	0.22
95	7:50:12	0.127	7.161	7:52:01	0.127	19.321	7:51:35	0.254	9.225	7:51:08	0.311
96	7:55:12	0.127	7.262	7:56:41	0.127	17.965	7:59:48	0.127	8.463	7:58:41	0.22
97	8:00:12	0.127	6.872	8:04:50	0.127	17.356	8:03:18	0.127	8.463	8:05:02	0.22
98	8:05:12	0.381	6.872	8:08:58	0.127	17.356	8:06:50	0.508	35.31	8:08:58	0.635
99	8:10:12	0.127	6.693	8:13:17	0.127	17.356	8:12:37	0.127	8.752	8:13:06	0.22
100	8:15:12	0.127	7.062	8:18:55	0.127	17.965	8:18:12	0.127	8.325	8:17:07	0.22
101	8:20:12	0.127	4.995	8:20:43	0.127	20.078	8:24:09	0.127	7.262	8:20:22	0.22
102	8:25:12	0.127	5.657	8:29:16	0.127	19.321	8:25:23	0.254	40.96	8:29:20	0.311
103	8:30:12	0.127	5.418	8:32:00	0.127	17.356	8:30:19	0.254	11.011	8:30:21	0.254
104	8:35:12	0.127	7.062	8:38:04	0.127	15.754	8:38:33	0.127	7.474	8:37:07	0.22
105	8:40:12	0.127	6.606	8:43:38	0.127	15.284	8:42:31	0.127	7.699	8:43:36	0.22
106	8:45:12	0.127	6.059	8:45:39	0.127	18.618	8:47:23	0.127	7.161	8:49:51	0.22
107	8:50:12	0.127	5.721	8:53:14	0.127	20.898	8:51:02	0.127	7.938	8:51:37	0.22
108	8:55:12	0.127	5.418	8:58:18	0.127	18.618	8:56:40	0.127	7.262	8:59:21	0.22
109	9:00:12	0.127	6.693	9:04:14	0.127	20.898	9:01:43	0.254	8.463	9:04:06	0.284
110	9:05:12	0.127	6.872	9:05:28	0.127	13.653	9:09:31	0.127	7.699	9:08:20	0.22
111	9:10:12	0.127	6.966	9:11:08	0.127	20.078	9:14:08	0.127	7.161	9:12:54	0.22
112	9:15:12	0.127	6.872	9:15:23	0.127	14.423	9:16:51	0.127	7.585	9:15:21	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 22/4/2022 @ 00:00:12
End: 23/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.67 Hz
Radial: 0.381 (mm/s) @ 6.52 Hz @ 07:19:20
Transverse: 0.381 (mm/s) @ 341.33 Hz @ 13:07:16
Vertical: 0.508 (mm/s) @ 8.61 Hz @ 20:28:25
Vector Sum: .63 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:12	0.127	6.132	9:22:27	0.127	17.965	9:23:37	0.127	8.063	9:25:08	0.22
114	9:25:12	0.127	6.36	9:25:25	0.127	16.254	9:27:23	0.127	8.325	9:28:17	0.22
115	9:30:12	0.127	6.966	9:32:59	0.127	21.787	9:35:08	0.127	7.817	9:31:42	0.22
116	9:35:12	0.127	5.919	9:40:11	0.127	18.618	9:35:54	0.127	7.262	9:37:55	0.22
117	9:40:12	0.127	7.585	9:43:52	0.127	20.078	9:40:13	0.127	8.463	9:44:55	0.22
118	9:45:12	0.127	5.596	9:46:52	0.127	22.756	9:48:13	0.127	8.063	9:49:29	0.22
119	9:50:12	0.127	7.161	9:52:39	0.127	22.756	9:51:05	0.127	8.192	9:51:45	0.22
120	9:55:12	0.127	6.966	9:56:11	0.127	7.367	9:58:54	0.127	7.262	10:00:07	0.22
121	10:00:12	0.127	5.657	10:01:18	0.254	341.333	10:01:12	0.127	8.192	10:04:27	0.284
122	10:05:12	0.127	5.361	10:05:47	0.127	9.062	10:05:17	0.127	7.161	10:08:51	0.22
123	10:10:12	0.127	7.161	10:10:50	0.127	9.062	10:10:56	0.254	8.063	10:13:33	0.254
124	10:15:12	0.127	7.161	10:16:47	0.127	7.699	10:18:38	0.127	8.325	10:16:58	0.22
125	10:20:12	0.127	6.606	10:21:21	0.127	8.904	10:20:12	0.127	8.325	10:20:54	0.22
126	10:25:12	0.127	6.522	10:30:03	0.127	6.872	10:29:28	0.127	8.605	10:28:07	0.22
127	10:30:12	0.127	5.251	10:32:56	0.127	8.605	10:34:09	0.254	23.814	10:30:26	0.254
128	10:35:12	0.127	6.44	10:35:50	0.127	9.752	10:36:08	0.127	7.817	10:35:23	0.22
129	10:40:12	0.127	6.282	10:41:31	0.127	8.063	10:43:20	0.127	8.463	10:42:23	0.22
130	10:45:12	0.127	5.988	10:49:10	0.127	7.938	10:49:59	0.127	8.192	10:49:36	0.22
131	10:50:12	0.127	6.206	10:51:30	0.127	9.752	10:54:57	0.127	7.938	10:54:56	0.22
132	10:55:12	0.127	6.781	10:58:08	0.127	9.394	10:55:20	0.127	7.699	10:57:02	0.22
133	11:00:12	0.127	6.693	11:03:57	0.127	10.779	11:04:12	0.127	8.752	11:04:24	0.22
134	11:05:12	0.127	5.306	11:09:18	0.127	11.011	11:07:26	0.254	24.976	11:09:50	0.254
135	11:10:12	0.254	7.262	11:14:02	0.127	10.557	11:10:23	0.254	10.779	11:14:03	0.381
136	11:15:12	0.127	6.44	11:17:01	0.127	9.062	11:15:12	0.127	8.463	11:19:19	0.22
137	11:20:12	0.127	7.474	11:24:27	0.127	7.938	11:22:44	0.127	7.367	11:22:53	0.22
138	11:25:12	0.127	7.817	11:26:02	0.127	9.752	11:26:09	0.127	8.752	11:25:29	0.22
139	11:30:12	0.127	7.367	11:31:26	0.127	9.942	11:33:53	0.127	7.585	11:31:52	0.22
140	11:35:12	0.127	6.522	11:38:51	0.127	8.325	11:40:05	0.127	8.325	11:36:14	0.22
141	11:40:12	0.127	6.36	11:42:35	0.127	6.44	11:40:30	0.381	7.938	11:42:25	0.402
142	11:45:12	0.127	6.693	11:49:05	0.127	8.063	11:47:10	0.127	7.474	11:45:53	0.22
143	11:50:12	0.127	7.262	11:51:02	0.127	8.904	11:50:36	0.127	7.699	11:53:11	0.22
144	11:55:12	0.127	7.699	11:55:37	0.127	8.904	11:59:02	0.127	6.44	11:55:37	0.22
145	12:00:12	0.127	6.693	12:00:38	0.127	10.557	12:04:51	0.127	7.367	12:00:41	0.22
146	12:05:12	0.127	7.262	12:08:44	0.127	9.394	12:06:01	0.127	7.367	12:06:58	0.22
147	12:10:12	0.127	7.817	12:11:13	0.127	10.343	12:11:54	0.127	7.817	12:15:07	0.22
148	12:15:12	0.254	341.333	12:17:44	0.127	8.904	12:16:56	0.127	8.325	12:16:03	0.254
149	12:20:12	0.127	7.585	12:22:08	0.127	11.011	12:22:03	0.127	6.693	12:24:51	0.22
150	12:25:12	0.127	8.605	12:29:25	0.127	9.752	12:29:48	0.127	8.605	12:26:58	0.22
151	12:30:12	0.127	8.752	12:30:36	0.127	12.047	12:33:43	0.127	8.063	12:30:24	0.22
152	12:35:12	0.127	9.062	12:36:15	0.254	341.333	12:39:22	0.127	8.605	12:36:19	0.311
153	12:40:12	0.127	6.872	12:40:44	0.127	7.367	12:40:19	0.127	8.063	12:43:52	0.22
154	12:45:12	0.127	7.474	12:46:46	0.127	8.752	12:47:13	0.127	8.463	12:45:12	0.22
155	12:50:12	0.127	7.938	12:50:52	0.127	9.225	12:51:18	0.127	8.063	12:51:00	0.22
156	12:55:12	0.127	7.585	12:59:57	0.127	7.938	12:59:12	0.127	7.474	12:58:27	0.22
157	13:00:12	0.127	7.585	13:01:11	0.127	9.225	13:00:49	0.127	7.161	13:00:39	0.22
158	13:05:12	0.127	9.57	13:08:24	0.381	341.333	13:07:16	0.254	204.8	13:07:44	0.421
159	13:10:12	0.127	6.606	13:11:37	0.127	11.506	13:12:02	0.127	8.063	13:10:30	0.22
160	13:15:12	0.127	8.752	13:19:13	0.127	8.463	13:17:15	0.127	8.463	13:19:26	0.22
161	13:20:12	0.127	8.192	13:21:04	0.127	9.062	13:23:27	0.127	8.752	13:21:30	0.22
162	13:25:12	0.127	7.938	13:29:58	0.127	9.942	13:27:04	0.127	8.192	13:30:08	0.22
163	13:30:12	0.127	8.752	13:34:38	0.127	6.781	13:32:10	0.127	7.938	13:34:43	0.22
164	13:35:12	0.127	7.367	13:36:52	0.127	10.557	13:37:50	0.127	7.367	13:37:28	0.22
165	13:40:12	0.127	7.161	13:43:35	0.127	9.062	13:41:16	0.127	9.225	13:41:04	0.22
166	13:45:12	0.127	6.36	13:47:23	0.127	8.063	13:46:00	0.127	8.605	13:49:13	0.22
167	13:50:12	0.127	7.062	13:50:51	0.127	10.557	13:53:34	0.127	8.063	13:51:12	0.22
168	13:55:12	0.127	8.463	13:56:29	0.127	10.779	13:58:11	0.127	8.463	13:58:03	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 22/4/2022 @ 00:00:12
End: 23/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.67 Hz
Radial: 0.381 (mm/s) @ 6.52 Hz @ 07:19:20
Transverse: 0.381 (mm/s) @ 341.33 Hz @ 13:07:16
Vertical: 0.508 (mm/s) @ 8.61 Hz @ 20:28:25
Vector Sum: .63 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:12	0.127	6.966	14:02:24	0.127	11.253	14:00:25	0.127	7.367	14:02:22	0.22
170	14:05:12	0.127	7.262	14:09:42	0.127	10.139	14:08:40	0.127	8.192	14:07:53	0.22
171	14:10:12	0.127	7.367	14:12:31	0.127	12.642	14:11:56	0.127	6.966	14:10:56	0.22
172	14:15:12	0.127	7.699	14:17:43	0.127	11.011	14:15:30	0.127	8.192	14:16:13	0.22
173	14:20:12	0.127	7.817	14:23:45	0.127	10.779	14:23:35	0.127	7.699	14:24:58	0.22
174	14:25:12	0.127	8.192	14:30:06	0.127	8.752	14:29:07	0.127	8.325	14:28:33	0.22
175	14:30:12	0.127	7.262	14:34:38	0.127	12.642	14:31:11	0.127	7.585	14:30:30	0.22
176	14:35:12	0.127	8.192	14:36:45	0.127	11.253	14:37:09	0.127	6.872	14:37:12	0.22
177	14:40:12	0.127	5.476	14:44:23	0.127	11.011	14:41:18	0.127	7.938	14:41:11	0.22
178	14:45:12	0.127	6.606	14:48:18	0.127	10.139	14:48:16	0.127	8.463	14:49:03	0.22
179	14:50:12	0.127	8.192	14:53:20	0.127	11.253	14:52:47	0.127	7.474	14:51:55	0.22
180	14:55:12	0.127	7.161	14:56:45	0.127	11.011	14:59:50	0.127	7.474	15:00:09	0.22
181	15:00:12	0.127	6.44	15:04:25	0.127	11.253	15:04:38	0.127	8.463	15:02:11	0.22
182	15:05:12	0.127	7.062	15:05:55	0.127	10.343	15:07:31	0.127	7.161	15:09:09	0.22
183	15:10:12	0.127	7.262	15:10:49	0.127	9.225	15:13:07	0.127	8.192	15:11:10	0.22
184	15:15:12	0.127	6.059	15:17:18	0.127	12.337	15:18:22	0.127	8.605	15:16:13	0.22
185	15:20:12	0.127	7.585	15:23:26	0.127	8.752	15:20:36	0.127	7.161	15:21:09	0.22
186	15:25:12	0.127	7.367	15:26:44	0.127	7.585	15:25:10	0.127	8.605	15:26:26	0.22
187	15:30:12	0.127	7.817	15:33:31	0.127	10.557	15:34:15	0.127	7.161	15:30:43	0.22
188	15:35:12	0.127	7.262	15:37:21	0.127	10.343	15:35:10	0.127	7.367	15:36:46	0.22
189	15:40:12	0.127	7.699	15:41:14	0.127	7.474	15:40:10	0.127	7.938	15:43:16	0.22
190	15:45:12	0.127	6.36	15:48:35	0.127	10.779	15:46:09	0.127	7.585	15:48:34	0.22
191	15:50:12	0.127	8.752	15:50:39	0.127	9.062	15:51:03	0.127	7.699	15:51:25	0.22
192	15:55:12	0.127	7.699	15:56:06	0.127	9.062	15:59:53	0.127	8.463	15:55:11	0.22
193	16:00:12	0.127	8.325	16:00:45	0.127	11.253	16:04:35	0.127	7.938	16:04:00	0.22
194	16:05:12	0.127	7.161	16:06:41	0.127	11.77	16:07:14	0.127	8.063	16:05:54	0.22
195	16:10:12	0.127	8.063	16:10:54	0.127	10.779	16:14:23	0.127	7.474	16:13:42	0.22
196	16:15:12	0.127	6.872	16:17:35	0.127	9.394	16:17:25	0.127	8.192	16:15:57	0.22
197	16:20:12	0.127	6.606	16:20:19	0.127	10.779	16:22:23	0.127	7.262	16:24:13	0.22
198	16:25:12	0.127	7.938	16:25:56	0.127	12.047	16:28:36	0.127	7.585	16:27:30	0.22
199	16:30:12	0.127	7.817	16:32:17	0.127	8.605	16:34:25	0.127	8.605	16:30:48	0.22
200	16:35:12	0.127	6.36	16:36:37	0.127	11.77	16:35:10	0.127	7.699	16:35:59	0.22
201	16:40:12	0.127	7.474	16:40:23	0.127	11.253	16:40:21	0.127	7.699	16:41:59	0.22
202	16:45:12	0.127	7.062	16:46:11	0.127	9.394	16:46:59	0.127	5.657	16:49:45	0.22
203	16:50:12	0.254	9.57	16:52:56	0.127	11.253	16:53:20	0.381	37.926	16:52:56	0.402
204	16:55:12	0.127	6.44	16:57:45	0.127	9.394	16:55:19	0.127	7.262	16:57:46	0.22
205	17:00:12	0.127	8.063	17:01:52	0.127	12.047	17:00:13	0.127	7.367	17:03:03	0.22
206	17:05:12	0.127	7.262	17:08:51	0.127	9.752	17:06:47	0.127	7.699	17:06:55	0.22
207	17:10:12	0.127	9.225	17:11:34	0.127	11.253	17:13:07	0.127	7.367	17:14:26	0.22
208	17:15:12	0.127	7.367	17:17:32	0.127	8.192	17:17:45	0.127	8.752	17:17:22	0.22
209	17:20:12	0.127	9.752	17:21:17	0.127	12.047	17:20:38	0.127	8.605	17:25:06	0.22
210	17:25:12	0.127	7.585	17:29:48	0.127	9.394	17:27:11	0.127	7.817	17:30:06	0.22
211	17:30:12	0.127	10.557	17:31:32	0.127	10.557	17:33:39	0.127	8.325	17:33:20	0.22
212	17:35:12	0.127	8.605	17:36:10	0.127	10.343	17:35:29	0.127	7.367	17:36:10	0.22
213	17:40:12	0.127	7.585	17:44:24	0.127	8.904	17:40:16	0.254	8.325	17:41:35	0.311
214	17:45:12	0.127	8.063	17:47:32	0.127	9.394	17:46:04	0.127	8.325	17:46:41	0.22
215	17:50:12	0.127	9.752	17:51:47	0.127	9.752	17:52:44	0.127	7.699	17:50:17	0.22
216	17:55:12	0.127	8.192	17:55:38	0.127	11.253	17:55:57	0.127	8.904	17:58:20	0.22
217	18:00:12	0.127	8.752	18:00:15	0.127	11.011	18:04:35	0.127	8.463	18:00:24	0.22
218	18:05:12	0.127	8.325	18:09:15	0.127	9.394	18:05:43	0.127	6.522	18:09:15	0.22
219	18:10:12	0.127	8.192	18:10:33	0.127	10.139	18:13:59	0.254	8.192	18:13:40	0.284
220	18:15:12	0.254	8.605	18:19:15	0.127	10.139	18:17:47	0.254	31.03	18:19:13	0.311
221	18:20:12	0.127	8.904	18:25:08	0.127	9.57	18:21:16	0.127	7.699	18:25:04	0.22
222	18:25:12	0.127	8.463	18:27:01	0.127	8.192	18:27:33	0.127	8.063	18:27:27	0.22
223	18:30:12	0.127	7.938	18:30:27	0.127	9.225	18:30:43	0.127	8.605	18:32:15	0.22
224	18:35:12	0.127	8.904	18:36:42	0.127	7.062	18:39:08	0.127	7.474	18:36:42	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 22/4/2022 @ 00:00:12
End: 23/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.67 Hz
Radial: 0.381 (mm/s) @ 6.52 Hz @ 07:19:20
Transverse: 0.381 (mm/s) @ 341.33 Hz @ 13:07:16
Vertical: 0.508 (mm/s) @ 8.61 Hz @ 20:28:25
Vector Sum: .63 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:12	0.127	9.225	18:44:00	0.127	8.463	18:45:01	0.254	12.337	18:44:01	0.311
226	18:45:12	0.127	7.817	18:48:01	0.127	6.872	18:45:10	0.127	8.752	18:47:06	0.22
227	18:50:12	0.127	8.325	18:54:45	0.127	9.225	18:50:16	0.127	8.904	18:53:19	0.22
228	18:55:12	0.127	7.699	18:59:56	0.127	5.988	18:58:52	0.127	7.938	18:56:04	0.22
229	19:00:12	0.127	7.817	19:05:02	0.127	8.325	19:02:48	0.127	7.817	19:04:42	0.22
230	19:05:12	0.127	6.36	19:09:50	0.127	9.225	19:09:42	0.127	8.192	19:06:24	0.22
231	19:10:12	0.127	9.062	19:14:04	0.127	8.063	19:11:33	0.127	8.192	19:12:53	0.22
232	19:15:12	0.127	7.817	19:17:30	0.127	8.463	19:16:26	0.127	9.57	19:16:52	0.22
233	19:20:12	0.127	9.752	19:21:56	0.127	9.225	19:23:47	0.127	8.752	19:22:45	0.22
234	19:25:12	0.127	8.904	19:30:02	0.127	10.343	19:28:29	0.127	7.817	19:28:27	0.22
235	19:30:12	0.127	8.192	19:34:48	0.127	10.343	19:33:43	0.127	8.063	19:31:58	0.22
236	19:35:12	0.127	7.367	19:37:40	0.127	10.557	19:35:10	0.127	9.225	19:37:31	0.22
237	19:40:12	0.127	7.585	19:45:00	0.127	9.942	19:40:23	0.127	9.394	19:41:24	0.22
238	19:45:12	0.127	7.474	19:48:04	0.127	8.192	19:46:03	0.254	8.904	19:49:48	0.254
239	19:50:12	0.127	9.062	19:54:54	0.127	8.325	19:54:34	0.127	7.585	19:54:46	0.22
240	19:55:12	0.127	6.693	19:58:46	0.127	8.063	19:57:52	0.127	8.605	19:56:43	0.22
241	20:00:12	0.127	9.57	20:01:56	0.127	9.752	20:02:44	0.127	9.752	20:02:44	0.22
242	20:05:12	0.127	6.44	20:08:32	0.127	7.938	20:06:48	0.127	8.192	20:08:41	0.22
243	20:10:12	0.127	6.44	20:11:47	0.127	7.161	20:14:11	0.127	7.817	20:13:14	0.22
244	20:15:12	0.127	7.699	20:19:45	0.127	7.699	20:17:29	0.127	8.904	20:18:33	0.22
245	20:20:12	0.127	8.063	20:24:18	0.127	9.57	20:21:27	0.127	7.817	20:22:27	0.22
246	20:25:12	0.381	37.926	20:28:25	0.127	8.325	20:26:10	0.508	8.605	20:28:25	0.568
247	20:30:12	0.127	9.225	20:32:15	0.127	7.262	20:30:33	0.127	7.262	20:30:36	0.22
248	20:35:12	0.127	8.752	20:37:30	0.127	10.139	20:35:21	0.127	7.699	20:35:18	0.22
249	20:40:12	0.127	8.063	20:44:28	0.127	7.817	20:45:03	0.127	7.699	20:42:57	0.22
250	20:45:12	0.127	8.904	20:47:49	0.127	10.343	20:47:41	0.127	8.325	20:45:40	0.22
251	20:50:12	0.127	8.063	20:53:46	0.127	9.062	20:54:43	0.127	9.57	20:50:09	0.22
252	20:55:12	0.127	7.938	20:57:06	0.127	9.942	20:56:43	0.127	10.139	20:57:47	0.22
253	21:00:12	0.127	9.394	21:01:42	0.127	8.752	21:04:48	0.127	9.225	21:01:11	0.22
254	21:05:12	0.127	9.394	21:05:26	0.127	7.585	21:08:16	0.127	8.325	21:09:28	0.22
255	21:10:12	0.127	8.605	21:12:20	0.127	9.752	21:10:09	0.127	9.062	21:15:08	0.22
256	21:15:12	0.127	9.394	21:19:20	0.127	9.062	21:18:28	0.127	8.325	21:19:25	0.22
257	21:20:12	0.127	10.779	21:21:05	0.127	8.192	21:21:45	0.127	10.343	21:22:04	0.22
258	21:25:12	0.127	8.063	21:25:44	0.127	8.463	21:26:42	0.127	9.394	21:29:00	0.22
259	21:30:12	0.127	9.942	21:31:42	0.127	8.904	21:30:56	0.127	8.192	21:30:10	0.22
260	21:35:12	0.127	8.752	21:37:46	0.127	7.262	21:35:30	0.127	8.904	21:36:52	0.22
261	21:40:12	0.127	8.752	21:44:22	0.127	8.904	21:43:12	0.127	8.192	21:44:24	0.22
262	21:45:12	0.127	9.062	21:46:21	0.127	7.817	21:48:04	0.127	9.394	21:45:18	0.22
263	21:50:12	0.127	7.938	21:50:29	0.127	9.225	21:51:40	0.127	10.139	21:51:20	0.22
264	21:55:12	0.127	8.325	21:56:17	0.127	8.325	21:58:45	0.127	9.225	21:59:47	0.22
265	22:00:12	0.127	10.557	22:03:30	0.127	9.942	22:04:18	0.127	9.394	22:03:43	0.22
266	22:05:12	0.127	9.225	22:05:11	0.127	8.904	22:05:15	0.127	8.605	22:09:32	0.22
267	22:10:12	0.127	7.699	22:14:10	0.127	7.938	22:14:34	0.127	9.57	22:14:27	0.22
268	22:15:12	0.127	8.752	22:18:29	0.127	8.904	22:15:19	0.127	8.752	22:17:43	0.22
269	22:20:12	0.127	8.192	22:21:49	0.127	7.699	22:24:14	0.127	8.605	22:24:11	0.22
270	22:25:12	0.127	9.942	22:28:24	0.127	8.463	22:25:44	0.127	8.752	22:28:24	0.22
271	22:30:12	0.127	9.752	22:33:02	0.127	6.966	22:30:25	0.127	10.139	22:32:03	0.22
272	22:35:12	0.127	10.779	22:38:55	0.127	10.343	22:38:47	0.127	8.192	22:37:05	0.22
273	22:40:12	0.127	7.262	22:41:57	0.127	8.463	22:42:49	0.127	9.752	22:44:17	0.22
274	22:45:12	0.127	8.605	22:47:17	0.127	9.394	22:47:57	0.127	9.062	22:47:26	0.22
275	22:50:12	0.127	7.585	22:53:00	0.127	8.325	22:51:59	0.127	8.605	22:52:48	0.22
276	22:55:12	0.127	8.752	22:57:10	0.127	9.57	22:58:00	0.254	78.769	22:56:26	0.284
277	23:00:12	0.127	9.225	23:04:01	0.127	7.062	23:04:09	0.127	9.752	23:04:35	0.22
278	23:05:12	0.127	9.752	23:08:49	0.127	6.36	23:07:22	0.127	8.904	23:09:13	0.22
279	23:10:12	0.127	9.394	23:14:02	0.127	7.938	23:12:22	0.127	9.225	23:11:59	0.22
280	23:15:12	0.127	9.394	23:15:16	0.127	6.966	23:17:57	0.127	7.474	23:17:06	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 4
Start: 22/4/2022 @ 00:00:12
End: 23/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.67 Hz
Radial: 0.381 (mm/s) @ 6.52 Hz @ 07:19:20
Transverse: 0.381 (mm/s) @ 341.33 Hz @ 13:07:16
Vertical: 0.508 (mm/s) @ 8.61 Hz @ 20:28:25
Vector Sum: .63 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.7

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:12	0.127	9.57	23:21:44	0.127	9.062	23:20:08	0.127	8.904	23:20:49	0.22
282	23:25:12	0.127	9.57	23:29:50	0.127	6.781	23:29:55	0.127	9.062	23:28:50	0.22
283	23:30:12	0.127	9.062	23:34:00	0.127	6.966	23:32:15	0.127	9.394	23:31:00	0.22
284	23:35:12	0.127	10.139	23:39:50	0.127	8.605	23:37:17	0.127	9.57	23:38:05	0.22
285	23:40:12	0.127	9.394	23:41:16	0.127	7.262	23:40:18	0.127	9.394	23:42:59	0.22
286	23:45:12	0.127	8.463	23:49:10	0.127	7.817	23:49:45	0.127	9.942	23:49:05	0.22
287	23:50:12	0.127	7.938	23:52:02	0.127	6.872	23:51:50	0.127	8.605	23:53:22	0.22
288	23:55:12	0.127	7.817	23:58:15	0.127	8.904	23:57:32	0.127	9.225	23:59:10	0.22

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

23/4/2022 at 12:00 am Event # 5

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 18.54 mm/s @ 1.02 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7794**	**4.2862**	**12.7238**
Frequency (Hz)	**14.2**	**36.5**	**24.3**

Air

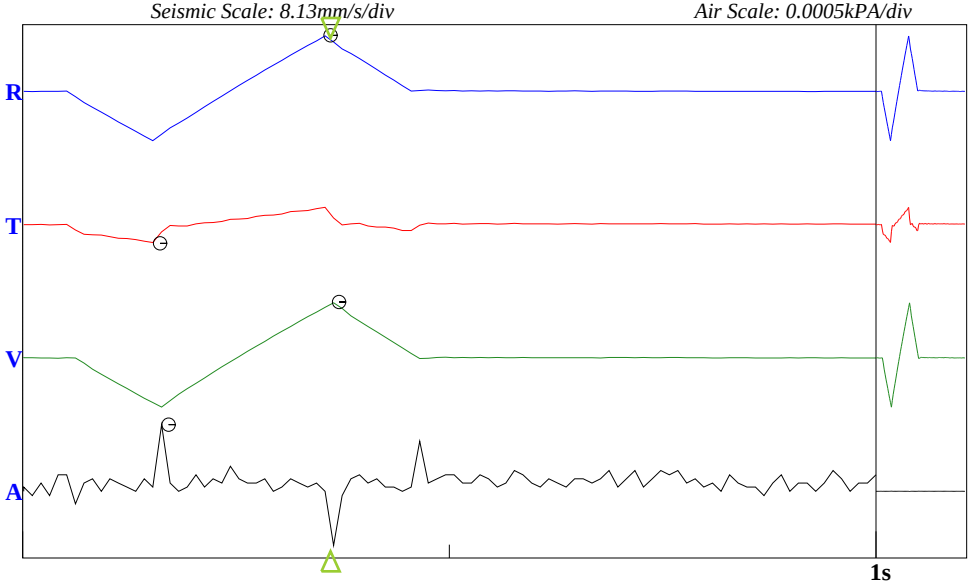
Gain: 1

Measurement	Value		
kPA	0.000469		
dBL	**87.4**		
Hz	512.0		

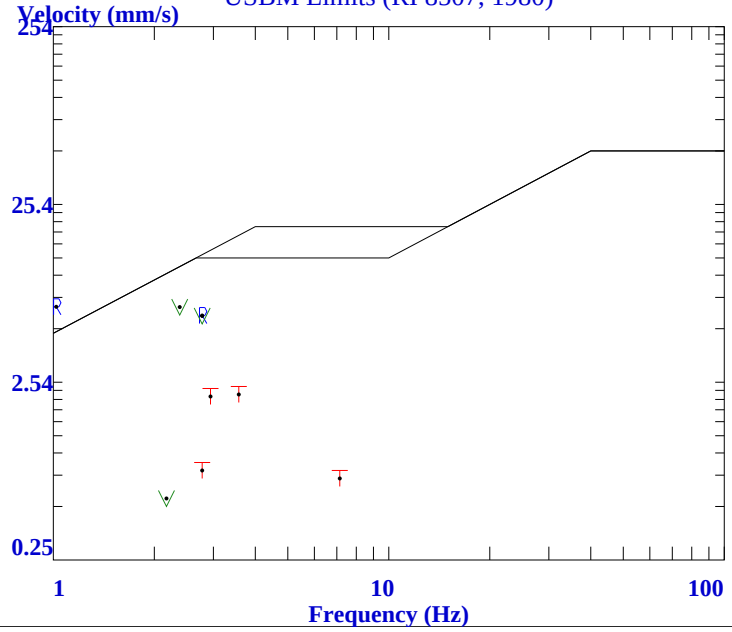
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

23/4/2022 at 12:00:14 am Event # 6

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:01 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 3.58 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**1.651**	**3.556**	**1.397**
Frequency (Hz)	**204.8**	**2.21**	**146.29**
Time	2:38:45 pm	2:40:15 pm	2:40:15 pm

Air

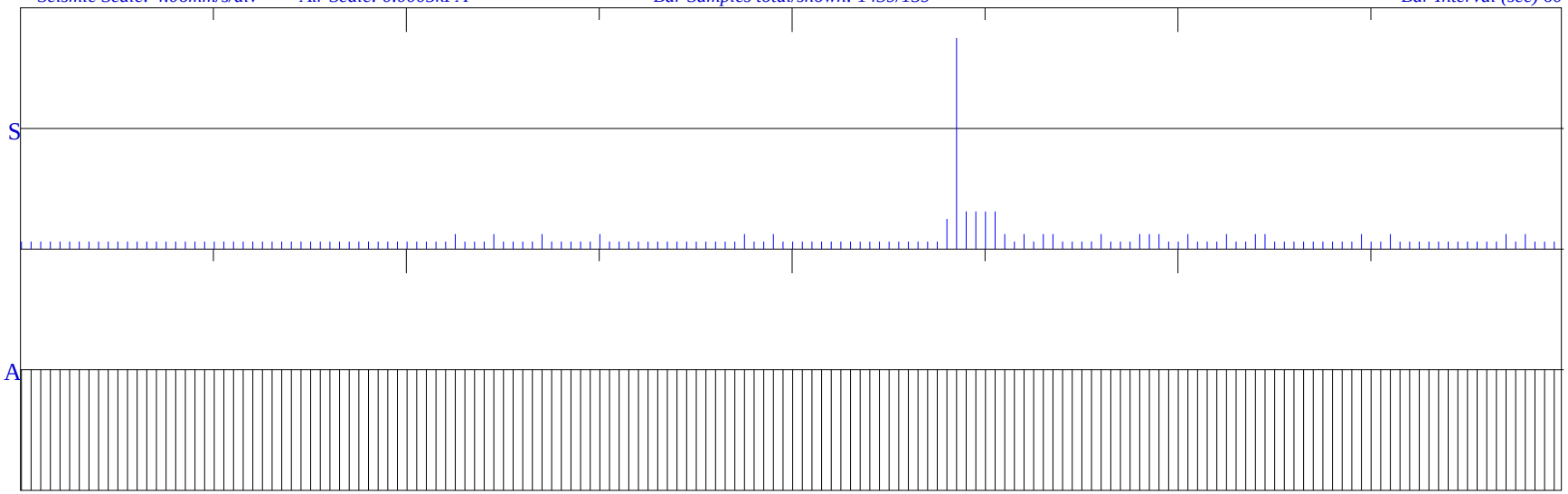
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.85		
Time	7:09:54 am		

BarGraph

Seismic Scale: 4.06mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159*

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:14 **03:00:12** **06:00:10** **09:00:09** **12:00:07** **15:00:05** **18:00:04** **21:00:02** **00:00:01**

<<<<<<<<<<<<<< **23:59:47** >>>>>>>>>>>>>>

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 23/4/2022 @ 00:00:14
End: 24/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.85 Hz
Radial: 1.651 (mm/s) @ 204.8 Hz @ 14:38:45
Transverse: 3.556 (mm/s) @ 2.21 Hz @ 14:40:15
Vertical: 1.397 (mm/s) @ 146.29 Hz @ 14:40:15
Vector Sum: 3.58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:14	0.127	9.57	0:03:49	0.127	15.754	0:00:18	0.127	9.394	0:01:42	0.22
2	0:05:14	0.127	8.605	0:09:15	0.127	22.756	0:06:20	0.127	8.325	0:09:15	0.22
3	0:10:14	0.127	9.062	0:12:50	0.127	18.618	0:11:24	0.127	9.394	0:14:05	0.22
4	0:15:14	0.127	8.752	0:18:51	0.127	22.756	0:19:00	0.127	8.752	0:16:22	0.22
5	0:20:14	0.127	8.325	0:21:48	0.127	20.078	0:21:18	0.127	7.699	0:21:29	0.22
6	0:25:14	0.127	6.522	0:26:02	0.127	20.078	0:25:51	0.127	7.585	0:26:02	0.22
7	0:30:14	0.127	7.062	0:31:12	0.127	22.756	0:30:37	0.127	8.463	0:31:12	0.22
8	0:35:14	0.127	6.966	0:37:14	0.127	20.078	0:36:01	0.127	7.585	0:37:14	0.22
9	0:40:14	0.127	6.966	0:41:40	0.127	16.787	0:44:48	0.127	7.585	0:41:40	0.22
10	0:45:14	0.127	9.57	0:47:23	0.127	20.078	0:47:41	0.127	10.343	0:45:32	0.22
11	0:50:14	0.127	6.872	0:54:03	0.127	18.618	0:54:02	0.127	8.325	0:54:47	0.22
12	0:55:14	0.127	9.394	0:58:00	0.127	21.787	0:57:36	0.127	9.57	0:58:07	0.22
13	1:00:14	0.127	7.699	1:05:03	0.127	19.321	1:03:29	0.127	8.904	1:01:49	0.22
14	1:05:14	0.127	7.938	1:08:58	0.127	19.321	1:07:02	0.127	8.192	1:06:18	0.22
15	1:10:14	0.127	11.011	1:13:37	0.127	20.078	1:12:06	0.127	9.57	1:13:35	0.22
16	1:15:14	0.127	8.605	1:17:27	0.127	20.898	1:17:30	0.127	7.699	1:15:51	0.22
17	1:20:14	0.127	5.919	1:22:27	0.127	24.976	1:21:07	0.127	8.463	1:22:28	0.22
18	1:25:14	0.127	7.938	1:29:14	0.127	18.618	1:26:02	0.127	9.57	1:30:15	0.22
19	1:30:14	0.127	8.463	1:31:16	0.127	20.898	1:33:36	0.127	9.394	1:33:41	0.22
20	1:35:14	0.127	9.225	1:37:03	0.127	16.254	1:35:50	0.127	9.225	1:38:30	0.22
21	1:40:14	0.127	10.779	1:40:20	0.127	22.756	1:42:42	0.127	12.642	1:44:43	0.22
22	1:45:14	0.127	6.693	1:49:31	0.127	19.321	1:47:53	0.127	7.474	1:45:18	0.22
23	1:50:14	0.127	6.966	1:55:16	0.127	20.078	1:53:02	0.127	7.161	1:51:44	0.22
24	1:55:14	0.127	10.343	2:00:14	0.127	20.078	1:56:33	0.127	10.779	1:56:04	0.22
25	2:00:14	0.127	7.367	2:00:36	0.127	20.078	2:02:09	0.127	6.966	2:00:37	0.22
26	2:05:14	0.127	12.962	2:05:38	0.127	19.321	2:06:16	0.127	12.337	2:06:21	0.22
27	2:10:14	0.127	9.942	2:10:21	0.127	16.254	2:15:04	0.127	9.062	2:10:20	0.22
28	2:15:14	0.127	9.752	2:18:09	0.127	17.965	2:19:36	0.127	8.463	2:18:11	0.22
29	2:20:14	0.127	10.139	2:23:19	0.127	17.965	2:21:46	0.127	10.557	2:21:46	0.22
30	2:25:14	0.127	6.522	2:27:03	0.127	17.356	2:26:28	0.127	10.557	2:27:03	0.22
31	2:30:14	0.127	9.225	2:32:53	0.127	20.078	2:31:16	0.127	9.752	2:32:48	0.22
32	2:35:14	0.127	13.299	2:35:26	0.127	20.898	2:36:20	0.127	10.779	2:36:29	0.22
33	2:40:14	0.127	8.752	2:41:22	0.127	18.618	2:41:45	0.127	12.047	2:42:24	0.22
34	2:45:14	0.127	8.463	2:49:30	0.127	20.078	2:49:12	0.127	11.253	2:45:52	0.22
35	2:50:14	0.127	9.752	2:52:06	0.127	17.356	2:54:07	0.127	8.325	2:50:54	0.22
36	2:55:14	0.127	10.139	2:56:30	0.127	17.965	2:58:14	0.127	9.394	2:56:34	0.22
37	3:00:14	0.127	12.337	3:03:59	0.127	22.756	3:04:55	0.127	11.011	3:03:20	0.22
38	3:05:14	0.127	9.062	3:07:34	0.127	17.356	3:05:51	0.127	12.337	3:07:01	0.22
39	3:10:14	0.127	9.942	3:10:32	0.127	24.976	3:10:20	0.127	8.463	3:10:37	0.22
40	3:15:14	0.127	11.506	3:16:20	0.127	21.787	3:17:27	0.127	13.653	3:17:12	0.22
41	3:20:14	0.127	11.506	3:21:11	0.127	22.756	3:20:26	0.127	12.047	3:20:29	0.22
42	3:25:14	0.127	9.394	3:29:07	0.127	20.078	3:26:19	0.127	10.139	3:29:06	0.22
43	3:30:14	0.127	9.225	3:34:15	0.127	18.618	3:33:55	0.127	9.062	3:34:15	0.22
44	3:35:14	0.127	8.063	3:38:56	0.127	20.078	3:36:40	0.127	12.337	3:36:54	0.22
45	3:40:14	0.127	9.225	3:40:35	0.127	19.321	3:40:35	0.127	11.011	3:40:41	0.22
46	3:45:14	0.127	11.253	3:47:35	0.127	22.756	3:49:59	0.127	10.779	3:46:35	0.22
47	3:50:14	0.127	12.642	3:52:28	0.127	22.756	3:50:59	0.127	12.642	3:54:35	0.22
48	3:55:14	0.127	6.966	3:59:46	0.127	21.787	3:57:04	0.127	11.506	3:58:25	0.22
49	4:00:14	0.127	11.253	4:03:49	0.127	15.284	4:04:02	0.127	11.253	4:05:07	0.22
50	4:05:14	0.127	9.225	4:06:35	0.127	20.078	4:07:57	0.127	10.139	4:06:33	0.22
51	4:10:14	0.127	8.904	4:11:22	0.127	17.965	4:14:46	0.127	8.463	4:11:21	0.22
52	4:15:14	0.127	9.752	4:19:55	0.127	17.965	4:18:32	0.127	9.225	4:19:53	0.22
53	4:20:14	0.127	8.463	4:21:23	0.127	20.898	4:23:09	0.127	9.57	4:21:59	0.22
54	4:25:14	0.127	9.062	4:26:56	0.127	17.356	4:25:40	0.127	11.506	4:29:44	0.22
55	4:30:14	0.127	8.605	4:31:40	0.127	20.078	4:31:01	0.127	8.752	4:33:21	0.22
56	4:35:14	0.127	9.062	4:37:50	0.127	17.965	4:37:06	0.127	9.942	4:37:50	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 23/4/2022 @ 00:00:14
End: 24/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.85 Hz
Radial: 1.651 (mm/s) @ 204.8 Hz @ 14:38:45
Transverse: 3.556 (mm/s) @ 2.21 Hz @ 14:40:15
Vertical: 1.397 (mm/s) @ 146.29 Hz @ 14:40:15
Vector Sum: 3.58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:14	0.127	9.394	4:41:51	0.127	17.356	4:41:27	0.127	9.942	4:41:48	0.22
58	4:45:14	0.127	11.011	4:45:37	0.127	18.618	4:47:33	0.127	10.779	4:46:12	0.22
59	4:50:14	0.127	10.343	4:50:32	0.127	19.321	4:50:57	0.127	9.225	4:51:21	0.22
60	4:55:14	0.127	9.394	4:59:38	0.127	16.787	5:00:04	0.127	9.942	4:59:54	0.22
61	5:00:14	0.127	7.585	5:01:56	0.127	18.618	5:00:18	0.127	8.752	5:02:05	0.22
62	5:05:14	0.127	12.047	5:06:52	0.127	21.787	5:05:20	0.127	11.011	5:05:19	0.22
63	5:10:14	0.127	9.57	5:11:46	0.127	24.976	5:11:52	0.127	10.139	5:11:52	0.22
64	5:15:14	0.127	9.752	5:16:07	0.127	22.756	5:16:29	0.127	9.394	5:16:07	0.22
65	5:20:14	0.127	8.904	5:22:33	0.127	21.787	5:21:36	0.127	8.605	5:22:35	0.22
66	5:25:14	0.127	9.225	5:26:06	0.127	20.898	5:28:29	0.127	6.606	5:29:07	0.22
67	5:30:14	0.127	6.693	5:33:28	0.127	21.787	5:30:24	0.127	10.343	5:32:53	0.22
68	5:35:14	0.127	8.463	5:37:52	0.127	20.898	5:35:16	0.127	8.904	5:36:50	0.22
69	5:40:14	0.127	8.192	5:42:17	0.127	20.898	5:41:28	0.127	10.139	5:43:16	0.22
70	5:45:14	0.127	7.474	5:49:27	0.127	21.787	5:46:57	0.127	8.463	5:46:17	0.22
71	5:50:14	0.127	7.817	5:53:51	0.127	21.787	5:55:00	0.127	9.062	5:52:51	0.22
72	5:55:14	0.127	8.752	5:56:08	0.127	20.898	5:57:50	0.127	8.605	6:00:03	0.22
73	6:00:14	0.127	8.463	6:03:26	0.127	23.814	6:04:27	0.127	9.57	6:03:47	0.22
74	6:05:14	0.127	8.463	6:05:24	0.127	22.756	6:07:44	0.127	8.605	6:06:33	0.22
75	6:10:14	0.127	8.752	6:13:40	0.127	22.756	6:14:03	0.127	8.463	6:11:07	0.22
76	6:15:14	0.127	6.059	6:16:13	0.127	17.965	6:17:13	0.127	9.225	6:15:34	0.22
77	6:20:14	0.127	6.781	6:20:59	0.127	18.618	6:22:37	0.127	9.062	6:21:58	0.22
78	6:25:14	0.127	7.699	6:26:47	0.127	20.898	6:29:44	0.127	8.325	6:28:35	0.22
79	6:30:14	0.127	9.062	6:30:55	0.127	20.078	6:32:11	0.127	8.752	6:34:20	0.22
80	6:35:14	0.127	9.942	6:36:11	0.127	20.078	6:38:14	0.127	10.343	6:36:27	0.22
81	6:40:14	0.127	7.262	6:44:25	0.127	21.787	6:41:20	0.127	6.059	6:44:14	0.22
82	6:45:14	0.127	8.192	6:47:39	0.127	18.618	6:48:35	0.254	11.253	6:49:00	0.254
83	6:50:14	0.127	8.063	6:50:52	0.127	20.078	6:50:25	0.127	8.192	6:50:45	0.22
84	6:55:14	0.127	7.699	6:58:11	0.127	18.618	6:59:00	0.127	8.605	6:55:43	0.22
85	7:00:14	0.127	8.325	7:00:21	0.127	19.321	7:01:40	0.127	7.367	7:03:27	0.22
86	7:05:14	0.127	7.474	7:08:02	0.127	18.618	7:05:59	0.127	8.463	7:05:45	0.22
87	7:10:14	0.127	6.282	7:13:03	0.127	20.898	7:12:44	0.127	7.262	7:12:03	0.22
88	7:15:14	0.127	7.817	7:19:35	0.127	20.898	7:18:22	0.127	7.938	7:19:35	0.22
89	7:20:14	0.127	6.781	7:23:58	0.127	18.618	7:22:00	0.127	8.752	7:20:52	0.22
90	7:25:14	0.127	5.988	7:29:48	0.127	19.321	7:28:52	0.254	9.225	7:26:24	0.284
91	7:30:14	0.127	7.062	7:34:28	0.127	22.756	7:33:13	0.127	7.817	7:34:26	0.22
92	7:35:14	0.127	6.781	7:37:11	0.127	18.618	7:37:21	0.127	8.605	7:37:37	0.22
93	7:40:14	0.127	7.699	7:44:10	0.127	20.078	7:42:25	0.127	9.062	7:40:16	0.22
94	7:45:14	0.127	6.36	7:49:52	0.127	18.618	7:45:55	0.127	9.225	7:49:45	0.22
95	7:50:14	0.127	7.062	7:53:11	0.127	17.356	7:53:14	0.127	8.325	7:53:42	0.22
96	7:55:14	0.127	4.995	7:57:48	0.127	18.618	7:59:01	0.127	8.325	7:56:12	0.22
97	8:00:14	0.127	7.367	8:01:29	0.127	19.321	8:05:07	0.127	8.192	8:01:33	0.22
98	8:05:14	0.127	6.059	8:08:20	0.127	19.321	8:07:39	0.254	33.032	8:06:43	0.254
99	8:10:14	0.127	6.966	8:15:02	0.127	16.254	8:10:16	0.127	9.062	8:14:52	0.22
100	8:15:14	0.127	6.693	8:18:20	0.127	17.965	8:19:33	0.127	8.325	8:17:03	0.22
101	8:20:14	0.127	6.872	8:25:04	0.127	19.321	8:24:50	0.127	7.938	8:25:04	0.22
102	8:25:14	0.127	5.851	8:27:07	0.127	19.321	8:28:42	0.127	7.161	8:28:34	0.22
103	8:30:14	0.127	6.522	8:32:04	0.127	17.965	8:32:15	0.127	7.699	8:31:09	0.22
104	8:35:14	0.127	7.585	8:37:58	0.127	19.321	8:37:25	0.127	8.325	8:36:40	0.22
105	8:40:14	0.127	7.474	8:43:02	0.127	20.078	8:44:07	0.127	8.463	8:41:26	0.22
106	8:45:14	0.127	5.657	8:45:39	0.127	21.787	8:46:54	0.127	9.062	8:48:43	0.22
107	8:50:14	0.127	7.367	8:50:40	0.127	17.965	8:52:57	0.127	8.063	8:53:30	0.22
108	8:55:14	0.127	7.262	8:56:13	0.127	20.898	8:59:21	0.127	8.605	8:58:01	0.22
109	9:00:14	0.127	6.693	9:04:41	0.127	20.078	9:01:51	0.254	7.938	9:03:30	0.311
110	9:05:14	0.127	7.262	9:05:43	0.127	21.787	9:05:18	0.127	8.325	9:08:34	0.22
111	9:10:14	0.127	6.966	9:13:40	0.127	19.321	9:10:16	0.127	9.062	9:10:37	0.22
112	9:15:14	0.127	6.36	9:19:29	0.127	22.756	9:16:17	0.127	6.781	9:17:26	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 23/4/2022 @ 00:00:14
End: 24/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.85 Hz
Radial: 1.651 (mm/s) @ 204.8 Hz @ 14:38:45
Transverse: 3.556 (mm/s) @ 2.21 Hz @ 14:40:15
Vertical: 1.397 (mm/s) @ 146.29 Hz @ 14:40:15
Vector Sum: 3.58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:14	0.127	8.063	9:24:27	0.127	20.078	9:20:33	0.127	7.699	9:24:13	0.22
114	9:25:14	0.127	7.161	9:26:49	0.127	17.356	9:26:43	0.127	7.699	9:26:49	0.22
115	9:30:14	0.127	6.966	9:34:06	0.127	17.356	9:32:17	0.127	7.699	9:34:06	0.22
116	9:35:14	0.127	7.585	9:36:04	0.127	22.756	9:39:53	0.127	8.192	9:37:29	0.22
117	9:40:14	0.127	7.161	9:42:33	0.127	22.756	9:40:15	0.127	7.699	9:43:37	0.22
118	9:45:14	0.127	8.063	9:46:11	0.127	9.062	9:47:51	0.127	8.605	9:45:33	0.22
119	9:50:14	0.127	8.063	9:53:17	0.127	9.394	9:50:29	0.127	8.325	9:54:37	0.22
120	9:55:14	0.127	6.059	9:59:23	0.127	8.463	9:59:39	0.127	8.325	10:00:10	0.22
121	10:00:14	0.127	5.535	10:04:29	0.127	7.817	10:05:00	0.127	7.938	10:01:57	0.22
122	10:05:14	0.127	7.817	10:05:48	0.127	10.779	10:07:26	0.127	7.262	10:09:42	0.22
123	10:10:14	0.127	7.367	10:12:26	0.127	7.474	10:13:03	0.127	9.394	10:13:02	0.22
124	10:15:14	0.127	7.585	10:19:29	0.127	8.063	10:16:01	0.127	7.585	10:15:41	0.22
125	10:20:14	0.127	6.059	10:20:19	0.127	9.225	10:22:25	0.127	7.817	10:20:23	0.22
126	10:25:14	0.127	8.605	10:25:28	0.127	9.57	10:30:03	0.127	7.367	10:29:38	0.22
127	10:30:14	0.127	8.904	10:30:52	0.127	8.463	10:32:34	0.127	8.325	10:30:53	0.22
128	10:35:14	0.127	4.9	10:37:09	0.127	9.394	10:38:21	0.127	8.192	10:35:59	0.22
129	10:40:14	0.127	6.966	10:40:31	0.127	6.966	10:43:15	0.127	7.938	10:44:46	0.22
130	10:45:14	0.127	6.781	10:49:41	0.127	8.463	10:48:38	0.127	7.699	10:46:27	0.22
131	10:50:14	0.127	8.192	10:51:13	0.127	9.942	10:53:23	0.127	8.192	10:52:57	0.22
132	10:55:14	0.127	7.938	10:58:05	0.127	7.585	10:55:18	0.127	7.474	10:58:38	0.22
133	11:00:14	0.127	7.474	11:01:22	0.127	8.063	11:04:45	0.127	7.938	11:01:41	0.22
134	11:05:14	0.127	6.872	11:06:25	0.127	7.474	11:06:57	0.127	8.463	11:06:14	0.22
135	11:10:14	0.127	7.699	11:10:52	0.127	9.394	11:13:08	0.127	7.938	11:10:58	0.22
136	11:15:14	0.254	341.333	11:17:37	0.127	11.011	11:18:31	0.254	8.325	11:17:37	0.254
137	11:20:14	0.127	8.463	11:20:44	0.127	9.942	11:24:35	0.127	6.282	11:21:08	0.22
138	11:25:14	0.127	5.044	11:25:54	0.127	9.57	11:29:25	0.127	7.062	11:28:51	0.22
139	11:30:14	0.127	7.817	11:32:45	0.127	8.192	11:30:15	0.127	8.192	11:33:11	0.22
140	11:35:14	0.127	8.325	11:38:10	0.127	10.779	11:37:51	0.127	8.463	11:36:38	0.22
141	11:40:14	0.254	341.333	11:44:17	0.127	9.225	11:42:10	0.127	7.585	11:42:28	0.254
142	11:45:14	0.127	5.988	11:49:37	0.127	11.253	11:45:52	0.127	7.699	11:48:54	0.22
143	11:50:14	0.127	6.206	11:54:57	0.127	8.063	11:54:46	0.127	7.474	11:51:03	0.22
144	11:55:14	0.127	7.585	11:57:19	0.127	9.394	11:56:17	0.127	8.463	11:59:01	0.22
145	12:00:14	0.127	10.779	12:03:21	0.127	9.57	12:00:41	0.127	9.225	12:04:11	0.22
146	12:05:14	0.127	8.904	12:05:56	0.127	10.343	12:05:51	0.127	9.062	12:06:40	0.22
147	12:10:14	0.127	7.699	12:11:00	0.127	10.343	12:14:33	0.127	7.367	12:10:50	0.22
148	12:15:14	0.127	7.699	12:16:40	0.127	9.225	12:19:54	0.127	7.161	12:19:02	0.22
149	12:20:14	0.127	9.062	12:24:16	0.127	8.752	12:24:16	0.127	8.463	12:20:24	0.22
150	12:25:14	0.127	8.605	12:25:49	0.127	8.752	12:29:48	0.127	8.192	12:29:54	0.22
151	12:30:14	0.127	8.904	12:33:29	0.127	11.253	12:34:28	0.127	8.325	12:34:58	0.22
152	12:35:14	0.127	8.192	12:38:02	0.127	10.343	12:37:11	0.127	8.904	12:40:03	0.22
153	12:40:14	0.127	9.225	12:42:04	0.127	8.063	12:41:37	0.127	8.605	12:41:09	0.22
154	12:45:14	0.127	5.919	12:49:24	0.127	8.192	12:47:32	0.127	7.585	12:46:57	0.22
155	12:50:14	0.127	9.394	12:54:03	0.127	9.394	12:52:08	0.127	6.872	12:53:18	0.22
156	12:55:14	0.127	9.062	12:57:23	0.127	8.063	12:57:12	0.127	7.474	12:59:25	0.22
157	13:00:14	0.127	8.463	13:04:19	0.127	11.77	13:04:30	0.127	6.522	13:04:20	0.22
158	13:05:14	0.127	8.192	13:05:42	0.127	9.752	13:05:14	0.127	8.605	13:05:22	0.22
159	13:10:14	0.127	7.699	13:10:57	0.127	7.938	13:14:48	0.127	9.225	13:10:32	0.22
160	13:15:14	0.127	10.557	13:16:39	0.127	10.557	13:16:29	0.127	9.225	13:20:07	0.22
161	13:20:14	0.127	8.325	13:20:37	0.127	9.225	13:22:52	0.127	8.325	13:24:20	0.22
162	13:25:14	0.127	8.192	13:25:35	0.127	9.57	13:27:18	0.127	8.063	13:25:35	0.22
163	13:30:14	0.127	10.139	13:33:27	0.127	7.585	13:30:27	0.127	7.161	13:32:19	0.22
164	13:35:14	0.127	8.063	13:38:12	0.127	9.062	13:37:55	0.127	8.325	13:37:39	0.22
165	13:40:14	0.127	6.606	13:44:09	0.127	7.262	13:42:24	0.127	7.262	13:41:43	0.22
166	13:45:14	0.127	8.752	13:46:11	0.127	9.394	13:47:35	0.127	7.938	13:46:04	0.22
167	13:50:14	0.127	6.966	13:55:07	0.127	8.063	13:54:22	0.127	8.605	13:54:06	0.22
168	13:55:14	0.127	8.605	13:59:33	0.127	9.394	13:58:33	0.127	7.938	13:56:10	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 23/4/2022 @ 00:00:14
End: 24/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.85 Hz
Radial: 1.651 (mm/s) @ 204.8 Hz @ 14:38:45
Transverse: 3.556 (mm/s) @ 2.21 Hz @ 14:40:15
Vertical: 1.397 (mm/s) @ 146.29 Hz @ 14:40:15
Vector Sum: 3.58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:14	0.127	8.605	14:01:51	0.127	10.343	14:02:48	0.127	7.817	14:01:16	0.22
170	14:05:14	0.127	6.132	14:09:53	0.127	8.063	14:07:48	0.127	7.699	14:09:50	0.22
171	14:10:14	0.127	7.585	14:12:09	0.127	9.752	14:13:12	0.127	8.463	14:12:52	0.22
172	14:15:14	0.127	8.752	14:15:22	0.127	10.343	14:15:13	0.127	7.938	14:16:56	0.22
173	14:20:14	0.127	7.161	14:24:01	0.127	9.57	14:21:08	0.127	7.938	14:22:26	0.22
174	14:25:14	0.254	9.57	14:26:56	0.127	9.57	14:26:25	0.508	37.926	14:26:57	0.524
175	14:30:14	0.381	113.778	14:33:15	0.381	341.333	14:33:12	0.254	35.31	14:33:56	0.421
176	14:35:14	1.651	204.8	14:38:45	2.032	7.062	14:38:45	1.27	113.778	14:38:45	2.307
177	14:40:14	1.397	113.778	14:40:15	3.556	2.212	14:40:15	1.397	146.286	14:40:15	3.579
178	14:45:14	0.508	44.522	14:48:40	0.508	341.333	14:46:09	0.635	35.31	14:48:40	0.635
179	14:50:14	0.508	37.926	14:53:16	0.381	341.333	14:52:06	0.635	24.976	14:53:16	0.648
180	14:55:14	0.508	60.235	14:56:00	0.381	341.333	14:58:07	0.508	33.032	14:56:01	0.582
181	15:00:14	0.508	16.254	15:02:20	0.254	204.8	15:03:02	0.635	35.31	15:02:20	0.635
182	15:05:14	0.254	78.769	15:06:08	0.381	341.333	15:06:08	0.254	11.506	15:05:25	0.402
183	15:10:14	0.381	113.778	15:11:20	0.635	341.333	15:11:20	0.381	9.57	15:11:20	0.648
184	15:15:14	0.127	7.817	15:19:37	0.127	9.57	15:18:57	0.254	13.299	15:15:33	0.284
185	15:20:14	0.127	7.262	15:23:25	0.127	7.585	15:23:55	0.254	8.605	15:24:54	0.254
186	15:25:14	0.127	8.192	15:28:14	0.127	8.325	15:27:27	0.127	8.325	15:26:25	0.22
187	15:30:14	0.127	8.463	15:33:36	0.127	8.904	15:34:21	0.127	8.752	15:31:06	0.22
188	15:35:14	0.127	4.947	15:38:13	0.127	7.699	15:39:11	0.127	8.063	15:35:54	0.22
189	15:40:14	0.127	8.192	15:41:22	0.254	341.333	15:40:24	0.127	8.605	15:41:40	0.254
190	15:45:14	0.127	8.192	15:46:38	0.127	6.206	15:48:09	0.127	6.606	15:48:12	0.22
191	15:50:14	0.127	6.693	15:53:54	0.127	8.463	15:51:24	0.127	7.585	15:51:24	0.22
192	15:55:14	0.127	7.938	15:56:30	0.127	7.938	15:56:03	0.254	9.225	15:59:03	0.311
193	16:00:14	0.127	8.605	16:00:36	0.127	9.225	16:01:57	0.127	8.063	16:03:13	0.22
194	16:05:14	0.127	8.904	16:08:15	0.127	8.752	16:07:03	0.254	9.752	16:06:14	0.254
195	16:10:14	0.127	6.206	16:15:01	0.127	6.36	16:11:02	0.127	8.904	16:13:12	0.22
196	16:15:14	0.127	6.132	16:16:08	0.127	6.44	16:19:51	0.127	6.872	16:16:11	0.22
197	16:20:14	0.127	7.474	16:21:05	0.127	8.192	16:20:30	0.127	9.062	16:24:21	0.22
198	16:25:14	0.127	9.57	16:26:25	0.127	9.225	16:25:42	0.127	8.325	16:26:55	0.22
199	16:30:14	0.127	7.938	16:33:55	0.127	7.817	16:30:50	0.127	7.161	16:33:20	0.22
200	16:35:14	0.127	7.585	16:38:47	0.127	7.938	16:36:05	0.127	7.062	16:36:55	0.22
201	16:40:14	0.127	5.095	16:44:27	0.127	8.063	16:42:16	0.127	8.463	16:41:54	0.22
202	16:45:14	0.127	6.36	16:48:15	0.127	7.262	16:49:10	0.127	7.474	16:49:06	0.22
203	16:50:14	0.127	7.699	16:53:59	0.127	8.325	16:50:32	0.127	8.192	16:54:35	0.22
204	16:55:14	0.127	7.585	17:00:08	0.127	6.522	16:58:05	0.254	24.976	16:56:04	0.254
205	17:00:14	0.127	8.605	17:00:54	0.127	7.161	17:03:16	0.127	7.062	17:01:01	0.22
206	17:05:14	0.127	8.605	17:07:27	0.127	8.904	17:07:14	0.127	7.699	17:07:35	0.22
207	17:10:14	0.127	6.059	17:14:48	0.127	6.872	17:11:08	0.127	7.817	17:11:32	0.22
208	17:15:14	0.127	7.938	17:19:41	0.127	6.44	17:19:29	0.127	7.938	17:19:41	0.22
209	17:20:14	0.127	8.063	17:22:39	0.127	7.474	17:21:49	0.127	9.062	17:21:00	0.22
210	17:25:14	0.127	7.699	17:26:13	0.127	8.752	17:27:57	0.254	7.262	17:26:43	0.284
211	17:30:14	0.127	5.988	17:32:11	0.127	6.966	17:31:52	0.127	7.938	17:32:10	0.22
212	17:35:14	0.127	5.251	17:39:13	0.127	6.059	17:38:04	0.254	10.139	17:39:22	0.284
213	17:40:14	0.127	9.062	17:41:52	0.127	8.325	17:43:04	0.254	7.474	17:42:41	0.284
214	17:45:14	0.127	7.817	17:45:15	0.127	7.938	17:46:20	0.127	7.367	17:47:46	0.22
215	17:50:14	0.127	7.262	17:51:24	0.127	8.325	17:54:26	0.127	8.325	17:53:13	0.22
216	17:55:14	0.127	8.752	17:57:30	0.127	7.817	17:59:39	0.127	9.062	17:58:19	0.22
217	18:00:14	0.127	6.872	18:01:13	0.127	9.225	18:02:59	0.127	7.817	18:02:59	0.22
218	18:05:14	0.127	7.817	18:07:56	0.127	8.063	18:07:31	0.127	8.904	18:07:56	0.22
219	18:10:14	0.127	7.817	18:10:53	0.127	8.063	18:11:04	0.254	9.942	18:10:21	0.284
220	18:15:14	0.127	7.161	18:18:26	0.127	8.063	18:17:42	0.127	8.192	18:15:17	0.22
221	18:20:14	0.127	6.781	18:21:03	0.127	9.394	18:23:55	0.127	7.817	18:20:37	0.22
222	18:25:14	0.127	6.44	18:26:12	0.127	7.474	18:30:01	0.127	7.474	18:27:59	0.22
223	18:30:14	0.127	7.161	18:34:28	0.127	9.394	18:33:57	0.127	7.817	18:32:54	0.22
224	18:35:14	0.127	7.699	18:39:23	0.127	7.585	18:39:01	0.127	7.938	18:39:12	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 23/4/2022 @ 00:00:14
End: 24/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.85 Hz
Radial: 1.651 (mm/s) @ 204.8 Hz @ 14:38:45
Transverse: 3.556 (mm/s) @ 2.21 Hz @ 14:40:15
Vertical: 1.397 (mm/s) @ 146.29 Hz @ 14:40:15
Vector Sum: 3.58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:14	0.127	7.161	18:44:12	0.127	8.192	18:42:13	0.127	7.262	18:43:01	0.22
226	18:45:14	0.127	8.463	18:48:46	0.127	9.394	18:48:50	0.254	37.926	18:48:02	0.284
227	18:50:14	0.127	6.872	18:50:33	0.127	8.605	18:50:42	0.127	8.752	18:51:07	0.22
228	18:55:14	0.127	8.325	18:57:23	0.127	9.062	18:57:17	0.127	8.463	18:55:33	0.22
229	19:00:14	0.127	8.463	19:04:59	0.127	5.988	19:03:50	0.127	8.605	19:02:55	0.22
230	19:05:14	0.127	6.693	19:08:56	0.127	7.262	19:08:28	0.127	8.605	19:09:37	0.22
231	19:10:14	0.127	6.966	19:12:51	0.127	9.225	19:12:16	0.127	8.325	19:10:29	0.22
232	19:15:14	0.127	7.585	19:17:07	0.127	8.063	19:17:51	0.127	7.817	19:17:14	0.22
233	19:20:14	0.127	7.938	19:23:14	0.127	6.206	19:24:52	0.254	37.926	19:20:39	0.284
234	19:25:14	0.127	7.474	19:30:11	0.127	9.394	19:27:13	0.127	8.463	19:26:55	0.22
235	19:30:14	0.127	8.192	19:33:17	0.127	9.225	19:31:02	0.127	8.904	19:34:24	0.22
236	19:35:14	0.127	7.699	19:39:48	0.127	8.063	19:38:55	0.127	7.585	19:37:34	0.22
237	19:40:14	0.127	6.872	19:41:07	0.127	8.325	19:40:36	0.127	7.699	19:45:04	0.22
238	19:45:14	0.127	8.325	19:46:51	0.127	6.781	19:46:43	0.127	9.225	19:47:52	0.22
239	19:50:14	0.127	6.781	19:54:25	0.127	9.062	19:52:22	0.127	7.262	19:54:04	0.22
240	19:55:14	0.127	7.699	19:58:41	0.127	7.585	19:56:33	0.127	8.192	19:59:57	0.22
241	20:00:14	0.127	7.161	20:00:33	0.127	6.966	20:04:20	0.127	7.367	20:00:32	0.22
242	20:05:14	0.127	8.463	20:06:03	0.127	6.966	20:09:15	0.127	9.062	20:08:01	0.22
243	20:10:14	0.127	8.752	20:14:15	0.127	6.693	20:10:22	0.127	7.938	20:13:03	0.22
244	20:15:14	0.127	7.938	20:17:03	0.127	6.206	20:20:06	0.127	7.817	20:19:50	0.22
245	20:20:14	0.127	7.262	20:22:48	0.127	6.282	20:24:52	0.127	6.966	20:21:20	0.22
246	20:25:14	0.127	9.225	20:28:14	0.127	7.474	20:26:38	0.127	7.817	20:26:35	0.22
247	20:30:14	0.127	7.699	20:30:58	0.127	9.394	20:32:56	0.127	8.463	20:34:46	0.22
248	20:35:14	0.127	7.938	20:36:15	0.127	6.966	20:38:03	0.127	8.463	20:37:27	0.22
249	20:40:14	0.127	9.225	20:41:47	0.127	6.44	20:40:19	0.127	9.225	20:40:20	0.22
250	20:45:14	0.127	8.192	20:46:52	0.127	8.192	20:46:41	0.127	8.192	20:46:09	0.22
251	20:50:14	0.127	9.062	20:53:08	0.127	8.063	20:54:39	0.127	8.325	20:53:22	0.22
252	20:55:14	0.127	7.262	20:56:19	0.127	6.44	20:55:40	0.254	7.699	20:58:08	0.284
253	21:00:14	0.127	8.463	21:01:09	0.127	5.851	21:03:21	0.127	9.394	21:02:03	0.22
254	21:05:14	0.127	9.394	21:06:18	0.127	7.367	21:05:38	0.127	8.325	21:09:38	0.22
255	21:10:14	0.127	7.585	21:10:47	0.127	7.367	21:11:52	0.127	8.752	21:11:53	0.22
256	21:15:14	0.127	8.752	21:18:12	0.127	7.585	21:15:20	0.254	10.139	21:18:39	0.284
257	21:20:14	0.127	8.904	21:24:01	0.127	6.966	21:23:10	0.127	9.57	21:20:51	0.22
258	21:25:14	0.127	8.605	21:27:46	0.127	9.062	21:27:32	0.127	9.225	21:27:55	0.22
259	21:30:14	0.127	7.474	21:30:18	0.127	6.693	21:34:38	0.127	9.394	21:30:56	0.22
260	21:35:14	0.127	8.904	21:39:01	0.127	9.062	21:38:01	0.127	8.752	21:36:13	0.22
261	21:40:14	0.127	9.062	21:42:41	0.127	9.752	21:44:01	0.127	8.904	21:40:58	0.22
262	21:45:14	0.127	9.752	21:46:31	0.127	8.463	21:47:23	0.127	9.062	21:47:39	0.22
263	21:50:14	0.127	11.253	21:50:20	0.127	8.752	21:54:27	0.127	9.062	21:50:45	0.22
264	21:55:14	0.127	9.394	21:59:07	0.127	8.463	21:57:55	0.127	7.938	21:57:25	0.22
265	22:00:14	0.127	9.942	22:02:25	0.127	7.062	22:00:11	0.127	9.942	22:02:23	0.22
266	22:05:14	0.127	7.262	22:10:10	0.127	7.817	22:09:31	0.127	8.463	22:10:09	0.22
267	22:10:14	0.127	9.942	22:10:11	0.127	8.325	22:10:42	0.127	8.752	22:10:11	0.22
268	22:15:14	0.127	8.904	22:16:00	0.127	7.817	22:18:33	0.127	9.57	22:18:30	0.22
269	22:20:14	0.127	8.752	22:22:44	0.127	9.225	22:21:52	0.127	10.779	22:20:59	0.22
270	22:25:14	0.127	8.904	22:26:54	0.127	7.062	22:25:44	0.127	8.463	22:28:39	0.22
271	22:30:14	0.127	10.343	22:34:59	0.127	8.192	22:31:48	0.127	9.394	22:34:26	0.22
272	22:35:14	0.127	9.062	22:36:06	0.127	7.367	22:37:05	0.127	7.474	22:35:42	0.22
273	22:40:14	0.127	9.942	22:43:31	0.127	8.463	22:40:16	0.127	9.942	22:43:32	0.22
274	22:45:14	0.127	9.942	22:48:27	0.127	8.463	22:48:02	0.127	9.752	22:47:16	0.22
275	22:50:14	0.127	8.192	22:53:30	0.127	6.44	22:50:34	0.127	9.942	22:51:08	0.22
276	22:55:14	0.127	9.57	22:58:45	0.127	6.282	22:58:31	0.127	9.062	22:59:39	0.22
277	23:00:14	0.127	9.394	23:04:51	0.127	7.474	23:03:39	0.127	8.752	23:01:21	0.22
278	23:05:14	0.127	9.942	23:05:36	0.127	6.966	23:05:11	0.127	8.463	23:06:35	0.22
279	23:10:14	0.254	10.139	23:13:11	0.127	7.062	23:13:08	0.254	33.032	23:13:11	0.311
280	23:15:14	0.127	8.605	23:19:51	0.127	7.938	23:15:11	0.127	8.063	23:19:45	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 6
Start: 23/4/2022 @ 00:00:14
End: 24/4/2022 @ 00:00:01
Summary Interval: 288
Air: 81.9 dBL @ 0.85 Hz
Radial: 1.651 (mm/s) @ 204.8 Hz @ 14:38:45
Transverse: 3.556 (mm/s) @ 2.21 Hz @ 14:40:15
Vertical: 1.397 (mm/s) @ 146.29 Hz @ 14:40:15
Vector Sum: 3.58 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:14	0.127	10.343	23:22:59	0.127	8.063	23:21:47	0.127	8.904	23:23:00	0.22
282	23:25:14	0.127	8.192	23:27:48	0.127	8.463	23:25:42	0.254	40.96	23:26:33	0.254
283	23:30:14	0.127	10.779	23:30:11	0.127	6.522	23:33:49	0.127	9.752	23:30:12	0.22
284	23:35:14	0.127	9.225	23:39:29	0.127	6.522	23:38:12	0.127	8.463	23:36:22	0.22
285	23:40:14	0.127	7.474	23:41:10	0.127	7.161	23:43:21	0.127	8.605	23:41:09	0.22
286	23:45:14	0.127	9.225	23:45:32	0.127	7.938	23:47:38	0.127	9.394	23:49:57	0.22
287	23:50:14	0.127	9.394	23:55:00	0.127	7.474	23:52:40	0.127	8.192	23:54:59	0.22
288	23:55:14	0.127	7.699	23:55:54	0.127	7.262	23:56:09	0.127	8.325	23:55:57	0.22

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

24/4/2022 at 12:00 am Event # 7

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

Distance: N Wgt. Per Delay: N Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1 Vector Sum: 18.53 mm/s @ 1.22 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7556**	**4.2466**	**12.7556**
Frequency (Hz)	**18.2**	**36.5**	**24.3**

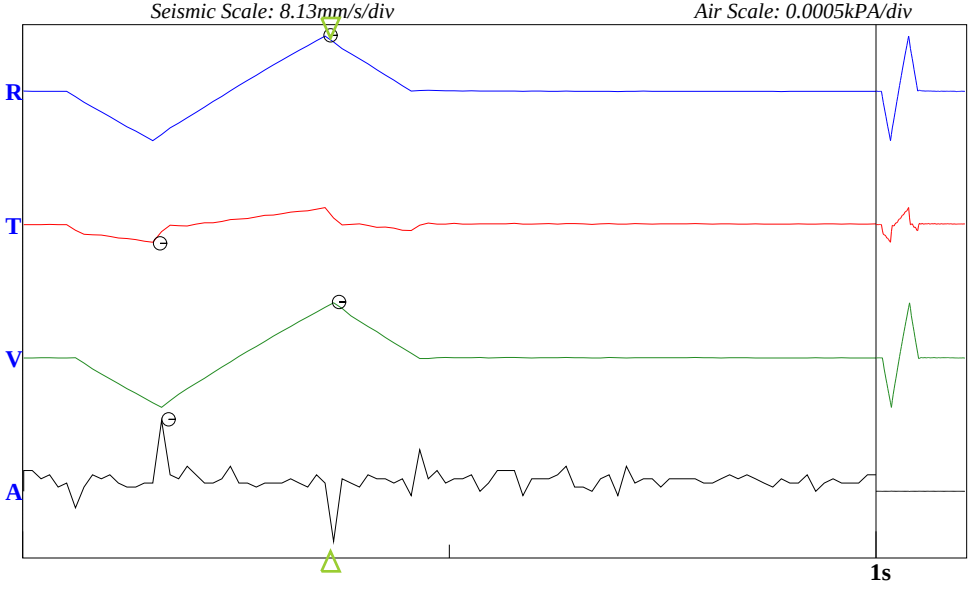
Air

Gain: 1

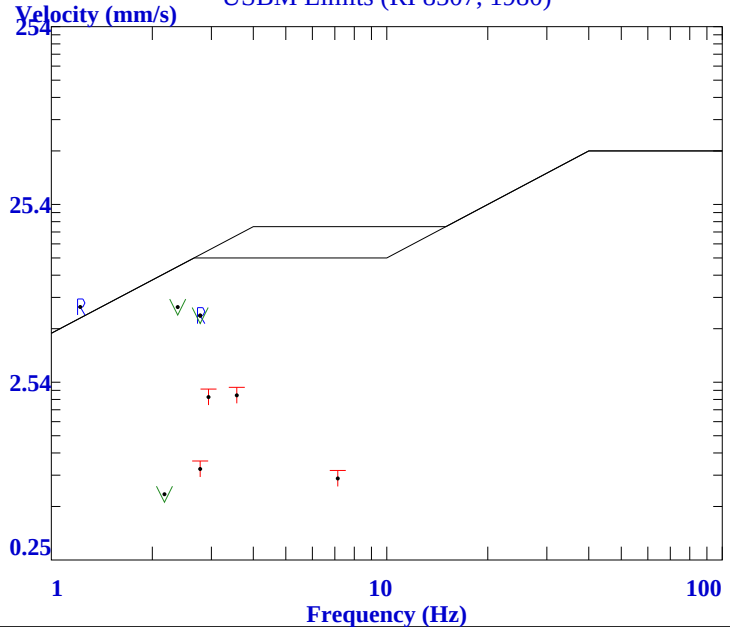
Measurement	Value		
kPA	0.000469		
dBL	**87.4**		
Hz	256.0		

Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

24/4/2022 at 12:00:12 am Event # 8

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:03 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.4 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.254**	**0.254**	**0.381**
Frequency (Hz)	**8.9**	**341.33**	**12.96**
Time	6:09:36 pm	1:19:03 pm	1:53:48 pm

Air

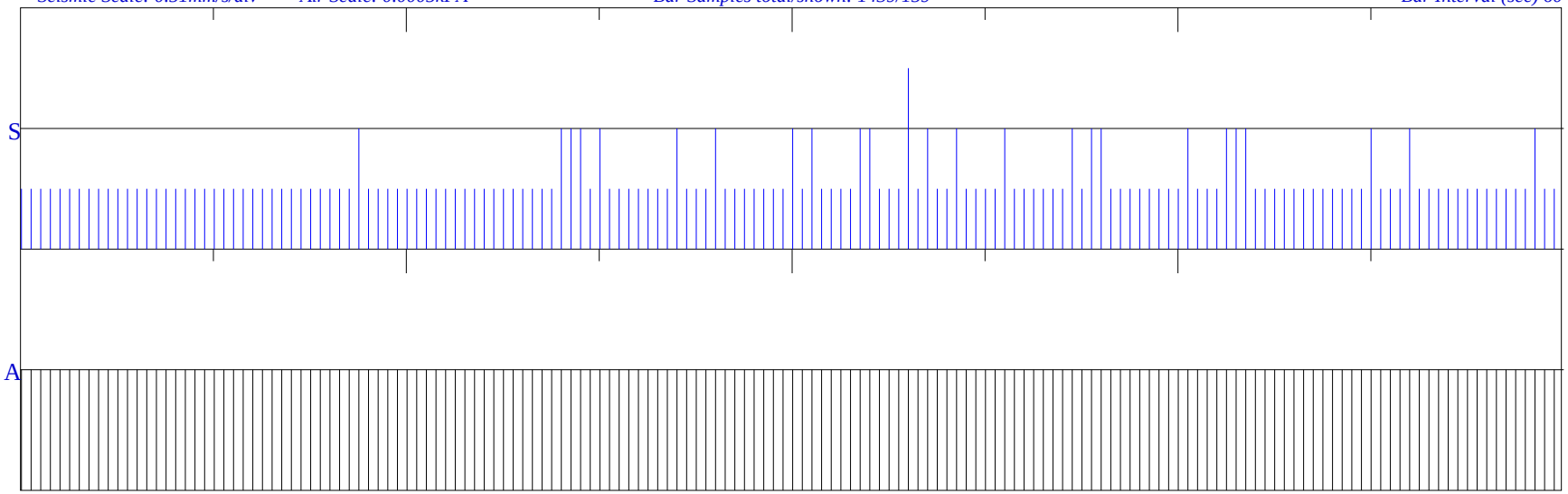
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.78		
Time	6:00:58 am		

BarGraph

Seismic Scale: 0.51mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159*

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:12 **03:00:10** **06:00:09** **09:00:08** **12:00:07** **15:00:06** **18:00:05** **21:00:04** **00:00:03**

<<<<<<<<<<<<<< **23:59:51** >>>>>>>>>>>>>>

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 24/4/2022 @ 00:00:12
End: 25/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 8.9 Hz @ 18:09:36
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 13:19:03
Vertical: 0.381 (mm/s) @ 12.96 Hz @ 13:53:48
Vector Sum: .40 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:12	0.127	8.063	0:01:44	0.127	10.779	0:03:19	0.127	7.585	0:04:15	0.22
2	0:05:12	0.127	10.779	0:07:39	0.127	18.618	0:05:48	0.127	9.57	0:07:42	0.22
3	0:10:12	0.127	10.557	0:11:14	0.127	16.254	0:14:25	0.127	10.139	0:11:11	0.22
4	0:15:12	0.127	8.904	0:18:42	0.127	17.965	0:18:04	0.127	9.394	0:18:45	0.22
5	0:20:12	0.127	10.139	0:20:43	0.127	16.254	0:24:18	0.127	9.225	0:20:42	0.22
6	0:25:12	0.127	10.557	0:29:08	0.127	20.078	0:28:35	0.127	8.192	0:27:25	0.22
7	0:30:12	0.127	9.57	0:30:40	0.127	18.618	0:33:25	0.127	8.904	0:32:26	0.22
8	0:35:12	0.127	10.343	0:35:37	0.127	17.356	0:36:53	0.127	8.752	0:37:41	0.22
9	0:40:12	0.127	9.942	0:42:18	0.127	17.356	0:43:09	0.127	8.904	0:42:18	0.22
10	0:45:12	0.127	10.139	0:46:28	0.127	19.321	0:45:31	0.127	10.557	0:47:47	0.22
11	0:50:12	0.127	10.139	0:54:15	0.127	14.027	0:50:17	0.127	9.062	0:54:12	0.22
12	0:55:12	0.127	10.557	0:56:19	0.127	20.898	0:55:23	0.127	8.325	0:56:20	0.22
13	1:00:12	0.127	11.253	1:01:41	0.127	19.321	1:01:49	0.127	12.047	1:00:22	0.22
14	1:05:12	0.127	8.605	1:06:17	0.127	18.618	1:08:07	0.127	8.463	1:06:19	0.22
15	1:10:12	0.127	11.011	1:10:50	0.127	17.356	1:13:16	0.127	10.343	1:10:40	0.22
16	1:15:12	0.127	10.779	1:19:57	0.127	16.254	1:16:16	0.127	11.253	1:16:20	0.22
17	1:20:12	0.127	9.394	1:23:39	0.127	17.356	1:22:19	0.127	9.394	1:22:52	0.22
18	1:25:12	0.127	11.011	1:30:08	0.127	17.356	1:29:26	0.127	9.942	1:26:20	0.22
19	1:30:12	0.127	10.139	1:33:33	0.127	20.078	1:34:24	0.127	9.942	1:30:29	0.22
20	1:35:12	0.127	9.225	1:39:31	0.127	19.321	1:37:08	0.127	9.062	1:39:24	0.22
21	1:40:12	0.127	9.752	1:43:52	0.127	18.618	1:40:17	0.127	11.77	1:42:34	0.22
22	1:45:12	0.127	10.343	1:45:50	0.127	17.356	1:47:47	0.127	11.011	1:50:10	0.22
23	1:50:12	0.127	13.653	1:51:57	0.127	20.898	1:50:38	0.127	10.557	1:50:31	0.22
24	1:55:12	0.127	11.011	1:56:49	0.127	23.814	1:56:49	0.127	9.942	1:59:00	0.22
25	2:00:12	0.127	10.343	2:01:41	0.127	19.321	2:01:20	0.127	12.047	2:01:14	0.22
26	2:05:12	0.127	8.325	2:09:38	0.127	18.618	2:09:15	0.127	11.506	2:08:47	0.22
27	2:10:12	0.127	11.506	2:10:57	0.127	16.787	2:10:13	0.127	12.047	2:12:01	0.22
28	2:15:12	0.127	9.942	2:16:28	0.127	20.078	2:17:53	0.127	11.506	2:17:10	0.22
29	2:20:12	0.127	7.938	2:21:16	0.127	17.965	2:25:03	0.127	8.752	2:24:15	0.22
30	2:25:12	0.127	10.343	2:27:27	0.127	16.787	2:25:36	0.127	9.57	2:29:14	0.22
31	2:30:12	0.127	9.942	2:31:09	0.127	16.787	2:31:35	0.127	10.343	2:34:56	0.22
32	2:35:12	0.127	8.463	2:37:48	0.127	15.754	2:35:13	0.127	9.942	2:39:03	0.22
33	2:40:12	0.127	13.653	2:45:04	0.127	17.965	2:43:31	0.127	11.506	2:43:18	0.22
34	2:45:12	0.127	10.557	2:46:35	0.127	21.787	2:49:12	0.127	9.57	2:45:58	0.22
35	2:50:12	0.127	11.253	2:50:22	0.127	21.787	2:51:39	0.127	10.779	2:51:57	0.22
36	2:55:12	0.127	7.699	2:55:36	0.127	19.321	2:59:20	0.127	7.474	2:55:26	0.22
37	3:00:12	0.127	12.642	3:01:41	0.127	15.754	3:02:15	0.127	13.299	3:04:58	0.22
38	3:05:12	0.127	9.752	3:07:16	0.127	23.814	3:05:31	0.127	11.77	3:06:06	0.22
39	3:10:12	0.127	10.139	3:14:59	0.127	18.618	3:11:19	0.127	12.962	3:11:37	0.22
40	3:15:12	0.127	7.938	3:17:04	0.127	18.618	3:17:47	0.127	10.557	3:16:55	0.22
41	3:20:12	0.127	9.942	3:23:13	0.127	18.618	3:23:59	0.127	12.642	3:21:57	0.22
42	3:25:12	0.127	9.57	3:30:13	0.127	20.898	3:29:31	0.127	10.139	3:29:17	0.22
43	3:30:12	0.127	8.463	3:33:41	0.127	20.078	3:32:29	0.127	8.904	3:33:00	0.22
44	3:35:12	0.127	9.752	3:39:52	0.127	15.284	3:38:54	0.127	10.139	3:36:53	0.22
45	3:40:12	0.127	10.557	3:44:16	0.127	21.787	3:43:13	0.127	11.506	3:44:11	0.22
46	3:45:12	0.127	8.463	3:45:46	0.127	13.299	3:49:30	0.127	10.557	3:46:38	0.22
47	3:50:12	0.127	9.225	3:53:12	0.127	12.642	3:53:00	0.127	9.57	3:51:08	0.22
48	3:55:12	0.127	10.779	3:57:31	0.127	15.754	3:57:03	0.127	8.463	3:57:31	0.22
49	4:00:12	0.127	8.605	4:04:13	0.127	20.898	4:04:39	0.127	8.063	4:04:13	0.22
50	4:05:12	0.127	8.752	4:10:12	0.127	20.078	4:09:19	0.127	8.904	4:07:37	0.22
51	4:10:12	0.127	11.011	4:15:13	0.127	20.898	4:12:18	0.127	9.942	4:10:16	0.22
52	4:15:12	0.127	9.394	4:15:15	0.127	21.787	4:15:20	0.127	9.225	4:15:15	0.22
53	4:20:12	0.127	8.752	4:21:07	0.127	20.078	4:21:43	0.127	8.605	4:22:03	0.22
54	4:25:12	0.127	12.337	4:25:36	0.127	19.321	4:26:16	0.127	12.047	4:29:53	0.22
55	4:30:12	0.127	8.605	4:32:15	0.127	15.754	4:30:33	0.127	10.779	4:35:03	0.22
56	4:35:12	0.127	9.225	4:39:54	0.127	17.965	4:38:15	0.127	9.57	4:39:52	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 24/4/2022 @ 00:00:12
End: 25/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 8.9 Hz @ 18:09:36
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 13:19:03
Vertical: 0.381 (mm/s) @ 12.96 Hz @ 13:53:48
Vector Sum: .40 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:12	0.127	9.062	4:41:48	0.127	20.078	4:41:24	0.127	11.011	4:41:52	0.22
58	4:45:12	0.127	8.463	4:45:29	0.127	19.321	4:47:53	0.127	9.225	4:45:20	0.22
59	4:50:12	0.127	11.011	4:53:49	0.127	19.321	4:55:08	0.127	9.752	4:51:30	0.22
60	4:55:12	0.127	7.938	4:56:24	0.127	18.618	4:57:34	0.127	9.752	4:57:16	0.22
61	5:00:12	0.127	9.752	5:02:16	0.127	20.078	5:00:13	0.127	10.139	5:01:02	0.22
62	5:05:12	0.127	9.942	5:08:12	0.127	16.254	5:06:44	0.127	9.57	5:09:35	0.22
63	5:10:12	0.127	8.904	5:14:39	0.127	20.898	5:11:28	0.127	9.225	5:10:43	0.22
64	5:15:12	0.127	8.325	5:15:41	0.127	24.976	5:17:26	0.254	10.779	5:15:40	0.284
65	5:20:12	0.127	8.904	5:25:12	0.127	18.618	5:21:53	0.127	10.343	5:23:24	0.22
66	5:25:12	0.127	9.062	5:27:41	0.127	20.078	5:28:06	0.127	9.57	5:27:42	0.22
67	5:30:12	0.127	7.817	5:33:11	0.127	20.898	5:30:26	0.127	9.225	5:32:54	0.22
68	5:35:12	0.127	8.752	5:35:13	0.127	14.841	5:37:26	0.127	9.752	5:38:02	0.22
69	5:40:12	0.127	7.938	5:42:33	0.127	15.754	5:40:12	0.127	7.699	5:44:03	0.22
70	5:45:12	0.127	9.752	5:47:56	0.127	20.078	5:46:37	0.127	10.779	5:47:56	0.22
71	5:50:12	0.127	7.938	5:53:43	0.127	18.618	5:54:46	0.127	8.325	5:53:40	0.22
72	5:55:12	0.127	9.394	5:58:59	0.127	20.078	5:57:54	0.127	9.225	5:55:48	0.22
73	6:00:12	0.127	8.904	6:01:26	0.127	20.078	6:00:28	0.127	8.605	6:04:57	0.22
74	6:05:12	0.127	8.752	6:08:46	0.127	17.965	6:09:30	0.127	8.605	6:08:46	0.22
75	6:10:12	0.127	7.367	6:10:59	0.127	17.965	6:13:01	0.127	9.225	6:15:07	0.22
76	6:15:12	0.127	8.325	6:15:48	0.127	17.356	6:16:58	0.127	8.904	6:19:52	0.22
77	6:20:12	0.127	8.904	6:21:24	0.127	15.754	6:22:51	0.127	8.605	6:21:06	0.22
78	6:25:12	0.127	8.325	6:25:41	0.127	17.965	6:26:26	0.127	9.752	6:25:16	0.22
79	6:30:12	0.127	6.522	6:32:49	0.127	22.756	6:31:25	0.127	9.394	6:33:47	0.22
80	6:35:12	0.127	7.474	6:36:03	0.127	16.254	6:37:18	0.127	9.225	6:38:51	0.22
81	6:40:12	0.127	7.817	6:42:35	0.127	16.254	6:41:34	0.127	9.225	6:41:24	0.22
82	6:45:12	0.127	6.966	6:45:23	0.127	20.078	6:45:48	0.127	8.463	6:45:29	0.22
83	6:50:12	0.127	8.325	6:54:48	0.127	18.618	6:51:12	0.127	8.904	6:50:15	0.22
84	6:55:12	0.127	6.781	6:57:34	0.127	18.618	6:58:48	0.127	7.585	6:57:46	0.22
85	7:00:12	0.127	5.721	7:02:30	0.127	16.254	7:02:50	0.127	9.394	7:04:39	0.22
86	7:05:12	0.127	8.192	7:07:27	0.127	17.356	7:05:42	0.127	7.699	7:06:57	0.22
87	7:10:12	0.127	8.463	7:12:17	0.127	17.965	7:11:18	0.127	8.463	7:10:58	0.22
88	7:15:12	0.127	7.474	7:17:27	0.127	14.027	7:18:32	0.127	8.325	7:18:15	0.22
89	7:20:12	0.127	8.605	7:21:25	0.127	19.321	7:22:54	0.127	9.225	7:21:26	0.22
90	7:25:12	0.127	7.699	7:27:41	0.127	20.898	7:28:41	0.127	7.585	7:29:29	0.22
91	7:30:12	0.127	6.44	7:33:24	0.127	18.618	7:35:11	0.127	7.699	7:31:00	0.22
92	7:35:12	0.127	6.781	7:38:04	0.127	15.284	7:37:46	0.127	9.062	7:36:33	0.22
93	7:40:12	0.127	7.062	7:44:51	0.127	19.321	7:42:31	0.127	8.063	7:44:52	0.22
94	7:45:12	0.127	7.474	7:47:44	0.127	17.965	7:49:09	0.127	8.904	7:49:18	0.22
95	7:50:12	0.127	6.282	7:50:34	0.127	20.078	7:54:05	0.127	7.938	7:54:48	0.22
96	7:55:12	0.127	7.938	7:57:53	0.127	16.254	7:57:39	0.127	7.938	7:56:53	0.22
97	8:00:12	0.127	7.585	8:03:13	0.127	11.506	8:02:51	0.127	9.57	8:00:36	0.22
98	8:05:12	0.127	9.394	8:07:19	0.127	17.965	8:07:46	0.127	9.394	8:05:16	0.22
99	8:10:12	0.127	8.904	8:13:28	0.127	15.754	8:10:12	0.127	8.192	8:12:14	0.22
100	8:15:12	0.127	8.063	8:17:07	0.127	22.756	8:15:20	0.127	8.752	8:18:13	0.22
101	8:20:12	0.127	8.904	8:22:33	0.127	14.423	8:21:34	0.127	8.463	8:21:12	0.22
102	8:25:12	0.127	9.062	8:27:14	0.127	14.423	8:26:40	0.254	12.337	8:25:33	0.284
103	8:30:12	0.127	9.225	8:33:34	0.127	17.965	8:33:10	0.254	37.926	8:34:36	0.254
104	8:35:12	0.127	7.585	8:39:57	0.127	19.321	8:37:10	0.127	9.225	8:38:14	0.22
105	8:40:12	0.127	9.225	8:45:07	0.127	17.356	8:40:49	0.127	7.474	8:40:54	0.22
106	8:45:12	0.127	7.699	8:46:13	0.127	20.078	8:50:09	0.254	37.926	8:45:36	0.284
107	8:50:12	0.127	7.474	8:50:52	0.127	14.027	8:54:31	0.127	5.721	8:50:55	0.22
108	8:55:12	0.127	7.262	8:58:48	0.127	14.841	8:57:04	0.127	8.192	8:56:56	0.22
109	9:00:12	0.127	8.325	9:01:46	0.127	20.078	9:01:12	0.254	11.506	9:01:47	0.284
110	9:05:12	0.127	8.752	9:08:15	0.127	15.754	9:09:22	0.127	8.063	9:05:57	0.22
111	9:10:12	0.127	9.394	9:13:26	0.127	20.078	9:12:14	0.127	9.225	9:13:58	0.22
112	9:15:12	0.127	8.192	9:18:00	0.127	20.078	9:17:07	0.127	8.325	9:18:09	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 24/4/2022 @ 00:00:12
End: 25/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 8.9 Hz @ 18:09:36
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 13:19:03
Vertical: 0.381 (mm/s) @ 12.96 Hz @ 13:53:48
Vector Sum: .40 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:12	0.127	8.752	9:21:56	0.127	20.078	9:21:19	0.127	9.942	9:24:44	0.22
114	9:25:12	0.127	8.325	9:29:36	0.127	14.841	9:29:53	0.127	7.938	9:29:19	0.22
115	9:30:12	0.127	6.966	9:32:52	0.127	22.756	9:32:30	0.127	8.192	9:31:06	0.22
116	9:35:12	0.127	8.752	9:37:05	0.127	11.011	9:38:35	0.127	9.752	9:37:18	0.22
117	9:40:12	0.127	8.904	9:41:37	0.127	7.062	9:44:58	0.127	8.605	9:44:02	0.22
118	9:45:12	0.127	8.463	9:45:35	0.127	7.938	9:45:19	0.127	8.904	9:50:06	0.22
119	9:50:12	0.127	8.752	9:55:02	0.127	8.463	9:51:17	0.127	8.752	9:53:44	0.22
120	9:55:12	0.127	11.253	9:56:16	0.127	7.817	9:55:16	0.127	8.904	9:55:16	0.22
121	10:00:12	0.127	10.343	10:03:02	0.127	6.693	10:01:56	0.127	7.817	10:04:29	0.22
122	10:05:12	0.127	9.752	10:09:34	0.127	8.192	10:07:13	0.127	8.463	10:08:17	0.22
123	10:10:12	0.127	9.57	10:11:01	0.127	7.474	10:10:39	0.127	7.699	10:15:07	0.22
124	10:15:12	0.127	5.988	10:15:18	0.127	9.942	10:15:54	0.254	9.062	10:18:43	0.284
125	10:20:12	0.127	9.942	10:24:27	0.127	6.966	10:23:44	0.127	10.139	10:22:10	0.22
126	10:25:12	0.127	10.343	10:26:19	0.127	9.394	10:26:28	0.127	7.938	10:28:35	0.22
127	10:30:12	0.127	8.904	10:33:56	0.127	8.192	10:32:41	0.127	8.904	10:31:02	0.22
128	10:35:12	0.127	7.161	10:39:36	0.127	7.262	10:37:15	0.127	8.463	10:39:00	0.22
129	10:40:12	0.127	8.605	10:40:28	0.127	8.605	10:41:55	0.127	8.192	10:41:56	0.22
130	10:45:12	0.127	8.605	10:48:48	0.127	7.699	10:49:12	0.254	9.062	10:50:05	0.254
131	10:50:12	0.127	9.942	10:53:04	0.127	9.394	10:52:56	0.127	9.942	10:54:48	0.22
132	10:55:12	0.127	9.752	10:57:14	0.127	8.192	10:57:35	0.127	7.062	10:56:02	0.22
133	11:00:12	0.127	9.942	11:00:38	0.127	8.904	11:00:18	0.127	7.585	11:00:40	0.22
134	11:05:12	0.127	10.343	11:05:56	0.127	8.463	11:06:46	0.127	9.062	11:06:59	0.22
135	11:10:12	0.127	9.394	11:13:28	0.127	9.942	11:13:23	0.127	9.062	11:11:39	0.22
136	11:15:12	0.127	10.139	11:17:42	0.127	9.062	11:15:49	0.127	8.904	11:16:50	0.22
137	11:20:12	0.127	9.225	11:24:31	0.127	6.36	11:22:58	0.127	8.752	11:24:59	0.22
138	11:25:12	0.127	9.942	11:26:20	0.127	7.585	11:26:58	0.127	9.225	11:29:26	0.22
139	11:30:12	0.127	8.325	11:33:51	0.127	9.57	11:32:51	0.127	7.817	11:33:49	0.22
140	11:35:12	0.127	11.506	11:37:18	0.127	7.938	11:35:19	0.127	8.605	11:35:24	0.22
141	11:40:12	0.127	7.938	11:44:42	0.127	8.463	11:44:30	0.127	7.938	11:41:13	0.22
142	11:45:12	0.127	10.343	11:45:46	0.127	8.752	11:45:22	0.127	7.699	11:47:49	0.22
143	11:50:12	0.127	11.506	11:51:49	0.127	10.557	11:51:40	0.127	7.161	11:51:23	0.22
144	11:55:12	0.127	9.942	11:55:42	0.127	8.605	11:59:35	0.127	8.063	11:58:24	0.22
145	12:00:12	0.127	9.062	12:01:19	0.127	9.394	12:04:34	0.254	9.394	12:00:38	0.284
146	12:05:12	0.127	10.139	12:09:12	0.127	11.011	12:05:49	0.127	7.817	12:09:35	0.22
147	12:10:12	0.127	9.394	12:10:52	0.127	9.57	12:12:16	0.127	8.325	12:13:06	0.22
148	12:15:12	0.127	10.343	12:16:20	0.127	8.904	12:19:13	0.254	48.762	12:19:05	0.254
149	12:20:12	0.127	9.57	12:20:20	0.127	8.752	12:23:55	0.127	7.938	12:24:59	0.22
150	12:25:12	0.127	7.585	12:30:02	0.127	7.161	12:29:24	0.127	6.966	12:29:58	0.22
151	12:30:12	0.127	7.367	12:33:00	0.127	9.942	12:30:52	0.127	7.699	12:33:08	0.22
152	12:35:12	0.127	9.394	12:38:42	0.127	6.282	12:35:11	0.127	8.752	12:38:42	0.22
153	12:40:12	0.127	9.394	12:41:19	0.127	9.394	12:44:48	0.127	8.325	12:42:32	0.22
154	12:45:12	0.127	10.557	12:48:52	0.127	10.343	12:46:45	0.127	9.394	12:48:40	0.22
155	12:50:12	0.127	9.57	12:54:45	0.127	9.062	12:52:46	0.127	8.904	12:50:36	0.22
156	12:55:12	0.127	8.325	13:00:03	0.127	9.225	12:59:25	0.127	9.394	12:59:13	0.22
157	13:00:12	0.127	8.605	13:01:36	0.127	9.942	13:02:28	0.254	48.762	13:04:33	0.284
158	13:05:12	0.127	10.139	13:05:52	0.127	8.192	13:07:38	0.127	8.605	13:05:53	0.22
159	13:10:12	0.127	11.011	13:10:53	0.127	9.225	13:12:35	0.127	9.57	13:15:09	0.22
160	13:15:12	0.127	8.904	13:17:25	0.254	341.333	13:19:03	0.127	9.062	13:16:58	0.311
161	13:20:12	0.127	10.557	13:22:55	0.127	9.942	13:20:55	0.127	9.57	13:22:56	0.22
162	13:25:12	0.127	8.063	13:25:22	0.127	9.394	13:28:13	0.127	9.225	13:26:49	0.22
163	13:30:12	0.127	11.506	13:33:33	0.127	8.605	13:33:34	0.127	9.062	13:30:56	0.22
164	13:35:12	0.127	10.557	13:39:13	0.127	8.752	13:37:30	0.127	9.394	13:39:20	0.22
165	13:40:12	0.127	9.942	13:42:09	0.127	9.942	13:42:14	0.127	9.942	13:40:57	0.22
166	13:45:12	0.254	146.286	13:50:04	0.127	5.919	13:45:10	0.254	9.394	13:50:04	0.311
167	13:50:12	0.254	13.299	13:53:19	0.127	8.752	13:53:02	0.381	12.962	13:53:48	0.402
168	13:55:12	0.127	9.752	14:00:08	0.127	8.063	13:58:16	0.127	7.699	13:56:32	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 24/4/2022 @ 00:00:12
End: 25/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 8.9 Hz @ 18:09:36
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 13:19:03
Vertical: 0.381 (mm/s) @ 12.96 Hz @ 13:53:48
Vector Sum: .40 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:12	0.127	8.063	14:00:11	0.127	9.57	14:03:21	0.127	8.904	14:00:17	0.22
170	14:05:12	0.127	10.557	14:09:25	0.127	7.699	14:06:37	0.127	9.394	14:09:26	0.22
171	14:10:12	0.127	8.904	14:12:25	0.127	9.062	14:10:18	0.254	8.325	14:14:46	0.284
172	14:15:12	0.127	9.57	14:18:32	0.127	7.585	14:16:50	0.127	9.942	14:17:35	0.22
173	14:20:12	0.127	9.062	14:23:33	0.127	7.817	14:24:27	0.127	9.752	14:20:15	0.22
174	14:25:12	0.127	8.605	14:28:02	0.127	8.605	14:28:48	0.127	8.904	14:26:57	0.22
175	14:30:12	0.127	10.779	14:31:25	0.127	9.57	14:33:10	0.127	9.394	14:34:06	0.22
176	14:35:12	0.127	10.139	14:38:02	0.127	10.343	14:35:54	0.254	40.96	14:36:45	0.254
177	14:40:12	0.127	9.394	14:41:06	0.127	9.394	14:42:32	0.127	8.752	14:44:06	0.22
178	14:45:12	0.127	8.904	14:45:21	0.127	10.343	14:47:26	0.127	8.463	14:45:20	0.22
179	14:50:12	0.127	10.779	14:54:51	0.127	9.752	14:53:31	0.127	9.57	14:52:03	0.22
180	14:55:12	0.127	8.463	14:57:49	0.127	8.063	14:55:36	0.127	8.752	14:59:07	0.22
181	15:00:12	0.127	9.752	15:04:12	0.127	9.225	15:03:58	0.127	10.139	15:00:49	0.22
182	15:05:12	0.127	10.139	15:07:10	0.127	7.699	15:07:03	0.127	9.062	15:06:58	0.22
183	15:10:12	0.127	10.779	15:12:30	0.127	9.394	15:14:46	0.127	8.605	15:14:38	0.22
184	15:15:12	0.127	9.942	15:16:59	0.127	6.872	15:17:12	0.254	10.557	15:18:24	0.284
185	15:20:12	0.127	10.343	15:21:45	0.127	9.57	15:20:17	0.127	9.57	15:23:25	0.22
186	15:25:12	0.127	8.605	15:26:40	0.127	9.752	15:26:27	0.127	9.394	15:30:04	0.22
187	15:30:12	0.127	9.942	15:33:43	0.127	8.605	15:30:32	0.127	9.752	15:34:27	0.22
188	15:35:12	0.127	10.139	15:38:46	0.127	10.779	15:38:49	0.127	10.779	15:35:17	0.22
189	15:40:12	0.127	12.642	15:41:47	0.127	9.394	15:42:30	0.127	10.139	15:40:55	0.22
190	15:45:12	0.127	9.062	15:48:31	0.127	8.063	15:48:48	0.127	8.463	15:47:20	0.22
191	15:50:12	0.127	7.367	15:51:12	0.127	8.063	15:50:25	0.127	8.605	15:52:38	0.22
192	15:55:12	0.127	8.752	15:56:44	0.127	9.225	15:56:45	0.127	7.938	15:55:11	0.22
193	16:00:12	0.127	8.752	16:03:52	0.127	8.463	16:04:41	0.127	8.904	16:00:13	0.22
194	16:05:12	0.127	9.57	16:09:05	0.127	8.463	16:08:56	0.127	8.463	16:07:03	0.22
195	16:10:12	0.127	9.942	16:12:47	0.127	5.721	16:10:10	0.127	8.904	16:10:13	0.22
196	16:15:12	0.127	6.606	16:17:00	0.127	8.063	16:16:53	0.127	6.606	16:16:52	0.22
197	16:20:12	0.127	9.942	16:22:21	0.127	7.585	16:23:27	0.254	40.96	16:24:58	0.284
198	16:25:12	0.127	11.77	16:29:09	0.127	10.343	16:29:29	0.127	8.325	16:27:18	0.22
199	16:30:12	0.127	9.752	16:30:37	0.127	9.942	16:32:21	0.127	8.752	16:30:28	0.22
200	16:35:12	0.127	8.325	16:36:43	0.127	8.192	16:40:07	0.127	8.325	16:36:44	0.22
201	16:40:12	0.127	10.557	16:42:30	0.127	9.062	16:41:53	0.254	9.57	16:44:25	0.284
202	16:45:12	0.127	9.57	16:46:30	0.127	9.062	16:49:39	0.127	8.463	16:45:17	0.22
203	16:50:12	0.127	11.011	16:52:46	0.127	10.343	16:50:37	0.254	8.463	16:53:32	0.284
204	16:55:12	0.127	10.779	16:56:12	0.127	9.225	16:59:55	0.127	9.942	16:58:13	0.22
205	17:00:12	0.127	9.942	17:01:51	0.127	10.343	17:00:35	0.127	9.062	17:01:53	0.22
206	17:05:12	0.127	8.463	17:09:52	0.127	7.367	17:08:45	0.127	8.752	17:05:43	0.22
207	17:10:12	0.127	8.752	17:13:53	0.127	9.394	17:13:39	0.127	10.139	17:10:44	0.22
208	17:15:12	0.127	11.77	17:15:39	0.127	9.062	17:19:52	0.127	9.394	17:17:45	0.22
209	17:20:12	0.127	10.139	17:20:57	0.127	8.325	17:23:53	0.127	9.942	17:22:58	0.22
210	17:25:12	0.127	9.225	17:27:28	0.127	8.752	17:27:07	0.127	9.225	17:27:29	0.22
211	17:30:12	0.127	9.225	17:32:15	0.127	10.139	17:32:48	0.127	8.192	17:32:18	0.22
212	17:35:12	0.127	10.139	17:40:00	0.127	8.904	17:39:28	0.127	9.57	17:35:18	0.22
213	17:40:12	0.127	9.062	17:44:13	0.127	9.394	17:43:44	0.127	9.225	17:43:11	0.22
214	17:45:12	0.127	9.752	17:48:39	0.127	8.605	17:48:09	0.127	8.752	17:47:25	0.22
215	17:50:12	0.127	9.942	17:50:20	0.127	8.605	17:54:58	0.127	9.062	17:50:56	0.22
216	17:55:12	0.127	9.942	17:59:14	0.127	7.474	17:57:45	0.127	9.062	17:59:14	0.22
217	18:00:12	0.127	9.57	18:03:56	0.127	9.394	18:02:56	0.127	8.463	18:02:23	0.22
218	18:05:12	0.254	8.904	18:09:36	0.127	6.872	18:07:45	0.254	7.161	18:09:35	0.311
219	18:10:12	0.127	10.139	18:14:42	0.127	8.063	18:11:25	0.127	8.752	18:14:26	0.22
220	18:15:12	0.127	9.942	18:16:52	0.127	7.817	18:17:02	0.127	8.904	18:16:05	0.22
221	18:20:12	0.127	11.011	18:20:53	0.127	7.938	18:22:35	0.127	9.062	18:21:59	0.22
222	18:25:12	0.127	8.463	18:27:42	0.127	10.139	18:27:50	0.127	8.325	18:28:02	0.22
223	18:30:12	0.127	9.752	18:31:25	0.127	6.282	18:32:46	0.127	8.904	18:33:01	0.22
224	18:35:12	0.127	9.942	18:37:41	0.127	9.225	18:36:37	0.127	8.192	18:35:58	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 24/4/2022 @ 00:00:12
End: 25/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 8.9 Hz @ 18:09:36
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 13:19:03
Vertical: 0.381 (mm/s) @ 12.96 Hz @ 13:53:48
Vector Sum: .40 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:12	0.127	10.139	18:42:14	0.127	8.192	18:42:17	0.127	9.225	18:42:15	0.22
226	18:45:12	0.127	9.942	18:49:04	0.127	8.904	18:49:50	0.127	8.463	18:49:04	0.22
227	18:50:12	0.127	9.752	18:51:06	0.127	9.752	18:51:09	0.254	33.032	18:53:14	0.311
228	18:55:12	0.127	10.779	18:59:17	0.127	9.225	18:59:47	0.127	8.463	18:57:01	0.22
229	19:00:12	0.127	8.904	19:00:33	0.127	7.938	19:02:21	0.254	9.752	19:02:21	0.311
230	19:05:12	0.127	10.139	19:05:49	0.127	8.904	19:09:27	0.254	40.96	19:06:13	0.254
231	19:10:12	0.127	8.192	19:14:48	0.127	8.192	19:13:58	0.127	8.752	19:10:23	0.22
232	19:15:12	0.127	11.011	19:18:22	0.127	7.938	19:15:11	0.127	8.605	19:18:58	0.22
233	19:20:12	0.127	10.779	19:22:33	0.127	8.605	19:21:49	0.127	9.57	19:21:29	0.22
234	19:25:12	0.127	9.942	19:28:29	0.127	8.463	19:26:47	0.127	9.394	19:28:30	0.22
235	19:30:12	0.127	10.139	19:32:53	0.127	9.394	19:33:45	0.127	9.57	19:30:37	0.22
236	19:35:12	0.127	12.642	19:35:36	0.127	8.192	19:37:08	0.127	10.557	19:35:26	0.22
237	19:40:12	0.127	9.225	19:40:23	0.127	9.394	19:40:10	0.127	8.325	19:44:59	0.22
238	19:45:12	0.127	8.752	19:46:06	0.127	7.161	19:47:59	0.127	9.942	19:46:32	0.22
239	19:50:12	0.127	10.139	19:54:23	0.127	7.817	19:51:50	0.127	9.942	19:52:46	0.22
240	19:55:12	0.127	9.942	19:57:31	0.127	6.059	19:56:35	0.127	9.752	19:55:42	0.22
241	20:00:12	0.127	9.942	20:02:31	0.127	7.367	20:01:02	0.127	8.192	20:04:35	0.22
242	20:05:12	0.127	10.343	20:06:32	0.127	8.605	20:07:12	0.127	9.062	20:05:28	0.22
243	20:10:12	0.127	9.752	20:10:44	0.127	8.904	20:13:43	0.127	9.394	20:10:44	0.22
244	20:15:12	0.127	10.343	20:18:00	0.127	8.904	20:20:06	0.127	9.752	20:17:22	0.22
245	20:20:12	0.127	7.817	20:23:25	0.127	9.57	20:22:16	0.127	9.57	20:20:26	0.22
246	20:25:12	0.127	11.253	20:28:27	0.127	9.394	20:29:01	0.127	10.139	20:26:00	0.22
247	20:30:12	0.127	9.225	20:34:06	0.127	8.325	20:34:54	0.127	9.57	20:34:06	0.22
248	20:35:12	0.127	9.57	20:35:36	0.127	8.904	20:35:29	0.127	9.394	20:38:37	0.22
249	20:40:12	0.127	9.752	20:41:26	0.127	8.904	20:45:05	0.127	9.752	20:41:26	0.22
250	20:45:12	0.127	11.253	20:48:04	0.127	9.394	20:46:44	0.127	12.642	20:46:00	0.22
251	20:50:12	0.127	8.192	20:53:04	0.127	8.063	20:52:28	0.127	10.343	20:53:44	0.22
252	20:55:12	0.127	6.693	20:56:19	0.127	7.817	20:55:34	0.127	8.904	20:56:18	0.22
253	21:00:12	0.127	10.557	21:00:29	0.127	7.367	21:00:24	0.127	10.557	21:02:07	0.22
254	21:05:12	0.127	9.062	21:06:15	0.127	8.325	21:10:06	0.254	40.96	21:06:03	0.254
255	21:10:12	0.127	10.139	21:14:45	0.127	8.325	21:13:44	0.127	10.139	21:14:36	0.22
256	21:15:12	0.127	9.752	21:16:33	0.127	6.966	21:19:58	0.127	11.011	21:17:24	0.22
257	21:20:12	0.127	10.557	21:20:11	0.127	9.394	21:20:15	0.127	9.57	21:22:45	0.22
258	21:25:12	0.127	9.942	21:26:29	0.127	7.585	21:27:36	0.127	10.343	21:27:31	0.22
259	21:30:12	0.127	9.752	21:32:11	0.127	7.474	21:32:06	0.127	8.904	21:33:43	0.22
260	21:35:12	0.127	9.225	21:35:55	0.127	9.942	21:38:45	0.127	9.225	21:39:02	0.22
261	21:40:12	0.127	12.337	21:41:41	0.127	8.063	21:42:29	0.254	40.96	21:42:22	0.311
262	21:45:12	0.127	12.337	21:49:09	0.127	8.605	21:45:45	0.127	10.779	21:48:06	0.22
263	21:50:12	0.127	8.325	21:51:37	0.127	9.062	21:54:34	0.127	6.522	21:51:33	0.22
264	21:55:12	0.127	10.139	21:57:12	0.127	8.904	21:56:15	0.127	11.011	21:58:29	0.22
265	22:00:12	0.127	11.011	22:01:32	0.127	9.225	22:04:04	0.127	10.139	22:01:31	0.22
266	22:05:12	0.127	8.463	22:09:59	0.127	7.474	22:06:46	0.127	8.325	22:10:05	0.22
267	22:10:12	0.127	9.394	22:13:21	0.127	7.474	22:12:24	0.127	9.394	22:11:51	0.22
268	22:15:12	0.127	10.343	22:18:38	0.127	7.938	22:17:26	0.127	9.942	22:19:51	0.22
269	22:20:12	0.127	10.139	22:23:27	0.127	7.262	22:23:20	0.127	8.904	22:23:27	0.22
270	22:25:12	0.127	10.343	22:25:59	0.127	7.699	22:29:08	0.127	9.942	22:26:39	0.22
271	22:30:12	0.127	10.557	22:32:49	0.127	8.325	22:34:08	0.127	10.139	22:32:49	0.22
272	22:35:12	0.127	10.343	22:36:08	0.127	8.463	22:38:19	0.127	9.394	22:39:42	0.22
273	22:40:12	0.127	9.57	22:44:23	0.127	9.062	22:40:21	0.127	9.225	22:42:01	0.22
274	22:45:12	0.127	9.752	22:45:40	0.127	6.872	22:47:09	0.127	8.463	22:45:41	0.22
275	22:50:12	0.127	8.752	22:55:04	0.127	6.522	22:52:01	0.127	10.139	22:53:42	0.22
276	22:55:12	0.127	9.394	22:57:49	0.127	8.192	22:59:43	0.127	9.062	22:59:44	0.22
277	23:00:12	0.127	9.062	23:05:02	0.127	6.966	23:00:08	0.127	9.57	23:00:13	0.22
278	23:05:12	0.127	9.752	23:09:36	0.127	7.367	23:09:41	0.127	9.062	23:08:08	0.22
279	23:10:12	0.127	9.57	23:13:38	0.127	8.605	23:10:16	0.127	8.904	23:13:38	0.22
280	23:15:12	0.127	9.752	23:16:32	0.127	7.817	23:20:04	0.127	7.938	23:16:33	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 8
Start: 24/4/2022 @ 00:00:12
End: 25/4/2022 @ 00:00:03
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 8.9 Hz @ 18:09:36
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 13:19:03
Vertical: 0.381 (mm/s) @ 12.96 Hz @ 13:53:48
Vector Sum: .40 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:12	0.127	10.139	23:22:04	0.127	7.161	23:23:10	0.127	9.942	23:22:04	0.22
282	23:25:12	0.127	9.57	23:28:08	0.127	8.463	23:27:14	0.127	8.605	23:27:51	0.22
283	23:30:12	0.254	35.31	23:34:34	0.127	5.306	23:34:43	0.254	9.57	23:34:34	0.284
284	23:35:12	0.127	8.605	23:37:07	0.127	5.785	23:39:24	0.127	7.938	23:40:02	0.22
285	23:40:12	0.127	8.463	23:42:38	0.127	6.693	23:42:26	0.127	8.904	23:44:08	0.22
286	23:45:12	0.127	8.605	23:48:06	0.127	6.522	23:48:21	0.127	9.394	23:47:34	0.22
287	23:50:12	0.127	9.942	23:51:43	0.127	5.535	23:50:43	0.127	8.904	23:51:42	0.22
288	23:55:12	0.127	8.192	23:55:21	0.127	7.367	23:55:37	0.127	8.904	23:55:22	0.22

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

25/4/2022 at 12:00 am Event # 9

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 18.55 mm/s @ 0.91 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7635**	**4.2862**	**12.7635**
Frequency (Hz)	**14.6**	**36.5**	**24.3**

Air

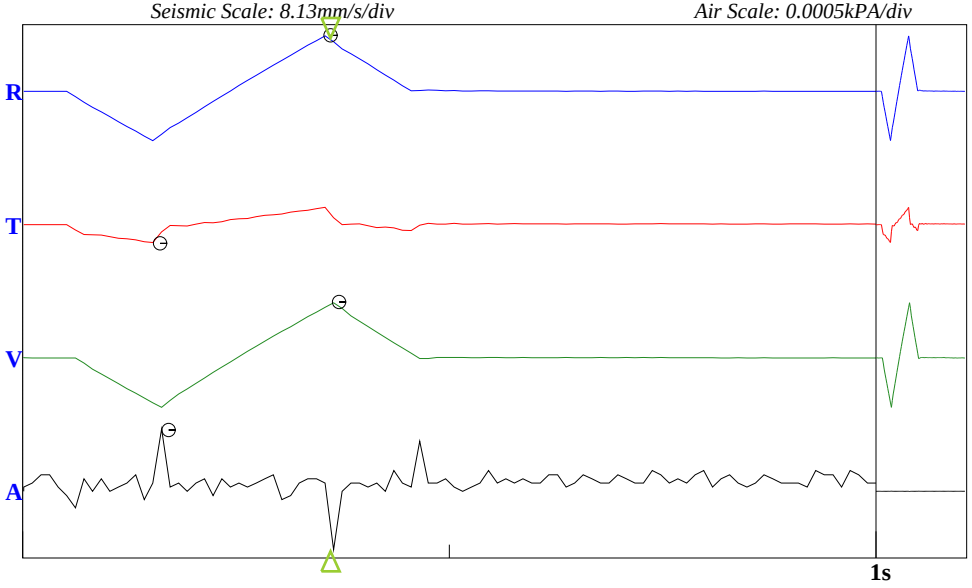
Gain: 1

Measurement	Value		
kPA	0.000469		
dBL	**87.4**		
Hz	0.0		

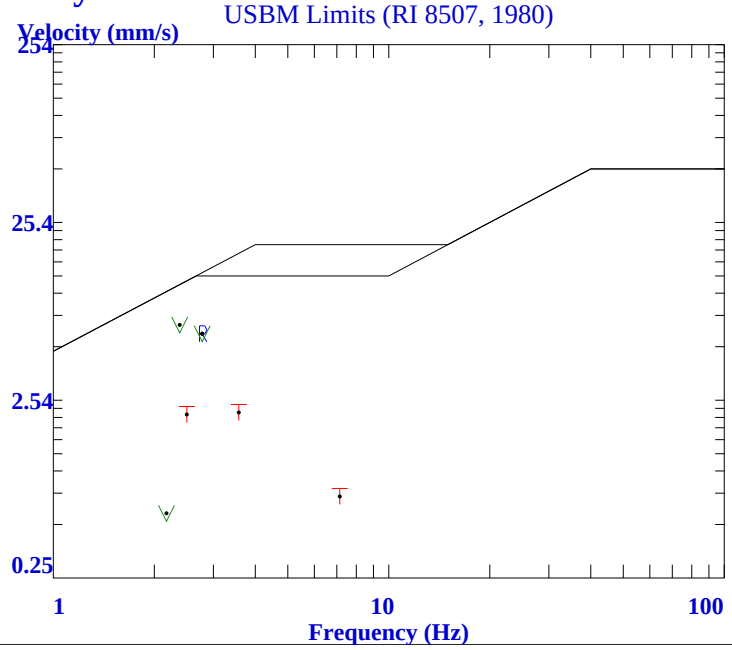
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

25/4/2022 at 12:00:16 am Event # 10

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:00 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 1.33 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.762**	**1.27**	**0.762**
Frequency (Hz)	**146.29**	**204.8**	**93.09**
Time	12:15:44 pm	12:15:45 pm	12:15:44 pm

Air

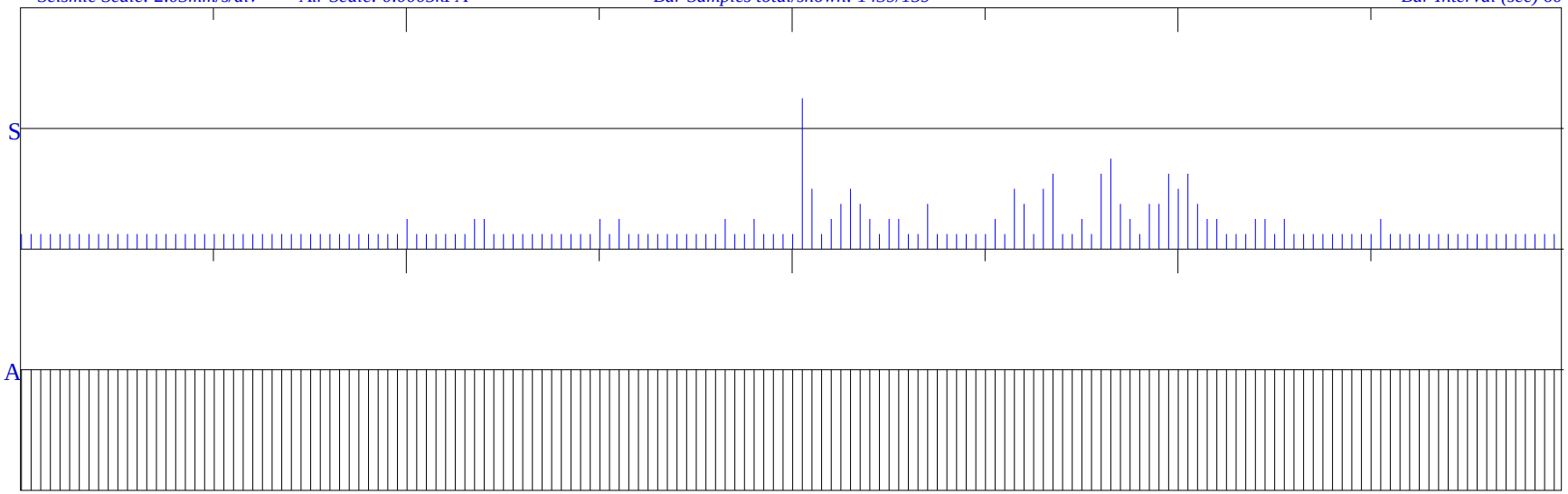
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.95		
Time	1:04:39 am		

BarGraph

Seismic Scale: 2.03mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159*

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:16 **03:00:14** **06:00:12** **09:00:10** **12:00:08** **15:00:06** **18:00:04** **21:00:02** **00:00:00**

<<<<<<<<<<<<<< **23:59:44** >>>>>>>>>>>>>>

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 25/4/2022 @ 00:00:16
End: 26/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.95 Hz
Radial: 0.762 (mm/s) @ 146.29 Hz @ 12:15:44
Transverse: 1.27 (mm/s) @ 204.8 Hz @ 12:15:45
Vertical: 0.762 (mm/s) @ 93.09 Hz @ 12:15:44
Vector Sum: 1.33 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:16	0.127	10.139	0:05:04	0.127	17.356	0:01:25	0.127	8.325	0:05:04	0.22
2	0:05:16	0.127	11.253	0:10:12	0.127	21.787	0:08:53	0.127	10.139	0:05:48	0.22
3	0:10:16	0.127	9.57	0:15:15	0.127	18.618	0:11:33	0.127	9.57	0:11:23	0.22
4	0:15:16	0.127	6.36	0:15:23	0.127	20.078	0:20:08	0.127	8.752	0:19:10	0.22
5	0:20:16	0.127	9.57	0:23:20	0.127	20.078	0:21:13	0.127	10.557	0:22:02	0.22
6	0:25:16	0.127	9.57	0:29:10	0.127	18.618	0:26:33	0.127	7.474	0:26:37	0.22
7	0:30:16	0.127	8.463	0:31:37	0.127	20.078	0:34:58	0.127	8.752	0:31:37	0.22
8	0:35:16	0.127	11.253	0:36:41	0.127	21.787	0:35:34	0.127	11.253	0:38:13	0.22
9	0:40:16	0.127	9.062	0:40:40	0.127	20.078	0:43:31	0.127	10.779	0:40:39	0.22
10	0:45:16	0.127	8.463	0:48:30	0.127	20.898	0:45:19	0.127	9.752	0:48:34	0.22
11	0:50:16	0.127	12.047	0:52:34	0.127	24.976	0:51:00	0.127	11.506	0:51:07	0.22
12	0:55:16	0.127	9.57	0:56:11	0.127	21.787	0:59:05	0.127	8.192	0:56:12	0.22
13	1:00:16	0.127	11.253	1:03:59	0.127	21.787	1:01:52	0.127	9.394	1:04:14	0.22
14	1:05:16	0.127	10.557	1:07:13	0.127	20.898	1:05:45	0.127	10.139	1:09:43	0.22
15	1:10:16	0.127	11.506	1:12:14	0.127	20.078	1:14:16	0.127	12.047	1:14:48	0.22
16	1:15:16	0.127	10.557	1:16:18	0.127	18.618	1:19:46	0.127	9.942	1:18:51	0.22
17	1:20:16	0.127	9.942	1:22:27	0.127	20.078	1:20:33	0.127	9.062	1:24:29	0.22
18	1:25:16	0.127	8.605	1:29:55	0.127	17.356	1:25:26	0.127	12.337	1:26:20	0.22
19	1:30:16	0.127	9.062	1:33:45	0.127	20.898	1:33:16	0.127	9.942	1:33:45	0.22
20	1:35:16	0.127	6.966	1:37:39	0.127	15.754	1:36:50	0.127	8.904	1:36:51	0.22
21	1:40:16	0.127	12.337	1:41:08	0.127	20.078	1:41:05	0.127	13.653	1:40:22	0.22
22	1:45:16	0.127	8.904	1:46:47	0.127	20.898	1:48:47	0.127	8.904	1:46:46	0.22
23	1:50:16	0.127	13.299	1:50:41	0.127	16.254	1:54:30	0.127	12.642	1:53:30	0.22
24	1:55:16	0.127	10.139	1:59:29	0.127	20.078	1:57:57	0.127	12.337	1:55:56	0.22
25	2:00:16	0.127	11.506	2:01:52	0.127	22.756	2:02:02	0.127	11.253	2:01:53	0.22
26	2:05:16	0.127	10.139	2:06:24	0.127	20.898	2:06:44	0.127	8.605	2:06:21	0.22
27	2:10:16	0.127	10.779	2:13:07	0.127	19.321	2:12:31	0.127	8.325	2:13:01	0.22
28	2:15:16	0.127	11.506	2:15:34	0.127	18.618	2:19:08	0.127	12.047	2:17:59	0.22
29	2:20:16	0.127	10.779	2:22:45	0.127	22.756	2:24:11	0.127	12.047	2:21:25	0.22
30	2:25:16	0.127	7.817	2:28:53	0.127	18.618	2:25:19	0.127	10.139	2:25:57	0.22
31	2:30:16	0.127	12.337	2:32:49	0.127	17.356	2:34:26	0.127	13.299	2:34:18	0.22
32	2:35:16	0.127	15.754	2:35:20	0.127	20.898	2:38:06	0.127	10.779	2:35:59	0.22
33	2:40:16	0.127	13.299	2:42:04	0.127	17.965	2:44:07	0.127	13.299	2:44:09	0.22
34	2:45:16	0.127	12.962	2:48:49	0.127	20.898	2:48:14	0.127	13.299	2:47:16	0.22
35	2:50:16	0.127	9.942	2:52:22	0.127	19.321	2:52:15	0.127	11.253	2:50:37	0.22
36	2:55:16	0.127	8.904	2:58:49	0.127	20.078	2:58:22	0.127	12.642	2:59:12	0.22
37	3:00:16	0.127	11.011	3:04:51	0.127	23.814	3:00:45	0.127	11.506	3:04:52	0.22
38	3:05:16	0.127	13.299	3:06:37	0.127	22.756	3:07:33	0.127	12.047	3:06:25	0.22
39	3:10:16	0.127	11.011	3:12:56	0.127	23.814	3:13:51	0.127	11.77	3:11:33	0.22
40	3:15:16	0.127	9.394	3:17:36	0.127	16.787	3:15:51	0.127	12.047	3:16:32	0.22
41	3:20:16	0.127	13.653	3:21:01	0.127	22.756	3:20:20	0.127	15.754	3:24:24	0.22
42	3:25:16	0.127	8.463	3:28:19	0.127	16.787	3:28:27	0.127	11.253	3:29:58	0.22
43	3:30:16	0.127	11.506	3:31:12	0.127	19.321	3:34:23	0.127	11.253	3:35:09	0.22
44	3:35:16	0.127	9.942	3:35:54	0.127	17.965	3:39:15	0.127	12.962	3:36:26	0.22
45	3:40:16	0.127	10.343	3:44:07	0.127	20.078	3:44:09	0.127	10.557	3:44:12	0.22
46	3:45:16	0.127	13.299	3:46:35	0.127	17.965	3:45:37	0.127	12.962	3:49:17	0.22
47	3:50:16	0.127	9.752	3:53:01	0.127	20.898	3:52:45	0.127	12.337	3:55:08	0.22
48	3:55:16	0.127	10.343	3:56:28	0.127	17.356	3:56:33	0.127	7.474	3:56:17	0.22
49	4:00:16	0.127	9.752	4:02:53	0.127	20.078	4:02:38	0.127	10.557	4:02:54	0.22
50	4:05:16	0.127	8.904	4:10:00	0.127	17.356	4:09:54	0.127	10.139	4:10:00	0.22
51	4:10:16	0.127	10.343	4:11:23	0.127	15.754	4:14:01	0.127	10.139	4:11:23	0.22
52	4:15:16	0.127	12.642	4:17:18	0.127	17.965	4:15:17	0.127	13.299	4:15:47	0.22
53	4:20:16	0.127	11.011	4:23:14	0.127	19.321	4:24:48	0.127	9.394	4:23:36	0.22
54	4:25:16	0.127	9.394	4:27:01	0.127	20.078	4:26:23	0.127	10.779	4:27:26	0.22
55	4:30:16	0.127	11.253	4:32:00	0.127	22.756	4:30:33	0.127	10.779	4:31:59	0.22
56	4:35:16	0.127	11.011	4:36:30	0.127	20.898	4:40:00	0.127	9.752	4:36:29	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 25/4/2022 @ 00:00:16
End: 26/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.95 Hz
Radial: 0.762 (mm/s) @ 146.29 Hz @ 12:15:44
Transverse: 1.27 (mm/s) @ 204.8 Hz @ 12:15:45
Vertical: 0.762 (mm/s) @ 93.09 Hz @ 12:15:44
Vector Sum: 1.33 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:16	0.127	9.394	4:44:11	0.127	21.787	4:44:51	0.127	11.253	4:43:45	0.22
58	4:45:16	0.127	9.062	4:47:35	0.127	21.787	4:48:47	0.127	10.779	4:46:04	0.22
59	4:50:16	0.127	10.139	4:51:56	0.127	20.898	4:51:34	0.127	7.585	4:55:11	0.22
60	4:55:16	0.127	9.062	4:58:46	0.127	17.965	4:55:45	0.127	11.011	4:56:14	0.22
61	5:00:16	0.127	7.367	5:03:29	0.127	20.898	5:00:38	0.127	8.192	5:03:29	0.22
62	5:05:16	0.127	9.57	5:08:57	0.127	22.756	5:05:20	0.127	11.253	5:08:56	0.22
63	5:10:16	0.127	8.904	5:13:51	0.127	19.321	5:11:27	0.127	8.904	5:14:45	0.22
64	5:15:16	0.127	8.063	5:16:40	0.127	17.965	5:17:52	0.127	8.063	5:16:38	0.22
65	5:20:16	0.127	7.474	5:24:41	0.127	23.814	5:20:34	0.127	9.394	5:24:42	0.22
66	5:25:16	0.127	8.904	5:29:41	0.127	20.078	5:29:21	0.127	8.325	5:30:15	0.22
67	5:30:16	0.127	7.817	5:31:26	0.127	16.787	5:34:04	0.127	9.394	5:34:14	0.22
68	5:35:16	0.127	9.394	5:37:03	0.127	20.078	5:38:21	0.127	8.904	5:36:31	0.22
69	5:40:16	0.127	10.557	5:41:10	0.127	24.976	5:41:20	0.127	9.752	5:42:33	0.22
70	5:45:16	0.127	9.225	5:48:29	0.127	14.423	5:46:11	0.127	9.225	5:49:35	0.22
71	5:50:16	0.127	9.942	5:52:35	0.127	23.814	5:50:20	0.127	9.062	5:51:57	0.22
72	5:55:16	0.127	8.463	5:58:18	0.127	18.618	5:55:17	0.127	8.752	5:57:07	0.22
73	6:00:16	0.127	9.394	6:04:42	0.127	24.976	6:03:20	0.254	10.557	6:04:42	0.284
74	6:05:16	0.127	9.062	6:08:38	0.127	17.965	6:09:50	0.127	9.394	6:06:40	0.22
75	6:10:16	0.127	6.966	6:12:48	0.127	19.321	6:14:49	0.127	8.605	6:12:03	0.22
76	6:15:16	0.127	6.606	6:18:02	0.127	18.618	6:15:28	0.127	8.463	6:18:25	0.22
77	6:20:16	0.127	8.192	6:20:43	0.127	18.618	6:20:51	0.127	8.605	6:22:13	0.22
78	6:25:16	0.127	7.938	6:29:14	0.127	22.756	6:27:59	0.127	8.752	6:29:47	0.22
79	6:30:16	0.127	7.585	6:30:25	0.127	20.898	6:32:29	0.127	9.062	6:34:50	0.22
80	6:35:16	0.127	5.988	6:37:20	0.127	20.078	6:39:33	0.127	9.394	6:37:05	0.22
81	6:40:16	0.127	8.605	6:44:01	0.127	20.898	6:40:24	0.127	9.062	6:41:12	0.22
82	6:45:16	0.127	6.606	6:46:57	0.127	16.254	6:48:13	0.127	8.463	6:49:00	0.22
83	6:50:16	0.127	8.192	6:50:39	0.127	20.078	6:52:25	0.127	9.062	6:50:19	0.22
84	6:55:16	0.127	8.063	6:59:34	0.127	22.756	6:56:03	0.127	9.57	6:59:02	0.22
85	7:00:16	0.127	7.938	7:00:28	0.127	20.898	7:04:28	0.127	8.325	7:05:01	0.22
86	7:05:16	0.127	6.44	7:08:57	0.127	20.898	7:09:36	0.254	8.904	7:07:32	0.284
87	7:10:16	0.127	7.938	7:12:58	0.127	20.898	7:11:00	0.254	9.57	7:11:34	0.311
88	7:15:16	0.127	7.161	7:15:16	0.127	17.965	7:19:39	0.254	44.522	7:15:32	0.254
89	7:20:16	0.127	6.781	7:22:21	0.127	17.965	7:20:41	0.254	9.752	7:20:43	0.284
90	7:25:16	0.127	7.161	7:27:53	0.127	22.756	7:29:31	0.127	8.463	7:25:41	0.22
91	7:30:16	0.127	6.059	7:32:21	0.127	20.898	7:30:26	0.127	7.938	7:30:23	0.22
92	7:35:16	0.127	7.367	7:36:24	0.127	21.787	7:35:45	0.127	8.192	7:37:55	0.22
93	7:40:16	0.127	7.474	7:41:50	0.127	22.756	7:41:37	0.127	8.063	7:42:28	0.22
94	7:45:16	0.127	6.693	7:45:32	0.127	20.898	7:46:43	0.127	8.325	7:49:37	0.22
95	7:50:16	0.127	6.522	7:51:22	0.127	22.756	7:51:40	0.127	8.063	7:50:31	0.22
96	7:55:16	0.127	7.062	7:57:42	0.127	22.756	7:55:35	0.127	8.605	7:55:22	0.22
97	8:00:16	0.127	7.161	8:00:45	0.127	15.284	8:02:11	0.127	8.325	8:01:11	0.22
98	8:05:16	0.127	7.161	8:09:46	0.127	20.898	8:07:57	0.127	8.325	8:07:56	0.22
99	8:10:16	0.127	5.657	8:14:05	0.127	23.814	8:12:17	0.127	6.693	8:11:22	0.22
100	8:15:16	0.127	6.872	8:17:18	0.127	22.756	8:19:04	0.127	9.062	8:18:04	0.22
101	8:20:16	0.127	8.325	8:23:06	0.127	19.321	8:20:26	0.127	9.062	8:22:37	0.22
102	8:25:16	0.127	7.062	8:26:48	0.127	17.356	8:26:09	0.127	8.904	8:27:17	0.22
103	8:30:16	0.127	6.44	8:30:50	0.127	16.254	8:31:18	0.127	9.062	8:30:52	0.22
104	8:35:16	0.127	8.063	8:35:44	0.127	22.756	8:37:23	0.127	8.904	8:37:42	0.22
105	8:40:16	0.127	7.585	8:43:24	0.127	20.078	8:40:59	0.127	7.938	8:44:21	0.22
106	8:45:16	0.127	6.872	8:47:55	0.127	19.321	8:46:27	0.127	8.325	8:47:56	0.22
107	8:50:16	0.127	6.693	8:53:53	0.127	22.756	8:53:45	0.127	8.752	8:50:19	0.22
108	8:55:16	0.127	8.605	8:56:33	0.127	20.898	9:00:07	0.127	7.585	8:56:32	0.22
109	9:00:16	0.127	6.44	9:01:21	0.127	16.254	9:02:27	0.127	7.938	9:01:49	0.22
110	9:05:16	0.127	6.059	9:06:46	0.127	19.321	9:06:39	0.254	40.96	9:06:14	0.284
111	9:10:16	0.127	7.938	9:13:58	0.127	22.756	9:13:48	0.127	7.367	9:12:00	0.22
112	9:15:16	0.127	7.474	9:19:44	0.127	20.078	9:19:48	0.254	7.062	9:20:04	0.311

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 25/4/2022 @ 00:00:16
End: 26/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.95 Hz
Radial: 0.762 (mm/s) @ 146.29 Hz @ 12:15:44
Transverse: 1.27 (mm/s) @ 204.8 Hz @ 12:15:45
Vertical: 0.762 (mm/s) @ 93.09 Hz @ 12:15:44
Vector Sum: 1.33 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:16	0.127	7.817	9:21:32	0.127	19.321	9:25:11	0.127	8.752	9:25:06	0.22
114	9:25:16	0.127	8.325	9:27:22	0.127	23.814	9:30:09	0.127	8.325	9:25:32	0.22
115	9:30:16	0.127	7.474	9:34:24	0.127	21.787	9:30:52	0.127	8.904	9:33:41	0.22
116	9:35:16	0.127	5.919	9:35:16	0.127	24.976	9:35:27	0.127	6.781	9:35:16	0.22
117	9:40:16	0.127	8.063	9:45:14	0.127	17.965	9:43:39	0.127	7.585	9:44:53	0.22
118	9:45:16	0.127	6.44	9:47:26	0.127	17.965	9:47:52	0.127	8.325	9:46:54	0.22
119	9:50:16	0.127	5.919	9:53:43	0.127	17.965	9:51:55	0.127	8.063	9:51:04	0.22
120	9:55:16	0.127	7.474	9:59:22	0.127	9.942	9:58:47	0.127	8.463	9:56:50	0.22
121	10:00:16	0.127	7.817	10:04:39	0.127	9.942	10:05:06	0.127	8.325	10:03:19	0.22
122	10:05:16	0.127	7.938	10:05:56	0.127	11.506	10:09:53	0.127	8.063	10:05:21	0.22
123	10:10:16	0.127	6.606	10:14:46	0.127	9.942	10:12:42	0.127	7.938	10:12:48	0.22
124	10:15:16	0.127	7.585	10:17:25	0.127	9.752	10:15:49	0.127	9.225	10:16:31	0.22
125	10:20:16	0.127	6.872	10:21:58	0.127	8.463	10:20:21	0.127	7.938	10:22:00	0.22
126	10:25:16	0.127	7.938	10:29:25	0.127	7.817	10:26:29	0.127	7.367	10:29:40	0.22
127	10:30:16	0.127	5.919	10:35:09	0.127	9.225	10:31:30	0.127	7.938	10:31:15	0.22
128	10:35:16	0.127	6.206	10:35:18	0.127	8.325	10:39:44	0.127	7.161	10:39:46	0.22
129	10:40:16	0.127	7.474	10:43:42	0.127	9.57	10:40:35	0.127	7.699	10:44:49	0.22
130	10:45:16	0.127	8.605	10:47:23	0.127	8.605	10:49:05	0.127	9.225	10:45:40	0.22
131	10:50:16	0.127	8.192	10:55:02	0.127	8.904	10:53:49	0.127	7.367	10:54:34	0.22
132	10:55:16	0.127	6.781	10:57:05	0.254	341.333	10:59:55	0.254	33.032	10:59:25	0.311
133	11:00:16	0.127	7.161	11:04:59	0.127	9.225	11:00:51	0.127	8.325	11:04:45	0.22
134	11:05:16	0.127	7.367	11:06:28	0.127	10.139	11:08:57	0.127	8.063	11:06:57	0.22
135	11:10:16	0.127	8.192	11:11:56	0.127	8.463	11:12:32	0.127	7.938	11:13:12	0.22
136	11:15:16	0.127	7.699	11:20:13	0.127	8.605	11:16:01	0.127	7.474	11:16:23	0.22
137	11:20:16	0.127	5.535	11:23:29	0.127	8.063	11:21:49	0.127	7.817	11:21:34	0.22
138	11:25:16	0.127	8.904	11:28:45	0.127	7.367	11:28:26	0.127	7.938	11:27:36	0.22
139	11:30:16	0.127	6.206	11:30:58	0.127	9.752	11:33:29	0.254	11.506	11:30:59	0.284
140	11:35:16	0.127	7.161	11:39:20	0.127	10.139	11:36:22	0.127	7.161	11:36:34	0.22
141	11:40:16	0.127	6.781	11:44:01	0.127	7.817	11:44:34	0.127	7.367	11:44:10	0.22
142	11:45:16	0.127	8.192	11:45:54	0.127	7.585	11:49:55	0.127	8.325	11:45:29	0.22
143	11:50:16	0.127	6.282	11:51:19	0.127	7.817	11:50:17	0.127	7.367	11:51:19	0.22
144	11:55:16	0.127	7.817	11:57:38	0.127	8.605	11:57:17	0.127	8.192	11:57:08	0.22
145	12:00:16	0.127	7.474	12:02:39	0.127	8.904	12:05:02	0.127	6.693	12:04:58	0.22
146	12:05:16	0.127	7.474	12:09:52	0.127	6.132	12:07:09	0.127	8.463	12:09:29	0.22
147	12:10:16	0.127	5.785	12:12:42	0.127	7.938	12:11:42	0.127	7.161	12:15:04	0.22
148	12:15:16	0.762	146.286	12:15:44	1.27	204.8	12:15:45	0.762	93.091	12:15:44	1.326
149	12:20:16	0.127	5.988	12:22:17	0.127	8.063	12:23:32	0.127	7.699	12:21:56	0.22
150	12:25:16	0.127	7.938	12:26:11	0.127	8.752	12:26:41	0.127	7.474	12:29:44	0.22
151	12:30:16	0.127	8.325	12:31:50	0.127	9.062	12:32:39	0.127	8.325	12:34:39	0.22
152	12:35:16	0.127	7.262	12:39:18	0.127	9.57	12:38:38	0.254	8.063	12:39:58	0.311
153	12:40:16	0.127	8.192	12:43:01	0.127	7.161	12:42:27	0.254	40.96	12:40:36	0.284
154	12:45:16	0.127	7.585	12:49:51	0.381	341.333	12:46:14	0.254	7.585	12:49:24	0.421
155	12:50:16	0.127	6.132	12:51:26	0.127	7.938	12:55:08	0.127	7.585	12:54:37	0.22
156	12:55:16	0.127	6.206	12:55:30	0.127	8.325	12:56:00	0.254	35.31	12:59:36	0.311
157	13:00:16	0.254	68.267	13:01:22	0.508	341.333	13:02:32	0.254	7.817	13:01:15	0.524
158	13:05:16	0.381	60.235	13:09:23	0.127	7.474	13:05:34	0.381	12.337	13:09:23	0.421
159	13:10:16	0.127	8.605	13:14:55	0.254	341.333	13:10:46	0.254	11.011	13:10:21	0.311
160	13:15:16	0.127	8.605	13:15:50	0.127	9.225	13:19:18	0.254	8.463	13:18:14	0.311
161	13:20:16	0.127	6.206	13:22:43	0.127	8.463	13:24:23	0.127	8.325	13:21:58	0.22
162	13:25:16	0.127	7.367	13:26:51	0.127	8.752	13:29:23	0.127	8.325	13:29:24	0.22
163	13:30:16	0.127	8.325	13:30:51	0.127	7.938	13:30:52	0.127	7.367	13:34:10	0.22
164	13:35:16	0.127	6.44	13:35:54	0.127	5.721	13:35:39	0.254	8.463	13:39:08	0.284
165	13:40:16	0.127	7.367	13:43:55	0.127	6.872	13:45:08	0.127	6.872	13:42:32	0.22
166	13:45:16	0.127	7.474	13:46:09	0.127	7.062	13:46:54	0.127	8.192	13:48:32	0.22
167	13:50:16	0.127	6.966	13:53:40	0.127	8.752	13:51:01	0.127	8.192	13:50:50	0.22
168	13:55:16	0.127	6.693	13:57:37	0.127	8.063	13:59:27	0.127	7.062	13:56:59	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 25/4/2022 @ 00:00:16
End: 26/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.95 Hz
Radial: 0.762 (mm/s) @ 146.29 Hz @ 12:15:44
Transverse: 1.27 (mm/s) @ 204.8 Hz @ 12:15:45
Vertical: 0.762 (mm/s) @ 93.09 Hz @ 12:15:44
Vector Sum: 1.33 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:16	0.127	6.282	14:04:55	0.127	7.938	14:03:08	0.127	7.938	14:04:47	0.22
170	14:05:16	0.254	9.752	14:07:10	0.127	7.262	14:05:58	0.381	8.463	14:07:10	0.402
171	14:10:16	0.127	5.721	14:13:40	0.127	9.752	14:10:52	0.127	8.192	14:13:35	0.22
172	14:15:16	0.127	6.781	14:16:29	0.127	8.752	14:19:38	0.127	7.062	14:19:04	0.22
173	14:20:16	0.127	6.781	14:24:34	0.127	7.585	14:21:45	0.127	8.063	14:21:56	0.22
174	14:25:16	0.127	6.36	14:28:04	0.127	8.752	14:26:11	0.127	7.367	14:27:03	0.22
175	14:30:16	0.127	7.262	14:33:38	0.127	8.752	14:34:13	0.127	6.781	14:34:05	0.22
176	14:35:16	0.127	8.063	14:38:17	0.127	8.463	14:35:29	0.127	7.367	14:40:12	0.22
177	14:40:16	0.127	5.657	14:44:09	0.127	9.752	14:40:15	0.127	6.36	14:43:43	0.22
178	14:45:16	0.127	7.817	14:45:34	0.127	9.57	14:47:16	0.127	9.062	14:45:51	0.22
179	14:50:16	0.127	6.206	14:54:49	0.127	9.942	14:54:37	0.127	7.817	14:50:47	0.22
180	14:55:16	0.127	7.062	14:59:38	0.127	8.463	14:56:28	0.127	8.192	14:55:19	0.22
181	15:00:16	0.127	7.817	15:02:28	0.127	8.605	15:02:01	0.127	7.938	15:00:56	0.22
182	15:05:16	0.127	7.585	15:09:41	0.127	7.474	15:08:45	0.127	7.367	15:06:38	0.22
183	15:10:16	0.127	7.367	15:13:12	0.127	9.942	15:10:18	0.127	6.966	15:13:04	0.22
184	15:15:16	0.127	8.325	15:17:22	0.254	341.333	15:17:58	0.254	40.96	15:15:27	0.311
185	15:20:16	0.127	7.585	15:23:50	0.127	9.942	15:23:31	0.127	8.325	15:24:32	0.22
186	15:25:16	0.508	60.235	15:30:05	0.127	9.062	15:29:33	0.508	40.96	15:30:05	0.582
187	15:30:16	0.381	40.96	15:31:38	0.127	10.139	15:30:14	0.508	31.03	15:30:22	0.539
188	15:35:16	0.254	16.787	15:35:18	0.127	7.699	15:38:55	0.381	31.03	15:36:28	0.421
189	15:40:16	0.254	53.895	15:40:18	0.381	146.286	15:40:15	0.254	9.394	15:40:15	0.475
190	15:45:16	0.127	6.872	15:47:58	0.127	8.605	15:49:10	0.127	8.325	15:45:20	0.22
191	15:50:16	0.127	6.966	15:54:38	0.127	8.752	15:52:09	0.127	8.192	15:52:21	0.22
192	15:55:16	0.127	6.966	15:56:47	0.508	341.333	15:59:15	0.127	7.474	15:58:49	0.539
193	16:00:16	0.127	5.851	16:01:13	0.127	10.343	16:00:18	0.127	7.161	16:01:04	0.22
194	16:05:16	0.127	6.606	16:07:47	0.635	341.333	16:06:11	0.127	7.585	16:08:07	0.66
195	16:10:16	0.127	8.325	16:13:41	0.508	341.333	16:11:03	0.127	6.44	16:13:15	0.524
196	16:15:16	0.127	7.585	16:16:06	0.127	18.618	16:18:27	0.127	8.605	16:17:43	0.22
197	16:20:16	0.127	6.872	16:23:07	0.127	11.506	16:24:09	0.127	8.463	16:22:01	0.22
198	16:25:16	0.127	6.966	16:29:39	0.127	20.078	16:29:17	0.127	8.463	16:26:19	0.22
199	16:30:16	0.254	37.926	16:31:13	0.127	20.898	16:32:16	0.254	8.192	16:31:12	0.311
200	16:35:16	0.127	6.693	16:37:17	0.127	17.356	16:40:02	0.254	11.77	16:37:44	0.311
201	16:40:16	0.127	7.938	16:42:34	0.127	20.078	16:44:08	0.127	7.262	16:42:15	0.22
202	16:45:16	0.127	6.44	16:49:42	0.127	17.356	16:45:29	0.127	8.192	16:48:49	0.22
203	16:50:16	0.127	6.059	16:52:35	0.635	341.333	16:52:55	0.127	9.062	16:51:15	0.66
204	16:55:16	0.127	7.262	16:56:34	0.635	341.333	17:00:07	0.127	8.325	16:55:24	0.648
205	17:00:16	0.254	204.8	17:00:26	0.762	341.333	17:00:26	0.254	26.256	17:01:53	0.773
206	17:05:16	0.127	8.063	17:05:22	0.127	17.965	17:08:35	0.127	8.063	17:07:37	0.22
207	17:10:16	0.254	7.367	17:11:31	0.127	18.618	17:15:08	0.381	8.904	17:11:31	0.421
208	17:15:16	0.127	7.699	17:17:21	0.127	20.078	17:15:32	0.254	8.192	17:17:01	0.284
209	17:20:16	0.127	7.474	17:21:38	0.127	20.078	17:22:08	0.127	7.062	17:22:09	0.22
210	17:25:16	0.127	7.585	17:28:08	0.127	19.321	17:25:21	0.127	8.192	17:25:28	0.22
211	17:30:16	0.127	7.474	17:31:32	0.127	21.787	17:33:48	0.127	8.752	17:31:34	0.22
212	17:35:16	0.254	8.192	17:38:37	0.127	10.343	17:38:51	0.381	40.96	17:39:50	0.402
213	17:40:16	0.254	15.754	17:40:31	0.127	8.904	17:40:58	0.381	13.653	17:40:31	0.402
214	17:45:16	0.254	40.96	17:48:36	0.127	9.752	17:45:38	0.381	37.926	17:46:17	0.421
215	17:50:16	0.381	68.267	17:54:02	0.127	8.904	17:53:16	0.381	35.31	17:52:00	0.421
216	17:55:16	0.508	37.926	17:58:54	0.127	10.779	17:56:21	0.635	35.31	18:00:08	0.648
217	18:00:16	0.508	40.96	18:00:23	0.127	6.781	18:04:37	0.508	35.31	18:00:23	0.648
218	18:05:16	0.381	60.235	18:06:11	0.127	9.062	18:06:53	0.381	37.926	18:09:48	0.475
219	18:10:16	0.381	60.235	18:11:48	0.635	341.333	18:10:41	0.254	26.256	18:12:49	0.648
220	18:15:16	0.381	31.03	18:17:22	0.127	10.557	18:17:53	0.381	10.779	18:18:09	0.421
221	18:20:16	0.381	44.522	18:21:05	0.127	7.699	18:23:01	0.254	14.027	18:20:35	0.421
222	18:25:16	0.254	37.926	18:25:53	0.127	7.585	18:27:57	0.254	26.256	18:25:42	0.359
223	18:30:16	0.254	60.235	18:34:55	0.127	7.474	18:30:17	0.127	8.063	18:32:23	0.284
224	18:35:16	0.127	7.161	18:39:46	0.127	8.063	18:39:46	0.254	53.895	18:35:52	0.284

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 25/4/2022 @ 00:00:16
End: 26/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.95 Hz
Radial: 0.762 (mm/s) @ 146.29 Hz @ 12:15:44
Transverse: 1.27 (mm/s) @ 204.8 Hz @ 12:15:45
Vertical: 0.762 (mm/s) @ 93.09 Hz @ 12:15:44
Vector Sum: 1.33 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:16	0.127	7.585	18:42:44	0.127	7.938	18:42:22	0.254	53.895	18:44:43	0.311
226	18:45:16	0.127	6.522	18:49:31	0.127	8.325	18:47:42	0.127	8.192	18:50:02	0.22
227	18:50:16	0.127	7.938	18:51:53	0.127	7.262	18:52:27	0.127	8.463	18:54:11	0.22
228	18:55:16	0.127	7.062	18:58:57	0.127	9.062	18:55:39	0.127	6.693	18:57:06	0.22
229	19:00:16	0.127	8.192	19:03:22	0.127	8.904	19:03:40	0.127	8.463	19:03:19	0.22
230	19:05:16	0.127	5.657	19:08:49	0.127	5.785	19:05:36	0.127	8.192	19:09:22	0.22
231	19:10:16	0.127	7.161	19:13:14	0.127	8.463	19:14:17	0.254	37.926	19:14:36	0.311
232	19:15:16	0.127	7.367	19:18:49	0.127	6.781	19:16:25	0.127	7.062	19:18:47	0.22
233	19:20:16	0.127	7.474	19:20:55	0.127	8.605	19:21:31	0.127	9.225	19:21:13	0.22
234	19:25:16	0.127	7.161	19:27:37	0.127	7.938	19:26:31	0.254	10.343	19:26:36	0.254
235	19:30:16	0.127	8.752	19:34:18	0.127	6.781	19:35:01	0.127	8.192	19:31:40	0.22
236	19:35:16	0.127	7.474	19:39:54	0.127	7.699	19:37:55	0.127	8.605	19:39:38	0.22
237	19:40:16	0.127	7.262	19:42:15	0.127	7.161	19:44:37	0.254	8.605	19:41:47	0.254
238	19:45:16	0.127	7.262	19:50:07	0.127	8.752	19:47:25	0.127	9.062	19:48:51	0.22
239	19:50:16	0.127	6.693	19:51:35	0.127	7.699	19:52:03	0.127	8.463	19:51:32	0.22
240	19:55:16	0.127	7.817	19:59:26	0.127	8.325	19:58:16	0.127	9.062	19:58:29	0.22
241	20:00:16	0.127	7.699	20:00:39	0.127	8.752	20:03:34	0.127	8.463	20:03:53	0.22
242	20:05:16	0.127	7.817	20:08:43	0.127	7.585	20:07:08	0.127	9.394	20:09:01	0.22
243	20:10:16	0.127	9.062	20:13:03	0.127	6.44	20:11:27	0.127	8.325	20:10:49	0.22
244	20:15:16	0.127	7.938	20:16:30	0.127	8.063	20:17:39	0.127	8.752	20:15:28	0.22
245	20:20:16	0.127	8.463	20:21:34	0.127	9.225	20:21:11	0.127	8.325	20:23:37	0.22
246	20:25:16	0.127	5.251	20:27:13	0.127	5.851	20:28:53	0.127	7.262	20:29:10	0.22
247	20:30:16	0.127	7.367	20:33:12	0.127	7.699	20:32:33	0.127	7.817	20:32:53	0.22
248	20:35:16	0.127	8.605	20:39:33	0.127	8.752	20:36:36	0.127	10.343	20:38:05	0.22
249	20:40:16	0.127	5.919	20:40:36	0.127	8.063	20:43:51	0.127	9.225	20:44:25	0.22
250	20:45:16	0.127	8.605	20:47:16	0.127	6.282	20:47:39	0.127	8.904	20:49:12	0.22
251	20:50:16	0.127	8.192	20:53:14	0.127	7.938	20:52:27	0.127	9.062	20:51:48	0.22
252	20:55:16	0.127	8.752	20:56:11	0.127	9.57	20:58:44	0.127	10.139	20:59:09	0.22
253	21:00:16	0.127	7.585	21:02:51	0.127	9.062	21:00:39	0.127	7.817	21:02:39	0.22
254	21:05:16	0.127	8.325	21:06:59	0.127	6.781	21:06:26	0.127	10.139	21:05:25	0.22
255	21:10:16	0.127	8.192	21:14:49	0.127	7.699	21:11:58	0.127	9.062	21:14:51	0.22
256	21:15:16	0.127	6.966	21:15:48	0.127	7.474	21:15:57	0.254	10.779	21:15:59	0.284
257	21:20:16	0.127	8.063	21:23:55	0.127	7.062	21:21:08	0.127	8.463	21:23:54	0.22
258	21:25:16	0.127	9.57	21:29:21	0.127	7.161	21:25:37	0.127	9.394	21:27:01	0.22
259	21:30:16	0.127	9.225	21:34:26	0.127	7.817	21:34:26	0.127	8.325	21:33:55	0.22
260	21:35:16	0.127	6.872	21:36:52	0.127	8.192	21:35:56	0.127	8.192	21:36:54	0.22
261	21:40:16	0.127	9.225	21:43:01	0.127	7.817	21:41:47	0.127	9.225	21:42:18	0.22
262	21:45:16	0.127	7.062	21:45:32	0.127	7.938	21:47:52	0.127	8.325	21:45:26	0.22
263	21:50:16	0.127	8.192	21:54:35	0.127	7.817	21:54:27	0.127	9.942	21:52:24	0.22
264	21:55:16	0.127	6.872	22:00:02	0.127	5.657	21:58:28	0.127	7.938	21:59:58	0.22
265	22:00:16	0.127	9.062	22:02:14	0.127	7.062	22:04:04	0.127	8.904	22:01:12	0.22
266	22:05:16	0.127	9.225	22:08:11	0.127	8.192	22:08:13	0.127	9.225	22:08:59	0.22
267	22:10:16	0.127	8.605	22:14:53	0.127	7.817	22:12:14	0.127	9.062	22:11:14	0.22
268	22:15:16	0.127	8.192	22:18:35	0.127	5.721	22:15:56	0.127	8.325	22:17:52	0.22
269	22:20:16	0.127	6.522	22:22:58	0.127	7.585	22:20:34	0.127	9.394	22:23:22	0.22
270	22:25:16	0.127	9.062	22:25:32	0.127	7.817	22:27:26	0.127	8.752	22:27:20	0.22
271	22:30:16	0.127	7.585	22:34:24	0.127	8.463	22:30:36	0.127	9.225	22:32:49	0.22
272	22:35:16	0.127	8.063	22:39:00	0.127	8.463	22:35:42	0.127	8.752	22:36:17	0.22
273	22:40:16	0.127	9.062	22:43:28	0.127	6.206	22:43:37	0.127	8.463	22:43:40	0.22
274	22:45:16	0.127	5.596	22:49:54	0.127	7.938	22:45:23	0.127	7.367	22:49:54	0.22
275	22:50:16	0.127	8.325	22:50:43	0.127	5.476	22:52:52	0.127	10.139	22:50:44	0.22
276	22:55:16	0.127	6.781	22:56:30	0.127	6.132	22:57:08	0.127	9.394	22:56:22	0.22
277	23:00:16	0.127	5.851	23:02:26	0.127	8.063	23:02:57	0.127	7.474	23:02:17	0.22
278	23:05:16	0.127	5.306	23:08:19	0.127	6.781	23:06:49	0.127	8.605	23:08:25	0.22
279	23:10:16	0.127	8.752	23:12:53	0.127	7.474	23:11:24	0.127	9.57	23:10:35	0.22
280	23:15:16	0.127	7.585	23:16:54	0.127	6.44	23:15:31	0.127	8.605	23:18:35	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 10
Start: 25/4/2022 @ 00:00:16
End: 26/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.95 Hz
Radial: 0.762 (mm/s) @ 146.29 Hz @ 12:15:44
Transverse: 1.27 (mm/s) @ 204.8 Hz @ 12:15:45
Vertical: 0.762 (mm/s) @ 93.09 Hz @ 12:15:44
Vector Sum: 1.33 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:16	0.127	8.904	23:24:02	0.127	6.44	23:22:53	0.127	9.225	23:20:16	0.22
282	23:25:16	0.127	7.585	23:27:15	0.127	6.606	23:25:38	0.127	9.752	23:25:35	0.22
283	23:30:16	0.127	9.394	23:31:54	0.127	8.325	23:33:51	0.127	11.011	23:31:46	0.22
284	23:35:16	0.127	8.192	23:38:51	0.127	8.063	23:38:04	0.127	9.225	23:37:15	0.22
285	23:40:16	0.127	8.605	23:41:00	0.127	6.606	23:40:41	0.127	9.942	23:42:25	0.22
286	23:45:16	0.127	7.699	23:48:43	0.127	7.367	23:48:39	0.127	9.57	23:48:01	0.22
287	23:50:16	0.127	7.938	23:52:51	0.127	6.693	23:50:35	0.127	8.063	23:52:29	0.22
288	23:55:16	0.127	9.062	23:56:17	0.127	6.36	23:59:38	0.127	7.817	23:56:23	0.22

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

26/4/2022 at 12:00 am Event # 11

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 18.57 mm/s @ 1.16 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7952**	**4.2466**	**12.7714**
Frequency (Hz)	**15.0**	**36.5**	**24.3**

Air

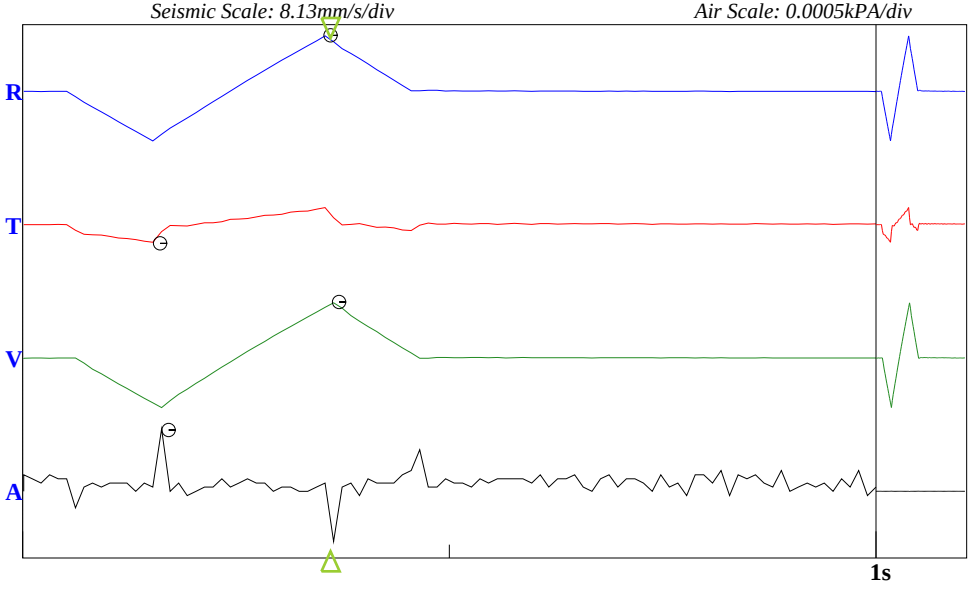
Gain: 1

Measurement	Value		
kPA	0.000437		
dBL	**86.8**		
Hz	0.0		

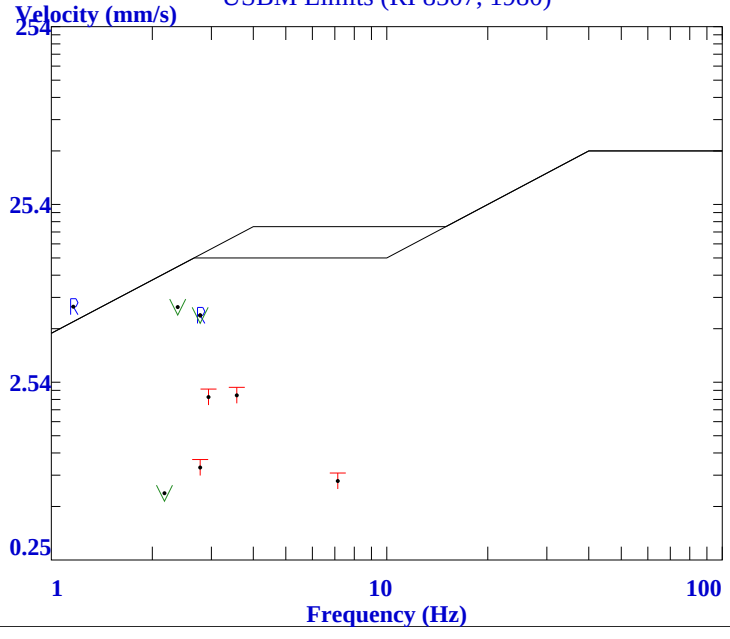
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

26/4/2022 at 12:00:13 am Event # 12

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:02 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.91 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.254**	**0.889**	**0.508**
Frequency (Hz)	**6.61**	**341.33**	**44.52**
Time	11:16:57 am	8:35:05 pm	10:59:03 am

Air

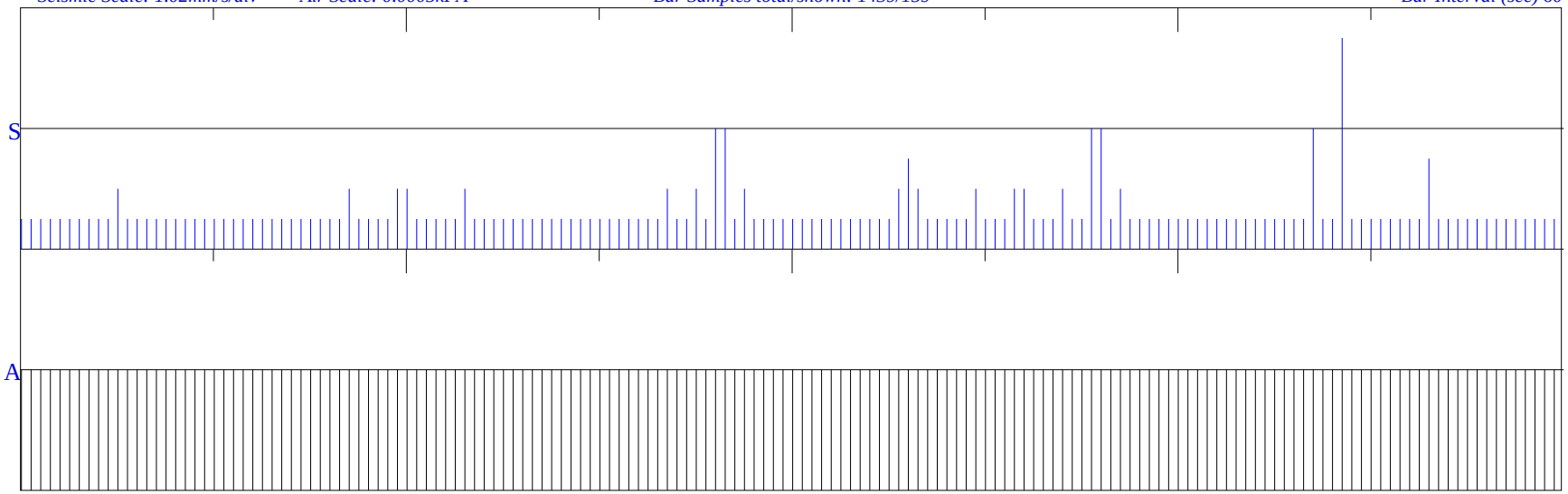
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.74		
Time	4:52:31 am		

BarGraph

Seismic Scale: 1.02mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159*

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:13 **03:00:11** **06:00:10** **09:00:08** **12:00:07** **15:00:06** **18:00:04** **21:00:03** **00:00:02**

<<<<<<<<<<<<<< **23:59:49** >>>>>>>>>>>>>>

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 26/4/2022 @ 00:00:13
End: 27/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.74 Hz
Radial: 0.254 (mm/s) @ 6.61 Hz @ 11:16:57
Transverse: 0.889 (mm/s) @ 341.33 Hz @ 20:35:05
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 10:59:03
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:13	0.127	9.57	0:03:13	0.127	17.356	0:02:35	0.127	10.139	0:01:09	0.22
2	0:05:13	0.127	9.225	0:07:07	0.127	19.321	0:06:50	0.127	9.752	0:08:59	0.22
3	0:10:13	0.127	8.192	0:12:20	0.127	19.321	0:11:50	0.127	9.394	0:12:20	0.22
4	0:15:13	0.127	6.872	0:20:07	0.127	18.618	0:15:49	0.127	8.325	0:15:54	0.22
5	0:20:13	0.127	6.522	0:21:12	0.127	17.965	0:22:46	0.127	8.325	0:21:57	0.22
6	0:25:13	0.127	9.225	0:28:30	0.127	16.787	0:29:34	0.127	9.062	0:27:31	0.22
7	0:30:13	0.127	8.904	0:33:36	0.127	18.618	0:33:53	0.127	9.942	0:33:36	0.22
8	0:35:13	0.127	10.557	0:35:59	0.127	18.618	0:37:01	0.127	8.192	0:39:09	0.22
9	0:40:13	0.127	9.394	0:41:31	0.127	18.618	0:43:09	0.127	10.343	0:41:41	0.22
10	0:45:13	0.127	8.904	0:48:31	0.127	21.787	0:46:13	0.127	10.139	0:47:41	0.22
11	0:50:13	0.127	10.139	0:51:25	0.127	15.284	0:55:03	0.127	12.047	0:55:05	0.22
12	0:55:13	0.127	8.463	0:59:14	0.127	20.898	0:55:36	0.127	9.225	1:00:10	0.22
13	1:00:13	0.127	9.394	1:05:05	0.127	20.078	1:01:12	0.127	8.605	1:02:36	0.22
14	1:05:13	0.127	10.343	1:07:12	0.127	20.078	1:05:47	0.127	8.063	1:07:10	0.22
15	1:10:13	0.127	10.139	1:13:12	0.127	17.965	1:10:37	0.127	11.253	1:13:24	0.22
16	1:15:13	0.127	9.062	1:15:50	0.127	18.618	1:16:24	0.127	9.394	1:16:24	0.22
17	1:20:13	0.127	8.325	1:22:38	0.127	16.254	1:22:46	0.127	9.752	1:22:40	0.22
18	1:25:13	0.127	10.343	1:29:47	0.127	16.254	1:25:52	0.127	10.557	1:25:56	0.22
19	1:30:13	0.127	12.337	1:30:43	0.127	16.787	1:31:31	0.127	10.139	1:33:20	0.22
20	1:35:13	0.127	8.192	1:39:25	0.127	20.898	1:36:49	0.254	12.962	1:35:53	0.284
21	1:40:13	0.127	9.942	1:42:00	0.127	20.078	1:42:37	0.127	8.325	1:41:06	0.22
22	1:45:13	0.127	9.752	1:46:04	0.127	20.078	1:46:40	0.127	9.062	1:47:56	0.22
23	1:50:13	0.127	6.606	1:54:11	0.127	16.787	1:50:15	0.127	8.325	1:51:12	0.22
24	1:55:13	0.127	8.325	1:55:48	0.127	19.321	2:00:06	0.127	11.506	1:56:52	0.22
25	2:00:13	0.127	10.557	2:04:48	0.127	23.814	2:04:59	0.127	12.337	2:01:30	0.22
26	2:05:13	0.127	8.904	2:06:54	0.127	19.321	2:08:43	0.127	11.253	2:08:54	0.22
27	2:10:13	0.127	9.225	2:13:53	0.127	16.254	2:10:39	0.127	9.752	2:14:57	0.22
28	2:15:13	0.127	10.557	2:18:43	0.127	20.078	2:19:00	0.127	8.463	2:18:45	0.22
29	2:20:13	0.127	11.011	2:23:02	0.127	17.356	2:24:21	0.127	12.642	2:24:29	0.22
30	2:25:13	0.127	9.752	2:28:50	0.127	20.898	2:25:41	0.127	10.557	2:28:51	0.22
31	2:30:13	0.127	9.752	2:32:30	0.127	17.965	2:34:26	0.127	11.011	2:35:08	0.22
32	2:35:13	0.127	9.752	2:39:49	0.127	14.841	2:36:56	0.127	10.779	2:35:58	0.22
33	2:40:13	0.127	9.752	2:42:29	0.127	21.787	2:43:54	0.127	11.011	2:41:08	0.22
34	2:45:13	0.127	7.474	2:49:12	0.127	18.618	2:46:56	0.127	8.463	2:49:08	0.22
35	2:50:13	0.127	11.506	2:51:18	0.127	20.078	2:54:35	0.127	12.047	2:54:35	0.22
36	2:55:13	0.127	12.642	2:55:57	0.127	17.356	2:55:40	0.127	9.394	2:55:48	0.22
37	3:00:13	0.127	11.77	3:04:13	0.127	21.787	3:02:00	0.127	11.011	3:04:16	0.22
38	3:05:13	0.127	8.605	3:06:54	0.127	18.618	3:05:22	0.127	9.062	3:07:03	0.22
39	3:10:13	0.127	11.506	3:11:04	0.127	21.787	3:10:49	0.127	12.047	3:13:13	0.22
40	3:15:13	0.127	10.343	3:19:32	0.127	20.078	3:16:03	0.127	10.557	3:16:08	0.22
41	3:20:13	0.127	10.139	3:21:49	0.127	16.254	3:23:10	0.127	11.506	3:23:07	0.22
42	3:25:13	0.127	8.605	3:25:57	0.127	20.078	3:26:46	0.127	9.225	3:26:16	0.22
43	3:30:13	0.127	8.325	3:31:41	0.127	16.787	3:35:10	0.127	8.904	3:31:40	0.22
44	3:35:13	0.127	7.699	3:38:40	0.127	21.787	3:35:53	0.127	9.752	3:39:53	0.22
45	3:40:13	0.127	8.325	3:43:36	0.127	17.356	3:44:26	0.127	10.779	3:44:29	0.22
46	3:45:13	0.127	8.605	3:47:21	0.127	21.787	3:46:59	0.127	9.394	3:46:15	0.22
47	3:50:13	0.127	11.506	3:54:53	0.127	20.898	3:54:34	0.127	11.011	3:52:36	0.22
48	3:55:13	0.127	10.343	3:58:33	0.127	20.898	3:55:15	0.127	9.062	3:58:26	0.22
49	4:00:13	0.127	7.585	4:04:50	0.127	17.965	4:04:10	0.127	11.253	4:04:56	0.22
50	4:05:13	0.127	11.253	4:07:33	0.127	20.898	4:08:33	0.127	9.225	4:09:17	0.22
51	4:10:13	0.127	8.463	4:10:50	0.127	15.754	4:12:13	0.127	8.752	4:10:38	0.22
52	4:15:13	0.127	5.785	4:20:03	0.127	20.898	4:17:29	0.127	11.506	4:20:01	0.22
53	4:20:13	0.127	8.463	4:23:24	0.127	15.284	4:23:53	0.127	9.57	4:23:54	0.22
54	4:25:13	0.127	8.904	4:29:29	0.127	20.898	4:28:58	0.127	9.062	4:27:20	0.22
55	4:30:13	0.127	8.605	4:30:32	0.127	20.078	4:33:43	0.127	9.062	4:31:54	0.22
56	4:35:13	0.127	10.139	4:39:10	0.127	21.787	4:36:25	0.127	12.962	4:35:14	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 26/4/2022 @ 00:00:13
End: 27/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.74 Hz
Radial: 0.254 (mm/s) @ 6.61 Hz @ 11:16:57
Transverse: 0.889 (mm/s) @ 341.33 Hz @ 20:35:05
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 10:59:03
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:13	0.127	8.605	4:40:39	0.127	22.756	4:42:34	0.127	8.752	4:40:23	0.22
58	4:45:13	0.127	8.192	4:47:18	0.127	18.618	4:47:32	0.127	7.585	4:47:08	0.22
59	4:50:13	0.127	7.699	4:52:35	0.127	16.254	4:52:18	0.127	9.225	4:50:53	0.22
60	4:55:13	0.127	9.062	4:57:34	0.127	17.356	4:56:48	0.127	8.463	4:56:45	0.22
61	5:00:13	0.127	9.225	5:03:05	0.127	17.356	5:02:23	0.127	7.062	5:00:51	0.22
62	5:05:13	0.127	8.463	5:05:28	0.127	17.965	5:05:16	0.127	8.605	5:09:37	0.22
63	5:10:13	0.127	5.851	5:11:52	0.127	18.618	5:10:53	0.254	9.394	5:12:03	0.311
64	5:15:13	0.127	5.657	5:18:28	0.127	20.078	5:18:51	0.127	9.942	5:18:16	0.22
65	5:20:13	0.127	7.585	5:24:15	0.127	18.618	5:22:48	0.127	8.605	5:23:34	0.22
66	5:25:13	0.127	8.063	5:26:34	0.127	13.299	5:26:01	0.127	8.463	5:25:30	0.22
67	5:30:13	0.127	9.394	5:31:17	0.127	16.254	5:32:57	0.127	9.942	5:32:47	0.22
68	5:35:13	0.127	8.325	5:35:25	0.127	17.356	5:37:13	0.127	9.062	5:36:35	0.22
69	5:40:13	0.127	7.474	5:41:44	0.127	19.321	5:43:25	0.127	8.463	5:44:38	0.22
70	5:45:13	0.127	8.463	5:48:10	0.127	20.078	5:45:52	0.127	8.605	5:48:49	0.22
71	5:50:13	0.127	7.699	5:52:18	0.127	20.078	5:52:20	0.127	9.394	5:52:09	0.22
72	5:55:13	0.127	7.585	5:56:35	0.127	19.321	5:56:44	0.254	44.522	5:57:06	0.254
73	6:00:13	0.127	7.262	6:03:59	0.127	19.321	6:04:22	0.254	48.762	6:00:32	0.254
74	6:05:13	0.127	5.785	6:08:18	0.127	14.841	6:06:45	0.127	8.063	6:10:12	0.22
75	6:10:13	0.127	7.585	6:14:21	0.127	17.965	6:13:22	0.127	8.325	6:12:38	0.22
76	6:15:13	0.127	8.605	6:16:13	0.127	20.078	6:18:03	0.127	8.463	6:16:13	0.22
77	6:20:13	0.127	8.063	6:22:24	0.127	19.321	6:22:54	0.127	8.063	6:23:17	0.22
78	6:25:13	0.127	6.059	6:28:52	0.127	17.965	6:25:33	0.127	9.57	6:27:57	0.22
79	6:30:13	0.127	8.192	6:30:56	0.127	21.787	6:33:18	0.127	7.474	6:30:56	0.22
80	6:35:13	0.127	7.699	6:39:52	0.127	19.321	6:38:42	0.127	7.585	6:38:33	0.22
81	6:40:13	0.127	7.262	6:44:05	0.127	17.356	6:44:35	0.127	8.752	6:44:54	0.22
82	6:45:13	0.127	6.36	6:46:38	0.127	19.321	6:46:12	0.127	8.325	6:46:06	0.22
83	6:50:13	0.127	6.872	6:52:39	0.127	17.356	6:53:05	0.127	8.605	6:53:13	0.22
84	6:55:13	0.127	7.262	6:56:37	0.127	17.356	6:57:23	0.254	9.225	6:57:48	0.284
85	7:00:13	0.127	7.699	7:05:00	0.127	20.898	7:01:51	0.127	7.585	7:00:17	0.22
86	7:05:13	0.127	7.161	7:09:15	0.127	17.965	7:06:21	0.127	8.752	7:07:25	0.22
87	7:10:13	0.127	7.367	7:11:39	0.127	18.618	7:13:44	0.127	8.463	7:11:31	0.22
88	7:15:13	0.127	8.063	7:20:06	0.127	16.787	7:18:09	0.127	8.904	7:18:06	0.22
89	7:20:13	0.127	7.474	7:22:33	0.127	22.756	7:23:58	0.127	8.192	7:23:03	0.22
90	7:25:13	0.127	6.693	7:26:34	0.127	19.321	7:26:42	0.127	8.192	7:25:19	0.22
91	7:30:13	0.127	6.36	7:31:44	0.127	16.787	7:32:01	0.127	8.192	7:32:00	0.22
92	7:35:13	0.127	6.781	7:38:13	0.127	17.965	7:37:26	0.127	9.57	7:37:21	0.22
93	7:40:13	0.127	6.606	7:42:35	0.127	20.898	7:40:32	0.127	8.325	7:45:00	0.22
94	7:45:13	0.127	4.763	7:46:59	0.127	17.965	7:46:16	0.127	7.262	7:46:55	0.22
95	7:50:13	0.127	6.36	7:53:48	0.127	21.787	7:53:57	0.127	7.367	7:53:47	0.22
96	7:55:13	0.127	5.851	7:59:08	0.127	17.965	7:56:17	0.127	7.161	7:59:18	0.22
97	8:00:13	0.127	6.059	8:00:52	0.127	16.787	8:03:00	0.127	7.367	8:03:06	0.22
98	8:05:13	0.127	6.781	8:08:06	0.127	17.356	8:05:48	0.127	8.063	8:08:12	0.22
99	8:10:13	0.127	6.132	8:14:39	0.127	20.898	8:10:56	0.127	8.904	8:13:05	0.22
100	8:15:13	0.127	6.44	8:19:08	0.127	15.754	8:17:15	0.127	8.063	8:18:53	0.22
101	8:20:13	0.127	6.781	8:21:50	0.127	21.787	8:21:37	0.127	8.752	8:21:17	0.22
102	8:25:13	0.127	6.059	8:26:47	0.127	15.284	8:29:05	0.127	8.605	8:26:50	0.22
103	8:30:13	0.127	6.36	8:32:28	0.127	20.078	8:34:30	0.127	7.585	8:32:08	0.22
104	8:35:13	0.127	6.872	8:38:44	0.127	20.898	8:38:38	0.127	8.325	8:35:30	0.22
105	8:40:13	0.127	5.721	8:41:36	0.127	19.321	8:40:13	0.127	7.585	8:42:08	0.22
106	8:45:13	0.127	6.44	8:48:08	0.127	19.321	8:49:53	0.127	6.966	8:46:44	0.22
107	8:50:13	0.127	5.919	8:54:42	0.127	20.898	8:50:21	0.127	9.062	8:54:30	0.22
108	8:55:13	0.127	5.657	8:57:22	0.127	16.787	8:55:34	0.127	8.063	8:57:03	0.22
109	9:00:13	0.127	6.522	9:01:43	0.127	16.254	9:03:16	0.127	8.063	9:02:02	0.22
110	9:05:13	0.127	6.966	9:09:07	0.127	20.898	9:05:51	0.127	8.325	9:05:58	0.22
111	9:10:13	0.127	4.995	9:11:33	0.127	20.898	9:13:42	0.127	6.206	9:13:25	0.22
112	9:15:13	0.127	6.872	9:18:17	0.127	18.618	9:16:57	0.127	8.752	9:20:07	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 26/4/2022 @ 00:00:13
End: 27/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.74 Hz
Radial: 0.254 (mm/s) @ 6.61 Hz @ 11:16:57
Transverse: 0.889 (mm/s) @ 341.33 Hz @ 20:35:05
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 10:59:03
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:13	0.127	6.36	9:24:42	0.127	19.321	9:21:31	0.127	8.325	9:21:14	0.22
114	9:25:13	0.127	6.36	9:26:46	0.127	17.965	9:26:43	0.127	7.585	9:29:00	0.22
115	9:30:13	0.127	6.693	9:32:41	0.127	17.356	9:35:06	0.127	7.817	9:33:04	0.22
116	9:35:13	0.127	6.36	9:37:45	0.127	19.321	9:36:23	0.127	8.063	9:38:34	0.22
117	9:40:13	0.127	6.966	9:42:12	0.127	20.898	9:40:41	0.127	8.325	9:40:45	0.22
118	9:45:13	0.127	7.062	9:47:20	0.127	18.618	9:48:00	0.127	7.699	9:45:21	0.22
119	9:50:13	0.127	7.367	9:54:21	0.127	8.752	9:53:50	0.127	8.325	9:52:39	0.22
120	9:55:13	0.127	7.938	9:59:26	0.127	8.605	9:55:31	0.127	8.192	9:58:37	0.22
121	10:00:13	0.127	5.851	10:02:22	0.127	8.605	10:01:46	0.127	7.585	10:02:14	0.22
122	10:05:13	0.127	6.781	10:09:33	0.127	7.817	10:08:13	0.254	44.522	10:06:15	0.311
123	10:10:13	0.127	5.919	10:10:24	0.127	9.062	10:13:51	0.127	8.463	10:12:00	0.22
124	10:15:13	0.127	5.657	10:16:12	0.127	8.463	10:16:15	0.127	7.938	10:16:25	0.22
125	10:20:13	0.127	7.161	10:24:54	0.127	9.394	10:20:52	0.127	8.192	10:25:09	0.22
126	10:25:13	0.127	6.693	10:27:52	0.127	10.139	10:25:41	0.127	8.605	10:29:32	0.22
127	10:30:13	0.127	6.693	10:32:35	0.127	8.063	10:31:37	0.254	53.895	10:31:07	0.254
128	10:35:13	0.127	6.206	10:38:37	0.127	9.225	10:38:58	0.127	8.063	10:36:57	0.22
129	10:40:13	0.127	7.262	10:41:28	0.127	8.463	10:40:40	0.127	7.699	10:42:44	0.22
130	10:45:13	0.127	6.872	10:45:59	0.127	10.557	10:48:05	0.127	7.699	10:46:17	0.22
131	10:50:13	0.127	7.161	10:52:13	0.127	8.325	10:50:13	0.127	8.063	10:53:56	0.22
132	10:55:13	0.254	40.96	10:59:03	0.508	341.333	10:56:03	0.508	44.522	10:59:03	0.539
133	11:00:13	0.127	6.693	11:00:39	0.127	6.606	11:01:34	0.127	7.367	11:04:07	0.22
134	11:05:13	0.127	6.522	11:05:13	0.127	5.418	11:05:59	0.127	8.463	11:07:45	0.22
135	11:10:13	0.127	5.851	11:13:02	0.127	9.942	11:11:20	0.127	7.938	11:11:05	0.22
136	11:15:13	0.254	6.606	11:16:57	0.127	7.367	11:18:05	0.254	40.96	11:16:56	0.311
137	11:20:13	0.127	7.699	11:22:18	0.127	8.463	11:22:07	0.127	8.192	11:21:36	0.22
138	11:25:13	0.127	7.262	11:28:02	0.127	8.463	11:25:34	0.127	7.938	11:27:28	0.22
139	11:30:13	0.127	6.522	11:31:35	0.127	8.904	11:34:08	0.127	7.367	11:31:53	0.22
140	11:35:13	0.127	6.282	11:39:39	0.127	7.262	11:37:36	0.127	8.063	11:35:36	0.22
141	11:40:13	0.127	6.606	11:43:53	0.127	7.262	11:42:01	0.127	7.262	11:41:53	0.22
142	11:45:13	0.127	7.062	11:49:19	0.127	7.938	11:47:12	0.127	6.132	11:49:20	0.22
143	11:50:13	0.127	7.161	11:51:50	0.127	7.817	11:51:33	0.127	8.325	11:50:32	0.22
144	11:55:13	0.127	6.966	11:57:58	0.127	8.192	11:59:22	0.127	7.474	11:56:34	0.22
145	12:00:13	0.127	6.522	12:04:38	0.127	7.938	12:02:01	0.127	8.063	12:02:55	0.22
146	12:05:13	0.127	8.325	12:09:30	0.127	8.605	12:09:01	0.127	6.522	12:06:04	0.22
147	12:10:13	0.127	7.699	12:11:27	0.127	8.192	12:12:08	0.127	8.192	12:14:11	0.22
148	12:15:13	0.127	6.606	12:17:59	0.127	8.752	12:17:24	0.127	7.699	12:17:08	0.22
149	12:20:13	0.127	7.699	12:23:36	0.127	6.781	12:20:16	0.127	7.699	12:20:34	0.22
150	12:25:13	0.127	6.606	12:26:00	0.127	8.752	12:27:42	0.127	7.817	12:26:03	0.22
151	12:30:13	0.127	6.781	12:34:50	0.127	6.606	12:31:02	0.127	7.585	12:30:36	0.22
152	12:35:13	0.127	7.817	12:35:43	0.127	6.966	12:35:40	0.127	8.192	12:40:09	0.22
153	12:40:13	0.127	7.161	12:40:16	0.127	8.605	12:43:11	0.127	6.966	12:42:09	0.22
154	12:45:13	0.127	7.474	12:46:22	0.127	8.904	12:48:04	0.127	8.192	12:47:48	0.22
155	12:50:13	0.127	7.699	12:52:47	0.127	7.938	12:53:10	0.127	7.161	12:50:13	0.22
156	12:55:13	0.127	7.585	12:57:41	0.127	6.872	12:57:12	0.127	7.367	12:59:17	0.22
157	13:00:13	0.127	7.367	13:05:10	0.127	7.699	13:04:42	0.127	7.585	13:01:16	0.22
158	13:05:13	0.127	5.919	13:07:55	0.127	6.44	13:08:11	0.127	5.785	13:09:40	0.22
159	13:10:13	0.127	8.325	13:10:26	0.127	8.605	13:11:39	0.127	6.872	13:14:15	0.22
160	13:15:13	0.127	6.282	13:18:30	0.127	8.063	13:18:22	0.127	7.699	13:18:28	0.22
161	13:20:13	0.127	7.262	13:21:04	0.127	9.062	13:24:44	0.127	6.872	13:21:12	0.22
162	13:25:13	0.127	8.063	13:27:18	0.127	6.781	13:29:01	0.127	7.699	13:26:01	0.22
163	13:30:13	0.127	7.161	13:34:48	0.127	8.904	13:31:52	0.127	8.752	13:31:53	0.22
164	13:35:13	0.127	6.606	13:38:46	0.127	5.919	13:39:05	0.254	7.817	13:39:31	0.311
165	13:40:13	0.127	8.063	13:42:09	0.127	8.605	13:41:29	0.254	12.962	13:40:15	0.284
166	13:45:13	0.127	6.36	13:49:44	0.127	7.262	13:47:00	0.127	6.781	13:49:38	0.22
167	13:50:13	0.254	204.8	13:54:25	0.381	341.333	13:54:24	0.254	93.091	13:54:25	0.458
168	13:55:13	0.254	7.474	13:56:38	0.381	341.333	13:56:38	0.254	113.778	13:56:38	0.421

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 26/4/2022 @ 00:00:13
End: 27/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.74 Hz
Radial: 0.254 (mm/s) @ 6.61 Hz @ 11:16:57
Transverse: 0.889 (mm/s) @ 341.33 Hz @ 20:35:05
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 10:59:03
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:13	0.127	7.938	14:02:04	0.254	341.333	14:04:01	0.127	8.605	14:01:46	0.284
170	14:05:13	0.127	7.474	14:08:39	0.254	204.8	14:05:33	0.127	7.585	14:08:11	0.284
171	14:10:13	0.127	6.606	14:12:21	0.127	8.192	14:15:01	0.127	7.161	14:15:01	0.22
172	14:15:13	0.127	6.606	14:19:18	0.127	8.904	14:15:17	0.127	7.161	14:19:13	0.22
173	14:20:13	0.127	6.132	14:22:49	0.127	8.605	14:24:18	0.127	7.938	14:22:09	0.22
174	14:25:13	0.127	6.606	14:26:30	0.127	7.938	14:28:17	0.127	8.325	14:27:02	0.22
175	14:30:13	0.127	6.872	14:33:49	0.127	9.062	14:32:02	0.127	8.192	14:30:55	0.22
176	14:35:13	0.127	6.872	14:37:12	0.127	7.938	14:35:25	0.127	8.192	14:36:25	0.22
177	14:40:13	0.127	5.251	14:44:22	0.127	8.325	14:42:55	0.127	7.474	14:42:55	0.22
178	14:45:13	0.127	6.966	14:45:51	0.127	9.225	14:47:52	0.127	8.605	14:47:46	0.22
179	14:50:13	0.127	7.474	14:53:38	0.127	8.904	14:52:07	0.127	6.693	14:53:39	0.22
180	14:55:13	0.127	6.966	14:58:21	0.254	341.333	14:56:25	0.127	8.063	14:58:48	0.311
181	15:00:13	0.127	7.699	15:01:36	0.127	8.192	15:00:36	0.127	6.606	15:01:35	0.22
182	15:05:13	0.127	6.966	15:08:48	0.127	9.062	15:08:43	0.127	7.585	15:05:58	0.22
183	15:10:13	0.127	7.938	15:13:26	0.127	8.325	15:11:41	0.127	7.699	15:11:21	0.22
184	15:15:13	0.127	7.585	15:16:22	0.127	6.872	15:15:18	0.127	7.699	15:16:03	0.22
185	15:20:13	0.127	7.699	15:24:06	0.127	7.699	15:22:01	0.127	7.262	15:24:24	0.22
186	15:25:13	0.127	7.161	15:28:00	0.127	9.752	15:25:56	0.254	8.605	15:28:12	0.284
187	15:30:13	0.127	6.282	15:33:41	0.127	10.779	15:34:30	0.127	7.699	15:34:36	0.22
188	15:35:13	0.127	6.781	15:38:51	0.127	8.463	15:36:15	0.127	7.699	15:35:35	0.22
189	15:40:13	0.127	5.476	15:41:25	0.127	7.817	15:42:32	0.254	8.904	15:42:12	0.254
190	15:45:13	0.127	8.063	15:48:37	0.127	5.851	15:46:14	0.127	8.325	15:45:32	0.22
191	15:50:13	0.127	6.132	15:53:25	0.127	7.938	15:52:05	0.127	8.605	15:55:02	0.22
192	15:55:13	0.127	7.367	15:58:28	0.127	6.132	15:57:30	0.127	7.817	15:56:04	0.22
193	16:00:13	0.127	6.872	16:01:23	0.127	8.904	16:01:10	0.127	7.367	16:02:03	0.22
194	16:05:13	0.127	5.476	16:05:48	0.127	7.585	16:09:35	0.127	8.063	16:09:28	0.22
195	16:10:13	0.127	7.262	16:10:18	0.127	7.699	16:10:54	0.127	7.817	16:13:22	0.22
196	16:15:13	0.127	7.262	16:16:17	0.127	9.062	16:19:29	0.254	10.779	16:17:48	0.284
197	16:20:13	0.127	5.596	16:21:05	0.127	7.161	16:24:31	0.127	7.699	16:21:05	0.22
198	16:25:13	0.127	6.966	16:29:09	0.127	6.781	16:28:41	0.127	7.817	16:26:36	0.22
199	16:30:13	0.127	4.719	16:33:06	0.127	8.463	16:30:26	0.127	7.474	16:33:06	0.22
200	16:35:13	0.127	8.063	16:35:43	0.127	7.262	16:37:52	0.127	7.062	16:37:57	0.22
201	16:40:13	0.127	6.693	16:42:49	0.127	8.605	16:42:47	0.127	7.161	16:42:50	0.22
202	16:45:13	0.127	5.251	16:46:20	0.508	341.333	16:47:52	0.127	8.063	16:48:39	0.539
203	16:50:13	0.127	8.463	16:53:43	0.508	341.333	16:52:28	0.127	8.605	16:51:56	0.539
204	16:55:13	0.127	6.606	16:57:03	0.127	7.262	16:55:11	0.127	7.817	16:56:02	0.22
205	17:00:13	0.127	5.988	17:02:39	0.127	7.585	17:01:52	0.127	7.585	17:02:02	0.22
206	17:05:13	0.254	40.96	17:09:39	0.127	9.225	17:06:11	0.254	35.31	17:09:39	0.284
207	17:10:13	0.127	6.872	17:10:17	0.127	7.367	17:12:11	0.127	8.325	17:10:44	0.22
208	17:15:13	0.127	6.606	17:18:50	0.127	8.325	17:19:19	0.127	8.063	17:16:23	0.22
209	17:20:13	0.127	6.44	17:23:51	0.127	8.463	17:21:33	0.127	7.367	17:23:50	0.22
210	17:25:13	0.127	6.206	17:26:33	0.127	7.817	17:26:14	0.127	6.282	17:28:00	0.22
211	17:30:13	0.127	7.817	17:33:39	0.127	7.817	17:31:48	0.127	7.938	17:34:12	0.22
212	17:35:13	0.127	7.161	17:38:11	0.127	7.817	17:37:05	0.127	6.966	17:38:16	0.22
213	17:40:13	0.127	5.785	17:41:33	0.127	7.161	17:40:14	0.127	7.161	17:44:40	0.22
214	17:45:13	0.127	6.693	17:47:38	0.127	6.781	17:46:10	0.127	7.367	17:45:34	0.22
215	17:50:13	0.127	7.699	17:50:45	0.127	8.904	17:52:20	0.127	7.367	17:52:20	0.22
216	17:55:13	0.127	6.966	17:56:22	0.127	6.872	17:56:36	0.127	8.463	17:58:29	0.22
217	18:00:13	0.127	7.062	18:03:31	0.127	4.719	18:00:11	0.127	7.367	18:02:34	0.22
218	18:05:13	0.127	6.781	18:09:43	0.127	8.752	18:08:34	0.127	8.325	18:07:15	0.22
219	18:10:13	0.127	7.062	18:12:09	0.127	7.585	18:13:46	0.127	7.474	18:12:47	0.22
220	18:15:13	0.127	6.966	18:19:25	0.127	8.192	18:17:36	0.127	7.585	18:17:43	0.22
221	18:20:13	0.127	4.995	18:24:12	0.127	6.282	18:20:44	0.127	7.474	18:24:52	0.22
222	18:25:13	0.127	7.938	18:27:13	0.127	7.161	18:27:08	0.127	8.325	18:28:37	0.22
223	18:30:13	0.127	6.781	18:32:12	0.127	8.192	18:32:19	0.127	7.062	18:33:31	0.22
224	18:35:13	0.127	7.161	18:36:50	0.127	7.817	18:36:00	0.127	8.192	18:36:53	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 26/4/2022 @ 00:00:13
End: 27/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.74 Hz
Radial: 0.254 (mm/s) @ 6.61 Hz @ 11:16:57
Transverse: 0.889 (mm/s) @ 341.33 Hz @ 20:35:05
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 10:59:03
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:13	0.127	6.132	18:41:18	0.127	6.606	18:43:59	0.127	8.325	18:42:46	0.22
226	18:45:13	0.127	7.474	18:46:26	0.127	7.699	18:48:13	0.127	7.817	18:46:07	0.22
227	18:50:13	0.127	6.872	18:52:28	0.127	6.059	18:54:29	0.127	8.325	18:55:06	0.22
228	18:55:13	0.127	6.966	19:00:02	0.127	8.325	18:57:56	0.127	8.325	18:59:39	0.22
229	19:00:13	0.127	7.161	19:01:20	0.127	7.585	19:04:25	0.127	7.817	19:04:54	0.22
230	19:05:13	0.127	7.367	19:08:24	0.127	6.606	19:09:51	0.127	7.817	19:06:34	0.22
231	19:10:13	0.127	7.817	19:13:55	0.127	8.463	19:10:14	0.127	6.206	19:12:14	0.22
232	19:15:13	0.127	6.966	19:16:30	0.127	7.938	19:20:02	0.127	8.192	19:17:20	0.22
233	19:20:13	0.127	6.966	19:21:47	0.127	7.817	19:22:41	0.127	7.062	19:21:38	0.22
234	19:25:13	0.127	7.817	19:26:58	0.127	7.474	19:29:54	0.127	8.325	19:28:55	0.22
235	19:30:13	0.127	6.132	19:31:08	0.127	7.161	19:32:30	0.127	7.585	19:34:39	0.22
236	19:35:13	0.127	7.062	19:35:20	0.127	6.522	19:38:48	0.127	6.44	19:35:12	0.22
237	19:40:13	0.127	7.585	19:40:21	0.127	7.938	19:40:36	0.127	8.063	19:40:39	0.22
238	19:45:13	0.127	6.44	19:50:09	0.127	7.062	19:50:01	0.127	8.192	19:45:22	0.22
239	19:50:13	0.127	7.367	19:53:31	0.127	7.474	19:51:35	0.127	6.059	19:50:13	0.22
240	19:55:13	0.127	5.095	19:56:07	0.127	7.938	19:58:27	0.127	7.585	19:57:33	0.22
241	20:00:13	0.127	6.206	20:01:38	0.127	7.699	20:02:12	0.127	7.938	20:00:33	0.22
242	20:05:13	0.127	7.367	20:09:57	0.127	6.36	20:06:39	0.127	7.938	20:06:58	0.22
243	20:10:13	0.254	204.8	20:12:26	0.508	341.333	20:12:41	0.254	204.8	20:12:26	0.539
244	20:15:13	0.127	7.062	20:16:27	0.127	5.851	20:15:14	0.127	7.585	20:16:37	0.22
245	20:20:13	0.127	7.262	20:21:41	0.127	7.585	20:24:16	0.127	7.585	20:22:20	0.22
246	20:25:13	0.127	6.781	20:26:11	0.127	7.367	20:26:58	0.127	7.262	20:26:57	0.22
247	20:30:13	0.254	93.091	20:35:05	0.889	341.333	20:35:05	0.254	113.778	20:35:05	0.907
248	20:35:13	0.127	8.904	20:37:23	0.381	341.333	20:35:11	0.127	7.474	20:37:35	0.421
249	20:40:13	0.127	6.132	20:43:09	0.127	11.77	20:40:10	0.127	7.938	20:41:10	0.22
250	20:45:13	0.127	5.721	20:48:43	0.127	18.618	20:47:04	0.127	8.752	20:45:35	0.22
251	20:50:13	0.127	5.596	20:50:23	0.127	16.787	20:52:02	0.127	7.699	20:52:15	0.22
252	20:55:13	0.127	7.699	20:55:14	0.127	16.254	20:58:28	0.127	8.325	20:56:02	0.22
253	21:00:13	0.127	7.367	21:02:17	0.127	17.965	21:04:11	0.127	7.938	21:00:33	0.22
254	21:05:13	0.127	8.063	21:06:06	0.127	18.618	21:07:08	0.127	6.522	21:06:06	0.22
255	21:10:13	0.127	7.699	21:13:11	0.127	18.618	21:11:38	0.127	8.605	21:13:17	0.22
256	21:15:13	0.127	8.605	21:19:03	0.127	19.321	21:18:26	0.127	8.192	21:15:49	0.22
257	21:20:13	0.127	8.605	21:21:45	0.127	22.756	21:22:14	0.127	8.325	21:21:03	0.22
258	21:25:13	0.127	7.938	21:29:37	0.127	17.356	21:27:54	0.127	9.752	21:28:58	0.22
259	21:30:13	0.127	7.262	21:34:11	0.127	18.618	21:33:34	0.127	7.585	21:32:49	0.22
260	21:35:13	0.127	9.062	21:36:56	0.127	16.254	21:40:02	0.127	9.225	21:38:57	0.22
261	21:40:13	0.127	7.161	21:44:03	0.127	15.754	21:43:16	0.127	7.817	21:40:22	0.22
262	21:45:13	0.127	9.225	21:46:25	0.127	19.321	21:45:10	0.127	8.904	21:46:49	0.22
263	21:50:13	0.127	6.966	21:52:03	0.127	18.618	21:53:06	0.127	9.062	21:51:36	0.22
264	21:55:13	0.254	9.225	21:59:33	0.127	17.356	21:59:27	0.381	37.926	21:59:32	0.421
265	22:00:13	0.127	6.966	22:03:35	0.127	12.642	22:00:10	0.127	8.904	22:02:17	0.22
266	22:05:13	0.127	7.262	22:07:46	0.127	18.618	22:06:03	0.127	8.752	22:07:01	0.22
267	22:10:13	0.127	8.463	22:11:33	0.127	19.321	22:14:13	0.127	7.585	22:12:04	0.22
268	22:15:13	0.127	8.463	22:19:19	0.127	21.787	22:16:59	0.127	8.463	22:18:01	0.22
269	22:20:13	0.127	6.966	22:23:22	0.127	20.898	22:24:19	0.127	7.699	22:21:35	0.22
270	22:25:13	0.127	8.904	22:27:13	0.127	17.965	22:25:19	0.127	8.904	22:28:04	0.22
271	22:30:13	0.127	7.262	22:32:02	0.127	17.965	22:34:36	0.127	9.062	22:32:09	0.22
272	22:35:13	0.127	9.57	22:38:10	0.127	18.618	22:35:29	0.127	11.506	22:38:16	0.22
273	22:40:13	0.127	8.325	22:44:42	0.127	16.787	22:44:53	0.127	8.752	22:43:43	0.22
274	22:45:13	0.127	7.161	22:47:59	0.127	19.321	22:47:08	0.127	8.752	22:47:41	0.22
275	22:50:13	0.127	8.605	22:51:57	0.127	16.254	22:50:38	0.127	7.161	22:54:08	0.22
276	22:55:13	0.127	7.699	22:59:01	0.127	20.898	22:55:50	0.127	7.585	22:59:42	0.22
277	23:00:13	0.127	9.57	23:03:26	0.127	21.787	23:01:02	0.127	8.605	23:03:27	0.22
278	23:05:13	0.127	6.693	23:09:19	0.127	19.321	23:10:01	0.127	7.062	23:09:19	0.22
279	23:10:13	0.127	10.343	23:10:20	0.127	22.756	23:11:20	0.127	9.57	23:13:05	0.22
280	23:15:13	0.127	8.325	23:17:55	0.127	20.898	23:18:07	0.127	8.063	23:15:41	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 12
Start: 26/4/2022 @ 00:00:13
End: 27/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.74 Hz
Radial: 0.254 (mm/s) @ 6.61 Hz @ 11:16:57
Transverse: 0.889 (mm/s) @ 341.33 Hz @ 20:35:05
Vertical: 0.508 (mm/s) @ 44.52 Hz @ 10:59:03
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:13	0.127	9.062	23:23:32	0.127	19.321	23:20:41	0.127	9.225	23:24:54	0.22
282	23:25:13	0.127	10.343	23:26:09	0.127	18.618	23:27:58	0.127	10.557	23:26:07	0.22
283	23:30:13	0.127	12.047	23:33:33	0.127	16.787	23:30:51	0.127	11.253	23:33:52	0.22
284	23:35:13	0.127	5.919	23:36:41	0.127	17.356	23:35:52	0.127	7.262	23:36:38	0.22
285	23:40:13	0.127	8.605	23:43:03	0.127	17.965	23:40:09	0.127	8.752	23:44:45	0.22
286	23:45:13	0.127	8.325	23:45:25	0.127	19.321	23:48:20	0.127	7.699	23:48:49	0.22
287	23:50:13	0.127	9.062	23:52:08	0.127	14.423	23:53:08	0.127	10.139	23:52:46	0.22
288	23:55:13	0.127	9.394	23:59:36	0.127	19.321	23:59:27	0.127	7.699	23:58:31	0.22

Version 2.0.2.0 (20Sep2021(c)) Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

27/4/2022 at 12:00 am Event # 13

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

No GPS Data

Seismic

Gain: 1 Vector Sum: 18.51 mm/s @ 1.52 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7635**	**4.2386**	**12.7238**
Frequency (Hz)	**17.0**	**36.5**	**24.3**

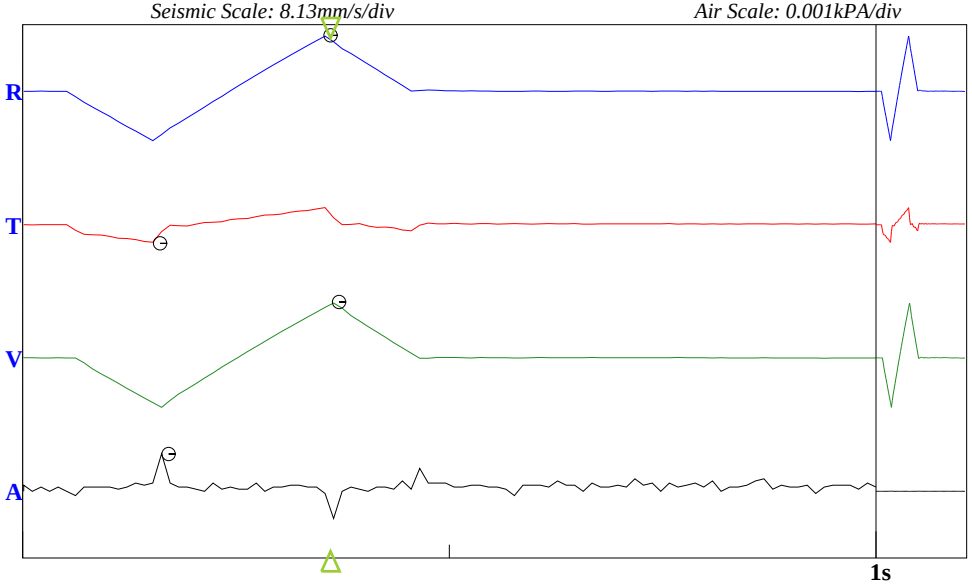
Air

Gain: 1

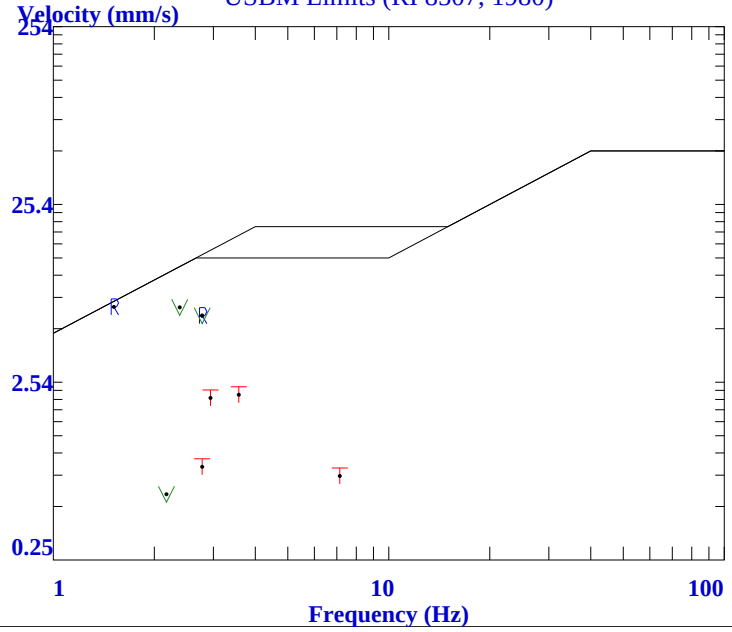
Measurement	Value		
kPA	0.0005		
dBL	**88.0**		
Hz	256.0		

Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div *Air Scale: 0.001kPA/div*



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

27/4/2022 at 12:00:15 am Event # 14

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:00 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 0.91 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.254**	**0.635**	**0.889**
Frequency (Hz)	**7.82**	**341.33**	**44.52**
Time	6:41:35 pm	12:39:44 pm	2:09:17 pm

Air

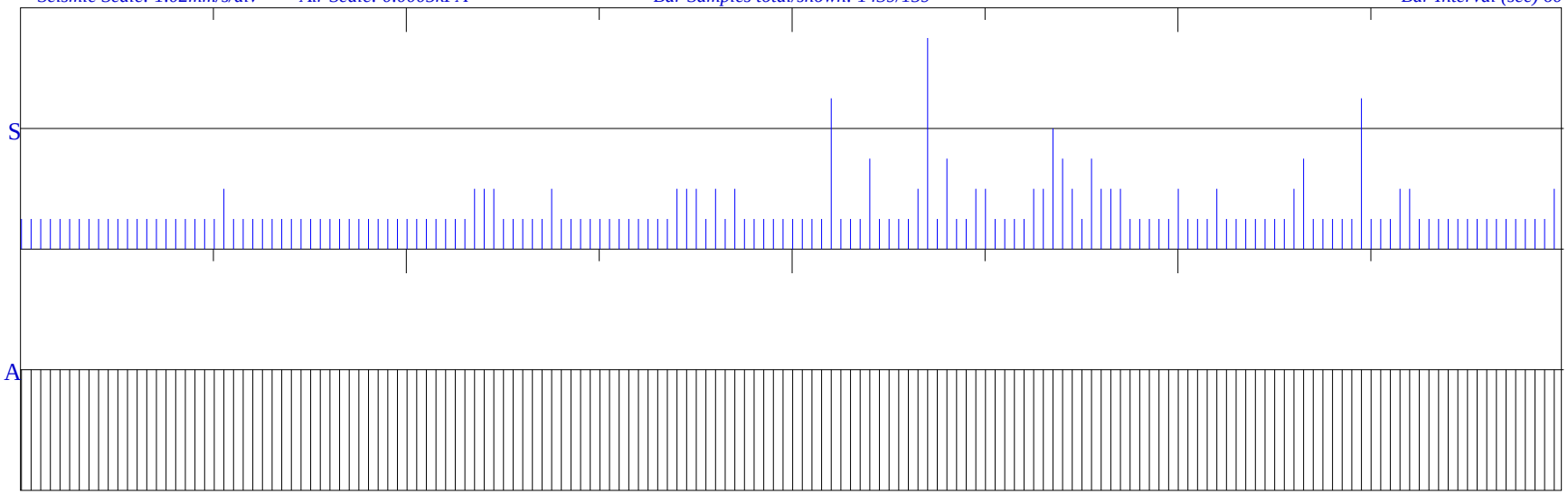
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.78		
Time	12:34:25 am		

BarGraph

Seismic Scale: 1.02mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159*

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:15 **03:00:13** **06:00:11** **09:00:09** **12:00:07** **15:00:05** **18:00:03** **21:00:01** **00:00:00**

<<<<<<<<<<<<<< **23:59:45** >>>>>>>>>>>>>>

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 27/4/2022 @ 00:00:15
End: 28/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 7.82 Hz @ 18:41:35
Transverse: 0.635 (mm/s) @ 341.33 Hz @ 12:39:44
Vertical: 0.889 (mm/s) @ 44.52 Hz @ 14:09:17
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:15	0.127	10.779	0:04:56	0.127	20.898	0:01:38	0.127	9.394	0:04:57	0.22
2	0:05:15	0.127	9.57	0:09:16	0.127	16.787	0:10:11	0.127	7.474	0:09:38	0.22
3	0:10:15	0.127	9.394	0:10:25	0.127	17.356	0:11:41	0.127	8.904	0:11:09	0.22
4	0:15:15	0.127	9.225	0:19:33	0.127	16.787	0:18:29	0.127	6.693	0:16:28	0.22
5	0:20:15	0.127	9.942	0:22:45	0.127	12.642	0:21:07	0.127	8.463	0:23:42	0.22
6	0:25:15	0.127	7.585	0:28:53	0.127	17.356	0:27:33	0.127	8.463	0:28:47	0.22
7	0:30:15	0.127	8.463	0:33:50	0.127	17.356	0:32:49	0.127	9.225	0:34:47	0.22
8	0:35:15	0.127	9.57	0:35:53	0.127	22.756	0:38:23	0.127	9.394	0:35:50	0.22
9	0:40:15	0.127	10.779	0:41:17	0.127	19.321	0:41:34	0.127	8.752	0:42:05	0.22
10	0:45:15	0.127	9.394	0:46:59	0.127	15.284	0:46:37	0.127	9.57	0:46:59	0.22
11	0:50:15	0.127	8.752	0:52:36	0.127	14.423	0:51:35	0.127	9.225	0:52:35	0.22
12	0:55:15	0.127	8.192	0:57:53	0.127	15.284	0:55:16	0.127	10.779	0:57:55	0.22
13	1:00:15	0.127	9.225	1:05:11	0.127	15.284	1:03:11	0.127	8.605	1:04:51	0.22
14	1:05:15	0.127	10.343	1:07:57	0.127	15.754	1:07:04	0.127	8.325	1:06:10	0.22
15	1:10:15	0.127	9.57	1:13:18	0.127	16.254	1:11:15	0.127	8.904	1:12:28	0.22
16	1:15:15	0.127	8.063	1:15:23	0.127	16.787	1:19:03	0.127	7.262	1:19:18	0.22
17	1:20:15	0.127	9.062	1:21:59	0.127	15.754	1:22:05	0.127	8.463	1:22:15	0.22
18	1:25:15	0.127	9.942	1:28:50	0.127	18.618	1:25:22	0.127	8.325	1:29:46	0.22
19	1:30:15	0.127	6.44	1:32:22	0.127	16.787	1:30:43	0.127	8.752	1:33:06	0.22
20	1:35:15	0.127	7.699	1:38:54	0.127	18.618	1:40:12	0.127	8.752	1:39:45	0.22
21	1:40:15	0.127	9.062	1:44:54	0.127	16.787	1:43:46	0.127	8.463	1:44:10	0.22
22	1:45:15	0.127	9.225	1:50:02	0.127	20.078	1:47:12	0.127	9.57	1:47:04	0.22
23	1:50:15	0.127	8.192	1:53:20	0.127	17.965	1:52:50	0.127	9.225	1:52:56	0.22
24	1:55:15	0.127	9.225	1:57:37	0.127	17.965	1:59:39	0.127	9.062	1:59:07	0.22
25	2:00:15	0.127	9.942	2:04:15	0.127	16.254	2:00:26	0.127	11.253	2:03:02	0.22
26	2:05:15	0.127	8.463	2:07:59	0.127	18.618	2:06:45	0.127	11.011	2:07:59	0.22
27	2:10:15	0.127	9.225	2:11:21	0.127	12.642	2:10:16	0.127	10.779	2:10:20	0.22
28	2:15:15	0.127	11.253	2:17:17	0.127	14.841	2:16:53	0.127	11.506	2:18:16	0.22
29	2:20:15	0.127	8.463	2:24:54	0.127	18.618	2:22:58	0.127	10.343	2:23:23	0.22
30	2:25:15	0.127	9.394	2:27:34	0.127	16.787	2:29:50	0.127	10.139	2:28:38	0.22
31	2:30:15	0.127	10.139	2:31:38	0.127	18.618	2:32:37	0.127	10.557	2:33:24	0.22
32	2:35:15	0.127	6.966	2:37:38	0.127	17.356	2:37:08	0.127	9.942	2:35:50	0.22
33	2:40:15	0.127	11.253	2:41:55	0.127	14.423	2:44:21	0.127	10.343	2:43:03	0.22
34	2:45:15	0.127	9.942	2:46:16	0.127	16.787	2:46:44	0.127	10.557	2:46:08	0.22
35	2:50:15	0.127	7.585	2:52:07	0.127	17.965	2:53:56	0.127	7.161	2:52:08	0.22
36	2:55:15	0.127	10.139	2:59:38	0.127	17.965	2:55:46	0.127	9.57	2:58:13	0.22
37	3:00:15	0.127	9.57	3:00:59	0.127	17.356	3:04:45	0.127	10.343	3:01:46	0.22
38	3:05:15	0.127	9.752	3:08:50	0.127	16.254	3:05:19	0.127	11.011	3:05:37	0.22
39	3:10:15	0.127	6.606	3:13:11	0.254	341.333	3:14:04	0.127	9.57	3:14:39	0.284
40	3:15:15	0.127	9.942	3:16:57	0.127	14.027	3:17:22	0.127	11.506	3:19:33	0.22
41	3:20:15	0.127	8.752	3:24:36	0.127	16.787	3:20:45	0.127	11.506	3:20:50	0.22
42	3:25:15	0.127	10.139	3:28:21	0.127	15.284	3:26:27	0.127	10.139	3:28:45	0.22
43	3:30:15	0.127	6.606	3:31:28	0.127	20.078	3:30:58	0.127	8.752	3:31:18	0.22
44	3:35:15	0.127	8.192	3:39:36	0.127	17.356	3:37:59	0.127	10.779	3:39:48	0.22
45	3:40:15	0.127	8.192	3:41:15	0.127	16.254	3:40:23	0.127	8.605	3:40:57	0.22
46	3:45:15	0.127	8.904	3:46:13	0.127	17.356	3:45:49	0.127	9.942	3:46:49	0.22
47	3:50:15	0.127	10.779	3:50:37	0.127	19.321	3:52:04	0.127	10.139	3:50:30	0.22
48	3:55:15	0.127	9.062	3:55:38	0.127	19.321	3:56:04	0.127	9.225	3:55:38	0.22
49	4:00:15	0.127	7.817	4:03:13	0.127	13.299	4:03:03	0.127	8.463	4:02:58	0.22
50	4:05:15	0.127	9.57	4:10:15	0.127	16.254	4:05:44	0.127	9.062	4:07:52	0.22
51	4:10:15	0.127	10.779	4:13:39	0.127	16.787	4:10:16	0.127	9.942	4:11:13	0.22
52	4:15:15	0.127	6.781	4:16:15	0.127	16.254	4:16:28	0.127	8.325	4:16:14	0.22
53	4:20:15	0.127	9.062	4:20:47	0.127	15.284	4:20:35	0.127	8.605	4:20:47	0.22
54	4:25:15	0.127	9.942	4:28:20	0.127	17.965	4:27:46	0.127	8.325	4:30:14	0.22
55	4:30:15	0.127	9.57	4:33:45	0.127	18.618	4:35:07	0.127	10.343	4:34:59	0.22
56	4:35:15	0.127	5.596	4:36:04	0.127	18.618	4:38:47	0.127	9.225	4:36:02	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 27/4/2022 @ 00:00:15
End: 28/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 7.82 Hz @ 18:41:35
Transverse: 0.635 (mm/s) @ 341.33 Hz @ 12:39:44
Vertical: 0.889 (mm/s) @ 44.52 Hz @ 14:09:17
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:15	0.127	8.752	4:40:50	0.127	16.787	4:40:15	0.127	9.752	4:43:16	0.22
58	4:45:15	0.127	9.394	4:48:46	0.127	17.356	4:46:05	0.127	9.062	4:50:04	0.22
59	4:50:15	0.127	8.904	4:51:41	0.127	14.027	4:52:10	0.127	9.225	4:53:49	0.22
60	4:55:15	0.127	8.063	4:56:26	0.127	16.254	4:56:12	0.127	8.463	4:56:25	0.22
61	5:00:15	0.127	8.063	5:02:02	0.127	16.787	5:03:01	0.127	8.904	5:01:04	0.22
62	5:05:15	0.127	8.904	5:07:32	0.127	16.254	5:07:37	0.127	9.062	5:09:25	0.22
63	5:10:15	0.127	7.699	5:10:51	0.127	20.078	5:10:51	0.127	8.752	5:10:51	0.22
64	5:15:15	0.127	9.394	5:15:26	0.127	17.356	5:18:12	0.127	8.605	5:18:24	0.22
65	5:20:15	0.127	8.063	5:20:59	0.127	18.618	5:25:12	0.127	7.367	5:21:37	0.22
66	5:25:15	0.127	7.938	5:26:02	0.127	16.787	5:28:05	0.127	8.605	5:26:43	0.22
67	5:30:15	0.127	9.062	5:30:23	0.127	17.356	5:31:09	0.127	8.463	5:30:36	0.22
68	5:35:15	0.127	6.966	5:35:19	0.127	16.787	5:40:11	0.127	8.752	5:38:34	0.22
69	5:40:15	0.127	8.063	5:44:48	0.127	18.618	5:42:52	0.127	6.44	5:44:16	0.22
70	5:45:15	0.127	7.699	5:45:32	0.127	20.898	5:45:16	0.127	8.063	5:45:51	0.22
71	5:50:15	0.127	7.938	5:54:32	0.127	17.356	5:54:17	0.127	9.062	5:54:29	0.22
72	5:55:15	0.127	6.522	5:58:54	0.127	18.618	6:00:12	0.127	8.325	5:57:20	0.22
73	6:00:15	0.127	8.063	6:05:09	0.127	17.356	6:00:19	0.127	7.699	6:05:10	0.22
74	6:05:15	0.127	7.161	6:08:51	0.127	16.787	6:05:15	0.127	8.063	6:07:17	0.22
75	6:10:15	0.127	7.817	6:14:52	0.127	21.787	6:11:29	0.127	8.063	6:11:09	0.22
76	6:15:15	0.127	6.966	6:16:20	0.127	16.787	6:16:47	0.127	8.325	6:19:30	0.22
77	6:20:15	0.127	6.872	6:23:51	0.127	20.898	6:21:07	0.127	8.463	6:23:46	0.22
78	6:25:15	0.127	6.059	6:27:44	0.127	17.965	6:29:11	0.127	7.367	6:26:07	0.22
79	6:30:15	0.127	7.585	6:33:39	0.127	15.284	6:31:07	0.127	8.192	6:33:34	0.22
80	6:35:15	0.127	7.262	6:37:20	0.127	20.898	6:38:32	0.127	8.192	6:37:28	0.22
81	6:40:15	0.127	5.988	6:43:44	0.127	22.756	6:42:24	0.127	6.966	6:44:05	0.22
82	6:45:15	0.127	7.817	6:50:03	0.127	21.787	6:47:14	0.127	8.463	6:50:06	0.22
83	6:50:15	0.127	7.062	6:53:51	0.127	21.787	6:53:42	0.127	7.699	6:53:56	0.22
84	6:55:15	0.127	7.262	6:55:39	0.127	16.787	6:56:01	0.127	8.325	6:56:12	0.22
85	7:00:15	0.127	8.325	7:01:38	0.127	20.898	7:03:32	0.127	7.938	7:01:34	0.22
86	7:05:15	0.254	37.926	7:07:16	0.127	18.618	7:06:01	0.254	9.225	7:07:16	0.284
87	7:10:15	0.127	6.872	7:13:57	0.127	17.965	7:13:00	0.254	44.522	7:13:06	0.254
88	7:15:15	0.127	7.938	7:20:13	0.127	12.642	7:17:00	0.254	15.284	7:15:18	0.284
89	7:20:15	0.127	6.966	7:24:13	0.127	19.321	7:24:03	0.127	6.44	7:25:14	0.22
90	7:25:15	0.254	9.752	7:27:53	0.127	17.356	7:27:07	0.254	8.904	7:26:57	0.311
91	7:30:15	0.127	5.361	7:32:32	0.127	20.898	7:33:26	0.127	6.966	7:32:27	0.22
92	7:35:15	0.127	5.988	7:40:02	0.127	18.618	7:39:53	0.127	7.161	7:40:10	0.22
93	7:40:15	0.127	5.919	7:42:16	0.127	21.787	7:40:54	0.127	7.938	7:44:34	0.22
94	7:45:15	0.127	6.606	7:46:37	0.127	20.078	7:48:06	0.127	8.325	7:45:43	0.22
95	7:50:15	0.127	6.059	7:53:10	0.127	15.284	7:51:00	0.127	7.938	7:53:07	0.22
96	7:55:15	0.127	6.206	7:56:33	0.127	20.078	7:56:15	0.127	7.699	7:56:40	0.22
97	8:00:15	0.127	6.693	8:01:26	0.127	17.965	8:03:33	0.127	6.781	8:01:29	0.22
98	8:05:15	0.127	5.785	8:10:09	0.127	18.618	8:05:45	0.127	7.367	8:06:24	0.22
99	8:10:15	0.127	6.36	8:11:08	0.127	16.787	8:12:38	0.127	8.325	8:10:49	0.22
100	8:15:15	0.127	5.988	8:18:34	0.127	17.356	8:15:20	0.254	12.047	8:18:58	0.254
101	8:20:15	0.127	6.693	8:23:40	0.127	19.321	8:21:44	0.254	8.752	8:22:34	0.284
102	8:25:15	0.127	7.161	8:27:52	0.127	16.787	8:27:49	0.127	7.938	8:27:53	0.22
103	8:30:15	0.127	7.161	8:33:04	0.127	17.965	8:31:12	0.127	7.817	8:30:28	0.22
104	8:35:15	0.127	7.367	8:39:29	0.127	17.356	8:37:21	0.127	8.605	8:38:01	0.22
105	8:40:15	0.127	7.161	8:43:40	0.127	16.254	8:44:51	0.127	7.474	8:42:50	0.22
106	8:45:15	0.127	7.367	8:48:05	0.127	17.965	8:46:00	0.127	7.474	8:45:16	0.22
107	8:50:15	0.127	6.872	8:52:33	0.127	20.898	8:52:25	0.127	7.699	8:52:42	0.22
108	8:55:15	0.127	6.059	8:56:16	0.127	20.898	8:55:50	0.127	8.605	8:59:21	0.22
109	9:00:15	0.127	5.044	9:04:20	0.127	16.787	9:02:45	0.127	6.872	9:04:30	0.22
110	9:05:15	0.127	5.198	9:06:02	0.127	20.078	9:08:25	0.127	7.817	9:07:05	0.22
111	9:10:15	0.127	6.781	9:14:05	0.127	17.356	9:14:57	0.127	6.693	9:11:00	0.22
112	9:15:15	0.127	6.282	9:16:12	0.127	14.027	9:15:14	0.127	7.161	9:17:44	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 27/4/2022 @ 00:00:15
End: 28/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 7.82 Hz @ 18:41:35
Transverse: 0.635 (mm/s) @ 341.33 Hz @ 12:39:44
Vertical: 0.889 (mm/s) @ 44.52 Hz @ 14:09:17
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:15	0.127	6.44	9:25:05	0.127	19.321	9:23:30	0.127	6.781	9:22:09	0.22
114	9:25:15	0.127	6.693	9:27:53	0.127	23.814	9:25:50	0.127	8.063	9:29:25	0.22
115	9:30:15	0.127	8.063	9:35:09	0.127	16.787	9:34:53	0.127	7.474	9:34:44	0.22
116	9:35:15	0.127	5.988	9:39:54	0.127	20.078	9:37:34	0.127	7.585	9:38:35	0.22
117	9:40:15	0.127	5.721	9:40:46	0.127	22.756	9:42:13	0.127	7.262	9:40:26	0.22
118	9:45:15	0.127	7.161	9:50:09	0.127	19.321	9:47:20	0.127	7.699	9:46:54	0.22
119	9:50:15	0.127	6.282	9:53:02	0.127	7.938	9:51:41	0.127	8.063	9:54:40	0.22
120	9:55:15	0.127	6.36	9:57:50	0.127	8.063	9:57:24	0.127	7.062	9:59:38	0.22
121	10:00:15	0.127	7.367	10:03:33	0.127	7.938	10:03:01	0.127	7.817	10:01:40	0.22
122	10:05:15	0.127	7.262	10:09:47	0.127	7.474	10:09:05	0.127	7.699	10:05:23	0.22
123	10:10:15	0.127	6.872	10:13:04	0.127	7.262	10:12:00	0.127	8.325	10:10:47	0.22
124	10:15:15	0.127	5.919	10:19:03	0.127	8.752	10:19:06	0.254	9.225	10:17:43	0.284
125	10:20:15	0.127	7.474	10:21:34	0.127	8.752	10:22:21	0.127	8.063	10:23:23	0.22
126	10:25:15	0.127	5.535	10:28:21	0.127	8.904	10:28:16	0.254	7.585	10:27:15	0.284
127	10:30:15	0.127	5.095	10:30:33	0.127	8.192	10:31:21	0.127	6.781	10:33:35	0.22
128	10:35:15	0.127	6.781	10:35:49	0.127	7.474	10:37:50	0.254	8.063	10:37:24	0.254
129	10:40:15	0.127	6.966	10:43:31	0.127	9.394	10:41:39	0.127	7.817	10:44:08	0.22
130	10:45:15	0.127	6.693	10:45:35	0.127	7.938	10:46:05	0.127	7.938	10:49:24	0.22
131	10:50:15	0.127	7.367	10:54:59	0.127	9.225	10:53:00	0.127	6.693	10:54:23	0.22
132	10:55:15	0.127	6.872	10:56:26	0.127	9.57	10:57:26	0.254	37.926	10:56:40	0.311
133	11:00:15	0.127	6.693	11:03:28	0.127	7.367	11:03:57	0.127	7.262	11:03:00	0.22
134	11:05:15	0.127	7.585	11:06:15	0.254	341.333	11:07:11	0.127	7.699	11:06:52	0.284
135	11:10:15	0.127	6.872	11:14:40	0.127	7.817	11:12:09	0.127	8.463	11:13:38	0.22
136	11:15:15	0.127	7.062	11:16:15	0.127	8.325	11:19:24	0.127	7.262	11:15:49	0.22
137	11:20:15	0.127	5.596	11:20:30	0.127	7.262	11:21:37	0.127	7.585	11:20:28	0.22
138	11:25:15	0.127	6.872	11:29:02	0.127	8.192	11:26:32	0.127	7.938	11:26:08	0.22
139	11:30:15	0.127	6.44	11:30:25	0.127	7.817	11:34:15	0.127	8.192	11:31:45	0.22
140	11:35:15	0.127	8.463	11:35:27	0.127	8.752	11:39:21	0.127	7.938	11:38:59	0.22
141	11:40:15	0.127	6.44	11:43:17	0.127	8.463	11:42:10	0.127	7.938	11:42:09	0.22
142	11:45:15	0.127	6.781	11:46:33	0.127	8.904	11:49:25	0.127	6.781	11:46:05	0.22
143	11:50:15	0.127	8.752	11:53:37	0.127	10.779	11:52:01	0.127	7.699	11:53:24	0.22
144	11:55:15	0.127	6.872	11:59:15	0.127	7.938	11:58:12	0.127	7.817	11:57:58	0.22
145	12:00:15	0.127	7.817	12:04:12	0.127	9.942	12:04:49	0.127	7.474	12:05:10	0.22
146	12:05:15	0.127	7.474	12:08:56	0.127	9.57	12:07:57	0.127	8.325	12:09:18	0.22
147	12:10:15	0.127	9.062	12:10:46	0.127	8.605	12:12:52	0.127	7.367	12:12:22	0.22
148	12:15:15	0.127	7.699	12:15:57	0.127	6.872	12:17:30	0.127	7.262	12:17:47	0.22
149	12:20:15	0.127	7.161	12:24:14	0.127	9.942	12:23:23	0.127	7.474	12:20:50	0.22
150	12:25:15	0.127	7.062	12:26:40	0.127	6.966	12:28:59	0.127	7.474	12:25:28	0.22
151	12:30:15	0.127	8.192	12:32:29	0.127	9.062	12:32:50	0.127	7.585	12:33:54	0.22
152	12:35:15	0.127	7.938	12:35:51	0.635	341.333	12:39:44	0.127	7.585	12:35:45	0.635
153	12:40:15	0.127	7.699	12:41:26	0.508	341.333	12:40:19	0.127	7.817	12:41:15	0.539
154	12:45:15	0.127	6.522	12:47:58	0.127	7.062	12:46:07	0.127	7.062	12:45:27	0.22
155	12:50:15	0.127	9.225	12:52:22	0.127	8.463	12:53:47	0.127	8.325	12:50:23	0.22
156	12:55:15	0.127	7.161	12:58:27	0.127	6.522	12:56:23	0.127	8.063	12:59:42	0.22
157	13:00:15	0.127	7.262	13:05:00	0.127	6.966	13:01:02	0.127	7.585	13:05:00	0.22
158	13:05:15	0.127	6.781	13:05:34	0.127	6.966	13:07:44	0.127	7.699	13:09:54	0.22
159	13:10:15	0.127	8.752	13:14:48	0.127	7.817	13:12:17	0.127	7.474	13:12:22	0.22
160	13:15:15	0.127	7.474	13:15:39	0.381	341.333	13:16:24	0.127	7.699	13:19:54	0.421
161	13:20:15	0.127	5.095	13:23:44	0.127	9.57	13:20:36	0.127	7.699	13:21:06	0.22
162	13:25:15	0.127	6.36	13:27:49	0.127	9.942	13:25:55	0.127	7.062	13:28:37	0.22
163	13:30:15	0.127	6.693	13:33:13	0.127	9.394	13:34:06	0.127	7.817	13:31:29	0.22
164	13:35:15	0.127	6.059	13:39:26	0.127	9.062	13:38:08	0.127	7.367	13:36:41	0.22
165	13:40:15	0.127	7.262	13:41:35	0.127	8.904	13:42:32	0.127	7.474	13:43:40	0.22
166	13:45:15	0.127	5.657	13:46:12	0.127	7.817	13:46:38	0.127	6.872	13:47:41	0.22
167	13:50:15	0.127	7.474	13:52:13	0.127	9.225	13:55:00	0.127	7.817	13:52:31	0.22
168	13:55:15	0.127	7.699	13:56:03	0.127	8.192	13:56:25	0.127	6.966	13:57:09	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 27/4/2022 @ 00:00:15
End: 28/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 7.82 Hz @ 18:41:35
Transverse: 0.635 (mm/s) @ 341.33 Hz @ 12:39:44
Vertical: 0.889 (mm/s) @ 44.52 Hz @ 14:09:17
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:15	0.127	6.606	14:03:11	0.127	9.225	14:04:08	0.254	7.367	14:04:45	0.254
170	14:05:15	0.254	8.063	14:07:10	0.254	341.333	14:07:09	0.889	44.522	14:09:17	0.907
171	14:10:15	0.254	9.942	14:10:47	0.127	6.872	14:14:00	0.254	8.752	14:10:47	0.284
172	14:15:15	0.127	6.522	14:15:57	0.127	7.474	14:19:26	0.127	7.817	14:19:38	0.22
173	14:20:15	0.127	6.44	14:24:28	0.127	8.063	14:24:08	0.127	6.522	14:24:31	0.22
174	14:25:15	0.254	8.192	14:29:05	0.127	7.585	14:28:09	0.381	8.605	14:29:06	0.421
175	14:30:15	0.127	7.474	14:30:37	0.127	8.325	14:32:20	0.127	6.693	14:34:52	0.22
176	14:35:15	0.127	6.872	14:36:19	0.127	8.752	14:35:27	0.127	8.605	14:40:04	0.22
177	14:40:15	0.127	6.206	14:44:31	0.127	8.192	14:43:46	0.127	7.474	14:44:29	0.22
178	14:45:15	0.127	7.161	14:45:36	0.127	8.063	14:48:52	0.127	6.606	14:45:56	0.22
179	14:50:15	0.127	5.851	14:53:16	0.127	8.192	14:55:12	0.254	8.605	14:52:36	0.254
180	14:55:15	0.127	6.44	14:57:02	0.127	9.225	14:55:30	0.127	6.606	14:59:22	0.22
181	15:00:15	0.127	7.474	15:04:59	0.127	7.817	15:01:26	0.254	10.557	15:04:59	0.311
182	15:05:15	0.127	5.851	15:07:33	0.127	6.522	15:09:30	0.127	8.752	15:06:48	0.22
183	15:10:15	0.127	6.206	15:10:41	0.127	7.817	15:12:08	0.127	8.605	15:12:50	0.22
184	15:15:15	0.127	6.132	15:20:07	0.127	7.817	15:15:26	0.127	8.463	15:20:03	0.22
185	15:20:15	0.127	5.919	15:21:24	0.127	7.699	15:24:44	0.127	7.938	15:24:33	0.22
186	15:25:15	0.127	5.721	15:26:40	0.127	8.063	15:27:22	0.127	6.132	15:27:15	0.22
187	15:30:15	0.127	6.44	15:33:41	0.127	6.872	15:34:27	0.127	6.966	15:34:22	0.22
188	15:35:15	0.127	5.919	15:36:29	0.127	6.522	15:36:14	0.127	6.781	15:37:57	0.22
189	15:40:15	0.127	6.872	15:44:31	0.127	8.192	15:42:22	0.127	6.781	15:44:36	0.22
190	15:45:15	0.127	6.522	15:45:22	0.254	204.8	15:47:20	0.127	8.192	15:48:14	0.311
191	15:50:15	0.127	6.606	15:52:15	0.254	341.333	15:55:04	0.127	7.262	15:54:24	0.284
192	15:55:15	0.127	5.044	15:56:58	0.254	341.333	15:55:16	0.127	7.585	15:55:28	0.254
193	16:00:15	0.127	6.966	16:00:35	0.381	341.333	16:05:03	0.127	8.463	16:02:46	0.421
194	16:05:15	0.127	6.966	16:08:52	0.508	341.333	16:07:13	0.127	7.817	16:08:28	0.508
195	16:10:15	0.127	6.522	16:10:51	0.127	7.474	16:11:53	0.127	8.325	16:10:15	0.22
196	16:15:15	0.127	6.206	16:15:57	0.381	341.333	16:19:08	0.127	6.606	16:18:11	0.402
197	16:20:15	0.127	6.781	16:23:55	0.254	204.8	16:22:00	0.127	7.262	16:24:14	0.311
198	16:25:15	0.127	5.418	16:27:43	0.127	7.161	16:27:54	0.127	7.161	16:26:04	0.22
199	16:30:15	0.127	5.146	16:34:53	0.127	5.988	16:32:49	0.127	7.699	16:34:42	0.22
200	16:35:15	0.127	6.781	16:37:04	0.127	7.699	16:39:40	0.127	7.699	16:36:05	0.22
201	16:40:15	0.127	6.36	16:43:45	0.381	341.333	16:44:08	0.127	8.192	16:44:51	0.421
202	16:45:15	0.127	6.36	16:45:50	0.127	7.367	16:48:56	0.127	8.063	16:47:51	0.22
203	16:50:15	0.127	5.919	16:51:32	0.127	7.161	16:51:20	0.127	6.059	16:51:56	0.22
204	16:55:15	0.127	7.262	16:58:23	0.127	7.367	16:56:50	0.254	8.605	16:57:08	0.284
205	17:00:15	0.127	6.522	17:01:57	0.127	8.463	17:00:33	0.254	9.752	17:01:32	0.284
206	17:05:15	0.127	6.132	17:06:36	0.127	6.36	17:09:25	0.254	9.394	17:06:04	0.284
207	17:10:15	0.127	5.476	17:12:41	0.254	341.333	17:12:03	0.127	7.585	17:11:20	0.284
208	17:15:15	0.127	5.535	17:18:53	0.127	7.062	17:16:44	0.127	8.063	17:19:54	0.22
209	17:20:15	0.127	7.585	17:24:18	0.127	8.063	17:22:42	0.127	7.367	17:23:56	0.22
210	17:25:15	0.127	5.657	17:29:28	0.127	8.325	17:29:18	0.127	7.585	17:26:23	0.22
211	17:30:15	0.127	7.585	17:31:04	0.127	5.785	17:34:19	0.127	8.063	17:33:52	0.22
212	17:35:15	0.127	6.781	17:36:39	0.127	7.062	17:40:05	0.127	7.367	17:39:21	0.22
213	17:40:15	0.127	6.522	17:41:39	0.127	5.988	17:43:53	0.127	8.463	17:43:15	0.22
214	17:45:15	0.127	7.817	17:46:57	0.127	7.699	17:49:02	0.127	8.463	17:45:51	0.22
215	17:50:15	0.127	7.474	17:52:21	0.127	7.817	17:54:00	0.127	8.904	17:50:35	0.22
216	17:55:15	0.127	7.817	17:56:30	0.127	7.262	17:59:09	0.127	7.938	17:57:57	0.22
217	18:00:15	0.254	113.778	18:01:37	0.127	7.161	18:00:30	0.127	7.817	18:04:51	0.284
218	18:05:15	0.127	6.693	18:06:53	0.127	6.606	18:08:40	0.127	8.752	18:06:29	0.22
219	18:10:15	0.127	7.817	18:12:42	0.127	6.36	18:15:06	0.127	8.063	18:14:24	0.22
220	18:15:15	0.127	4.719	18:16:24	0.127	7.367	18:17:47	0.127	8.463	18:17:14	0.22
221	18:20:15	0.127	5.851	18:22:22	0.127	7.938	18:24:44	0.127	7.817	18:22:29	0.22
222	18:25:15	0.127	7.262	18:26:52	0.127	7.585	18:26:40	0.127	7.938	18:29:22	0.22
223	18:30:15	0.127	6.059	18:33:46	0.127	6.132	18:31:45	0.127	8.063	18:34:21	0.22
224	18:35:15	0.127	6.781	18:35:38	0.127	6.606	18:35:16	0.127	7.938	18:35:44	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 27/4/2022 @ 00:00:15
End: 28/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 7.82 Hz @ 18:41:35
Transverse: 0.635 (mm/s) @ 341.33 Hz @ 12:39:44
Vertical: 0.889 (mm/s) @ 44.52 Hz @ 14:09:17
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:15	0.254	7.817	18:41:35	0.127	7.262	18:40:25	0.254	8.463	18:41:35	0.284
226	18:45:15	0.127	6.36	18:47:01	0.127	8.063	18:45:28	0.127	8.063	18:48:00	0.22
227	18:50:15	0.127	7.474	18:51:34	0.127	8.904	18:50:32	0.127	8.063	18:52:00	0.22
228	18:55:15	0.127	6.606	19:00:05	0.127	7.585	18:59:42	0.127	8.063	18:59:43	0.22
229	19:00:15	0.127	7.161	19:02:36	0.127	7.699	19:00:47	0.127	7.585	19:02:01	0.22
230	19:05:15	0.127	6.693	19:08:36	0.127	6.44	19:06:21	0.127	7.062	19:08:06	0.22
231	19:10:15	0.127	6.966	19:15:08	0.127	6.44	19:12:20	0.127	7.161	19:11:10	0.22
232	19:15:15	0.127	6.966	19:16:25	0.127	7.474	19:17:22	0.127	8.063	19:16:25	0.22
233	19:20:15	0.127	5.988	19:22:26	0.127	6.781	19:20:33	0.127	7.938	19:21:57	0.22
234	19:25:15	0.127	7.938	19:28:35	0.127	7.367	19:27:16	0.127	9.062	19:26:31	0.22
235	19:30:15	0.127	7.367	19:32:13	0.127	8.192	19:34:14	0.127	7.585	19:31:31	0.22
236	19:35:15	0.127	6.781	19:37:29	0.127	6.693	19:40:07	0.127	6.693	19:39:50	0.22
237	19:40:15	0.127	5.198	19:41:07	0.127	7.699	19:41:10	0.127	6.36	19:43:11	0.22
238	19:45:15	0.127	6.606	19:47:32	0.127	7.262	19:49:44	0.254	7.817	19:48:49	0.284
239	19:50:15	0.127	7.262	19:54:52	0.127	7.474	19:51:18	0.127	7.585	19:53:35	0.22
240	19:55:15	0.127	6.206	19:57:45	0.127	7.262	19:59:32	0.127	8.752	19:56:49	0.22
241	20:00:15	0.127	7.817	20:05:06	0.381	341.333	20:02:31	0.127	8.063	20:05:04	0.421
242	20:05:15	0.127	6.966	20:06:30	0.127	6.781	20:08:30	0.127	8.192	20:05:14	0.22
243	20:10:15	0.127	7.474	20:11:06	0.127	6.606	20:11:16	0.127	6.522	20:11:05	0.22
244	20:15:15	0.127	7.062	20:17:07	0.127	6.44	20:16:27	0.127	8.605	20:16:52	0.22
245	20:20:15	0.127	8.192	20:20:20	0.127	6.522	20:20:29	0.127	7.585	20:23:04	0.22
246	20:25:15	0.127	5.146	20:27:43	0.127	6.872	20:28:45	0.127	7.367	20:28:17	0.22
247	20:30:15	0.127	6.606	20:35:04	0.127	7.817	20:31:38	0.127	7.938	20:33:55	0.22
248	20:35:15	0.127	6.966	20:35:17	0.127	6.693	20:40:05	0.127	8.904	20:36:14	0.22
249	20:40:15	0.127	6.693	20:40:21	0.127	6.966	20:40:13	0.127	7.938	20:40:38	0.22
250	20:45:15	0.127	5.988	20:46:13	0.127	6.693	20:48:49	0.127	8.192	20:46:53	0.22
251	20:50:15	0.127	7.817	20:50:56	0.127	5.657	20:50:56	0.127	8.063	20:54:14	0.22
252	20:55:15	0.127	8.463	20:55:32	0.635	341.333	20:56:46	0.127	8.063	20:55:24	0.648
253	21:00:15	0.127	8.325	21:00:56	0.127	6.781	21:04:15	0.127	8.325	21:00:39	0.22
254	21:05:15	0.127	8.752	21:08:14	0.127	6.059	21:09:01	0.127	9.394	21:08:13	0.22
255	21:10:15	0.127	8.752	21:10:20	0.127	5.657	21:15:10	0.127	9.394	21:10:16	0.22
256	21:15:15	0.127	6.606	21:15:35	0.127	6.606	21:19:38	0.127	8.063	21:19:33	0.22
257	21:20:15	0.127	6.966	21:23:33	0.127	6.282	21:21:29	0.127	8.063	21:25:01	0.22
258	21:25:15	0.127	5.198	21:29:31	0.127	5.535	21:28:32	0.127	5.919	21:29:32	0.22
259	21:30:15	0.127	7.585	21:30:49	0.127	6.606	21:34:44	0.254	11.253	21:31:19	0.311
260	21:35:15	0.127	6.693	21:35:49	0.127	5.476	21:37:42	0.254	9.225	21:39:07	0.254
261	21:40:15	0.127	7.817	21:45:09	0.127	5.988	21:41:34	0.127	8.752	21:41:27	0.22
262	21:45:15	0.127	7.161	21:48:06	0.127	5.198	21:45:56	0.127	8.325	21:45:26	0.22
263	21:50:15	0.127	8.752	21:51:29	0.127	6.059	21:54:45	0.127	8.192	21:52:15	0.22
264	21:55:15	0.127	7.938	21:57:00	0.127	6.872	21:59:35	0.127	6.966	21:57:25	0.22
265	22:00:15	0.127	7.585	22:01:03	0.127	5.988	22:02:45	0.127	8.605	22:03:44	0.22
266	22:05:15	0.127	7.699	22:05:18	0.127	5.988	22:06:42	0.127	8.752	22:06:51	0.22
267	22:10:15	0.127	8.752	22:13:02	0.127	6.966	22:12:26	0.127	7.938	22:13:02	0.22
268	22:15:15	0.127	8.605	22:19:54	0.127	6.966	22:17:20	0.127	8.192	22:18:29	0.22
269	22:20:15	0.127	7.262	22:22:17	0.127	7.062	22:21:47	0.127	7.062	22:22:17	0.22
270	22:25:15	0.127	9.942	22:28:32	0.127	6.781	22:26:34	0.127	7.161	22:28:22	0.22
271	22:30:15	0.127	8.192	22:34:36	0.127	7.062	22:32:20	0.127	8.463	22:34:05	0.22
272	22:35:15	0.127	8.904	22:39:49	0.127	5.988	22:35:52	0.127	8.463	22:37:41	0.22
273	22:40:15	0.127	8.904	22:40:45	0.127	7.367	22:41:13	0.127	9.225	22:43:46	0.22
274	22:45:15	0.127	9.57	22:48:07	0.127	6.36	22:46:52	0.127	11.253	22:45:45	0.22
275	22:50:15	0.127	8.063	22:51:39	0.127	7.938	22:54:15	0.127	8.325	22:51:39	0.22
276	22:55:15	0.127	8.605	22:59:03	0.127	7.262	22:59:06	0.127	10.343	22:56:48	0.22
277	23:00:15	0.127	6.693	23:02:48	0.127	7.062	23:05:01	0.127	8.463	23:02:45	0.22
278	23:05:15	0.127	8.904	23:08:55	0.127	7.161	23:05:27	0.127	7.585	23:06:43	0.22
279	23:10:15	0.127	8.904	23:13:30	0.127	7.161	23:10:20	0.127	10.343	23:13:33	0.22
280	23:15:15	0.127	9.062	23:19:30	0.127	6.059	23:17:03	0.127	9.225	23:16:10	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 14
Start: 27/4/2022 @ 00:00:15
End: 28/4/2022 @ 00:00:00
Summary Interval: 288
Air: 81.9 dBL @ 0.78 Hz
Radial: 0.254 (mm/s) @ 7.82 Hz @ 18:41:35
Transverse: 0.635 (mm/s) @ 341.33 Hz @ 12:39:44
Vertical: 0.889 (mm/s) @ 44.52 Hz @ 14:09:17
Vector Sum: .91 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:15	0.127	8.063	23:22:47	0.127	6.206	23:20:43	0.127	7.938	23:24:59	0.22
282	23:25:15	0.127	8.904	23:27:29	0.127	6.44	23:26:13	0.127	9.394	23:27:26	0.22
283	23:30:15	0.127	5.251	23:31:31	0.127	6.872	23:30:16	0.127	8.192	23:30:31	0.22
284	23:35:15	0.127	8.605	23:35:27	0.127	8.325	23:36:24	0.127	9.57	23:36:47	0.22
285	23:40:15	0.127	9.57	23:42:15	0.127	7.262	23:41:41	0.127	9.57	23:40:31	0.22
286	23:45:15	0.127	6.781	23:48:01	0.127	7.062	23:49:58	0.127	8.904	23:46:42	0.22
287	23:50:15	0.127	9.57	23:51:47	0.127	8.463	23:52:33	0.127	9.752	23:51:08	0.22
288	23:55:15	0.127	8.904	23:57:27	0.254	204.8	23:56:01	0.127	8.605	23:58:26	0.284

Version 2.0.2.0 (20Sep2021(c)) Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

28/4/2022 at 12:00 am Event # 15

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

Distance: N Wgt. Per Delay: N Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1 Vector Sum: 18.56 mm/s @ 1.04 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7952**	**4.2862**	**12.7476**
Frequency (Hz)	**16.5**	**36.5**	**24.3**

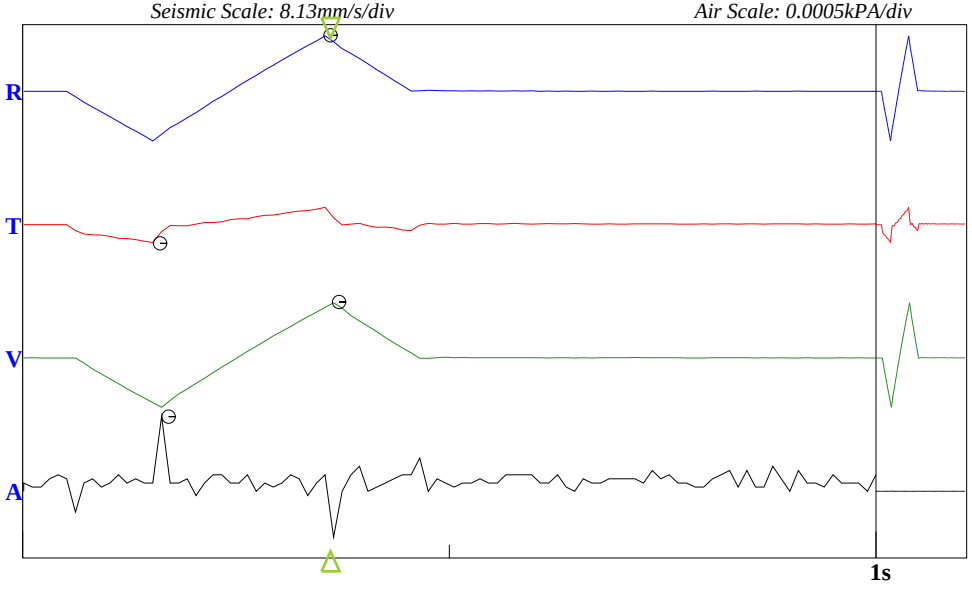
Air

Gain: 1

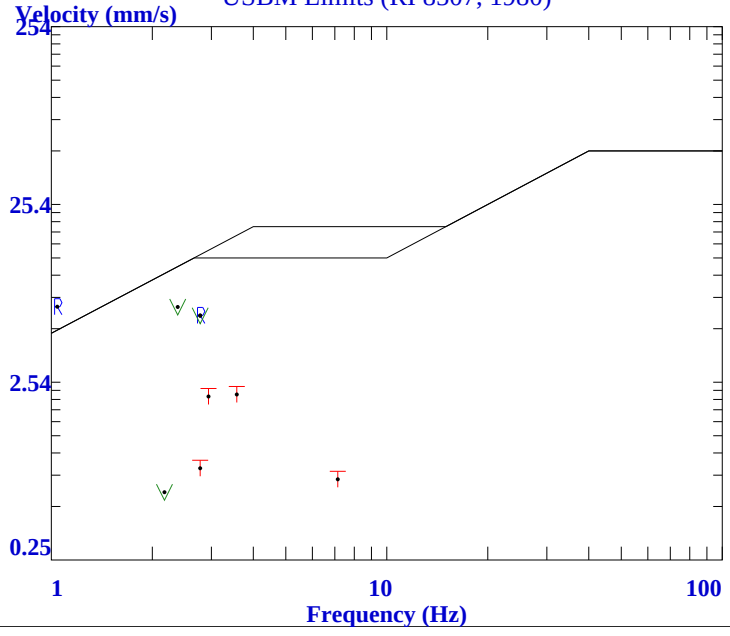
Measurement	Value		
kPA	0.000469		
dBL	**87.4**		
Hz	512.0		

Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div *Air Scale: 0.0005kPA/div*



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c)) Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

28/4/2022 at 12:00:12 am Event # 16

Location: CONCORDE PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

End Time: 12:00:02 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1 Vector Sum: 0.52 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**0.381**	**0.254**	**0.508**
Frequency (Hz)	**48.76**	**341.33**	**7.82**
Time	4:11:57 pm	10:54:55 pm	4:11:57 pm

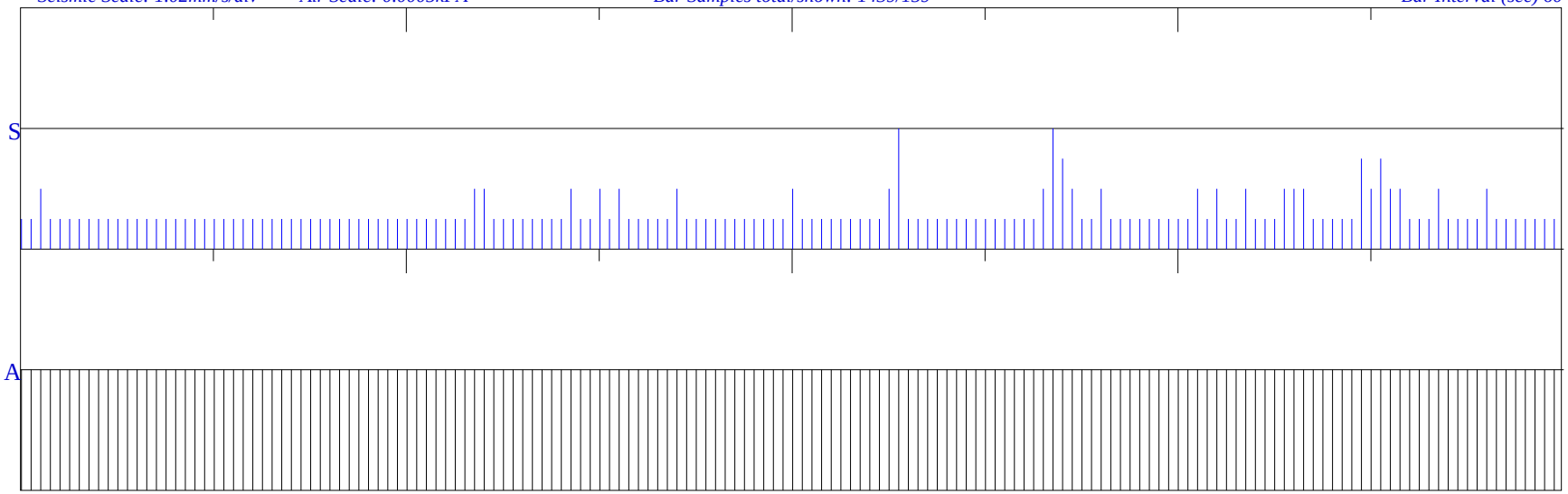
Air

Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.64		
Time	1:02:28 am		

BarGraph

Seismic Scale: 1.02mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 1439/159* *Summary Interval (min): 5* *Bar Interval (sec) 60*



00:00:12 **03:00:10** **06:00:09** **09:00:08** **12:00:07** **15:00:05** **18:00:04** **21:00:03** **00:00:02**

<<<<<<<<<<<<<< **23:59:50** >>>>>>>>>>>>>>

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 28/4/2022 @ 00:00:12
End: 29/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 16:11:57
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 22:54:55
Vertical: 0.508 (mm/s) @ 7.82 Hz @ 16:11:57
Vector Sum: .52 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:12	0.127	8.752	0:04:07	0.127	20.898	0:03:48	0.127	8.752	0:04:09	0.22
2	0:05:12	0.127	8.463	0:09:43	0.127	16.254	0:08:06	0.127	9.752	0:05:27	0.22
3	0:10:12	0.127	6.872	0:13:40	0.127	17.356	0:11:28	0.127	7.367	0:13:40	0.22
4	0:15:12	0.127	9.57	0:17:19	0.127	20.078	0:17:05	0.127	9.062	0:16:52	0.22
5	0:20:12	0.127	10.557	0:20:42	0.127	16.787	0:23:15	0.254	12.642	0:23:24	0.284
6	0:25:12	0.127	9.062	0:27:57	0.127	14.841	0:28:16	0.127	9.942	0:25:56	0.22
7	0:30:12	0.127	8.752	0:32:19	0.127	20.898	0:32:11	0.127	7.699	0:33:50	0.22
8	0:35:12	0.127	8.752	0:38:38	0.127	21.787	0:36:00	0.127	8.063	0:38:33	0.22
9	0:40:12	0.127	9.752	0:45:02	0.127	22.756	0:41:34	0.127	8.605	0:44:59	0.22
10	0:45:12	0.127	8.904	0:50:03	0.127	15.284	0:50:10	0.127	9.57	0:46:36	0.22
11	0:50:12	0.127	8.904	0:54:42	0.127	15.284	0:51:27	0.127	11.011	0:50:57	0.22
12	0:55:12	0.127	9.062	0:59:52	0.127	19.321	0:57:36	0.127	9.942	0:59:57	0.22
13	1:00:12	0.127	8.063	1:01:58	0.127	17.965	1:00:35	0.127	7.699	1:01:59	0.22
14	1:05:12	0.127	7.817	1:06:22	0.127	18.618	1:09:04	0.127	9.062	1:06:09	0.22
15	1:10:12	0.127	9.394	1:10:55	0.127	15.754	1:14:58	0.127	9.57	1:11:22	0.22
16	1:15:12	0.127	9.57	1:16:07	0.127	18.618	1:19:15	0.127	8.904	1:16:02	0.22
17	1:20:12	0.127	10.139	1:23:25	0.127	22.756	1:24:05	0.127	9.225	1:22:46	0.22
18	1:25:12	0.127	7.817	1:29:57	0.127	17.356	1:25:34	0.127	9.942	1:25:48	0.22
19	1:30:12	0.127	8.904	1:34:39	0.127	17.965	1:32:56	0.127	10.557	1:31:43	0.22
20	1:35:12	0.127	8.605	1:40:08	0.127	17.356	1:35:36	0.127	7.817	1:35:19	0.22
21	1:40:12	0.127	10.343	1:41:49	0.127	19.321	1:41:36	0.127	9.225	1:44:11	0.22
22	1:45:12	0.127	9.062	1:46:24	0.127	16.254	1:46:32	0.127	9.942	1:46:26	0.22
23	1:50:12	0.127	11.253	1:51:58	0.127	18.618	1:54:29	0.127	9.225	1:51:58	0.22
24	1:55:12	0.127	10.557	1:57:10	0.127	16.254	1:59:24	0.127	11.77	1:58:20	0.22
25	2:00:12	0.127	9.062	2:01:47	0.127	15.284	2:01:00	0.127	14.027	2:02:51	0.22
26	2:05:12	0.127	11.506	2:10:02	0.127	18.618	2:10:04	0.127	10.779	2:09:36	0.22
27	2:10:12	0.127	7.938	2:12:54	0.127	15.754	2:12:49	0.127	11.011	2:12:47	0.22
28	2:15:12	0.127	5.919	2:16:28	0.127	18.618	2:17:42	0.127	9.225	2:17:28	0.22
29	2:20:12	0.127	10.139	2:23:44	0.127	16.787	2:23:45	0.127	9.57	2:24:13	0.22
30	2:25:12	0.127	9.752	2:25:48	0.127	18.618	2:28:20	0.127	11.011	2:25:55	0.22
31	2:30:12	0.127	8.325	2:31:52	0.127	19.321	2:34:27	0.127	6.966	2:31:54	0.22
32	2:35:12	0.127	10.139	2:36:38	0.127	19.321	2:38:09	0.127	9.394	2:38:55	0.22
33	2:40:12	0.127	9.225	2:44:51	0.127	17.356	2:41:32	0.127	13.299	2:41:46	0.22
34	2:45:12	0.127	7.262	2:46:33	0.127	15.284	2:45:24	0.127	8.192	2:46:38	0.22
35	2:50:12	0.127	9.942	2:50:42	0.127	20.078	2:50:59	0.127	10.557	2:53:01	0.22
36	2:55:12	0.127	11.506	2:59:02	0.127	17.356	2:57:18	0.127	9.752	2:56:20	0.22
37	3:00:12	0.127	9.225	3:01:52	0.127	20.078	3:02:59	0.127	9.394	3:04:35	0.22
38	3:05:12	0.127	9.062	3:05:34	0.127	14.027	3:05:18	0.127	9.394	3:05:34	0.22
39	3:10:12	0.127	9.57	3:12:44	0.127	15.754	3:14:25	0.127	9.752	3:13:05	0.22
40	3:15:12	0.127	11.77	3:16:04	0.127	20.078	3:18:41	0.127	12.337	3:16:19	0.22
41	3:20:12	0.127	8.605	3:20:31	0.127	15.284	3:23:58	0.127	11.77	3:23:38	0.22
42	3:25:12	0.127	10.343	3:28:59	0.127	14.423	3:26:49	0.127	13.653	3:26:21	0.22
43	3:30:12	0.127	8.752	3:33:39	0.127	17.965	3:34:28	0.127	10.139	3:32:52	0.22
44	3:35:12	0.127	9.942	3:35:20	0.127	20.898	3:35:50	0.127	9.942	3:37:02	0.22
45	3:40:12	0.127	9.062	3:43:54	0.127	16.254	3:44:31	0.127	9.57	3:40:46	0.22
46	3:45:12	0.127	7.367	3:46:00	0.127	16.787	3:45:23	0.127	8.904	3:49:37	0.22
47	3:50:12	0.127	7.585	3:55:11	0.127	17.356	3:51:07	0.127	8.904	3:52:37	0.22
48	3:55:12	0.127	9.942	3:58:24	0.127	17.965	3:57:13	0.127	7.699	3:58:24	0.22
49	4:00:12	0.127	11.011	4:04:43	0.127	18.618	4:00:14	0.127	11.011	4:00:30	0.22
50	4:05:12	0.127	7.699	4:06:00	0.127	17.356	4:06:42	0.127	9.062	4:05:27	0.22
51	4:10:12	0.127	6.966	4:12:16	0.127	18.618	4:10:18	0.127	9.942	4:12:19	0.22
52	4:15:12	0.127	7.938	4:17:14	0.127	20.078	4:19:01	0.127	8.752	4:17:11	0.22
53	4:20:12	0.127	9.225	4:22:06	0.127	15.284	4:21:21	0.127	8.904	4:24:46	0.22
54	4:25:12	0.127	9.752	4:26:12	0.127	16.254	4:25:40	0.127	8.063	4:25:36	0.22
55	4:30:12	0.127	8.063	4:34:00	0.127	14.841	4:31:27	0.127	9.062	4:31:37	0.22
56	4:35:12	0.127	8.325	4:35:49	0.127	17.965	4:35:48	0.127	8.904	4:39:10	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 28/4/2022 @ 00:00:12
End: 29/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 16:11:57
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 22:54:55
Vertical: 0.508 (mm/s) @ 7.82 Hz @ 16:11:57
Vector Sum: .52 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:12	0.127	9.225	4:43:43	0.127	17.356	4:41:50	0.127	8.325	4:40:45	0.22
58	4:45:12	0.127	6.522	4:48:40	0.127	14.841	4:46:15	0.127	8.904	4:49:23	0.22
59	4:50:12	0.127	9.394	4:54:46	0.127	14.841	4:55:08	0.127	9.062	4:53:00	0.22
60	4:55:12	0.127	8.063	4:56:03	0.127	16.254	4:56:05	0.127	7.817	4:55:58	0.22
61	5:00:12	0.127	8.325	5:04:05	0.127	15.284	5:01:03	0.127	9.225	5:02:54	0.22
62	5:05:12	0.127	8.752	5:05:25	0.127	17.356	5:09:45	0.127	9.225	5:06:50	0.22
63	5:10:12	0.127	7.817	5:14:41	0.127	14.027	5:12:57	0.127	7.938	5:14:40	0.22
64	5:15:12	0.127	8.063	5:19:01	0.127	20.898	5:15:26	0.127	7.817	5:19:30	0.22
65	5:20:12	0.127	8.192	5:21:34	0.127	16.787	5:22:54	0.127	7.699	5:22:54	0.22
66	5:25:12	0.127	7.699	5:29:02	0.127	15.754	5:27:41	0.127	7.938	5:29:01	0.22
67	5:30:12	0.127	7.938	5:30:18	0.127	17.965	5:34:05	0.127	8.752	5:33:49	0.22
68	5:35:12	0.127	8.192	5:37:26	0.127	15.754	5:38:53	0.127	7.699	5:37:26	0.22
69	5:40:12	0.127	6.132	5:45:03	0.127	18.618	5:40:59	0.127	8.325	5:44:58	0.22
70	5:45:12	0.127	7.161	5:46:37	0.127	14.841	5:45:57	0.127	7.938	5:49:38	0.22
71	5:50:12	0.127	7.367	5:52:50	0.127	16.787	5:50:23	0.127	8.063	5:52:58	0.22
72	5:55:12	0.127	7.474	5:56:56	0.127	15.754	5:57:17	0.127	6.693	5:58:40	0.22
73	6:00:12	0.127	7.474	6:04:11	0.127	16.254	6:00:13	0.127	8.463	6:03:28	0.22
74	6:05:12	0.127	7.585	6:09:34	0.127	19.321	6:05:49	0.127	8.325	6:08:53	0.22
75	6:10:12	0.127	6.059	6:11:34	0.127	17.965	6:13:33	0.127	8.325	6:11:30	0.22
76	6:15:12	0.127	6.44	6:17:29	0.127	20.898	6:19:04	0.127	8.325	6:17:15	0.22
77	6:20:12	0.127	8.463	6:23:28	0.127	19.321	6:24:18	0.127	7.474	6:22:48	0.22
78	6:25:12	0.127	7.062	6:26:20	0.127	18.618	6:28:33	0.127	7.817	6:26:58	0.22
79	6:30:12	0.127	8.063	6:35:13	0.127	20.898	6:33:36	0.127	8.752	6:30:39	0.22
80	6:35:12	0.127	5.721	6:37:49	0.127	17.965	6:36:39	0.127	7.699	6:37:10	0.22
81	6:40:12	0.127	7.585	6:44:20	0.127	18.618	6:44:32	0.127	8.752	6:42:11	0.22
82	6:45:12	0.127	8.063	6:46:34	0.127	17.965	6:47:11	0.127	7.699	6:45:51	0.22
83	6:50:12	0.127	7.062	6:54:28	0.127	17.356	6:51:00	0.127	8.605	6:51:08	0.22
84	6:55:12	0.127	5.851	6:55:22	0.127	17.965	6:56:34	0.127	8.192	6:58:26	0.22
85	7:00:12	0.127	8.063	7:01:05	0.127	19.321	7:00:46	0.127	7.262	7:02:22	0.22
86	7:05:12	0.127	5.657	7:05:48	0.127	14.027	7:05:48	0.254	10.343	7:05:21	0.284
87	7:10:12	0.127	5.988	7:12:53	0.127	18.618	7:12:38	0.127	7.367	7:10:29	0.22
88	7:15:12	0.127	7.938	7:17:00	0.127	21.787	7:16:27	0.254	37.926	7:18:44	0.284
89	7:20:12	0.127	6.872	7:20:51	0.127	17.356	7:23:03	0.127	8.605	7:24:48	0.22
90	7:25:12	0.127	6.132	7:28:19	0.127	19.321	7:29:05	0.127	8.063	7:29:02	0.22
91	7:30:12	0.127	5.535	7:34:08	0.127	17.965	7:34:35	0.127	8.463	7:32:13	0.22
92	7:35:12	0.127	6.781	7:36:03	0.127	20.078	7:36:28	0.127	8.605	7:37:38	0.22
93	7:40:12	0.127	5.721	7:43:52	0.127	16.787	7:43:00	0.127	7.699	7:41:39	0.22
94	7:45:12	0.127	4.511	7:47:07	0.127	16.787	7:48:06	0.127	8.463	7:47:34	0.22
95	7:50:12	0.127	5.535	7:51:34	0.127	15.754	7:55:04	0.127	7.161	7:51:18	0.22
96	7:55:12	0.127	6.522	7:56:33	0.127	17.356	7:59:02	0.127	8.325	7:56:38	0.22
97	8:00:12	0.127	6.44	8:03:51	0.127	20.078	8:00:13	0.127	8.192	8:03:55	0.22
98	8:05:12	0.127	5.596	8:07:59	0.127	20.078	8:06:25	0.127	8.192	8:06:55	0.22
99	8:10:12	0.127	6.781	8:12:01	0.127	18.618	8:11:13	0.127	8.752	8:14:04	0.22
100	8:15:12	0.127	6.872	8:17:25	0.127	20.078	8:15:46	0.127	7.938	8:15:40	0.22
101	8:20:12	0.127	6.44	8:20:57	0.127	17.356	8:22:15	0.127	8.904	8:20:50	0.22
102	8:25:12	0.127	6.282	8:27:04	0.127	15.754	8:30:08	0.127	7.699	8:28:50	0.22
103	8:30:12	0.127	6.693	8:33:14	0.127	16.254	8:35:07	0.127	7.585	8:32:32	0.22
104	8:35:12	0.127	6.606	8:38:21	0.127	19.321	8:36:36	0.254	7.938	8:35:30	0.284
105	8:40:12	0.127	7.585	8:45:01	0.127	16.787	8:42:08	0.127	7.585	8:41:04	0.22
106	8:45:12	0.127	5.785	8:45:23	0.127	21.787	8:48:22	0.127	7.161	8:46:00	0.22
107	8:50:12	0.127	5.361	8:50:47	0.127	22.756	8:51:15	0.127	7.938	8:53:10	0.22
108	8:55:12	0.127	4.947	9:00:01	0.127	16.254	8:57:21	0.127	7.474	8:56:27	0.22
109	9:00:12	0.127	6.206	9:01:42	0.127	16.254	9:04:30	0.254	6.966	9:04:17	0.284
110	9:05:12	0.127	5.476	9:06:49	0.127	17.965	9:06:35	0.127	7.938	9:06:25	0.22
111	9:10:12	0.127	6.522	9:12:52	0.127	17.965	9:14:43	0.127	7.262	9:12:44	0.22
112	9:15:12	0.127	6.606	9:18:48	0.127	18.618	9:15:42	0.127	7.367	9:15:42	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 28/4/2022 @ 00:00:12
End: 29/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 16:11:57
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 22:54:55
Vertical: 0.508 (mm/s) @ 7.82 Hz @ 16:11:57
Vector Sum: .52 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:12	0.127	4.995	9:23:04	0.127	16.787	9:20:58	0.254	7.062	9:23:47	0.284
114	9:25:12	0.127	6.44	9:25:33	0.127	19.321	9:29:28	0.127	8.063	9:29:02	0.22
115	9:30:12	0.127	5.851	9:30:51	0.127	20.898	9:33:27	0.127	7.585	9:32:46	0.22
116	9:35:12	0.127	6.693	9:40:06	0.127	19.321	9:35:27	0.127	7.262	9:38:41	0.22
117	9:40:12	0.127	7.585	9:40:41	0.127	19.321	9:43:12	0.127	8.192	9:43:03	0.22
118	9:45:12	0.127	6.44	9:48:51	0.127	22.756	9:46:15	0.127	8.063	9:45:57	0.22
119	9:50:12	0.127	6.693	9:53:51	0.127	20.078	9:52:52	0.127	8.463	9:50:41	0.22
120	9:55:12	0.127	7.262	9:57:54	0.127	18.618	10:00:03	0.127	6.206	9:56:23	0.22
121	10:00:12	0.127	5.095	10:02:08	0.127	21.787	10:01:57	0.127	8.463	10:04:19	0.22
122	10:05:12	0.127	5.476	10:07:50	0.127	17.965	10:09:08	0.127	6.522	10:07:54	0.22
123	10:10:12	0.127	5.251	10:13:55	0.127	6.132	10:13:41	0.127	7.474	10:12:30	0.22
124	10:15:12	0.127	4.511	10:17:36	0.127	7.474	10:16:07	0.254	8.752	10:16:59	0.284
125	10:20:12	0.127	6.44	10:21:17	0.127	6.781	10:21:36	0.127	8.063	10:23:31	0.22
126	10:25:12	0.127	5.851	10:27:09	0.127	6.206	10:26:27	0.127	7.938	10:25:33	0.22
127	10:30:12	0.127	5.146	10:31:03	0.127	6.282	10:30:45	0.127	7.817	10:33:39	0.22
128	10:35:12	0.127	6.606	10:40:07	0.127	7.817	10:39:40	0.127	8.325	10:36:43	0.22
129	10:40:12	0.127	6.693	10:41:53	0.127	8.605	10:42:51	0.127	7.062	10:43:31	0.22
130	10:45:12	0.127	6.781	10:48:03	0.127	8.063	10:45:12	0.127	8.192	10:48:03	0.22
131	10:50:12	0.127	6.781	10:50:19	0.127	7.938	10:52:57	0.127	7.817	10:52:52	0.22
132	10:55:12	0.127	7.367	10:58:12	0.127	10.343	10:56:52	0.127	7.699	10:57:05	0.22
133	11:00:12	0.127	6.36	11:04:39	0.127	7.699	11:02:38	0.127	7.585	11:00:43	0.22
134	11:05:12	0.127	6.206	11:06:33	0.127	7.585	11:07:43	0.127	8.605	11:08:58	0.22
135	11:10:12	0.127	6.966	11:14:04	0.127	8.752	11:12:50	0.127	8.192	11:14:04	0.22
136	11:15:12	0.127	5.988	11:15:47	0.127	6.872	11:16:10	0.127	7.474	11:15:46	0.22
137	11:20:12	0.127	6.059	11:22:38	0.127	8.325	11:23:52	0.127	8.063	11:23:35	0.22
138	11:25:12	0.127	6.522	11:27:38	0.127	9.062	11:28:54	0.127	7.817	11:29:42	0.22
139	11:30:12	0.127	5.596	11:35:07	0.127	7.367	11:33:00	0.127	7.585	11:32:48	0.22
140	11:35:12	0.127	7.262	11:36:18	0.127	6.966	11:38:05	0.127	7.585	11:36:25	0.22
141	11:40:12	0.127	7.474	11:40:19	0.127	9.062	11:41:21	0.127	7.262	11:44:03	0.22
142	11:45:12	0.127	6.781	11:45:49	0.127	7.262	11:49:11	0.127	7.367	11:46:52	0.22
143	11:50:12	0.127	7.262	11:51:41	0.127	8.904	11:51:09	0.127	8.063	11:50:56	0.22
144	11:55:12	0.127	5.418	11:57:14	0.127	6.282	11:57:18	0.127	6.44	11:55:11	0.22
145	12:00:12	0.127	6.966	12:05:04	0.127	8.752	12:02:02	0.254	8.605	12:00:54	0.284
146	12:05:12	0.127	5.785	12:09:04	0.127	7.474	12:09:48	0.127	7.367	12:05:38	0.22
147	12:10:12	0.127	7.262	12:11:41	0.127	7.367	12:11:56	0.127	6.36	12:12:23	0.22
148	12:15:12	0.127	6.606	12:19:37	0.127	9.225	12:15:14	0.127	6.282	12:17:33	0.22
149	12:20:12	0.127	6.872	12:24:50	0.127	7.699	12:23:03	0.127	6.781	12:21:35	0.22
150	12:25:12	0.127	4.9	12:27:10	0.127	8.605	12:25:26	0.127	5.988	12:27:10	0.22
151	12:30:12	0.127	5.535	12:30:38	0.127	6.693	12:32:03	0.127	8.192	12:30:28	0.22
152	12:35:12	0.127	6.693	12:36:42	0.127	7.938	12:38:57	0.127	5.785	12:36:34	0.22
153	12:40:12	0.127	5.198	12:43:29	0.127	7.699	12:43:59	0.127	7.938	12:40:25	0.22
154	12:45:12	0.127	9.394	12:46:46	0.127	6.522	12:47:08	0.127	6.693	12:45:38	0.22
155	12:50:12	0.127	7.262	12:52:33	0.127	7.367	12:52:02	0.127	6.44	12:54:19	0.22
156	12:55:12	0.127	4.853	12:55:33	0.127	7.585	12:57:21	0.127	7.062	12:56:17	0.22
157	13:00:12	0.127	7.585	13:03:46	0.127	7.938	13:01:49	0.127	7.699	13:00:13	0.22
158	13:05:12	0.127	7.367	13:05:48	0.127	7.938	13:05:14	0.127	6.693	13:07:56	0.22
159	13:10:12	0.127	7.699	13:11:56	0.127	6.966	13:11:31	0.127	7.585	13:14:43	0.22
160	13:15:12	0.127	5.988	13:18:27	0.127	9.225	13:15:49	0.127	7.938	13:15:29	0.22
161	13:20:12	0.127	6.781	13:21:52	0.127	8.192	13:25:09	0.127	6.966	13:22:26	0.22
162	13:25:12	0.127	6.522	13:28:47	0.127	7.817	13:25:11	0.127	7.262	13:26:46	0.22
163	13:30:12	0.127	7.262	13:30:13	0.127	8.063	13:32:16	0.127	7.367	13:31:35	0.22
164	13:35:12	0.127	5.851	13:37:57	0.127	6.206	13:35:24	0.254	6.059	13:37:57	0.284
165	13:40:12	0.127	7.699	13:40:42	0.127	8.605	13:44:34	0.508	35.31	13:43:17	0.524
166	13:45:12	0.127	7.699	13:45:20	0.127	6.606	13:49:13	0.127	6.966	13:48:45	0.22
167	13:50:12	0.127	6.693	13:53:36	0.127	7.367	13:53:50	0.127	6.36	13:51:59	0.22
168	13:55:12	0.127	6.36	13:56:50	0.127	7.367	13:56:30	0.127	6.781	13:57:43	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 28/4/2022 @ 00:00:12
End: 29/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 16:11:57
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 22:54:55
Vertical: 0.508 (mm/s) @ 7.82 Hz @ 16:11:57
Vector Sum: .52 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
169	14:00:12	0.127	5.988	14:01:36	0.127	7.699	14:04:12	0.127	7.262	14:05:03	0.22
170	14:05:12	0.127	8.605	14:09:57	0.127	8.605	14:05:44	0.127	7.585	14:09:31	0.22
171	14:10:12	0.127	7.062	14:13:47	0.127	8.063	14:10:53	0.127	7.367	14:12:40	0.22
172	14:15:12	0.127	6.781	14:16:19	0.127	7.817	14:18:41	0.127	7.817	14:15:38	0.22
173	14:20:12	0.127	5.785	14:20:22	0.127	6.36	14:24:29	0.127	6.966	14:20:44	0.22
174	14:25:12	0.127	6.522	14:29:43	0.127	8.192	14:25:36	0.127	7.474	14:26:39	0.22
175	14:30:12	0.127	6.059	14:33:38	0.127	9.942	14:34:51	0.127	7.938	14:32:39	0.22
176	14:35:12	0.127	6.966	14:37:12	0.127	7.817	14:39:08	0.127	6.606	14:38:44	0.22
177	14:40:12	0.127	7.585	14:43:58	0.127	8.605	14:40:19	0.127	7.474	14:45:03	0.22
178	14:45:12	0.127	7.585	14:48:12	0.127	8.752	14:45:12	0.127	7.817	14:46:05	0.22
179	14:50:12	0.127	6.132	14:50:54	0.127	9.57	14:51:41	0.127	6.606	14:52:05	0.22
180	14:55:12	0.127	6.206	14:58:34	0.127	9.752	14:55:23	0.127	7.161	14:59:25	0.22
181	15:00:12	0.127	6.781	15:04:23	0.127	9.394	15:02:53	0.127	7.161	15:01:41	0.22
182	15:05:12	0.127	5.988	15:06:37	0.127	9.752	15:09:33	0.127	8.605	15:06:52	0.22
183	15:10:12	0.127	5.657	15:13:03	0.127	7.817	15:14:40	0.127	8.325	15:10:55	0.22
184	15:15:12	0.127	7.938	15:17:52	0.127	9.942	15:18:08	0.127	7.062	15:17:32	0.22
185	15:20:12	0.127	7.161	15:20:34	0.127	7.938	15:23:03	0.127	6.966	15:20:43	0.22
186	15:25:12	0.127	6.872	15:27:15	0.127	8.325	15:25:10	0.127	8.325	15:26:06	0.22
187	15:30:12	0.127	5.095	15:33:22	0.127	9.942	15:34:05	0.127	7.367	15:33:21	0.22
188	15:35:12	0.127	7.367	15:35:48	0.127	10.139	15:39:23	0.127	8.192	15:38:02	0.22
189	15:40:12	0.127	6.206	15:42:20	0.127	9.394	15:43:38	0.127	7.161	15:42:16	0.22
190	15:45:12	0.127	7.817	15:45:27	0.127	8.752	15:45:17	0.127	7.585	15:46:17	0.22
191	15:50:12	0.127	6.522	15:54:31	0.127	7.367	15:52:51	0.127	8.752	15:53:48	0.22
192	15:55:12	0.254	10.779	15:55:38	0.127	8.063	15:58:20	0.254	10.557	15:55:31	0.311
193	16:00:12	0.127	6.872	16:03:59	0.127	8.752	16:04:09	0.127	7.817	16:03:12	0.22
194	16:05:12	0.127	6.282	16:09:22	0.127	8.063	16:06:42	0.127	6.966	16:06:13	0.22
195	16:10:12	0.381	48.762	16:11:57	0.127	6.966	16:13:19	0.508	7.817	16:11:57	0.524
196	16:15:12	0.254	7.817	16:15:50	0.127	7.817	16:18:02	0.254	9.752	16:15:50	0.311
197	16:20:12	0.254	68.267	16:21:37	0.127	4.763	16:20:10	0.254	37.926	16:21:37	0.284
198	16:25:12	0.127	6.872	16:26:24	0.127	6.282	16:25:57	0.127	7.474	16:25:58	0.22
199	16:30:12	0.127	5.919	16:34:48	0.127	7.474	16:33:17	0.127	5.988	16:30:36	0.22
200	16:35:12	0.127	7.367	16:39:26	0.127	8.063	16:35:14	0.127	7.161	16:39:28	0.22
201	16:40:12	0.127	5.476	16:40:20	0.127	6.606	16:43:22	0.127	5.361	16:40:15	0.22
202	16:45:12	0.127	7.062	16:49:40	0.127	5.851	16:49:18	0.127	7.938	16:46:41	0.22
203	16:50:12	0.127	6.522	16:53:29	0.127	7.474	16:54:09	0.254	6.966	16:51:52	0.311
204	16:55:12	0.127	7.938	16:58:46	0.127	6.522	16:55:43	0.127	7.062	16:56:18	0.22
205	17:00:12	0.127	7.367	17:04:32	0.127	7.699	17:02:41	0.127	7.585	17:00:48	0.22
206	17:05:12	0.127	6.966	17:05:26	0.127	6.781	17:09:02	0.127	7.062	17:05:27	0.22
207	17:10:12	0.127	7.474	17:10:27	0.127	7.474	17:11:07	0.127	8.463	17:12:50	0.22
208	17:15:12	0.127	6.966	17:18:07	0.127	8.463	17:19:46	0.127	8.063	17:15:31	0.22
209	17:20:12	0.127	6.606	17:22:31	0.127	5.596	17:23:27	0.127	8.605	17:24:09	0.22
210	17:25:12	0.127	5.785	17:25:57	0.127	7.938	17:27:01	0.127	7.585	17:29:54	0.22
211	17:30:12	0.127	7.161	17:33:21	0.127	8.063	17:30:41	0.127	7.938	17:33:06	0.22
212	17:35:12	0.127	5.721	17:36:17	0.127	18.618	17:37:47	0.127	6.606	17:36:57	0.22
213	17:40:12	0.127	7.699	17:40:32	0.127	18.618	17:43:15	0.127	8.063	17:41:10	0.22
214	17:45:12	0.127	5.988	17:45:55	0.127	17.356	17:49:21	0.127	7.938	17:47:59	0.22
215	17:50:12	0.127	7.938	17:52:20	0.127	18.618	17:52:14	0.127	7.585	17:53:04	0.22
216	17:55:12	0.127	7.817	17:56:02	0.127	20.898	17:58:07	0.127	8.605	17:55:47	0.22
217	18:00:12	0.127	6.282	18:03:23	0.127	16.787	18:04:25	0.127	6.966	18:02:24	0.22
218	18:05:12	0.127	7.474	18:09:17	0.127	14.841	18:05:33	0.127	6.606	18:06:49	0.22
219	18:10:12	0.127	7.474	18:12:58	0.127	19.321	18:11:06	0.127	7.938	18:14:48	0.22
220	18:15:12	0.127	7.699	18:19:53	0.127	23.814	18:15:30	0.127	8.752	18:18:49	0.22
221	18:20:12	0.254	7.817	18:21:48	0.127	16.787	18:23:56	0.127	7.699	18:21:56	0.284
222	18:25:12	0.127	8.463	18:27:08	0.127	20.078	18:27:46	0.127	7.367	18:25:20	0.22
223	18:30:12	0.127	7.474	18:32:03	0.127	19.321	18:35:09	0.127	8.192	18:30:22	0.22
224	18:35:12	0.127	6.606	18:37:14	0.127	16.254	18:37:39	0.254	37.926	18:37:17	0.254

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 28/4/2022 @ 00:00:12
End: 29/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 16:11:57
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 22:54:55
Vertical: 0.508 (mm/s) @ 7.82 Hz @ 16:11:57
Vector Sum: .52 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
225	18:40:12	0.127	7.699	18:40:40	0.127	19.321	18:43:12	0.127	7.699	18:45:02	0.22
226	18:45:12	0.127	6.059	18:49:52	0.127	20.078	18:45:52	0.127	7.474	18:45:12	0.22
227	18:50:12	0.127	4.433	18:55:04	0.127	15.754	18:50:28	0.127	6.872	18:50:47	0.22
228	18:55:12	0.127	6.606	18:59:52	0.127	19.321	18:57:33	0.127	8.904	18:59:30	0.22
229	19:00:12	0.127	6.872	19:01:18	0.127	14.423	19:03:59	0.127	6.966	19:01:11	0.22
230	19:05:12	0.127	6.132	19:09:53	0.127	16.787	19:07:16	0.254	8.192	19:09:07	0.284
231	19:10:12	0.127	7.817	19:10:11	0.127	17.356	19:12:22	0.127	8.063	19:14:08	0.22
232	19:15:12	0.127	6.059	19:18:12	0.127	20.078	19:17:48	0.127	8.325	19:19:04	0.22
233	19:20:12	0.127	7.474	19:20:40	0.127	17.965	19:24:13	0.127	8.752	19:21:02	0.22
234	19:25:12	0.127	7.161	19:25:20	0.127	20.898	19:29:44	0.127	7.262	19:25:20	0.22
235	19:30:12	0.127	7.817	19:32:27	0.127	16.254	19:32:21	0.127	8.463	19:32:30	0.22
236	19:35:12	0.127	6.606	19:37:20	0.127	17.965	19:36:42	0.127	7.367	19:37:59	0.22
237	19:40:12	0.127	5.785	19:40:50	0.127	16.254	19:44:05	0.254	7.699	19:41:00	0.311
238	19:45:12	0.127	8.063	19:46:21	0.127	15.284	19:48:03	0.127	8.192	19:49:24	0.22
239	19:50:12	0.127	6.781	19:51:52	0.127	18.618	19:50:09	0.127	8.192	19:51:51	0.22
240	19:55:12	0.127	8.904	20:00:09	0.127	16.787	19:56:36	0.254	44.522	19:57:46	0.284
241	20:00:12	0.127	8.063	20:04:56	0.127	20.898	20:00:50	0.127	7.585	20:03:17	0.22
242	20:05:12	0.127	8.192	20:08:00	0.127	15.284	20:08:33	0.127	8.904	20:07:14	0.22
243	20:10:12	0.127	7.474	20:10:19	0.127	17.965	20:11:55	0.127	7.474	20:14:34	0.22
244	20:15:12	0.127	7.585	20:15:57	0.127	15.284	20:15:48	0.127	8.192	20:16:07	0.22
245	20:20:12	0.127	7.474	20:22:49	0.127	15.754	20:22:35	0.127	8.463	20:22:33	0.22
246	20:25:12	0.127	8.325	20:26:35	0.127	15.754	20:29:17	0.127	8.605	20:29:08	0.22
247	20:30:12	0.127	6.781	20:32:53	0.127	17.965	20:31:42	0.127	7.262	20:32:56	0.22
248	20:35:12	0.127	6.44	20:39:37	0.127	16.254	20:37:16	0.127	7.817	20:35:15	0.22
249	20:40:12	0.127	7.161	20:42:05	0.127	19.321	20:41:23	0.127	8.192	20:40:12	0.22
250	20:45:12	0.127	8.752	20:49:54	0.127	17.356	20:46:41	0.127	8.463	20:47:34	0.22
251	20:50:12	0.127	6.132	20:53:07	0.127	20.898	20:54:00	0.127	8.325	20:53:36	0.22
252	20:55:12	0.254	7.367	20:58:19	0.127	20.078	20:57:06	0.381	7.699	20:58:19	0.402
253	21:00:12	0.127	7.161	21:03:00	0.127	15.754	21:01:05	0.254	11.506	21:00:46	0.284
254	21:05:12	0.127	8.325	21:08:45	0.127	17.965	21:07:14	0.254	8.192	21:07:02	0.284
255	21:10:12	0.127	6.282	21:13:51	0.127	20.078	21:11:27	0.381	40.96	21:10:54	0.402
256	21:15:12	0.127	9.062	21:15:54	0.127	17.356	21:15:27	0.127	8.325	21:15:41	0.22
257	21:20:12	0.127	7.699	21:22:25	0.127	15.754	21:24:57	0.127	8.063	21:24:27	0.22
258	21:25:12	0.127	7.262	21:26:50	0.127	17.965	21:26:20	0.254	13.299	21:29:44	0.284
259	21:30:12	0.127	8.192	21:31:02	0.127	17.356	21:30:58	0.254	37.926	21:32:39	0.254
260	21:35:12	0.127	8.325	21:39:44	0.127	19.321	21:36:20	0.127	7.699	21:37:09	0.22
261	21:40:12	0.127	7.938	21:40:35	0.127	16.787	21:41:08	0.127	7.817	21:40:53	0.22
262	21:45:12	0.127	7.817	21:45:58	0.127	16.254	21:48:24	0.127	7.817	21:46:36	0.22
263	21:50:12	0.127	7.938	21:52:21	0.127	17.965	21:50:09	0.127	9.394	21:50:29	0.22
264	21:55:12	0.127	9.062	21:59:38	0.127	20.898	21:55:23	0.127	8.605	21:59:44	0.22
265	22:00:12	0.127	8.463	22:00:24	0.127	20.898	22:00:09	0.127	9.062	22:00:39	0.22
266	22:05:12	0.127	8.605	22:08:19	0.127	17.356	22:09:36	0.127	8.605	22:09:29	0.22
267	22:10:12	0.127	8.752	22:10:30	0.127	17.965	22:12:24	0.254	8.325	22:10:18	0.284
268	22:15:12	0.127	8.463	22:15:24	0.127	16.787	22:16:39	0.127	8.605	22:19:04	0.22
269	22:20:12	0.127	8.463	22:24:51	0.127	17.356	22:23:02	0.127	7.817	22:23:47	0.22
270	22:25:12	0.127	8.904	22:29:01	0.127	18.618	22:27:23	0.127	8.752	22:26:47	0.22
271	22:30:12	0.127	7.938	22:33:37	0.127	17.356	22:32:30	0.127	9.062	22:32:17	0.22
272	22:35:12	0.127	7.062	22:37:37	0.127	17.356	22:37:16	0.127	8.752	22:37:55	0.22
273	22:40:12	0.127	9.225	22:43:55	0.127	17.356	22:42:11	0.127	8.904	22:44:27	0.22
274	22:45:12	0.127	7.161	22:49:23	0.127	18.618	22:47:13	0.127	7.367	22:49:21	0.22
275	22:50:12	0.127	8.904	22:53:20	0.254	341.333	22:54:55	0.127	8.904	22:50:48	0.284
276	22:55:12	0.127	9.394	22:59:29	0.127	18.618	22:57:14	0.127	9.225	22:59:31	0.22
277	23:00:12	0.127	8.325	23:00:37	0.127	17.356	23:00:30	0.127	10.139	23:01:13	0.22
278	23:05:12	0.127	8.463	23:05:48	0.127	16.254	23:06:06	0.127	8.192	23:05:36	0.22
279	23:10:12	0.127	8.605	23:11:35	0.127	18.618	23:13:59	0.127	8.752	23:14:30	0.22
280	23:15:12	0.127	8.752	23:17:32	0.127	15.284	23:16:30	0.127	8.325	23:18:13	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 16
Start: 28/4/2022 @ 00:00:12
End: 29/4/2022 @ 00:00:02
Summary Interval: 288
Air: 81.9 dBL @ 0.64 Hz
Radial: 0.381 (mm/s) @ 48.76 Hz @ 16:11:57
Transverse: 0.254 (mm/s) @ 341.33 Hz @ 22:54:55
Vertical: 0.508 (mm/s) @ 7.82 Hz @ 16:11:57
Vector Sum: .52 (mm/s)
Sample Rate: 1024/sec
Record Duration: 24.00 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
281	23:20:12	0.127	5.785	23:21:09	0.127	15.754	23:20:50	0.127	8.605	23:21:48	0.22
282	23:25:12	0.127	9.062	23:27:57	0.127	19.321	23:26:20	0.127	7.817	23:25:33	0.22
283	23:30:12	0.127	7.262	23:33:16	0.127	16.787	23:31:50	0.127	8.325	23:30:51	0.22
284	23:35:12	0.127	7.699	23:37:25	0.127	17.356	23:38:42	0.127	7.817	23:37:21	0.22
285	23:40:12	0.127	7.367	23:41:39	0.127	18.618	23:43:20	0.127	9.394	23:43:32	0.22
286	23:45:12	0.127	9.062	23:49:24	0.127	16.787	23:47:13	0.127	9.57	23:48:20	0.22
287	23:50:12	0.127	8.192	23:53:59	0.127	20.078	23:54:55	0.127	8.904	23:53:54	0.22
288	23:55:12	0.127	6.781	23:55:25	0.127	15.284	23:57:26	0.127	8.463	23:59:20	0.22

Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

29/4/2022 at 12:00 am Event # 17

Location: CONCORD PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

Distance: N	Wgt. Per Delay: N	Scaled Distance: N

Calibration
Sample Rate: 100/sec
Last Calibration: 28/2/2022

No GPS Data

Seismic

Gain: 1

Vector Sum: 18.56 mm/s @ 1.16 Hz

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**12.7714**	**4.2624**	**12.7714**
Frequency (Hz)	**14.6**	**36.5**	**24.3**

Air

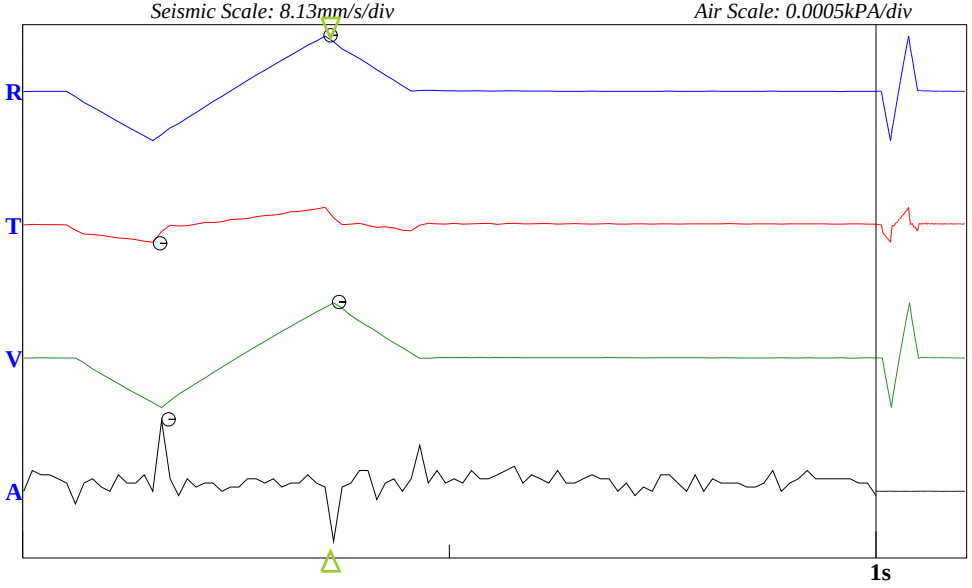
Gain: 1

Measurement	Value		
kPA	0.000469		
dBL	**87.4**		
Hz	512.0		

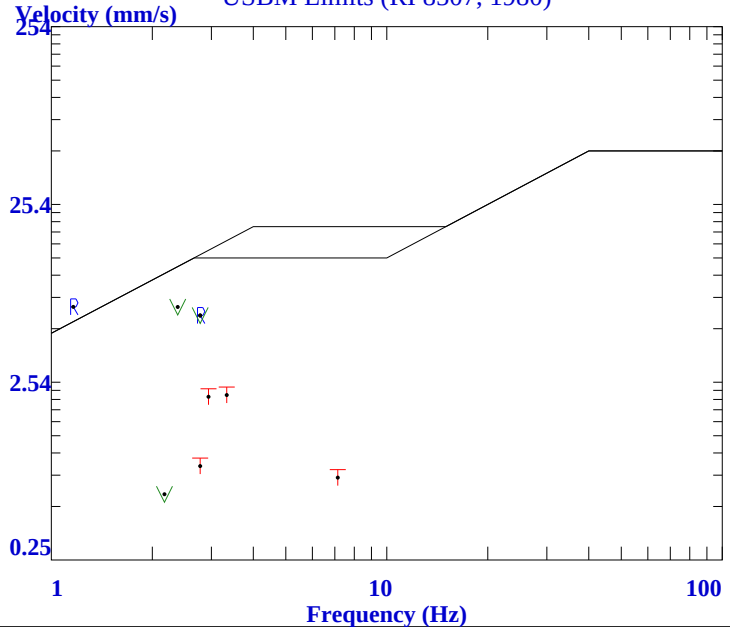
Waveform Analysis / Frequency Plot

Seismic Scale: 8.13mm/s/div

Air Scale: 0.0005kPA/div



USBM Limits (RI 8507, 1980)



Version 2.0.2.0 (20Sep2021(c))

Nomis Seismographs LLC

Company: CH2M HILL SINGAPORE PTE LTD

Unit #: 21670

29/4/2022 at 12:00:14 am Event # 18

Location: CONCORDE PRI SCH & BLK446 MSCP

Operator: ENSSCOM PTE LTD

Notes:

End Time: 11:48:31 am
Sample Rate: 1024/sec
Last Calibration: 28/2/2022

Distance-Source: N

No GPS Data

Seismic

Gain: 1

Vector Sum: 49.71 mm/s

Channel	Radial	Transverse	Vertical
Velocity (mm/s)	**32.004**	**28.448**	**40.132**
Frequency (Hz)	**16.25**	**24.98**	**29.26**
Time	11:47:46 am	11:47:46 am	11:47:46 am

Air

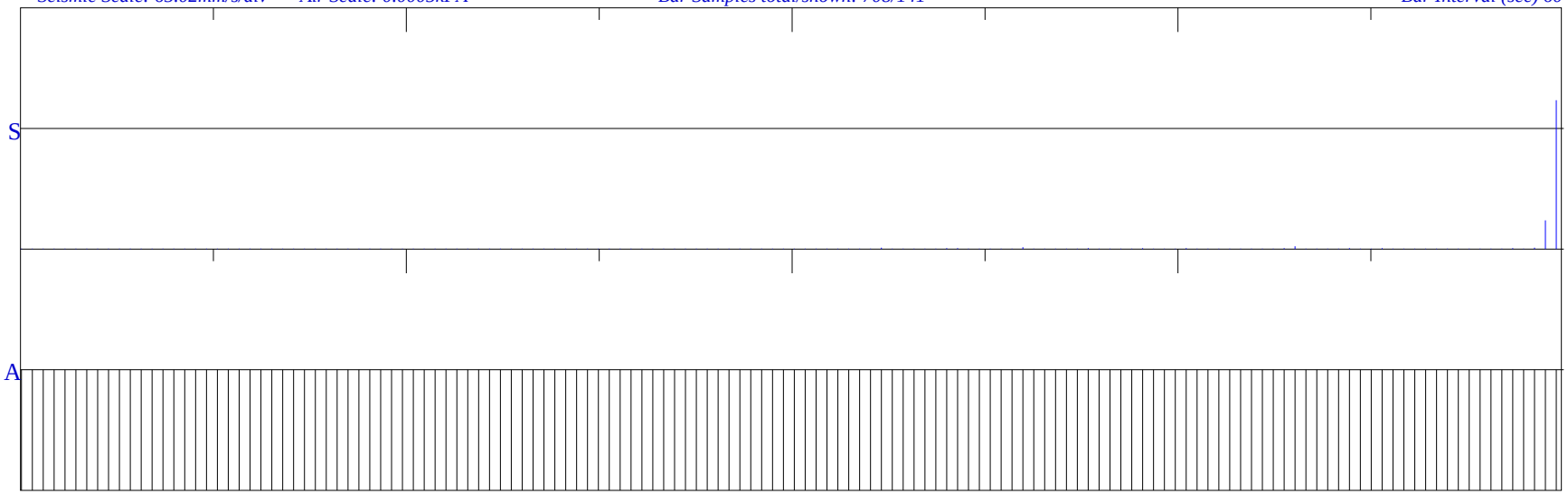
Gain: 1

Measurement	Value		
kPA	0.00025		
dBL	**81.9**		
Hz	0.75		
Time	8:16:49 am		

BarGraph

Seismic Scale: 65.02mm/s/div *Air Scale: 0.0005kPA* *Bar Samples total/shown: 708/141*

Summary Interval (min): 5
Bar Interval (sec) 60



00:00:14 **01:28:46** **02:57:18** **04:25:50** **05:54:22** **07:22:54** **08:51:26** **10:19:58** **11:48:31**

<<<<<<<<<<<<<< **11:48:17** >>>>>>>>>>>>>>

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 18
Start: 29/4/2022 @ 00:00:14
End: 29/4/2022 @ 11:48:31
Summary Interval: 142
Air: 81.9 dBL @ 0.75 Hz
Radial: 32.004 (mm/s) @ 16.25 Hz @ 11:47:46
Transverse: 28.448 (mm/s) @ 24.98 Hz @ 11:47:46
Vertical: 40.132 (mm/s) @ 29.26 Hz @ 11:47:46
Vector Sum: 49.71 (mm/s)
Sample Rate: 1024/sec
Record Duration: 11.80 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
1	0:00:14	0.127	9.57	0:00:56	0.127	21.787	0:00:38	0.127	9.062	0:03:50	0.22
2	0:05:14	0.127	7.062	0:05:45	0.127	17.356	0:09:05	0.127	7.161	0:05:44	0.22
3	0:10:14	0.127	9.225	0:11:01	0.127	15.754	0:10:32	0.127	8.904	0:10:59	0.22
4	0:15:14	0.127	7.938	0:16:40	0.127	18.618	0:20:00	0.127	8.904	0:16:13	0.22
5	0:20:14	0.127	7.699	0:21:23	0.127	18.618	0:20:33	0.127	8.752	0:21:32	0.22
6	0:25:14	0.127	8.325	0:27:09	0.127	16.787	0:27:44	0.127	8.752	0:26:52	0.22
7	0:30:14	0.127	8.904	0:30:59	0.127	14.841	0:34:02	0.127	8.192	0:33:07	0.22
8	0:35:14	0.127	9.225	0:35:21	0.127	16.254	0:38:21	0.127	9.394	0:39:57	0.22
9	0:40:14	0.127	10.139	0:40:28	0.127	17.965	0:41:22	0.127	9.942	0:44:38	0.22
10	0:45:14	0.127	4.763	0:47:59	0.127	16.254	0:48:54	0.127	7.367	0:47:59	0.22
11	0:50:14	0.127	9.225	0:51:43	0.127	20.078	0:51:07	0.127	9.752	0:51:45	0.22
12	0:55:14	0.127	7.817	0:58:10	0.127	15.284	0:56:40	0.127	8.904	0:58:22	0.22
13	1:00:14	0.127	8.063	1:02:09	0.127	16.787	1:04:25	0.127	9.062	1:02:09	0.22
14	1:05:14	0.127	9.57	1:08:48	0.127	18.618	1:06:40	0.127	8.752	1:07:03	0.22
15	1:10:14	0.127	9.57	1:11:26	0.127	15.754	1:13:59	0.127	10.343	1:12:08	0.22
16	1:15:14	0.127	8.752	1:15:59	0.127	16.254	1:19:30	0.127	8.605	1:16:05	0.22
17	1:20:14	0.127	9.57	1:21:10	0.127	20.078	1:22:32	0.127	8.752	1:24:30	0.22
18	1:25:14	0.127	8.904	1:29:22	0.127	20.078	1:28:55	0.127	11.011	1:29:14	0.22
19	1:30:14	0.127	9.225	1:34:19	0.127	15.754	1:32:12	0.127	11.011	1:30:55	0.22
20	1:35:14	0.127	11.253	1:36:45	0.127	19.321	1:37:30	0.127	9.394	1:39:03	0.22
21	1:40:14	0.127	8.904	1:40:54	0.127	17.356	1:44:58	0.127	9.062	1:43:07	0.22
22	1:45:14	0.127	9.942	1:49:53	0.127	15.754	1:50:09	0.127	10.139	1:47:53	0.22
23	1:50:14	0.127	9.752	1:54:13	0.127	14.027	1:51:53	0.127	9.942	1:54:03	0.22
24	1:55:14	0.127	10.779	1:59:27	0.127	14.027	1:57:08	0.127	9.752	1:56:48	0.22
25	2:00:14	0.127	9.394	2:01:11	0.127	18.618	2:05:08	0.127	10.557	2:01:03	0.22
26	2:05:14	0.127	9.57	2:09:35	0.127	13.653	2:07:57	0.127	12.337	2:05:54	0.22
27	2:10:14	0.127	8.752	2:12:57	0.127	19.321	2:14:52	0.127	10.343	2:12:10	0.22
28	2:15:14	0.127	8.904	2:19:12	0.127	13.299	2:16:42	0.127	7.585	2:17:59	0.22
29	2:20:14	0.127	8.605	2:22:37	0.127	16.787	2:22:29	0.127	8.752	2:24:37	0.22
30	2:25:14	0.127	8.325	2:26:01	0.127	17.965	2:28:31	0.127	8.192	2:27:58	0.22
31	2:30:14	0.127	7.817	2:33:48	0.127	16.787	2:34:30	0.127	9.225	2:33:14	0.22
32	2:35:14	0.127	10.557	2:39:02	0.127	18.618	2:36:43	0.127	8.063	2:35:32	0.22
33	2:40:14	0.127	9.062	2:44:40	0.127	17.965	2:42:18	0.127	11.253	2:41:40	0.22
34	2:45:14	0.127	7.938	2:45:26	0.127	15.284	2:46:01	0.127	7.817	2:49:57	0.22
35	2:50:14	0.127	10.779	2:54:20	0.127	18.618	2:52:42	0.127	12.047	2:52:05	0.22
36	2:55:14	0.127	11.77	2:57:45	0.127	18.618	2:56:28	0.127	9.225	2:57:51	0.22
37	3:00:14	0.127	4.511	3:01:37	0.127	15.284	3:05:12	0.127	10.139	3:02:44	0.22
38	3:05:14	0.127	8.463	3:07:20	0.127	14.027	3:05:46	0.127	10.779	3:05:30	0.22
39	3:10:14	0.127	6.606	3:12:07	0.127	17.965	3:13:56	0.127	10.343	3:14:05	0.22
40	3:15:14	0.127	8.752	3:18:53	0.127	17.965	3:17:04	0.127	12.642	3:17:34	0.22
41	3:20:14	0.127	10.343	3:24:50	0.127	19.321	3:20:58	0.127	9.225	3:24:36	0.22
42	3:25:14	0.127	10.139	3:27:38	0.127	20.078	3:27:54	0.127	11.011	3:25:55	0.22
43	3:30:14	0.127	8.605	3:32:25	0.127	18.618	3:32:20	0.127	6.781	3:33:26	0.22
44	3:35:14	0.127	8.752	3:35:47	0.127	18.618	3:38:55	0.127	10.557	3:37:15	0.22
45	3:40:14	0.127	9.225	3:42:21	0.127	17.965	3:44:28	0.127	9.752	3:43:19	0.22
46	3:45:14	0.127	10.139	3:49:38	0.127	18.618	3:45:37	0.127	9.394	3:49:28	0.22
47	3:50:14	0.127	10.557	3:53:05	0.127	18.618	3:55:15	0.127	9.57	3:54:20	0.22
48	3:55:14	0.127	6.966	3:59:33	0.127	17.356	3:57:24	0.127	9.942	3:56:28	0.22
49	4:00:14	0.127	8.752	4:00:17	0.127	24.976	4:00:15	0.127	11.011	4:02:55	0.22
50	4:05:14	0.127	8.463	4:07:43	0.127	19.321	4:06:07	0.127	12.047	4:07:23	0.22
51	4:10:14	0.127	9.752	4:14:40	0.127	17.356	4:13:34	0.127	10.139	4:10:58	0.22
52	4:15:14	0.127	7.062	4:15:39	0.127	22.756	4:17:13	0.127	11.011	4:15:58	0.22
53	4:20:14	0.127	8.192	4:20:46	0.127	17.965	4:24:04	0.127	10.139	4:20:52	0.22
54	4:25:14	0.127	9.57	4:30:02	0.127	19.321	4:28:44	0.127	8.605	4:30:02	0.22
55	4:30:14	0.127	7.062	4:32:41	0.127	20.078	4:34:57	0.127	11.011	4:32:34	0.22
56	4:35:14	0.127	9.752	4:39:14	0.127	20.078	4:39:42	0.127	9.062	4:35:33	0.22

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ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 18
Start: 29/4/2022 @ 00:00:14
End: 29/4/2022 @ 11:48:31
Summary Interval: 142
Air: 81.9 dBL @ 0.75 Hz
Radial: 32.004 (mm/s) @ 16.25 Hz @ 11:47:46
Transverse: 28.448 (mm/s) @ 24.98 Hz @ 11:47:46
Vertical: 40.132 (mm/s) @ 29.26 Hz @ 11:47:46
Vector Sum: 49.71 (mm/s)
Sample Rate: 1024/sec
Record Duration: 11.80 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
57	4:40:14	0.127	7.699	4:44:15	0.127	24.976	4:41:16	0.127	11.253	4:40:30	0.22
58	4:45:14	0.127	9.062	4:48:19	0.127	13.653	4:46:29	0.127	10.343	4:49:34	0.22
59	4:50:14	0.127	9.942	4:50:59	0.127	20.078	4:52:43	0.127	9.942	4:54:58	0.22
60	4:55:14	0.127	7.262	4:58:00	0.127	19.321	4:59:59	0.127	9.942	4:58:01	0.22
61	5:00:14	0.127	10.343	5:02:06	0.127	16.254	5:02:39	0.127	8.463	5:00:17	0.22
62	5:05:14	0.127	7.367	5:05:56	0.127	18.618	5:08:28	0.127	8.192	5:07:53	0.22
63	5:10:14	0.127	8.463	5:13:17	0.127	18.618	5:10:53	0.127	10.343	5:14:36	0.22
64	5:15:14	0.127	9.225	5:17:24	0.127	19.321	5:19:47	0.127	8.463	5:16:48	0.22
65	5:20:14	0.127	9.394	5:20:40	0.127	16.254	5:21:28	0.127	9.225	5:20:42	0.22
66	5:25:14	0.127	9.225	5:27:22	0.127	18.618	5:29:41	0.127	9.062	5:26:05	0.22
67	5:30:14	0.127	5.988	5:31:14	0.127	16.787	5:31:47	0.127	8.605	5:33:34	0.22
68	5:35:14	0.127	7.262	5:36:11	0.127	17.356	5:35:25	0.127	7.699	5:38:32	0.22
69	5:40:14	0.127	8.463	5:41:42	0.127	17.965	5:41:57	0.127	8.605	5:43:20	0.22
70	5:45:14	0.127	8.063	5:46:29	0.127	14.841	5:47:26	0.127	8.063	5:49:06	0.22
71	5:50:14	0.127	8.192	5:53:08	0.127	14.423	5:51:32	0.127	9.062	5:54:52	0.22
72	5:55:14	0.127	8.752	5:57:38	0.127	21.787	5:55:31	0.127	7.262	5:59:07	0.22
73	6:00:14	0.127	6.966	6:04:58	0.127	17.965	6:03:36	0.127	8.325	6:02:34	0.22
74	6:05:14	0.127	8.192	6:10:07	0.127	19.321	6:07:34	0.127	8.063	6:09:10	0.22
75	6:10:14	0.127	6.966	6:12:13	0.127	17.356	6:14:23	0.127	8.192	6:12:30	0.22
76	6:15:14	0.127	7.161	6:15:19	0.127	17.356	6:16:58	0.127	9.062	6:17:17	0.22
77	6:20:14	0.127	6.966	6:23:20	0.127	16.787	6:22:50	0.127	8.463	6:22:26	0.22
78	6:25:14	0.127	5.657	6:27:46	0.127	14.841	6:26:46	0.127	7.938	6:27:45	0.22
79	6:30:14	0.127	6.966	6:32:55	0.127	20.078	6:31:26	0.127	7.585	6:31:54	0.22
80	6:35:14	0.127	8.063	6:39:44	0.127	17.356	6:39:15	0.381	40.96	6:35:32	0.421
81	6:40:14	0.127	8.063	6:40:50	0.127	15.284	6:43:41	0.127	7.699	6:42:57	0.22
82	6:45:14	0.127	5.361	6:50:03	0.127	15.754	6:48:58	0.127	8.192	6:45:27	0.22
83	6:50:14	0.127	7.262	6:51:24	0.127	20.078	6:51:51	0.127	8.192	6:53:06	0.22
84	6:55:14	0.127	6.132	6:59:49	0.127	17.356	6:55:31	0.127	8.605	6:56:06	0.22
85	7:00:14	0.127	6.966	7:01:28	0.127	20.898	7:04:03	0.127	7.938	7:02:00	0.22
86	7:05:14	0.127	7.585	7:09:56	0.127	20.898	7:06:13	0.254	7.699	7:08:21	0.284
87	7:10:14	0.127	7.817	7:11:05	0.127	18.618	7:12:32	0.254	9.752	7:10:50	0.284
88	7:15:14	0.127	7.161	7:16:05	0.127	19.321	7:16:04	0.127	7.817	7:17:06	0.22
89	7:20:14	0.127	5.785	7:21:20	0.127	16.254	7:21:46	0.127	7.938	7:24:48	0.22
90	7:25:14	0.127	6.522	7:26:26	0.127	17.965	7:29:54	0.127	7.699	7:26:35	0.22
91	7:30:14	0.127	5.988	7:30:58	0.127	16.254	7:32:04	0.127	8.063	7:30:57	0.22
92	7:35:14	0.127	5.721	7:39:29	0.127	20.078	7:36:03	0.127	8.605	7:38:29	0.22
93	7:40:14	0.254	37.926	7:42:21	0.127	17.965	7:43:41	0.508	40.96	7:42:21	0.524
94	7:45:14	0.127	6.966	7:47:43	0.127	16.787	7:46:10	0.127	8.192	7:49:07	0.22
95	7:50:14	0.127	6.059	7:51:49	0.127	14.841	7:52:24	0.127	7.938	7:53:27	0.22
96	7:55:14	0.127	5.851	7:55:24	0.127	18.618	7:56:09	0.127	7.367	7:59:10	0.22
97	8:00:14	0.127	5.988	8:02:37	0.127	16.787	8:02:26	0.127	8.192	8:03:11	0.22
98	8:05:14	0.127	5.198	8:08:47	0.127	21.787	8:07:27	0.127	7.938	8:08:17	0.22
99	8:10:14	0.127	6.872	8:13:56	0.127	13.653	8:10:14	0.254	37.926	8:11:04	0.284
100	8:15:14	0.127	6.206	8:19:17	0.127	17.965	8:18:28	0.127	6.132	8:15:49	0.22
101	8:20:14	0.127	5.785	8:21:22	0.127	20.078	8:23:12	0.127	8.463	8:21:38	0.22
102	8:25:14	0.127	7.161	8:27:57	0.127	16.787	8:28:56	0.127	7.474	8:29:52	0.22
103	8:30:14	0.127	5.657	8:30:58	0.127	18.618	8:33:47	0.127	9.225	8:30:19	0.22
104	8:35:14	0.127	7.367	8:36:09	0.127	17.356	8:38:51	0.254	35.31	8:35:49	0.254
105	8:40:14	0.127	7.367	8:41:24	0.127	19.321	8:42:16	0.127	7.585	8:40:39	0.22
106	8:45:14	0.127	5.919	8:49:58	0.127	17.356	8:48:10	0.127	6.206	8:49:42	0.22
107	8:50:14	0.127	6.206	8:50:47	0.127	18.618	8:50:22	0.127	8.192	8:53:54	0.22
108	8:55:14	0.127	6.522	8:57:13	0.254	341.333	9:00:13	0.127	7.585	8:56:23	0.254
109	9:00:14	0.127	5.919	9:03:47	0.127	20.898	9:03:09	0.127	7.161	9:01:41	0.22
110	9:05:14	0.127	7.474	9:07:44	0.127	20.898	9:05:18	0.127	8.192	9:07:57	0.22
111	9:10:14	0.127	5.919	9:11:00	0.127	16.787	9:13:20	0.127	8.325	9:11:33	0.22
112	9:15:14	0.127	6.606	9:17:40	0.127	20.078	9:17:54	0.127	7.817	9:17:19	0.22

CH2M HILL SINGAPORE PTE LTD
CONCORD PRI SCH & BLK446 MSCP
ENSSCOM PTE LTD

Graph: 21670
BarGraph Job # 18
Start: 29/4/2022 @ 00:00:14
End: 29/4/2022 @ 11:48:31
Summary Interval: 142
Air: 81.9 dBL @ 0.75 Hz
Radial: 32.004 (mm/s) @ 16.25 Hz @ 11:47:46
Transverse: 28.448 (mm/s) @ 24.98 Hz @ 11:47:46
Vertical: 40.132 (mm/s) @ 29.26 Hz @ 11:47:46
Vector Sum: 49.71 (mm/s)
Sample Rate: 1024/sec
Record Duration: 11.80 hr
Battery Level: 6.69

summary interval	Start Time	R (mm/s)	R Hz	R Time	T (mm/s)	T Hz	T Time	V (mm/s)	V Hz	V Time	Vector Sum (mm/s)
113	9:20:14	0.127	6.132	9:20:20	0.127	18.618	9:22:56	0.127	8.325	9:20:55	0.22
114	9:25:14	0.127	5.476	9:28:11	0.127	20.078	9:29:06	0.127	5.851	9:25:51	0.22
115	9:30:14	0.127	6.36	9:32:57	0.127	17.965	9:32:52	0.127	7.062	9:35:08	0.22
116	9:35:14	0.127	6.206	9:35:24	0.127	11.253	9:40:06	0.127	7.367	9:39:03	0.22
117	9:40:14	0.127	7.262	9:40:27	0.254	204.8	9:44:04	0.127	8.463	9:40:24	0.311
118	9:45:14	0.254	113.778	9:47:13	0.762	341.333	9:47:11	0.254	113.778	9:47:12	0.773
119	9:50:14	0.127	6.282	9:52:46	0.127	7.062	9:50:56	0.127	8.605	9:51:18	0.22
120	9:55:14	0.127	5.988	9:57:51	0.127	7.474	9:58:37	0.127	8.325	9:59:53	0.22
121	10:00:14	0.127	5.306	10:02:57	0.127	9.394	10:02:34	0.127	7.262	10:03:09	0.22
122	10:05:14	0.127	7.367	10:06:12	0.127	9.225	10:05:13	0.127	7.817	10:09:39	0.22
123	10:10:14	0.127	8.063	10:13:02	0.127	7.474	10:14:05	0.254	33.032	10:11:43	0.254
124	10:15:14	0.127	7.062	10:19:04	0.127	8.192	10:19:50	0.127	8.463	10:15:56	0.22
125	10:20:14	0.127	7.161	10:23:14	0.127	9.752	10:20:25	0.127	7.699	10:21:19	0.22
126	10:25:14	0.127	7.585	10:29:33	0.127	9.394	10:28:36	0.254	9.394	10:26:57	0.311
127	10:30:14	0.127	6.44	10:32:59	0.127	9.225	10:35:10	0.127	8.063	10:31:39	0.22
128	10:35:14	0.127	6.206	10:36:19	0.127	7.699	10:38:31	0.127	7.161	10:39:21	0.22
129	10:40:14	0.127	5.851	10:40:19	0.127	10.557	10:41:04	0.127	6.966	10:44:13	0.22
130	10:45:14	0.127	6.206	10:47:55	0.127	21.787	10:45:13	0.127	6.781	10:50:01	0.22
131	10:50:14	0.127	7.062	10:53:50	0.127	20.898	10:53:18	0.127	7.062	10:53:00	0.22
132	10:55:14	0.127	5.851	10:59:43	0.127	23.814	10:56:05	0.127	8.063	10:57:14	0.22
133	11:00:14	0.127	7.161	11:04:15	0.127	24.976	11:00:15	0.127	8.463	11:01:24	0.22
134	11:05:14	0.127	8.325	11:08:32	0.127	22.756	11:09:59	0.127	8.063	11:06:47	0.22
135	11:10:14	0.127	6.522	11:12:24	0.127	20.898	11:12:12	0.127	9.062	11:12:26	0.22
136	11:15:14	0.127	7.262	11:17:41	0.127	20.078	11:19:15	0.127	5.851	11:18:41	0.22
137	11:20:14	0.127	6.282	11:20:50	0.127	24.976	11:20:14	0.127	8.605	11:21:07	0.22
138	11:25:14	0.127	8.752	11:26:34	0.254	341.333	11:29:38	0.127	8.605	11:25:32	0.284
139	11:30:14	0.127	7.161	11:32:33	0.127	23.814	11:30:13	0.127	8.192	11:32:19	0.22
140	11:35:14	0.254	31.03	11:39:49	0.127	21.787	11:36:40	0.381	40.96	11:39:47	0.421
141	11:40:14	2.794	18.618	11:43:00	0.889	22.756	11:43:00	7.747	31.03	11:43:00	7.949
142	11:45:14	32.004	16.254	11:47:46	28.448	24.976	11:47:46	40.132	29.257	11:47:46	49.707

Appendix 9B: Photographic Log of Vibration Monitoring

Details	Photograph
Photograph ID: 1 **Photo Location:** At an open space outside the training facility and dormitory of Home Team Academy **Survey Date:** 5 April 2022 **Comments:** Ground-borne noise and vibration baseline monitoring at GBN/V1 from 5 Apr to 12 Apr 2022.	No photography allowed
Photograph ID: 2 **Photo Location:** At an open space between Block 461 and Block 460 Choa Chu Kang Avenue 4 **Survey Date:** 13 Apr 2022 **Comments:** Ground-borne noise and vibration baseline monitoring at GBN/V2 from 13 Apr to 20 Apr 2022.	
Photograph ID: 3 **Photo Location:** At an open space between Concorde Primary School and multi-story carpark block 446 **Survey Date:** 21 Apr 2022 **Comments:** Ground-borne noise and vibration baseline monitoring at at GBN/V3 from 21 Apr to 28 Apr 2022	

Appendix 9C: Modified RIAM for Ground-borne Noise and Vibration

Assessment Criteria and Impact Evaluation Method for Construction Phase (Unmitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Ground-Borne Noise and Vibration impact to community receptors (GBN/VSR 1)	Outside Local	2	Negative	-1	Medium	2	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-8	11	-88	Minor negative impact
Ground-Borne Noise and Vibration impact to community receptors (GBN/VSR 2 and (GBN/VSR 3)	Outside Local	2	Negative	-1	High	3	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-12	11	-132	Moderate negative impact

Assessment Criteria and Impact Evaluation Method for Construction Phase (Mitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Ground-Borne Noise and Vibration impact to community receptors (GBN/VSR 1)	Outside Local	2	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-4	11	-44	Slight negative impact
Ground-Borne Noise and Vibration impact to community receptors (GBN/VSR 2 and (GBN/VSR 3)	Outside Local	2	Negative	-1	Medium	2	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-8	11	-88	Minor negative impact

Assessment Criteria and Impact Evaluation Method for Operation Phase (Unmitigated)

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Ground-Borne Noise and Vibration impact to community receptors (GBN/VSR 1)	Local	1	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-2	9	-18	Slight negative impact
Ground-Borne Noise and Vibration impact to community receptors (GBN/VSR 2 and (GBN/VSR 3)	Local	1	Negative	-1	Low	1	Outside Local	2	Temporary	1	Direct	3	Reversible	2	Cumulative	3	-2	9	-18	Slight negative impact

Appendix 10A: Modified RIAM for Waste

Assessment Criteria and Impact Evaluation Method

Description of Potential Impact	A1: Value		A2.1: Impact Nature		A2.2: Magnitude of		A2.3: Impact Extent		B1: Permanence		B2: Impact Pathway		B3: Reversibility		B4: Cumulative		at	bt	ES	Impact Severity
Wood Waste Generation (Direct Impact)	National	3	Negative	-1	Medium	2	Outside Local	2	Short Term	2	Direct	3	Reversible	2	Cumulative	3	-12	10	-120	Minor negative impact
Wood Waste Generation (indirect Impact)	International	4	Negative	-1	Medium	2	Transboundary	4	Long Term	4	Indirect	2	Irreversible	3	Cumulative	3	-32	12	-384	Major negative impact
C&D Waste	National	3	Negative	-1	Medium	2	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-12	11	-132	Moderate negative impact
Hazardous/ toxic industrial waste	National	3	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-6	11	-66	Minor negative impact
Municipal waste	Local	1	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-2	11	-22	Slight negative impact
Sewage	National	3	Negative	-1	Medium	2	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-12	11	-132	Moderate negative impact
Mitigated																				
Wood Waste Generation (Direct Impact)	National	3	Negative	-1	Low	1	Outside Local	2	Short Term	2	Direct	3	Reversible	2	Cumulative	3	-6	10	-60	Minor negative impact
Wood Waste Generation (indirect Impact)	International	4	Negative	-1	Low	1	Transboundary	4	Long Term	4	Indirect	2	Irreversible	3	Cumulative	3	-16	12	-192	Moderate negative impact
C&D Waste	National	3	Negative	-1	Medium	2	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-6	11	-66	Minor negative impact
Hazardous/ toxic industrial waste	National	3	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-3	11	-33	Slight negative impact
Municipal waste	Local	1	Negative	-1	Low	1	Local	1	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-1	11	-11	Slight negative impact
Sewage	National	3	Negative	-1	Low	1	Outside Local	2	Medium Term	3	Direct	3	Reversible	2	Cumulative	3	-6	11	-66	Minor negative impact